Tibor-1

ATP 539

Cooper/Eromanga Basin
Queensland

Well Completion Report

July 2013

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Well Data Card

General

Location:	**Latitude GDA 94:**	25°52'17.80"S	**Operator**	Drillsearch 100%	
	Longitude GDA 94:	141°16'19.39"E	**Status:**	Plugged & Abandoned	
	GDA 94, Zone 54	527 256	**Rig:**	Ensign 918	
	GDA 94, Zone 54	7 138 506	**Total Depth:**	**Driller:**	1723.0m
	Seismic Survey	2012 Kaden 3D		**Logger:**	1723.5m
	Seismic Lines	Inline 4334			
		Crossline 2392	**Plugs:**	#1	1637m - 44.0 bbl
Permit		ATP 539P		#2a	1329m - 18.5 bbl
Elevation:	**GL (AMSL):**	135.0 m		#2b	1281m - 27.7 bbl
	RT (AMSL):	140.2 m		#3	781m -28.5 bbl
				#4	Surface - 6.1 bbl
Map:	1:250,000	Canterbury			
Date spudded:	07/02/2013	19:00 hrs.	**Casing**	**Size**	**Shoe**
Date release:	23/02/2013	12:00 hrs.		9-5/8"	750.9m
Type Structure:		Fault-Bounded Anticline	**Hole Size**	12-14"	754 mMD
				8-1/2"	1723mMD

Stratigraphy

Age	Formation	Depth (m KB)	Elevation (m SS)	Thickness (m)
Recent - Late Cretaceous	Surficial & Winton Formation	5.0	140.2	628.0
Early Cretaceous	Mackunda Formation	633.0	-492.8	116.9
	Allaru Mudstone	749.9	-609.8	188.1
	Toolebuc Formation	938.0	-797.7	40.2
	Wallumbilla Formation	978.2	-837.9	232.4
	Cadna-Owie Formation	1210.6	-1070.3	79.5
Early Cret - Late Jurassic	Murta Formation	1290.1	-1149.8	25.8
Late Jurassic	Namur Sandstone	1315.9	-1175.6	92.2
	Westbourne Formation	1408.1	-1267.8	92.2
	Adori Sandstone	1500.3	-1360.3	24.8
Late to Middle Jurassic	Birkhead Formation	1525.1	-1385.3	96.9
Middle Jurassic	Hutton Sandstone	1622.1	-1481.8	101.4
	Loggers TD	1723.5		

Wireline Logs

Log	Run	Interval	BHT / Time
SP	1	TD to Surface Casing Shoe	108.8°C / 10.78 hours after final circulation at 1690.7m.
PPC	1	TD to Surface Casing Shoe	
HNGS	1	TD to Surface Casing Shoe	
PEX (TDL)	1	TD to Surface Casing Shoe	
HRLA	1	TD to Surface Casing Shoe	
ADT	1	TD to Surface Casing Shoe	
PPC	2	TD to 10m	114.4°C / 20.17 hours after final circulation at 1698.6m.
MAST	2	TD to 10m	
GPIT	2	TD to 10m	
VSI1	3	TD to 10m	119.4°C / 28.58 hours after final circulation at 1711.0m.

Drill Stem Tests

No	Interval / Formation (metres)	Periods (mins)	EMP IP/FP (psig)	EMP FSIP (psig)	Fluid To Surface (mins)	Max. Surface Press. (psia)	TC. mm	BC. mm	Rev Out	Result
No drill stem tests conducted.										

Conventional Full Bore Cores

No.	Interval	Formation	Cut (m)	Rec.(m)
N/A No Cores Cut.				

Sidewall Cores

Depth	Formation	Recovered	Depth	Formation	Recovered
No SideWall Cores.					

Perforations

Interval	Formation	Shots / m	Interval	Formation	Shots / m
Plugged and abandoned. Not cased.					

Log Interpretation

Interval	Formation	Porosity (%)	Sw (%)	Vsh (%)	Gross (m)	Net Pay (m)
1315.8 to 1408.0	Namur Sandstone	11.6	57.9	14.2	92.2	2.44
1526.0 to 1622.0	Birkhead Formation	10.2	60.7	23.0	96	0.15
1622.0 to 1725.0	Hutton Sandstone	11.5	60.1	10.3	103	0.91

Core Analysis

Interval	Por.	Perm.	So	Sw	Interval	Por.	Perm.	So	Sw
N/A No Cores Cut.									

Summary

The objectives of Tibor-1 were to

- Test the hydrocarbon prospectivity of a new play fairway within the "Inland Cook" region by demonstrating oil migration from the Yamma Yamma Depression into the western flank of the SWQ Eromanga Basin.
- Evaluate the potential for economic oil within Tibor-1.

Tibor-1 is an oil exploration well located 7.1 km southeast of Curalle-1 and 11.4km northeast of Planet Downs-1 in ATP 539P, southwest Queensland. The primary targets were the Hutton Sandstone and sands of the Birkhead Formation. Secondary targets were the Namur Sandstone and sands of the Adori and Westbourne Formations. The pre-drill structure was interpreted as a fault-related anticline with 14m of independent closure.

Participation interest in Tibor-1 was 100% Drillsearch Energy Limited.

Tibor-1 spudded on 7th February 2013 and 12-1/4" surface hole was drilled to 754m MDRT while taking teledrift surveys approximately every 3 stands drilled. Maximum measured deviation was 1.0deg at 402m MDRT. The 9-5/8" surface casing was set at 750.9m MDRT. The well was displaced to 9.8ppg mud and a Leak-Off Test (LOT) was performed **(Appendix 4)**. Leak-off occurred at 16.6ppg EMW.

The Blow-Out-Preventer (BOP) was nippled up and the 8-1/2"production hole drilled to 1357m MDRT. A wiper trip was performed to 735m RKB while some minor rig repairs were effected and no hole problems were observed. Drilling continued from 1357m MDRT to 1473m MDRT working tight hole at 1463m MDRT and 1473m MDRT. Drilling continued to 1486m MDRT encountering problems on connections which required excessive backreaming to clear the hole. The mud properties were adjusted, mud weight increased to 9.3ppg and the water loss reduced but this made little difference. Problems were thus suspected with the BHA and a decision was made to Pull Out Of Hole (POOH) to inspect the BHA and change the bit. Overpulls of up to 10-15klbs were observed while Running In Hole (RIH) at connections at 1463m MDRT, 1473m MDRT and 1482m MDRT. These intervals were washed and reamed clear.

The 8-1/2" production hole was drilled to a Total Depth (TD) of 1723m MDRT and the hole was circulated clean. TD was reached on 18th February 2013. A normal Eromanga Basin sedimentary section (Cretaceous and Jurassic) was penetrated with the formation tops being from 50m (Allaru Mudstone) low to 16.2m high (Hutton Sandstone) to prognosis. The Hutton Sandstone primary target was 16.2m high to prognosis and drilling was terminated after penetrating 100.9 m of the Hutton Sandstone as per the criteria set out in the Well Proposal (ref ATP 539, Tibor-1 Well Proposal and Geological Program).

Hydrocarbon fluorescence observed in the Namur Sandstone, sandstone of the Adori Formation and Hutton Sandstone are all interpreted as being residual oil shows.

Final TD logging was conducted by Schlumberger Wireline and consisted of three runs from TD to 750.9m MDRT, the 9-5/8" casing shoe (**Table 1 and Appendix 10**):

Run 1: PEX/ADT/HRLA/HNGS.
Run 2: MAST/PPC
Run 3: VSI-1

Net pay, interpreted from the petrophysical analysis, ranged from 0.5m to 2.4 m through the Namur, Hutton and Birkhead formations **(Table 4** and **Appendix 11**).

The maximum measured hole deviation was 2.0deg at 960m MDRT but the well was "brought back" to ca 0.8 deg by TD.

Tibor-1 was plugged and abandoned with four cement plugs (Section 2.3).

The drilling rig Ensign 918 was released at 12:00hrs 23rd February 2013.

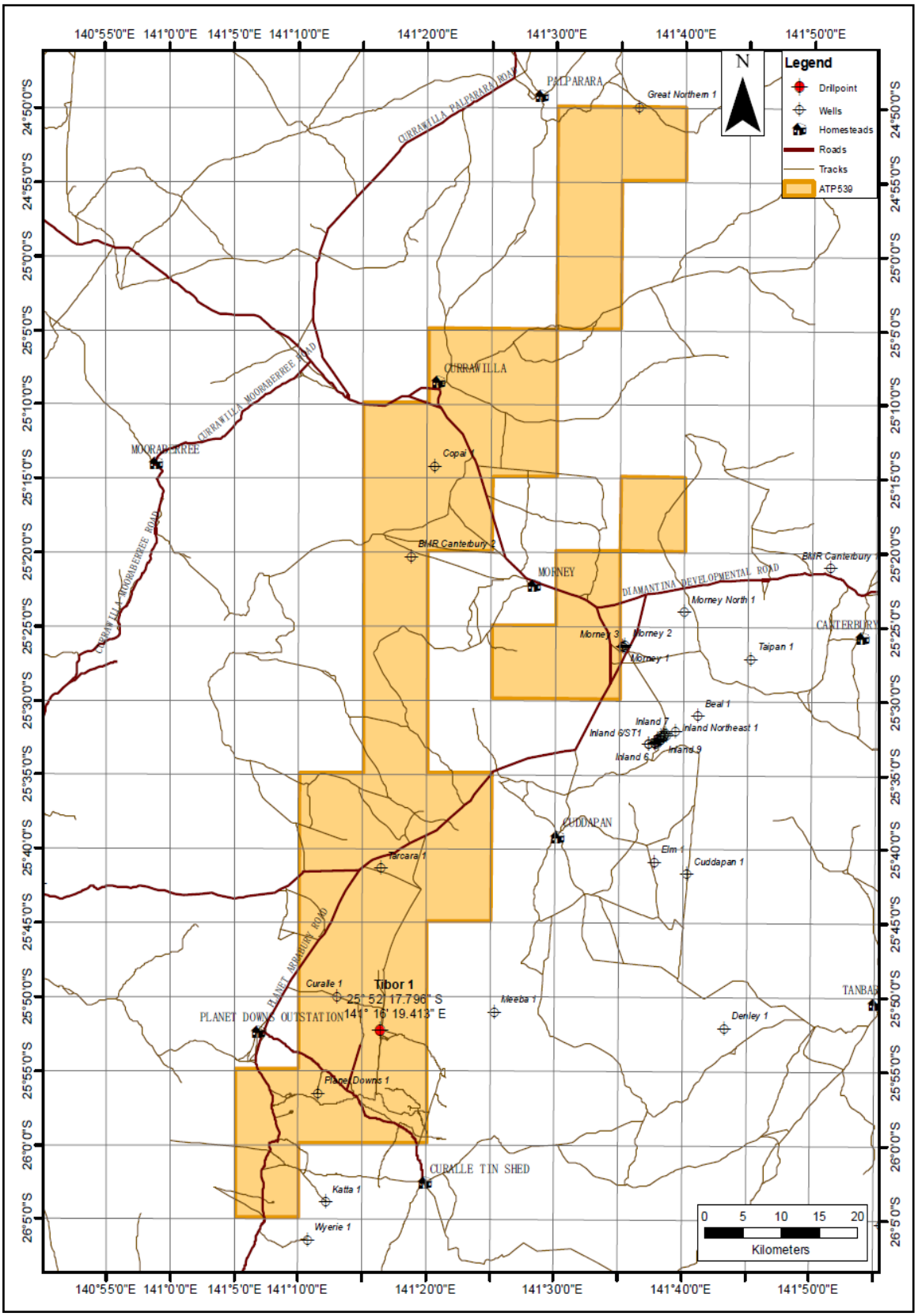


Figure 1: *ATP 539: Location map with Tibor-1 Location*

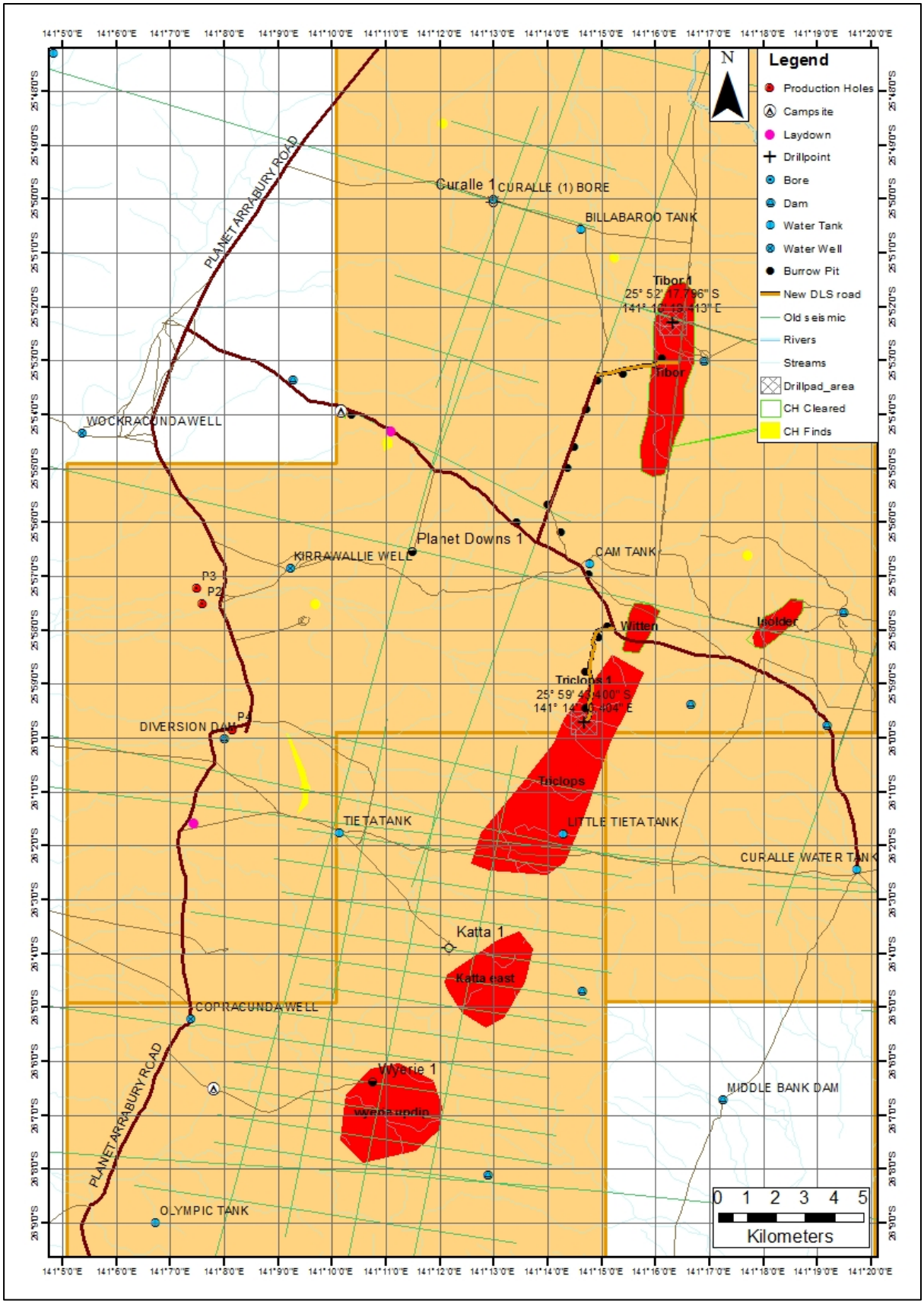


Figure 2: *Water Bore Location*

2. Drilling & Completion Data

A well Schematic is included in **Section 2.3**. A final time-depth curve is provided in **Section 2.4**.

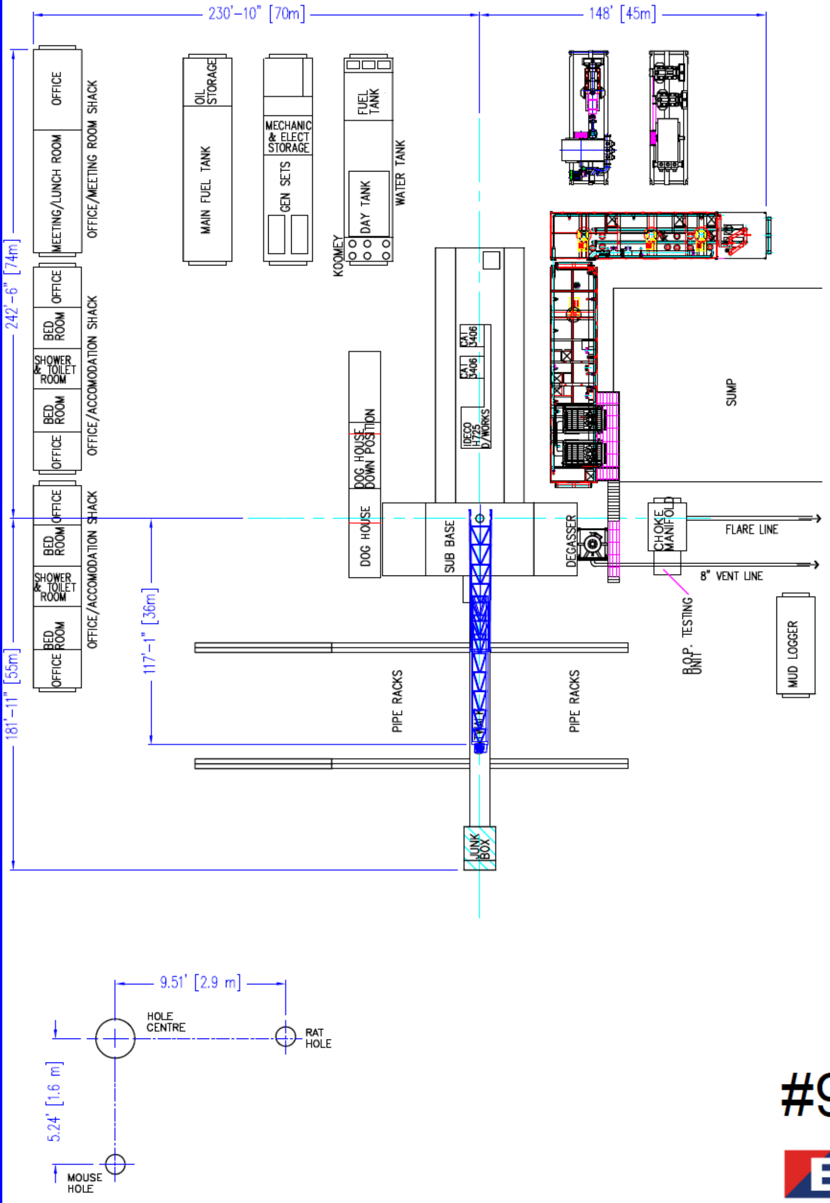
The daily drilling reports are contained in **Appendix 1**. Daily Mud Reports are all included in **Appendix 2**.

A full Deviation Survey Report is included in **Appendix 3**. Drilling water for the well was supplied from Water Bore 2 (P2 – Figure 2), located approximately 12kms south west of Tibor-1. Water was transported by tanker.

2.1 General

Well Name		Tibor-1
Operator		DrillSearch (100%) 55 Clarence Street Sydney NSW 2000
Permit		ATP – 539P, Cooper Basin, Queensland
Well Designation		Vertical Exploration
Location	**Latitude**	25°52'17.80"S
	Longitude	141°16'19.39"E
	Easting:	527 256
	Northing:	7 138 506
	Projection	MGA 54
	Spheroid	GRS 80
	Datum	GDA 94
	Seismic	Inline 4334
		Crossline 2392
Elevations	**RT (mAMSL)**	140.2
	GL (mAMSL)	135m
Date Drilling Commenced		19:00 hrs. 7th February 2013
Date drilling Completed		23:30 hrs. 18th February 2013
Date Rig Released		12:00 hrs. 23rd February 2013
Total Depth	**Driller**	1723.0 m
	Logger	1723.5 m
Status		Plugged and Abandoned

2.2 Rig Data



DRAWWORKS
Ideco H-725D (750 hp / 560 kW)
Input: CAT 3406C DITA x 2 (440 hp / 330 kW)

MAST
Ideco
Double
Height: 117 ft / 36 m
Static Hook Load: 358,000 lbs / 159,000 daN (10 lines)

SUBSTRUCTURE
Ideco
Telescopic
Ideco Telescopic
Setback Capacity: 265,000 lbs / 118,000 daN
Casing Capacity: 320,000 lbs / 142,000 daN
KB to Ground: 16.89 ft / 5.15 m
Clear work height: 16.6 ft / 5.06 m

MUD PUMP #1 (Triplex)
Emsco F-800
Rated: 800 hp / 600 kW
Input: CAT C27 (800 hp / 600 kW)

MUD PUMP #2 (Triplex)
Emsco F-800
Rated: 800 hp / 600 kW
Input: (2) CAT 3408 TAC (800 hp / 600 kW)

MUD PIT
2 Pit(s) : 832 bbl / 96 m3
Shaker: (2) Derrick FLC 514
2 Mixing Pump(s): 60 hp / 45 kW

HYDRAULIC POWER UNIT
Electric/Dog Clutch
Input: MD Butterfield (60 hp / 45 kW)

GENERATORS
Rated: 429 hp / 320 kW
Input: CAT 3406C DITA (500 hp / 400 kW)
Rated: 429 hp / 300 kW
Input: CAT3406C DITA (500 hp / 400 kW)

B.O.P's
Size: 11 in / 279 mm
Working Pressure: 5,000 psi / 34,500 kPa
Schaffer Annular
Shaffer LSW Dbl. Gate

ROTARY TABLE
Ideco LR 275K (27.5 in / 700 mm)

MASTER BUSHING SUPPORT
Varco

SWIVEL
National P300
Rated: 386,000 lbs / 172,000 daN

HOOK BLOCK
Block: Ideco 265T
Rated: 530,000 lbs / 236,000 daN
Hook: American Block D36E265
Rated: 530,000 lbs / 236,000 daN

CHOKE MANIFOLD
Size: 3 in / 76 mm
Working Pressure: 5,000 psi / 34,500 kPa

ACCUMULATOR
Koomey - 120LS Type 80

TUBULARS
Drill pipe: 4.5 in / 114.3 mm
Drill collar: 6.25 in / 158.75 mm

PIPE HANDLING
Pipe Spiner/Grayspin

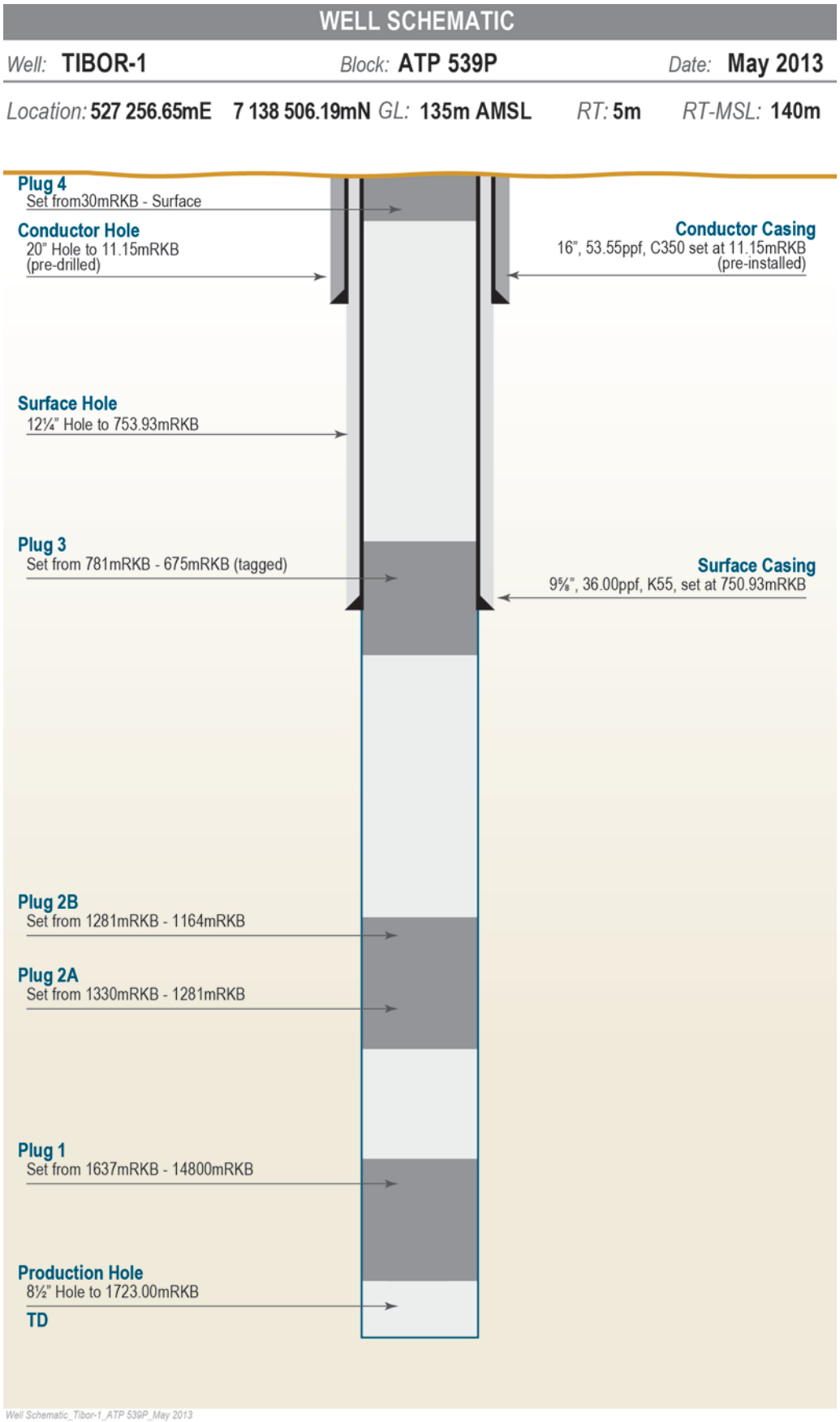
AUX EQUIPMENT
Camp 15 Loads
Rig Accomodation 5 Loads
KSM Enviroflow

MISC
EDR: Pason

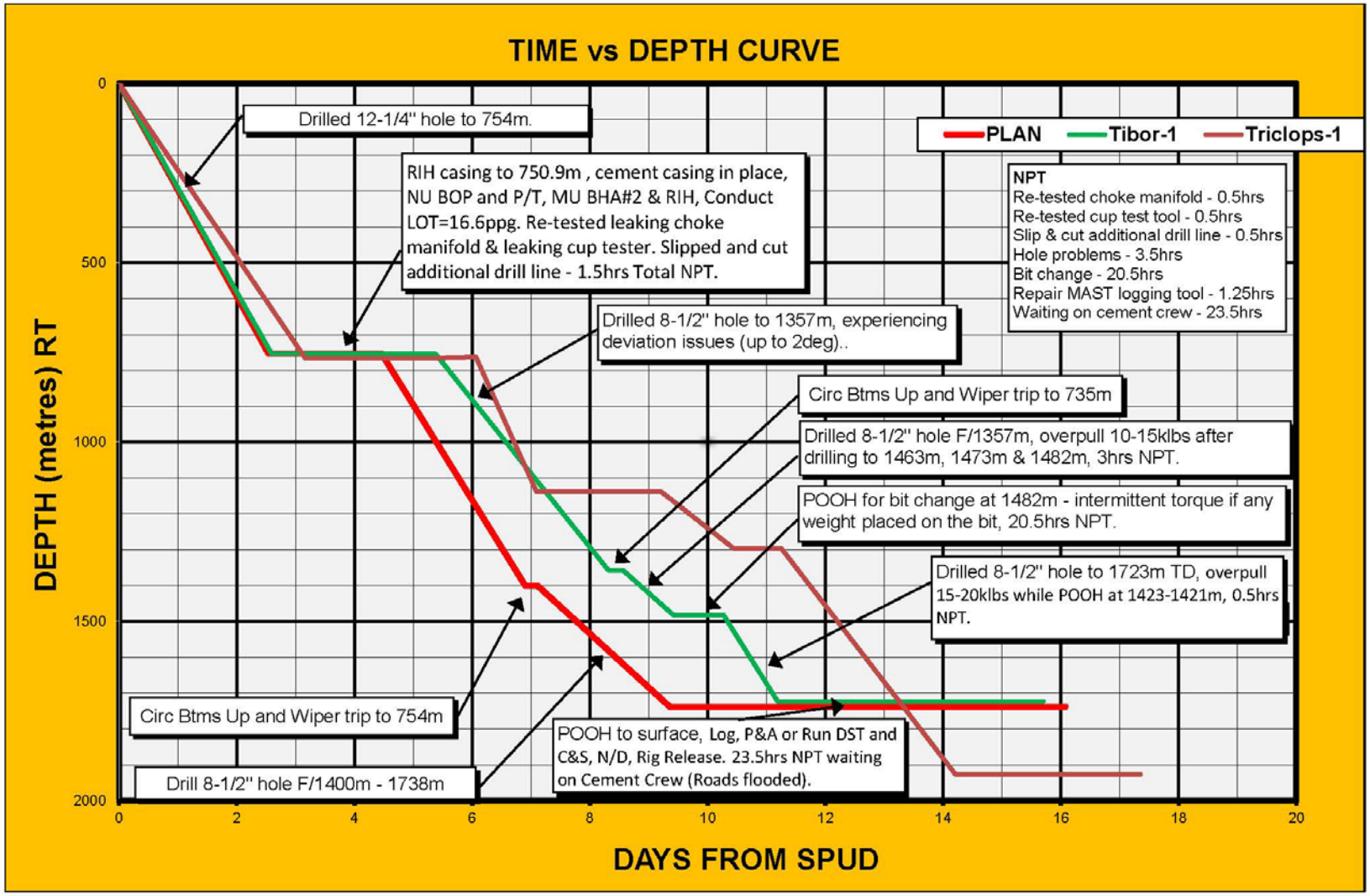
#918 10,000 ft / 3,050 m
30-Jul-2012

ENSIGN
International Energy Services

2.3 Well Schematic



2.4 Time vs Depth



2.5 Drilling Data Summary

The following is the daily operations summary for Tibor-1. It has been compiled from the daily drilling reports, all of which are contained in **Appendix 1**. The depths in the following summary are those reached at 24:00 hours on each day with the operations given for the previous 24 hour period.

Ray Millar and Guy Holmes provided onsite drilling supervision for Drillsearch Energy Ltd.

Date	Depth (m MDRT)	24 Hour Summary
01 Feb 2013		Commenced rigging down and rig move to Tibor-1 location. Rigged down 5%, Rig moved 0%.
02 Feb 2013		Continued rigging down and rig move operations. Commenced rigging up on Tibor-1 location. Rigged down 80%, Rig moved 10%, Rigged up 5%.
03 Feb 2013		Continued rigging down and rig move operations. Continued rigging up on Tibor-1 location. Rigged down 90%, Rig moved 70% , Rigged up 25%.
04 Feb 2013		Continued rigging down and rig move operations. Continued rigging up on Tibor-1 location. Rigged down 100%, Rig move 100%, Rigged up 60%.
05 Feb 2013		Continued rigging up on Tibor-1 location. Rigged up 80%.
06 Feb 2013		Continued rigging up on Tibor-1 location.
07 Feb 2013	34.0	Continued rigging up on Tibor-1 location. Spudded well and drilled 12-1/4" hole from surface to 34m MDRT.
08 Feb 2013	331.0	Drilled 12-1/4" hole from 34 - 331m MDRT. Took teledrift surveys every 3 x joints. Ran single shot wireline survey every 150m.
09 Feb 2013	655.0	Drilled 12-1/4" hole from 331 - 655m MDRT. Took teledrift surveys every 3 x joints. Ran single shot wireline survey every 150m.
10 Feb 2013	754.0	Drilled 12-1/4" hole from 655 - 754m MDRT. Circulated hole clean. POOH to surface and laid out BHA #1. Rigged up to run casing. Ran 9-5/8" surface casing to 597m MDRT.
11 Feb 2013	754.0	Ran and cemented 9-5/8" casing (shoe set at 750.9m). Installed landing ring

Date	Depth (m MDRT)	24 Hour Summary
		slips. Installed A-section wellhead. Nippled up BOP, bell nipple and flowline.
12 Feb 2013	754.0	Completed nippling up BOP. Pressure tested BOP rams, annular and connections. Ran cup tester and tested casing/wellhead connection. Performed Koomey drawdown test. Installed wear bushing. Made up BHA#2 and RIH. Tagged cement at 737.6m MDRT. Drilled plugs, float collar, shoe track and cement shoe. Cleaned rat hole to 754m MDRT.
13 Feb 2013	933.0	Displaced well with 8.9ppg mud while drilling 3m new formation. Circulated and conditioned mud. Conducted LOT. Drilled ahead 8-1/2" hole from 757 - 933m MDRT.
14 Feb 2013	1100.0	Drilled 8-1/2" hole from 933 - 1100m MDRT.
15 Feb 2013	1338.0	Drilled 8-1/2" hole from 1100 - 1338m MDRT. Ran single shot surveys every 150m MDRT.
16 Feb 2013	1473.0	Drilled 8-1/2" hole from 1338 - 1357m MDRT. Circulated bottoms up. Performed wiper trip to shoe while repairs were made to hydromatic. RIH and drilled 8-1/2" hole from 1357 - 1473m MDRT. Worked tight connections at 1463m and 1473m.
17 Feb 2013	1486.0	Drilled 8-1/2" hole to 1486m MDRT. Encountered problems on connections from 1460 - 1486m MDRT (Adori Member). Excess backreaming required to make connections. Increased mud weight to 9.3ppg and reduced water loss to 4. No improvement. POOH and inspected BHA. Made up new bit and RIH. Washed and reamed from 1412 - 1453m MDRT.
18 Feb 2013	1723.0	Washed and reamed from 1453 - 1486m MDRT. Drilled 8-1/2" hole from 1486 - 1723m MDRT. Circulated hole clean.
19 Feb 2013	1723.0	Circulated hole clean at 1723m TD. Performed wiper trip to 1365m MDRT. RIH to 1723m MDRT. No Fill observed. Ran magnetic single shot survey. POOH. Rigged up Schlumberger and ran PEX-ADT-HRLA-HNGS (Run 1). POOH and laid out tools. Schlumberger RIH with MAST tool (Run 2).
20 Feb 2013	1723.0	Continued running wireline logs with Schlumberger Run 2. POOH and laid out tools. Schlumberger RIH with VSI tool (Run 3). Rigged down Schlumberger. RIH with BHA and POOH, laying out drill pipe sideways. Made up 2-7/8" cement stinger and RIH on DP.

Date	Depth (m MDRT)	24 Hour Summary
21 Feb 2013	1723.0	Pumped cement Plug #1 at 1637m MDRT. POOH to 1330m MDRT (Plug 2a setting depth) and circulated.
22 Feb 2013	1723.0	Set and displaced cement plugs #2a, #2b and #3. Waited on cement, laid down drill pipe. Tagged cement plug #3. Laid down drill pipe. Displaced the hole contents to inhibited water. Recovered wear bushing.
23 Feb 2013	1723.0	Pressure tested Plug #3 to 1500psi for 10mins. Halliburton set Plug #4 at surface. Removed BOP and cleaned mud tanks. Laid out Kelly and cut off the wellhead. Released rig at 12:00hrs.

3 Formation Sampling, Evaluation and Testing

3.1 Wellsite Geologist

Alan Wrightstone and Craig Bunting provided onsite geological supervision for Drillsearch Energy Ltd and prepared the Well Composite Log included as **Appendix 8**.

3.2 Mudlogging

Geoservices Overseas S.A provided mudlogging services. Cuttings gas was monitored from surface conductor shoe to TD using a FID gas chromatograph. A mudlog recording lithology, penetration rate, mud gas and other data was prepared and, along with the Drill Log, 24hr TimeLog, digital mudlogging drill and gas data and the sample manifest, is included in **Appendix 12**

3.3 Ditch Cutting Samples

Three sets (each 250gms) of washed and air-dried cuttings were collected and described from 10m to 1723mMD. They were stored in suitably labelled plastic bags with one set preserved in Samplex trays.

The sampling frequency was every 10m from 10m to 1300m, and every 3m from 1300m to 1723m TD.

All samples were delivered to *Challenger Geological Services, 13-17 Weaver Street, Edwardstown 5039, South Australia* for storage and distribution.

Set 1 was despatched to the Queensland Government Regulator in Brisbane.

Sets 2 and 3 (Samplex) were retained for Drillsearch at Challenger Geological in Adelaide.

3.4 Conventional Coring

No cores were obtained from Tibor-1

3.5 Sidewall Cores

No sidewall coring was conducted in Tibor-1

3.6 Mud Gas Sampling

No Isotubes or Isojars were collected for Mud Gas Isotope Logging

3.7 Cuttings Lithology Descriptions

Descriptions for each individual ditch cuttings sample (collected at 3m and 10m intervals) are included in **Appendix 9**.

3.8 Hydrocarbon Shows

Total gas was recorded and analysed (chromatograph) from surface to TD. All ditch cuttings were checked for hydrocarbon fluorescence. Hydrocarbon fluorescence was recorded in sandstones of the Namur, Adori and Hutton Formations from 1380.0 - 1713.0mMDRT. Descriptions of hydrocarbon fluorescence observed in the drill cuttings are included in **Section 4.4**.

3.9 LWD Logging

MWD/LWD was not utilised on Tibor-1.

3.10 Wireline Logging

Wireline logs were run by Schlumberger. The full details of the wireline runs along with the digital data files are included in **Appendix 10**. Alan Wrightstone and Craig Bunting (Wellsite Geologists) and Rothi Hamza (AfriQA) were the wireline witnesses. In Run 2 the GR and Sonic were continued up through the 9-5/8" casing to surface.

Run #	Type log	Name	Interval mMD
1	EDTC/SP/HGNS/PEX-TLD / HRLA/ADT	Laterolog, Compensated Z-Density, Compensated Neutron Log, Spectral Gamma Ray Log, Dielectric, Spontaneous Potential	754 – 1723.5
2	EDTC/PPC/MAST/GPIT	Power Positioning Caliper, Sonic Scanner, Geometric Position Inclination Tool	0 – 1723.5
3	VSI-1	Checkshot	10 – 1723.5

Table 1: *Wireline logs suite for Tibor-1*

3.11 Temperature

The following maximum temperatures (**Table 2**) were recorded from wireline logs (logger depth).

Run	Temperature	Time Since Circ. stopped
EDTC/SP/HGNS/PEX-TLD / HRLA/ADT	108.8 Deg C at 1690.7mMDRT	10.78 hours
EDTC/PPC/MAST/GPIT	114 Deg C at 1698.6mMDRT	20.17 hours
VSI	119 Deg C at 1711m MDRT	28.58 hours

Table 2: *Maximum temperatures recorded for Tibor-1*

The extrapolated bottom-hole temperature is calculated at 125 deg C.

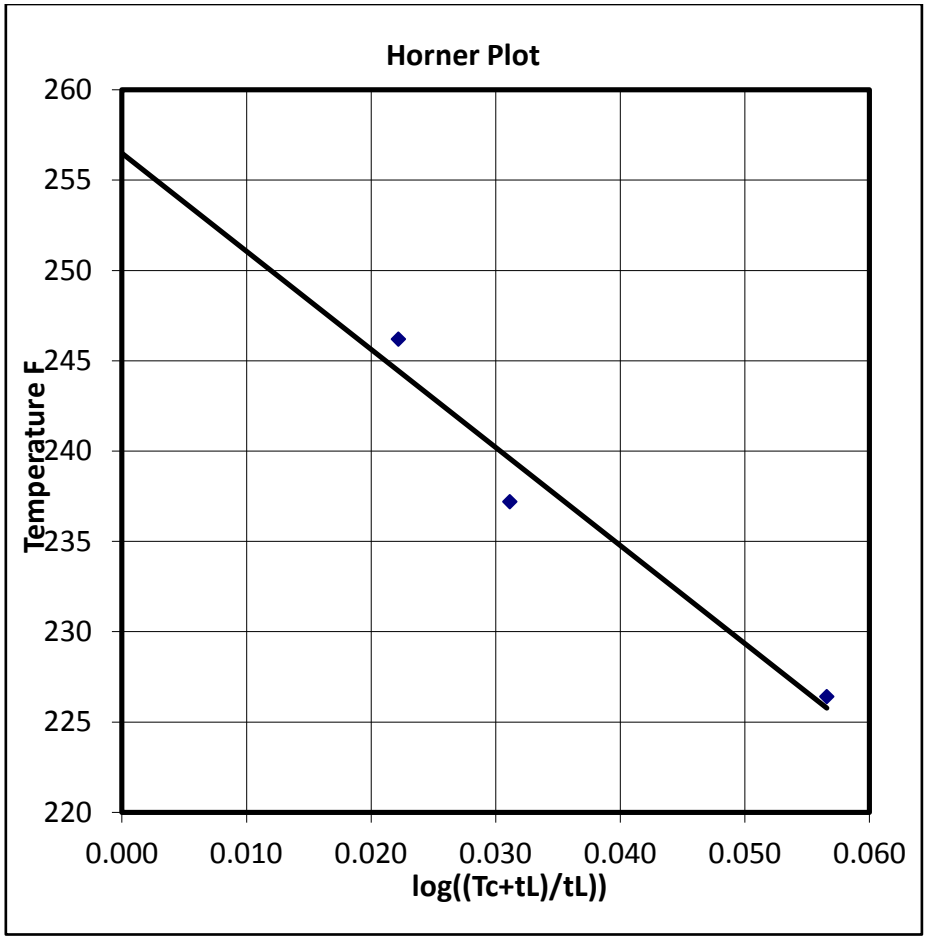


Figure 3: *Horner Plot for Tibor-1.*

3.12 Velocity Survey

A Checkshot survey was performed at TD over the entire well to surface (Table 1). Full details of the survey including the digital files are included in ***Appendix 10***.

4. Geology

4.1 Reasons for Drilling

Tibor-1 was proposed as an exploration well to test the hydrocarbon potential of a four-way dip closure (a fault related anticline with approximately 14m of independent closure) on the Curalle anticline on the northern flank of the Cooper/Eromanga basin.

The primary targets were the Middle Jurassic Hutton Sandstone and sands of the Late Jurassic Birkhead Formation. Secondary targets were sands of the Late Jurassic Namur Sandstone. Stacked pay was anticipated as mapping indicated the closure extended from the Top of the Early Cretaceous Murta Formation to within the Middle Jurassic Hutton Sandstone. Sands of the Westbourne Formation and the Adori Sandstone were also considered to have potential to be hydrocarbon bearing if porosity was preserved.

The closest wells to Tibor-1 are Planet Downs-1, Curalle-1 and Meeba-1 (**Figure 1**). Curalle-1 and Planet Downs-1 are located on the Curalle Dome, and are respectively 6.8km NW and 11km SW of the Tibor-1 drilling location. Meeba-1 was drilled on a NNW-SSE trending anticline 15km east of the proposed well location. The Inland Oil Field, a Hutton oil producer, is located 52km to the southwest, and the Cook Oil Field, a Hutton oil producer as well, is approximately 92km north east.

4.2 Stratigraphy - Formation Tops

The stratigraphic prognosis for Tibor-1 was made utilising the results of surrounding wells and interpretation of the 3D seismic data. The well penetrated a stratigraphic section comprising approximately 1723m of surficial and Eromanga Basin sediments (Cretaceous-Jurassic) and terminating in the Hutton Sandstone.

Formation	Actual		Predicted		High / Low (m)	
	m SS	m MD	m SS	m MD		
Winton	140.2	5.0				
Mackunda	-492.8	633.0	-475	615	17.8	low
Allaru Mudstone	-609.8	749.9	-560	700	49.8	low
Toolebuc	-797.7	938.0	-789	929	8.7	low
Wallumbilla	-837.9	978.2	-835	975	2.9	low
Cadna-owie	-1070.3	1210.6	-1075	1215	-4.7	high
Murta Formation	-1149.8	1290.1	-1146	1286	3.8	low
Namur Sst	-1175.6	1315.9	-1176	1316	-0.4	high
Westbourne	-1267.8	1408.1	-1272	1412	-4.2	high
Adori Sst	-1360.3	1500.3	-1342	1482	18.3	low
Birkhead	-1385.3	1525.1	-1401	1541	-15.7	high
Hutton Sst	-1481.8	1622.1	-1498	1638	-16.2	high

Table 3: *Tibor-1: Formation Tops Actual vs. Prognosed*

4.3 Stratigraphy

The stratigraphic section encountered in Tibor-1 is briefly described below.

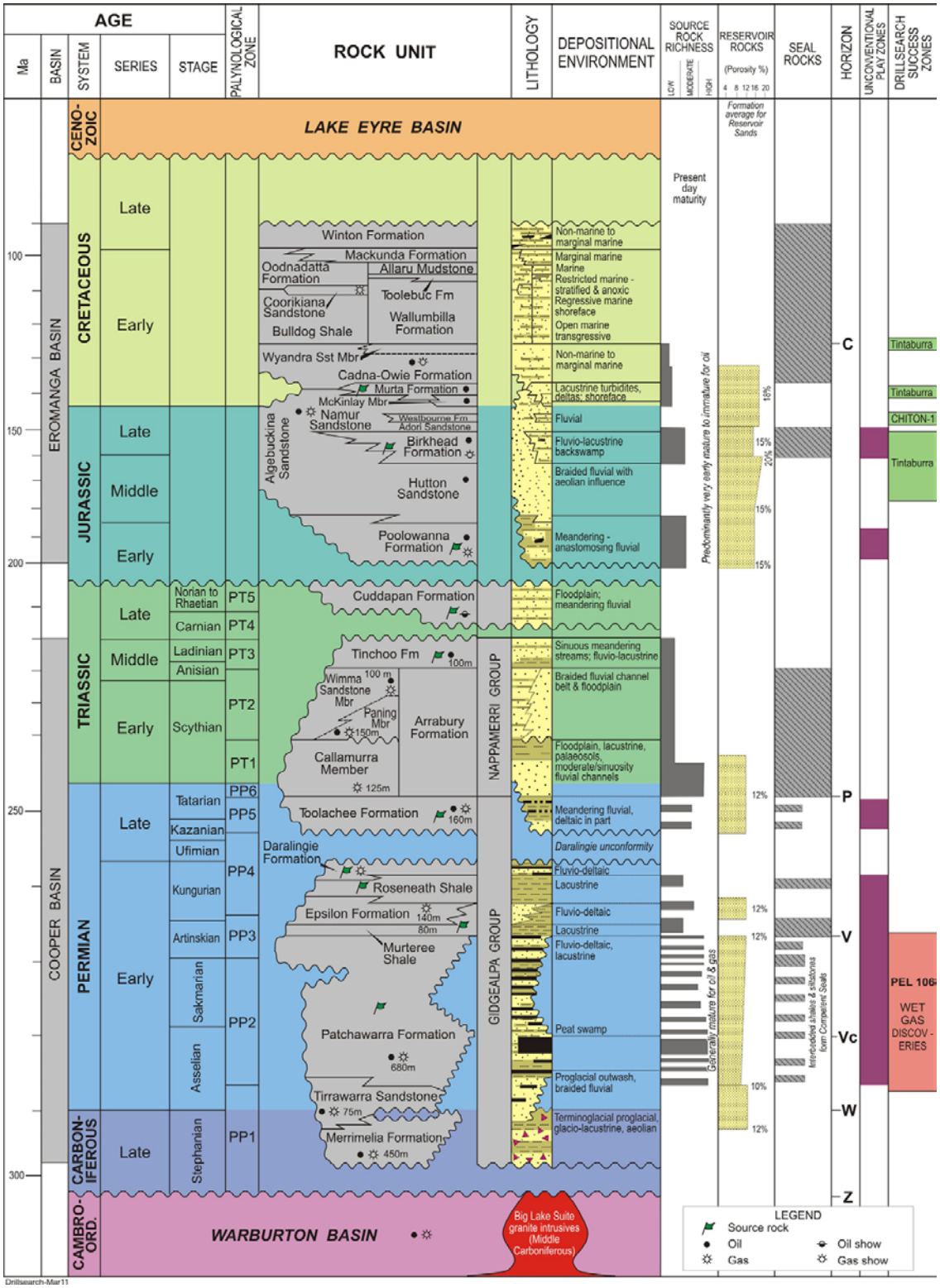


***Figure 4**: Generalised Stratigraphic Column: Eromanga and Cooper Basins.*

Detailed lithology descriptions of the section encountered in Tibor-1 are presented in **Appendix 8** - Composite Well Log and **Appendix 9 –** Cuttings Descriptions

The following stratigraphic description is a summary of the lithologies seen in the well, based on their broad lithostratigraphic subdivisions. All depths are measured and referenced to the rotary table.

There have been no Biostratigraphic studies performed and any ages referred to are inferred.

Surficial & Winton Formation

Depth: 5.0 – 633.0 m MDBRT **Thickness**: 628.0 m

The Winton Formation is a very argillaceous sequence characterised by interbedded argillaceous sandstone, limestones, claystones and siltstone with abundant carbonaceous laminae.

SANDSTONE: light grey to very light greenish grey, very fine grained, sub-angular to sub-rounded, well sorted, friable to moderately hard, weak siliceous cement to locally moderate calcareous cement, occasional very light grey argillaceous matrix, minor green grey lithic fragments, minor brownish black carbonaceous material, nil to very poor visible porosity, no hydrocarbon fluorescence.
CLAYSTONE: light grey to greenish grey becoming brownish grey to medium grey with depth, very light grey in parts, , sub-blocky, soft to firm, silty in part, moderately calcareous in part, trace carbonaceous detritus, trace very loose quartz.
SILTSTONE: light grey to greyish brown with depth, minor very light grey, , sub-blocky, soft to firm minor very fine quartz grains, 10% lithic fragments, micro-micaceous in part, trace brownish black carbonaceous specks, rare fine coaly laminations.
LIMESTONE: mudstone, brownish grey to olive grey, blocky to sub-blocky, firm to commonly moderately hard, silty in part, commonly argillaceous, trace carbonate specks.

Mackunda Formation

Depth: 633.0 –749.9 m MDBRT **Thickness**: 116.9 m

The Mackunda Formation is represented by weakly calcareous siltstones interbedded by strongly calcareous sandstone and argillaceous limestone.

SILTSTONE*:* olive grey to greyish brown transitioning to medium dark grey with depth, sub-blocky to occasionally blocky, soft to firm, weakly calcareous, traces of very fine quartz grains, lithics, occasionally argillaceous in part.
SANDSTONE*:* very light to medium grey, translucent light greenish grey, very fine to fine, sub-angular to sub-rounded, moderately well sorted, sub-spherical, firm and friable, trace argillaceous matrix, common moderate to strong calcareous cement, nil to very poor visible porosity, no hydrocarbon fluorescence.
LIMESTONE: mudstone, yellowish grey to occasionally light grey, sub-blocky, soft, commonly argillaceous

Allaru Mudstone

Depth: 749.9 – 938.0 m MDBRT **Thickness**: 188.1 m

The Allaru Mudstone is characterised by siltstones with minor interbedded strongly calcareous sandstones and argillaceous limestone.

SILTSTONE: olive grey to greyish brown becoming medium dark grey with depth, sub-blocky to occasionally blocky, firm to moderately hard, weakly calcareous, trace very fine quartz grains, occasionally argillaceous in part.
SANDSTONE: very light to medium grey, translucent, very fine to fine, sub-angular to sub-rounded, moderately well sorted, sub-spherical, firm to friable, trace argillaceous matrix, common moderate to strong calcareous cement, nil to very poor visible porosity, no hydrocarbon fluorescence.
LIMESTONE: mudstone, yellowish grey to occasionally very light grey, sub-blocky, soft, commonly argillaceous.

Toolebuc Formation

Depth: 938.0 – 978.2 m MDBRT **Thickness**: 40.2 m

The Toolebuc Formation is represented by weakly calcareous siltstone.

SILTSTONE: olive grey to greyish brown becoming medium dark grey with depth, sub-blocky to occasionally blocky, firm to moderately hard, weakly calcareous, trace very fine quartz grains, occasionally argillaceous in part.

Wallumbilla Formation

Depth: 978.2 – 1210.6 m MDBRT **Thickness**: 232.4 m

The Wallumbilla Formation is represented by siltstone interbedded by calcareous sandstone and slightly dolomitic limestone.

SILTSTONE: greyish black to olive black, minor medium grey to dark grey, sub-blocky to sub-fissile moderately hard to occasionally very hard, minor firm, argillaceous in part, commonly arenaceous in part, weakly calcareous in part, trace loose very fine grained quartz, trace soft white calcareous material.
SANDSTONE: translucent to very light grey, very fine to minor fine, common silt sized, moderately well sorted, sub-angular to sub-rounded, sub-spherical, friable to moderately hard aggregates, occasionally friable, minor weak calcareous cement, trace quartz silt matrix, minor argillaceous matrix, rare to minor very fine grained glauconite, trace fine grained black lithic fragments, nil to very poor visible porosity, no hydrocarbon fluorescence.
LIMESTONE: mudstone, white to very light brown, sub-blocky, soft to crumbly common brown argillaceous microlaminations, slightly dolomitic, trace loose medium to coarse calcite grains.

Cadna-Owie Formation

Depth: 1210.6 – 1290.1 m MDBRT **Thickness**: 79.5 m

The Cadna-Owie Formation is characterised by siltstone locally grading into arenaceous siltstone, interbedded with calcareous sandstone.

SILTSTONE: dark grey to medium grey, common greyish black to olive black, , sub-blocky to trace sub-fissile, slightly hard to very hard, commonly brittle, argillaceous in part, commonly arenaceous in

part locally grading to arenaceous siltstone with common strong calcareous-dolomitic cement, weakly calcareous in part, trace loose medium grained white calcite, rare k-feldspar rare coal grains.
SANDSTONE: translucent to very light grey becoming medium dark grey to greyish black with depth, very fine to lower very fine grained, commonly silt, well sorted, sub-angular to sub-rounded, sub-spherical to sub-elongate, hard to very hard, locally grading to arenaceous siltstone, strong calcareous-dolomitic cement, rare white lithic and feldspar fragments, trace glauconite, nil to very poor visible porosity, *no hydrocarbon fluorescence.*

Murta Formation

Depth: 1290.1 – 1315.9 m MDBRT **Thickness**: 25.8 m

The Murta Formation is characterised by weak calcareous-dolomitic sandstone.

SANDSTONE: light grey to medium light grey, sub-blocky to blocky, rare medium to very fine grained, rare coarse shattered quartz grains/mineral vein fragments, moderately sorted, sub-angular, sub-spherical to sub-elongate, moderately hard, variable, weak calcareous-dolomitic cement in places grading to strong siliceous cement, common K-feldspar, common kaolin, nil to poor visible porosity, *no hydrocarbon fluorescence*.

Namur Sandstone

Depth: 1315.9 – 1408.1 m MDBRT **Thickness**: 92.2 m

The Namur Sandstone is comprised of translucent loose sandstone with carbonaceous siltstone laminations.

SANDSTONE*:* translucent to very light grey, localised brownish black to greyish black (50%), very fine to medium grained, very well sorted, sub-angular to angular, moderate sphericity, loose to common friable aggregates, locally grading into arenaceous siltstone, weak siliceous cement, rare lithic fragments, k-feldspar grains, poor to good inferred porosity, *10% pin-point pale dull green/yellow fluorescence, bluish white crush cut, thick yellowish white residual ring (1380.0 – 1383.0 m)*
SILTSTONE: dark grey to grey black, rare olive black, , sub-blocky to blocky, firm to occasionally moderately hard, where olive black crumbly, rarely arenaceous to commonly argillaceous, carbonaceous, trace micro-mica in part.

Westbourne Formation

Depth: 1408.1 – 1500.3 m MDBRT **Thickness**: 92.2 m

The Westbourne Formation is an interbedded and interlaminated sandstone and siltstone sequence.

SILTSTONE: greyish black to brownish black becoming dark yellowish brown to yellowish brown with depth, firm to minor moderately hard, sub-blocky to rarely sub-fissile, commonly arenaceous grading to arenaceous siltstone in part, micro-micaceous in part, non-calcareous.
SANDSTONE: translucent to very light grey, platy, very fine to medium, rare coarse grains, moderately well sorted, sub-rounded to rarely sub-angular, sub-elongate, sub-spherical, slightly firm, brittle, loose, weak siliceous cement, common k-feldspar grains, poor to fair inferred porosity, very rare mineral fluorescence, *no hydrocarbon fluorescence*.

Adori Sandstone

Depth: 1500.3 – 1525.1 m MDBRT **Thickness**: 24.8 m

The Adori Sandstone is represented by medium to fine translucent sandstone.

SANDSTONE: translucent, sub-blocky, occasionally medium to fine, moderately to well sorted, angular, sub-elongate, commonly loose sand slightly hard to hard, crumbly to brittle, white kaolinite infill in places, variable weak to strong siliceous cement, rare K-feldspar, poor to fair porosity, *rare patchy dull yellow fluorescence, crush cut, no residual ring (1470.0 – 1473.0 m)*

Birkhead Formation

Depth: 1525.1 – 1622.1 m MDBRT **Thickness**: 91.4 m

The Birkhead Formation is characterised by arenaceous siltstone with interbedded sandstone and coal beds.

SILTSTONE: olive black to brownish black, sub-blocky to dominantly sub-fissile, firm to moderately hard, abundantly arenaceous, moderately calcareous with trace white calcite laminations/veins, common fine black carbonaceous grains and flakes, micro-micaceous in part, trace very carbonaceous, locally grading to silty coal, no fluorescence.
SANDSTONE: translucent to very light grey, lower medium to upper fine, occasionally very fine, moderately well sorted, sub-rounded to commonly sub-angular, sub elongate, occasionally loose, friable to commonly firm, trace white kaolinite infill in places, occasional weak siliceous cement, trace quartz overgrowths, minor calcareous cement, minor calcite infill, fine black carbonaceous grains/specks in matrix, rare k-feldspar, poor to fair inferred porosity, *no fluorescence.*
COAL: brownish black, , blocky, very hard, sub-vitreous, slightly argillaceous in part.

Hutton Sandstone

Depth: 1622.1 – TD of 1723.5 m MDBRT **Thickness**: unknown

The Hutton Sandstone is comprised of translucent grained sandstone with minor interbedded arenaceous siltstone.

SANDSTONE: translucent to very light grey, loose, upper very coarse to lower very fine, common coarse reworked shattered quartz, occasionally sub-rounded to angular, sub-spherical to elongate, poorly sorted, trace quartz overgrowths, grain supported, trace light brownish grey clay washing out during sample preparation, *trace dull yellow/green patchy fluorescence, very bluish white crush cut, and thin pale blue/white residual ring (1677.0 – 1680.0m, 1686.0–1689.0m and 1710-1713m MDRT).*
SILTSTONE: olive black to brownish black, sub-blocky to blocky, firm to moderately hard, moderately calcareous, abundantly arenaceous, common fine black carbonaceous grains and flakes, rarely micromicaceous in part.

4.4 Hydrocarbon Shows

Total gas and chromatographic analysis were recorded and analysed from surface to TD. All ditch cuttings were checked for hydrocarbon fluorescence. Descriptions of hydrocarbon shows observed in drill cuttings are detailed below.

Namur Sandstone
1380.0 – 1383.0m: 10% pin-point pale dull green/yellow fluorescence, bluish white crush cut, thick yellowish white residual ring.

Adori Sandstone
1470.0 – 1473.0m: trace dull yellow/green patchy fluorescence, very pale bluish white crush cut, thin pale blue/white residue ring.

Hutton Sandstone
1*677.0 – 1680.0m, 1686.0–1689.0m and 1710-1713m*: Trace dull yellow/green patchy fluorescence, very bluish white crush cut, and thin pale blue/white residual ring.

4.5 Petrophysical Evaluation and Core Analysis

4.5.1 Petrophysics

Net pay (interpreted with residual Hydrocarbons) was identified from wireline log in the Namur Sandstone, the Birkhead Formation and the Hutton Sandstone. The calculated petrophysical results are summarised in **Table 4.**

The detailed Petrophysical Analysis Report is included as **Appendix 11**.

Interval	Formation	Porosity (%)	Sw (%)	Vsh (%)	Gross (m)	Net Pay (m)
1315.8 to 1408.0	Namur Sandstone	11.6	57.9	14.2	92.2	2.44
1526.0 to 1622.0	Birkhead Formation	10.2	60.7	23.0	96	0.15
1622.0 to 1725.0	Hutton Sandstone	11.5	60.1	10.3	103	0.91

Table 4: *Petrophysical Pay Summary*

4.5.2 Coring

No cores were cut in Tibor-1

4.6 Prospect Evaluation

The differences between the predicted and actual depths of formation tops in Tibor-1 are given in the well card and shown in **Table 3**.

Pre- and post-drill depth interpretation maps of the top Hutton Formation are included as **Figure 5**.

Pre- and post-drill seismic sections through the Tibor-1 location are presented in **Figures 6 and 7** respectively.

4.6.1 Trap

Tibor-1 was drilled to test a four-way dip closure on the Curalle anticline, approximately 3.0km long and on average 0.5km in width. At the well there was predicted approximately 12m of vertical closure.

4.6.2 Seal

The shales of the Birkhead Formation were predicted to act as a top seal for both the primary and secondary target sands. The shales were intersected as expected.

4.6.3 Reservoir

The porosity of sands of both the Birkhead Formation and Hutton Sandstone were as predicted pre-drilling. However the target sands were wet with only a trace of hydrocarbon shows observed.

4.6.4 Charge

A trace to 30% fluorescence was observed in a number of tight argillaceous sandstones. The shows are interpreted as residual oil caught in the poorest quality sands and siltstones.

Pre-drill, hydrocarbons in Tibor-1 were interpreted to be sourced from the nearby Windorah Trough or Yamma Yamma Depression. Prolific oil shows were observed in wells locally, however structural timing is considered a likely reason for failure at Tibor-1. The structure is interpreted as post-dating peak oil expulsion (~90mya).

4.7 Formation Testing

4.7.1 Wireline Pressures/Samples

No pressures or samples were obtained in Tibor-1.

4.7.2 Drillstem Testing

A drillstem test was not conducted in Tibor-1.

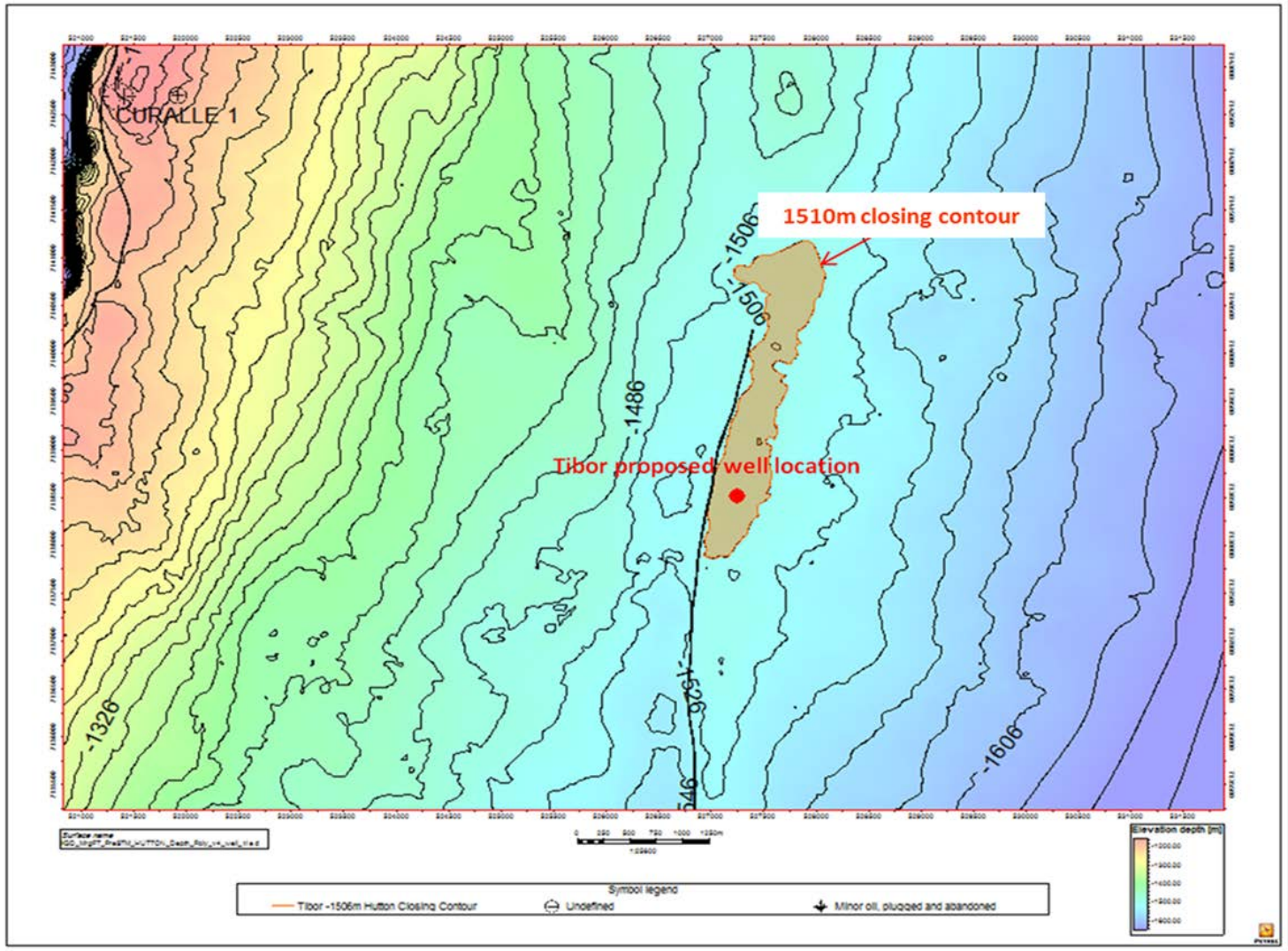


Figure 5: *Tibor-1: Hutton Formation pre-drill (no change post-drill) depth structure map*

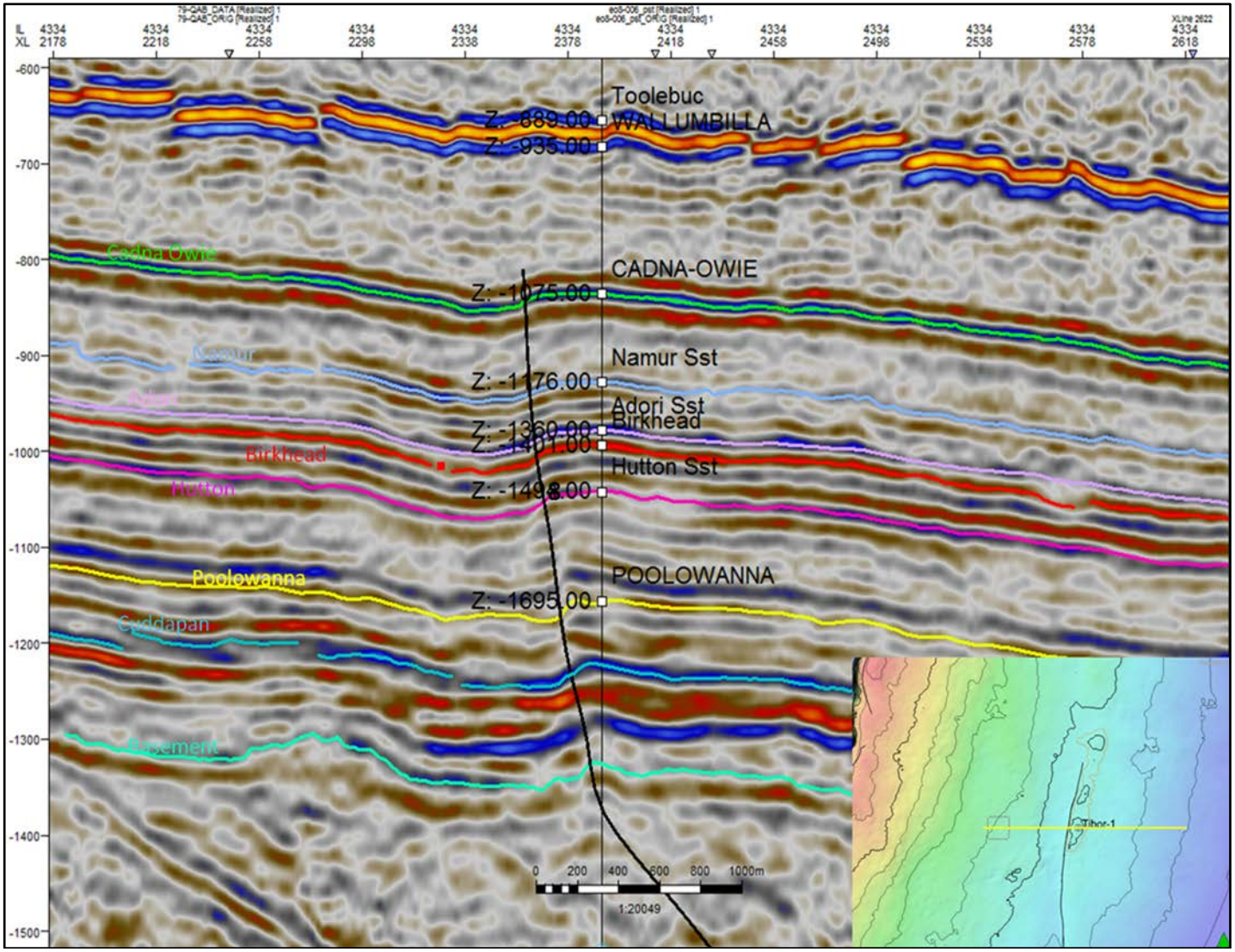


Figure 6: *Inline Seismic Section IL4334 through the Tibor Structure showing wellpath, formation tops and major bounding fault (pre drill)*

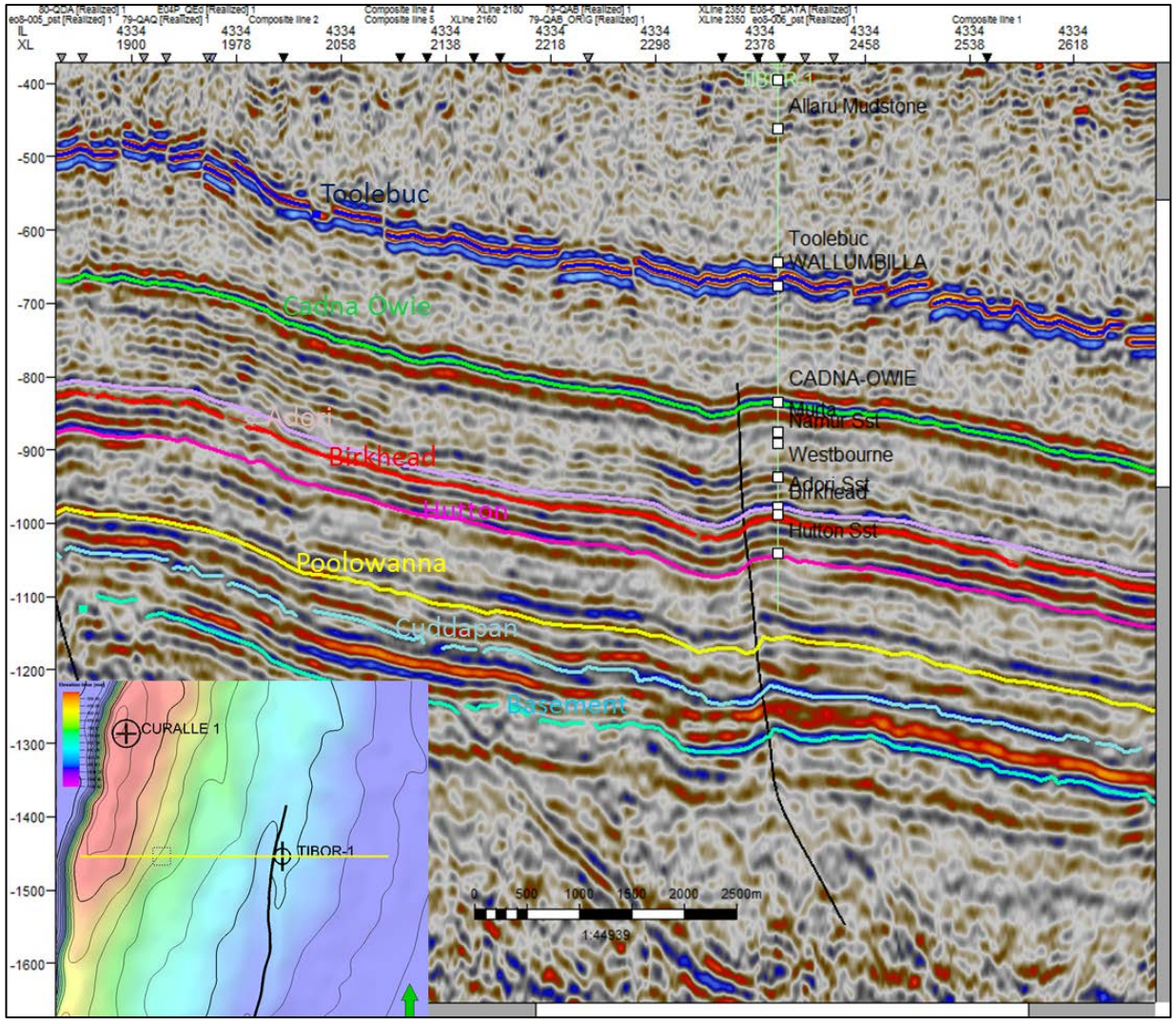


Figure 7: *Inline Seismic Section IL4334 through the Tibor Structure showing wellpath, formations and major bounding fault (post drill)*

5. Conclusions and Contribution to Geological Understanding

The Tibor-1 well was designed as a vertical oil exploration well to test a four-way dip closure on the Curalle anticline on the northern flank of the Cooper/Eromanga Basin. The Basal Birkhead Formation and Hutton Sandstone were the primary targets of the well whilst the sandstones of the Namur Sandstone, Westbourne Formation and Adori Sandstone were considered secondary targets.

The well intersected the expected stratigraphic section with all primary and secondary targets penetrated and their hydrocarbon potential investigated.

The primary targets, the Birkhead Formation and Hutton Sandstones, were both intersected 16m high to prognosis but well within the margins of error dictated by the seismic time/depth ties. They did not have significant hydrocarbon shows.

The secondary objectives, the Namur Sandstone, Westbourne Formation and Adori Sandstone were intersected 0.4m high, 4m high and 18m low to prognosis respectively. Apart from the Westbourne Formation which had no shows, all had insignificant oil shows.

Interpretation of the well data indicates the primary target sands were tighter than expected, and peak hydrocarbon migration likely pre-dated the timing of the structural closure. Wireline log analysis indicated small amounts of net pay in the Namur Sandstone, Birkhead Formation and Hutton Sandstone of only 2.4m, 0.15m and 0.9m respectively. The interpreted net pay is considered to contain residual hydrocarbons.

Despite the target formations coming in close to prognosis only limited quantities of net pay were present and although minor hydrocarbon shows were seen, the well failed to intersect commercial quantities of unswept oil in the primary targets.

The well was drilled to the planned TD of 100m below the top of the Hutton Sandstone, meeting the criteria for TD set out in the Well Proposal (ref. ATP 939P Tibor-1 Well proposal and Geological Program)

Tibor-1 was subsequently plugged and abandoned as a dry well with oil shows. Ensign Rig 918 was released on 23rd February 2013

6.0 Bibliography

Drillsearch Energy Ltd., 4th Jan 2013: ATP 539P Tibor-1 Well Proposal and Geological Program (unpub)

Drillsearch Energy Ltd., 4th Jan 2013: ATP 539P Tibor-1 Drilling Program (unpub)

Appendix 1 – Daily Drilling Reports (DDR)

Drillsearch

Well : Tibor-1 Drilling

Tibor-1 Drilling

Report Number :	1	Day Wellsite Representative:	Guy L Holmes	Rig Manager:	Scott Cameron
Latitude (South)	25° 52' 17.80"	Night Wellsite Representative:	Kevin Gordon	Drilling Company:	ENSIGN
Longitude (East)	141° 16' 19.41"			Wellsite Geologist:	

Well Data

Country:	Australia	Current Hole Size:		Casing OD:		AFE Number:	OPS-13-018
Field:		Measured Depth:		Casing MD:		Original AFE:	
Rig:	Ensign 918	True Vertical Depth:		Casing TVD:		Supp AFE No:	
Ground Level:	135.0 m	24 Hr Progress:		TOL MD:		Orig. & Sup.	
RT to GL	5.15 m	Days On Well:	0.54	TOL TVD:		AFE:	
Plan TD (MD):	1,738.0 m	Days Since Spud:	0.00	Lnr Shoe MD:		Daily Cost:	
Plan TD (TVD):	1,738.0 m	Last BOP Date:		Lnr Shoe TVD:		Cum. Cost:	
		FIT/LOT:	/			Last LTI Date:	05 Feb 2012
						Days Since LTI:	362

Current Op @ 0600:	Held PJSM with ITAC and Ensign personnel prior to continuing rigging down.
Planned Op:	Rig down, lower floor, lower mast, move and spot sub base on Tibor-1, prepare rig for move to Tibor-1.

Summary for Period 0000 Hrs to 2400 Hrs on 01 Feb 2013

Commenced rigging down at 11:00hrs. Broke tour and prepared tanks and rig for move. Operations ceased at 20:00hrs. Rigged down 5%, Rig moved 0%.

HSE Summary

Events	Num. Events	Date of Last	Days Since	Description	Remarks
Pre-Tour Safety Meeting	1	01 Feb 2013 11:30	0	Pre tour meeting for rig down	Discussed hazards involved in rig down operations.

Operations for Period 0000 Hrs to 2400 Hrs On 01 Feb 2013

PHSE	CLS (RC)	OP	From	To	Hrs	Depth (m)	Activity Description
RMO	P	RUD	11:00	20:00	9.00	0.0	Commence rigging down for move to Tibor-1. Slip & cut drill line. Lay out Kelly. Rig down rig floor. Lower V-door. Rig down doghouse.
RMO	P	WOD	20:00	24:00	4.00	0.0	Wait on daylight.

Operations for Period 0000 Hrs to 0600 Hrs On 02 Feb 2013

PHSE	CLS (RC)	OP	From	To	Hrs	Depth (m)	Activity Description
RMO	P	WOD	00:00	06:00	6.00	0.0	Wait on daylight.

Performance Summary

	Daily		Cumulative Well	
	Hrs	%	Hrs	%
P	13.0	100.0	13.0	100.0
Undefined	0.0	0.0	0.0	0.0
Total	13.0	100.0	13.0	100.0

Pumps

Pump data - Last 24 Hrs									Slow Pump Data	
No	Type	Liner (in)	SPM	Eff. (%)	Flow (galUS/min)	SPP (psi)	Depth (m)	MW (ppg)	SPM	SPP
1	Continental Emsco F-800	5.500		97						
2	Continental Emsco F-800	5.500		97						

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Drillsearch

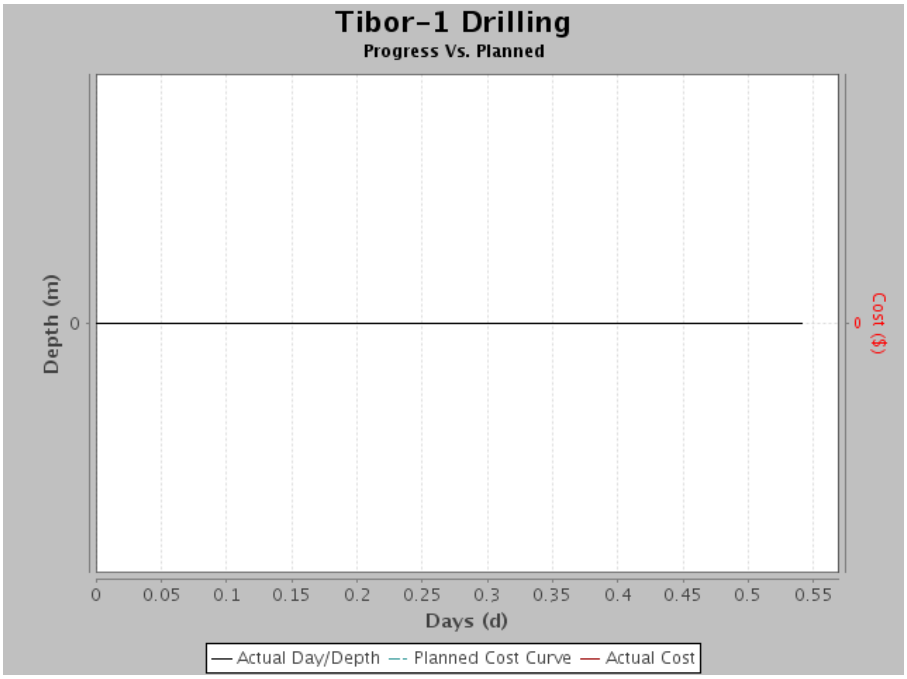
Well : Tibor-1 Drilling

Personnel On Board

Job Title	Personnel	Company	Pax
		ENSIGN	21
		Drillsearch	3
		Sub Contractor	12
		Oil Industry Catering Services	3
		Total	39

Bulk Stocks

Name	Unit	Start Amount	Previous Balance	In	Used	Adjust	Balance
Rig Fuel (ltr)	ltr	21,500		0	1,500	0	20,000
Camp Fuel (ltr)	ltr	1,950		0	350	0	1,600
Pot Water (ltr)	ltr	0		0	0	0	0



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Drillsearch

Well : Tibor-1 Drilling

Tibor-1 Drilling

Report Number :	2	Day Wellsite Representative:	Guy L Holmes	Rig Manager:	Scott Cameron
Latitude (South)	25° 52' 17.80"	Night Wellsite Representative:	Kevin Gordon	Drilling Company:	ENSIGN
Longitude (East)	141° 16' 19.41"			Wellsite Geologist:	

Well Data

Country:	Australia	Current Hole Size:		Casing OD:		AFE Number:	OPS-13-018
Field:		Measured Depth:		Casing MD:		Original AFE:	
Rig:	Ensign 918	True Vertical Depth:		Casing TVD:		Supp AFE No:	
Ground Level:	135.0 m	24 Hr Progress:		TOL MD:		Orig. & Sup.	
RT to GL	5.15 m	Days On Well:	1.54	TOL TVD:		AFE:	
Plan TD (MD):	1,738.0 m	Days Since Spud:	0.00	Lnr Shoe MD:		Daily Cost:	
Plan TD (TVD):	1,738.0 m	Last BOP Date:		Lnr Shoe TVD:		Cum. Cost:	
		FIT/LOT:	/			Last LTI Date:	05 Feb 2012
						Days Since LTI:	363

Current Op @ 0600:	Held PJSM and discussed day work plan with Drill Crews and Rig Movers.
Planned Op:	Position Rig. Move and spot mud tanks and rig up same. Move and spot fuel tanks and generators. Gerneral rig up.

Summary for Period 0000 Hrs to 2400 Hrs on 02 Feb 2013

Continued rigging down. Scoped in and lowered mast. Pulled out pumps and loaded tanks. Spotted sub base and pony base on Tibor-1. Offloaded carrier onto pony base.

Rigged Down 80%, Rig Moved 10%, Rigged Up 5%.

Operations for Period 0000 Hrs to 2400 Hrs On 02 Feb 2013

PHSE	CLS (RC)	OP	From	To	Hrs	Depth (m)	Activity Description
RMO	P	WOD	00:00	06:00	6.00	0.0	Wait on daylight.
RM	P	RM	06:00	18:00	12.00	0.0	Lower floor. Scope down mast and lower. Load out sub base and spot on Tibor-1. Load out carrier and pony base. Rig down pumps and tanks. Load tanks. Load out centrifuge. Pull out pumps. Drill crew working on module change out. Transfer diesel to camp. Spot pony base and off load carrier. General rig down.
RM	P	WOD	18:00	24:00	6.00	0.0	Wait on daylight

Operations for Period 0000 Hrs to 0600 Hrs On 03 Feb 2013

PHSE	CLS (RC)	OP	From	To	Hrs	Depth (m)	Activity Description
RM	P	WOD	00:00	06:00	6.00	0.0	Wait on daylight

Performance Summary

	Daily		Cumulative Well	
	Hrs	%	Hrs	%
P	24.0	100.0	37.0	100.0
Undefined	0.0	0.0	0.0	0.0
Total	24.0	100.0	37.0	100.0

Pumps

Pump data - Last 24 Hrs									Slow Pump Data	
No	Type	Liner (in)	SPM	Eff. (%)	Flow (galUS/min)	SPP (psi)	Depth (m)	MW (ppg)	SPM	SPP
1	Continental Emsco F-800	5.500		97						
2	Continental Emsco F-800	5.500		97						

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Drillsearch

Well : Tibor-1 Drilling

Personnel On Board

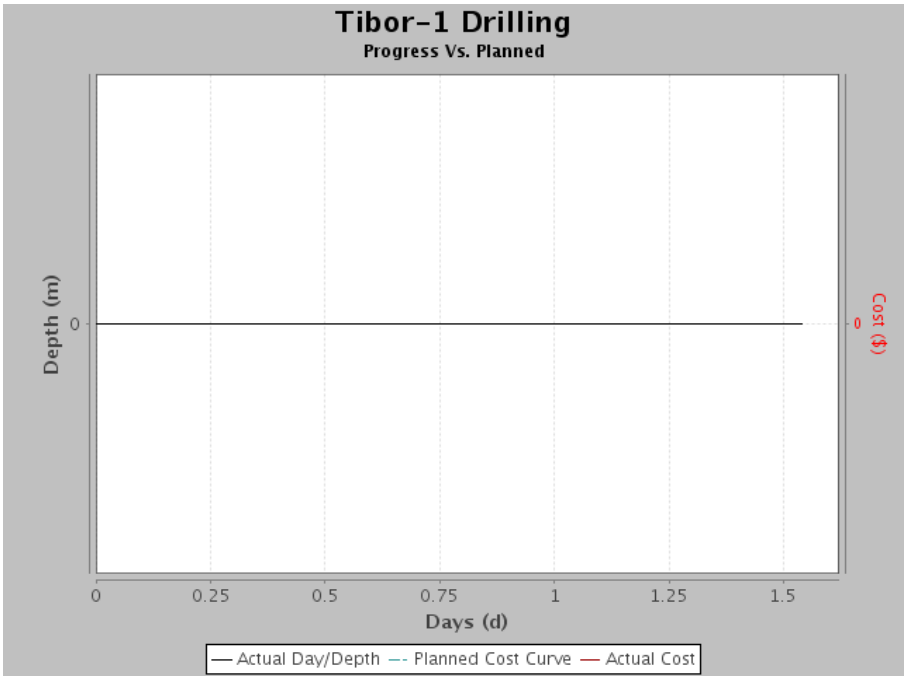
Job Title	Personnel	Company	Pax
		Drillsearch	3
		ISOS	1
		Geoservice	4
		Rheochem	1
		Scomi (KMC)	1
		ENSIGN	22
		Oil Industry Catering Services	3
		Rig Movers	15
		Total	50

Bulk Stocks

Name	Unit	Start Amount	Previous Balance	In	Used	Adjust	Balance
Rig Fuel (ltr)	ltr		20,000	0	1,000	-10,000	9,000
Camp Fuel (ltr)	ltr		1,600	4,000	350	0	5,250
Diesel Fuel (Litre)	Litre	6,000		0	0	0	6,000
Pot Water (ltr)	ltr		0	0	0	0	0
Cementing Water (bbl)	bbl	0		0	0	0	0

Transport

Transport Type	Transport Name	Arrived Time	Departed Time	Comment
Truck		17:30	06:15	Dispatched: 5 x 2 7/8" NEW VAM Tubing Received: 20 x 2 7/8" EUE Tubing. 20' Shipping Container.
Truck		11:00	16:00	Received: Transco - 6 1/2" Drilling Jar. Scomi - 11 Pallets Screens, Dispatched: Transco - 6 1/2" Drilling Jar. Drillsearch - 8 1/2" PDC Bit (Used)



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Drillsearch

Well : Tibor-1 Drilling

Tibor-1 Drilling					
Report Number :	3	Day Wellsite Representative:	Guy L Holmes	Rig Manager:	Scott Cameron
Latitude (South)	25° 52' 17.80"	Night Wellsite Representative:	Kevin Gordon	Drilling Company:	ENSIGN
Longitude (East)	141° 16' 19.41"			Wellsite Geologist:	

Well Data							
Country:	Australia	Current Hole Size:		Casing OD:		AFE Number:	OPS-13-018
Field:		Measured Depth:		Casing MD:		Original AFE:	
Rig:	Ensign 918	True Vertical Depth:		Casing TVD:		Supp AFE No:	
Ground Level:	135.0 m	24 Hr Progress:		TOL MD:		Orig. & Sup.	
RT to GL	5.15 m	Days On Well:	2.54	TOL TVD:		AFE:	
Plan TD (MD):	1,738.0 m	Days Since Spud:	0.00	Lnr Shoe MD:		Daily Cost:	
Plan TD (TVD):	1,738.0 m	Last BOP Date:		Lnr Shoe TVD:		Cum. Cost:	
		FIT/LOT:	/			Last LTI Date:	05 Feb 2012
						Days Since LTI:	364

Current Op @ 0600:	Held PJSM with Drill Crew, Rig Movers, rucking and crane Operators. Discussed safety plan for the days work and risk management.
Planned Op:	Complete movement of all loose equipment from Triclops-1. Move mini-camp and restablish on Tibor-1. Clean triclops site for handover. Continue with rig up.

Summary for Period 0000 Hrs to 2400 Hrs on 03 Feb 2013

Continued rigging down and loading out from Triclops-1 Well Site, continued rigging up on Tibor-1. Continued repairing mud pump No #1.

Rigged Down 90%, Rig Moved 70% , Rigged Up 25%.

HSE Summary

Events	Num. Events	Date of Last	Days Since	Description	Remarks
Pre-Tour Safety Meeting	1	03 Feb 2013 06:00	0	Pretour Safety Meeting	Includes all Rig Movers and other third party contractors. Discussed work plan hazards and risk mitigation.
Incident	1	03 Feb 2013 09:30	0	Equipment Damage	Toll Energy perator was backfilling the sump using the loader in a resticted space between the rig carrier and the sump. While backing up he lost sight of the loader rear quarter which hit the hand rail on the carrier damaging the tail light.
Weekly Safety Meeting	1	03 Feb 2013 17:00	0	Weekly Safety Meeting including all Drill crews, third party contractors and rig movers	Discussed previous weeks work and any incidents. All attendees speaking on an issue regarding the previous week or rig move activities.

Operations for Period 0000 Hrs to 2400 Hrs On 03 Feb 2013

PHSE	CLS (RC)	OP	From	To	Hrs	Depth (m)	Activity Description
RM	P	WOD	00:00	06:00	6.00	0.0	Wait on daylight
RM	P	RM	06:00	12:00	6.00	0.0	Held PJSM with all personnel involved in rig move activities. Spot tank and pump matting. Established pad for centrifuge. Loaded out BOP, dog house, catwalk, pipe bins x 2, Geoservice x 2 and miscellaneous equipment.
RM	P	RM	12:00	18:00	6.00	0.0	Loaded out pipe bins x 2, medic trailer, Koomey day tank, bulk fuel tank and miscellaneous equipment. Spot centrifuge and mud tanks.

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Drillsearch

Well : Tibor-1 Drilling

Operations for Period 0000 Hrs to 2400 Hrs On 03 Feb 2013

PHSE	CLS (RC)	OP	From	To	Hrs	Depth (m)	Activity Description
RM	P	WOD	18:00	24:00	6.00	0.0	Wait on daylight.

Operations for Period 0000 Hrs to 0600 Hrs On 04 Feb 2013

PHSE	CLS (RC)	OP	From	To	Hrs	Depth (m)	Activity Description
RM	P	WOD	00:00	06:00	6.00	0.0	Waited on daylight.

Performance Summary

	Daily		Cumulative Well	
	Hrs	%	Hrs	%
P	24.0	100.0	61.0	100.0
Undefined	0.0	0.0	0.0	0.0
Total	24.0	100.0	61.0	100.0

Pumps

Pump data - Last 24 Hrs									Slow Pump Data	
No	Type	Liner (in)	SPM	Eff. (%)	Flow (galUS/min)	SPP (psi)	Depth (m)	MW (ppg)	SPM	SPP
1	Continental Emsco F-800	5.500		97						
2	Continental Emsco F-800	5.500		97						

Personnel On Board

Job Title	Personnel	Company	Pax
		Drillsearch	3
		ISOS	1
		Geoservice	4
		Rheochem	1
		Scomi (KMC)	1
		ENSIGN	22
		Oil Industry Catering Services	3
		Rig Movers	15
		Total	50

Bulk Stocks

Name	Unit	Start Amount	Previous Balance	In	Used	Adjust	Balance
Rig Fuel (ltr)	ltr		9,000	0	0	0	9,000
Camp Fuel (ltr)	ltr		5,250	0	0	0	5,250
Diesel Fuel (Litre)	Litre		6,000	0	0	0	6,000
Pot Water (ltr)	ltr		0	24,500	5,000	0	19,500
Cementing Water (bbl)	bbl		0	0	0	0	0

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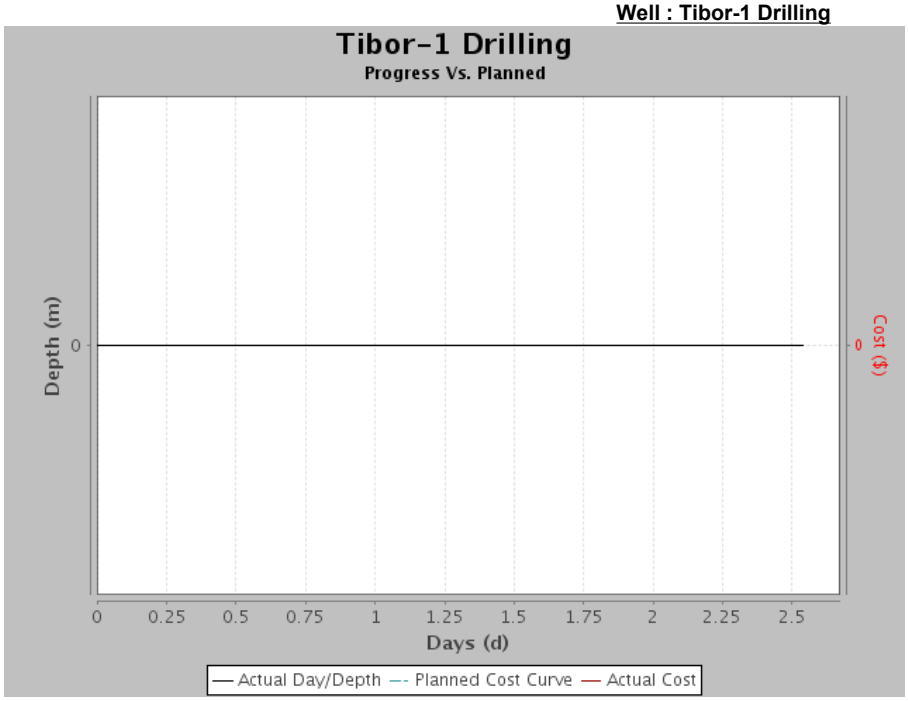
Drillsearch

Well : Tibor-1 Drilling



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Drillsearch

Well : Tibor-1 Drilling

Tibor-1 Drilling					
Report Number :	4	Day Wellsite Representative:	Guy L Holmes	Rig Manager:	Scott Cameron
Latitude (South)	25° 52' 17.80"	Night Wellsite Representative:	Kevin Gordon	Drilling Company:	ENSIGN
Longitude (East)	141° 16' 19.41"			Wellsite Geologist:	

Well Data							
Country:	Australia	Current Hole Size:		Casing OD:		AFE Number:	OPS-13-018
Field:		Measured Depth:		Casing MD:		Original AFE:	
Rig:	Ensign 918	True Vertical Depth:		Casing TVD:		Supp AFE No:	
Ground Level:	135.0 m	24 Hr Progress:		TOL MD:		Orig. & Sup.	
RT to GL	5.15 m	Days On Well:	3.54	TOL TVD:		AFE:	
Plan TD (MD):	1,738.0 m	Days Since Spud:	0.00	Lnr Shoe MD:		Daily Cost:	
Plan TD (TVD):	1,738.0 m	Last BOP Date:		Lnr Shoe TVD:		Cum. Cost:	
		FIT/LOT:	/			Last LTI Date:	05 Feb 2012
						Days Since LTI:	365

Current Op @ 0600:	Holding PTSM with all Drill crew.
Planned Op:	Continue rig up on Tibor-1.

Summary for Period 0000 Hrs to 2400 Hrs on 04 Feb 2013

Waited on daylight. Rigged down mini camp on Triclops-1. Moved mini camp and rigged up on Tibor-1. Raised lower section of mast. Installed monkey board. Scoped upper mast section. Raised and rigged up rig floor. Spotted mud pumps. All Itac trucks released.

Rig Down 100%. Rig Moved 100%. Rigged Up 60%

HSE Summary

Events	Num. Events	Date of Last	Days Since	Description	Remarks
Pre-Tour Safety Meeting	1	04 Feb 2013 06:00	0	Pre tour meeting to cover daily operations.	Discussed hazards moving and spotting loads with trucks and loaders. Pinch points, loads moving, potential of winch lines beaking.
Pre-Job Meetings	3	04 Feb 2013 00:00	0	Raise mast. Scope mast. Raise rig floor.	Discussed hazards of each section of this operation. Dropped objects, cables fouling, pinch points. Assigned spotters for each stage of operations.
Pre-Job Meetings	1	04 Feb 2013 00:00	0	Scope mast.	Discussed hazards of each section of this operation. Dropped objects, cables fouling, pinch points. Assigned spotters for each stage of operations.
Pre-Job Meetings	1	04 Feb 2013 00:00	0	Raise rig floor.	Discussed hazards of each section of this operation. Dropped objects, cables fouling, pinch points. Assigned spotters for each stage of operations.

Operations for Period 0000 Hrs to 2400 Hrs On 04 Feb 2013

PHSE	CLS (RC)	OP	From	To	Hrs	Depth (m)	Activity Description
RM	P	WOD	00:00	06:00	6.00	0.0	Waited on daylight.
RM	P	RUD	06:00	08:30	2.50	0.0	Held PTSM with all personnel. Rigged down mini camp. Continued rigging up drilling equipment on Tibor-1.

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Drillsearch

Well : Tibor-1 Drilling

Operations for Period 0000 Hrs to 2400 Hrs On 04 Feb 2013

PHSE	CLS (RC)	OP	From	To	Hrs	Depth (m)	Activity Description
RM	P	RUD	08:30	12:00	3.50	0.0	Moved mini camp to Tibor-1. Spotted mini camp generator and shacks, rigged up electrical and sewerage lines. Continued rigging up drilling equipment. Spotted generator shack and fuel tank. Ran electrical cables and air lines. Raised lower section of mast.
RM	P	RUD	12:00	18:00	6.00	0.0	Installed monkey board. Raised upper section of mast. Raised rig floor and rig up hand rails. Spotted mud pumps.
PS	P	WOD	18:00	24:00	6.00	0.0	Waited on daylight.

Operations for Period 0000 Hrs to 0600 Hrs On 05 Feb 2013

PHSE	CLS (RC)	OP	From	To	Hrs	Depth (m)	Activity Description
PS	P	WOD	00:00	06:00	6.00	0.0	Waited on daylight.

Performance Summary

	Daily		Cumulative Well	
	Hrs	%	Hrs	%
P	24.0	100.0	85.0	100.0
Undefined	0.0	0.0	0.0	0.0
Total	24.0	100.0	85.0	100.0

Pumps

Pump data - Last 24 Hrs									Slow Pump Data	
No	Type	Liner (in)	SPM	Eff. (%)	Flow (galUS/min)	SPP (psi)	Depth (m)	MW (ppg)	SPM	SPP
1	Continental Emsco F-800	5.500		97						
2	Continental Emsco F-800	5.500		97						

Personnel On Board

Job Title	Personnel	Company	Pax
		Drillsearch	3
		ISOS	1
		Geoservice	4
		Rheochem	1
		Scomi (KMC)	1
		ENSIGN	20
		Oil Industry Catering Services	3
		Rig Movers	2
		Total	35

Bulk Stocks

Name	Unit	Start Amount	Previous Balance	In	Used	Adjust	Balance
Rig Fuel (ltr)	ltr		9,000	0	0	0	9,000
Camp Fuel (ltr)	ltr		5,250	0	350	0	4,900
Diesel Fuel (Litre)	Litre		6,000	0	0	0	6,000
Pot Water (ltr)	ltr		19,500	26,000	0	0	45,500
Cementing Water (bbl)	bbl		0	0	0	0	0

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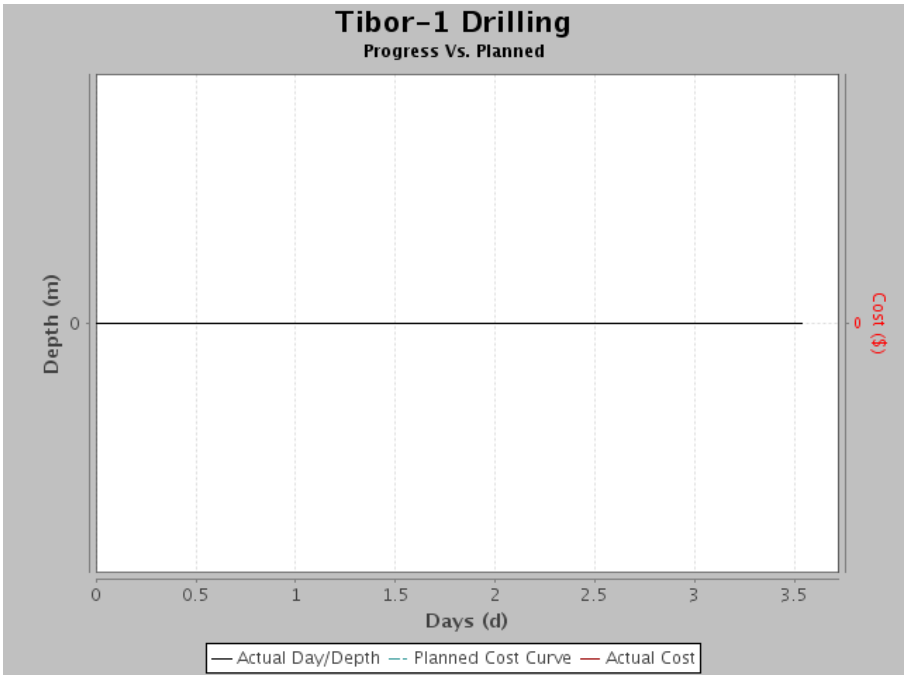
Drillsearch

Well : Tibor-1 Drilling

Transport				
Transport Type	Transport Name	Arrived Time	Departed Time	Comment
Van		08:30	16:30	



Drillsearch

Well : Tibor-1 Drilling

Tibor-1 Drilling					
Report Number :	5	Day Wellsite Representative:	Guy L Holmes	Rig Manager:	Scott Cameron
Latitude (South)	25° 52' 17.80"	Night Wellsite Representative:	Kevin Gordon	Drilling Company:	ENSIGN
Longitude (East)	141° 16' 19.41"			Wellsite Geologist:	

Well Data							
Country:	Australia	Current Hole Size:		Casing OD:		AFE Number:	OPS-13-018
Field:		Measured Depth:		Casing MD:		Original AFE:	
Rig:	Ensign 918	True Vertical Depth:		Casing TVD:		Supp AFE No:	
Ground Level:	135.0 m	24 Hr Progress:		TOL MD:		Orig. & Sup.	
RT to GL	5.15 m	Days On Well:	4.54	TOL TVD:		AFE:	
Plan TD (MD):	1,738.0 m	Days Since Spud:	0.00	Lnr Shoe MD:		Daily Cost:	
Plan TD (TVD):	1,738.0 m	Last BOP Date:		Lnr Shoe TVD:		Cum. Cost:	
		FIT/LOT:	/			Last LTI Date:	05 Feb 2012
						Days Since LTI:	366

Current Op @ 0600:	Held PTSM with rig crew and third party.
Planned Op:	Continue wiith rig up. Clean BHA. Lay out, strap and clean casing. Complete repairs to Mud pump #2 and complete installation. Complete tank rig up and check for leaks. Mix spud mud. Pressure test surface lines. Lay out, strap and clean casing. Carry out prespud check. Hold prespud meeting and spud Tibor-1.

Summary for Period 0000 Hrs to 2400 Hrs on 05 Feb 2013

Waited on daylight. Completed rigging up of rig floor, catwalk, V-door, kelly and tongs. Rigged up MD instrumentation. Installed mouse hole. Replaced damaged Koomey control hose. Installed riser and flow line. Rigged up turkeys nest pump. Continued repariring mud pump #2. Waited on daylight.

Rig Moved: 100%. Rigged Up: 80%

HSE Summary

Events	Num. Events	Date of Last	Days Since	Description	Remarks
Pre-Tour Safety Meeting	1	05 Feb 2013 06:00	0	Pretour meeting for rigging up.	Discussed planned operations, highlighted hazards and assigned duties to personnel.
Hazard Cards	10	05 Feb 2013 18:00	0	Crew hazardous observation cards.	Various hazards noted, rectified and reported.

Operations for Period 0000 Hrs to 2400 Hrs On 05 Feb 2013

PHSE	CLS (RC)	OP	From	To	Hrs	Depth (m)	Activity Description
PS	P	WOD	00:00	06:00	6.00	0.0	Waited on daylight.
PS	P	RUD	06:00	12:00	6.00	0.0	Held PTSM. Ran instrumentation cables. Assembled catwalk. Installed V -door. Haul cables. Continued repairing mud pump #2. Made up Kelly into rathole. Rigged up tongs. Installed false floor on rig floor. Removed subbase transport beams. Moved chemicals to Tibor-1 location and 5 1/2" casing from Triclops-1 to lay down yard.
PS	P	RUD	12:00	18:00	6.00	0.0	Continued repairing mud pump #2. Ran MD instrumentation. Installed Kelly bushings and safety guard. Installed bails. Installed mousehole. Installed all stairs and handrails. Changed out damaged Koomey control line. Cut conductor and installed riser and flowline. Installed turkeys nest pump. Laid out and strapped BHA. Continued moving chemicals to Tibor-1 location and 5 1/2" casing from Triclops-1 to lay down yard.
PS	P	WOD	18:00	24:00	6.00	0.0	Waited on daylight.

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Drillsearch

Well : Tibor-1 Drilling

Operations for Period 0000 Hrs to 0600 Hrs On 06 Feb 2013

PHSE	CLS (RC)	OP	From	To	Hrs	Depth (m)	Activity Description
PS	P	WOD	00:00	06:00	6.00	0.0	Waited on daylight.

Performance Summary

	Daily		Cumulative Well	
	Hrs	%	Hrs	%
P	24.0	100.0	109.0	100.0
Undefined	0.0	0.0	0.0	0.0
Total	24.0	100.0	109.0	100.0

Pumps

Pump data - Last 24 Hrs									Slow Pump Data	
No	Type	Liner (in)	SPM	Eff. (%)	Flow (galUS/min)	SPP (psi)	Depth (m)	MW (ppg)	SPM	SPP
1	Continental Emsco F-800	5.500		97						
2	Continental Emsco F-800	5.500		97						

Personnel On Board

Job Title	Personnel	Company	Pax
		Drillsearch	3
		ISOS	1
		Geoservice	4
		Rheochem	1
		Scomi (KMC)	1
		ENSIGN	21
		Oil Industry Catering Services	3
		Total	34

Bulk Stocks

Name	Unit	Start Amount	Previous Balance	In	Used	Adjust	Balance
Rig Fuel (ltr)	ltr		9,000	2,100	1,100	0	10,000
Camp Fuel (ltr)	ltr		4,900	0	350	0	4,550
Diesel Fuel (Litre)	Litre		6,000	0	0	-2,100	3,900
Pot Water (ltr)	ltr		45,500	0	7,500	0	38,000
Cementing Water (bbl)	bbl		0	0	0	0	0

Transport

Transport Type	Transport Name	Arrived Time	Departed Time	Comment
Van		15:00	07:00	Ensign Safety Advisor, Transferred from Rig 16. Return Sattelite finder equipment to Acer Yanapurra Canmp
Truck		08:00	12:00	Toll; Pathfinder DD Tools back loaded to base

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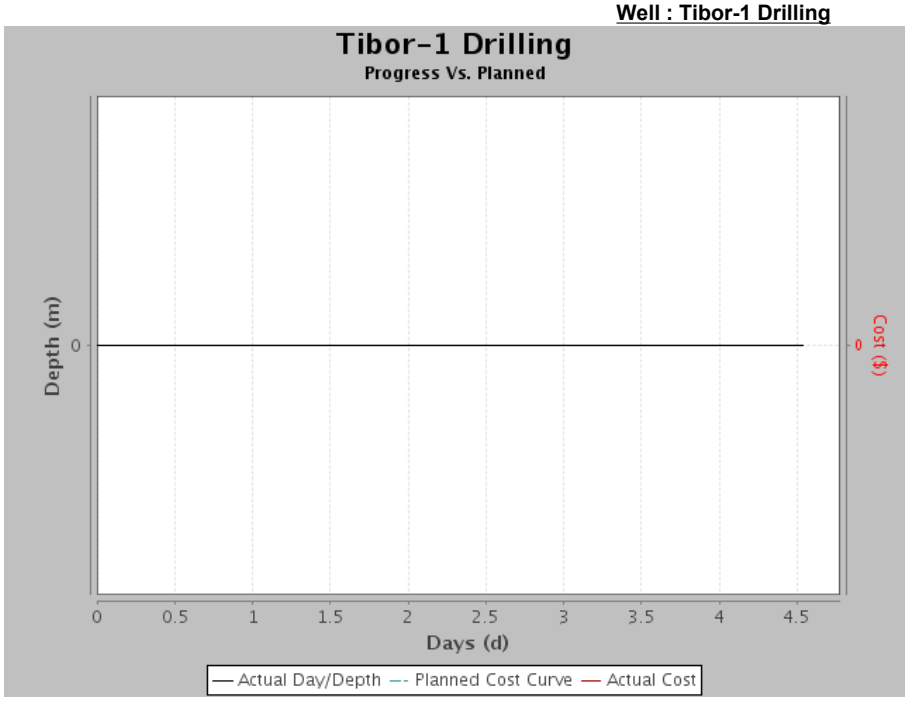
Drillsearch

Well : Tibor-1 Drilling



Drillsearch

Well : Tibor-1 Drilling

Tibor-1 Drilling					
Report Number :	6	Day Wellsite Representative:	Guy L Holmes	Rig Manager:	Scott Cameron
Latitude (South)	25° 52' 17.80"	Night Wellsite Representative:	Kevin Gordon	Drilling Company:	ENSIGN
Longitude (East)	141° 16' 19.41"			Wellsite Geologist:	

Well Data							
Country:	Australia	Current Hole Size:		Casing OD:		AFE Number:	OPS-13-018
Field:		Measured Depth:		Casing MD:		Original AFE:	
Rig:	Ensign 918	True Vertical Depth:		Casing TVD:		Supp AFE No:	
Ground Level:	135.0 m	24 Hr Progress:		TOL MD:		Orig. & Sup.	
RT to GL	5.15 m	Days On Well:	5.54	TOL TVD:		AFE:	
Plan TD (MD):	1,738.0 m	Days Since Spud:	0.00	Lnr Shoe MD:		Daily Cost:	
Plan TD (TVD):	1,738.0 m	Last BOP Date:		Lnr Shoe TVD:		Cum. Cost:	
		FIT/LOT:	/			Last LTI Date:	05 Feb 2012
						Days Since LTI:	367

Current Op @ 0600:	Pressure tested surface lines, repaired leaks in mud tanks.
Planned Op:	Complete rig up, mix spud mud, hold hazard hunt, complete pre-spud inspection and hold pre-spud meeting. Spud Tibor-1.

Summary for Period 0000 Hrs to 2400 Hrs on 06 Feb 2013

Waited on Daylight. Continued repairing mud pump #2. Set up pipe racks. Unloaded chemicals. Modified vehicle access path through lease. Laid out 2 x trailer loads of 9-5/8" casing. Laid out and strapped BHA. Continued rigging up mud tanks. Flood tested mud tanks. Recharged pulsation dampeners on mud pumps. Rigged up suction and discharge mud lines to mud pumps. Ran electrical cables and function tested lighting. Repositioned settling tank, choke/degasser skid and Geoservices unit. Reinstalled flow line.

HSE Summary

Events	Num. Events	Date of Last	Days Since	Description	Remarks
Pre-Tour Safety Meeting	3	06 Feb 2013 06:00	0	PTSM	Discuss forward work programme, associated hazards, mitigation and procedures.
Accident/incident/near miss	1	05 Feb 2013 00:00	1	Unsafe use of equipment.	Operator left loader parked with mousehole on forks above catwalk after being called to another job. New operator attempted to lower mousehole onto catwalk but tilted forks excessively causing it to roll off catwalk onto the ground. No personnel were near catwalk and no damage was done to mousehole. Risk potential was high.
Equipment Incident	1	06 Feb 2013 00:00	0	Windscreen damaged.	Windscreen was cracked when struck by rock thrown up by vehicle travelling in opposite direction at a high speed.

Operations for Period 0000 Hrs to 2400 Hrs On 06 Feb 2013

PHSE	CLS (RC)	OP	From	To	Hrs	Depth (m)	Activity Description
PS	P	WOD	00:00	06:00	6.00	0.0	Waited on daylight.

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Drillsearch

Well : Tibor-1 Drilling

Operations for Period 0000 Hrs to 2400 Hrs On 06 Feb 2013

PHSE	CLS (RC)	OP	From	To	Hrs	Depth (m)	Activity Description
PS	P	RUD	06:00	12:00	6.00	0.0	Held PTSM. Continued repairing mud pump #2. Spotted pipe racks. Covered raising rams. Installed Teledrift sensor on standpipe. Unloaded chemicals, re-stacked broken pallets. Improved lease access and adjusted road crossing alignment. Strapped BHA. Continued rigging up and prepare to spud.
PS	P	RUD	12:00	24:00	12.00	0.0	Continued repairing mud pump #2. Continued rigging up mud tanks. Continued unloading chemicals. Moved subs and stabilizers for BHA #1 to rig floor. Unloaded 2 x trailer loads of 9-5/8" casing. Removed flowline and respotted settling tank, choke/degasser skid and Geoservices unit. Center riser and reinstalled flowline. Flood test mud tanks and repaired leaks. Installed security chains on pipe racks and catwalk. Rigged up and function tested rig lighting. Finished running electrical cables. Pre charged mud pump pulsation dampers. Rigged up suction and discharge lines on mud pumps. Rigged up survey barrel. Finished installing stairs and walkways.

Operations for Period 0000 Hrs to 0600 Hrs On 07 Feb 2013

PHSE	CLS (RC)	OP	From	To	Hrs	Depth (m)	Activity Description
PS	P	RUD	00:00	06:00	6.00	0.0	[In Progress] Continued rigging up and mads welding repairs on mud tanks. Installed Poorboy degasser overflow line. Removed protectors, drifted and strapped 9-5/8" casing. Installed shade cloth and lights over shale shakers. Made up saver sub and Kelly cock. Pressure tested surface lines to 2,000psi for 10mins. Arranged DLS equipment beside DLS container to clear site access. Unload chemicals (restack broken pallets). Carried out repairs to mud pump pulsation dampeners and charged with nitrogen. Mixed spud mud. Function tested ESD's from all stations, (5secs from remote station).

Performance Summary

	Daily		Cumulative Well	
	Hrs	%	Hrs	%
P	24.0	100.0	133.0	100.0
Undefined	0.0	0.0	0.0	0.0
Total	24.0	100.0	133.0	100.0

Pumps

		Pump data - Last 24 Hrs							Slow Pump Data	
No	Type	Liner (in)	SPM	Eff. (%)	Flow (galUS/min)	SPP (psi)	Depth (m)	MW (ppg)	SPM	SPP
1	Continental Emsco F-800	5.500		97						
2	Continental Emsco F-800	5.500		97						

Personnel On Board

Job Title	Personnel	Company	Pax
		Drillsearch	3
		ISOS	1
		Geoservice	4
		Rheochem	1
		Scomi (KMC)	1
		ENSIGN	20

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Drillsearch

Well : Tibor-1 Drilling

Personnel On Board

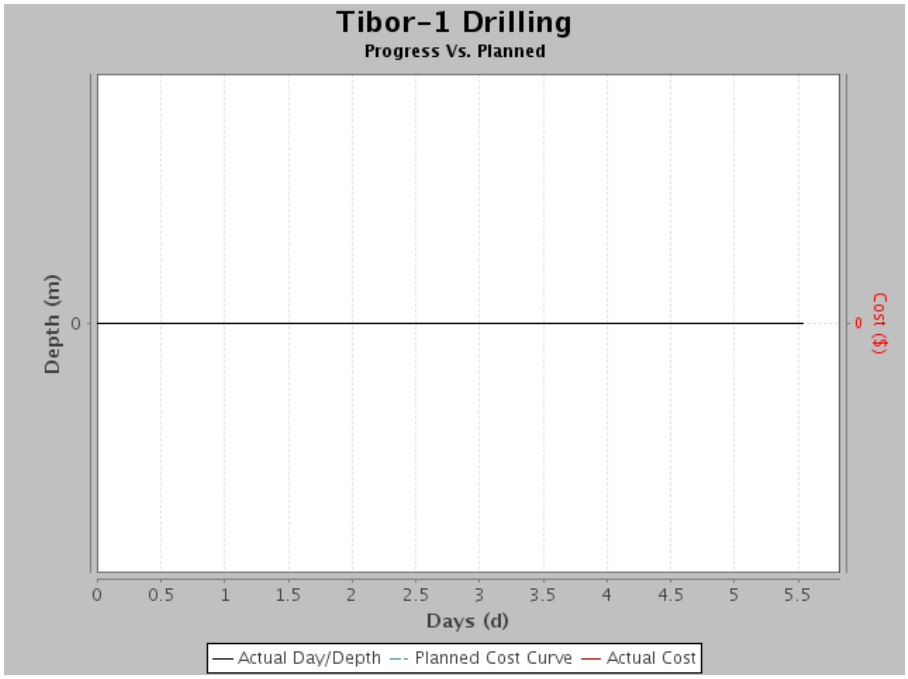
Job Title	Personnel	Company	Pax
		Oil Industry Catering Services	3
		Total	33

Bulk Stocks

Name	Unit	Start Amount	Previous Balance	In	Used	Adjust	Balance
Rig Fuel (ltr)	ltr		10,000	3,500	1,000	0	12,500
Camp Fuel (ltr)	ltr		4,550	0	350	-350	3,850
Diesel Fuel (Litre)	Litre		3,900	0	0	-3,500	400
Pot Water (ltr)	ltr		38,000	0	0	0	38,000
Cementing Water (bbl)	bbl		0	0	0	0	0

Transport

Transport Type	Transport Name	Arrived Time	Departed Time	Comment
Van		11:00	09:30	Crew Change
Van		09:00	07:30	Crew Change
Van		16:00	08:00	Electrician from Rig 16



Drillsearch

Well : Tibor-1 Drilling

Tibor-1 Drilling					
Report Number :	7	Day Wellsite Representative:	Guy L Holmes	Rig Manager:	Scott Cameron
Latitude (South)	25° 52' 17.80"	Night Wellsite Representative:	Kevin Gordon	Drilling Company:	ENSIGN
Longitude (East)	141° 16' 19.41"			Wellsite Geologist:	

Well Data							
Country:	Australia	Current Hole Size:	12.250 in	Casing OD:		AFE Number:	OPS-13-018
Field:		Measured Depth:	34.0 m	Casing MD:		Original AFE:	
Rig:	Ensign 918	True Vertical Depth:	34.0 m	Casing TVD:		Supp AFE No:	
Ground Level:	135.0 m	24 Hr Progress:	23.3 m	TOL MD:		Orig. & Sup.	
RT to GL	5.15 m	Days On Well:	6.54	TOL TVD:		AFE:	
Plan TD (MD):	1,738.0 m	Days Since Spud:	0.29	Lnr Shoe MD:		Daily Cost:	
Plan TD (TVD):	1,738.0 m	Last BOP Date:		Lnr Shoe TVD:		Cum. Cost:	
		FIT/LOT:	/			Last LTI Date:	05 Feb 2012
						Days Since LTI:	368

Current Op @ 0600:	Drilled to 99mRT survey @ 97m Inclination 0.5 degrees
Planned Op:	Continue drill 12 1/4" hole to section TD at 753m. Pressure test BOP and ckoke manifold offline. Clean casing and prep

Summary for Period 0000 Hrs to 2400 Hrs on 07 Feb 2013

Continue repairs on mud tanks. Continue rig up. Hold Pre-spud meeting with 2 drill crews. Conduct hazard hunt and rectify major hazards identified. Spud well at 19:00hrs. Drill 12 1/4" surface section hole from 10.7m to 34mRT.

HSE Summary

Events	Num. Events	Date of Last	Days Since	Description	Remarks
Pre-Tour Safety Meeting	1	07 Feb 2013 00:00	0	PTSM	Discuss hazards of upcoming operations.
Pre-Tour Safety Meeting	1	07 Feb 2013 11:45	0	PTSM	Discuss hazards of upcoming operations.
Pre-spud meeting	1	07 Feb 2013 12:15	0	Pre-spud Meeting	Pre-spud meeting with 2 drill crews.
Hazard Hunt	1	07 Feb 2013 00:00	0	Hazard Hunt	Held pre-spud hazard hunt. Listed and rectified observed hazards.
Pre-Job Meetings	2	07 Feb 2013 20:00	0	PJSM	Discussed SOP and hazards for picking up 8" drill collars to rig floor.

Operations for Period 0000 Hrs to 2400 Hrs On 07 Feb 2013

PHSE	CLS (RC)	OP	From	To	Hrs	Depth (m)	Activity Description
PS	P	RUD	00:00	10:00	10.00	0.0	Continued rigging up and mads welding repairs on mud tanks. Installed Poorboy degasser overflow line. Removed protectors, drifted and strapped 9-5/8" casing. Installed shade cloth and lights over shale shakers. Made up saver sub and Kelly cock. Pressure tested surface lines to 2,000psi for 10mins. Arranged DLS equipment beside DLS container to clear site access. Unload chemicals (restack broken pallets). Carried out repairs to mud pump pulsation dampeners and charged with nitrogen. Mixed spud mud. Function tested ESD's from all stations, (5secs from remote station).
PS	TU (RE)	RUD	10:00	12:00	2.00	0.0	Function tested mud pump pressure relief valves. Valves failed to release at designated pressure. RIH and tagged bottom at 10.7m RT. Welder continued repairing mud tank leaks. Repaired fault in Generator electrical ESD and retested, good test.

Drillsearch

Well : Tibor-1 Drilling

Operations for Period 0000 Hrs to 2400 Hrs On 07 Feb 2013

PHSE	CLS (RC)	OP	From	To	Hrs	Depth (m)	Activity Description
PS	P	RUD	12:00	13:00	1.00	0.0	Held Pre-Spud meeting with 2 drill crews. Conducted hazard hunt. Continued to complete pre-spud check list.
PS	TU (RE)	RUD	13:00	19:00	6.00	0.0	Re-built and pressure tested mud pump pressure relief valves. Transfered spud mud. Repaired leaks on settling tank. Rectifed items identified in hazard hunt. Arranged bunding and signage for hazardous chemical area. Made up 12-1/4" PDC bit, bit sub and 8" Teledrift. Completed prespud inspections and checklist.
SH	P	DA	19:00	20:00	1.00	16.0	Held PJSM. Spudded well and drilled 12-1/4" surface section from 10.7m to 16m.
SH	P	HBH	20:00	21:00	1.00	16.0	Racked back Kelly. Rigged up elevators. Held PJSM. Picked up 2 x 8" drill collars.
SH	P	DA	21:00	23:00	2.00	34.0	Drill 12-1/4" hole from 16m to 34m. Took Teledrift survey at 33m. Inclination = 0 degrees.
SH	P	HBH	23:00	24:00	1.00	34.0	Racked back Kelly. Rigged up elevators. Held PJSM. Picked up 2 x 8" drill collars.

Operations for Period 0000 Hrs to 0600 Hrs On 08 Feb 2013

PHSE	CLS (RC)	OP	From	To	Hrs	Depth (m)	Activity Description
SH	P	HBH	00:00	00:45	0.75	34.0	Ran 8" drill collar in mousehole. Removed elevators. Picked up Kelly.
SH	P	DA	00:45	06:00	5.25	163.0	[In Progress] Drilled 12-1/4" hole from 34mRT to 163mRT. Took Teledrift survey every 3 singles drilled.

Performance Summary

	Daily		Cumulative Well	
	Hrs	%	Hrs	%
P	16.0	66.7	149.0	94.9
TU	8.0	33.3	8.0	5.1
Undefined	0.0	0.0	0.0	0.0
Total	24.0	100.0	157.0	100.0

WBM Data — **Cost Today:** **$ 5,711**

Mud Desc:	Spud mud	API FL:	15.0 cm³/30min	Cl:		Solids:	2.8 %	Glycol:	
Check Depth:	10.7 m	Filter-Cake:	1 /32nd"	KCl:	5.0 %	H2O:	97 %	Viscosity:	36 s/qt
Time:	17:00	HTHP-FL:		Hard/Ca:	400.00 mg/L	Sand:		PV:	7 cP
Weight:	8.70 ppg	HTHP-Cake:	1.00 /32nd"	MBT:		pH:	10	YP:	4 lbf/100ft²
Temp:	31.0 °C	HTHP-Temp:		Pm:		PHPA:	1.00 ppb	Gel 10s:	2 lbf/100ft²
		HTHP-Press:		Pf:	0.17	Mf:	1.00 m³	Gel 10m:	4 lbf/100ft²

Comment:	RPM	Reading
	3	2
	6	3
	100	6
	200	8
	300	11
	600	18

Drillsearch

Well : Tibor-1 Drilling

Shakers, Volumes and Losses Data — **Engineer : Roni Tan**

Equipment	Description	Mesh Size
Centrifuge	Scomi DE-1000	
Shaker	Derrick Shale Shaker	100 x 4
Shaker	Derrick Shale Shaker	100 x 4

Available	466 bbl
Active	413 bbl
Mixing	53 bbl
Hole	
Slug	
Reserve	
Kill	
Other	

Losses	0 bbl
Downhole	
Surf. + Equip.	
Dumped	
De-Gasser	
De-Sander	
De-Silter	
Centrifuge	
Other	

Comment:

Pumps

Pump data - Last 24 Hrs									Slow Pump Data	
No	Type	Liner (in)	SPM	Eff. (%)	Flow (galUS/min)	SPP (psi)	Depth (m)	MW (ppg)	SPM	SPP
1	Continental Emsco F-800	5.500	86	97		50		8.70		
2	Continental Emsco F-800	5.500		97				9.70		

BHA #1

BHA Type:	Pendulum	Total Weight Wet:	41 klb
Depth In/Out:	10.7 m/754.0 m	Weight Below Jar Wet:	36 klb
Date In/Out:	#7 (07 Feb 2013)/#10 (10 Feb 2013)		
Total Length:	23.5 m		

BHA Description: 12 1/4" PDC Bit, Bit Sub (with float), Teledrift Sub (0.5 - 3.5 degree tool), 8 1/4" NMDC, 12 1/4" Stab, 3 x 8" DC, X/O, 8 x 6 1/2" DC, 6 1/2" Drilling Jar, 4 x 4 1/2" HWDP,

BHA Run Comment:

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Drillsearch

Well : Tibor-1 Drilling

BHA Daily Summary

Pickup Weight:	31 klb	Torque (max):	900 ft-lbs	D.C. (1) Ann Velocity:	1 ft/s
Slack-Off Weight:	29 klb	Torque Avg. Off Bottom:	300 ft-lbs	D.C. (2) Ann Velocity:	1 ft/s
String Weight:	30 klb	Torque Avg. On Bottom:	900 ft-lbs	H.W.D.P. Ann. Velocity:	1 ft/s
Jars Hours Logged:				D.P. Ann. Velocity:	1 ft/s

Summary:

BHA Component

Equipment	Description	Length (m)	OD (in)	ID (in)	Serial #	Hours
Bit	Re-run from Triclops-1	0.38			7032698	
8" Bit Sub	Ported Float -Type:G 5F6R	0.95	7.810	3.000	ENS002	
Teledrift		2.63	8.500	2.810	2431	
NMDC (MWD)		9.41	8.310	2.750	Hofco M8-16	
Stabilizer		1.32	7.930	2.810	12017-0	
8" DC		8.84	7.750	2.810	ODE-04	
8" DC		8.88	7.810	2.875	ODE-2	
8" DC		9.43	8.125	2.875	16376	
X-Over		0.74	7.810	2.875	1850	
6-1/2" DC		8.74	6.187	3.062	30-2-21	
6-1/2" DC		9.30	6.187	2.937	29013	
6-1/2" DC		8.92	6.187	3.000	30-2-2	
6-1/2" DC		9.10	6.125	2.937	922-22	
6-1/2" DC		9.09	6.125	2.937	592226	
6-1/2" DC		8.97	6.000	2.500	29-008	
6 1/2" DC		9.20	6.187	2.937	29-018	
6-1/2" DC		9.49	6.437	2.375	EDC 03231	
6 1/2" Hydraulic Jar		9.50	6.250	2.375	650 E2-12-6	
6-1/2" DC		8.46	6.125	3.062	GP3922-31	
6-1/2" DC		8.82	6.187	3.062	GP5922-9	
HWDP		9.45	6.187	2.875	A58715	
HWDP		9.45	6.187	2.810	A58730	
HWDP		9.47	6.250	2.810	A58716	
HWDP		9.45	6.187	2.810	A58720	

Directional Data

Slide Time:	0.00 h	Rotate Time:	3.00 h	Circ. Time:	3.00 h
Slide (%):	0.0 %	Rotate (%):	100.0 %	Circ. (%):	100.0 %
Total Slide Time:	0.00 h	Total Rotate Time:	3.00 h	Total Circ. Time:	3.00 h
Total Revs:	5 Krevs	HSI:	0.05 hp/in²		

Bit #1RR-1

						Nozzles		
Size:	311 mm (12 1/4")	Type:	PDC	IADC #:	M323	#		Size (/32nd")
Manufacturer:	BHI (Hughes Christensen)	Model:	FC519	TFA:	1.052 in²	7	x	14
		Bit Wear:	1-1-WT-A-X-I-ER-TD	Cost:	$			
Serial #:	7032698							

Bit Run Comment: Rerun from Triclops-1
1 plugged nozzle when pulled from Tibor-1

Bit Wear Comment:

Drillsearch

Well : Tibor-1 Drilling

Drilling Parameters

BHA Run #1

Top Depth:	PWD ECD:
Bottom Depth:	

	Min	Avg	Max
Flow	223 galUS/min	227 galUS/min	231 galUS/min
Surface RPM	50 rpm	60 rpm	70 rpm
Downhole RPM	50 rpm	60 rpm	70 rpm
Pressure	50 psi	328 psi	606 psi
Torque	800 ft-lbs	850 ft-lbs	900 ft-lbs
WOB	3 klbs	4 klbs	5 klbs
ROP	6.00 m/h	6.88 m/h	7.76 m/h

Survey

MD (m)	Incl. (°)	Corr. Az (°)	TVD (m)	'V' Sect (m)	Dogleg (deg/30m)	N/S (m)	E/W (m)	Tool Type
0.0	0.0	0.00	0.0			0.0	0.0	
33.0	0.0	0.00						TOTCO

Formations

Name	Top (m)
Winton Formation	10.7

Personnel On Board

Job Title	Personnel	Company	Pax
		Drillsearch	4
		ISOS	1
		Geoservice	4
		Rheochem	1
		Scomi (KMC)	1
		ENSIGN	21
		Oil Industry Catering Services	3
		Total	35

Bulk Stocks

Name	Unit	Start Amount	Previous Balance	In	Used	Adjust	Balance
Rig Fuel (ltr)	ltr		12,500	17,554	554	-1,000	28,500
Camp Fuel (ltr)	ltr		3,850	0	350	0	3,500
Pot Water (ltr)	ltr		38,000	0	0	0	38,000
Cementing Water (bbl)	bbl		0	360	0	0	360

Transport

Transport Type	Transport Name	Arrived Time	Departed Time	Comment
Van		16:00	09:30	Pick up DLS Geologist from Windorah airport. Wellsite OCR missed flight.

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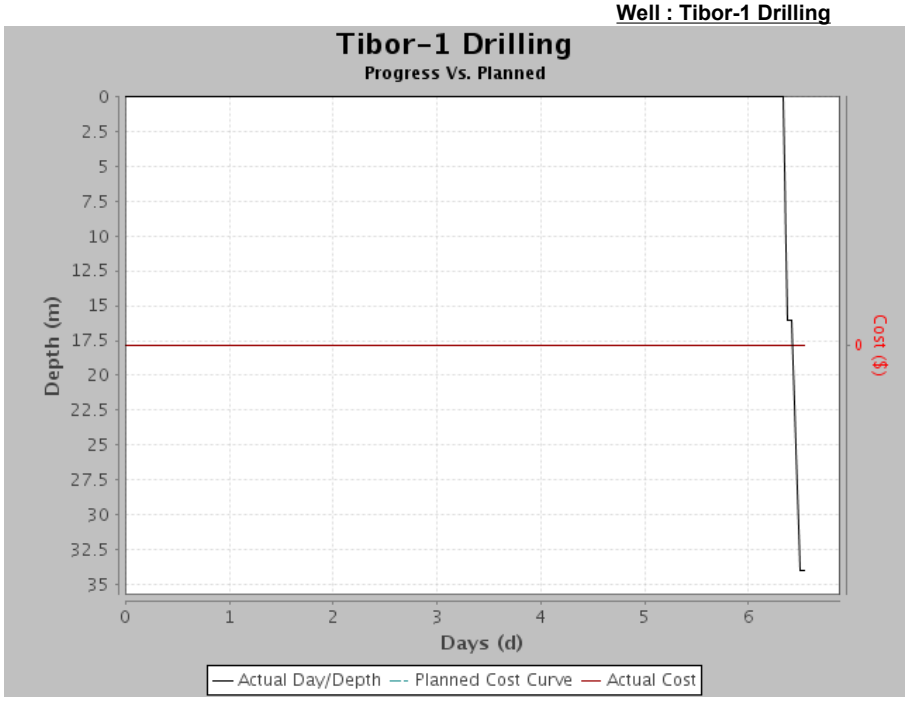
Drillsearch

Well : Tibor-1 Drilling



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Drillsearch

Well : Tibor-1 Drilling

Tibor-1 Drilling

Report Number :	8	Day Wellsite Representative:	Guy L Holmes	Rig Manager:	Scott Cameron
Latitude (South)	25° 52' 17.80"	Night Wellsite Representative:	Kevin Gordon	Drilling Company:	ENSIGN
Longitude (East)	141° 16' 19.41"			Wellsite Geologist:	Alan Whitestone

Well Data

Country:	Australia	Current Hole Size:	12.250 in	Casing OD:		AFE Number:	OPS-13-018
Field:		Measured Depth:	331.0 m	Casing MD:		Original AFE:	
Rig:	Ensign 918	True Vertical Depth:	331.0 m	Casing TVD:		Supp AFE No:	
Ground Level:	135.0 m	24 Hr Progress:	297.0 m	TOL MD:		Orig. & Sup.	
RT to GL	5.15 m	Days On Well:	7.54	TOL TVD:		AFE:	
Plan TD (MD):	1,738.0 m	Days Since Spud:	1.29	Lnr Shoe MD:		Daily Cost:	
Plan TD (TVD):	1,738.0 m	Last BOP Date:		Lnr Shoe TVD:		Cum. Cost:	
		FIT/LOT:	/			Last LTI Date:	05 Feb 2012
						Days Since LTI:	369

Current Op @ 0600:	Drilled and surveyed to 413mRT.
Planned Op:	Drill ahead to section TD. Prepare for surface casing and cement jobs. Completed offline BOP pressure testing.

Summary for Period 0000 Hrs to 2400 Hrs on 08 Feb 2013

Drilled 12-1/4" hole from 34mRT to 331mRT. Took Teledrift surveys every 3 joints. Ran single shot wireline survey every 150m.

HSE Summary

Events	Num. Events	Date of Last	Days Since	Description	Remarks
Pre-Tour Safety Meeting	0	08 Feb 2013 00:00	0	PTSM	Discuss hazards of upcoming operations.
Pre-Tour Safety Meeting	0	08 Feb 2013 11:45	0	PTSM	Discuss hazards of upcoming operations.
JSA	2	08 Feb 2013 00:00	0	JSA for slickline survey.	Discussed hazards involved when running slickline surveys.
Hazard Cards	8	08 Feb 2013 00:00	0	Hazardous observation cards.	Various hazardous conditions or behaviour observed.

Operations for Period 0000 Hrs to 2400 Hrs On 08 Feb 2013

PHSE	CLS (RC)	OP	From	To	Hrs	Depth (m)	Activity Description
SH	P	HBH	00:00	00:45	0.75	34.0	Ran 8" drill collar in mousehole. Removed elevators. Picked up Kelly.
SH	P	DA	00:45	11:00	10.25	163.0	Drilled 12-1/4" hole from 34mRT to 163mRT. Took Teledrift survey every 3 singles drilled.
SH	P	SVY	11:00	11:30	0.50	163.0	Sweeped hole with Hi-Vis pill and circulate clean. Ran single shot wireline survey @ 161mRT. Inclination = 0.5 degrees. Azimith = 203 degrees.
SH	P	DA	11:30	18:15	6.75	249.0	Drilled 12-1/4" hole from 163mRT to 249mRT. Took Teledrift survey every 3 singles drilled.
SH	P	RS	18:15	18:45	0.50	249.0	Rig service.
SH	P	DA	18:45	22:45	4.00	316.0	Drilled 12-1/4" hole from 249mRT to 316mRT. Took Teledrift survey every 3 singles drilled.
SH	P	CMD	22:45	23:00	0.25	316.0	Circulated and conditioned hole prior to survey.
SH	P	SVY	23:00	23:15	0.25	316.0	Ran single shot wireline survey @ 302mRT. Inclination = 0.75 degrees. Azimith = 241 degrees.
SH	P	DA	23:15	24:00	0.75	331.0	Drilled 12-1/4" hole from 316mRT to 331mRT.

Operations for Period 0000 Hrs to 0600 Hrs On 09 Feb 2013

PHSE	CLS (RC)	OP	From	To	Hrs	Depth (m)	Activity Description

Printed on 13 February 2013 07:20 AM (GMT+08:00)

Drillsearch

Well : Tibor-1 Drilling

SH	P	DA	00:00	06:00	6.00	471.0	[In Progress] Drilled 12-1/4" hole from 331mRT to 471mRT. Took Teledrift survey every 3 singles drilled.

Performance Summary

	Daily		Cumulative Well	
	Hrs	%	Hrs	%
P	24.0	100.0	173.0	95.6
TU	0.0	0.0	8.0	4.4
Undefined	0.0	0.0	0.0	0.0
Total	24.0	100.0	181.0	100.0

WBM Data — **Cost Today:** **$ 8,256**

Mud Desc:	Spud mud	API FL:	9.0 cm³/30min	Cl:	22,100 %	Solids:	3.6 %	Glycol:	
Check Depth:	250.0 m	Filter-Cake:	1 /32nd"	KCl:	4.0 %	H2O:	96 %	Viscosity:	42 s/qt
Time:	18:30	HTHP-FL:		Hard/Ca:	360.00 mg/L	Sand:	0.1 %	PV:	12 cP
Weight:	8.80 ppg	HTHP-Cake:		MBT:	13.80 %	pH:	10	YP:	17 lbf/100ft²
Temp:		HTHP-Temp:		Pm:		PHPA:	1.20 ppb	Gel 10s:	5 lbf/100ft²
		HTHP-Press:		Pf:	0.16	Mf:	0.80 m³	Gel 10m:	11 lbf/100ft²

Comment:

RPM	Reading
3	5
6	7
100	16
200	22
300	29
600	41

Shakers, Volumes and Losses Data — **Engineer : Roni Tan**

Equipment	Description	Mesh Size
Centrifuge	Scomi DE-1000	
Shaker	Derrick Shale Shaker	170 x 4
Shaker	Derrick Shale Shaker	170 x 4

Available	**389 bbl**	**Losses**	**132 bbl**
Active	332 bbl	Downhole	
Mixing	27 bbl	Surf. + Equip.	96 bbl
Hole		Dumped	
Slug		De-Gasser	
Reserve	30 bbl	De-Sander	
Kill		De-Silter	
Other		Centrifuge	36 bbl
		Other	

Comment: Used 150bbls from Turkey's Nest.

Pumps

		Pump data - Last 24 Hrs							Slow Pump Data	
No	Type	Liner (in)	SPM	Eff. (%)	Flow (galUS/min)	SPP (psi)	Depth (m)	MW (ppg)	SPM	SPP
1	Continental Emsco F-800	5.500	116	97		486		8.70		
2	Continental Emsco F-800	5.500	116	97		486		9.70		

BHA #1

BHA Type:	Pendulum	Total Weight Wet:	41 klb
Depth In/Out:	10.7 m/754.0 m	Weight Below Jar Wet:	36 klb
Date In/Out:	#7 (07 Feb 2013)/#10 (10 Feb 2013)		
Total Length:	23.5 m		

BHA Description: 12 1/4" PDC Bit, Bit Sub (with float), Teledrift Sub (0.5 - 3.5 degree tool), 8 1/4" NMDC, 12 1/4" Stab, 3 x 8" DC, X/O, 8 x 6 1/2" DC, 6 1/2" Drilling Jar, 4 x 4 1/2" HWDP,

BHA Run Comment:

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Drillsearch

Well : Tibor-1 Drilling

BHA Daily Summary

Pickup Weight:	66 klb	Torque (max):	1,400 ft-lbs	D.C. (1) Ann Velocity:	2 ft/s
Slack-Off Weight:	66 klb	Torque Avg. Off Bottom:	200 ft-lbs	D.C. (2) Ann Velocity:	2 ft/s
String Weight:	66 klb	Torque Avg. On Bottom:	750 ft-lbs	H.W.D.P. Ann. Velocity:	1 ft/s
Jars Hours Logged:	15.50 h			D.P. Ann. Velocity:	1 ft/s

Summary:

BHA Component

Equipment	Description	Length (m)	OD (in)	ID (in)	Serial #	Hours
Bit	Re-run from Triclops-1	0.38			7032698	
8" Bit Sub	Ported Float -Type:G 5F6R	0.95	7.810	3.000	ENS002	
Teledrift		2.63	8.500	2.810	2431	
NMDC (MWD)		9.41	8.310	2.750	Hofco M8-16	
Stabilizer		1.32	7.930	2.810	12017-0	
8" DC		8.84	7.750	2.810	ODE-04	
8" DC		8.88	7.810	2.875	ODE-2	
8" DC		9.43	8.125	2.875	16376	
X-Over		0.74	7.810	2.875	1850	
6-1/2" DC		8.74	6.187	3.062	30-2-21	
6-1/2" DC		9.30	6.187	2.937	29013	
6-1/2" DC		8.92	6.187	3.000	30-2-2	
6-1/2" DC		9.10	6.125	2.937	922-22	
6-1/2" DC		9.09	6.125	2.937	592226	
6-1/2" DC		8.97	6.000	2.500	29-008	
6 1/2" DC		9.20	6.187	2.937	29-018	
6-1/2" DC		9.49	6.437	2.375	EDC 03231	
6 1/2" Hydraulic Jar		9.50	6.250	2.375	650 E2-12-6	
6-1/2" DC		8.46	6.125	3.062	GP3922-31	
6-1/2" DC		8.82	6.187	3.062	GP5922-9	
HWDP		9.45	6.187	2.875	A58715	
HWDP		9.45	6.187	2.810	A58730	
HWDP		9.47	6.250	2.810	A58716	
HWDP		9.45	6.187	2.810	A58720	

Directional Data

Slide Time:	0.00 h	Rotate Time:	12.90 h	Circ. Time:	20.00 h
Slide (%):	0.0 %	Rotate (%):	100.0 %	Circ. (%):	100.0 %
Total Slide Time:	0.00 h	Total Rotate Time:	15.90 h	Total Circ. Time:	23.00 h
Total Revs:	85 Krevs	HSI:	0.33 hp/in²		

Bit #1RR-1

						Nozzles		
Size:	311 mm (12 1/4")	Type:	PDC	IADC #:	M323	#		Size (/32nd")
Manufacturer:	BHI (Hughes Christensen)	Model:	FC519	TFA:	1.052 in²	7	x	14
		Bit Wear:	1-1-WT-A-X-I-ER-TD	Cost:	$			
Serial #:	7032698							

Bit Run Comment: Rerun from Triclops-1
1 plugged nozzle when pulled from Tibor-1

Bit Wear Comment:

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Drillsearch

Well : Tibor-1 Drilling

Drilling Parameters

BHA Run #1

Top Depth:	PWD ECD:
Bottom Depth:	

	Min	Avg	Max
Flow	250 galUS/min	425 galUS/min	600 galUS/min
Surface RPM	51 rpm	88 rpm	125 rpm
Downhole RPM	51 rpm	88 rpm	125 rpm
Pressure	76 psi	472 psi	868 psi
Torque	1,600 ft-lbs	2,250 ft-lbs	2,900 ft-lbs
WOB	5 klbs	7 klbs	10 klbs
ROP	6.00 m/h	17.00 m/h	28.00 m/h

Survey

MD (m)	Incl. (°)	Corr. Az (°)	TVD (m)	'V' Sect (m)	Dogleg (deg/30m)	N/S (m)	E/W (m)	Tool Type
60.0	0.0	0.00						TOTCO
88.0	1.0	0.00						TOTCO
97.0	0.5	0.00						TOTCO
124.0	0.5	0.00						TOTCO
141.0	0.3	203.00	141.0	-7,138,506.54(	0.064	-0.3	-0.1	TOTCO
161.0	0.5	0.00						TOTCO
185.0	0.5	0.00						TOTCO
217.0	0.5	0.00						TOTCO
246.0	0.5	0.00						TOTCO
275.0	0.5	0.00						TOTCO
305.0	5.0	0.00						TOTCO
305.0	0.8	241.00	305.0	-7,138,507.49(	0.108	-1.3	-1.3	TOTCO

Formations

Name	Top (m)
Winton Formation	10.7

Personnel On Board

Job Title	Personnel	Company	Pax
		Drillsearch	4
		ISOS	1
		Geoservice	4
		Rheochem	1
		Scomi (KMC)	1
		ENSIGN	21
		Oil Industry Catering Services	3
		Total	35

Bulk Stocks

Name	Unit	Start Amount	Previous Balance	In	Used	Adjust	Balance
Rig Fuel (ltr)	ltr		28,500	0	2,500	0	26,000
Camp Fuel (ltr)	ltr		3,500	0	350	0	3,150
Pot Water (ltr)	ltr		38,000	28,000	15,000	-14,500	36,500
Cementing Water (bbl)	bbl		360	0	0	0	360

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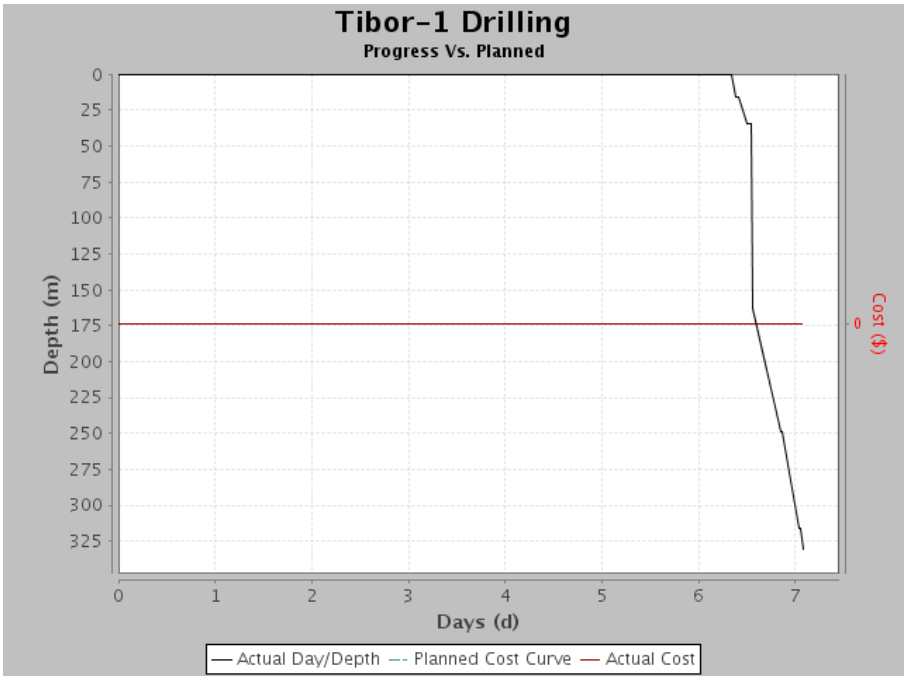
Drillsearch

Well : Tibor-1 Drilling

Transport				
Transport Type	Transport Name	Arrived Time	Departed Time	Comment
Van		12:30	08:30	Transport Ensign crew member to Ballera.
Van		13:30	17:30	Transport Ensign crew member to 918.



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Drillsearch

Well : Tibor-1 Drilling

Tibor-1 Drilling					
Report Number :	9	Day Wellsite Representative:	Guy L Holmes	Rig Manager:	Scott Cameron
Latitude (South)	25° 52' 17.80"	Night Wellsite Representative:	Kevin Gordon	Drilling Company:	ENSIGN
Longitude (East)	141° 16' 19.41"			Wellsite Geologist:	Alan Whitestone

Well Data							
Country:	Australia	Current Hole Size:	12.250 in	Casing OD:		AFE Number:	OPS-13-018
Field:		Measured Depth:	655.0 m	Casing MD:		Original AFE:	
Rig:	Ensign 918	True Vertical Depth:	655.0 m	Casing TVD:		Supp AFE No:	
Ground Level:	135.0 m	24 Hr Progress:	324.0 m	TOL MD:		Orig. & Sup.	
RT to GL	5.15 m	Days On Well:	8.54	TOL TVD:		AFE:	
Plan TD (MD):	1,738.0 m	Days Since Spud:	2.29	Lnr Shoe MD:		Daily Cost:	
Plan TD (TVD):	1,738.0 m	Last BOP Date:		Lnr Shoe TVD:		Cum. Cost:	
		FIT/LOT:	/			Last LTI Date:	05 Feb 2012
						Days Since LTI:	370

Current Op @ 0600:	Drilled 12-1/4" surface hole to 750mRT
Planned Op:	Drill to section TD 754m. Clean hole and survey. POOH to run casing and lay out BHA. Rig up and run 9-5/8" casing.

Summary for Period 0000 Hrs to 2400 Hrs on 09 Feb 2013

Drilled 12-1/4" hole from 331mRT to 655mRT. Took Teledrift survey every 3 joints. Ran single shot wireline survey every 150m.

HSE Summary

Events	Num. Events	Date of Last	Days Since	Description	Remarks
Pre-Tour Safety Meeting	1	09 Feb 2013 00:00	0	PTSM	Discuss hazards of upcoming operations.
Pre-Tour Safety Meeting	1	09 Feb 2013 11:45	0	PTSM	Discuss hazards of upcoming operations.
Kick/BOP Drill	1	09 Feb 2013 15:10	0	BOP Drill	Conduct BOP drill. Crew started to install FOSV, then realized there was no BOP installed and immediately made up Kelly to drill string. Good response, as crew realized their mistake and took the correct action without prompting.
Hazard Cards	2	09 Feb 2013 00:00	0	Hazardous observation cards.	Various hazardous conditions or behaviour observed.
JSA	2	09 Feb 2013 00:00	0	JSA's	Handling tubulars. Pressure testing BOP's.

Operations for Period 0000 Hrs to 2400 Hrs On 09 Feb 2013

PHSE	CLS (RC)	OP	From	To	Hrs	Depth (m)	Activity Description
SH	P	DA	00:00	10:45	10.75	471.0	Drilled 12-1/4" hole from 331mRT to 471mRT. Took Teledrift survey every 3 singles drilled.
SH	P	SVY	10:45	11:15	0.50	471.0	Pumped 10bbl Hi-Vis sweep to clean hole. Ran Single shot survey on wire line at 451mRT.
SH	P	DA	11:15	12:00	0.75	486.0	Drilled 12-1/4" hole from 471mRT to 486mRT.
SH	P	DA	12:00	14:45	2.75	529.0	Drilled 12-1/4" hole from 486mRT to 529mRT. Took Teledrift surveys every 3 singles drilled.
SH	P	RS	14:45	15:15	0.50	529.0	Rig service.
SH	P	DA	15:15	23:00	7.75	644.0	Drilled 12-1/4" hole from 529mRT to 644mRT. Took Teledrift survey every 3 singles drilled.
SH	P	SVY	23:00	23:15	0.25	644.0	Ran Single shot survey on wire line at 631mRT.

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Drillsearch

Well : Tibor-1 Drilling

Operations for Period 0000 Hrs to 2400 Hrs On 09 Feb 2013

PHSE	CLS (RC)	OP	From	To	Hrs	Depth (m)	Activity Description
SH	P	DA	23:15	24:00	0.75	655.0	Drilled 12-1/4" hole from 644mRT to 655mRT.

Operations for Period 0000 Hrs to 0600 Hrs On 10 Feb 2013

PHSE	CLS (RC)	OP	From	To	Hrs	Depth (m)	Activity Description
SH	P	DA	00:00	06:00	6.00	754.0	[In Progress] Drilled 12-1/4" hole from 655mRT to 754mRT - TD. Took Teledrift surveys every 3 singles drilled.

Performance Summary

	Daily		Cumulative Well	
	Hrs	%	Hrs	%
P	24.0	100.0	197.0	96.1
TU	0.0	0.0	8.0	3.9
Undefined	0.0	0.0	0.0	0.0
Total	24.0	100.0	205.0	100.0

WBM Data — **Cost Today:** **$ 9,719**

Mud Desc:	Spud mud (4KPP)	API FL:	9.5 cm³/30min	Cl:	23,800 %	Solids:	4.4 %	Glycol:	
		Filter-Cake:	1 /32nd"	KCl:	4.5 %	H2O:	96 %	Viscosity:	41 s/qt
Check Depth:	591.0 m	HTHP-FL:		Hard/Ca:	560.00 mg/L	Sand:	0.2 %	PV:	10 cP
Time:	19:15	HTHP-Cake:		MBT:	13.80 %	pH:	10	YP:	17 lbf/100ft²
Weight:	8.90 ppg	HTHP-Temp:		Pm:	0.11 m³	PHPA:	1.00 ppb	Gel 10s:	5 lbf/100ft²
Temp:	52.0 °C	HTHP-Press:		Pf:	0.17	Mf:	0.80 m³	Gel 10m:	10 lbf/100ft²

Comment:

RPM	Reading
3	5
6	6
100	15
200	22
300	27
600	37

Shakers, Volumes and Losses Data — **Engineer : Roni Tan**

Equipment	Description	Mesh Size
Centrifuge	Scomi DE-1000	
Shaker	Derrick Shale Shaker	170 x 4
Shaker	Derrick Shale Shaker	200 x 4

Available	**756 bbl**	**Losses**	**117 bbl**
Active	336 bbl	Downhole	12 bbl
Mixing	127 bbl	Surf. + Equip.	68 bbl
Hole	275 bbl	Dumped	
Slug		De-Gasser	
Reserve	18 bbl	De-Sander	
Kill		De-Silter	
Other		Centrifuge	37 bbl
		Other	

Comment: Used 150bbls from Turkey's Nest.

Pumps

		Pump data - Last 24 Hrs							Slow Pump Data	
No	Type	Liner (in)	SPM	Eff. (%)	Flow (galUS/min)	SPP (psi)	Depth (m)	MW (ppg)	SPM	SPP
1	Continental Emsco F-800	5.500	116	97		1,000		8.90		
2	Continental Emsco F-800	5.500	116	97		1,000		8.90		

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Drillsearch

Well : Tibor-1 Drilling

BHA #1

BHA Type:	Pendulum	Total Weight Wet:	41 klb
Depth In/Out:	10.7 m/754.0 m	Weight Below Jar Wet:	36 klb
Date In/Out:	#7 (07 Feb 2013)/#10 (10 Feb 2013)		
Total Length:	23.5 m		

BHA Description: 12 1/4" PDC Bit, Bit Sub (with float), Teledrift Sub (0.5 - 3.5 degree tool), 8 1/4" NMDC, 12 1/4" Stab, 3 x 8" DC, X/O, 8 x 6 1/2" DC, 6 1/2" Drilling Jar, 4 x 4 1/2" HWDP,

BHA Run Comment:

BHA Daily Summary

Pickup Weight:	84 klb	Torque (max):	3,000 ft-lbs	D.C. (1) Ann Velocity:	3 ft/s
Slack-Off Weight:	81 klb	Torque Avg. Off Bottom:	1,200 ft-lbs	D.C. (2) Ann Velocity:	2 ft/s
String Weight:	83 klb	Torque Avg. On Bottom:	3,000 ft-lbs	H.W.D.P. Ann. Velocity:	2 ft/s
Jars Hours Logged:	20.50 h			D.P. Ann. Velocity:	2 ft/s

Summary:

BHA Component

Equipment	Description	Length (m)	OD (in)	ID (in)	Serial #	Hours
Bit	Re-run from Triclops-1	0.38			7032698	
8" Bit Sub	Ported Float -Type:G 5F6R	0.95	7.810	3.000	ENS002	
Teledrift		2.63	8.500	2.810	2431	
NMDC (MWD)		9.41	8.310	2.750	Hofco M8-16	
Stabilizer		1.32	7.930	2.810	12017-0	
8" DC		8.84	7.750	2.810	ODE-04	
8" DC		8.88	7.810	2.875	ODE-2	
8" DC		9.43	8.125	2.875	16376	
X-Over		0.74	7.810	2.875	1850	
6-1/2" DC		8.74	6.187	3.062	30-2-21	
6-1/2" DC		9.30	6.187	2.937	29013	
6-1/2" DC		8.92	6.187	3.000	30-2-2	
6-1/2" DC		9.10	6.125	2.937	922-22	
6-1/2" DC		9.09	6.125	2.937	592226	
6-1/2" DC		8.97	6.000	2.500	29-008	
6 1/2" DC		9.20	6.187	2.937	29-018	
6-1/2" DC		9.49	6.437	2.375	EDC 03231	
6 1/2" Hydraulic Jar		9.50	6.250	2.375	650 E2-12-6	
6-1/2" DC		8.46	6.125	3.062	GP3922-31	
6-1/2" DC		8.82	6.187	3.062	GP5922-9	
HWDP		9.45	6.187	2.875	A58715	
HWDP		9.45	6.187	2.810	A58730	
HWDP		9.47	6.250	2.810	A58716	
HWDP		9.45	6.187	2.810	A58720	

Directional Data

Slide Time:	0.00 h	Rotate Time:	17.10 h	Circ. Time:	21.30 h
Slide (%):	0.0 %	Rotate (%):	100.0 %	Circ. (%):	100.0 %
Total Slide Time:	0.00 h	Total Rotate Time:	33.00 h	Total Circ. Time:	44.30 h
Total Revs:	95 Krevs	HSI:	0.95 hp/in²		

Drillsearch

Well : Tibor-1 Drilling

Bit #1RR-1						**Nozzles**		
Size:	311 mm (12 1/4")	Type:	PDC	IADC #:	M323	#		Size (/32nd")
Manufacturer:	BHI (Hughes Christensen)	Model:	FC519	TFA:	1.052 in²	7	x	14
		Bit Wear:	1-1-WT-A-X-I-ER-TD	Cost:	$			
Serial #:	7032698							
Bit Run Comment:	Rerun from Triclops-1 1 plugged nozzle when pulled from Tibor-1							
Bit Wear Comment:								

Drilling Parameters

BHA Run #1

Top Depth:		PWD ECD:	
Bottom Depth:			
	Min	Avg	Max
Flow	580 galUS/min	600 galUS/min	620 galUS/min
Surface RPM	87 rpm	112 rpm	137 rpm
Downhole RPM	87 rpm	112 rpm	137 rpm
Pressure	700 psi	850 psi	1,000 psi
Torque	2,000 ft-lbs	2,500 ft-lbs	3,000 ft-lbs
WOB	3 klbs	4 klbs	5 klbs
ROP	17.70 m/h	26.28 m/h	34.86 m/h

Survey

MD (m)	Incl. (°)	Corr. Az (°)	TVD (m)	'V' Sect (m)	Dogleg (deg/30m)	N/S (m)	E/W (m)	Tool Type
343.0	0.5	0.00						TOTCO
373.0	0.5	0.00						TOTCO
402.0	1.0	0.00						TOTCO
431.0	0.5	0.00						TOTCO
451.0	0.5	0.00						TOTCO
451.0	0.3	270.00	451.0	-7,138,507.984	0.114	-1.8	-2.6	TOTCO
487.0	0.5	0.00						TOTCO
516.0	0.5	0.00						TOTCO
545.0	0.5	0.00						TOTCO
574.0	0.5	0.00						TOTCO
603.0	0.5	0.00						TOTCO
631.0	0.5	0.00						TOTCO
631.0	0.5	154.00	631.0	-7,138,508.690	0.114	-2.5	-2.7	TOTCO

Formations

Name	Top (m)
Winton Formation	10.7
Mackunda Formation	633.0

Personnel On Board

Job Title	Personnel	Company	Pax
		Drillsearch	4
		ISOS	1
		Geoservice	4
		Rheochem	1
		Scomi (KMC)	1
		ENSIGN	22
		Oil Industry Catering Services	3

Drillsearch

Well : Tibor-1 Drilling

Personnel On Board

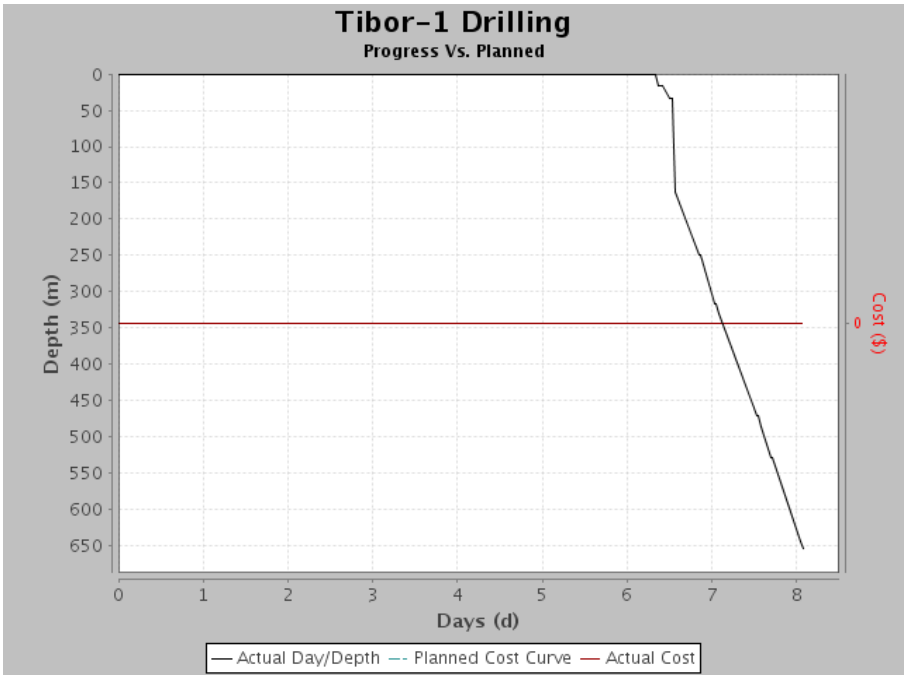
Job Title	Personnel	Company	Pax
		Total	36

Bulk Stocks

Name	Unit	Start Amount	Previous Balance	In	Used	Adjust	Balance
Rig Fuel (ltr)	ltr		26,000	0	4,000	0	22,000
Camp Fuel (ltr)	ltr		3,150	0	350	0	2,800
Pot Water (ltr)	ltr		36,500	0	0	0	36,500
Rigsite Potable Water (ltr)	ltr	15,000		0	500	0	14,500
Cementing Water (bbl)	bbl		360	0	0	0	360

Transport

Transport Type	Transport Name	Arrived Time	Departed Time	Comment
Truck		14:30	07:00	Ensign driver from Moomba yard delivered repaired crew change truck to 918.



Drillsearch

Well : Tibor-1 Drilling

Tibor-1 Drilling

Report Number :	10	Day Wellsite Representative:	Guy L Holmes	Rig Manager:	Scott Cameron
Latitude (South)	25° 52' 17.80"	Night Wellsite Representative:	Kevin Gordon	Drilling Company:	ENSIGN
Longitude (East)	141° 16' 19.41"			Wellsite Geologist:	Alan Whitestone

Well Data

Country:	Australia	Current Hole Size:	12.250 in	Casing OD:		AFE Number:	OPS-13-018
Field:		Measured Depth:	754.0 m	Casing MD:		Original AFE:	
Rig:	Ensign 918	True Vertical Depth:	754.0 m	Casing TVD:		Supp AFE No:	
Ground Level:	135.0 m	24 Hr Progress:	99.0 m	TOL MD:		Orig. & Sup.	
RT to GL	5.15 m	Days On Well:	9.54	TOL TVD:		AFE:	
Plan TD (MD):	1,738.0 m	Days Since Spud:	3.29	Lnr Shoe MD:		Daily Cost:	
Plan TD (TVD):	1,738.0 m	Last BOP Date:	10 Feb 2013	Lnr Shoe TVD:		Cum. Cost:	
		FIT/LOT:	/			Last LTI Date:	05 Feb 2012
						Days Since LTI:	371

Current Op @ 0600:	Casing ran to 751m. Circulated and conditioned mud. Replaced cellar pump.
Planned Op:	Cement casing. Land out and nipple up BOP. Pressure test stack and accumulator. Make up tools and RIH to drill out shoe track.

Summary for Period 0000 Hrs to 2400 Hrs on 10 Feb 2013

Drilled 12-1/4" surface hole from 655m to 754mRT. Circulated hole clean pumped Hi-Vis sweep and circulate to surface. Survey; Teledrift and single shot. Pumped Hi-Vis sweep and circulated hole clean.
POOH to run casing. Laid down 8" collars and tools. Rigged up to run casing. Cut conductor and rigged up pumps to run riserless. Ran 9-5/8" casing. Checked shoe and float and threadlocked first 3 joints. Ran casing to 597m.

HSE Summary

Events	Num. Events	Date of Last	Days Since	Description	Remarks
Pre-Tour Safety Meeting	1	10 Feb 2013 00:00	0	PTSM	Discuss hazards of upcoming operations.
Pre-Tour Safety Meeting	1	10 Feb 2013 11:45	0	PTSM	Discuss hazards of upcoming operations.
Weekly Safety Meeting	2	10 Feb 2013 15:10	0	Weekly Safety meetings	Conduct 2 meetings with all crew members.
Hazard Cards	0	10 Feb 2013 00:00	0	Hazardous observation cards.	Various hazardous conditions or behaviour observed.
JSA	2	10 Feb 2013 00:00	0	JSA's	Running 9 5/8" casing

Operations for Period 0000 Hrs to 2400 Hrs On 10 Feb 2013

PHSE	CLS (RC)	OP	From	To	Hrs	Depth (m)	Activity Description
SH	P	DA	00:00	06:30	6.50	754.0	Drilled 12-1/4" hole from 655mRT to 754mRT - TD. Took Teledrift surveys every 3 singles drilled.
SH	P	CMD	06:30	07:45	1.25	754.0	Cleaned hole, Circulated bottoms up. Sweeped hole with 20bbl Hi-Vis pil. Circulated 2 x bottoms up.
SH	P	SVY	07:45	08:00	0.25	754.0	Ran Magnetic Single Shot survey at 741mRT.
SH	P	CMD	08:00	09:00	1.00	754.0	Circulated hole clean, pumped 200bbl Hi-Vis sweep and spotted 20bbl Hi-Vis pill on bottom.
SH	P	TO	09:00	09:15	0.25	754.0	Racked back Kelly. Rigged up elevators and laid out 1 joint of drill pipe.
SH	P	TO	09:15	11:00	1.75	754.0	Flow checked well - Static. POOH from 750mRT to 180mRT. No excess drag reported.
SH	P	HBH	11:00	14:45	3.75	754.0	Held PJSM. POOH handling BHA from 180mRT to surface. Laid out 6-1/2 " jars, X/O, 3 x 8" DC, 12-1/4" stab (in gauge), 8" NMDC, Teledrift sub, Bit sub and bit.
SH	P	HBH	14:45	15:00	0.25	754.0	Cleared equipment from rig floor. Laid out pipe spinner. Removed elevators.

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Drillsearch

Well : Tibor-1 Drilling

Operations for Period 0000 Hrs to 2400 Hrs On 10 Feb 2013

PHSE	CLS (RC)	OP	From	To	Hrs	Depth (m)	Activity Description
SH	P	RRC	15:00	18:00	3.00	754.0	Nippled down flowline. Rigged down jet and kill lines. Laid out riser. Cleared cellar area. Cut conductor at floor of cellar. Installed landing base. Rigged up for running 9-5/8" casing
SH	P	RCG	18:00	18:30	0.50	754.0	Held PJSM with crew and OCR's. Reviewed running casing procedures.
SH	P	RCG	18:30	24:00	5.50	754.0	Made up 9-5/8" shoe track to 23mRT with thread lock. Function tested shoe track - OK. Ran 9-5/8" casing from 23mRT to 597mRT. Installed stop rings and centralizers as per running sheet.

Operations for Period 0000 Hrs to 0600 Hrs On 11 Feb 2013

PHSE	CLS (RC)	OP	From	To	Hrs	Depth (m)	Activity Description
SH	P	RCG	00:00	02:30	2.50	754.0	Ran 9-5/8" casing from 597m to 746m (5m fill)
SH	P	RCG	02:30	04:00	1.50	754.0	Washed casing to bottom. Circulating rate limited (3.9bpm) as cellar pumps not capable of keeping cellar clear.
SH	TP (RE)	REPR	04:00	06:00	2.00	754.0	Circulated slowly (202gpm) and conditioned mud while mechanic and electrician worked on cellar pump.

Performance Summary

	Daily		Cumulative Well	
	Hrs	%	Hrs	%
P	24.0	100.0	221.0	96.5
TU	0.0	0.0	8.0	3.5
Undefined	0.0	0.0	0.0	0.0
Total	24.0	100.0	229.0	100.0

General Comments for Period 0000 Hrs to 2400 Hrs on 10 Feb 2013

Category	Comments
Lessons Learned	When running casing a single self priming cellar pump capable of pumping at 1.5 x the max circulating /displacement is require capable. Reliability factor required is 100% or there is 100% redundency.

WBM Data — **Cost Today:** **$ 5,259**

Mud Desc:	Spud mud (4KPP)	API FL:	9.5 cm³/30min	Cl:	22,300 %	Solids:	4.4 %	Glycol:	
		Filter-Cake:	1 /32nd"	KCl:	4.0 %	H2O:	96 %	Viscosity:	42 s/qt
Check Depth:	754.0 m	HTHP-FL:		Hard/Ca:	400.00 mg/L	Sand:	0.2 %	PV:	11 cP
Time:	17:00	HTHP-Cake:		MBT:	13.80 %	pH:	10	YP:	17 lbf/100ft²
Weight:	8.90 ppg	HTHP-Temp:		Pm:	0.12 m³	PHPA:	1.00 ppb	Gel 10s:	6 lbf/100ft²
Temp:	56.0 °C	HTHP-Press:		Pf:	0.16	Mf:	1.00 m³	Gel 10m:	10 lbf/100ft²

Comment:	RPM	Reading
	3	5
	6	6
	100	16
	200	21
	300	28
	600	39

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Drillsearch

Well : Tibor-1 Drilling

Shakers, Volumes and Losses Data — **Engineer : Roni Tan**

Equipment	Description	Mesh Size
Centrifuge	Scomi DE-1000	
Shaker	Derrick Shale Shaker	170 x 4
Shaker	Derrick Shale Shaker	200 x 4

Available	728 bbl
Active	320 bbl
Mixing	31 bbl
Hole	362 bbl
Slug	
Reserve	15 bbl
Kill	
Other	

Losses	118 bbl
Downhole	7 bbl
Surf. + Equip.	74 bbl
Dumped	
De-Gasser	
De-Sander	
De-Silter	
Centrifuge	37 bbl
Other	

Comment: Used 150bbls from Turkey's Nest.

Pumps

		Pump data - Last 24 Hrs							Slow Pump Data	
No	Type	Liner (in)	SPM	Eff. (%)	Flow (galUS/min)	SPP (psi)	Depth (m)	MW (ppg)	SPM	SPP
1	Continental Emsco F-800	5.500	116	97		1,000		8.90		
2	Continental Emsco F-800	5.500	116	97		1,000		8.90		

BHA #1

BHA Type:	Pendulum	Total Weight Wet:	41 klb
Depth In/Out:	10.7 m/754.0 m	Weight Below Jar Wet:	36 klb
Date In/Out:	#7 (07 Feb 2013)/#10 (10 Feb 2013)		
Total Length:	23.5 m		

BHA Description: 12 1/4" PDC Bit, Bit Sub (with float), Teledrift Sub (0.5 - 3.5 degree tool), 8 1/4" NMDC, 12 1/4" Stab, 3 x 8" DC, X/O, 8 x 6 1/2" DC, 6 1/2" Drilling Jar, 4 x 4 1/2" HWDP,

BHA Run Comment:

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Drillsearch

Well : Tibor-1 Drilling

BHA Daily Summary

Pickup Weight:	92 klb	Torque (max):	3,500 ft-lbs	D.C. (1) Ann Velocity:	3 ft/s
Slack-Off Weight:	89 klb	Torque Avg. Off Bottom:	1,200 ft-lbs	D.C. (2) Ann Velocity:	2 ft/s
String Weight:	90 klb	Torque Avg. On Bottom:	3,500 ft-lbs	H.W.D.P. Ann. Velocity:	2 ft/s
Jars Hours Logged:	8.40 h			D.P. Ann. Velocity:	2 ft/s

Summary:

BHA Component

Equipment	Description	Length (m)	OD (in)	ID (in)	Serial #	Hours
Bit	Re-run from Triclops-1	0.38			7032698	
8" Bit Sub	Ported Float -Type:G 5F6R	0.95	7.810	3.000	ENS002	
Teledrift		2.63	8.500	2.810	2431	
NMDC (MWD)		9.41	8.310	2.750	Hofco M8-16	
Stabilizer		1.32	7.930	2.810	12017-0	
8" DC		8.84	7.750	2.810	ODE-04	
8" DC		8.88	7.810	2.875	ODE-2	
8" DC		9.43	8.125	2.875	16376	
X-Over		0.74	7.810	2.875	1850	
6-1/2" DC		8.74	6.187	3.062	30-2-21	
6-1/2" DC		9.30	6.187	2.937	29013	
6-1/2" DC		8.92	6.187	3.000	30-2-2	
6-1/2" DC		9.10	6.125	2.937	922-22	
6-1/2" DC		9.09	6.125	2.937	592226	
6-1/2" DC		8.97	6.000	2.500	29-008	
6 1/2" DC		9.20	6.187	2.937	29-018	
6-1/2" DC		9.49	6.437	2.375	EDC 03231	
6 1/2" Hydraulic Jar		9.50	6.250	2.375	650 E2-12-6	
6-1/2" DC		8.46	6.125	3.062	GP3922-31	
6-1/2" DC		8.82	6.187	3.062	GP5922-9	
HWDP		9.45	6.187	2.875	A58715	
HWDP		9.45	6.187	2.810	A58730	
HWDP		9.47	6.250	2.810	A58716	
HWDP		9.45	6.187	2.810	A58720	

Directional Data

Slide Time:		Rotate Time:	6.40 h	Circ. Time:	8.40 h
Slide (%):		Rotate (%):	100.0 %	Circ. (%):	100.0 %
Total Slide Time:	0.00 h	Total Rotate Time:	39.40 h	Total Circ. Time:	52.70 h
Total Revs:	28 Krevs	HSI:	1.02 hp/in²		

Bit #1RR-1

						Nozzles		
Size:	311 mm (12 1/4")	Type:	PDC	IADC #:	M323	#		Size (/32nd")
Manufacturer:	BHI (Hughes Christensen)	Model:	FC519	TFA:	1.052 in²	7	x	14
		Bit Wear:	1-1-WT-A-X-I-ER-TD	Cost:	$			
Serial #:	7032698							

Bit Run Comment: Rerun from Triclops-1
1 plugged nozzle when pulled from Tibor-1

Bit Wear Comment:

Drillsearch

Well : Tibor-1 Drilling

Drilling Parameters

BHA Run #1

Top Depth:	10.7 m	PWD ECD:	
Bottom Depth:	754.0 m		

	Min	Avg	Max
Flow	607 galUS/min	615 galUS/min	622 galUS/min
Surface RPM	94 rpm	110 rpm	126 rpm
Downhole RPM	94 rpm	110 rpm	126 rpm
Pressure	982 psi	1,049 psi	1,115 psi
Torque	2,000 ft-lbs	3,350 ft-lbs	4,700 ft-lbs
WOB	1 klbs	3 klbs	4 klbs
ROP	17.00 m/h	114.35 m/h	34.22 m/h

Survey

MD (m)	Incl. (°)	Corr. Az (°)	TVD (m)	'V' Sect (m)	Dogleg (deg/30m)	N/S (m)	E/W (m)	Tool Type
662.0	0.5	0.00						TOTCO
691.0	0.5	0.00						TOTCO
720.0	0.5	0.00						TOTCO
741.0	1.3	90.00	741.0	-7,138,509.122	0.307	-2.9	-1.3	TOTCO
751.0	0.5	0.00						TOTCO

Formations

Name	Top (m)
Winton Formation	10.7
Mackunda Formation	633.0

Personnel On Board

Job Title	Personnel	Company	Pax
		Drillsearch	4
		ISOS	1
		Geoservice	4
		Rheochem	1
		Scomi (KMC)	1
		ENSIGN	19
		Oil Industry Catering Services	3
		Halliburton	3
		Total	36

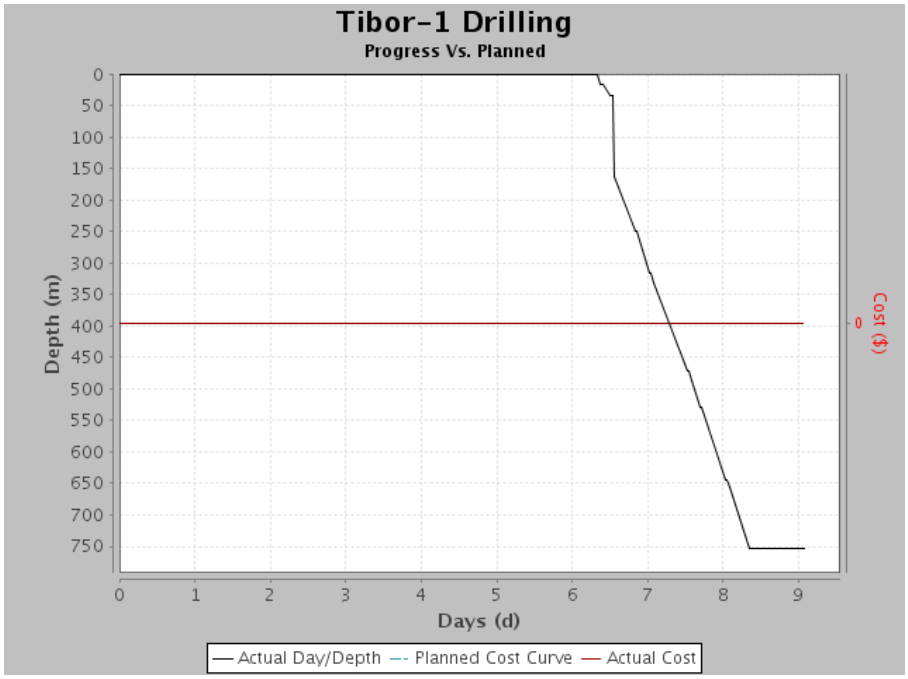
Bulk Stocks

Name	Unit	Start Amount	Previous Balance	In	Used	Adjust	Balance
Rig Fuel (ltr)	ltr		22,000	0	3,000	0	19,000
Camp Fuel (ltr)	ltr		2,800	0	350	0	2,450
Pot Water (ltr)	ltr		36,500	0	3,500	0	33,000
Rigsite Potable Water (ltr)	ltr		14,500	0	500	0	14,000
Cementing Water (bbl)	bbl		360	0	0	0	360

Transport

Transport Type	Transport Name	Arrived Time	Departed Time	Comment
Van		05:30	14:00	Ensign Truck pusher took Ensign rental vehicle for repair.
Van		14:30	18:30	Day tour pusher to to Rig 65. Lease hand not fit for work returned to home
Van		12:00	06:00	Ensign Field Superintendent. Transport 2 X 8 1/2" Drill bits from Toll Moomba

Well : Tibor-1 Drilling



Drillsearch

Well : Tibor-1 Drilling

Tibor-1 Drilling					
Report Number :	11	Day Wellsite Representative:	Guy L Holmes	Rig Manager:	Scott Cameron
Latitude (South)	25° 52' 17.80"	Night Wellsite Representative:	Kevin Gordon	Drilling Company:	ENSIGN
Longitude (East)	141° 16' 19.41"			Wellsite Geologist:	Alan Whitestone

Well Data							
Country:	Australia	Current Hole Size:	12.250 in	Casing OD:	9.625 in	AFE Number:	OPS-13-018
Field:		Measured Depth:	754.0 m	Casing MD:	750.9 m	Original AFE:	
Rig:	Ensign 918	True Vertical Depth:	754.0 m	Casing TVD:	750.9 m	Supp AFE No:	
Ground Level:	135.0 m	24 Hr Progress:		TOL MD:		Orig. & Sup.	
RT to GL	5.15 m	Days On Well:	10.54	TOL TVD:		AFE:	
Plan TD (MD):	1,738.0 m	Days Since Spud:	4.29	Lnr Shoe MD:		Daily Cost:	
Plan TD (TVD):	1,738.0 m	Last BOP Date:	10 Feb 2013	Lnr Shoe TVD:		Cum. Cost:	
		FIT/LOT:	/			Last LTI Date:	05 Feb 2012
						Days Since LTI:	372

Current Op @ 0600:	Continue pressure testing casing wellhead conection
Planned Op:	Complete pressure testing. Make up BHA No:2 and run in hole. Drill shoe track and conduct LOT. Drill 8 1/2" production hole.

Summary for Period 0000 Hrs to 2400 Hrs on 11 Feb 2013

Ran and cemented 9 5/8" casing (shoe set at 750.9m). Installed landing ring slips. Installed "A" section wellhead. Nippled up BOP, bellnipple and flowline.

HSE Summary

Events	Num. Events	Date of Last	Days Since	Description	Remarks
Pre-Tour Safety Meeting	1	12 Feb 2013 00:00	0	PTSM	Discuss hazards of upcoming operations.
Pre-Tour Safety Meeting	1	12 Feb 2013 11:45	0	PTSM	Discuss hazards of upcoming operations.
Hazard Cards	12	12 Feb 2013 00:00	0	Hazardous observation cards.	Various hazardous conditions or behaviour observed.
JSA	2	12 Feb 2013 00:00	0	JSA's	For making up BHA and for tripping.

Operations for Period 0000 Hrs to 2400 Hrs On 11 Feb 2013

PHSE	CLS (RC)	OP	From	To	Hrs	Depth (m)	Activity Description
SH	P	RCG	00:00	02:30	2.50	754.0	Run 9 5/8" casing from 597m to 746m (5m fill)
SH	P	RCG	02:30	04:00	1.50	754.0	Wash casing to bottom. Circulating rate limited (3.9bpm) as cellar pumps not capable of keeping cellar clear.
SH	TP (RE)	REPR	04:00	06:00	2.00	754.0	Circulate slowly (202gpm) and condition mud while mechanic and electrician working on cellar pump.
SH	P	CMT	06:00	07:30	1.50	754.0	Circulate and condition mud.
SH	P	MTG	07:30	07:45	0.25	754.0	Held PJSM with Halliburton and drill crew.
SH	P	RDC	07:45	08:15	0.50	754.0	Rig down circulating swage. Rig up cement head and surface lines.
SH	P	CMT	08:15	11:15	3.00	754.0	Halliburton pump 5bbl water. Pressure test surface lines to 3000psi for 5mins. Halliburton pump 35bbl water. Drop bottom plug. Mix and pump 239bbl lead slurry at 11.8ppg. Mix and pump 33bbl tail slurry at 15.8ppg. Drop top plug. Displace cement with 191bbl water. Bump plug, 500psi. Cement in place at 11:00hrs. Pressure test casing to 2800psi for 10mins, good test. Bleed pressure 2.5bbl returns. NRV holding OK.
SH	P	CMT	11:15	13:30	2.25	754.0	Confirm cement slump in annulus had stabilized. Clean cement from cellar and flush cellar trash pump with water.
SH	P	CMT	13:30	14:00	0.50	754.0	Clean landing base and install slips. Slack off casing.
SH	P	CMT	14:00	14:15	0.25	754.0	Rig down cement head and surface lines.

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Drillsearch

Well : Tibor-1 Drilling

Operations for Period 0000 Hrs to 2400 Hrs On 11 Feb 2013

PHSE	CLS (RC)	OP	From	To	Hrs	Depth (m)	Activity Description
SH	P	CMT	14:15	14:45	0.50	754.0	Back out landing joint. Break collar from bottom of landing joint and lay out. OCR observed.
SH	P	WHR	14:45	15:30	0.75	754.0	PJSM. Install "A" section wellhead and torque to 3000 ft/ lbs. OCR observed.
SH	P	RRC	15:30	16:00	0.50	754.0	Rig down stabbing board. Lay out casing tong and casing handling equipment.
SH	P	NUB	16:00	24:00	8.00	754.0	Rig up spacer spool and trolley beam in cellar. Held PJSM. Move BOP/ trolley to well centre and install lift slings. Remove tie down bolts from test stump. Nipple up spool, mud cross and BOP. Nipple up choke line, bell nipple and flow line. Install turnbuckles on BOP. Install Koomey control lines.

Operations for Period 0000 Hrs to 0600 Hrs On 12 Feb 2013

PHSE	CLS (RC)	OP	From	To	Hrs	Depth (m)	Activity Description
SH	P	NUB	00:00	02:00	2.00	754.0	Continue nipple up bell nipple and flow line. Rig up flare line and "Poorboy" vent line.
SH	P	BOPD	02:00	04:30	2.50	754.0	Make up test plug assembly. RIH and set plug in wellhead. Attempt to test, leaking on #2 choke manifold valve. Grease valve and retest. Pressure test choke line, wellhead, drilling spool and BOP connections against 4 1/2" DP rams to 300psi for 5mins and 5000psi for 10mins - OK. Test annular to 300psi for 5mins and 3500psi for 10mins - OK.
SH	P	BOPD	04:30	06:00	1.50	754.0	[In Progress] Lay out test plug assembly. Make up Cup test assembly. Attempt to test wellhead casing connection. Fluid leaking past cup test rubber. Pull and redress cup test tool. Tested the GE Wellhead to 2800Psi. for 10mins.

Performance Summary

	Daily		Cumulative Well	
	Hrs	%	Hrs	%
P	22.0	91.7	243.0	96.0
TP	2.0	8.3	2.0	0.8
TU	0.0	0.0	8.0	3.2
Undefined	0.0	0.0	0.0	0.0
Total	24.0	100.0	253.0	100.0

WBM Data — **Cost Today:** **$ 276**

Mud Desc:	Spud mud (4KPP)	API FL:	10.0 cm³/30min	Cl:	19,900 %	Solids:	4.4 %	Glycol:	
		Filter-Cake:	1 /32nd"	KCl:	4.0 %	H2O:	96 %	Viscosity:	41 s/qt
Check Depth:	754.0 m	HTHP-FL:		Hard/Ca:	440.00 mg/L	Sand:	0.1 %	PV:	9 cP
Time:	13:00	HTHP-Cake:		MBT:	12.50 %	pH:	9	YP:	15 lbf/100ft²
Weight:	8.90 ppg	HTHP-Temp:		Pm:	0.10 m³	PHPA:	1.00 ppb	Gel 10s:	6 lbf/100ft²
Temp:	56.0 °C	HTHP-Press:		Pf:	0.12	Mf:	0.80 m³	Gel 10m:	10 lbf/100ft²

Comment:

RPM	Reading
3	4
6	5
100	14
200	19
300	24
600	33

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Drillsearch

Well : Tibor-1 Drilling

Shakers, Volumes and Losses Data

Engineer : Roni Tan

Equipment	Description	Mesh Size
Centrifuge	Scomi DE-1000	
Shaker	Derrick Shale Shaker	170 x 4
Shaker	Derrick Shale Shaker	200 x 4

Available	789 bbl
Active	427 bbl
Mixing	110 bbl
Hole	192 bbl
Slug	
Reserve	60 bbl
Kill	
Other	

Losses	128 bbl
Downhole	
Surf. + Equip.	54 bbl
Dumped	55 bbl
De-Gasser	
De-Sander	
De-Silter	
Centrifuge	19 bbl
Other	

Comment: Used 150bbls from Turkey's Nest.

Pumps

Pump data - Last 24 Hrs									Slow Pump Data	
No	Type	Liner (in)	SPM	Eff. (%)	Flow (galUS/min)	SPP (psi)	Depth (m)	MW (ppg)	SPM	SPP
1	Continental Emsco F-800	5.500	85	97		300		8.90		
2	Continental Emsco F-800	5.500		97				8.90		

Casing

OD	LOT	FIT	Casing Shoe (MD)	Casing Shoe (TVD)
244 mm (9 5/8")	16.70 ppg		750.9 m	750.9 m

Drilling Parameters

BHA Run #1

Top Depth:	10.7 m
Bottom Depth:	754.0 m

PWD ECD:

	Min	Avg	Max
Flow	607 galUS/min	615 galUS/min	622 galUS/min
Surface RPM	94 rpm	110 rpm	126 rpm
Downhole RPM	94 rpm	110 rpm	126 rpm
Pressure	982 psi	1,049 psi	1,115 psi
Torque	2,000 ft-lbs	3,350 ft-lbs	4,700 ft-lbs
WOB	1 klbs	3 klbs	4 klbs
ROP	17.00 m/h	114.35 m/h	34.22 m/h

Formations

Name	Top (m)
Winton Formation	10.7
Mackunda Formation	633.0

Personnel On Board

Job Title	Personnel	Company	Pax
		Drillsearch	5
		ISOS	1
		Geoservice	4
		Rheochem	1
		Scomi (KMC)	1
		ENSIGN	22
		Oil Industry Catering Services	3
		Halliburton	2
		Santos	2
		Total	41

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Drillsearch

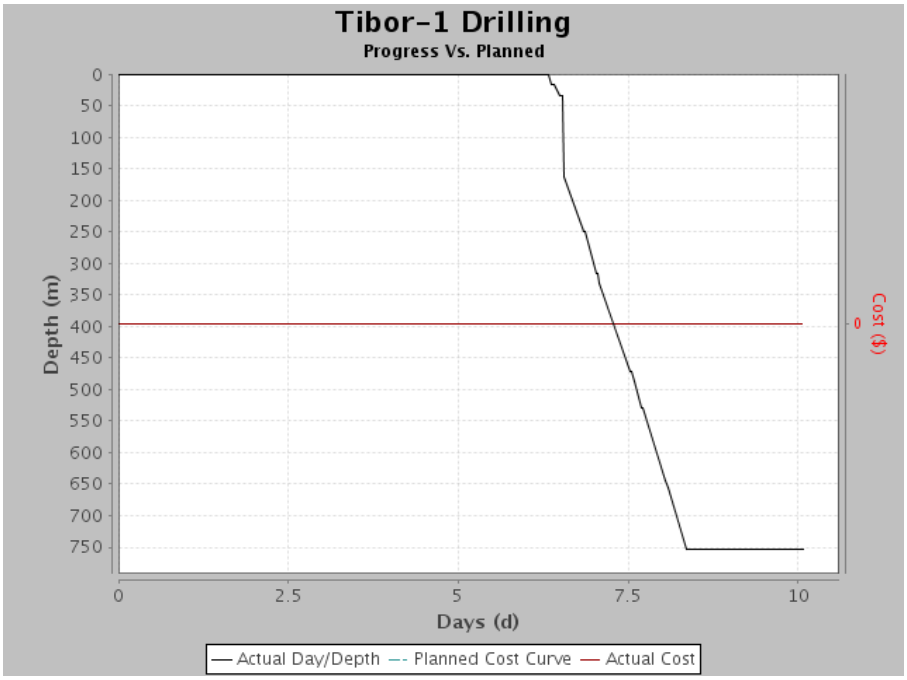
Well : Tibor-1 Drilling

Bulk Stocks

Name	Unit	Start Amount	Previous Balance	In	Used	Adjust	Balance
Rig Fuel (ltr)	ltr		19,000	0	2,000	0	17,000
Camp Fuel (ltr)	ltr		2,450	0	350	0	2,100
Pot Water (ltr)	ltr		33,000	0	5,500	0	27,500
Rigsite Potable Water (ltr)	ltr		14,000	0	1,000	0	13,000
Cementing Water (bbl)	bbl		360	0	0	0	360

Transport

Transport Type	Transport Name	Arrived Time	Departed Time	Comment
Van		16:45	09:15	Pick up DLS OCR from Windorah.
Van		19:00	11:00	2 x Santos inspectors (Modu Spec) arrived from Moomba.
Van		19:45	11:00	Ensign Rig 918 driver had overnighted at Rig 65. Travelled from Rig 65 to Ballera, dropped 1 outgoing passenger and picked up driller and lease hand for 918.
Truck		21:00	08:00	1 x Halliburton driver took bulk tanker back to Moomba base.



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Drillsearch

Well : Tibor-1 Drilling

Tibor-1 Drilling					
Report Number :	12	Day Wellsite Representative:	Ray C. Miller	Rig Manager:	Scott Cameron
Latitude (South)	25° 52' 17.80"	Night Wellsite Representative:	Kevin Gordon	Drilling Company:	ENSIGN
Longitude (East)	141° 16' 19.41"			Wellsite Geologist:	Alan Whitestone

Well Data							
Country:	Australia	Current Hole Size:	8.500 in	Casing OD:	9.625 in	AFE Number:	OPS-13-018
Field:		Measured Depth:	754.0 m	Casing MD:	750.9 m	Original AFE:	
Rig:	Ensign 918	True Vertical Depth:	754.0 m	Casing TVD:	750.9 m	Supp AFE No:	
Ground Level:	135.0 m	24 Hr Progress:	0.0 m	TOL MD:		Orig. & Sup.	
RT to GL	5.15 m	Days On Well:	11.54	TOL TVD:		AFE:	
Plan TD (MD):	1,738.0 m	Days Since Spud:	5.29	Lnr Shoe MD:		Daily Cost:	
Plan TD (TVD):	1,738.0 m	Last BOP Date:	10 Feb 2013	Lnr Shoe TVD:		Cum. Cost:	
		FIT/LOT:	/16.64 ppg			Last LTI Date:	05 Feb 2012
						Days Since LTI:	373

Current Op @ 0600:	Drilling 8 1/2" hole at 769mRT.
Planned Op:	Drill 8 1/2" hole.

Summary for Period 0000 Hrs to 2400 Hrs on 12 Feb 2013

Complete nipple up BOP. Pressure test BOP rams, annular and connections. Run cup tester and test casing/ wellhead connection. Perform Koomey drawdown test. Install wear bushing. Make up BHA #2 and RIH. Tag cement at 737.6mRT. Drill plugs, Float collar, shoe track and Cement shoe. Clean rat hole to 754mRT.

HSE Summary

Events	Num. Events	Date of Last	Days Since	Description	Remarks
Pre-Tour Safety Meeting	0	11 Feb 2013 00:00	1	PTSM	Discuss hazards of upcoming operations.
Pre-Tour Safety Meeting	0	11 Feb 2013 11:45	1	PTSM	Discuss hazards of upcoming operations.
Pre-Job Meetings	0	11 Feb 2013 00:00	1	Cement Job	Pre-job safety meeting with Cementers
Hazard Cards	0	11 Feb 2013 00:00	1	Hazardous observation cards.	Various hazardous conditions or behaviour observed.
JSA	0	11 Feb 2013 00:00	1	JSA's	Running 9 5/8" casing

Operations for Period 0000 Hrs to 2400 Hrs On 12 Feb 2013

PHSE	CLS (RC)	OP	From	To	Hrs	Depth (m)	Activity Description
SH	P	NUB	00:00	02:00	2.00	754.0	Continue nipple up bell nipple and flow line. Rig up flare line and "Poorboy" vent line.
SH	P	BOPD	02:00	04:30	2.50	754.0	Make up test plug assembly. RIH and set plug in wellhead. Attempt to test, leaking on #2 choke manifold valve. Grease valve and retest. Pressure test choke line, wellhead, drilling spool and BOP connections against 4 1/2" DP rams to 300psi for 5mins and 5000psi for 10mins - OK. Test annular to 300psi for 5mins and 3500psi for 10mins - OK.
SH	P	BOPD	04:30	07:15	2.75	754.0	Lay out test plug assembly. Make up Cup test assembly. Attempt to test wellhead casing connection. Fluid leaking past cup test rubber. Pull and redress cup test tool. Tested the GE Wellhead to 2800Psi. for 10mins.
SH	P	BOPD	07:15	07:45	0.50	754.0	Laid out the Cup Test tool.
SH	P	BOPD	07:45	08:45	1.00	754.0	Pressure tested the Stabbing Valve and Inside BOP to 300 Psi low and 5000 Psi high for 10 minutes.
SH	P	BOPD	08:45	09:45	1.00	754.0	Ran the wear bushing.
SH	P	SCL	09:45	11:15	1.50	754.0	Slipped 30 feet of drilling line and cut off 95 feet.
SH	P	BOPD	11:15	12:30	1.25	754.0	Performed Koomey Unit drawdown test.

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Drillsearch

Well : Tibor-1 Drilling

Operations for Period 0000 Hrs to 2400 Hrs On 12 Feb 2013

PHSE	CLS (RC)	OP	From	To	Hrs	Depth (m)	Activity Description
SH	P	HBH	12:30	17:00	4.50	754.0	Prepared to pick up the 8 1/2" BHA. Made up the new Bit and picked up BHA #2 to 198mRT.
SH	P	TI	17:00	19:00	2.00	754.0	RIH with BHA #2 from 198mRT to 718mRT. Lay out 4 x drill pipe from derrick.
SH	P	RW	19:00	19:45	0.75	754.0	Remove elevators. Pick up Kelly. Wash down from 718mRT and tag cement at 737.6mRT.
SH	P	RW	19:45	24:00	4.25	754.0	Drill out cement from 737.6m, Float Collar @ 738.4m, drill shoe track and shoe at 750.8m. Clean out rathole from 750.8m to 754m RT.

Operations for Period 0000 Hrs to 0600 Hrs On 13 Feb 2013

PHSE	CLS (RC)	OP	From	To	Hrs	Depth (m)	Activity Description
SH	P	DA	00:00	00:45	0.75	757.0	Drill new formation from 754mRT to 757mRT. Displace water from casing with 8.9ppg mud while drilling new formation.
SH	P	CMD	00:45	02:30	1.75	757.0	Circulate and condition mud till balanced at 8.9ppg for L.O.T.
SH	P	LOT	02:30	04:00	1.50	757.0	Perform leak off test. Maximum pressure pumped = 1000psi with 9.8ppg at 757mRT. E.M.W = 16.6ppg.
SH	P	DA	04:00	06:00	2.00	769.0	Drill 8 1/2" hole from 757mRT to 769mRT. Take Teledrift survey every 3 singles drilled.

Performance Summary

	Daily		Cumulative Well	
	Hrs	%	Hrs	%
P	24.0	100.0	267.0	96.4
TP	0.0	0.0	2.0	0.7
TU	0.0	0.0	8.0	2.9
Undefined	0.0	0.0	0.0	0.0
Total	24.0	100.0	277.0	100.0

WBM Data **Cost Today: $ 3,583**

Mud Desc:	Spud mud (4KPP)	API FL:	10.0 cm³/30min	Cl:	21,000 %	Solids:	4.4 %	Glycol:	
		Filter-Cake:	1 /32nd"	KCl:	4.0 %	H2O:	96 %	Viscosity:	42 s/qt
Check Depth:	754.0 m	HTHP-FL:		Hard/Ca:	480.00 mg/L	Sand:	0.1 %	PV:	9 cP
Time:	23:00	HTHP-Cake:		MBT:	12.50 %	pH:	10	YP:	16 lbf/100ft²
Weight:	8.90 ppg	HTHP-Temp:		Pm:	0.11 m³	PHPA:	0.60 ppb	Gel 10s:	6 lbf/100ft²
Temp:		HTHP-Press:		Pf:	0.16	Mf:	1.00 m³	Gel 10m:	10 lbf/100ft²

Comment:	RPM	Reading
	3	4
	6	6
	100	15
	200	19
	300	25
	600	34

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Drillsearch

Well : Tibor-1 Drilling

Shakers, Volumes and Losses Data — **Engineer : Roni Tan**

Equipment	Description	Mesh Size
Centrifuge	Scomi DE-1000	
Shaker	Derrick Shale Shaker	270 x 4
Shaker	Derrick Shale Shaker	270 x 4

Available	**764 bbl**	**Losses**	**233 bbl**
Active	427 bbl	Downhole	
Mixing	117 bbl	Surf. + Equip.	
Hole	160 bbl	Dumped	212 bbl
Slug		De-Gasser	
Reserve	60 bbl	De-Sander	
Kill		De-Silter	
Other		Centrifuge	21 bbl
		Other	

Comment: Used 150bbls from Turkey's Nest.

Casing

OD	LOT	FIT	Casing Shoe (MD)	Casing Shoe (TVD)
244 mm (9 5/8")	16.70 ppg		750.9 m	750.9 m

BHA #2

BHA Type:	Pendulum	Total Weight Wet:	41 klb
Depth In/Out:	754.0 m/	Weight Below Jar Wet:	31 klb
Date In/Out:	#12 (12 Feb 2013)/		
Total Length:	198.1 m		

BHA Description: 8 1/2" PDC bit, Bit Sub, X/O, 6 1/2" Teledrift, X/O, 6 1/2" NMDC, 8 1/2" stab, 13 x 6 1/2" Drill Collars, Jars, 2 x 6 1/2" Drill collars, 4 x 4 1/2" HWDP.

BHA Run Comment:

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Drillsearch

Well : Tibor-1 Drilling

BHA Daily Summary

Pickup Weight:	88 klb	Torque (max):	2,000 ft-lbs	D.C. (1) Ann Velocity:	5 ft/s
Slack-Off Weight:	87 klb	Torque Avg. Off Bottom:	600 ft-lbs	D.C. (2) Ann Velocity:	0 ft/s
String Weight:	88 klb	Torque Avg. On Bottom:	2,000 ft-lbs	H.W.D.P. Ann. Velocity:	3 ft/s
Jars Hours Logged:	4.00 h			D.P. Ann. Velocity:	3 ft/s

Summary:

BHA Component

Equipment	Description	Length (m)	OD (in)	ID (in)	Serial #	Hours
Bit		0.35	8.500	2.000	743496	0.00
Bit Sub		0.91	6.187	3.500	GUWU 2427	
X/O		0.19	6.375	2.500	12565	
Teledrift		2.82	6.250	2.875	Y1926A	
X/O		0.45	6.375	2.875	R3 010-02	
NMDC		9.18	6.500	2.875	ENS 127200-1	
8 1/2" String Stab	8 1/2" FULL GAUGE.	1.55	6.500	2.875	T 3310-0	
Drill Collar		8.74	6.187	2.875	30-2-21	
Drill Collar		9.30	6.187	2.937	29013	
Drill Collar		8.92	6.187	3.000	30-2-2	
Drill Collar		9.10	6.125	2.937	922-22	
Drill Collar		9.09	6.125	2.937	592226	
Drill Collar		8.97	6.000	2.500	29-008	
Drill Collar		9.20	6.187	2.312	29-018	
Drill Collar		9.49	6.437	2.375	EDC 03231	
Drill Collar		8.46	6.125	3.062	GP 3922-31	
Drill Collar		8.82	6.187	3.062	GP 5922-9	
Drill Collar		8.72	6.250	3.000	30-2-15	
Drill Collar		9.11	6.250	2.875	GP 5922-24	
Drill Collar		9.05	6.125	3.000	30-2-25	
6 1/2" Hydraulic Jar		9.50	6.250	2.375	650 E2-12-6	
Drill Collar		8.92	6.125	3.000	30-2-11	
Drill Collar		9.42	6.250	2.880	S26132-13	
HWDP		9.45	6.187	2.875	A58715	
HWDP		9.45	6.187	2.812	A58730	
HWDP		9.47	6.250	2.812	A58716	
HWDP		9.45	6.312	2.812	A58720	

Directional Data

Slide Time:		Rotate Time:		Circ. Time:	4.50 h
Slide (%):		Rotate (%):		Circ. (%):	
Total Slide Time:	0.00 h	Total Rotate Time:	0.00 h	Total Circ. Time:	4.50 h
Total Revs:		HSI:	1.75 hp/in²		

Bit #2

						Nozzles		
Size:	216 mm (8 1/2")	Type:	PDC	IADC #:	M223	#		Size (/32nd")
Manufacturer:	BHI (Hughes Christensen)	Model:	Q505F	TFA:	0.552 in²	5	x	12
		Bit Wear:	- - - - - - -	Cost:	$			
Serial #:	743496							

Bit Run Comment:

Bit Wear Comment:

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Drillsearch

Well : Tibor-1 Drilling

Drilling Parameters

BHA Run #2

Top Depth:	PWD ECD:
Bottom Depth:	

	Min	Avg	Max
Flow	350 galUS/min	375 galUS/min	400 galUS/min
Surface RPM	40 rpm	50 rpm	60 rpm
Downhole RPM	40 rpm	50 rpm	60 rpm
Pressure	380 psi	410 psi	440 psi
Torque	1,200 ft-lbs	1,500 ft-lbs	1,800 ft-lbs
WOB	3 klbs	4 klbs	5 klbs
ROP			

Formations

Name	Top (m)
Winton Formation	10.7
Mackunda Formation	633.0

Personnel On Board

Job Title	Personnel	Company	Pax
		Drillsearch	4
		ISOS	1
		Geoservice	4
		Rheochem	1
		Scomi (KMC)	1
		ENSIGN	20
		Oil Industry Catering Services	3
		Halliburton	0
		Santos	2
		Total	36

Bulk Stocks

Name	Unit	Start Amount	Previous Balance	In	Used	Adjust	Balance
Rig Fuel (ltr)	ltr		17,000	0	1,000	0	16,000
Camp Fuel (ltr)	ltr		2,100	0	350	0	1,750
Pot Water (ltr)	ltr		27,500	12,000	5,500	0	34,000
Rigsite Potable Water (ltr)	ltr		13,000	1,000	1,000	0	13,000
Cementing Water (bbl)	bbl		360	0	0	0	360

Transport

Transport Type	Transport Name	Arrived Time	Departed Time	Comment
Van		14:00	09:00	Ensign Suprintendant travelled from Rig 918 to Rig 65.
Truck			09:00	2 Halliburton departed for Moomba with pump truck and bulk tank as road train.
Van		15:45	09:00	Driver delivered outgoing OCR to Windorah airport then returned to Rig 918.

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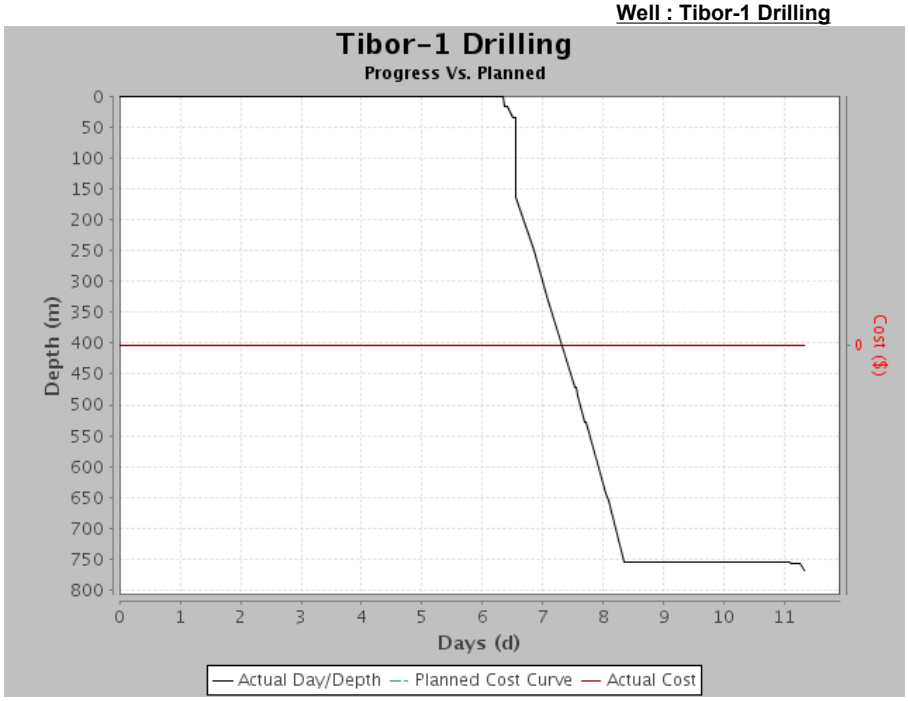
Drillsearch

Well : Tibor-1 Drilling



Printed on 13 February 2013 05:08 AM (GMT+08:00)

Drillsearch

Well : Tibor-1 Drilling

Tibor-1 Drilling					
Report Number :	13	Day Wellsite Representative:	Ray C. Miller	Rig Manager:	Scott Cameron
Latitude (South)	25° 52' 17.80"	Night Wellsite Representative:	Kevin Gordon	Drilling Company:	ENSIGN
Longitude (East)	141° 16' 19.41"			Wellsite Geologist:	Alan Whitestone

Well Data							
Country:	Australia	Current Hole Size:	8.500 in	Casing OD:	9.625 in	AFE Number:	OPS-13-018
Field:		Measured Depth:	933.0 m	Casing MD:	750.9 m	Original AFE:	
Rig:	Ensign 918	True Vertical Depth:	933.0 m	Casing TVD:	750.9 m	Supp AFE No:	
Ground Level:	135.0 m	24 Hr Progress:	179.0 m	TOL MD:		Orig. & Sup.	
RT to GL	5.15 m	Days On Well:	12.54	TOL TVD:		AFE:	
Plan TD (MD):	1,738.0 m	Days Since Spud:	6.29	Lnr Shoe MD:		Daily Cost:	
Plan TD (TVD):	1,738.0 m	Last BOP Date:	12 Feb 2013	Lnr Shoe TVD:		Cum. Cost:	
		FIT/LOT:	/16.64 ppg			Last LTI Date:	05 Feb 2012
						Days Since LTI:	374

Current Op @ 0600:	Drill 8 1/2" hole at 963 meters.
Planned Op:	Drill 8 1/2" hole to 1400m. Circulate hole clean. Check trip to shoe. RIH. Drill ahead.

Summary for Period 0000 Hrs to 2400 Hrs on 13 Feb 2013

Displace well with 8.9ppg mud while drill 3m new formation. Circulate and condition mud. Conduct L.O.T. Drill ahead 8 1/2" hole from 757mRT to 933mRT.

HSE Summary

Events	Num. Events	Date of Last	Days Since	Description	Remarks
Pre-Tour Safety Meeting	1	13 Feb 2013 00:00	0	PTSM	Discuss hazards of upcoming operations.
Pre-Tour Safety Meeting	1	13 Feb 2013 11:45	0	PTSM	Discuss hazards of upcoming operations.
Hazard Cards	7	11 Feb 2013 00:00	2	Hazardous observation cards.	Various hazardous conditions or behaviour observed.
JSA	2	11 Feb 2013 00:00	2	JSA's	Mouse hole connections. Racking Kelly.

Operations for Period 0000 Hrs to 2400 Hrs On 13 Feb 2013

PHSE	CLS (RC)	OP	From	To	Hrs	Depth (m)	Activity Description
SH	P	DA	00:00	00:45	0.75	757.0	Drill new formation from 754mRT to 757mRT. Displace water from casing with 8.9ppg mud while drilling new formation.
SH	P	CMD	00:45	02:30	1.75	757.0	Circulate and condition mud till balanced at 8.9ppg for L.O.T.
SH	P	LOT	02:30	04:00	1.50	757.0	Perform leak off test. Maximum pressure pumped = 1000psi with 9.8ppg at 757mRT. E.M.W = 16.6ppg.
SH	P	DA	04:00	12:00	8.00	828.0	Drill 8 1/2" hole from 757mRT to 828mRT. Ream each single twice. Take Teledrift survey every 3 singles drilled. (Took SCR's prior to drilling ahead)
SH	P	DA	12:00	19:30	7.50	904.0	Drill 8 1/2" hole from 828mRT to 904mRT.
SH	P	SCR	19:30	19:45	0.25	904.0	Circulate and take SCR's on both pumps.
SH	P	SVY	19:45	20:15	0.50	904.0	Run wire line single shot survey at 890m. Survey = 1.75 degrees S70E.
SH	P	DA	20:15	24:00	3.75	933.0	Drill 8 1/2" hole from 904mRT to 933mRT. Due to higher deviation, took Teledrift surveys at 924mRT = 2 degrees and 932m = 2degrees.

Operations for Period 0000 Hrs to 0600 Hrs On 14 Feb 2013

PHSE	CLS (RC)	OP	From	To	Hrs	Depth (m)	Activity Description

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Drillsearch

Well : Tibor-1 Drilling

SH	P	DA	00:00	01:45	1.75	942.0	Drill 8 1/2" hole from 933mRT to 942mRT with reduced weight attempting to drop angle. WOB = 2.5 to 3Kips. Teledrift survey at 940m = 1 degree.
SH	P	DA	01:45	06:00	4.25	942.0	Drill 8 1/2" hole from 942mRT to 963mRT. Increased WOB to 5 to 6 Kips. Teledrift survey at 960mRT = 2 degrees.

Performance Summary

	Daily		Cumulative Well	
	Hrs	%	Hrs	%
P	24.0	100.0	291.0	96.7
TP	0.0	0.0	2.0	0.7
TU	0.0	0.0	8.0	2.7
Undefined	0.0	0.0	0.0	0.0
Total	24.0	100.0	301.0	100.0

WBM Data — **Cost Today:** **$ 5,161**

Mud Desc:	4PHB	API FL:	9.0 cm³/30min	Cl:	23,800 %	Solids:	4.4 %	Glycol:	
Check Depth:	888.0 m	Filter-Cake:	1 /32nd"	KCl:	4.5 %	H2O:	96 %	Viscosity:	42 s/qt
Time:	18:00	HTHP-FL:		Hard/Ca:	440.00 mg/L	Sand:	0.1 %	PV:	9 cP
Weight:	8.90 ppg	HTHP-Cake:		MBT:	11.30 %	pH:	10	YP:	17 lbf/100ft²
Temp:		HTHP-Temp:		Pm:	0.10	PHPA:	0.56 ppb	Gel 10s:	6 lbf/100ft²
		HTHP-Press:		Pf:	0.16	Mf:	0.80	Gel 10m:	11 lbf/100ft²

Comment:

RPM	Reading
3	5
6	6
100	17
200	22
300	26
600	35

Shakers, Volumes and Losses Data — **Engineer : Roni Tan**

Equipment	Description	Mesh Size
Centrifuge	Scomi DE-1000	
Shaker	Derrick Shale Shaker	270 x 4
Shaker	Derrick Shale Shaker	270 x 4

Available	**688 bbl**	**Losses**	**312 bbl**
Active	358 bbl	Downhole	13 bbl
Mixing	89 bbl	Surf. + Equip.	81 bbl
Hole	186 bbl	Dumped	156 bbl
Slug		De-Gasser	
Reserve	55 bbl	De-Sander	
Kill		De-Silter	
Other		Centrifuge	62 bbl
		Other	

Comment: Used 70bbls from Turkey's Nest.

Pumps

		Pump data - Last 24 Hrs							Slow Pump Data	
No	Type	Liner (in)	SPM	Eff. (%)	Flow (galUS/min)	SPP (psi)	Depth (m)	MW (ppg)	SPM	SPP (psi)
1	Continental Emsco F-800	5.500	87	97		1,200	904.0	8.90	60 40	200 100
2	Continental Emsco F-800	5.500	87	97		1,200	904.0	8.90	60 40	200 100

Casing

OD	LOT	FIT	Casing Shoe (MD)	Casing Shoe (TVD)
244 mm (9 5/8")	16.70 ppg		750.9 m	750.9 m

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Drillsearch

Well : Tibor-1 Drilling

BHA #2

BHA Type:	Pendulum	Total Weight Wet:	41 klb
Depth In/Out:	754.0 m/	Weight Below Jar Wet:	31 klb
Date In/Out:	#12 (12 Feb 2013)/		
Total Length:	198.1 m		

BHA Description: 8 1/2" PDC bit, Bit Sub, X/O, 6 1/2" Teledrift, X/O, 6 1/2" NMDC, 8 1/2" stab, 13 x 6 1/2" Drill Collars, Jars, 2 x 6 1/2" Drill collars, 4 x 4 1/2" HWDP.

BHA Run Comment:

BHA Daily Summary

Pickup Weight:	95 klb	Torque (max):	4,000 ft-lbs	D.C. (1) Ann Velocity:	6 ft/s
Slack-Off Weight:	92 klb	Torque Avg. Off Bottom:	1,500 ft-lbs	D.C. (2) Ann Velocity:	0 ft/s
String Weight:	93 klb	Torque Avg. On Bottom:	4,000 ft-lbs	H.W.D.P. Ann. Velocity:	3 ft/s
Jars Hours Logged:	19.71 h			D.P. Ann. Velocity:	3 ft/s

Summary:

BHA Component

Equipment	Description	Length (m)	OD (in)	ID (in)	Serial #	Hours
Bit		0.35	8.500	2.000	743496	0.00
Bit Sub		0.91	6.187	3.500	GUWU 2427	
X/O		0.19	6.375	2.500	12565	
Teledrift		2.82	6.250	2.875	Y1926A	
X/O		0.45	6.375	2.875	R3 010-02	
NMDC		9.18	6.500	2.875	ENS 127200-1	
8 1/2" String Stab	8 1/2" FULL GAUGE.	1.55	6.500	2.875	T 3310-0	
Drill Collar		8.74	6.187	2.875	30-2-21	
Drill Collar		9.30	6.187	2.937	29013	
Drill Collar		8.92	6.187	3.000	30-2-2	
Drill Collar		9.10	6.125	2.937	922-22	
Drill Collar		9.09	6.125	2.937	592226	
Drill Collar		8.97	6.000	2.500	29-008	
Drill Collar		9.20	6.187	2.312	29-018	
Drill Collar		9.49	6.437	2.375	EDC 03231	
Drill Collar		8.46	6.125	3.062	GP 3922-31	
Drill Collar		8.82	6.187	3.062	GP 5922-9	
Drill Collar		8.72	6.250	3.000	30-2-15	
Drill Collar		9.11	6.250	2.875	GP 5922-24	
Drill Collar		9.05	6.125	3.000	30-2-25	
6 1/2" Hydraulic Jar		9.50	6.250	2.375	650 E2-12-6	
Drill Collar		8.92	6.125	3.000	30-2-11	
Drill Collar		9.42	6.250	2.880	S26132-13	
HWDP		9.45	6.187	2.875	A58715	
HWDP		9.45	6.187	2.812	A58730	
HWDP		9.47	6.250	2.812	A58716	
HWDP		9.45	6.312	2.812	A58720	

Directional Data

Slide Time:		Rotate Time:		Circ. Time:	
Slide (%):		Rotate (%):		Circ. (%):	
Total Slide Time:	0.00 h	Total Rotate Time:	0.00 h	Total Circ. Time:	0.00 h
Total Revs:	71 Krevs	HSI:	2.20 hp/in²		

Drillsearch

Well : Tibor-1 Drilling

Bit #2						Nozzles		
Size:	216 mm (8 1/2")	Type:	PDC	IADC #:	M223	#		Size (/32nd")
Manufacturer:	BHI (Hughes Christensen)	Model:	Q505F	TFA:	0.552 in²	5	x	12
		Bit Wear:	- - - - - - -	Cost:	$			
Serial #:	743496							
Bit Run Comment:								
Bit Wear Comment:								

Drilling Parameters

BHA Run #2

Top Depth:	754.0 m	PWD ECD:	
Bottom Depth:	933.0 m		

	Min	Avg	Max
Flow	380 galUS/min	405 galUS/min	430 galUS/min
Surface RPM	60 rpm	97 rpm	133 rpm
Downhole RPM	60 rpm	97 rpm	133 rpm
Pressure	470 psi	990 psi	1,510 psi
Torque	1,500 ft-lbs	2,750 ft-lbs	4,000 ft-lbs
WOB	2 klbs	5 klbs	8 klbs
ROP	7.00 m/h	7.46 m/h	34.85 m/h

Survey

MD (m)	Incl. (°)	Corr. Az (°)	TVD (m)	'V' Sect (m)	Dogleg (deg/30m)	N/S (m)	E/W (m)	Tool Type
776.0	1.0	0.00						Teledrift
806.0	1.5	0.00						Teledrift
835.0	1.0	0.00						Teledrift
865.0	1.0	0.00						Teledrift
890.0	0.5	0.00						Teledrift
890.0	1.8	110.00	889.9	-7,138,509.90(	0.139	-3.7	2.6	MagneticSS
924.0	2.0	0.00						Teledrift
932.0	2.0	0.00						Teledrift

Formations

Name	Top (m)
Winton Formation	10.7
Mackunda Formation	633.0

Personnel On Board

Job Title	Personnel	Company	Pax
		Drillsearch	4
		ISOS	1
		Geoservice	4
		Rheochem	1
		Scomi (KMC)	1
		ENSIGN	21
		Oil Industry Catering Services	3
		Halliburton	0
		Santos	2
		Total	37

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Drillsearch

Well : Tibor-1 Drilling

Bulk Stocks

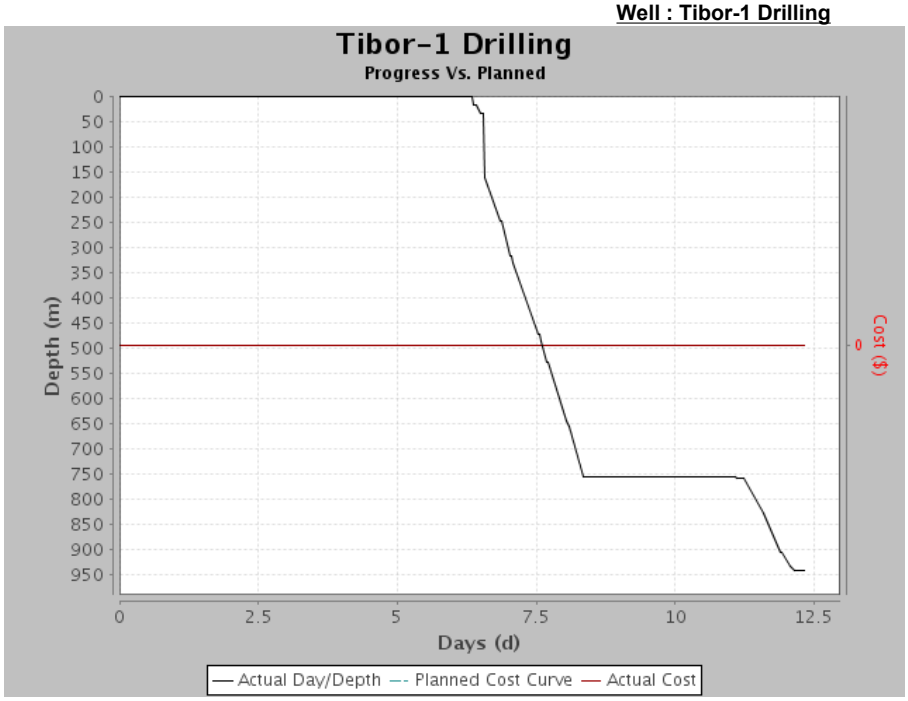
Name	Unit	Start Amount	Previous Balance	In	Used	Adjust	Balance
Rig Fuel (ltr)	ltr		16,000	19,950	3,000	0	32,950
Camp Fuel (ltr)	ltr		1,750	3,000	250	0	4,500
Pot Water (ltr)	ltr		34,000	0	7,000	0	27,000
Rigsite Potable Water (ltr)	ltr		13,000	0	2,500	0	10,500
Cementing Water (bbl)	bbl		360	0	0	0	360
Ancor-1(25 kg) (Pails)	Pails		16	0	0	0	16
Barite Sacks (Sacks)	Sacks		1,514	0	0	0	1,514
Calcium Chloride(25 kg) (Sacks)	Sacks		42	0	0	0	42
Caustic Soda (25 kg sx)	25 kg sx		36	0	2	0	34
Cell Plug (11.3kg) (Sacks)	Sacks		70	0	0	0	70
Citric Acid (25kg) (Sacks)	Sacks		38	0	0	0	38
Defoam - A (ltr)	ltr		11	0	0	0	11
EDTA (25kg) (Sacks)	Sacks		40	0	0	0	40
Fracseal Fine (sx)	sx		210	0	0	0	210
Idcide-20 (20ltr) (Pails)	Pails		64	0	2	0	62
JK 161 LV (25kg) (Sacks)	Sacks		60	0	1	0	59
Potassium Chloride (25 kg bag)	25 kg bag		652	0	96	0	556
Lime (sx)	sx		54	0	0	0	54
Maxigel (25kg) (Sacks)	Sacks		255	0	0	0	255
Mica Med (25kg) (Sacks)	Sacks		20	0	0	0	20
Micro Flow (20ltr) (Pails)	Pails		32	0	0	0	32
Pipe Freeing Compound (Tessodril BS 2001) (drums)	drums		4	0	0	0	4
Quikseal Coarse (18.2kg) (Sacks)	Sacks		50	0	0	0	50
Quikseal Med (18.2kg) (Sacks)	Sacks		99	0	0	0	99
Rheopac LV (25kg) (Sacks)	Sacks		76	0	10	0	66
Salt-25KG (Sacks)	Sacks		732	0	0	0	732
Sandseal (sx)	sx		50	0	0	0	50
SAPP (sx)	sx		38	0	0	0	38
SI 70P (25kg) (Sacks)	Sacks		2	0	0	0	2
Soda Ash (sx)	sx		41	0	2	0	39
Sodium Bicarbonate (bag)	bag		44	0	0	0	44
Sodium Sulphite (sx)	sx		80	0	2	0	78
Xanthan Gum (25kg sx)	25kg sx		60	0	4	0	56
Extrasweep (25kg) (Sacks)	Sacks		7	0	0	0	7

Transport

Transport Type	Transport Name	Arrived Time	Departed Time	Comment
Van		08:00	04:00	Ensign crew travelling to Brisbane.
Van		12:30	09:30	3 vehicles to take Ensign crew and service hands to Windorah for crew change.
Van		16:30	13:30	3 vehicles to bring Ensign crew and service hands to Rig 918 for crew change.
Van		13:00	09:00	Ensign crew coming from Brisbane.

Drillsearch

Well : Tibor-1 Drilling



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Drillsearch

Well : Tibor-1 Drilling

Tibor-1 Drilling

Report Number :	14	Day Wellsite Representative:	Ray C. Miller	Rig Manager:	Scott Cameron
Latitude (South)	25° 52' 17.80"	Night Wellsite Representative:	Kevin Gordon	Drilling Company:	ENSIGN
Longitude (East)	141° 16' 19.41"			Wellsite Geologist:	Alan Whitestone

Well Data

Country:	Australia	Current Hole Size:	8.500 in	Casing OD:	9.625 in	AFE Number:	OPS-13-018
Field:		Measured Depth:	1,100.0 m	Casing MD:	750.9 m	Original AFE:	
Rig:	Ensign 918	True Vertical Depth:	1,100.0 m	Casing TVD:	750.9 m	Supp AFE No:	
Ground Level:	135.0 m	24 Hr Progress:	167.0 m	TOL MD:		Orig. & Sup.	
RT to GL	5.15 m	Days On Well:	13.54	TOL TVD:		AFE:	
Plan TD (MD):	1,738.0 m	Days Since Spud:	7.29	Lnr Shoe MD:		Daily Cost:	
Plan TD (TVD):	1,738.0 m	Last BOP Date:	12 Feb 2013	Lnr Shoe TVD:		Cum. Cost:	
		FIT/LOT:	/16.64 ppg			Last LTI Date:	05 Feb 2012
						Days Since LTI:	375

Current Op @ 0600:	Drilling ahead from 1135 meters.
Planned Op:	Drill ahead to 1400 meters and make check trip before drilling ahead to total depth.

Summary for Period 0000 Hrs to 2400 Hrs on 14 Feb 2013

Drilled from 933 meters to 1100 meters. Serviced Rig and took deviation surveys as required.

HSE Summary

Events	Num. Events	Date of Last	Days Since	Description	Remarks
Pre-Tour Safety Meeting	1	14 Feb 2013 00:00	0	PTSM	Discuss hazards of upcoming operations.
Pre-Tour Safety Meeting	1	14 Feb 2013 11:45	0	PTSM	Discuss hazards of upcoming operations.
Number of Observe Cards	0	14 Feb 2013 00:00	0	Hazardous observation cards.	Various hazardous conditions or behaviour observed.
BOP Test/Drill	1	14 Feb 2013 00:00	0	BOP Drill	Sound horn and stab F.O.S.V during connection to check crew awareness.
Function tested TBA/TDS Upper & Lower Stop Limits	2	14 Feb 2013 00:00	0	Function test Crown-O-Matic.	Manually tripped Crown-o-Matic to ensure operational.

Operations for Period 0000 Hrs to 2400 Hrs On 14 Feb 2013

PHSE	CLS (RC)	OP	From	To	Hrs	Depth (m)	Activity Description
SH	P	DA	00:00	01:45	1.75	942.0	Drill 8 1/2" hole from 933mRT to 942mRT with reduced weight attempting to drop angle. WOB = 2.5 to 3Kips. Teledrift survey at 940m = 1 degree.
SH	P	DA	01:45	12:00	10.25	1,000.0	Drilled 8 1/2" hole from 942mRT to 1000mRT. Increased WOB to 5 to 10 Kips. Teledrift survey at 960mRT = 2 degrees. Teledrift survey at 990m = 0.5 degrees. Single shot survey at 985m = 1.75 degrees. Continue drilling to correct (or control) deviation.
SH	P	SCR	12:00	12:30	0.50	1,000.0	Circulate hole clean. Take SCR's at 1000mRT with 9.1ppg mud.
SH	P	SVY	12:30	13:00	0.50	1,000.0	Take wireline single shot survey at 985m. Inclination = 1.75 degrees E62S.
SH	P	DA	13:00	18:45	5.75	1,049.0	Drill 8 1/2" hole from 1000mRT to 1049mRT.
SH	P	RS	18:45	19:15	0.50	1,049.0	Service rig.
SH	P	RS	19:15	21:00	1.75	1,078.0	Drill 8 1/2" hole from 1049mRT to 1078mRT.
SH	P	CMD	21:00	21:15	0.25	1,078.0	Circulate bottoms up.
SH	P	SVY	21:15	21:45	0.50	1,078.0	Take wireline single shot survey at 1062m. Inclination = 1.0 degrees S80E.
SH	P	DA	21:45	24:00	2.25	1,100.0	Drill 8 1/2" hole from 1078mRT to 1100mRT.

Operations for Period 0000 Hrs to 0600 Hrs On 15 Feb 2013

Printed on 15 February 2013 03:53 AM (GMT+08:00)

Drillsearch

Well : Tibor-1 Drilling

PHSE	CLS (RC)	OP	From	To	Hrs	Depth (m)	Activity Description
SH	P	DA	00:00	03:00	3.00	1,135.0	Drill 8 1/2" hole from 1100mRT to 1135 meters at 06:00 hrs.

Performance Summary

	Daily		Cumulative Well	
	Hrs	%	Hrs	%
P	24.0	100.0	315.0	96.9
TP	0.0	0.0	2.0	0.6
TU	0.0	0.0	8.0	2.5
Undefined	0.0	0.0	0.0	0.0
Total	24.0	100.0	325.0	100.0

WBM Data — **Cost Today:** **$ 1,843**

Mud Desc:	4PHB	API FL:	9.0 cm³/30min	Cl:	22,900 %	Solids:	5.9 %	Glycol:	
Check Depth:	1,050.0 m	Filter-Cake:	1 /32nd"	KCl:	4.5 %	H2O:	94 %	Viscosity:	43 s/qt
Time:	19:10	HTHP-FL:		Hard/Ca:	400.00 mg/L	Sand:	0.2 %	PV:	11 cP
Weight:	9.10 ppg	HTHP-Cake:		MBT:	11.50 %	pH:	10	YP:	18 lbf/100ft²
Temp:	57.0 °C	HTHP-Temp:		Pm:	0.10	PHPA:	0.39 ppb	Gel 10s:	6 lbf/100ft²
		HTHP-Press:		Pf:	0.16	Mf:	1.00	Gel 10m:	14 lbf/100ft²

Comment:

RPM	Reading
3	5
6	7
100	17
200	22
300	29
600	40

Shakers, Volumes and Losses Data — **Engineer : Roni Tan**

Equipment	Description	Mesh Size
Centrifuge	Scomi DE-1000	
Shaker	Derrick Shale Shaker	325 x 4
Shaker	Derrick Shale Shaker	325x 4

Available	**690 bbl**	**Losses**	**111 bbl**
Active	358 bbl	Downhole	16 bbl
Mixing	77 bbl	Surf. + Equip.	46 bbl
Hole	220 bbl	Dumped	10 bbl
Slug		De-Gasser	
Reserve	35 bbl	De-Sander	
Kill		De-Silter	
Other		Centrifuge	39 bbl
		Other	

Comment: Used 70bbls from Turkey's Nest.

Pumps

		Pump data - Last 24 Hrs							Slow Pump Data	
No	Type	Liner (in)	SPM	Eff. (%)	Flow (galUS/min)	SPP (psi)	Depth (m)	MW (ppg)	SPM	SPP (psi)
1	Continental Emsco F-800	5.500	87	97		1,300	1,000.0	9.10	60 40	200 100
2	Continental Emsco F-800	5.500	87	97		1,300	1,000.0	9.10	60 40	200 100

Casing

OD	LOT	FIT	Casing Shoe (MD)	Casing Shoe (TVD)
244 mm (9 5/8")	16.70 ppg		750.9 m	750.9 m

Printed on 15 February 2013 03:53 AM (GMT+08:00)

Drillsearch

Well : Tibor-1 Drilling

BHA #2

BHA Type:	Pendulum	Total Weight Wet:	41 klb
Depth In/Out:	754.0 m/	Weight Below Jar Wet:	31 klb
Date In/Out:	#12 (12 Feb 2013)/		
Total Length:	198.1 m		

BHA Description: 8 1/2" PDC bit, Bit Sub, X/O, 6 1/2" Teledrift, X/O, 6 1/2" NMDC, 8 1/2" stab, 13 x 6 1/2" Drill Collars, Jars, 2 x 6 1/2" Drill collars, 4 x 4 1/2" HWDP.

BHA Run Comment:

BHA Daily Summary

Pickup Weight:	102 klb	Torque (max):	4,500 ft-lbs	D.C. (1) Ann Velocity:	6 ft/s
Slack-Off Weight:	101 klb	Torque Avg. Off Bottom:	1,500 ft-lbs	D.C. (2) Ann Velocity:	0 ft/s
String Weight:	102 klb	Torque Avg. On Bottom:	4,500 ft-lbs	H.W.D.P. Ann. Velocity:	3 ft/s
Jars Hours Logged:	22.11 h			D.P. Ann. Velocity:	3 ft/s

Summary:

BHA Component

Equipment	Description	Length (m)	OD (in)	ID (in)	Serial #	Hours
Bit		0.35	8.500	2.000	743496	0.00
Bit Sub		0.91	6.187	3.500	GUWU 2427	
X/O		0.19	6.375	2.500	12565	
Teledrift		2.82	6.250	2.875	Y1926A	
X/O		0.45	6.375	2.875	R3 010-02	
NMDC		9.18	6.500	2.875	ENS 127200-1	
8 1/2" String Stab	8 1/2" FULL GAUGE.	1.55	6.500	2.875	T 3310-0	
Drill Collar		8.74	6.187	2.875	30-2-21	
Drill Collar		9.30	6.187	2.937	29013	
Drill Collar		8.92	6.187	3.000	30-2-2	
Drill Collar		9.10	6.125	2.937	922-22	
Drill Collar		9.09	6.125	2.937	592226	
Drill Collar		8.97	6.000	2.500	29-008	
Drill Collar		9.20	6.187	2.312	29-018	
Drill Collar		9.49	6.437	2.375	EDC 03231	
Drill Collar		8.46	6.125	3.062	GP 3922-31	
Drill Collar		8.82	6.187	3.062	GP 5922-9	
Drill Collar		8.72	6.250	3.000	30-2-15	
Drill Collar		9.11	6.250	2.875	GP 5922-24	
Drill Collar		9.05	6.125	3.000	30-2-25	
6 1/2" Hydraulic Jar		9.50	6.250	2.375	650 E2-12-6	
Drill Collar		8.92	6.125	3.000	30-2-11	
Drill Collar		9.42	6.250	2.880	S26132-13	
HWDP		9.45	6.187	2.875	A58715	
HWDP		9.45	6.187	2.812	A58730	
HWDP		9.47	6.250	2.812	A58716	
HWDP		9.45	6.312	2.812	A58720	

Directional Data

Slide Time:		Rotate Time:		Circ. Time:	
Slide (%):		Rotate (%):		Circ. (%):	
Total Slide Time:	0.00 h	Total Rotate Time:	0.00 h	Total Circ. Time:	0.00 h
Total Revs:	117 Krevs	HSI:	2.88 hp/in²		

Drillsearch

Well : Tibor-1 Drilling

Bit #2						Nozzles		
Size:	216 mm (8 1/2")	Type:	PDC	IADC #:	M223	#		Size (/32nd")
Manufacturer:	BHI (Hughes Christensen)	Model:	Q505F	TFA:	0.552 in²	5	x	12
Serial #:	743496	Bit Wear:	- - - - - - -	Cost:	$			
Bit Run Comment:								
Bit Wear Comment:								

Drilling Parameters

BHA Run #2

Top Depth:	754.0 m	PWD ECD:	
Bottom Depth:	1,100.0 m		

	Min	Avg	Max
Flow	427 galUS/min	440 galUS/min	452 galUS/min
Surface RPM	84 rpm	115 rpm	145 rpm
Downhole RPM	84 rpm	115 rpm	145 rpm
Pressure	1,071 psi	1,223 psi	1,374 psi
Torque	1,500 ft-lbs	3,000 ft-lbs	4,500 ft-lbs
WOB	2 klbs	7 klbs	13 klbs
ROP	1.47 m/h	14.42 m/h	35.39 m/h

Survey

MD (m)	Incl. (°)	Corr. Az (°)	TVD (m)	'V' Sect (m)	Dogleg (deg/30m)	N/S (m)	E/W (m)	Tool Type
940.0	1.0	0.00						Teledrift
960.0	2.0	0.00						Teledrift
985.0	1.8	118.00	984.9	-7,138,511.133	0.079	-4.9	5.4	MagneticSS
990.0	0.5	0.00						Teledrift
1,019.0	0.5	0.00						Teledrift
1,047.0	0.5	0.00						Teledrift
1,062.0	1.0	100.00	1,061.8	-7,138,511.817	0.352	-5.6	7.1	MagneticSS

Formations

Name	Top (m)
Winton Formation	10.7
Mackunda Formation	633.0
Allaru Mudstone	750.0
Toolebuc Formation	970.0
Wallumbilla Formation	1,040.0

Personnel On Board

Job Title	Personnel	Company	Pax
Day OCR	Ray Miller	Drillsearch	1
Night OCR	Kevin Gordon	Drillsearch	1
Geologist	Alan Righthouse	Drillsearch	1
HSE	Darren Norvill	Drillsearch	1
Medic	Fiona	ISOS	1
Rig Manager	Scott Cameron	ENSIGN	1
Day Toolpusher	Pat Pyne	ENSIGN	1
Night Toolpusher	Andrew Hoey	ENSIGN	1
Driller	Adrian Bromwich	ENSIGN	1
Derrickman	Peter Geronymakis	ENSIGN	1
Motorman	Mitchell Rosewarne	ENSIGN	1
Floorman	Robert Birse	ENSIGN	1

Drillsearch

Well : Tibor-1 Drilling

Personnel On Board

Job Title	Personnel	Company	Pax
Floorman	Ben Shipway	ENSIGN	1
Lease Hand	Nathan Ownsworth	ENSIGN	1
Mechanic	James Stewart	ENSIGN	1
Mechanic	Nick Colbbet	ENSIGN	1
Electrician	Mick Milligan	ENSIGN	1
Electrician	A. Secker	ENSIGN	1
Welder	Gary Jarrad	ENSIGN	1
Driller	Paul Hall	ENSIGN	1
Derrickman	Danny Pijovic	ENSIGN	1
Motorman	Aymon Allen	ENSIGN	1
Floorman	Steven Stabile	ENSIGN	1
Floorman	Jair Hadley	ENSIGN	1
Lease Hand	Tim Moreton	ENSIGN	1
Summer Lease Hand	Nelson Hofling	ENSIGN	1
Driver	Healy Lyrtzis	ENSIGN	1
Camp Boss	Hans Dathe	Oil Industry Catering Services	1
Night Cook	John Reisir	Oil Industry Catering Services	1
Campie	P Lynch	Oil Industry Catering Services	1
Campie	J Lindgren	Oil Industry Catering Services	1
Mud Logger	Pramod Gadhe	Geoservice	1
Mud Logger	Sam Corey	Geoservice	1
Trainee	S. Cheoni	Geoservice	1
Trainee	D matthews	Geoservice	1
Mud Engineer	Roni Tang	Rheochem	1
Centrifuge Technician	Ray Lloyd	Scomi Oiltools	1
Santos Surveyor	J. Cairns	Santos Surveyor	1
Santos Surveyor	A. Dixon	Santos Surveyor	1
Geogoligist Trainee	Craig Bunting	Drillsearch	1

Drillsearch

Well : Tibor-1 Drilling

Personnel On Board

Job Title	Personnel	Company	Pax
Wireline Witness	Rohti	Drillsearch	1
		Total	41

Bulk Stocks

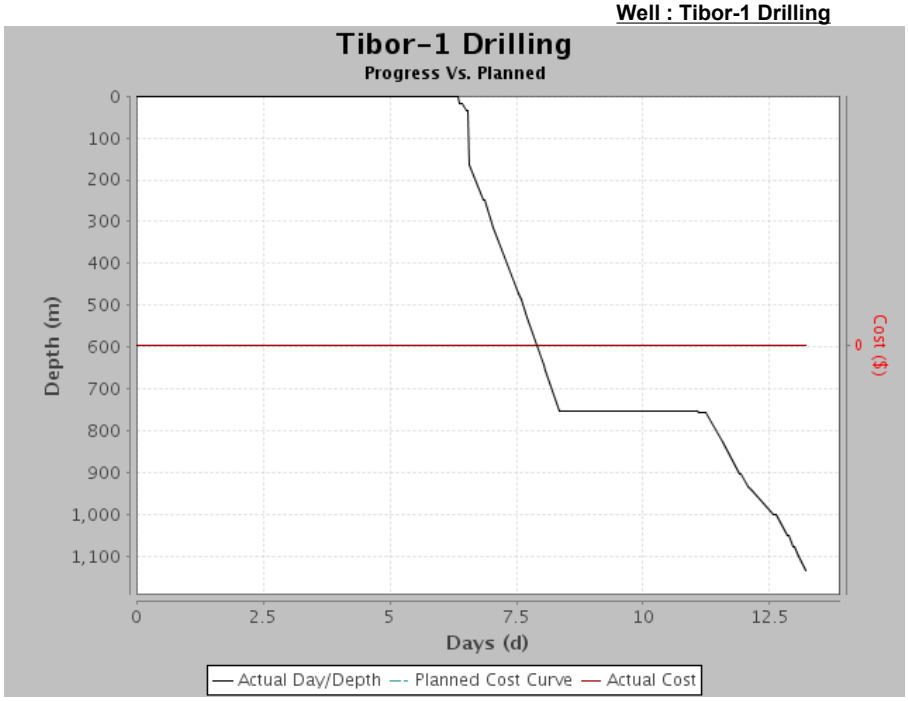
Name	Unit	Start Amount	Previous Balance	In	Used	Adjust	Balance
Rig Fuel (ltr)	ltr		32,950	0	3,950	0	29,000
Camp Fuel (ltr)	ltr		4,500	0	350	0	4,150
Pot Water (ltr)	ltr		27,000	0	0	0	27,000
Rigsite Potable Water (ltr)	ltr		10,500	0	0	0	10,500
Cementing Water (bbl)	bbl		360	0	0	0	360
Ancor-1(25 kg) (Pails)	Pails		16	0	0	0	16
Barite Sacks (Sacks)	Sacks		1,514	0	0	0	1,514
Calcium Chloride(25 kg) (Sacks)	Sacks		42	0	0	0	42
Caustic Soda (25 kg sx)	25 kg sx		34	0	1	0	33
Cell Plug (11.3kg) (Sacks)	Sacks		70	0	0	0	70
Citric Acid (25kg) (Sacks)	Sacks		38	0	0	0	38
Defoam - A (ltr)	ltr		11	0	0	0	11
EDTA (25kg) (Sacks)	Sacks		40	0	0	0	40
Fracseal Fine (sx)	sx		210	0	0	0	210
Idcide-20 (20ltr) (Pails)	Pails		62	0	2	0	60
JK 161 LV (25kg) (Sacks)	Sacks		59	0	0	0	59
Potassium Chloride (25 kg bag)	25 kg bag		556	0	30	0	526
Lime (sx)	sx		54	0	0	0	54
Maxigel (25kg) (Sacks)	Sacks		255	0	0	0	255
Mica Med (25kg) (Sacks)	Sacks		20	0	0	0	20
Micro Flow (20ltr) (Pails)	Pails		32	0	0	0	32
Pipe Freeing Compound (Tessodril BS 2001) (drums)	drums		4	0	0	0	4
Quikseal Coarse (18.2kg) (Sacks)	Sacks		50	0	0	0	50
Quikseal Med (18.2kg) (Sacks)	Sacks		99	0	0	0	99
Rheopac LV (25kg) (Sacks)	Sacks		66	0	2	0	64
Salt-25KG (Sacks)	Sacks		732	0	0	0	732
Sandseal (sx)	sx		50	0	0	0	50
SAPP (sx)	sx		38	0	0	0	38
SI 70P (25kg) (Sacks)	Sacks		2	0	0	0	2
Soda Ash (sx)	sx		39	0	2	0	37
Sodium Bicarbonate (bag)	bag		44	0	0	0	44
Sodium Sulphite (sx)	sx		78	0	2	0	76
Xanthan Gum (25kg sx)	25kg sx		56	0	2	0	54
Extrasweep (25kg) (Sacks)	Sacks		7	0	0	0	7

Transport

Transport Type	Transport Name	Arrived Time	Departed Time	Comment
Van		17:30	09:00	Travel to Windorah to pick up Ensign Mechanic, DLS Geologist and Wireline Witness. Trip took extra 1.5 hours due to wet & muddy road conditions.

Drillsearch

Well : Tibor-1 Drilling



Printed on 15 February 2013 03:53 AM (GMT+08:00)

Drillsearch

Well : Tibor-1 Drilling

Tibor-1 Drilling					
Report Number :	15	Day Wellsite Representative:	Ray C. Miller	Rig Manager:	Scott Cameron
Latitude (South)	25° 52' 17.80"	Night Wellsite Representative:	Kevin Gordon	Drilling Company:	ENSIGN
Longitude (East)	141° 16' 19.41"			Wellsite Geologist:	Alan Rightstone

Well Data							
Country:	Australia	Current Hole Size:	8.500 in	Casing OD:	9.625 in	AFE Number:	OPS-13-018
Field:		Measured Depth:	1,338.0 m	Casing MD:	750.9 m	Original AFE:	
Rig:	Ensign 918	True Vertical Depth:	1,338.0 m	Casing TVD:	750.9 m	Supp AFE No:	
Ground Level:	135.0 m	24 Hr Progress:	238.0 m	TOL MD:		Orig. & Sup.	
RT to GL	5.15 m	Days On Well:	14.54	TOL TVD:		AFE:	
Plan TD (MD):	1,738.0 m	Days Since Spud:	8.29	Lnr Shoe MD:		Daily Cost:	
Plan TD (TVD):	1,738.0 m	Last BOP Date:	12 Feb 2013	Lnr Shoe TVD:		Cum. Cost:	
		FIT/LOT:	/16.64 ppg			Last LTI Date:	05 Feb 2012
						Days Since LTI:	376

Current Op @ 0600:	RIH on wiper trip at 830mRT.
Planned Op:	Wiper trip to shoe. RIH. Drill 8 1/2" hole to section TD at 1738m.

Summary for Period 0000 Hrs to 2400 Hrs on 15 Feb 2013

Drill 8 1/2" hole from 1100mRT to 1338mRT. Run single shot surveys every 150m.

HSE Summary

Events	Num. Events	Date of Last	Days Since	Description	Remarks
Pre-Tour Safety Meeting	1	15 Feb 2013 00:00	0	PTSM	Discuss hazards of upcoming operations.
Pre-Tour Safety Meeting	1	15 Feb 2013 11:45	0	PTSM	Discuss hazards of upcoming operations.
Number of Observe Cards	8	15 Feb 2013 00:00	0	Hazardous observation cards.	Various hazardous conditions or behaviour observed.
Function tested TBA/TDS Upper & Lower Stop Limits	2	15 Feb 2013 00:00	0	Function test Crown-O-Matic.	Manually tripped Crown-o-Matic to ensure operational.

Operations for Period 0000 Hrs to 2400 Hrs On 15 Feb 2013

PHSE	CLS (RC)	OP	From	To	Hrs	Depth (m)	Activity Description
PH0	P	DA	00:00	11:00	11.00	1,174.0	Drill 8 1/2" hole from 1100mRT to 1174mRT.
PH0	P	CMD	11:00	11:15	0.25	1,174.0	Circulate bottoms up.
PH0	P	SVY	11:15	11:45	0.50	1,174.0	Take single shot survey on wire line at 1158mRT. Inclination = 0.25 degrees E82S. Monitor well on trip tank while run survey.
PH0	P	DA	11:45	12:00	0.25	1,176.0	Drill 8 1/2" hole from 1174mRT to 1176mRT.
PH0	P	DA	12:00	18:45	6.75	1,280.0	Drill 8 1/2" hole from 1176mRT to 1280mRT.
PH0	P	RS	18:45	19:15	0.50	1,280.0	Service rig.
PH0	P	DA	19:15	21:45	2.50	1,318.0	Drill 8 1/2" hole from 1280mRT to 1318mRT.
PH0	P	CMD	21:45	22:00	0.25	1,318.0	Circulate bottoms up prior to survey
PH0	P	SVY	22:00	22:30	0.50	1,318.0	Take single shot survey on wire line at 1300mRT. Inclination = 0.5 degrees N25E. Monitor well on trip tank while run survey.
PH0	P	DA	22:30	24:00	1.50	1,338.0	Drill 8 1/2" hole from 1318mRT to 1338mRT.

Operations for Period 0000 Hrs to 0600 Hrs On 16 Feb 2013

PHSE	CLS (RC)	OP	From	To	Hrs	Depth (m)	Activity Description
PH0	P	DA	00:00	01:45	1.75	1,357.0	Drill 8 1/2" hole from 1338mRT to 1357mRT. (Decision made to wiper trip early due to leak in hydromatic supply line requiring repairs).
PH0	P	CMD	01:45	02:30	0.75	1,357.0	Sweep hole with 30bbl Hi-Vis pill and circulate hole clean.

Printed on 16 February 2013 04:06 AM (GMT+08:00)

Drillsearch

Well : Tibor-1 Drilling

PH0	P	WT	02:30	03:30	1.00	1,357.0	Flow check - Static. POOH from 1357m to 1210m. Brakes over heating due to no water circulation. Block will not free fall.
PH0	TP (RE)	CMD	03:30	04:00	0.50	1,357.0	Rig up circulating swage and circulate while repairs completed on hydromatic.
PH0	P	WT	04:00	05:15	1.25	1,357.0	Continue POOH for wiper trip from 1210mRT to 735m. Flow check - Static.
PH0	P	SCL	05:15	05:45	0.50	1,357.0	Slip 30ft drilling line.
PH0	P	WT	05:45	06:00	0.25	1,357.0	RIH from 735mRT to 830mRT.

Performance Summary

	Daily		Cumulative Well	
	Hrs	%	Hrs	%
P	24.0	100.0	339.0	97.1
TP	0.0	0.0	2.0	0.6
TU	0.0	0.0	8.0	2.3
Undefined	0.0	0.0	0.0	0.0
Total	24.0	100.0	349.0	100.0

WBM Data — **Cost Today:** **$ 5,045**

Mud Desc:	4PHB	API FL:	8.5 cm³/30min	Cl:	23,100 %	Solids:	5.2 %	Glycol:	
Check Depth:	1,273.0 m	Filter-Cake:	1 /32nd"	KCl:	4.0 %	H2O:	95 %	Viscosity:	40 s/qt
Time:	18:30	HTHP-FL:		Hard/Ca:	400.00 mg/L	Sand:	0.2 %	PV:	11 cP
Weight:	9.00 ppg	HTHP-Cake:		MBT:	10.00 %	pH:	10	YP:	15 lbf/100ft²
Temp:	58.0 °C	HTHP-Temp:		Pm:	0.10	PHPA:	0.21 ppb	Gel 10s:	5 lbf/100ft²
		HTHP-Press:		Pf:	0.16	Mf:	1.00	Gel 10m:	10 lbf/100ft²

Comment:

RPM	Reading
3	5
6	6
100	15
200	21
300	26
600	37

Shakers, Volumes and Losses Data — **Engineer : Roni Tan**

Equipment	Description	Mesh Size
Centrifuge	Scomi DE-1000	
Shaker	Derrick Shale Shaker	325 x 2 - 400 x 2
Shaker	Derrick Shale Shaker	325x 4

Available	743 bbl
Active	359 bbl
Mixing	83 bbl
Hole	266 bbl
Slug	
Reserve	35 bbl
Kill	
Other	

Losses	200 bbl
Downhole	18 bbl
Surf. + Equip.	84 bbl
Dumped	60 bbl
De-Gasser	
De-Sander	
De-Silter	
Centrifuge	38 bbl
Other	

Comment: Used 70bbls from Turkey's Nest.

Pumps

		Pump data - Last 24 Hrs							Slow Pump Data	
No	Type	Liner (in)	SPM	Eff. (%)	Flow (galUS/min)	SPP (psi)	Depth (m)	MW (ppg)	SPM	SPP (psi)
1	Continental Emsco F-800	5.500	78	97		1,400	1,250.0	9.10	60 40	200 100
2	Continental Emsco F-800	5.500	78	97		1,400	1,250.0	9.10	60 40	200 100

Drillsearch

Well : Tibor-1 Drilling

Casing

OD	LOT	FIT	Casing Shoe (MD)	Casing Shoe (TVD)
244 mm (9 5/8")	16.70 ppg		750.9 m	750.9 m

BHA #2

BHA Type:	Pendulum	Total Weight Wet:	41 klb
Depth In/Out:	754.0 m/	Weight Below Jar Wet:	31 klb
Date In/Out:	#12 (12 Feb 2013)/		
Total Length:	198.1 m		

BHA Description: 8 1/2" PDC bit, Bit Sub, X/O, 6 1/2" Teledrift, X/O, 6 1/2" NMDC, 8 1/2" stab, 13 x 6 1/2" Drill Collars, Jars, 2 x 6 1/2" Drill collars, 4 x 4 1/2" HWDP.

BHA Run Comment:

BHA Daily Summary

Pickup Weight:	121 klb	Torque (max):	5,000 ft-lbs	D.C. (1) Ann Velocity:	6 ft/s
Slack-Off Weight:	120 klb	Torque Avg. Off Bottom:	1,900 ft-lbs	D.C. (2) Ann Velocity:	0 ft/s
String Weight:	120 klb	Torque Avg. On Bottom:	4,500 ft-lbs	H.W.D.P. Ann. Velocity:	3 ft/s
Jars Hours Logged:	21.43 h			D.P. Ann. Velocity:	3 ft/s

Summary:

BHA Component

Equipment	Description	Length (m)	OD (in)	ID (in)	Serial #	Hours
Bit		0.35	8.500	2.000	743496	0.00
Bit Sub		0.91	6.187	3.500	GUWU 2427	
X/O		0.19	6.375	2.500	12565	
Teledrift		2.82	6.250	2.875	Y1926A	
X/O		0.45	6.375	2.875	R3 010-02	
NMDC		9.18	6.500	2.875	ENS 127200-1	
8 1/2" String Stab	8 1/2" FULL GAUGE.	1.55	6.500	2.875	T 3310-0	
Drill Collar		8.74	6.187	2.875	30-2-21	
Drill Collar		9.30	6.187	2.937	29013	
Drill Collar		8.92	6.187	3.000	30-2-2	
Drill Collar		9.10	6.125	2.937	922-22	
Drill Collar		9.09	6.125	2.937	592226	
Drill Collar		8.97	6.000	2.500	29-008	
Drill Collar		9.20	6.187	2.312	29-018	
Drill Collar		9.49	6.437	2.375	EDC 03231	
Drill Collar		8.46	6.125	3.062	GP 3922-31	
Drill Collar		8.82	6.187	3.062	GP 5922-9	
Drill Collar		8.72	6.250	3.000	30-2-15	
Drill Collar		9.11	6.250	2.875	GP 5922-24	
Drill Collar		9.05	6.125	3.000	30-2-25	
6 1/2" Hydraulic Jar		9.50	6.250	2.375	650 E2-12-6	
Drill Collar		8.92	6.125	3.000	30-2-11	
Drill Collar		9.42	6.250	2.880	S26132-13	
HWDP		9.45	6.187	2.875	A58715	
HWDP		9.45	6.187	2.812	A58730	
HWDP		9.47	6.250	2.812	A58716	
HWDP		9.45	6.312	2.812	A58720	

Directional Data

Slide Time:		Rotate Time:		Circ. Time:	
Slide (%):		Rotate (%):		Circ. (%):	
Total Slide Time:	0.00 h	Total Rotate Time:	0.00 h	Total Circ. Time:	0.00 h
Total Revs:	88 Krevs	HSI:	2.43 hp/in²		

Drillsearch

Well : Tibor-1 Drilling

Bit #2						Nozzles		
Size:	216 mm (8 1/2")	Type:	PDC	IADC #:	M223	#		Size (/32nd")
Manufacturer:	BHI (Hughes Christensen)	Model:	Q505F	TFA:	0.552 in²	5	x	12
Serial #:	743496	Bit Wear:	- - - - - - -	Cost:	$			
Bit Run Comment:								
Bit Wear Comment:								

Drilling Parameters

BHA Run #2

Top Depth:	754.0 m	PWD ECD:	
Bottom Depth:	1,338.0 m		

	Min	Avg	Max
Flow	377 galUS/min	417 galUS/min	457 galUS/min
Surface RPM	75 rpm	96 rpm	117 rpm
Downhole RPM	75 rpm	96 rpm	117 rpm
Pressure	960 psi	1,182 psi	1,403 psi
Torque	3,500 ft-lbs	5,250 ft-lbs	7,000 ft-lbs
WOB	3 klbs	10 klbs	17 klbs
ROP	6.00 m/h	24.33 m/h	34.05 m/h

Survey

MD (m)	Incl. (°)	Corr. Az (°)	TVD (m)	'V' Sect (m)	Dogleg (deg/30m)	N/S (m)	E/W (m)	Tool Type
1,104.0	0.5	0.00						Teledrift
1,133.0	0.5	0.00						Teledrift
1,158.0	0.3	98.00	1,157.8	- 7,138,511.99	0.219	-5.8	8.2	MagneticSS
1,162.0	0.5	0.00						Teledrift
1,192.0	0.5	0.00						Teledrift
1,230.0	0.5	0.00						Teledrift
1,250.0	0.5	0.00						Teledrift
1,280.0	0.5	0.00						Teledrift
1,297.0	0.5	0.00						Teledrift
1,300.0	0.5	25.00	1,299.8	- 7,138,511.48	0.106	-5.3	8.8	MagneticSS

Formations

Name	Top (m)
Winton Formation	10.7
Mackunda Formation	633.0
Allaru Mudstone	750.0
Toolebuc Formation	912.0
Wallumbilla Formation	970.0
Cadna-Owie Formation	1,215.0
Murta Formation	1,281.0
Namur Sandstone	1,314.0

Personnel On Board

Job Title	Personnel	Company	Pax
Day OCR	Ray Miller	Drillsearch	1
Night OCR	Kevin Gordon	Drillsearch	1
Geologist	Alan Righthouse	Drillsearch	1
HSE	Darren Norvill	Drillsearch	1
Geogoligist Trainee	Craig Bunting	Drillsearch	1
Wireline Witness	Rohti	Drillsearch	1

Drillsearch

Well : Tibor-1 Drilling

Personnel On Board

Job Title	Personnel	Company	Pax
Medic	Fiona Harrington	ISOS	1
Rig Manager	Scott Cameron	ENSIGN	1
Night Toolpusher	Andrew Hoey	ENSIGN	1
Day Toolpusher	Pat Pyne	ENSIGN	1
Driller	Adrian Bromwich	ENSIGN	1
Derrickman	Peter Geronymakis	ENSIGN	1
Motorman	Mitchell Rosewarne	ENSIGN	1
Floorman	Robert Birse	ENSIGN	1
Floorman	Ben Shipway	ENSIGN	1
Lease Hand	Nathan Ownsworth	ENSIGN	1
Lease Hand	Mike Urmersbach	ENSIGN	1
Mechanic	Nick Colbbet	ENSIGN	1
Electrician	Mick Milligan	ENSIGN	1
Welder	Gary Jarrad	ENSIGN	1
Driller	Paul Hall	ENSIGN	1
Derrickman	Danny Pijovic	ENSIGN	1
Motorman	Aymon Allen	ENSIGN	1
Floorman	Steven Stabile	ENSIGN	1
Floorman	Jair Hadley	ENSIGN	1
Lease Hand	Tim Moreton	ENSIGN	1
Summer Lease Hand	Nelson Hofling	ENSIGN	1
Driver	Healy Lyrtzis	ENSIGN	1
Camp Boss	Hans Dathe	Oil Industry Catering Services	1
Night Cook	John Reisir	Oil Industry Catering Services	1
Campie	P Lynch	Oil Industry Catering Services	1
Campie	J Lindgren	Oil Industry Catering Services	1
Mud Logger	Pramod Gadhe	Geoservice	1
Mud Logger	Sam Corey	Geoservice	1
Trainee	S. Cheoni	Geoservice	1
Trainee	D matthews	Geoservice	1
Mud Engineer	Roni Tang	Rheochem	1
Centrifuge Technician	Ray Lloyd	Scomi Oiltools	1
		Total	38

Bulk Stocks

Name	Unit	Start Amount	Previous Balance	In	Used	Adjust	Balance
Rig Fuel (ltr)	ltr		29,000	0	0	0	29,000
Camp Fuel (ltr)	ltr		4,150	0	350	0	3,800
Pot Water (ltr)	ltr		20,500	22,000	6,500	0	36,000
Rigsite Potable Water (ltr)	ltr		9,500	0	1,300	0	8,200
Cementing Water (bbl)	bbl		360	0	0	0	360
Ancor-1(25 kg) (Pails)	Pails		16	0	0	0	16
Barite Sacks (Sacks)	Sacks		1,514	0	0	0	1,514
Calcium Chloride(25 kg) (Sacks)	Sacks		42	0	0	0	42
Caustic Soda (25 kg sx)	25 kg sx		33	0	2	0	31
Cell Plug (11.3kg) (Sacks)	Sacks		70	0	0	0	70
Citric Acid (25kg) (Sacks)	Sacks		38	0	0	0	38
Defoam - A (ltr)	ltr		11	0	0	0	11
EDTA (25kg) (Sacks)	Sacks		40	0	0	0	40
Fracseal Fine (sx)	sx		210	0	0	0	210
Idcide-20 (20ltr) (Pails)	Pails		60	0	2	0	58
JK 161 LV (25kg) (Sacks)	Sacks		59	0	0	0	59

Drillsearch

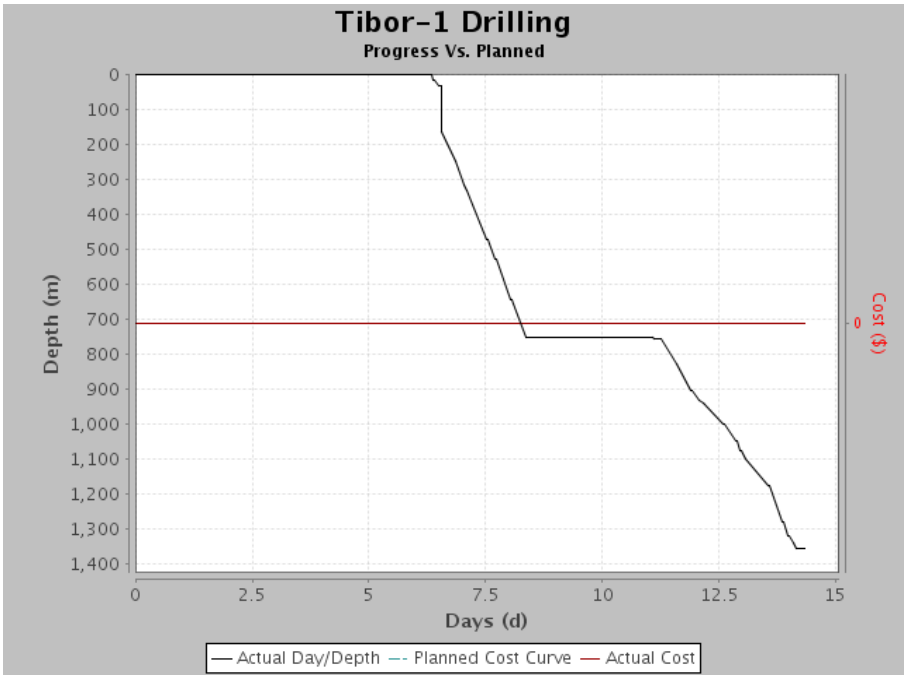
Well : Tibor-1 Drilling

Bulk Stocks

Name	Unit	Start Amount	Previous Balance	In	Used	Adjust	Balance
Potassium Chloride (25 kg bag)	25 kg bag		526	0	96	0	430
Lime (sx)	sx		54	0	0	0	54
Maxigel (25kg) (Sacks)	Sacks		255	0	0	0	255
Mica Med (25kg) (Sacks)	Sacks		20	0	0	0	20
Micro Flow (20ltr) (Pails)	Pails		32	0	0	0	32
Pipe Freeing Compound (Tessodril BS 2001) (drums)	drums		4	0	0	0	4
Quikseal Coarse (18.2kg) (Sacks)	Sacks		50	0	0	0	50
Quikseal Med (18.2kg) (Sacks)	Sacks		99	0	0	0	99
Rheopac LV (25kg) (Sacks)	Sacks		64	0	10	0	54
Salt-25KG (Sacks)	Sacks		732	0	0	0	732
Sandseal (sx)	sx		50	0	0	0	50
SAPP (sx)	sx		38	0	0	0	38
SI 70P (25kg) (Sacks)	Sacks		2	0	0	0	2
Soda Ash (sx)	sx		37	0	2	0	35
Sodium Bicarbonate (bag)	bag		44	0	0	0	44
Sodium Sulphite (sx)	sx		76	0	0	0	76
Xanthan Gum (25kg sx)	25kg sx		54	0	4	0	50
Extrasweep (25kg) (Sacks)	Sacks		7	0	0	0	7

Transport

Transport Type	Transport Name	Arrived Time	Departed Time	Comment
Van		17:00	09:00	Travel to Windorah to drop off Ensign Mechanic and electrician to connect with flight to Brisbane.
Van		15:00	06:00	Pick up new lease hand from Ballera airport.



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Drillsearch

Well : Tibor-1 Drilling

Tibor-1 Drilling					
Report Number :	16	Day Wellsite Representative:	Ray C. Miller	Rig Manager:	Scott Cameron
Latitude (South)	25° 52' 17.80"	Night Wellsite Representative:	Kevin Gordon	Drilling Company:	ENSIGN
Longitude (East)	141° 16' 19.41"			Wellsite Geologist:	Alan Rightstone

Well Data							
Country:	Australia	Current Hole Size:	8.500 in	Casing OD:	9.625 in	AFE Number:	OPS-13-018
Field:		Measured Depth:	1,473.0 m	Casing MD:	750.9 m	Original AFE:	
Rig:	Ensign 918	True Vertical Depth:	1,473.0 m	Casing TVD:	750.9 m	Supp AFE No:	
Ground Level:	135.0 m	24 Hr Progress:	135.0 m	TOL MD:		Orig. & Sup.	
RT to GL	5.15 m	Days On Well:	15.54	TOL TVD:		AFE:	
Plan TD (MD):	1,738.0 m	Days Since Spud:	9.29	Lnr Shoe MD:		Daily Cost:	
Plan TD (TVD):	1,738.0 m	Last BOP Date:	12 Feb 2013	Lnr Shoe TVD:		Cum. Cost:	
		FIT/LOT:	/16.64 ppg			Last LTI Date:	05 Feb 2012
						Days Since LTI:	377

Current Op @ 0600:	Work string from 1454mRT to 1460mRT while building mud weight to 9.3ppg.
Planned Op:	Continue drill 8 1/2" hole to section TD at 1738mRT.

Summary for Period 0000 Hrs to 2400 Hrs on 16 Feb 2013

Drill 8 1/2" hole from 1338mRT to 1357mRT. Circulate bottoms up. Wiper trip to shoe while repair Hydromatic. RIH. Drill 8 1/2" hole from 1357mRT to 1473mRT. Work tight connections at 1463mRT and 1473mRT.

HSE Summary

Events	Num. Events	Date of Last	Days Since	Description	Remarks
Pre-Tour Safety Meeting	1	16 Feb 2013 00:00	0	PTSM	Discuss hazards of upcoming operations.
Pre-Tour Safety Meeting	1	16 Feb 2013 11:45	0	PTSM	Discuss hazards of upcoming operations.
Number of Observe Cards	0	16 Feb 2013 00:00	0	Hazardous observation cards.	Various hazardous conditions or behaviour observed.
Function tested TBA/TDS Upper & Lower Stop Limits	2	16 Feb 2013 00:00	0	Function test Crown-O-Matic.	Manually tripped Crown-o-Matic to ensure operational.
Kick/BOP Drill	1	16 Feb 2013 00:00	0	Kick Drill.	Sound horn, crew stabbed F.O.S.V on connection.

Operations for Period 0000 Hrs to 2400 Hrs On 16 Feb 2013

PHSE	CLS (RC)	OP	From	To	Hrs	Depth (m)	Activity Description
PH0	P	DA	00:00	01:45	1.75	1,357.0	Drill 8 1/2" hole from 1338mRT to 1357mRT. (Decision made to wiper trip early due to leak in hydromatic supply line requiring repairs).
PH0	P	CMD	01:45	02:30	0.75	1,357.0	Sweep hole with 30bbl Hi-Vis pill and circulate hole clean.
PH0	P	WT	02:30	03:30	1.00	1,357.0	Flow check - Static. POOH from 1357m to 1210m. Brakes over heating due to no water circulation. Block will not free fall.
PH0	TP (RE)	CMD	03:30	04:00	0.50	1,357.0	Rig up circulating swage and circulate while repairs completed on hydromatic.
PH0	P	WT	04:00	05:15	1.25	1,357.0	Continue POOH for wiper trip from 1210mRT to 735m. Flow check - Static.
PH0	P	SCL	05:15	05:45	0.50	1,357.0	Slip 30ft drilling line.
PH0	P	WT	05:45	08:00	2.25	1,357.0	RIH from 735mRT to 1326m. Fill string every 20stds.
PH0	P	RW	08:00	08:30	0.50	1,357.0	Wash to bottom, no fill encountered.
PH0	P	DA	08:30	12:00	3.50	1,396.0	Drill 8 1/2" hole from 1357mRT to 1396mRT. Pump Rate=400 Gpm. WOB=15K. Pump Pressure = 1081Psi. Mud Weight = 9.1ppg. RPM = 90. ROP average = 10 to 20 M/Hr. MSS survey @ 1388m = 0.75 degrees. Performing flow checks prior to each connection.

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Drillsearch

Well : Tibor-1 Drilling

Operations for Period 0000 Hrs to 2400 Hrs On 16 Feb 2013

PHSE	CLS (RC)	OP	From	To	Hrs	Depth (m)	Activity Description
PH0	P	DA	12:00	19:45	7.75	1,463.0	Drill 8 1/2" hole from 1396mRT to 1463mRT. Pump Rate=400 Gpm. WOB=15K. Pump Pressure = 1081Psi. Mud Weight = 9.1ppg. RPM = 90. ROP average = 10 to 20 M/Hr. ROP from 1460mRT to 1463mRT dropped to 7 to 10M/hr.
PH0	U	RW	19:45	21:45	2.00	1,463.0	Attempt to make connection. Overpull 10 to 15Kips from 1457mRT to 1451mRT. Work string till free from 1463 to 1441mRT. Unable to RIH to bottom. Found 7m fill. Wash and ream from 1456mRT to 1463mRT. Sweep hole with 30bbl Hi-Vis pill. Reciprocate and rotate string till hole clean and able to run to bottom without rotation.
PH0	P	DA	21:45	23:30	1.75	1,473.0	Drill 8 1/2" hole from 1463mRT to 1473mRT. Pump Rate=420 Gpm. WOB=15K. Pump Pressure = 1600Psi. Mud Weight = 9.1ppg. RPM = 90. ROP average = 6 to 9 M/Hr.
PH0	U	RW	23:30	24:00	0.50	1,473.0	Attempt to make connection. Overpull 10 to 15Kips from 1470mRT to 1457mRT. Work string till free from 1473 to 1453mRT. Unable to RIH past 1457mRT due to fill. Laid out 1 single. Wash and ream fill from 1457mRT to 1460mRT.

Operations for Period 0000 Hrs to 0600 Hrs On 17 Feb 2013

PHSE	CLS (RC)	OP	From	To	Hrs	Depth (m)	Activity Description
PH0	U	RW	00:00	02:30	2.50	1,473.0	Wash and ream fill from 1460mRT to 1473mRT. Sweep hole with 30bbl Hi -Vis pill. Reciprocate and rotate string till hole clean and able to run to bottom without rotation.
PH0	U	DA	02:30	05:00	2.50	1,473.0	Drill ahead from 1473mRT to 1482mRT. Pump Rate=420 Gpm. WOB= 15K. Pump Pressure = 1600Psi. Mud Weight = 9.1ppg. RPM = 90. ROP average = 5 to 7 M/Hr.
PH0	U	CMD	05:00	06:00	1.00	1,473.0	Attempt to make connection. Overpull 10 to 15Kips. Back ream and work Kelly and single free from 1482mRT to 1461mRT. Lay out single. Continue back ream from 1461mRT to 1454mRT. Circulate, reciprocate and rotate string while increase mud weight to 9.3ppg.

Performance Summary

	Daily		Cumulative Well	
	Hrs	%	Hrs	%
P	21.0	87.5	360.0	96.5
TP	0.5	2.1	2.5	0.7
TU	0.0	0.0	8.0	2.1
U	2.5	10.4	2.5	0.7
Undefined	0.0	0.0	0.0	0.0
Total	24.0	100.0	373.0	100.0

Drillsearch

Well : Tibor-1 Drilling

WBM Data

Cost Today: $ 3,821

Mud Desc:	3PHB	API FL:	7.5 cm³/30min	Cl:	22,700 %	Solids:	5.0 %	Glycol:	
Check Depth:	1,456.0 m	Filter-Cake:	1 /32nd"	KCl:	4.0 %	H2O:	95 %	Viscosity:	42 s/qt
Time:	19:00	HTHP-FL:		Hard/Ca:	320.00 mg/L	Sand:	0.3 %	PV:	11 cP
Weight:	9.00 ppg	HTHP-Cake:		MBT:	10.00 %	pH:	10	YP:	17 lbf/100ft²
Temp:	60.0 °C	HTHP-Temp:		Pm:	0.10	PHPA:		Gel 10s:	5 lbf/100ft²
		HTHP-Press:		Pf:	0.16	Mf:	0.80	Gel 10m:	10 lbf/100ft²

Comment:

RPM	Reading
3	5
6	6
100	16
200	21
300	28
600	39

Shakers, Volumes and Losses Data

Engineer : Roni Tan

Equipment	Description	Mesh Size
Centrifuge	Scomi DE-1000	
Shaker	Derrick Shale Shaker	325 x 2 - 400 x 2
Shaker	Derrick Shale Shaker	325x 4

Available	**734 bbl**	**Losses**	**142 bbl**
Active	331 bbl	Downhole	17 bbl
Mixing	70 bbl	Surf. + Equip.	57 bbl
Hole	308 bbl	Dumped	30 bbl
Slug		De-Gasser	
Reserve	25 bbl	De-Sander	
Kill		De-Silter	
Other		Centrifuge	38 bbl
		Other	

Comment: Used 70bbls from Turkey's Nest.

Pumps

Pump data - Last 24 Hrs

No	Type	Liner (in)	SPM	Eff. (%)	Flow (galUS/min)	SPP (psi)	Depth (m)	MW (ppg)	Slow Pump Data SPM	Slow Pump Data SPP (psi)
1	Continental Emsco F-800	5.500	78	97		1,400	1,405.0	9.10	60 40	200 100
2	Continental Emsco F-800	5.500	78	97		1,400	1,405.0	9.10	60 40	200 100

Casing

OD	LOT	FIT	Casing Shoe (MD)	Casing Shoe (TVD)
244 mm (9 5/8")	16.70 ppg		750.9 m	750.9 m

BHA #2

BHA Type:	Pendulum	Total Weight Wet:	41 klb
Depth In/Out:	754.0 m/	Weight Below Jar Wet:	31 klb
Date In/Out:	#12 (12 Feb 2013)/		
Total Length:	198.1 m		

BHA Description: 8 1/2" PDC bit, Bit Sub, X/O, 6 1/2" Teledrift, X/O, 6 1/2" NMDC, 8 1/2" stab, 13 x 6 1/2" Drill Collars, Jars, 2 x 6 1/2" Drill collars, 4 x 4 1/2" HWDP.

BHA Run Comment:

Drillsearch

Well : Tibor-1 Drilling

BHA Daily Summary

Pickup Weight:	126 klb	Torque (max):	8,000 ft-lbs	D.C. (1) Ann Velocity:	5 ft/s
Slack-Off Weight:	120 klb	Torque Avg. Off Bottom:	2,500 ft-lbs	D.C. (2) Ann Velocity:	0 ft/s
String Weight:	123 klb	Torque Avg. On Bottom:	6,000 ft-lbs	H.W.D.P. Ann. Velocity:	3 ft/s
Jars Hours Logged:	17.17 h			D.P. Ann. Velocity:	3 ft/s

Summary:

BHA Component

Equipment	Description	Length (m)	OD (in)	ID (in)	Serial #	Hours
Bit		0.35	8.500	2.000	743496	0.00
Bit Sub		0.91	6.187	3.500	GUWU 2427	
X/O		0.19	6.375	2.500	12565	
Teledrift		2.82	6.250	2.875	Y1926A	
X/O		0.45	6.375	2.875	R3 010-02	
NMDC		9.18	6.500	2.875	ENS 127200-1	
8 1/2" String Stab	8 1/2" FULL GAUGE.	1.55	6.500	2.875	T 3310-0	
Drill Collar		8.74	6.187	2.875	30-2-21	
Drill Collar		9.30	6.187	2.937	29013	
Drill Collar		8.92	6.187	3.000	30-2-2	
Drill Collar		9.10	6.125	2.937	922-22	
Drill Collar		9.09	6.125	2.937	592226	
Drill Collar		8.97	6.000	2.500	29-008	
Drill Collar		9.20	6.187	2.312	29-018	
Drill Collar		9.49	6.437	2.375	EDC 03231	
Drill Collar		8.46	6.125	3.062	GP 3922-31	
Drill Collar		8.82	6.187	3.062	GP 5922-9	
Drill Collar		8.72	6.250	3.000	30-2-15	
Drill Collar		9.11	6.250	2.875	GP 5922-24	
Drill Collar		9.05	6.125	3.000	30-2-25	
6 1/2" Hydraulic Jar		9.50	6.250	2.375	650 E2-12-6	
Drill Collar		8.92	6.125	3.000	30-2-11	
Drill Collar		9.42	6.250	2.880	S26132-13	
HWDP		9.45	6.187	2.875	A58715	
HWDP		9.45	6.187	2.812	A58730	
HWDP		9.47	6.250	2.812	A58716	
HWDP		9.45	6.312	2.812	A58720	

Directional Data

Slide Time:		Rotate Time:		Circ. Time:	
Slide (%):		Rotate (%):		Circ. (%):	
Total Slide Time:	0.00 h	Total Rotate Time:	0.00 h	Total Circ. Time:	0.00 h
Total Revs:	57 Krevs	HSI:	2.15 hp/in²		

Bit #2

						Nozzles		
Size:	216 mm (8 1/2")	Type:	PDC	IADC #:	M223	#		Size (/32nd")
Manufacturer:	BHI (Hughes Christensen)	Model:	Q505F	TFA:	0.552 in²	5	x	12
		Bit Wear:	- - - - - - -	Cost:	$			
Serial #:	743496							

Bit Run Comment:

Bit Wear Comment:

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Well : Tibor-1 Drilling

Drilling Parameters

BHA Run #2

Top Depth:	754.0 m	PWD ECD:	
Bottom Depth:	1,473.0 m		

	Min	Avg	Max
Flow	385 galUS/min	400 galUS/min	415 galUS/min
Surface RPM	66 rpm	88 rpm	110 rpm
Downhole RPM	66 rpm	88 rpm	110 rpm
Pressure	1,066 psi	1,133 psi	1,200 psi
Torque	2,500 ft-lbs	5,250 ft-lbs	8,000 ft-lbs
WOB	3 klbs	13 klbs	22 klbs
ROP	7.00 m/h	29.96 m/h	28.82 m/h

Survey

MD (m)	Incl. (°)	Corr. Az (°)	TVD (m)	'V' Sect (m)	Dogleg (deg/30m)	N/S (m)	E/W (m)	Tool Type
1,388.0	0.8	17.00	1,387.8	-7,138,510.552	0.107	-4.4	9.1	

Formations

Name	Top (m)
Winton Formation	10.7
Mackunda Formation	633.0
Allaru Mudstone	750.0
Toolebuc Formation	912.0
Wallumbilla Formation	970.0
Cadna-Owie Formation	1,215.0
Murta Formation	1,281.0
Namur Sandstone	1,314.0
Westbourne Formation	1,415.0
Adori Sandstone	1,460.0

Personnel On Board

Job Title	Personnel	Company	Pax
Day OCR	Ray Miller	Drillsearch	1
Night OCR	Kevin Gordon	Drillsearch	1
Geologist	Alan Righthouse	Drillsearch	1
HSE	Darren Norvill	Drillsearch	1
Geogoligist Trainee	Craig Bunting	Drillsearch	1
Wireline Witness	Rohti Hamzah	Drillsearch	1
Medic	Fiona Harrington	ISOS	1
Rig Manager	Scott Cameron	ENSIGN	1
Night Toolpusher	Andrew Hoey	ENSIGN	1
Day Toolpusher	Pat Pyne	ENSIGN	1
Driller	Adrian Bromwich	ENSIGN	1
Derrickman	Peter Geronymakis	ENSIGN	1
Motorman	Mitchell Rosewarne	ENSIGN	1
Floorman	Robert Birse	ENSIGN	1
Floorman	Ben Shipway	ENSIGN	1
Lease Hand	Nathan Ownsworth	ENSIGN	1
Lease Hand	Mike Urmersbach	ENSIGN	1
Mechanic	Nick Colbbet	ENSIGN	1
Electrician	Mick Milligan	ENSIGN	1
Welder	Gary Jarrad	ENSIGN	1
Driller	Paul Hall	ENSIGN	1

Drillsearch

Well : Tibor-1 Drilling

Personnel On Board

Job Title	Personnel	Company	Pax
Derrickman	Danny Pijovic	ENSIGN	1
Motorman	Aymon Allen	ENSIGN	1
Floorman	Steven Stabile	ENSIGN	1
Floorman	Jair Hadley	ENSIGN	1
Lease Hand	Tim Moreton	ENSIGN	1
Summer Lease Hand	Nelson Hofling	ENSIGN	1
Driver	Healy Lyrtzis	ENSIGN	1
Camp Boss	Hans Dathe	Oil Industry Catering Services	1
Night Cook	John Reisir	Oil Industry Catering Services	1
Campie	P Lynch	Oil Industry Catering Services	1
Campie	J Lindgren	Oil Industry Catering Services	1
Mud Logger	Pramod Gadhe	Geoservice	1
Mud Logger	Sam Corey	Geoservice	1
Trainee	S. Cheoni	Geoservice	1
Trainee	D matthews	Geoservice	1
Mud Engineer	Roni Tang	Rheochem	1
Centrifuge Technician	Ray Lloyd	Scomi Oiltools	1
		Total	38

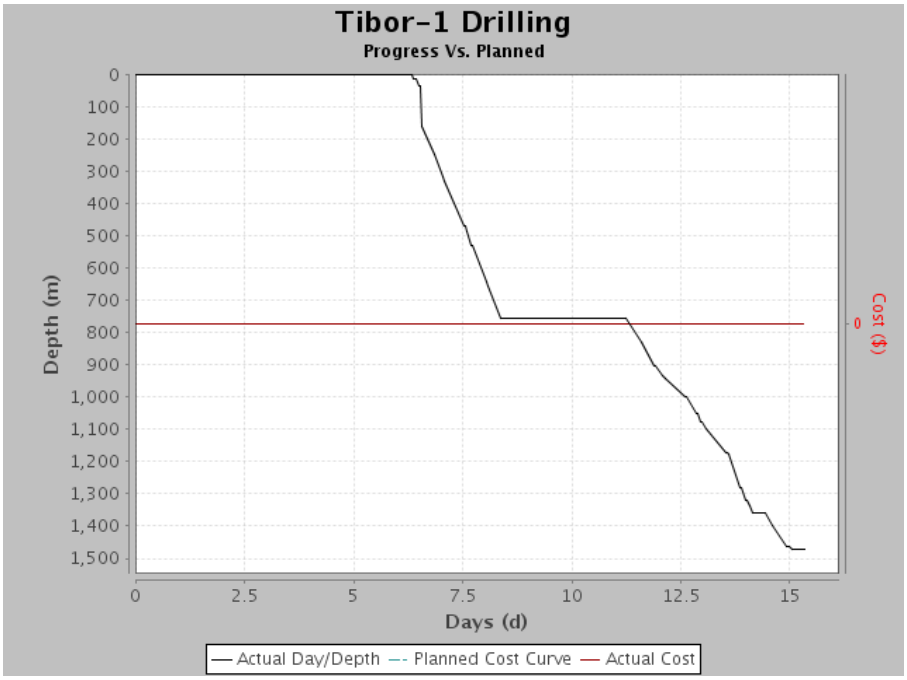
Bulk Stocks

Name	Unit	Start Amount	Previous Balance	In	Used	Adjust	Balance
Rig Fuel (ltr)	ltr		27,000	0	1,950	0	25,050
Camp Fuel (ltr)	ltr		3,800	0	350	350	3,800
Pot Water (ltr)	ltr		36,000	0	5,000	0	31,000
Rigsite Potable Water (ltr)	ltr		8,200	0	1,200	0	7,000
Cementing Water (bbl)	bbl		360	0	0	0	360
Ancor-1(25 kg) (Pails)	Pails		16	0	0	0	16
Barite Sacks (Sacks)	Sacks		1,514	0	0	0	1,514
Calcium Chloride(25 kg) (Sacks)	Sacks		42	0	0	0	42
Caustic Soda (25 kg sx)	25 kg sx		31	0	1	0	30
Cell Plug (11.3kg) (Sacks)	Sacks		70	0	0	0	70
Citric Acid (25kg) (Sacks)	Sacks		38	0	0	0	38
Defoam - A (ltr)	ltr		11	0	0	0	11
EDTA (25kg) (Sacks)	Sacks		40	0	0	0	40
Fracseal Fine (sx)	sx		210	0	0	0	210
Idcide-20 (20ltr) (Pails)	Pails		58	0	0	0	58
JK 161 LV (25kg) (Sacks)	Sacks		59	0	0	0	59
Potassium Chloride (25 kg bag)	25 kg bag		430	0	46	0	384
Lime (sx)	sx		54	0	4	0	50
Maxigel (25kg) (Sacks)	Sacks		255	0	0	0	255
Mica Med (25kg) (Sacks)	Sacks		20	0	0	0	20
Micro Flow (20ltr) (Pails)	Pails		32	0	0	0	32
Pipe Freeing Compound (Tessodril BS 2001) (drums)	drums		4	0	0	0	4
Quikseal Coarse (18.2kg) (Sacks)	Sacks		50	0	0	0	50
Quikseal Med (18.2kg) (Sacks)	Sacks		99	0	0	0	99
Rheopac LV (25kg) (Sacks)	Sacks		54	0	15	0	39
Salt-25KG (Sacks)	Sacks		732	0	0	0	732
Sandseal (sx)	sx		50	0	0	0	50
SAPP (sx)	sx		38	0	0	0	38
SI 70P (25kg) (Sacks)	Sacks		2	0	0	0	2
Soda Ash (sx)	sx		35	0	4	0	31

Drillsearch

Well : Tibor-1 Drilling

Bulk Stocks							
Name	Unit	Start Amount	Previous Balance	In	Used	Adjust	Balance
Sodium Bicarbonate (bag)	bag		44	0	0	0	44
Sodium Sulphite (sx)	sx		76	0	5	0	71
Xanthan Gum (25kg sx)	25kg sx		50	0	2	0	48
Extrasweep (25kg) (Sacks)	Sacks		7	0	0	0	7



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Drillsearch

Well : Tibor-1 Drilling

Tibor-1 Drilling					
Report Number :	17	Day Wellsite Representative:	Ray C. Miller	Rig Manager:	Scott Cameron
Latitude (South)	25° 52' 17.80"	Night Wellsite Representative:	Kevin Gordon	Drilling Company:	ENSIGN
Longitude (East)	141° 16' 19.41"			Wellsite Geologist:	Alan Rightstone

Well Data							
Country:	Australia	Current Hole Size:	8.500 in	Casing OD:	9.625 in	AFE Number:	OPS-13-018
Field:		Measured Depth:	1,486.0 m	Casing MD:	750.9 m	Original AFE:	
Rig:	Ensign 918	True Vertical Depth:	1,485.9 m	Casing TVD:	750.9 m	Supp AFE No:	
Ground Level:	135.0 m	24 Hr Progress:	13.0 m	TOL MD:		Orig. & Sup.	
RT to GL	5.15 m	Days On Well:	16.54	TOL TVD:		AFE:	
Plan TD (MD):	1,738.0 m	Days Since Spud:	10.29	Lnr Shoe MD:		Daily Cost:	
Plan TD (TVD):	1,738.0 m	Last BOP Date:	12 Feb 2013	Lnr Shoe TVD:		Cum. Cost:	
		FIT/LOT:	/16.64 ppg			Last LTI Date:	05 Feb 2012
						Days Since LTI:	378

Current Op @ 0600:	Drill 8 1/2" hole at 1509 meters.
Planned Op:	Drill 8 1/2" hole to section TD at 1735mRT.

Summary for Period 0000 Hrs to 2400 Hrs on 17 Feb 2013

Drill 8 1/2" hole to 1486mRT. Encountered problems on connections from 1460mRT to 1486mRT (Adori formation). Excess backreaming required to make connections. Increased mud weight to 9.3ppg and reduced water loss to 4. No improvement. POOH and inspect BHA. Make up new bit and RIH. Wash and ream from 1412mRT to 1453mRT.

HSE Summary

Events	Num. Events	Date of Last	Days Since	Description	Remarks
Pre-Tour Safety Meeting	1	17 Feb 2013 00:00	0	PTSM	Discuss hazards of upcoming operations.
Pre-Tour Safety Meeting	1	17 Feb 2013 11:45	0	PTSM	Discuss hazards of upcoming operations.
Number of Observe Cards	7	17 Feb 2013 00:00	0	Hazardous observation cards.	Various hazardous conditions or behaviour observed.
Function tested TBA/TDS Upper & Lower Stop Limits	1	17 Feb 2013 00:00	0	Function test Crown-O-Matic.	Tripped Crown-o-Matic to ensure operational.
Weekly Safety Meeting	2	17 Feb 2013 00:00	0	Weekly safety meetings.	Held weekly safety meetings with each crew prior to starting their shift.

Operations for Period 0000 Hrs to 2400 Hrs On 17 Feb 2013

PHSE	CLS (RC)	OP	From	To	Hrs	Depth (m)	Activity Description
PH0	U	RW	00:00	02:30	2.50	1,473.0	Wash and ream fill from 1460mRT to 1473mRT. Sweep hole with 30bbl Hi -Vis pill. Reciprocate and rotate string till hole clean and able to run to bottom without rotation.
PH0	P	DA	02:30	05:00	2.50	1,482.0	Drill ahead from 1473mRT to 1482mRT. Pump Rate=420 Gpm. WOB= 15K. Pump Pressure = 1600Psi. Mud Weight = 9.1ppg. RPM = 90. ROP average = 5 to 7 M/Hr.
PH0	U	RW	05:00	05:30	0.50	1,482.0	Attempt to make connection. Overpull 10 to 15Kips. Back ream and work Kelly and single free from 1482mRT to 1461mRT. Lay out single. Continue back ream from 1461mRT to 1452mRT and laid out another single.
PH0	U	CMD	05:30	07:00	1.50	1,482.0	Circulate and weight up mud to 9.3ppg. Raise viscosity to 43. Lower water loss to 4.
PH0	U	RW	07:00	09:00	2.00	1,482.0	Ream back down to bottom at 1482mRT. Difficult reaming due to intermittent torque if any weight placed on the bit.

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Drillsearch

Well : Tibor-1 Drilling

Operations for Period 0000 Hrs to 2400 Hrs On 17 Feb 2013

PHSE	CLS (RC)	OP	From	To	Hrs	Depth (m)	Activity Description
PH0	U	RW	09:00	11:00	2.00	1,486.0	(Took new SCR's) Drill 8 1/2" hole from 1482mRT to 1486mRT. Pull off bottom to check the hole condition behind. Overpull to 25k. Back ream up to 1482mRT
PH0	U	CMD	11:00	11:30	0.50	1,486.0	Sweep hole with 10bbl Hi-Vis pill and circulate out prior to POOH to check bit, stabilizer and BHA.
PH0	U	TO	11:30	12:00	0.50	1,486.0	Flow check - Static. POOH from 1482mRT to 1384mRT. Flow check - Static.
PH0	U	CMD	12:00	12:15	0.25	1,486.0	Pump 10bbl slug (weighted pill) for tripping.
PH0	U	TO	12:15	16:15	4.00	1,486.0	POOH from 1384mRT to 198mRT. Flow check - Static.
PH0	U	TO	16:15	17:15	1.00	1,486.0	Continue POOH handle BHA from 198mRT to surface. Checked Jar, lay out stabilizer. Stabilizer 1/16" under gauge.
PH0	U	TO	17:15	18:00	0.75	1,486.0	Break off bit. Bit gauge cutters were 1/16" under gauge, but top 2/3 of gauge blocks on shanks were full gauge. Make up new 8 1/2" Baker Hughes DP505X bit.
PH0	U	TI	18:00	20:00	2.00	1,486.0	Install new Teledrift sensor (1degree - 3 degrees - Serial #288). Re-run stabilizer (8 7/16"). RIH handling BHA to 198mRT.
PH0	U	TI	20:00	23:30	3.50	1,486.0	Lay out 6 joint of drill pipe (for reaming). RIH with #3 BHA from 198MRT to 1412mRT. Pick up Kelly.
PH0	U	RW	23:30	24:00	0.50	1,486.0	Wash and ream from 1412mRT to 1453mRT. RPM = 95. SPM = 75x75 (390gpm) @ 1000psi.

Operations for Period 0000 Hrs to 0600 Hrs On 18 Feb 2013

PHSE	CLS (RC)	OP	From	To	Hrs	Depth (m)	Activity Description
PH0	U	RW	00:00	01:30	1.50	1,486.0	Wash and ream from 1453mRT to 1486mRT. RPM = 95. SPM = 75x75 (390gpm) @ 1100psi.
PH0	P	DA	01:30	06:00	4.50	1,509.0	Take SCR's at 1486m. Drill 8 1/2" hole from 1486m to 1509 meters.

Performance Summary

	Daily		Cumulative Well	
	Hrs	%	Hrs	%
P	2.5	10.4	362.5	91.3
TP	0.0	0.0	2.5	0.6
TU	0.0	0.0	8.0	2.0
U	21.5	89.6	24.0	6.0
Undefined	0.0	0.0	0.0	0.0
Total	24.0	100.0	397.0	100.0

General Comments for Period 0000 Hrs to 2400 Hrs on 17 Feb 2013

Category	Comments
Lessons Learned	Making a connection at 1463.0 mMDRT there was considerable overpull and the drillstring nearly became stuck. When reaming back to bottom 7m of fill was seen. This was washed out and a HiVis pill swept around the hole. Drilling then continued but at the next connection (1473.0 mMDRT) the same thing happened but worse. The drillstring could not pass 1457.0 MDRT. A joint was racked back and the hole washed and reamed back to connection depth. Another HiVis pill was swept around and drilling continued to 1482.0 mMDRT. The drillstring was very close to being stuck while pulling back. Two singles were racked back while backreaming to 1454.0 mMDRT. The drillstring was recriprocated while circulating to increase the MW from 9.1 to 9.3 ppg. As well WL (water loss) was being reduced from 7.5 to 3.0. When the new mud had been circulated around the Bit was washed back to bottom with no further problem and drilling continued.
Lessons Learned	

Drillsearch

Well : Tibor-1 Drilling

WBM Data

Cost Today: $ 5,388

Mud Desc:	3KPO	API FL:	5.0 cm³/30min	Cl:	22,500 %	Solids:	6.3 %	Glycol:	
Check Depth:	1,482.0 m	Filter-Cake:	1 /32nd"	KCl:	4.0 %	H2O:	94 %	Viscosity:	45 s/qt
Time:	18:00	HTHP-FL:		Hard/Ca:	320.00 mg/L	Sand:	0.2 %	PV:	14 cP
Weight:	9.30 ppg	HTHP-Cake:		MBT:	10.50 %	pH:	10	YP:	19 lbf/100ft²
Temp:	61.0 °C	HTHP-Temp:		Pm:	0.16	PHPA:		Gel 10s:	6 lbf/100ft²
		HTHP-Press:		Pf:	0.16	Mf:	0.80	Gel 10m:	12 lbf/100ft²

Comment:

RPM	Reading
3	6
6	7
100	18
200	24
300	33
600	47

Shakers, Volumes and Losses Data

Engineer : Roni Tan

Equipment	Description	Mesh Size
Centrifuge	Scomi DE-1000	
Shaker	Derrick Shale Shaker	325 x 4
Shaker	Derrick Shale Shaker	325x 4

Available	**730 bbl**	**Losses**	**65 bbl**
Active	328 bbl	Downhole	11 bbl
Mixing	63 bbl	Surf. + Equip.	44 bbl
Hole	314 bbl	Dumped	
Slug		De-Gasser	
Reserve	25 bbl	De-Sander	
Kill		De-Silter	
Other		Centrifuge	10 bbl
		Other	

Comment: Used 70bbls from Turkey's Nest.

Pumps

Pump data - Last 24 Hrs

No	Type	Liner (in)	SPM	Eff. (%)	Flow (galUS/min)	SPP (psi)	Depth (m)	MW (ppg)	**Slow Pump Data** SPM	SPP (psi)
1	Continental Emsco F-800	5.500	78	97		1,400	1,482.0	9.30	53	200
									81	400
2	Continental Emsco F-800	5.500	78	97		1,400	1,482.0	9.30	56	200
									85	400

Casing

OD	LOT	FIT	Casing Shoe (MD)	Casing Shoe (TVD)
244 mm (9 5/8")	16.70 ppg		750.9 m	750.9 m

BHA #2

BHA Type:	Pendulum	Total Weight Wet:	41 klb
Depth In/Out:	754.0 m/1,486.0 m	Weight Below Jar Wet:	31 klb
Date In/Out:	#12 (12 Feb 2013)/#17 (17 Feb 2013)		
Total Length:	198.1 m		

BHA Description: 8 1/2" PDC bit, Bit Sub, X/O, 6 1/2" Teledrift, X/O, 6 1/2" NMDC, 8 1/2" stab, 13 x 6 1/2" Drill Collars, Jars, 2 x 6 1/2" Drill collars, 4 x 4 1/2" HWDP.

BHA Run Comment:

Drillsearch

Well : Tibor-1 Drilling

BHA Daily Summary

Pickup Weight:	127 klb	Torque (max):	6,000 ft-lbs	D.C. (1) Ann Velocity:	5 ft/s
Slack-Off Weight:	123 klb	Torque Avg. Off Bottom:	1,000 ft-lbs	D.C. (2) Ann Velocity:	0 ft/s
String Weight:	125 klb	Torque Avg. On Bottom:	5,000 ft-lbs	H.W.D.P. Ann. Velocity:	3 ft/s
Jars Hours Logged:	10.75 h			D.P. Ann. Velocity:	3 ft/s

Summary:

BHA Component

Equipment	Description	Length (m)	OD (in)	ID (in)	Serial #	Hours
Bit		0.35	8.500	2.000	743496	0.00
Bit Sub		0.91	6.187	3.500	GUWU 2427	
X/O		0.19	6.375	2.500	12565	
Teledrift		2.82	6.250	2.875	Y1926A	
X/O		0.45	6.375	2.875	R3 010-02	
NMDC		9.18	6.500	2.875	ENS 127200-1	
8 1/2" String Stab	8 1/2" (1/16" under gauge)	1.55	6.500	2.875	T 3310-0	
Drill Collar		8.74	6.187	2.875	30-2-21	
Drill Collar		9.30	6.187	2.937	29013	
Drill Collar		8.92	6.187	3.000	30-2-2	
Drill Collar		9.10	6.125	2.937	922-22	
Drill Collar		9.09	6.125	2.937	592226	
Drill Collar		8.97	6.000	2.500	29-008	
Drill Collar		9.20	6.187	2.312	29-018	
Drill Collar		9.49	6.437	2.375	EDC 03231	
Drill Collar		8.46	6.125	3.062	GP 3922-31	
Drill Collar		8.82	6.187	3.062	GP 5922-9	
Drill Collar		8.72	6.250	3.000	30-2-15	
Drill Collar		9.11	6.250	2.875	GP 5922-24	
Drill Collar		9.05	6.125	3.000	30-2-25	
6 1/2" Hydraulic Jar		9.50	6.250	2.375	650 E2-12-6	
Drill Collar		8.92	6.125	3.000	30-2-11	
Drill Collar		9.42	6.250	2.880	S26132-13	
HWDP		9.45	6.187	2.875	A58715	
HWDP		9.45	6.187	2.812	A58730	
HWDP		9.47	6.250	2.812	A58716	
HWDP		9.45	6.312	2.812	A58720	

Directional Data

Slide Time:		Rotate Time:		Circ. Time:	
Slide (%):		Rotate (%):		Circ. (%):	
Total Slide Time:	0.00 h	Total Rotate Time:	0.00 h	Total Circ. Time:	0.00 h
Total Revs:	11 Krevs	HSI:	2.22 hp/in²		

Bit #2

Size:	216 mm (8 1/2")	Type:	PDC	IADC #:	M223
Manufacturer:	BHI (Hughes Christensen)	Model:	Q505F	TFA:	0.552 in²
		Bit Wear:	3-4-BT-A-X-I-NR-HP	Cost:	$
Serial #:	743496				

Nozzles

#		Size (/32nd")
5	x	12

Bit Run Comment:

Bit Wear Comment: The gauge cutters on the bottom two thirds of the bit are 1/16 under gauge the top 1/3 of the gauge buttons are in gauge.

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Drillsearch

Well : Tibor-1 Drilling

BHA #3

BHA Type:	Pendulum	Total Weight Wet:	41 klb
Depth In/Out:	1,486.0 m/	Weight Below Jar Wet:	31 klb
Date In/Out:	#17 (17 Feb 2013)/		
Total Length:	198.1 m		

BHA Description: 8 1/2" PDC bit, Bit Sub, X/O, 6 1/2" Teledrift, X/O, 6 1/2" NMDC, 8 1/2" stab, 13 x 6 1/2" Drill Collars, Jars, 2 x 6 1/2" Drill collars, 4 x 4 1/2" HWDP.

BHA Run Comment:

BHA Daily Summary

Pickup Weight:	123 klb	Torque (max):	2,100 ft-lbs	D.C. (1) Ann Velocity:	0 ft/s
Slack-Off Weight:	123 klb	Torque Avg. Off Bottom:	2,100 ft-lbs	D.C. (2) Ann Velocity:	0 ft/s
String Weight:	123 klb	Torque Avg. On Bottom:		H.W.D.P. Ann. Velocity:	0 ft/s
Jars Hours Logged:	96.67 h			D.P. Ann. Velocity:	0 ft/s

Summary:

BHA Component

Equipment	Description	Length (m)	OD (in)	ID (in)	Serial #	Hours
Bit		0.35	8.500	2.000	7143509	0.00
Bit Sub		0.91	6.187	3.500	GUWU 2427	
X/O		0.19	6.375	2.500	12565	
Teledrift		2.82	6.250	2.875	Y1926A	
X/O		0.45	6.375	2.875	R3 010-02	
NMDC		9.18	6.500	2.875	ENS 127200-1	
8 1/2" String Stab	8 7/16" (1/16" under gauge).	1.55	6.500	2.875	T 3310-0	
Drill Collar		8.74	6.187	2.875	30-2-21	
Drill Collar		9.30	6.187	2.937	29013	
Drill Collar		8.92	6.187	3.000	30-2-2	
Drill Collar		9.10	6.125	2.937	922-22	
Drill Collar		9.09	6.125	2.937	592226	
Drill Collar		8.97	6.000	2.500	29-008	
Drill Collar		9.20	6.187	2.312	29-018	
Drill Collar		9.49	6.437	2.375	EDC 03231	
Drill Collar		8.46	6.125	3.062	GP 3922-31	
Drill Collar		8.82	6.187	3.062	GP 5922-9	
Drill Collar		8.72	6.250	3.000	30-2-15	
Drill Collar		9.11	6.250	2.875	GP 5922-24	
Drill Collar		9.05	6.125	3.000	30-2-25	
6 1/2" Hydraulic Jar	Re-run Bico Hydra-mechanical jars. Previous run 96.17 circulating hours.	9.50	6.250	2.375	650 E2-12-6	
Drill Collar		8.92	6.125	3.000	30-2-11	
Drill Collar		9.42	6.250	2.880	S26132-13	
HWDP		9.45	6.187	2.875	A58715	
HWDP		9.45	6.187	2.812	A58730	
HWDP		9.47	6.250	2.812	A58716	
HWDP		9.45	6.312	2.812	A58720	

Directional Data

Slide Time:		Rotate Time:		Circ. Time:	
Slide (%):		Rotate (%):		Circ. (%):	
Total Slide Time:	0.00 h	Total Rotate Time:	0.00 h	Total Circ. Time:	0.00 h
Total Revs:		HSI:	0.00 hp/in²		

Drillsearch

Well : Tibor-1 Drilling

Bit #3						Nozzles		
Size:	216 mm (8 1/2")	Type:	PDC	IADC #:	M223	#		Size (/32nd")
Manufacturer:	BHI (Hughes Christensen)	Model:	DP505X	TFA:	0.650 in²	7	x	11
Serial #:	7143509	Bit Wear:	3-4-BT-A-X-I-NR-HP	Cost:	$			
Bit Run Comment:								
Bit Wear Comment:								

Drilling Parameters

BHA Run #2

Top Depth:	754.0 m	PWD ECD:	
Bottom Depth:	1,486.0 m		

	Min	Avg	Max
Flow	380 galUS/min	400 galUS/min	420 galUS/min
Surface RPM	65 rpm	81 rpm	96 rpm
Downhole RPM	65 rpm	81 rpm	96 rpm
Pressure	1,166 psi	1,337 psi	1,507 psi
Torque	3,900 ft-lbs	4,700 ft-lbs	5,500 ft-lbs
WOB	6 klbs	10 klbs	14 klbs
ROP	3.40 m/h	66.55 m/h	8.57 m/h

Formations

Name	Top (m)
Winton Formation	10.7
Mackunda Formation	633.0
Allaru Mudstone	750.0
Toolebuc Formation	912.0
Wallumbilla Formation	970.0
Cadna-Owie Formation	1,215.0
Murta Formation	1,281.0
Namur Sandstone	1,314.0
Westbourne Formation	1,415.0
Adori Sandstone	1,460.0

Personnel On Board

Job Title	Personnel	Company	Pax
Day OCR	Ray Miller	Drillsearch	1
Night OCR	Kevin Gordon	Drillsearch	1
Geologist	Alan Righthouse	Drillsearch	1
HSE	Darren Norvill	Drillsearch	1
Geogoligist Trainee	Craig Bunting	Drillsearch	1
Wireline Witness	Rohti Hamzah	Drillsearch	1
Medic	Fiona Harrington	ISOS	1
Rig Manager	Scott Cameron	ENSIGN	1
Night Toolpusher	Andrew Hoey	ENSIGN	1
Day Toolpusher	Pat Pyne	ENSIGN	1
Driller	Adrian Bromwich	ENSIGN	1
Derrickman	Peter Geronymakis	ENSIGN	1
Motorman	Mitchell Rosewarne	ENSIGN	1
Floorman	Robert Birse	ENSIGN	1
Floorman	Ben Shipway	ENSIGN	1
Lease Hand	Nathan Ownsworth	ENSIGN	1
Lease Hand	Mike Urmersbach	ENSIGN	1
Mechanic	Nick Colbbet	ENSIGN	1
Electrician	Mick Milligan	ENSIGN	1
Welder	Gary Jarrad	ENSIGN	1

Drillsearch

Well : Tibor-1 Drilling

Personnel On Board

Job Title	Personnel	Company	Pax
Driller	Paul Hall	ENSIGN	1
Derrickman	Danny Pijovic	ENSIGN	1
Motorman	Aymon Allen	ENSIGN	1
Floorman	Steven Stabile	ENSIGN	1
Floorman	Jair Hadley	ENSIGN	1
Lease Hand	Tim Moreton	ENSIGN	1
Summer Lease Hand	Nelson Hofling	ENSIGN	1
Driver	Healy Lyrtzis	ENSIGN	1
Camp Boss	Hans Dathe	Oil Industry Catering Services	1
Night Cook	John Reisir	Oil Industry Catering Services	1
Campie	P Lynch	Oil Industry Catering Services	1
Campie	J Lindgren	Oil Industry Catering Services	1
Mud Logger	Pramod Gadhe	Geoservice	1
Mud Logger	Sam Corey	Geoservice	1
Trainee	S. Cheoni	Geoservice	1
Trainee	D matthews	Geoservice	1
Mud Engineer	Roni Tang	Rheochem	1
Centrifuge Technician	Ray Lloyd	Scomi Oiltools	1
Truck Driver	D Robinson	Mansell Transport	1
		Total	39

Bulk Stocks

Name	Unit	Start Amount	Previous Balance	In	Used	Adjust	Balance
Rig Fuel (ltr)	ltr		25,050	0	6,455	0	18,595
Camp Fuel (ltr)	ltr		3,800	0	300	0	3,500
Pot Water (ltr)	ltr		31,000	0	7,000	0	24,000
Rigsite Potable Water (ltr)	ltr		7,000	12,200	1,200	0	18,000
Cementing Water (bbl)	bbl		360	0	0	0	360
Ancor-1(25 kg) (Pails)	Pails		16	0	0	0	16
Barite Sacks (Sacks)	Sacks		1,514	0	240	0	1,274
Calcium Chloride(25 kg) (Sacks)	Sacks		42	0	0	0	42
Caustic Soda (25 kg sx)	25 kg sx		30	0	0	0	30
Cell Plug (11.3kg) (Sacks)	Sacks		70	0	0	0	70
Citric Acid (25kg) (Sacks)	Sacks		38	0	0	0	38
Defoam - A (ltr)	ltr		11	0	0	0	11
EDTA (25kg) (Sacks)	Sacks		40	0	0	0	40
Fracseal Fine (sx)	sx		210	0	0	0	210
Idcide-20 (20ltr) (Pails)	Pails		58	0	1	0	57
JK 161 LV (25kg) (Sacks)	Sacks		59	0	0	0	59
Potassium Chloride (25 kg bag)	25 kg bag		384	0	0	0	384
Lime (sx)	sx		50	0	0	0	50
Maxigel (25kg) (Sacks)	Sacks		255	0	0	0	255
Mica Med (25kg) (Sacks)	Sacks		20	0	0	0	20
Micro Flow (20ltr) (Pails)	Pails		32	0	0	0	32
Pipe Freeing Compound (Tessodril BS 2001) (drums)	drums		4	0	0	0	4
Quikseal Coarse (18.2kg) (Sacks)	Sacks		50	0	0	0	50
Quikseal Med (18.2kg) (Sacks)	Sacks		99	0	0	0	99
Rheopac LV (25kg) (Sacks)	Sacks		39	0	10	0	29
Salt-25KG (Sacks)	Sacks		732	0	0	0	732
Sandseal (sx)	sx		50	0	0	0	50
SAPP (sx)	sx		38	0	0	0	38

Drillsearch

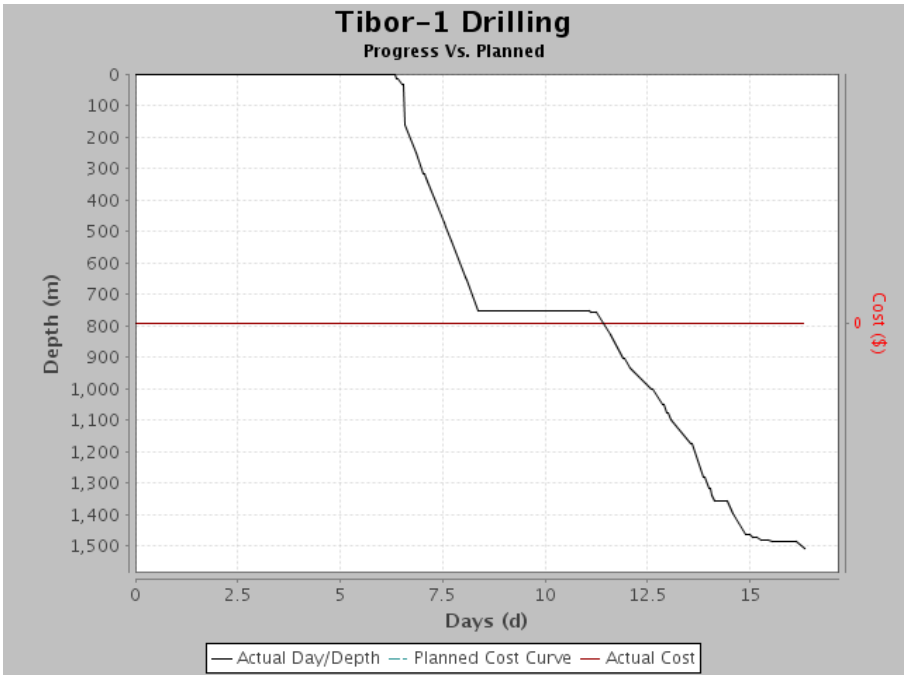
Well : Tibor-1 Drilling

Bulk Stocks

Name	Unit	Start Amount	Previous Balance	In	Used	Adjust	Balance
SI 70P (25kg) (Sacks)	Sacks		2	0	0	0	2
Soda Ash (sx)	sx		31	0	0	0	31
Sodium Bicarbonate (bag)	bag		44	0	0	0	44
Sodium Sulphite (sx)	sx		71	0	1	0	70
Xanthan Gum (25kg sx)	25kg sx		48	0	6	0	42
Extrasweep (25kg) (Sacks)	Sacks		7	0	0	0	7

Transport

Transport Type	Transport Name	Arrived Time	Departed Time	Comment
Truck		15:00		Truck arrived to change out rubbish skips.



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Drillsearch

Well : Tibor-1 Drilling

Tibor-1 Drilling					
Report Number :	18	Day Wellsite Representative:	Ray C. Miller	Rig Manager:	Scott Cameron
Latitude (South)	25° 52' 17.80"	Night Wellsite Representative:	Kevin Gordon	Drilling Company:	ENSIGN
Longitude (East)	141° 16' 19.41"			Wellsite Geologist:	Alan Rightstone

Well Data							
Country:	Australia	Current Hole Size:	8.500 in	Casing OD:	9.625 in	AFE Number:	OPS-13-018
Field:		Measured Depth:	1,723.0 m	Casing MD:	750.9 m	Original AFE:	
Rig:	Ensign 918	True Vertical Depth:	1,723.0 m	Casing TVD:	750.9 m	Supp AFE No:	
Ground Level:	135.0 m	24 Hr Progress:	237.0 m	TOL MD:		Orig. & Sup.	
RT to GL	5.15 m	Days On Well:	17.54	TOL TVD:		AFE:	
Plan TD (MD):	1,738.0 m	Days Since Spud:	11.29	Lnr Shoe MD:		Daily Cost:	
Plan TD (TVD):	1,738.0 m	Last BOP Date:	12 Feb 2013	Lnr Shoe TVD:		Cum. Cost:	
		FIT/LOT:	/16.64 ppg			Last LTI Date:	05 Feb 2012
						Days Since LTI:	379

Current Op @ 0600:	POOH to run logs.
Planned Op:	POOH to surface. Lay out NMDC, Teledrift sub, stabilizer and bit. Run wireline logs with Schlumberger as per programme.

Summary for Period 0000 Hrs to 2400 Hrs on 18 Feb 2013

Wash and ream from 1453mRT to 1486mRT. Drill 8 1/2" hole from 1486mRT to 1723mRT. Revised TD as per Geologist. Circulate hole clean.

HSE Summary

Events	Num. Events	Date of Last	Days Since	Description	Remarks
Pre-Tour Safety Meeting	1	18 Feb 2013 00:00	0	PTSM	Discuss hazards of upcoming operations.
Pre-Tour Safety Meeting	1	18 Feb 2013 11:45	0	PTSM	Discuss hazards of upcoming operations.
Number of Observe Cards	0	18 Feb 2013 00:00	0	Hazardous observation cards.	Various hazardous conditions or behaviour observed.
Function tested TBA/TDS Upper & Lower Stop Limits	2	18 Feb 2013 00:00	0	Function test Crown-O-Matic.	Tripped Crown-o-Matic to ensure operational.
JSA	2	18 Feb 2013 00:00	0	JSA's	JSA's for tripping and Kelly connections.

Operations for Period 0000 Hrs to 2400 Hrs On 18 Feb 2013

PHSE	CLS (RC)	OP	From	To	Hrs	Depth (m)	Activity Description
PH0	U	RW	00:00	01:30	1.50	1,486.0	Wash and ream from 1453mRT to 1486mRT. RPM = 95. SPM = 75x75 (390gpm) @ 1100psi.
PH0	P	DA	01:30	12:00	10.50	1,556.0	Take SCR's at 1486mRT. Drill 8 1/2" hole from 1486mRT to 1556mRT. Average WOB = 20K. RPM = 90. Flow = 390gpm. Mud = 9.3ppg. Vis = 43.
PH0	P	DA	12:00	17:15	5.25	1,637.0	Drill 8 1/2" hole from 1556mRT to 1637mRT. Average WOB = 20K. RPM = 90. Flow = 390gpm. Mud = 9.3ppg. Vis = 43.
PH0	P	SCR	17:15	17:30	0.25	1,637.0	Circulate and take SCR's at 1637mRT.
PH0	P	DA	17:30	18:45	1.25	1,656.0	Drill 8 1/2" hole from 1637mRT to 1656mRT. Average WOB = 20K. RPM = 90. Flow = 390gpm. Mud = 9.3ppg. Vis = 43.
PH0	P	RS	18:45	19:15	0.50	1,656.0	Rig service.
PH0	P	DA	19:15	23:30	4.25	1,723.0	Drilled 8 1/2" hole from 1656mRT to 1723mRT. Section TD. Average WOB = 20K. RPM = 90. Flow = 390gpm. Mud = 9.3ppg. Vis = 43.
PH0	P	CMD	23:30	24:00	0.50	1,723.0	Sweep hole with 20bbl Hi-Vis pill and circulate.

Operations for Period 0000 Hrs to 0600 Hrs On 19 Feb 2013

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Drillsearch

Well : Tibor-1 Drilling

PHSE	CLS (RC)	OP	From	To	Hrs	Depth (m)	Activity Description
PH0	P	CMD	00:00	01:00	1.00	1,723.0	Continue circulate till shakers clean and geologist confirm 1723mRT as final TD.
PH0	P	WT	01:00	02:15	1.25	1,723.0	Flow check - Static. POOH on wiper trip from 1723mRT to 1365m. Work through tight spot from 1423mRT to 1421mRT (15 - 20Kips overpull). Worked through several times till clear.
PH0	P	WT	02:15	03:30	1.25	1,723.0	Flow check - Static. RIH to 1713m (no obstructions).
PH0	P	CMD	03:30	04:30	1.00	1,723.0	Pick up Kelly and wash to 1723mRT. No fill. Sweep hole with 20bbl Hi-Vis pill and circulate till shakers clean.
PH0	P	SVY	04:30	05:00	0.50	1,723.0	Rnn magnetic single shot survey on wireline at 1712mRT. Inclination = 1.5 degrees S30W. Flow check - Static. Pumped slug. Racked Kelly.
PH0	P	TO	05:00	06:00	1.00	1,723.0	POOH from 1723mRT to log with Shclumberger.

Performance Summary

	Daily		Cumulative Well	
	Hrs	%	Hrs	%
P	22.5	93.8	385.0	91.4
TP	0.0	0.0	2.5	0.6
TU	0.0	0.0	8.0	1.9
U	1.5	6.2	25.5	6.1
Undefined	0.0	0.0	0.0	0.0
Total	24.0	100.0	421.0	100.0

General Comments for Period 0000 Hrs to 2400 Hrs on 18 Feb 2013

Category	Comments
Lessons Learned	Making a connection at 1463.0 mMDRT there was considerable overpull and the drillstring nearly became stuck. When reaming back to bottom 7m of fill was seen. This was washed out and a HiVis pill swept around the hole. Drilling then continued but at the next connection (1473.0 mMDRT) the same thing happened but worse. The drillstring could not pass 1457.0 MDRT. A joint was racked back and the hole washed and reamed back to connection depth. Another HiVis pill was swept around and drilling continued to 1482.0 mMDRT. The drillstring was very close to being stuck while pulling back. Two singles were racked back while backreaming to 1454.0 mMDRT. The drillstring was recriprocated while circulating to increase the MW from 9.1 to 9.3 ppg. As well WL (water loss) was being reduced from 7.5 to 3.0. When the new mud had been circulated around the Bit was washed back to bottom with no further problem and drilling continued.
Lessons Learned	

WBM Data — **Cost Today:** **$ 4,629**

Mud Desc:	3KPO	API FL:	4.0 cm³/30min	Cl:	25,600 %	Solids:	6.5 %	Glycol:	
Check Depth:	1,656.0 m	Filter-Cake:	1 /32nd"	KCl:	4.0 %	H2O:	94 %	Viscosity:	45 s/qt
Time:	18:30	HTHP-FL:		Hard/Ca:	320.00 mg/L	Sand:	0.3 %	PV:	13 cP
Weight:	9.30 ppg	HTHP-Cake:		MBT:	10.70 %	pH:	10	YP:	19 lbf/100ft²
Temp:	63.0 °C	HTHP-Temp:		Pm:	0.10	PHPA:		Gel 10s:	6 lbf/100ft²
		HTHP-Press:		Pf:	0.17	Mf:	0.80	Gel 10m:	14 lbf/100ft²

Comment:	RPM	Reading
	3	6
	6	7
	100	18
	200	26
	300	32
	600	45

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Drillsearch

Well : Tibor-1 Drilling

Shakers, Volumes and Losses Data — **Engineer : Roni Tan**

Equipment	Description	Mesh Size
Centrifuge	Scomi DE-1000	
Shaker	Derrick Shale Shaker	325 x 4
Shaker	Derrick Shale Shaker	325x 4

Available	741 bbl
Active	303 bbl
Mixing	51 bbl
Hole	346 bbl
Slug	
Reserve	41 bbl
Kill	
Other	

Losses	101 bbl
Downhole	12 bbl
Surf. + Equip.	56 bbl
Dumped	20 bbl
De-Gasser	
De-Sander	
De-Silter	
Centrifuge	13 bbl
Other	

Comment: Used 70bbls from Turkey's Nest.

Pumps

	Pump data - Last 24 Hrs								Slow Pump Data	
No	Type	Liner (in)	SPM	Eff. (%)	Flow (galUS/min)	SPP (psi)	Depth (m)	MW (ppg)	SPM	SPP (psi)
1	Continental Emsco F-800	5.500	81	97		1,100	1,637.0	9.30	41 60	150 250
2	Continental Emsco F-800	5.500	81	97		1,100	1,637.0	9.30	43 60	175 250

Casing

OD	LOT	FIT	Casing Shoe (MD)	Casing Shoe (TVD)
244 mm (9 5/8")	16.70 ppg		750.9 m	750.9 m

BHA #3

BHA Type:	Pendulum	Total Weight Wet:	41 klb
Depth In/Out:	1,486.0 m/1,723.0 m	Weight Below Jar Wet:	31 klb
Date In/Out:	#17 (17 Feb 2013)/		
Total Length:	198.1 m		

BHA Description: 8 1/2" PDC bit, Bit Sub, X/O, 6 1/2" Teledrift, X/O, 6 1/2" NMDC, 8 1/2" stab, 13 x 6 1/2" Drill Collars, Jars, 2 x 6 1/2" Drill collars, 4 x 4 1/2" HWDP.

BHA Run Comment:

Drillsearch

Well : Tibor-1 Drilling

BHA Daily Summary

Pickup Weight:	136 klb	Torque (max):	14,000 ft-lbs	D.C. (1) Ann Velocity:	5 ft/s
Slack-Off Weight:	134 klb	Torque Avg. Off Bottom:	2,200 ft-lbs	D.C. (2) Ann Velocity:	0 ft/s
String Weight:	135 klb	Torque Avg. On Bottom:	12,000 ft-lbs	H.W.D.P. Ann. Velocity:	3 ft/s
Jars Hours Logged:	22.50 h			D.P. Ann. Velocity:	3 ft/s

Summary:

BHA Component

Equipment	Description	Length (m)	OD (in)	ID (in)	Serial #	Hours
Bit		0.35	8.500	2.000	7143509	0.00
Bit Sub		0.91	6.187	3.500	GUWU 2427	
X/O		0.19	6.375	2.500	12565	
Teledrift		2.82	6.250	2.875	Y1926A	
X/O		0.45	6.375	2.875	R3 010-02	
NMDC		9.18	6.500	2.875	ENS 127200-1	
8 1/2" String Stab	8 7/16" (1/16" under gauge).	1.55	6.500	2.875	T 3310-0	
Drill Collar		8.74	6.187	2.875	30-2-21	
Drill Collar		9.30	6.187	2.937	29013	
Drill Collar		8.92	6.187	3.000	30-2-2	
Drill Collar		9.10	6.125	2.937	922-22	
Drill Collar		9.09	6.125	2.937	592226	
Drill Collar		8.97	6.000	2.500	29-008	
Drill Collar		9.20	6.187	2.312	29-018	
Drill Collar		9.49	6.437	2.375	EDC 03231	
Drill Collar		8.46	6.125	3.062	GP 3922-31	
Drill Collar		8.82	6.187	3.062	GP 5922-9	
Drill Collar		8.72	6.250	3.000	30-2-15	
Drill Collar		9.11	6.250	2.875	GP 5922-24	
Drill Collar		9.05	6.125	3.000	30-2-25	
6 1/2" Hydraulic Jar	Re-run Bico Hydra-mechanical jars. Previous run 96.17 circulating hours.	9.50	6.250	2.375	650 E2-12-6	
Drill Collar		8.92	6.125	3.000	30-2-11	
Drill Collar		9.42	6.250	2.880	S26132-13	
HWDP		9.45	6.187	2.875	A58715	
HWDP		9.45	6.187	2.812	A58730	
HWDP		9.47	6.250	2.812	A58716	
HWDP		9.45	6.312	2.812	A58720	

Directional Data

Slide Time:		Rotate Time:		Circ. Time:	
Slide (%):		Rotate (%):		Circ. (%):	
Total Slide Time:	0.00 h	Total Rotate Time:	0.00 h	Total Circ. Time:	0.00 h
Total Revs:	69 Krevs	HSI:	1.41 hp/in²		

Bit #3

						Nozzles		
Size:	216 mm (8 1/2")	Type:	PDC	IADC #:	M223	#		Size (/32nd")
Manufacturer:	BHI (Hughes Christensen)	Model:	DP505X	TFA:	0.650 in²	7	x	11
		Bit Wear:	- - - - - - -	Cost:	$			
Serial #:	7143509							

Bit Run Comment:

Bit Wear Comment:

Drillsearch

Well : Tibor-1 Drilling

Drilling Parameters

BHA Run #2

Top Depth:	754.0 m	PWD ECD:	
Bottom Depth:	1,486.0 m		

	Min	Avg	Max
Flow	380 galUS/min	400 galUS/min	420 galUS/min
Surface RPM	65 rpm	81 rpm	96 rpm
Downhole RPM	65 rpm	81 rpm	96 rpm
Pressure	1,166 psi	1,337 psi	1,507 psi
Torque	3,900 ft-lbs	4,700 ft-lbs	5,500 ft-lbs
WOB	6 klbs	10 klbs	14 klbs
ROP	3.40 m/h	66.55 m/h	8.57 m/h

BHA Run #3

Top Depth:	1,486.0 m	PWD ECD:	
Bottom Depth:	1,723.0 m		

	Min	Avg	Max
Flow	349 galUS/min	383 galUS/min	417 galUS/min
Surface RPM	67 rpm	79 rpm	90 rpm
Downhole RPM	67 rpm	79 rpm	90 rpm
Pressure	945 psi	1,056 psi	1,166 psi
Torque	3,500 ft-lbs	7,250 ft-lbs	11,000 ft-lbs
WOB	5 klbs	19 klbs	32 klbs
ROP	3.01 m/h	10.77 m/h	34.30 m/h

Survey

MD (m)	Incl. (°)	Corr. Az (°)	TVD (m)	'V' Sect (m)	Dogleg (deg/30m)	N/S (m)	E/W (m)	Tool Type
1,712.0	1.5	210.00	1,711.8	-7,138,512.062	0.212	-5.9	7.7	MagneticSS

Formations

Name	Top (m)
Winton Formation	10.7
Mackunda Formation	633.0
Allaru Mudstone	750.0
Toolebuc Formation	912.0
Wallumbilla Formation	970.0
Cadna-Owie Formation	1,215.0
Murta Formation	1,281.0
Namur Sandstone	1,314.0
Westbourne Formation	1,415.0
Adori Sandstone	1,460.0
Birkhead Formation	1,526.0
Hutton Sandstone	1,623.0

Personnel On Board

Job Title	Personnel	Company	Pax
Day OCR	Ray Miller	Drillsearch	1
Night OCR	Kevin Gordon	Drillsearch	1
Geologist	Alan Righthouse	Drillsearch	1
HSE	Tony	Drillsearch	1
Geogoligist Trainee	Craig Bunting	Drillsearch	1
Wireline Witness	Rohti Hamzah	Drillsearch	1
Medic	Fiona Harrington	ISOS	1
Rig Manager	Scott Cameron	ENSIGN	1

Drillsearch

Well : Tibor-1 Drilling

Personnel On Board

Job Title	Personnel	Company	Pax
Night Toolpusher	Andrew Hoey	ENSIGN	1
Day Toolpusher	Pat Pyne	ENSIGN	1
Driller	Adrian Bromwich	ENSIGN	1
Derrickman	Peter Geronymakis	ENSIGN	1
Motorman	Mitchell Rosewarne	ENSIGN	1
Floorman	Robert Birse	ENSIGN	1
Floorman	Ben Shipway	ENSIGN	1
Lease Hand	Nathan Ownsworth	ENSIGN	1
Lease Hand	Mike Urmersbach	ENSIGN	1
Mechanic	Nick Colbbet	ENSIGN	1
Electrician	Mick Milligan	ENSIGN	1
Welder	Gary Jarrad	ENSIGN	1
Driller	Paul Hall	ENSIGN	1
Derrickman	Danny Pijovic	ENSIGN	1
Motorman	Aymon Allen	ENSIGN	1
Floorman	Steven Stabile	ENSIGN	1
Floorman	Jair Hadley	ENSIGN	1
Lease Hand	Tim Moreton	ENSIGN	1
Summer Lease Hand	Nelson Hofling	ENSIGN	1
Driver	Healy Lyrtzis	ENSIGN	1
Camp Boss	Hans Dathe	Oil Industry Catering Services	1
Night Cook	John Reisir	Oil Industry Catering Services	1
Campie	P Lynch	Oil Industry Catering Services	1
Campie	J Lindgren	Oil Industry Catering Services	1
Mud Logger	Pramod Gadhe	Geoservice	1
Mud Logger	Sam Corey	Geoservice	1
Trainee	S. Cheoni	Geoservice	1
Trainee	D matthews	Geoservice	1
Mud Engineer	Roni Tang	Rheochem	1
Centrifuge Technician	Ray Lloyd	Scomi Oiltools	1
MDT/ MSCT Specialist	Marcus Hammersley-Cave	Schlumberger (Wireline)	1
Engineer	Mary-Kate Henrikson	Schlumberger (Wireline)	1

Drillsearch

Well : Tibor-1 Drilling

Personnel On Board

Job Title	Personnel	Company	Pax
Engineer	Tamara Svetlichnaya	Schlumberger (Wireline)	1
Crew Chief	Jason Rayner	Schlumberger (Wireline)	1
	Bambang Sulistomo	Schlumberger (Wireline)	1
Operator	David Gordon	Schlumberger (Wireline)	1
Medic	Simon Chamberlain	ISOS	1
		Total	45

Bulk Stocks

Name	Unit	Start Amount	Previous Balance	In	Used	Adjust	Balance
Rig Fuel (ltr)	ltr		18,595	0	0	0	18,595
Camp Fuel (ltr)	ltr		3,500	0	0	0	3,500
Pot Water (ltr)	ltr		24,000	0	0	0	24,000
Rigsite Potable Water (ltr)	ltr		18,000	0	0	0	18,000
Cementing Water (bbl)	bbl		360	0	0	0	360
Ancor-1(25 kg) (Pails)	Pails		16	0	0	0	16
Barite Sacks (Sacks)	Sacks		1,274	0	0	0	1,274
Calcium Chloride(25 kg) (Sacks)	Sacks		42	0	0	0	42
Caustic Soda (25 kg sx)	25 kg sx		30	0	2	0	28
Cell Plug (11.3kg) (Sacks)	Sacks		70	0	0	0	70
Citric Acid (25kg) (Sacks)	Sacks		38	0	0	0	38
Defoam - A (ltr)	ltr		11	0	1	0	10
EDTA (25kg) (Sacks)	Sacks		40	0	0	0	40
Fracseal Fine (sx)	sx		210	0	0	0	210
Idcide-20 (20ltr) (Pails)	Pails		57	0	0	0	57
JK 161 LV (25kg) (Sacks)	Sacks		59	0	0	0	59
Potassium Chloride (25 kg bag)	25 kg bag		384	0	0	0	384
Lime (sx)	sx		50	0	0	0	50
Maxigel (25kg) (Sacks)	Sacks		255	0	0	0	255
Mica Med (25kg) (Sacks)	Sacks		20	0	0	0	20
Micro Flow (20ltr) (Pails)	Pails		32	0	0	0	32
Pipe Freeing Compound (Tessodril BS 2001) (drums)	drums		4	0	0	0	4
Quikseal Coarse (18.2kg) (Sacks)	Sacks		50	0	0	0	50
Quikseal Med (18.2kg) (Sacks)	Sacks		99	0	10	0	89
Rheopac LV (25kg) (Sacks)	Sacks		29	0	14	0	15
Salt-25KG (Sacks)	Sacks		732	0	60	0	672
Sandseal (sx)	sx		50	0	10	0	40
SAPP (sx)	sx		38	0	0	0	38
SI 70P (25kg) (Sacks)	Sacks		2	0	0	0	2
Soda Ash (sx)	sx		31	0	1	0	30
Sodium Bicarbonate (bag)	bag		44	0	0	0	44
Sodium Sulphite (sx)	sx		70	0	2	0	68
Xanthan Gum (25kg sx)	25kg sx		42	0	2	0	40
Extrasweep (25kg) (Sacks)	Sacks		7	0	0	0	7

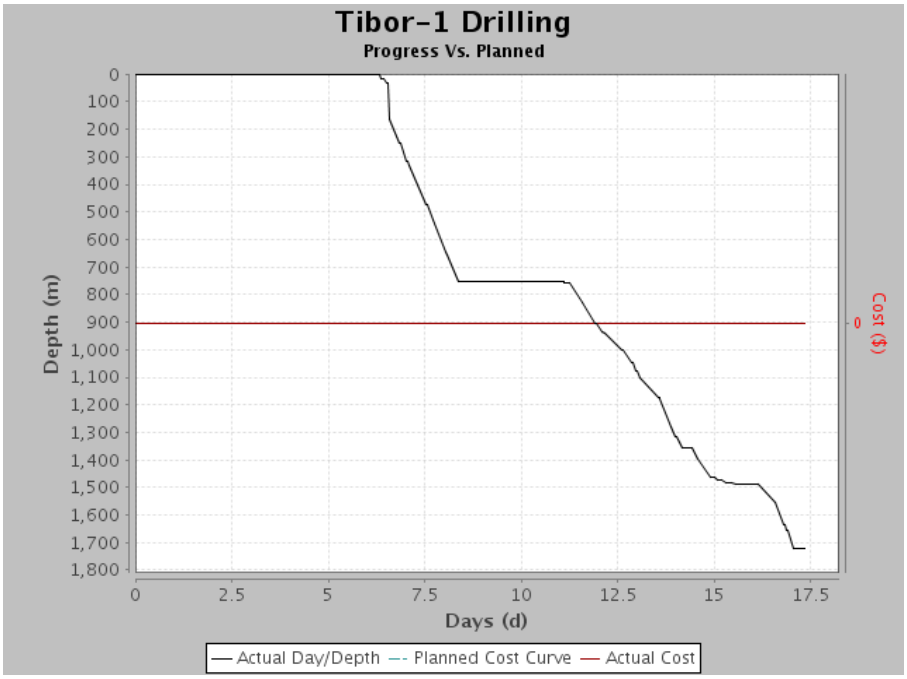
Transport

Transport Type	Transport Name	Arrived Time	Departed Time	Comment
Truck		16:00	06:00	Truck departed with full rubbish skips.
Van		12:00	09:00	DLS HSE going on leave.
Truck		16:00	06:00	1 x Schlumberger wireline truck, 1 x Schlumberger service truck and 1 x 4wheel drive with total 6 personnel.

Drillsearch

Well : Tibor-1 Drilling

Transport				
Transport Type	Transport Name	Arrived Time	Departed Time	Comment
Van		16:30	13:30	Incoming DLS HSE + 1 ISOS medic.



Drillsearch

Well : Tibor-1 Drilling

Tibor-1 Drilling					
Report Number :	19	Day Wellsite Representative:	Ray C. Miller	Rig Manager:	Scott Cameron
Latitude (South)	25° 52' 17.80"	Night Wellsite Representative:	Kevin Gordon	Drilling Company:	ENSIGN
Longitude (East)	141° 16' 19.41"			Wellsite Geologist:	Alan Rightstone

Well Data							
Country:	Australia	Current Hole Size:	8.500 in	Casing OD:	9.625 in	AFE Number:	OPS-13-018
Field:		Measured Depth:	1,723.0 m	Casing MD:	750.9 m	Original AFE:	
Rig:	Ensign 918	True Vertical Depth:	1,723.0 m	Casing TVD:	750.9 m	Supp AFE No:	
Ground Level:	135.0 m	24 Hr Progress:	0.0 m	TOL MD:		Orig. & Sup.	
RT to GL	5.15 m	Days On Well:	18.54	TOL TVD:		AFE:	
Plan TD (MD):	1,738.0 m	Days Since Spud:	12.29	Lnr Shoe MD:		Daily Cost:	
Plan TD (TVD):	1,738.0 m	Last BOP Date:	12 Feb 2013	Lnr Shoe TVD:		Cum. Cost:	
		FIT/LOT:	/16.64 ppg			Last LTI Date:	05 Feb 2012
						Days Since LTI:	380
Current Op @ 0600:	Schlumberger laid out SSSCAN tool string and prepared for run #3.						
Planned Op:	Logging with Shclumberger.						

Summary for Period 0000 Hrs to 2400 Hrs on 19 Feb 2013

Circulated hole clean at 1723mRT (TD). Wiper trip to 1365mRT. RIH to 1723mRT. No Fill. Ran magnetic single shot survey. POOH. Schlumberger riged up and ran PEX-ADT-HRLA-HNGS. POOH. Schlumberger RIH with SSSCAN-PPC.

HSE Summary

Events	Num. Events	Date of Last	Days Since	Description	Remarks
Pre-Tour Safety Meeting	1	19 Feb 2013 00:00	0	PTSM	Discuss hazards of upcoming operations.
Pre-Tour Safety Meeting	1	19 Feb 2013 11:45	0	PTSM	Discuss hazards of upcoming operations.
Number of Observe Cards	0	19 Feb 2013 00:00	0	Hazardous observation cards.	Various hazardous conditions or behaviour observed.
Function tested TBA/TDS Upper & Lower Stop Limits	1	19 Feb 2013 00:00	0	Function test Crown-O-Matic.	Tripped Crown-o-Matic to ensure operational.
JSA	3	19 Feb 2013 00:00	0	JSA's	JSA's for tripping, working on mud pumps and Schlumberger wireline logging

Operations for Period 0000 Hrs to 2400 Hrs On 19 Feb 2013

PHSE	CLS (RC)	OP	From	To	Hrs	Depth (m)	Activity Description
PH0	P	CMD	00:00	01:00	1.00	1,723.0	Continue circulate till shakers clean and geologist confirm 1723mRT as final TD.
PH0	P	WT	01:00	02:15	1.25	1,723.0	Flow check - Static. POOH on wiper trip from 1723mRT to 1365m. Work through tight spot from 1423mRT to 1421mRT (15 - 20Kips overpull). Worked through several times till clear.
PH0	P	WT	02:15	03:30	1.25	1,723.0	Flow check - Static. RIH to 1713m (no obstructions).
PH0	P	CMD	03:30	04:30	1.00	1,723.0	Pick up Kelly and wash to 1723mRT. No fill. Sweep hole with 20bbl Hi-Vis pill and circulate till shakers clean.
PH0	P	SVY	04:30	05:00	0.50	1,723.0	Run magnetic single shot survey on wireline at 1712mRT. Inclination = 1.5 degrees S30W. Flow check - Static. Pumped slug. Racked Kelly.
PH0	P	TO	05:00	10:30	5.50	1,723.0	POOH from 1723mRT to surface. Break off and grade bit.
PH0	P	CDF	10:30	11:00	0.50	1,723.0	Clear equipment from rig floor and clean floor for logging.
PH0	P	LOG	11:00	12:00	1.00	1,723.0	Held PJSM with Schlumberger wire line crew. Rig up sheaves. Schlumberger make up and function test PEX-ADT-HRLA-HNGS tool string.

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Drillsearch

Well : Tibor-1 Drilling

Operations for Period 0000 Hrs to 2400 Hrs On 19 Feb 2013

PHSE	CLS (RC)	OP	From	To	Hrs	Depth (m)	Activity Description
PH0	P	LOG	12:00	18:30	6.50	1,723.0	Schlumberger RIH with Log #1 (PEX-ADT-HRLA-HNGS) and log as per programme. POOH.
PH0	P	LOG	18:30	20:15	1.75	1,723.0	Schlumberger lay out PEX-ADT-HRLA-HNGS tool string.
PH0	P	LOG	20:15	21:45	1.50	1,723.0	Schlumberger make up SSSCAN-PPC tool string.
PH0	TP (EQ)	LOG	21:45	22:15	0.50	1,723.0	Schlumberger RIH with Log #2 (SSSCAN-PPC) to +/- 100m. Wireline Witness requested tool be function tested and found SSScan Tool not working. (No function test done at surface). POOH to repair tools.
PH0	TP (EQ)	LOG	22:15	23:00	0.75	1,723.0	Repaired and function test SSSCAN tool - OK.
PH0	P	LOG	23:00	24:00	1.00	1,723.0	Schlumberger RIH with Log #2 (SSSCAN-PPC) and log as per programme.

Operations for Period 0000 Hrs to 0600 Hrs On 20 Feb 2013

PHSE	CLS (RC)	OP	From	To	Hrs	Depth (m)	Activity Description
PH0	P	LOG	00:00	05:15	5.25	1,723.0	Schlumberger continue run Log #2 (SSSCAN-PPC) and log as per programme.
PH0	P	LOG	05:15	06:00	0.75	1,723.0	Schlumberger lay out SSSCAN tool string.

Performance Summary

	Daily		Cumulative Well	
	Hrs	%	Hrs	%
P	22.8	94.8	407.8	91.6
TP	1.2	5.2	3.8	0.8
TU	0.0	0.0	8.0	1.8
U	0.0	0.0	25.5	5.7
Undefined	0.0	0.0	0.0	0.0
Total	24.0	100.0	445.0	100.0

General Comments for Period 0000 Hrs to 2400 Hrs on 19 Feb 2013

Category	Comments
Lessons Learned	Making a connection at 1463.0 mMDRT there was considerable overpull and the drillstring nearly became stuck. When reaming back to bottom 7m of fill was seen. This was washed out and a HiVis pill swept around the hole. Drilling then continued but at the next connection (1473.0 mMDRT) the same thing happened but worse. The drillstring could not pass 1457.0 MDRT. A joint was racked back and the hole washed and reamed back to connection depth. Another HiVis pill was swept around and drilling continued to 1482.0 mMDRT. The drillstring was very close to being stuck while pulling back. Two singles were racked back while backreaming to 1454.0 mMDRT. The drillstring was recriprocated while circulating to increase the MW from 9.1 to 9.3 ppg. As well WL (water loss) was being reduced from 7.5 to 3.0. When the new mud had been circulated around the Bit was washed back to bottom with no further problem and drilling continued.
Lessons Learned	

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Well : Tibor-1 Drilling

WBM Data

Cost Today: $ 2,424

Mud Desc:	3KPO	API FL:	4.0 cm³/30min	Cl:	25,400 %	Solids:	6.1 %	Glycol:	
Check Depth:	1,723.0 m	Filter-Cake:	1 /32nd"	KCl:	4.0 %	H2O:	94 %	Viscosity:	46 s/qt
Time:	16:00	HTHP-FL:		Hard/Ca:	320.00 mg/L	Sand:	0.3 %	PV:	13 cP
Weight:	9.30 ppg	HTHP-Cake:		MBT:	10.80 %	pH:	10	YP:	19 lbf/100ft²
Temp:		HTHP-Temp:		Pm:	0.10	PHPA:		Gel 10s:	7 lbf/100ft²
		HTHP-Press:		Pf:	0.16	Mf:	1.00	Gel 10m:	13 lbf/100ft²

Comment:

RPM	Reading
3	6
6	7
100	19
200	22
300	32
600	45

Shakers, Volumes and Losses Data

Engineer : Roni Tan

Equipment	Description	Mesh Size
Centrifuge	Scomi DE-1000	
Shaker	Derrick Shale Shaker	325 x 4
Shaker	Derrick Shale Shaker	325x 4

Available	**730 bbl**	**Losses**	**41 bbl**
Active	230 bbl	Downhole	6 bbl
Mixing	68 bbl	Surf. + Equip.	26 bbl
Hole	414 bbl	Dumped	
Slug		De-Gasser	
Reserve	18 bbl	De-Sander	
Kill		De-Silter	
Other		Centrifuge	9 bbl
		Other	

Comment: Used 25bbls from Turkey's Nest.

Pumps

Pump data - Last 24 Hrs

No	Type	Liner (in)	SPM	Eff. (%)	Flow (galUS/min)	SPP (psi)	Depth (m)	MW (ppg)	Slow Pump Data SPM	Slow Pump Data SPP (psi)
1	Continental Emsco F-800	5.500	81	97		1,100	1,637.0	9.30	41 60	150 250
2	Continental Emsco F-800	5.500	81	97		1,100	1,637.0	9.30	43 60	175 250

Casing

OD	LOT	FIT	Casing Shoe (MD)	Casing Shoe (TVD)
244 mm (9 5/8")	16.70 ppg		750.9 m	750.9 m

BHA #3

BHA Type:	Pendulum	Total Weight Wet:	41 klb
Depth In/Out:	1,486.0 m/1,723.0 m	Weight Below Jar Wet:	31 klb
Date In/Out:	#17 (17 Feb 2013)/#19 (19 Feb 2013)		
Total Length:	198.1 m		

BHA Description: 8 1/2" PDC bit, Bit Sub, X/O, 6 1/2" Teledrift, X/O, 6 1/2" NMDC, 8 1/2" stab, 13 x 6 1/2" Drill Collars, Jars, 2 x 6 1/2" Drill collars, 4 x 4 1/2" HWDP.

BHA Run Comment:

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Well : Tibor-1 Drilling

BHA Daily Summary

Pickup Weight:	136 klb	Torque (max):	14,000 ft-lbs	D.C. (1) Ann Velocity:	5 ft/s
Slack-Off Weight:	134 klb	Torque Avg. Off Bottom:	2,200 ft-lbs	D.C. (2) Ann Velocity:	0 ft/s
String Weight:	135 klb	Torque Avg. On Bottom:	12,000 ft-lbs	H.W.D.P. Ann. Velocity:	3 ft/s
Jars Hours Logged:	2.00 h			D.P. Ann. Velocity:	3 ft/s

Summary:

BHA Component

Equipment	Description	Length (m)	OD (in)	ID (in)	Serial #	Hours
Bit		0.35	8.500	2.000	7143509	0.00
Bit Sub		0.91	6.187	3.500	GUWU 2427	
X/O		0.19	6.375	2.500	12565	
Teledrift		2.82	6.250	2.875	Y1926A	
X/O		0.45	6.375	2.875	R3 010-02	
NMDC		9.18	6.500	2.875	ENS 127200-1	
8 1/2" String Stab	8 7/16" (1/16" under gauge).	1.55	6.500	2.875	T 3310-0	
Drill Collar		8.74	6.187	2.875	30-2-21	
Drill Collar		9.30	6.187	2.937	29013	
Drill Collar		8.92	6.187	3.000	30-2-2	
Drill Collar		9.10	6.125	2.937	922-22	
Drill Collar		9.09	6.125	2.937	592226	
Drill Collar		8.97	6.000	2.500	29-008	
Drill Collar		9.20	6.187	2.312	29-018	
Drill Collar		9.49	6.437	2.375	EDC 03231	
Drill Collar		8.46	6.125	3.062	GP 3922-31	
Drill Collar		8.82	6.187	3.062	GP 5922-9	
Drill Collar		8.72	6.250	3.000	30-2-15	
Drill Collar		9.11	6.250	2.875	GP 5922-24	
Drill Collar		9.05	6.125	3.000	30-2-25	
6 1/2" Hydraulic Jar	Re-run Bico Hydra-mechanical jars. Previous run 96.17 circulating hours.	9.50	6.250	2.375	650 E2-12-6	
Drill Collar		8.92	6.125	3.000	30-2-11	
Drill Collar		9.42	6.250	2.880	S26132-13	
HWDP		9.45	6.187	2.875	A58715	
HWDP		9.45	6.187	2.812	A58730	
HWDP		9.47	6.250	2.812	A58716	
HWDP		9.45	6.312	2.812	A58720	

Directional Data

Slide Time:		Rotate Time:		Circ. Time:	
Slide (%):		Rotate (%):		Circ. (%):	
Total Slide Time:	0.00 h	Total Rotate Time:	0.00 h	Total Circ. Time:	0.00 h
Total Revs:	0 Krevs	HSI:	1.41 hp/in²		

Bit #3

						Nozzles		
Size:	216 mm (8 1/2")	Type:	PDC	IADC #:	M223	#		Size (/32nd")
Manufacturer:	BHI (Hughes Christensen)	Model:	DP505X	TFA:	0.650 in²	7	x	11
		Bit Wear:	1-1-CT-A-X-I-RR-TD	Cost:	$			
Serial #:	7143509							

Bit Run Comment:

Bit Wear Comment:

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Well : Tibor-1 Drilling

Drilling Parameters

BHA Run #2

Top Depth:	754.0 m	PWD ECD:	
Bottom Depth:	1,486.0 m		

	Min	Avg	Max
Flow	380 galUS/min	400 galUS/min	420 galUS/min
Surface RPM	65 rpm	81 rpm	96 rpm
Downhole RPM	65 rpm	81 rpm	96 rpm
Pressure	1,166 psi	1,337 psi	1,507 psi
Torque	3,900 ft-lbs	4,700 ft-lbs	5,500 ft-lbs
WOB	6 klbs	10 klbs	14 klbs
ROP	3.40 m/h	66.55 m/h	8.57 m/h

BHA Run #3

Top Depth:	1,486.0 m	PWD ECD:	
Bottom Depth:	1,723.0 m		

	Min	Avg	Max
Flow	349 galUS/min	383 galUS/min	417 galUS/min
Surface RPM	67 rpm	79 rpm	90 rpm
Downhole RPM	67 rpm	79 rpm	90 rpm
Pressure	945 psi	1,056 psi	1,166 psi
Torque	3,500 ft-lbs	7,250 ft-lbs	11,000 ft-lbs
WOB	5 klbs	19 klbs	32 klbs
ROP	3.01 m/h	10.77 m/h	34.30 m/h

Survey

MD (m)	Incl. (°)	Corr. Az (°)	TVD (m)	'V' Sect (m)	Dogleg (deg/30m)	N/S (m)	E/W (m)	Tool Type
1,712.0	1.5	210.00	1,711.8	-7,138,512.062	0.212	-5.9	7.7	MagneticSS

Formations

Name	Top (m)
Winton Formation	10.7
Mackunda Formation	633.0
Allaru Mudstone	750.0
Toolebuc Formation	912.0
Wallumbilla Formation	970.0
Cadna-Owie Formation	1,215.0
Murta Formation	1,281.0
Namur Sandstone	1,314.0
Westbourne Formation	1,415.0
Adori Sandstone	1,460.0
Birkhead Formation	1,526.0
Hutton Sandstone	1,623.0

Personnel On Board

Job Title	Personnel	Company	Pax
Day OCR	Ray Miller	Drillsearch	1
Night OCR	Kevin Gordon	Drillsearch	1
Geologist	Alan Righthouse	Drillsearch	1
HSE	Tony Burns	Drillsearch	1
Geogoligist Trainee	Craig Bunting	Drillsearch	1
Wireline Witness	Rohti Hamzah	Drillsearch	1
Medic	Simon Chamberlain	ISOS	1
Rig Manager	Scott Cameron	ENSIGN	1

Drillsearch

Well : Tibor-1 Drilling

Personnel On Board

Job Title	Personnel	Company	Pax
Night Toolpusher	Andrew Hoey	ENSIGN	1
Day Toolpusher	Pat Pyne	ENSIGN	1
Driller	Adrian Bromwich	ENSIGN	1
Derrickman	Peter Geronymakis	ENSIGN	1
Motorman	Mitchell Rosewarne	ENSIGN	1
Floorman	Robert Birse	ENSIGN	1
Floorman	Ben Shipway	ENSIGN	1
Lease Hand	Nathan Ownsworth	ENSIGN	1
Lease Hand	Mike Urmersbach	ENSIGN	1
Mechanic	Nick Colbbet	ENSIGN	1
Electrician	Mick Milligan	ENSIGN	1
Welder	Gary Jarrad	ENSIGN	1
Driller	Paul Hall	ENSIGN	1
Derrickman	Danny Pijovic	ENSIGN	1
Motorman	Aymon Allen	ENSIGN	1
Floorman	Steven Stabile	ENSIGN	1
Floorman	Jair Hadley	ENSIGN	1
Lease Hand	Tim Moreton	ENSIGN	1
Summer Lease Hand	Nelson Hofling	ENSIGN	1
Driver	Healy Lyrtzis	ENSIGN	1
Camp Boss	Hans Dathe	Oil Industry Catering Services	1
Night Cook	John Reisir	Oil Industry Catering Services	1
Campie	P Lynch	Oil Industry Catering Services	1
Campie	J Lindgren	Oil Industry Catering Services	1
Mud Logger	Anil Jaisuara	Geoservice	1
Mud Logger	Sam Corey	Geoservice	1
Trainee	S. Cheoni	Geoservice	1
Trainee	D matthews	Geoservice	1
Mud Engineer	Roni Tang	Rheochem	1
Centrifuge Technician	Ray Lloyd	Scomi Oiltools	1
MDT/ MSCT Specialist	Marcus Hammersley-Cave	Schlumberger (Wireline)	1
Engineer	Mary-Kate Henrikson	Schlumberger (Wireline)	1

Drillsearch

Well : Tibor-1 Drilling

Personnel On Board

Job Title	Personnel	Company	Pax
Engineer	Tamara Svetlichnaya	Schlumberger (Wireline)	1
Crew Chief	Jason Rayner	Schlumberger (Wireline)	1
Operator	Bambang Sulistomo	Schlumberger (Wireline)	1
Operator	David Gordon	Schlumberger (Wireline)	1
		Total	44

Bulk Stocks

Name	Unit	Start Amount	Previous Balance	In	Used	Adjust	Balance
Rig Fuel (ltr)	ltr		16,095	0	2,195	0	13,900
Camp Fuel (ltr)	ltr		3,150	0	350	0	2,800
Pot Water (ltr)	ltr		16,500	23,000	7,500	0	32,000
Rigsite Potable Water (ltr)	ltr		15,100	0	2,900	0	12,200
Cementing Water (bbl)	bbl		360	0	0	0	360
Ancor-1(25 kg) (Pails)	Pails		16	0	0	0	16
Barite Sacks (Sacks)	Sacks		1,274	0	80	0	1,194
Calcium Chloride(25 kg) (Sacks)	Sacks		42	0	0	0	42
Caustic Soda (25 kg sx)	25 kg sx		28	0	0	0	28
Cell Plug (11.3kg) (Sacks)	Sacks		70	0	0	0	70
Citric Acid (25kg) (Sacks)	Sacks		38	0	0	0	38
Defoam - A (ltr)	ltr		10	0	0	0	10
EDTA (25kg) (Sacks)	Sacks		40	0	0	0	40
Fracseal Fine (sx)	sx		210	0	0	0	210
Idcide-20 (20ltr) (Pails)	Pails		57	0	0	0	57
JK 161 LV (25kg) (Sacks)	Sacks		59	0	0	0	59
Potassium Chloride (25 kg bag)	25 kg bag		384	0	0	0	384
Lime (sx)	sx		50	0	0	0	50
Maxigel (25kg) (Sacks)	Sacks		255	0	0	0	255
Mica Med (25kg) (Sacks)	Sacks		20	0	0	0	20
Micro Flow (20ltr) (Pails)	Pails		32	0	0	0	32
Pipe Freeing Compound (Tessodril BS 2001) (drums)	drums		4	0	0	0	4
Quikseal Coarse (18.2kg) (Sacks)	Sacks		50	0	0	0	50
Quikseal Med (18.2kg) (Sacks)	Sacks		89	0	0	0	89
Rheopac LV (25kg) (Sacks)	Sacks		15	0	10	0	5
Salt-25KG (Sacks)	Sacks		672	0	0	0	672
Sandseal (sx)	sx		40	0	0	0	40
SAPP (sx)	sx		38	0	0	0	38
SI 70P (25kg) (Sacks)	Sacks		2	0	0	0	2
Soda Ash (sx)	sx		30	0	8	0	22
Sodium Bicarbonate (bag)	bag		44	0	0	0	44
Sodium Sulphite (sx)	sx		68	0	2	0	66
Xanthan Gum (25kg sx)	25kg sx		40	0	0	0	40
Extrasweep (25kg) (Sacks)	Sacks		7	0	0	0	7

Transport

Transport Type	Transport Name	Arrived Time	Departed Time	Comment
Truck		16:30	06:00	Ensign supply truck arrived with cargo from Moomba.
Van		12:00	09:00	1 x ISOS and 1 x Geoservices going on leave via Brisbane.
Van		16:30	13:30	Incoming 1 x Geoservices mud logger.

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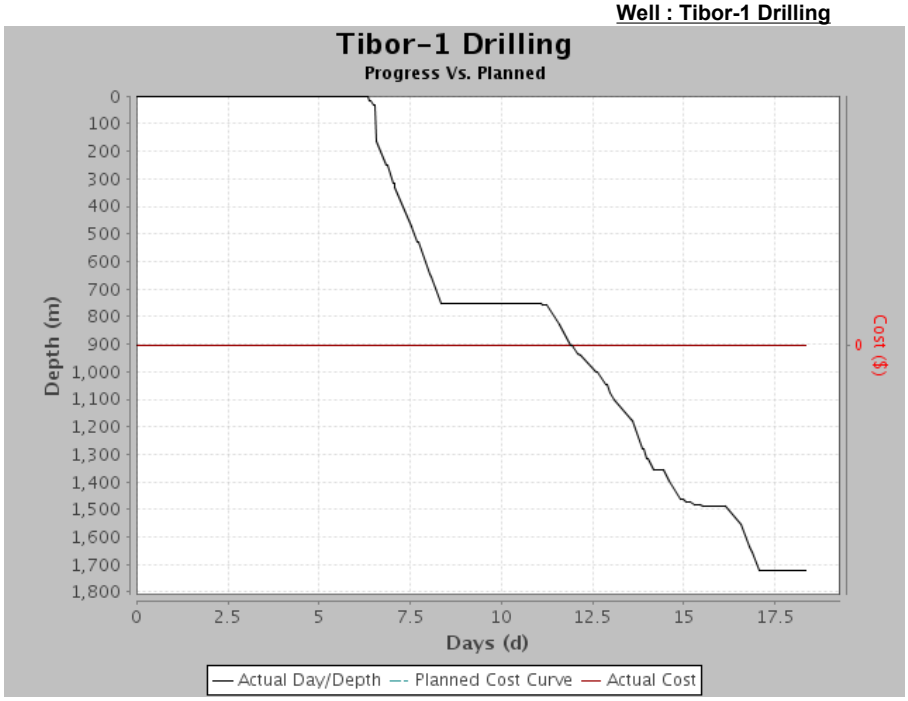
Well : Tibor-1 Drilling



Drillsearch

Well : Tibor-1 Drilling

Tibor-1 Drilling					
Report Number :	19	Day Wellsite Representative:	Ray C. Miller	Rig Manager:	Scott Cameron
Latitude (South)	25° 52' 17.80"	Night Wellsite Representative:	Kevin Gordon	Drilling Company:	ENSIGN
Longitude (East)	141° 16' 19.41"			Wellsite Geologist:	Alan Rightstone

Well Data							
Country:	Australia	Current Hole Size:	8.500 in	Casing OD:	9.625 in	AFE Number:	OPS-13-018
Field:		Measured Depth:	1,723.0 m	Casing MD:	750.9 m	Original AFE:	
Rig:	Ensign 918	True Vertical Depth:	1,723.0 m	Casing TVD:	750.9 m	Supp AFE No:	
Ground Level:	135.0 m	24 Hr Progress:	0.0 m	TOL MD:		Orig. & Sup.	
RT to GL	5.15 m	Days On Well:	18.54	TOL TVD:		AFE:	
Plan TD (MD):	1,738.0 m	Days Since Spud:	12.29	Lnr Shoe MD:		Daily Cost:	
Plan TD (TVD):	1,738.0 m	Last BOP Date:	12 Feb 2013	Lnr Shoe TVD:		Cum. Cost:	
		FIT/LOT:	/16.64 ppg			Last LTI Date:	05 Feb 2012
						Days Since LTI:	380
Current Op @ 0600:	Schlumberger laid out SSSCAN tool string and prepared for run #3.						
Planned Op:	Logging with Shclumberger.						

Summary for Period 0000 Hrs to 2400 Hrs on 19 Feb 2013

Circulated hole clean at 1723mRT (TD). Wiper trip to 1365mRT. RIH to 1723mRT. No Fill. Ran magnetic single shot survey. POOH. Schlumberger riged up and ran PEX-ADT-HRLA-HNGS. POOH. Schlumberger RIH with SSSCAN-PPC.

HSE Summary

Events	Num. Events	Date of Last	Days Since	Description	Remarks
Pre-Tour Safety Meeting	1	19 Feb 2013 00:00	0	PTSM	Discuss hazards of upcoming operations.
Pre-Tour Safety Meeting	1	19 Feb 2013 11:45	0	PTSM	Discuss hazards of upcoming operations.
Number of Observe Cards	0	19 Feb 2013 00:00	0	Hazardous observation cards.	Various hazardous conditions or behaviour observed.
Function tested TBA/TDS Upper & Lower Stop Limits	1	19 Feb 2013 00:00	0	Function test Crown-O-Matic.	Tripped Crown-o-Matic to ensure operational.
JSA	3	19 Feb 2013 00:00	0	JSA's	JSA's for tripping, working on mud pumps and Schlumberger wireline logging

Operations for Period 0000 Hrs to 2400 Hrs On 19 Feb 2013

PHSE	CLS (RC)	OP	From	To	Hrs	Depth (m)	Activity Description
PH0	P	CMD	00:00	01:00	1.00	1,723.0	Continue circulate till shakers clean and geologist confirm 1723mRT as final TD.
PH0	P	WT	01:00	02:15	1.25	1,723.0	Flow check - Static. POOH on wiper trip from 1723mRT to 1365m. Work through tight spot from 1423mRT to 1421mRT (15 - 20Kips overpull). Worked through several times till clear.
PH0	P	WT	02:15	03:30	1.25	1,723.0	Flow check - Static. RIH to 1713m (no obstructions).
PH0	P	CMD	03:30	04:30	1.00	1,723.0	Pick up Kelly and wash to 1723mRT. No fill. Sweep hole with 20bbl Hi-Vis pill and circulate till shakers clean.
PH0	P	SVY	04:30	05:00	0.50	1,723.0	Run magnetic single shot survey on wireline at 1712mRT. Inclination = 1.5 degrees S30W. Flow check - Static. Pumped slug. Racked Kelly.
PH0	P	TO	05:00	10:30	5.50	1,723.0	POOH from 1723mRT to surface. Break off and grade bit.
PH0	P	CDF	10:30	11:00	0.50	1,723.0	Clear equipment from rig floor and clean floor for logging.
PH0	P	LOG	11:00	12:00	1.00	1,723.0	Held PJSM with Schlumberger wire line crew. Rig up sheaves. Schlumberger make up and function test PEX-ADT-HRLA-HNGS tool string.

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Well : Tibor-1 Drilling

Operations for Period 0000 Hrs to 2400 Hrs On 19 Feb 2013

PHSE	CLS (RC)	OP	From	To	Hrs	Depth (m)	Activity Description
PH0	P	LOG	12:00	18:30	6.50	1,723.0	Schlumberger RIH with Log #1 (PEX-ADT-HRLA-HNGS) and log as per programme. POOH.
PH0	P	LOG	18:30	20:15	1.75	1,723.0	Schlumberger lay out PEX-ADT-HRLA-HNGS tool string.
PH0	P	LOG	20:15	21:45	1.50	1,723.0	Schlumberger make up SSSCAN-PPC tool string.
PH0	TP (EQ)	LOG	21:45	22:15	0.50	1,723.0	Schlumberger RIH with Log #2 (SSSCAN-PPC) to +/- 100m. Wireline Witness requested tool be function tested and found SSScan Tool not working. (No function test done at surface). POOH to repair tools.
PH0	TP (EQ)	LOG	22:15	23:00	0.75	1,723.0	Repaired and function test SSSCAN tool - OK.
PH0	P	LOG	23:00	24:00	1.00	1,723.0	Schlumberger RIH with Log #2 (SSSCAN-PPC) and log as per programme.

Operations for Period 0000 Hrs to 0600 Hrs On 20 Feb 2013

PHSE	CLS (RC)	OP	From	To	Hrs	Depth (m)	Activity Description
PH0	P	LOG	00:00	05:15	5.25	1,723.0	Schlumberger continue run Log #2 (SSSCAN-PPC) and log as per programme.
PH0	P	LOG	05:15	06:00	0.75	1,723.0	Schlumberger lay out SSSCAN tool string.

Performance Summary

	Daily		Cumulative Well	
	Hrs	%	Hrs	%
P	22.8	94.8	407.8	91.6
TP	1.2	5.2	3.8	0.8
TU	0.0	0.0	8.0	1.8
U	0.0	0.0	25.5	5.7
Undefined	0.0	0.0	0.0	0.0
Total	24.0	100.0	445.0	100.0

General Comments for Period 0000 Hrs to 2400 Hrs on 19 Feb 2013

Category	Comments
Lessons Learned	Making a connection at 1463.0 mMDRT there was considerable overpull and the drillstring nearly became stuck. When reaming back to bottom 7m of fill was seen. This was washed out and a HiVis pill swept around the hole. Drilling then continued but at the next connection (1473.0 mMDRT) the same thing happened but worse. The drillstring could not pass 1457.0 MDRT. A joint was racked back and the hole washed and reamed back to connection depth. Another HiVis pill was swept around and drilling continued to 1482.0 mMDRT. The drillstring was very close to being stuck while pulling back. Two singles were racked back while backreaming to 1454.0 mMDRT. The drillstring was recriprocated while circulating to increase the MW from 9.1 to 9.3 ppg. As well WL (water loss) was being reduced from 7.5 to 3.0. When the new mud had been circulated around the Bit was washed back to bottom with no further problem and drilling continued.
Lessons Learned	

Printed on 20 February 2013 03:53 AM (GMT+08:00)

Drillsearch

Well : Tibor-1 Drilling

WBM Data

Cost Today: $ 2,424

Mud Desc:	3KPO	API FL:	4.0 cm³/30min	Cl:	25,400 %	Solids:	6.1 %	Glycol:	
Check Depth:	1,723.0 m	Filter-Cake:	1 /32nd"	KCl:	4.0 %	H2O:	94 %	Viscosity:	46 s/qt
Time:	16:00	HTHP-FL:		Hard/Ca:	320.00 mg/L	Sand:	0.3 %	PV:	13 cP
Weight:	9.30 ppg	HTHP-Cake:		MBT:	10.80 %	pH:	10	YP:	19 lbf/100ft²
Temp:		HTHP-Temp:		Pm:	0.10	PHPA:		Gel 10s:	7 lbf/100ft²
		HTHP-Press:		Pf:	0.16	Mf:	1.00	Gel 10m:	13 lbf/100ft²

Comment:

RPM	Reading
3	6
6	7
100	19
200	22
300	32
600	45

Shakers, Volumes and Losses Data

Engineer : Roni Tan

Equipment	Description	Mesh Size
Centrifuge	Scomi DE-1000	
Shaker	Derrick Shale Shaker	325 x 4
Shaker	Derrick Shale Shaker	325x 4

Available	**730 bbl**	**Losses**	**41 bbl**
Active	230 bbl	Downhole	6 bbl
Mixing	68 bbl	Surf. + Equip.	26 bbl
Hole	414 bbl	Dumped	
Slug		De-Gasser	
Reserve	18 bbl	De-Sander	
Kill		De-Silter	
Other		Centrifuge	9 bbl
		Other	

Comment: Used 25bbls from Turkey's Nest.

Pumps

Pump data - Last 24 Hrs

No	Type	Liner (in)	SPM	Eff. (%)	Flow (galUS/min)	SPP (psi)	Depth (m)	MW (ppg)	Slow Pump Data SPM	Slow Pump Data SPP (psi)
1	Continental Emsco F-800	5.500	81	97		1,100	1,637.0	9.30	41 60	150 250
2	Continental Emsco F-800	5.500	81	97		1,100	1,637.0	9.30	43 60	175 250

Casing

OD	LOT	FIT	Casing Shoe (MD)	Casing Shoe (TVD)
244 mm (9 5/8")	16.70 ppg		750.9 m	750.9 m

BHA #3

BHA Type:	Pendulum	Total Weight Wet:	41 klb
Depth In/Out:	1,486.0 m/1,723.0 m	Weight Below Jar Wet:	31 klb
Date In/Out:	#17 (17 Feb 2013)/#19 (19 Feb 2013)		
Total Length:	198.1 m		

BHA Description: 8 1/2" PDC bit, Bit Sub, X/O, 6 1/2" Teledrift, X/O, 6 1/2" NMDC, 8 1/2" stab, 13 x 6 1/2" Drill Collars, Jars, 2 x 6 1/2" Drill collars, 4 x 4 1/2" HWDP.

BHA Run Comment:

Drillsearch

Well : Tibor-1 Drilling

BHA Daily Summary

Pickup Weight:	136 klb	Torque (max):	14,000 ft-lbs	D.C. (1) Ann Velocity:	5 ft/s
Slack-Off Weight:	134 klb	Torque Avg. Off Bottom:	2,200 ft-lbs	D.C. (2) Ann Velocity:	0 ft/s
String Weight:	135 klb	Torque Avg. On Bottom:	12,000 ft-lbs	H.W.D.P. Ann. Velocity:	3 ft/s
Jars Hours Logged:	2.00 h			D.P. Ann. Velocity:	3 ft/s

Summary:

BHA Component

Equipment	Description	Length (m)	OD (in)	ID (in)	Serial #	Hours
Bit		0.35	8.500	2.000	7143509	0.00
Bit Sub		0.91	6.187	3.500	GUWU 2427	
X/O		0.19	6.375	2.500	12565	
Teledrift		2.82	6.250	2.875	Y1926A	
X/O		0.45	6.375	2.875	R3 010-02	
NMDC		9.18	6.500	2.875	ENS 127200-1	
8 1/2" String Stab	8 7/16" (1/16" under gauge).	1.55	6.500	2.875	T 3310-0	
Drill Collar		8.74	6.187	2.875	30-2-21	
Drill Collar		9.30	6.187	2.937	29013	
Drill Collar		8.92	6.187	3.000	30-2-2	
Drill Collar		9.10	6.125	2.937	922-22	
Drill Collar		9.09	6.125	2.937	592226	
Drill Collar		8.97	6.000	2.500	29-008	
Drill Collar		9.20	6.187	2.312	29-018	
Drill Collar		9.49	6.437	2.375	EDC 03231	
Drill Collar		8.46	6.125	3.062	GP 3922-31	
Drill Collar		8.82	6.187	3.062	GP 5922-9	
Drill Collar		8.72	6.250	3.000	30-2-15	
Drill Collar		9.11	6.250	2.875	GP 5922-24	
Drill Collar		9.05	6.125	3.000	30-2-25	
6 1/2" Hydraulic Jar	Re-run Bico Hydra-mechanical jars. Previous run 96.17 circulating hours.	9.50	6.250	2.375	650 E2-12-6	
Drill Collar		8.92	6.125	3.000	30-2-11	
Drill Collar		9.42	6.250	2.880	S26132-13	
HWDP		9.45	6.187	2.875	A58715	
HWDP		9.45	6.187	2.812	A58730	
HWDP		9.47	6.250	2.812	A58716	
HWDP		9.45	6.312	2.812	A58720	

Directional Data

Slide Time:		Rotate Time:		Circ. Time:	
Slide (%):		Rotate (%):		Circ. (%):	
Total Slide Time:	0.00 h	Total Rotate Time:	0.00 h	Total Circ. Time:	0.00 h
Total Revs:	0 Krevs	HSI:	1.41 hp/in²		

Bit #3

						Nozzles		
Size:	216 mm (8 1/2")	Type:	PDC	IADC #:	M223	#		Size (/32nd")
Manufacturer:	BHI (Hughes Christensen)	Model:	DP505X	TFA:	0.650 in²	7	x	11
		Bit Wear:	1-1-CT-A-X-I-RR-TD	Cost:	$			
Serial #:	7143509							

Bit Run Comment:

Bit Wear Comment:

Drillsearch

Well : Tibor-1 Drilling

Drilling Parameters

BHA Run #2

Top Depth:	754.0 m	PWD ECD:	
Bottom Depth:	1,486.0 m		

	Min	Avg	Max
Flow	380 galUS/min	400 galUS/min	420 galUS/min
Surface RPM	65 rpm	81 rpm	96 rpm
Downhole RPM	65 rpm	81 rpm	96 rpm
Pressure	1,166 psi	1,337 psi	1,507 psi
Torque	3,900 ft-lbs	4,700 ft-lbs	5,500 ft-lbs
WOB	6 klbs	10 klbs	14 klbs
ROP	3.40 m/h	66.55 m/h	8.57 m/h

BHA Run #3

Top Depth:	1,486.0 m	PWD ECD:	
Bottom Depth:	1,723.0 m		

	Min	Avg	Max
Flow	349 galUS/min	383 galUS/min	417 galUS/min
Surface RPM	67 rpm	79 rpm	90 rpm
Downhole RPM	67 rpm	79 rpm	90 rpm
Pressure	945 psi	1,056 psi	1,166 psi
Torque	3,500 ft-lbs	7,250 ft-lbs	11,000 ft-lbs
WOB	5 klbs	19 klbs	32 klbs
ROP	3.01 m/h	10.77 m/h	34.30 m/h

Survey

MD (m)	Incl. (°)	Corr. Az (°)	TVD (m)	'V' Sect (m)	Dogleg (deg/30m)	N/S (m)	E/W (m)	Tool Type
1,712.0	1.5	210.00	1,711.8	-7,138,512.062	0.212	-5.9	7.7	MagneticSS

Formations

Name	Top (m)
Winton Formation	10.7
Mackunda Formation	633.0
Allaru Mudstone	750.0
Toolebuc Formation	912.0
Wallumbilla Formation	970.0
Cadna-Owie Formation	1,215.0
Murta Formation	1,281.0
Namur Sandstone	1,314.0
Westbourne Formation	1,415.0
Adori Sandstone	1,460.0
Birkhead Formation	1,526.0
Hutton Sandstone	1,623.0

Personnel On Board

Job Title	Personnel	Company	Pax
Day OCR	Ray Miller	Drillsearch	1
Night OCR	Kevin Gordon	Drillsearch	1
Geologist	Alan Righthouse	Drillsearch	1
HSE	Tony Burns	Drillsearch	1
Geogoligist Trainee	Craig Bunting	Drillsearch	1
Wireline Witness	Rohti Hamzah	Drillsearch	1
Medic	Simon Chamberlain	ISOS	1
Rig Manager	Scott Cameron	ENSIGN	1

Drillsearch

Well : Tibor-1 Drilling

Personnel On Board

Job Title	Personnel	Company	Pax
Night Toolpusher	Andrew Hoey	ENSIGN	1
Day Toolpusher	Pat Pyne	ENSIGN	1
Driller	Adrian Bromwich	ENSIGN	1
Derrickman	Peter Geronymakis	ENSIGN	1
Motorman	Mitchell Rosewarne	ENSIGN	1
Floorman	Robert Birse	ENSIGN	1
Floorman	Ben Shipway	ENSIGN	1
Lease Hand	Nathan Ownsworth	ENSIGN	1
Lease Hand	Mike Urmersbach	ENSIGN	1
Mechanic	Nick Colbbet	ENSIGN	1
Electrician	Mick Milligan	ENSIGN	1
Welder	Gary Jarrad	ENSIGN	1
Driller	Paul Hall	ENSIGN	1
Derrickman	Danny Pijovic	ENSIGN	1
Motorman	Aymon Allen	ENSIGN	1
Floorman	Steven Stabile	ENSIGN	1
Floorman	Jair Hadley	ENSIGN	1
Lease Hand	Tim Moreton	ENSIGN	1
Summer Lease Hand	Nelson Hofling	ENSIGN	1
Driver	Healy Lyrtzis	ENSIGN	1
Camp Boss	Hans Dathe	Oil Industry Catering Services	1
Night Cook	John Reisir	Oil Industry Catering Services	1
Campie	P Lynch	Oil Industry Catering Services	1
Campie	J Lindgren	Oil Industry Catering Services	1
Mud Logger	Anil Jaisuara	Geoservice	1
Mud Logger	Sam Corey	Geoservice	1
Trainee	S. Cheoni	Geoservice	1
Trainee	D matthews	Geoservice	1
Mud Engineer	Roni Tang	Rheochem	1
Centrifuge Technician	Ray Lloyd	Scomi Oiltools	1
MDT/ MSCT Specialist	Marcus Hammersley-Cave	Schlumberger (Wireline)	1
Engineer	Mary-Kate Henrikson	Schlumberger (Wireline)	1

Drillsearch

Well : Tibor-1 Drilling

Personnel On Board

Job Title	Personnel	Company	Pax
Engineer	Tamara Svetlichnaya	Schlumberger (Wireline)	1
Crew Chief	Jason Rayner	Schlumberger (Wireline)	1
Operator	Bambang Sulistomo	Schlumberger (Wireline)	1
Operator	David Gordon	Schlumberger (Wireline)	1
		Total	44

Bulk Stocks

Name	Unit	Start Amount	Previous Balance	In	Used	Adjust	Balance
Rig Fuel (ltr)	ltr		16,095	0	2,195	0	13,900
Camp Fuel (ltr)	ltr		3,150	0	350	0	2,800
Pot Water (ltr)	ltr		16,500	23,000	7,500	0	32,000
Rigsite Potable Water (ltr)	ltr		15,100	0	2,900	0	12,200
Cementing Water (bbl)	bbl		360	0	0	0	360
Ancor-1(25 kg) (Pails)	Pails		16	0	0	0	16
Barite Sacks (Sacks)	Sacks		1,274	0	80	0	1,194
Calcium Chloride(25 kg) (Sacks)	Sacks		42	0	0	0	42
Caustic Soda (25 kg sx)	25 kg sx		28	0	0	0	28
Cell Plug (11.3kg) (Sacks)	Sacks		70	0	0	0	70
Citric Acid (25kg) (Sacks)	Sacks		38	0	0	0	38
Defoam - A (ltr)	ltr		10	0	0	0	10
EDTA (25kg) (Sacks)	Sacks		40	0	0	0	40
Fracseal Fine (sx)	sx		210	0	0	0	210
Idcide-20 (20ltr) (Pails)	Pails		57	0	0	0	57
JK 161 LV (25kg) (Sacks)	Sacks		59	0	0	0	59
Potassium Chloride (25 kg bag)	25 kg bag		384	0	0	0	384
Lime (sx)	sx		50	0	0	0	50
Maxigel (25kg) (Sacks)	Sacks		255	0	0	0	255
Mica Med (25kg) (Sacks)	Sacks		20	0	0	0	20
Micro Flow (20ltr) (Pails)	Pails		32	0	0	0	32
Pipe Freeing Compound (Tessodril BS 2001) (drums)	drums		4	0	0	0	4
Quikseal Coarse (18.2kg) (Sacks)	Sacks		50	0	0	0	50
Quikseal Med (18.2kg) (Sacks)	Sacks		89	0	0	0	89
Rheopac LV (25kg) (Sacks)	Sacks		15	0	10	0	5
Salt-25KG (Sacks)	Sacks		672	0	0	0	672
Sandseal (sx)	sx		40	0	0	0	40
SAPP (sx)	sx		38	0	0	0	38
SI 70P (25kg) (Sacks)	Sacks		2	0	0	0	2
Soda Ash (sx)	sx		30	0	8	0	22
Sodium Bicarbonate (bag)	bag		44	0	0	0	44
Sodium Sulphite (sx)	sx		68	0	2	0	66
Xanthan Gum (25kg sx)	25kg sx		40	0	0	0	40
Extrasweep (25kg) (Sacks)	Sacks		7	0	0	0	7

Transport

Transport Type	Transport Name	Arrived Time	Departed Time	Comment
Truck		16:30	06:00	Ensign supply truck arrived with cargo from Moomba.
Van		12:00	09:00	1 x ISOS and 1 x Geoservices going on leave via Brisbane.
Van		16:30	13:30	Incoming 1 x Geoservices mud logger.

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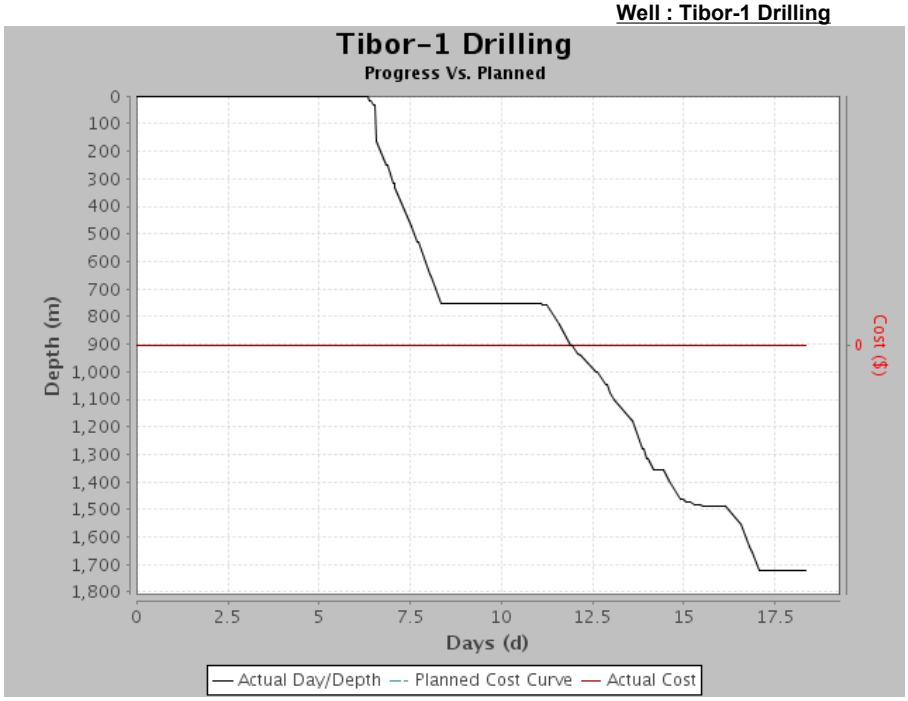
Drillsearch

Well : Tibor-1 Drilling



Drillsearch

Well : Tibor-1 Drilling

Tibor-1 Drilling					
Report Number :	21	Day Wellsite Representative:	Ray C. Miller	Rig Manager:	David Doherty
Latitude (South)	25° 52' 17.80"	Night Wellsite Representative:	Don Castles	Drilling Company:	ENSIGN
Longitude (East)	141° 16' 19.41"			Wellsite Geologist:	Alan Rightstone

Well Data							
Country:	Australia	Current Hole Size:	8.500 in	Casing OD:	9.625 in	AFE Number:	OPS-13-018
Field:		Measured Depth:	1,723.0 m	Casing MD:	750.9 m	Original AFE:	
Rig:	Ensign 918	True Vertical Depth:	1,723.0 m	Casing TVD:	750.9 m	Supp AFE No:	
Ground Level:	135.0 m	24 Hr Progress:	0.0 m	TOL MD:		Orig. & Sup.	
RT to GL	5.15 m	Days On Well:	20.54	TOL TVD:		AFE:	
Plan TD (MD):	1,738.0 m	Days Since Spud:	14.29	Lnr Shoe MD:		Daily Cost:	
Plan TD (TVD):	1,738.0 m	Last BOP Date:	12 Feb 2013	Lnr Shoe TVD:		Cum. Cost:	
		FIT/LOT:	/16.64 ppg			Last LTI Date:	05 Feb 2012
						Days Since LTI:	382

Current Op @ 0600:	Pulling out after setting cement plug #3 @ 781m back up inside 9.5/8" casing.
Planned Op:	Wait on cement plug to set - Layout all excess 4.1/2" DP - RIH to tag plug #3 after 8 hours -Pressure test cement plug #3 if at correct tag depth - Displace hole with corrosion inhibitor. Recover wear Bushing -Layout any additional DP and set cement plug #4

Summary for Period 0000 Hrs to 2400 Hrs on 21 Feb 2013

Circulate at low rate while waiting on Halliburton - POOH for wiper trip from 1637m to 732m.
Rig Service - Slip and cut drill line - RIH to 1637m - Circulate while waiting on Halliburton.
PJSM with Halliburton - Test cementing lines - Run cement plug #1 @ 1637m - Pull out to 1330m for running plug #2a - Circulate hole content from 1330m.

HSE Summary

Events	Num. Events	Date of Last	Days Since	Description	Remarks
Pre-Tour Safety Meeting	0	19 Feb 2013 00:00	2	PTSM	Discuss hazards of upcoming operations.
Pre-Tour Safety Meeting	0	19 Feb 2013 11:45	2	PTSM	Discuss hazards of upcoming operations.
Number of Observe Cards	0	19 Feb 2013 00:00	2	Hazardous observation cards.	Various hazardous conditions or behaviour observed.
Function tested TBA/TDS Upper & Lower Stop Limits	0	19 Feb 2013 00:00	2	Function test Crown-O-Matic.	Tripped Crown-o-Matic to ensure operational.
JSA	0	19 Feb 2013 00:00	2	JSA's	JSA's for tripping, working on mud pumps and Schlumberger wireline logging

Operations for Period 0000 Hrs to 2400 Hrs On 21 Feb 2013

PHSE	CLS (RC)	OP	From	To	Hrs	Depth (m)	Activity Description
PH0	U	WOO	00:00	09:00	9.00	1,723.0	Circulated at low rate and reciprocated cementing string while waiting on cementers to arrive on location
PH0	U	WOO	09:00	12:00	3.00	1,723.0	Flow checked and made check trip back to the casing shoe.
PH0	U	WOO	12:00	12:30	0.50	1,723.0	Cleared and tidy rig floor
PH0	U	WOO	12:30	13:00	0.50	1,723.0	Rig service
PH0	U	WOO	13:00	14:30	1.50	1,723.0	Slipped and cut drill line
PH0	U	WOO	14:30	16:30	2.00	1,723.0	RIH from 750m to 1637m - Flow checked at 1223m
PH0	U	WOO	16:30	21:30	5.00	1,723.0	Circulated and reciprocated cementing string while waiting on Halliburton to arrive on location.
PH0	P	RDC	21:30	22:00	0.50	1,723.0	Halliburton on site - Held PJSM with cementing personell and crew - Nipple up cement lines - Pressure tested lines to 2,000Psi for 10min

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Drillsearch

Well : Tibor-1 Drilling

Operations for Period 0000 Hrs to 2400 Hrs On 21 Feb 2013

PHSE	CLS (RC)	OP	From	To	Hrs	Depth (m)	Activity Description
PH0	P	PLUG	22:00	22:30	0.50	1,723.0	Halliburton mixed and pumped plug #1 @ 1637m with 44bbls of class G cement and displaced with 61Bbls of mud
PH0	P	PLUG	22:30	23:30	1.00	1,723.0	Pulled out of hole from 1637m to 1330m to set Plug #2 in 2 stages
PH0	P	CMD	23:30	24:00	0.50	1,723.0	Circulated 1 times hole volume prior to setting cement plug #2

Operations for Period 0000 Hrs to 0600 Hrs On 22 Feb 2013

PHSE	CLS (RC)	OP	From	To	Hrs	Depth (m)	Activity Description
PH0	P	CMD	00:00	00:15	0.25	1,723.0	Continued circulating 1 time bottoms up 3200 stks
PH0	P	PLUG	00:15	00:45	0.50	1,723.0	Mixed and pumped HTB cement plug 2a - 18.5 Bbls and displace with 873stks w/mud
PH0	P	PLUG	00:45	01:00	0.25	1,723.0	Pulled out from 1329m to 1214m
PH0	P	CMD	01:00	01:30	0.50	1,723.0	Reverse circulated string content 60 bbls
PH0	P	PLUG	01:30	02:45	1.25	1,723.0	Ran back in hole to 1281m and mixed and pumped plug # 2b- 27.7 bbls class G cement - Displace with 47bbls of drilling mud (733Stks)
PH0	P	PLUG	02:45	03:30	0.75	1,723.0	Pulled out of hole to 1138m - Pipe flowing due to unbalance in annulus - installed safety valve and rigged up to circulate.
PH0	P	CMD	03:30	04:15	0.75	1,723.0	Circulated 1 x full circulation 3,500 stks - Minor contaminated mud to surface dumped 50bbls to sump
PH0	P	PLUG	04:15	05:15	1.00	1,723.0	Pulled out from 1138m to 781m Plug #4 setting depth
PH0	P	PLUG	05:15	06:00	0.75	1,723.0	Mixed and pumped cement plug #3 - 28.5Bbls class G - Displaced with mud 374stks

Performance Summary

	Daily		Cumulative Well	
	Hrs	%	Hrs	%
P	2.5	10.4	434.2	88.1
TP	0.0	0.0	3.8	0.8
TU	0.0	0.0	8.0	1.6
U	21.5	89.6	47.0	9.5
Undefined	0.0	0.0	0.0	0.0
Total	24.0	100.0	493.0	100.0

General Comments for Period 0000 Hrs to 2400 Hrs on 21 Feb 2013

Category	Comments
Lessons Learned	

WBM Data

Mud Desc:	3KPO	API FL:		Cl:		Solids:	6.2 %	Glycol:	
Check Depth:	1,723.0 m	Filter-Cake:		KCl:	4.0 %	H2O:	94 %	Viscosity:	45 s/qt
Time:	12:30	HTHP-FL:		Hard/Ca:	320.00 mg/L	Sand:	0.2 %	PV:	13 cP
Weight:	9.30 ppg	HTHP-Cake:		MBT:	10.50 %	pH:	10	YP:	19 lbf/100ft²
Temp:		HTHP-Temp:		Pm:	0.08	PHPA:		Gel 10s:	6 lbf/100ft²
		HTHP-Press:		Pf:	0.14	Mf:	0.80	Gel 10m:	18 lbf/100ft²

Cost Today:

Comment:	RPM	Reading

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Drillsearch

Well : Tibor-1 Drilling

Shakers, Volumes and Losses Data

Engineer : Roni Tan

Equipment	Description	Mesh Size
Centrifuge	Scomi DE-1000	
Shaker	Derrick Shale Shaker	325 x 4
Shaker	Derrick Shale Shaker	325x 4

Available	**759 bbl**
Active	303 bbl
Mixing	
Hole	376 bbl
Slug	
Reserve	80 bbl
Kill	
Other	

Losses	**7 bbl**
Downhole	
Surf. + Equip.	7 bbl
Dumped	
De-Gasser	
De-Sander	
De-Silter	
Centrifuge	
Other	

Comment: Used 50bbls from Turkey's Nest.

Pumps

Pump data - Last 24 Hrs									Slow Pump Data	
No	Type	Liner (in)	SPM	Eff. (%)	Flow (galUS/min)	SPP (psi)	Depth (m)	MW (ppg)	SPM	SPP (psi)
1	Continental Emsco F-800	5.500	81	97		1,100	1,637.0	9.30	41	150
									60	250
2	Continental Emsco F-800	5.500	81	97		1,100	1,637.0	9.30	43	175
									60	250

Casing

OD	LOT	FIT	Casing Shoe (MD)	Casing Shoe (TVD)
244 mm (9 5/8")	16.70 ppg		750.9 m	750.9 m

Formations

Name	Top (m)
Winton Formation	10.7
Mackunda Formation	633.0
Allaru Mudstone	750.0
Toolebuc Formation	912.0
Wallumbilla Formation	970.0
Cadna-Owie Formation	1,215.0
Murta Formation	1,281.0
Namur Sandstone	1,314.0
Westbourne Formation	1,415.0
Adori Sandstone	1,460.0
Birkhead Formation	1,526.0
Hutton Sandstone	1,623.0

Personnel On Board

Job Title	Personnel	Company	Pax
Day OCR	Ray Miller	Drillsearch	1
Night OCR	Don Castles	Drillsearch	1
HSE	Tony Burns	Drillsearch	1
Medic	Simon Chamberlain	ISOS	1
Rig Manager	David Doherty	ENSIGN	1
Night Toolpusher	Andrew Hoey	ENSIGN	1
Day Toolpusher	Pat Pyne	ENSIGN	1
HSE	Mark Person	ENSIGN	1
Driller	Todd Hancock	ENSIGN	1
Derrickman	Kyle Senger	ENSIGN	1
Lead Floorman	Carlos Queremba	ENSIGN	1
Floorman	Daniel Stevens	ENSIGN	1
Floorman	Luke Ward	ENSIGN	1

Drillsearch

Well : Tibor-1 Drilling

Personnel On Board

Job Title	Personnel	Company	Pax
Lease Hand	Nathan Ownsworth	ENSIGN	1
Mechanic	Jason Smith	ENSIGN	1
Electrician	Mick Milligan	ENSIGN	1
Welder	Gary Jarrad	ENSIGN	1
Driller	Paul Hall	ENSIGN	1
Derrickman	Danny Pijovic	ENSIGN	1
Motorman	Aymon Allen	ENSIGN	1
Floorman	Steven Stabile	ENSIGN	1
Floorman	Jair Hadley	ENSIGN	1
Lease Hand	Tim Moreton	ENSIGN	1
Leasehand	Kevin Murphy	ENSIGN	1
Summer Lease Hand	Nelson Hofling	ENSIGN	1
Summer Leasehand	Jesse Kiley	ENSIGN	1
Driver	Healy Lyrtzis	ENSIGN	1
Camp Boss	Michael Sim	Oil Industry Catering Services	1
Night Cook	John Reisir	Oil Industry Catering Services	1
Campie	P Lynch	Oil Industry Catering Services	1
Campie	J Lindgren	Oil Industry Catering Services	1
Mud Logger	Anil Jaisuara	Geoservice	1
Mud Logger	Sam Corey	Geoservice	1
Trainee	S. Cheoni	Geoservice	1
Trainee	D matthews	Geoservice	1
Mud Engineer	Roni Tang	Rheochem	1
Centrifuge Technician	Ray Lloyd	Scomi Oiltools	1
Cementer	Hayden Klingberg	Halliburton Australia Pty Ltd - Cement & Cementing Services	1
Cementer Offsider	Clint Rawson	Halliburton Australia Pty Ltd - Cement & Cementing Services	1
		Total	39

Bulk Stocks

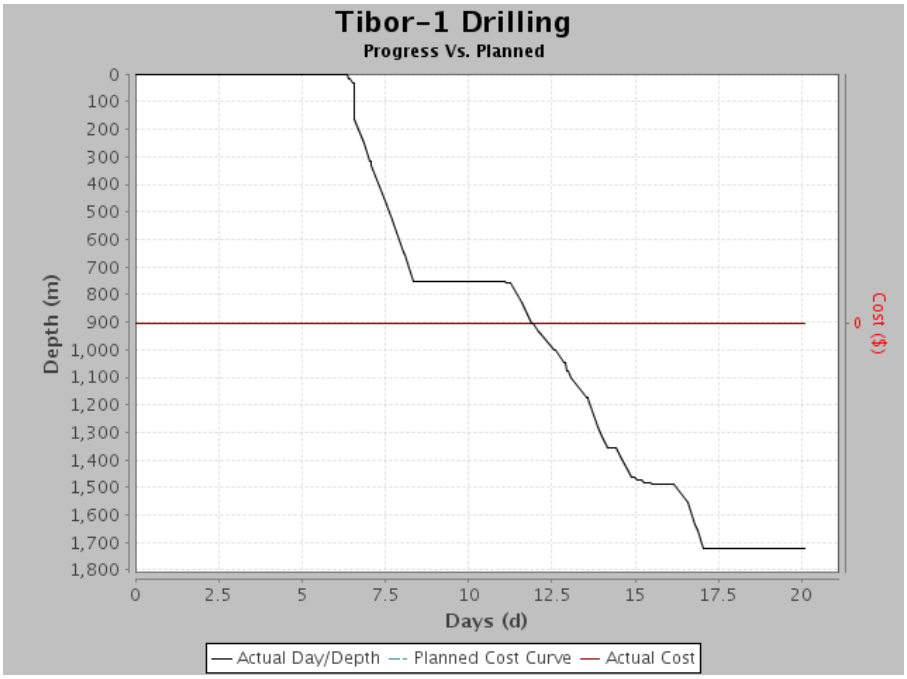
Name	Unit	Start Amount	Previous Balance	In	Used	Adjust	Balance
Rig Fuel (ltr)	ltr		13,000	0	950	0	12,050
Camp Fuel (ltr)	ltr		2,750	0	250	0	2,500
Pot Water (ltr)	ltr		32,000	0	0	0	32,000
Rigsite Potable Water (ltr)	ltr		12,200	0	0	0	12,200
Cementing Water (bbl)	bbl		360	0	0	0	360
Ancor-1(25 kg) (Pails)	Pails		16	0	0	0	16
Barite Sacks (Sacks)	Sacks		1,194	0	0	0	1,194
Calcium Chloride(25 kg) (Sacks)	Sacks		42	0	0	0	42
Caustic Soda (25 kg sx)	25 kg sx		25	0	0	0	25
Cell Plug (11.3kg) (Sacks)	Sacks		70	0	0	0	70
Citric Acid (25kg) (Sacks)	Sacks		38	0	0	0	38
Defoam - A (ltr)	ltr		10	0	0	0	10
EDTA (25kg) (Sacks)	Sacks		40	0	0	0	40
Fracseal Fine (sx)	sx		210	0	0	0	210
Idcide-20 (20ltr) (Pails)	Pails		57	0	0	0	57
JK 161 LV (25kg) (Sacks)	Sacks		59	0	0	0	59
Potassium Chloride (25 kg bag)	25 kg bag		384	0	0	0	384
Lime (sx)	sx		50	0	0	0	50
Maxigel (25kg) (Sacks)	Sacks		255	0	0	0	255
Mica Med (25kg) (Sacks)	Sacks		20	0	0	0	20

Drillsearch

Well : Tibor-1 Drilling

Bulk Stocks

Name	Unit	Start Amount	Previous Balance	In	Used	Adjust	Balance
Micro Flow (20ltr) (Pails)	Pails		32	0	0	0	32
Pipe Freeing Compound (Tessodril BS 2001) (drums)	drums		4	0	0	0	4
Quikseal Coarse (18.2kg) (Sacks)	Sacks		50	0	0	0	50
Quikseal Med (18.2kg) (Sacks)	Sacks		89	0	0	0	89
Rheopac LV (25kg) (Sacks)	Sacks		5	0	0	0	5
Salt-25KG (Sacks)	Sacks		564	0	0	0	564
Sandseal (sx)	sx		40	0	0	0	40
SAPP (sx)	sx		38	0	0	0	38
SI 70P (25kg) (Sacks)	Sacks		2	0	0	0	2
Soda Ash (sx)	sx		12	0	0	0	12
Sodium Bicarbonate (bag)	bag		44	0	0	0	44
Sodium Sulphite (sx)	sx		66	0	0	0	66
Xanthan Gum (25kg sx)	25kg sx		40	0	0	0	40
Extrasweep (25kg) (Sacks)	Sacks		7	0	0	0	7



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Drillsearch

Well : Tibor-1 Drilling

Tibor-1 Drilling					
Report Number :	22	Day Wellsite Representative:	Ray C. Miller	Rig Manager:	David Doherty
Latitude (South)	25° 52' 17.80"	Night Wellsite Representative:	Don Castles	Drilling Company:	ENSIGN
Longitude (East)	141° 16' 19.41"			Wellsite Geologist:	Alan Rightstone

Well Data							
Country:	Australia	Current Hole Size:	8.500 in	Casing OD:	9.625 in	AFE Number:	OPS-13-018
Field:		Measured Depth:	1,723.0 m	Casing MD:	750.9 m	Original AFE:	
Rig:	Ensign 918	True Vertical Depth:	1,723.0 m	Casing TVD:	750.9 m	Supp AFE No:	
Ground Level:	135.0 m	24 Hr Progress:	0.0 m	TOL MD:		Orig. & Sup.	
RT to GL	5.15 m	Days On Well:	21.54	TOL TVD:		AFE:	
Plan TD (MD):	1,738.0 m	Days Since Spud:	15.29	Lnr Shoe MD:		Daily Cost:	
Plan TD (TVD):	1,738.0 m	Last BOP Date:	12 Feb 2013	Lnr Shoe TVD:		Cum. Cost:	
		FIT/LOT:	/16.64 ppg			Last LTI Date:	05 Feb 2012
						Days Since LTI:	383

Current Op @ 0600:	Removing the BOP Stack.
Planned Op:	Remove BOP Stack, cut off and remove the well head. Release the Rig and proceed to rig down.

Summary for Period 0000 Hrs to 2400 Hrs on 22 Feb 2013

Set and displcaced cement plugs #2: #3. Waited on cement, laid down DP. Tagged cement plug #3. Laid down DP. displaced hole contents to inhibited water. Pulled wear bushing.

HSE Summary

Events	Num. Events	Date of Last	Days Since	Description	Remarks
Pre-Tour Safety Meeting	0	19 Feb 2013 00:00	3	PTSM	Discuss hazards of upcoming operations.
Pre-Tour Safety Meeting	0	19 Feb 2013 11:45	3	PTSM	Discuss hazards of upcoming operations.
Number of Observe Cards	0	19 Feb 2013 00:00	3	Hazardous observation cards.	Various hazardous conditions or behaviour observed.
Function tested TBA/TDS Upper & Lower Stop Limits	0	19 Feb 2013 00:00	3	Function test Crown-O-Matic.	Tripped Crown-o-Matic to ensure operational.
JSA	0	19 Feb 2013 00:00	3	JSA's	JSA's for tripping, working on mud pumps and Schlumberger wireline logging

Operations for Period 0000 Hrs to 2400 Hrs On 22 Feb 2013

PHSE	CLS (RC)	OP	From	To	Hrs	Depth (m)	Activity Description
PH0	P	CMD	00:00	00:15	0.25	1,723.0	Continued circulating 1 time bottoms up 3200 stks
PH0	P	PLUG	00:15	00:45	0.50	1,723.0	Mixed and pumped HTB cement plug 2a - 18.5 Bbls and displace with 873stks w/mud
PH0	P	PLUG	00:45	01:00	0.25	1,723.0	Pulled out from 1329m to 1214m
PH0	P	CMD	01:00	01:30	0.50	1,723.0	Reverse circulated string content 60 bbls
PH0	P	PLUG	01:30	02:45	1.25	1,723.0	Ran back in hole to 1281m and mixed and pumped plug # 2b- 27.7 bbls class G cement - Displace with 47bbls of drilling mud (733Stks)
PH0	P	PLUG	02:45	03:30	0.75	1,723.0	Pulled out of hole to 1138m - Pipe flowing due to unbalance in annulus - installed safety valve and rigged up to circulate.
PH0	P	CMD	03:30	04:15	0.75	1,723.0	Circulated 1 x full circulation 3,500 stks - Minor contaminated mud to surface dumped 50bbls to sump
PH0	P	PLUG	04:15	05:15	1.00	1,723.0	Pulled out from 1138m to 781m Plug #4 setting depth
PH0	P	PLUG	05:15	06:00	0.75	1,723.0	Mixed and pumped cement plug #3 - 28.5Bbls class G - Displaced with mud 374stks
PH0	P	PLUG	06:00	06:30	0.50	1,723.0	Pulled back to 549 meters.
PH0	P	PLUG	06:30	06:45	0.25	1,723.0	Reversed out pipe contents.

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Drillsearch

Well : Tibor-1 Drilling

Operations for Period 0000 Hrs to 2400 Hrs On 22 Feb 2013

PHSE	CLS (RC)	OP	From	To	Hrs	Depth (m)	Activity Description
PH0	P	LDP	06:45	08:45	2.00	1,723.0	Laying down excess drill pipe from the mast and hole.
PH0	P	LDP	08:45	11:30	2.75	1,723.0	RIH from 200m to 490m and continued laying out excess 4-1/2" DP from derrick.
PH0	P	LDP	11:30	12:00	0.50	1,723.0	Cleared excess 4-1/2" DP from racks.
PH0	P	LDP	12:00	13:15	1.25	1,723.0	Continued pulling out with excess 4-1/2" DP and laid 27 singles.
PH0	P	TI	13:15	14:45	1.50	1,723.0	Ran in and tagged top of cement plug at 675m
PH0	P	CIC	14:45	15:45	1.00	1,723.0	Circulate annulus content to inhibited water
PH0	P	RUD	15:45	18:00	2.25	1,723.0	Picked up kelly broke connections and laid out subs - Rack kelly back in rat hole.
PH0	P	LDP	18:00	21:00	3.00	1,723.0	Installed elevators and continued laying out 4-1/2" DP
PH0	P	LDP	21:00	23:00	2.00	1,723.0	Broke and laid out 2-7/8" tubing from 198m (Cementing stinger)
PH0	P	WB	23:00	24:00	1.00	1,723.0	Installed 4-1/2" DP elevators ran 1 x standd of DP from derrick and laid out same - Made up wear bushing combination tool and recovered bushing from wellhead.

Operations for Period 0000 Hrs to 0600 Hrs On 23 Feb 2013

PHSE	CLS (RC)	OP	From	To	Hrs	Depth (m)	Activity Description
PH0	P	PT	00:00	01:30	1.50	1,723.0	Rigged up and pressure tested plug #3 (casing shoe plug) - 8psi Low 5min 1,500Psi High for 10min - Good test.
PH0	P	PLUG	01:30	01:45	0.25	1,723.0	RIH with 3 x DP - Pushing sax to 30m - Rigged up Halliburton.
PH0	P	PLUG	01:45	02:30	0.75	1,723.0	Held PJSM with crew and Halliburton - Mixed and pumped 6.1bbls cement plug #4 - Flushed cementing lines with water.
PH0	P	PLUG	02:30	03:15	0.75	1,723.0	Rigged down Halliburton cementing equipment.
PH0	P	RUD	03:15	03:45	0.50	1,723.0	Flushed all mud lines, choke hoses, mud pumps. Filled up lines with fresh water and prepared to nipple down BOP.
PH0	P	RUD	03:45	06:00	2.25	1,723.0	Bled down Koomey unit - Removed flow line, bell nipple, flare and vent lines, cleaning mud tanks.

Performance Summary

	Daily		Cumulative Well	
	Hrs	%	Hrs	%
P	24.0	100.0	458.2	88.6
TP	0.0	0.0	3.8	0.7
TU	0.0	0.0	8.0	1.5
U	0.0	0.0	47.0	9.1
Undefined	0.0	0.0	0.0	0.0
Total	24.0	100.0	517.0	100.0

General Comments for Period 0000 Hrs to 2400 Hrs on 22 Feb 2013

Category	Comments
Lessons Learned	

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Drillsearch

Well : Tibor-1 Drilling

Shakers, Volumes and Losses Data

Engineer : Roni Tan

Equipment	Description	Mesh Size
Centrifuge	Scomi DE-1000	
Shaker	Derrick Shale Shaker	325 x 4
Shaker	Derrick Shale Shaker	325x 4

Available	**759 bbl**	**Losses**	**7 bbl**
Active	303 bbl	Downhole	
Mixing		Surf. + Equip.	7 bbl
Hole	376 bbl	Dumped	
Slug		De-Gasser	
Reserve	80 bbl	De-Sander	
Kill		De-Silter	
Other		Centrifuge	
		Other	

Comment: Used 50bbls from Turkey's Nest.

Pumps

		Pump data - Last 24 Hrs							Slow Pump Data	
No	Type	Liner (in)	SPM	Eff. (%)	Flow (galUS/min)	SPP (psi)	Depth (m)	MW (ppg)	SPM	SPP (psi)
1	Continental Emsco F-800	5.500	81	97		1,100	1,637.0	9.30	41	150
									60	250
2	Continental Emsco F-800	5.500	81	97		1,100	1,637.0	9.30	43	175
									60	250

Casing

OD	LOT	FIT	Casing Shoe (MD)	Casing Shoe (TVD)
244 mm (9 5/8")	16.70 ppg		750.9 m	750.9 m

Formations

Name	Top (m)
Winton Formation	10.7
Mackunda Formation	633.0
Allaru Mudstone	750.0
Toolebuc Formation	912.0
Wallumbilla Formation	970.0
Cadna-Owie Formation	1,215.0
Murta Formation	1,281.0
Namur Sandstone	1,314.0
Westbourne Formation	1,415.0
Adori Sandstone	1,460.0
Birkhead Formation	1,526.0
Hutton Sandstone	1,623.0

Personnel On Board

Job Title	Personnel	Company	Pax
Day OCR	Ray Miller	Drillsearch	1
Night OCR	Don Castles	Drillsearch	1
HSE	Tony Burns	Drillsearch	1
Medic	Simon Chamberlain	ISOS	1
Rig Manager	David Doherty	ENSIGN	1
Night Toolpusher	Andrew Hoey	ENSIGN	1
Day Toolpusher	Pat Pyne	ENSIGN	1
HSE	Mark Person	ENSIGN	1
Driller	Todd Hancock	ENSIGN	1
Lead Floorman	Carlos Queremba	ENSIGN	1
Floorman	Daniel Stevens	ENSIGN	1
Floorman	Luke Ward	ENSIGN	1
Lease Hand	Nathan Ownsworth	ENSIGN	1

Drillsearch

Well : Tibor-1 Drilling

Personnel On Board

Job Title	Personnel	Company	Pax
Mechanic	Jason Smith	ENSIGN	1
Electrician	Mick Milligan	ENSIGN	1
Welder	Gary Jarrad	ENSIGN	1
Driller	Paul Hall	ENSIGN	1
Derrickman	Danny Pijovic	ENSIGN	1
Motorman	Aymon Allen	ENSIGN	1
Floorman	Steven Stabile	ENSIGN	1
Floorman	Jair Hadley	ENSIGN	1
Lease Hand	Tim Moreton	ENSIGN	1
Leasehand	Kevin Murphy	ENSIGN	1
Summer Lease Hand	Nelson Hofling	ENSIGN	1
Summer Leasehand	Jesse Kiley	ENSIGN	1
Driver	Healy Lyrtzis	ENSIGN	1
Camp Boss	Michael Sim	Oil Industry Catering Services	1
Night Cook	John Reisir	Oil Industry Catering Services	1
Campie	P Lynch	Oil Industry Catering Services	1
Campie	J Lindgren	Oil Industry Catering Services	1
Mud Logger	Anil Jaisuara	Geoservice	1
Trainee	S. Cheoni	Geoservice	1
Trainee	D matthews	Geoservice	1
Mud Engineer	Roni Tang	Rheochem	1
Centrifuge Technician	Ray Lloyd	Scomi Oiltools	1
Cementer	Hayden Klingberg	Halliburton Australia Pty Ltd - Cement & Cementing Services	1
Cementer Offsider	Clint Rawson	Halliburton Australia Pty Ltd - Cement & Cementing Services	1
		Total	37

Bulk Stocks

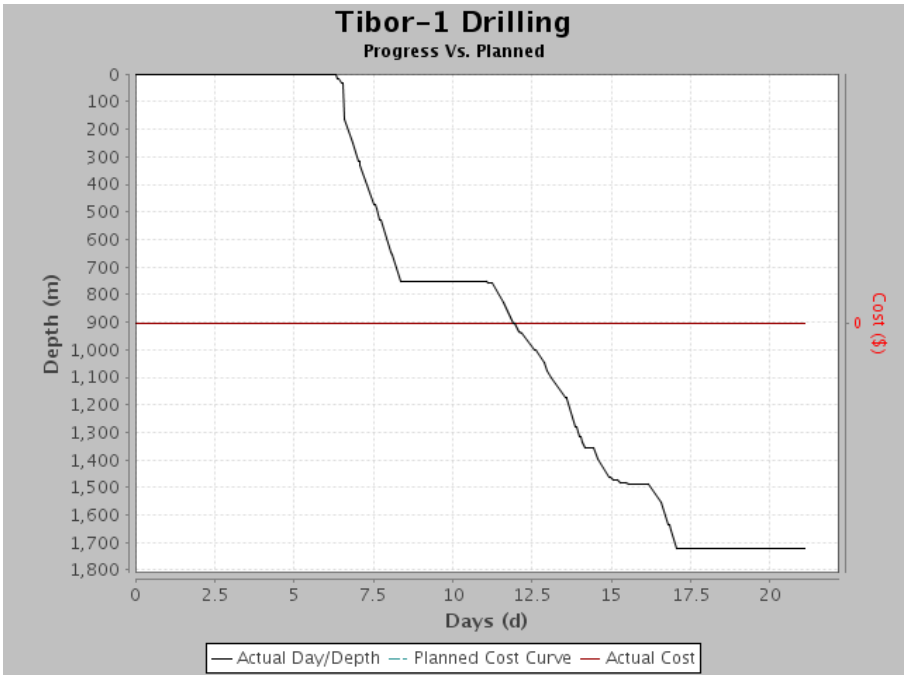
Name	Unit	Start Amount	Previous Balance	In	Used	Adjust	Balance
Rig Fuel (ltr)	ltr		12,050	0	1,650	0	10,400
Camp Fuel (ltr)	ltr		2,500	0	250	0	2,250
Pot Water (ltr)	ltr		32,000	0	0	0	32,000
Rigsite Potable Water (ltr)	ltr		12,200	0	0	0	12,200
Cementing Water (bbl)	bbl		360	0	0	0	360
Ancor-1(25 kg) (Pails)	Pails		16	0	0	0	16
Barite Sacks (Sacks)	Sacks		1,194	0	0	0	1,194
Calcium Chloride(25 kg) (Sacks)	Sacks		42	0	0	0	42
Caustic Soda (25 kg sx)	25 kg sx		25	0	0	0	25
Cell Plug (11.3kg) (Sacks)	Sacks		70	0	0	0	70
Citric Acid (25kg) (Sacks)	Sacks		38	0	0	0	38
Defoam - A (ltr)	ltr		10	0	0	0	10
EDTA (25kg) (Sacks)	Sacks		40	0	0	0	40
Fracseal Fine (sx)	sx		210	0	0	0	210
Idcide-20 (20ltr) (Pails)	Pails		57	0	0	0	57
JK 161 LV (25kg) (Sacks)	Sacks		59	0	0	0	59
Potassium Chloride (25 kg bag)	25 kg bag		384	0	0	0	384
Lime (sx)	sx		50	0	0	0	50
Maxigel (25kg) (Sacks)	Sacks		255	0	0	0	255
Mica Med (25kg) (Sacks)	Sacks		20	0	0	0	20
Micro Flow (20ltr) (Pails)	Pails		32	0	0	0	32

Drillsearch

Well : Tibor-1 Drilling

Bulk Stocks

Name	Unit	Start Amount	Previous Balance	In	Used	Adjust	Balance
Pipe Freeing Compound (Tessodril BS 2001) (drums)	drums		4	0	0	0	4
Quikseal Coarse (18.2kg) (Sacks)	Sacks		50	0	0	0	50
Quikseal Med (18.2kg) (Sacks)	Sacks		89	0	0	0	89
Rheopac LV (25kg) (Sacks)	Sacks		5	0	0	0	5
Salt-25KG (Sacks)	Sacks		564	0	0	0	564
Sandseal (sx)	sx		40	0	0	0	40
SAPP (sx)	sx		38	0	0	0	38
SI 70P (25kg) (Sacks)	Sacks		2	0	0	0	2
Soda Ash (sx)	sx		12	0	0	0	12
Sodium Bicarbonate (bag)	bag		44	0	0	0	44
Sodium Sulphite (sx)	sx		66	0	0	0	66
Xanthan Gum (25kg sx)	25kg sx		40	0	0	0	40
Extrasweep (25kg) (Sacks)	Sacks		7	0	0	0	7



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Drillsearch

Well : Tibor-1 Drilling

Tibor-1 Drilling					
Report Number :	23	Day Wellsite Representative:	Ray C. Miller	Rig Manager:	David Doherty
Latitude (South)	25° 52' 17.80"	Night Wellsite Representative:	Don Castles	Drilling Company:	ENSIGN
Longitude (East)	141° 16' 19.41"			Wellsite Geologist:	Alan Rightstone

Well Data							
Country:	Australia	Current Hole Size:	8.500 in	Casing OD:	9.625 in	AFE Number:	OPS-13-018
Field:		Measured Depth:	1,723.0 m	Casing MD:	750.9 m	Original AFE:	
Rig:	Ensign 918	True Vertical Depth:	1,723.0 m	Casing TVD:	750.9 m	Supp AFE No:	
Ground Level:	135.0 m	24 Hr Progress:	0.0 m	TOL MD:		Orig. & Sup.	
RT to GL	5.15 m	Days On Well:	22.04	TOL TVD:		AFE:	
Plan TD (MD):	1,738.0 m	Days Since Spud:	15.79	Lnr Shoe MD:		Daily Cost:	
Plan TD (TVD):	1,738.0 m	Last BOP Date:	12 Feb 2013	Lnr Shoe TVD:		Cum. Cost:	
		FIT/LOT:	/16.64 ppg			Last LTI Date:	05 Feb 2012
						Days Since LTI:	384
Current Op @ 0600:	Rigging down. Plan to have derrick down today.						
Planned Op:	Rig down for rig move to Cook.						

Summary for Period 0000 Hrs to 2400 Hrs on 23 Feb 2013

Pressure tested plug #3. to 1,500psi for 10 mintes. Hallliburton set plug #4 at surface. Removed the BOP and cleaned mud tanks. Laid out Kelly and cut off the wellhead. Released rig at 12:00 Hrs.

HSE Summary

Events	Num. Events	Date of Last	Days Since	Description	Remarks
Pre-Tour Safety Meeting	0	19 Feb 2013 00:00	4	PTSM	Discuss hazards of upcoming operations.
Pre-Tour Safety Meeting	0	19 Feb 2013 11:45	4	PTSM	Discuss hazards of upcoming operations.
Number of Observe Cards	0	19 Feb 2013 00:00	4	Hazardous observation cards.	Various hazardous conditions or behaviour observed.
Function tested TBA/TDS Upper & Lower Stop Limits	0	19 Feb 2013 00:00	4	Function test Crown-O-Matic.	Tripped Crown-o-Matic to ensure operational.
JSA	0	19 Feb 2013 00:00	4	JSA's	JSA's for tripping, working on mud pumps and Schlumberger wireline logging

Operations for Period 0000 Hrs to 2400 Hrs On 23 Feb 2013

PHSE	CLS (RC)	OP	From	To	Hrs	Depth (m)	Activity Description
PH0	P	PT	00:00	01:30	1.50	1,723.0	Rigged up and pressure tested plug #3 (casing shoe plug) - 8psi Low 5min 1,500Psi High for 10min - Good test.
PH0	P	PLUG	01:30	01:45	0.25	1,723.0	RIH with 3 x DP - Pushing sax to 30m - Rigged up Halliburton.
PH0	P	PLUG	01:45	02:30	0.75	1,723.0	Held PJSM with crew and Halliburton - Mixed and pumped 6.1bbls cement plug #4 - Flushed cementing lines with water.
PH0	P	PLUG	02:30	03:15	0.75	1,723.0	Rigged down Halliburton cementing equipment.
PH0	P	RUD	03:15	03:45	0.50	1,723.0	Flushed all mud lines, choke hoses, mud pumps. Filled up lines with fresh water and prepared to nipple down BOP.
PH0	P	RUD	03:45	06:00	2.25	1,723.0	Bled down Koomey unit - Removed flow line, bell nipple, flare and vent lines, cleaning mud tanks.
PH0	P	RUD	06:00	09:00	3.00	1,723.0	Lifted and removed the BOP Stack. Landed the Stack on the trolley and moved it to storage area.

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Drillsearch

Well : Tibor-1 Drilling

Operations for Period 0000 Hrs to 2400 Hrs On 23 Feb 2013

PHSE	CLS (RC)	OP	From	To	Hrs	Depth (m)	Activity Description
PH0	P	RUD	09:00	12:00	3.00	1,723.0	Laid out Kelly & cut off & removed wellhead. Rig released at 12:00 hrs. End of Tibor-1. Final fuel figures: Rig total remaining = 6950 Liters remaining. Camp: 2000 Liters remaining.

Performance Summary

	Daily		Cumulative Well	
	Hrs	%	Hrs	%
P	12.0	100.0	470.2	88.9
TP	0.0	0.0	3.8	0.7
TU	0.0	0.0	8.0	1.5
U	0.0	0.0	47.0	8.9
Undefined	0.0	0.0	0.0	0.0
Total	12.0	100.0	529.0	100.0

General Comments for Period 0000 Hrs to 2400 Hrs on 23 Feb 2013

Category	Comments
Lessons Learned	

Casing

OD	LOT	FIT	Casing Shoe (MD)	Casing Shoe (TVD)
244 mm (9 5/8")	16.70 ppg		750.9 m	750.9 m

Formations

Name	Top (m)
Winton Formation	10.7
Mackunda Formation	633.0
Allaru Mudstone	750.0
Toolebuc Formation	912.0
Wallumbilla Formation	970.0
Cadna-Owie Formation	1,215.0
Murta Formation	1,281.0
Namur Sandstone	1,314.0
Westbourne Formation	1,415.0
Adori Sandstone	1,460.0
Birkhead Formation	1,526.0
Hutton Sandstone	1,623.0

Personnel On Board

Job Title	Personnel	Company	Pax
Day OCR	Ray Miller	Drillsearch	1
Night OCR	Don Castles	Drillsearch	1
HSE	Tony Burns	Drillsearch	1
Medic	Simon Chamberlain	ISOS	1
Rig Manager	David Doherty	ENSIGN	1
Night Toolpusher	Andrew Hoey	ENSIGN	1
Day Toolpusher	Pat Pyne	ENSIGN	1
HSE	Mark Person	ENSIGN	1
Driller	Todd Hancock	ENSIGN	1
Lead Floorman	Carlos Queremba	ENSIGN	1

Drillsearch

Well : Tibor-1 Drilling

Personnel On Board

Job Title	Personnel	Company	Pax
Floorman	Daniel Stevens	ENSIGN	1
Floorman	Luke Ward	ENSIGN	1
Lease Hand	Nathan Ownsworth	ENSIGN	1
Mechanic	Jason Smith	ENSIGN	1
Electrician	Mick Milligan	ENSIGN	1
Welder	Gary Jarrad	ENSIGN	1
Driller	Paul Hall	ENSIGN	1
Derrickman	Danny Pijovic	ENSIGN	1
Motorman	Aymon Allen	ENSIGN	1
Floorman	Steven Stabile	ENSIGN	1
Floorman	Jair Hadley	ENSIGN	1
Lease Hand	Tim Moreton	ENSIGN	1
Leasehand	Kevin Murphy	ENSIGN	1
Summer Lease Hand	Nelson Hofling	ENSIGN	1
Summer Leasehand	Jesse Kiley	ENSIGN	1
Driver	Healy Lyrtzis	ENSIGN	1
Camp Boss	Michael Sim	Oil Industry Catering Services	1
Night Cook	John Reisir	Oil Industry Catering Services	1
Campie	P Lynch	Oil Industry Catering Services	1
Campie	J Lindgren	Oil Industry Catering Services	1
Mud Logger	Anil Jaisuara	Geoservice	1
Trainee	S. Cheoni	Geoservice	1
Trainee	D matthews	Geoservice	1
Mud Engineer	Roni Tang	Rheochem	1
Centrifuge Technician	Ray Lloyd	Scomi Oiltools	1
Cementer	Hayden Klingberg	Halliburton Australia Pty Ltd - Cement & Cementing Services	1
Cementer Offsider	Clint Rawson	Halliburton Australia Pty Ltd - Cement & Cementing Services	1
		Total	37

Bulk Stocks

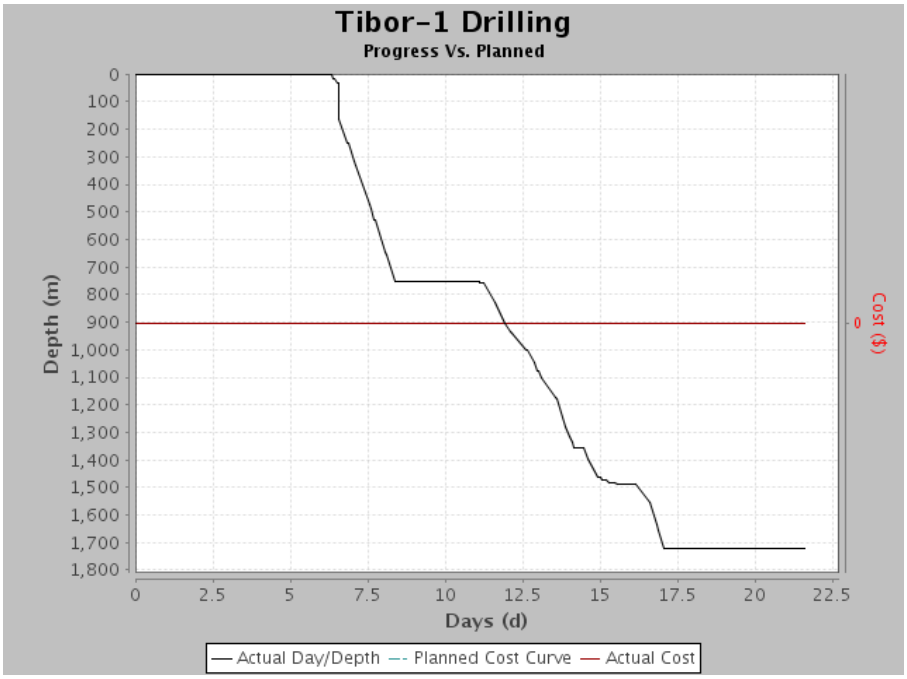
Name	Unit	Start Amount	Previous Balance	In	Used	Adjust	Balance
Rig Fuel (ltr)	ltr		10,400	0	3,450	0	6,950
Camp Fuel (ltr)	ltr		2,250	0	250	0	2,000
Pot Water (ltr)	ltr		32,000	0	0	0	32,000
Rigsite Potable Water (ltr)	ltr		12,200	0	0	0	12,200
Cementing Water (bbl)	bbl		360	0	0	0	360
Ancor-1(25 kg) (Pails)	Pails		16	0	0	0	16
Barite Sacks (Sacks)	Sacks		1,194	0	0	0	1,194
Calcium Chloride(25 kg) (Sacks)	Sacks		42	0	0	0	42
Caustic Soda (25 kg sx)	25 kg sx		25	0	0	0	25
Cell Plug (11.3kg) (Sacks)	Sacks		70	0	0	0	70
Citric Acid (25kg) (Sacks)	Sacks		38	0	0	0	38
Defoam - A (ltr)	ltr		10	0	0	0	10
EDTA (25kg) (Sacks)	Sacks		40	0	0	0	40
Fracseal Fine (sx)	sx		210	0	0	0	210
Idcide-20 (20ltr) (Pails)	Pails		57	0	0	0	57
JK 161 LV (25kg) (Sacks)	Sacks		59	0	0	0	59
Potassium Chloride (25 kg bag)	25 kg bag		384	0	0	0	384
Lime (sx)	sx		50	0	0	0	50
Maxigel (25kg) (Sacks)	Sacks		255	0	0	0	255

Drillsearch

Well : Tibor-1 Drilling

Bulk Stocks

Name	Unit	Start Amount	Previous Balance	In	Used	Adjust	Balance
Mica Med (25kg) (Sacks)	Sacks		20	0	0	0	20
Micro Flow (20ltr) (Pails)	Pails		32	0	0	0	32
Pipe Freeing Compound (Tessodril BS 2001) (drums)	drums		4	0	0	0	4
Quikseal Coarse (18.2kg) (Sacks)	Sacks		50	0	0	0	50
Quikseal Med (18.2kg) (Sacks)	Sacks		89	0	0	0	89
Rheopac LV (25kg) (Sacks)	Sacks		5	0	0	0	5
Salt-25KG (Sacks)	Sacks		564	0	0	0	564
Sandseal (sx)	sx		40	0	0	0	40
SAPP (sx)	sx		38	0	0	0	38
SI 70P (25kg) (Sacks)	Sacks		2	0	0	0	2
Soda Ash (sx)	sx		12	0	0	0	12
Sodium Bicarbonate (bag)	bag		44	0	0	0	44
Sodium Sulphite (sx)	sx		66	0	0	0	66
Xanthan Gum (25kg sx)	25kg sx		40	0	0	0	40
Extrasweep (25kg) (Sacks)	Sacks		7	0	0	0	7



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Appendix 2 – Drilling Mud Reports

WATER BASED MUD
Daily Drilling Report

RHEOCHEM

Report #	1	Total MD	0	to	16	m
Rig #	918	Total VD	0	to	16	m
Date	07/02/13	Daily Depth Drilled			16	m
Spud Date	07/02/13	Interval Depth Drilled			16	m

OPERATOR	DrillSearch	CONTRACTOR	Ensign
REPORT FOR	Ray Holmes/Kevin Gordon	REPORT FOR	Scott Cameron
WELL NAME AND No.	Tibor 1 {Rev 2}	FIELD: ATP539	LOCATION: Cooper Basin / STATE: Queensland

BHA	BIT TYPE	JET SIZE	DEPTHS/CASING	MUD VOLUME (BBL)	CIRCULATION DATA
BIT SIZE (") 12.25	Baker Hughes PDC	14 14 14 14 14 / 14 14 0 0 0	15.25 Riser Length m	HOLE VOL 8 / MUD INHOLE -1	PUMP SIZE 5.5 x 9 Inches / CIRCULATION PRESS psi
DRILL PIPE SIZE (") 4.5	TYPE / LENGTH 9 m		16 Conductor @ 7 m	Active Pits 413 / Reserve Pits 53	PUMP MODEL Emco F-800 / % EFFICIENCY 97 / SURFACE TO BIT 0 min
DRILL PIPE SIZE (") 4.5	TYPE HW / LENGTH 38 m		Surface @ m	TOTAL CIRCULATING VOL 412	BBL / STK 0.0642 / STK / MIN / BOTTOMS UP 0 min
DRILL COLLAR SIZE (") 8	6.5 / LENGTH 27 18 m		Intermediate @ m	STORAGE TANKS 0	BBL / MIN / GAL / MIN / TOT CIRC TIME min
			Prod. or LNR @ m		ECD

MUD PROPERTIES				MUD PROPERTY SPECIFICATIONS
SAMPLE FROM		Pit		
MUD TYPE		4KPP		
TIME SAMPLE TAKEN		17:00		
FLOWLINE TEMPERATURE	°F / °C	88 / 31		
TOTAL MEASURED DEPTH (TMD)	Metres	16		
WEIGHT	ppg / SG	8.7 / 1.04		
FUNNEL VISCOSITY (sec / qt) API		36		
RHEOLOGY 600 : 300 RPM	°F / °C	18 / 11		
RHEOLOGY 200 : 100 RPM	°F / °C	8 / 6		
RHEOLOGY 6 : 3 RPM	°F / °C	3 / 2		
PLASTIC VISCOSITY cP @	°F / °C	7		
YIELD POINT (lb / 100 ft^2)	°F / °C	4		
GEL STRENGTH (lb / 100 ft^2)	10sec/10min/30min	2 / 4		
LOW SHEAR RATE VISCOSITY (LSRV)				
n K (lb / 100 ft^2)		0.71 / 0.13		
API FILTRATE (cm^3 / 30 min.)		15		
HPHT FILTRATE (cm^3 / 30 min.)	°F / °C			
API : HPHT (Cake / 32nd in.)		1		
pH		9.5		
ALKALINITY MUD (Pm)				
ALKALINITY FILTRATE (Pf / Mf)		0.17 / 1.0		
CHLORIDE (mg / L)		24300		
TOTAL HARDNESS AS CALCIUM (mg / L)		400		
SULPHITE (mg / L)				
KCL (% by Wt.)		5.0		
K + (mg / L)		27020		
PHPA (Calc ppb)		1		
METHYLENE BLUE CAPACITY (ppb / % by vol)				
BENTONITE ADDED (ppb / % by vol)		20 / 2.2		
OTHER PRODUCTS ADDED (ppb / % by vol)				
OIL (% by Vol)				
TOTAL WATER (% by Vol)		97.3		
TOTAL SOLIDS (% by Vol)		2.8		
SAND (% by Vol)				

MUD COMMENTS

Turkeys nest water analysis pH=7, Cl-=2000 mg/ltr, TH= 500 mg/ltr. Treated water with 0.25ppb caustic and 0.25 soda ash. Built 200 bbls 5%KCL/PHPA mud in active & premix tank with 1.25ppb Rheopac LV, 1.0ppb PHPA. Prepare 240 bbls 20- 25ppb PHB on settling and degasser tank.
Mud properties sample taken from Suction tank.

Turkeys nest water used : 450bbls

OPERATIONAL COMMENTS

Continued R/U rig equipment's. repaired leaking on mud tank. Pressure test all surface line. Plan: Perform pre spud inspection, Pre Spud meeting and Hazard hunt. Spud Tibor 1 well on 7th February 2013 at 19:00hrs. Drill to 16mVD at report time.

Water Source Turkeys nest water

MUD ACCOUNTING (BBLS)				SUMMARY	
FLUID BUILT		FLUID LOSSES			
Drill Water	0	S.C.E.	0	Start Vol	0
Chemical	465	Discharge	0	Received	0
Sump/SeaWat	0	Downhole	0	Backload	0
Other Rec'd	0	Tripping	0	Built	465
Other Built	0	Other	0	Lost sub	0
				Lost srf	0

TOTAL MUD ON RIG (bbls) : 465

PRODUCT USAGE

Product	UnitSize	Start	Received	Used	Close
Water	1 bbl	1619	0	450	1169
KCl (fine)	25 Kg Sack	1180	0	96	1084
Maxigel	25 Kg Sack	527	0	84	443
Rheopac L	25 Kg Sack	112	0	8	104
JK-161 LV	25 Kg Sack	88	0	4	84
Caustic Soda	25 Kg Drum	49	0	3	46
Idcide-20	20 Ltr Drum	73	0	2	71
Soda Ash	25 Kg Sack	57	0	2	55

SOLIDS CONTROL EQUIPMENT

Type			Hrs	OF	UF
Desander	Cone Size	Qty 0	0	0	0
Desilter	Cone Size	Qty 0	0	0	0
Mud Cleaner			0	0	0
Centrifuge 1	Scomo DE-1000		0	0	0
Centrifuge 2			0	0	0
Cuttings Dryer			0	0	0
Degasser			0		
Shale Shaker #1	100x100x100x100		5		
Shale Shaker #2	100x100x100x100		5		
			0		
			0		
			0		

SOLIDS ANALYSIS

Salt %	2.3	HGS %	
		LGS %	0.4
Corrected Solids %	0.4	Drilled Solids%	-1.8

Time Breakdown

Analysis Item	Hrs
Drilling	4
Other	20

CURRENCY	DAILY COST	CUMULATIVE COSTS
AUD	$5,710.65	$5,710.65

Rheochem Engineer: Roni Tang **Office:** Perth **Telephone:** +61 **Fax:** +61

WATER BASED MUD
Daily Drilling Report

RHEOCHEM

Report #	2	Total MD	16	to	251	m
Rig #	918	Total VD	16	to	251	m
Date	08/02/13	Daily Depth Drilled			235	m
Spud Date	07/02/13	Interval Depth Drilled			251	m

OPERATOR	DrillSearch	CONTRACTOR	Ensign
REPORT FOR	Ray Holmes/Kevin Gordon	REPORT FOR	Scott Cameron
WELL NAME AND No.	Tibor 1 {Rev 2}	FIELD: ATP539	LOCATION: Cooper Basin / STATE: Queensland

BHA	BIT TYPE	JET SIZE	DEPTHS/CASING	MUD VOLUME (BBL)	CIRCULATION DATA
BIT SIZE (") 12.25	Baker Hughes PDC	14 14 14 14 14 / 14 14 0 0 0	15.25 Riser Length m	HOLE VOL 122 / MUD INHOLE 113	PUMP SIZE 5.5 x 9 Inches
DRILL PIPE SIZE (") 4.5	TYPE	LENGTH 9 m	16 Conductor @ 7 m	Active Pits 332 / Reserve Pits 57	PUMP MODEL Emco F-800 / % EFFICIENCY 97
DRILL PIPE SIZE (") 4.5	TYPE HW	LENGTH 38 m	Surface @ m	TOTAL CIRCULATING VOL 445	BBL / STK 0.0642 / STK / MIN 132
DRILL COLLAR SIZE (") 8	6.5	LENGTH 27 18 m	Intermediate @ m	STORAGE TANKS 0	BBL / MIN 8.47 / GAL / MIN 356
			Prod. or LNR @ m		

CIRCULATION DATA		
CIRCULATION PRESS	383	psi
SURFACE TO BIT	1	min
BOTTOMS UP	12	min
TOT CIRC TIME	53	min
ECD		

MUD PROPERTIES

SAMPLE FROM		FL		Pit		FL	
MUD TYPE		4KPP		4KPP		4KPP	
TIME SAMPLE TAKEN		5:20		13:05		18:30	
FLOWLINE TEMPERATURE	°F / °C						
TOTAL MEASURED DEPTH (TMD)	Metres	92		181		250	
WEIGHT	ppg / SG	8.8	1.06	8.8	1.06	8.8	1.06
FUNNEL VISCOSITY (sec / qt) API		48		43		42	
RHEOLOGY 600 : 300 RPM	120 °F / 49 °C	42	29	43	30	41	29
RHEOLOGY 200 : 100 RPM	120 °F / 49 °C	22	15	22	16	22	16
RHEOLOGY 6 : 3 RPM	120 °F / 49 °C	7	5	7	6	7	5
PLASTIC VISCOSITY cP @	120 °F / 49 °C	13		13		12	
YIELD POINT (lb / 100 ft2)	120 °F / 49 °C	16		17		17	
GEL STRENGTH (lb / 100 ft2)	10sec/10min/30min	5	12	5	12	5	11
LOW SHEAR RATE VISCOSITY (LSRV)							
n K (lb / 100 ft2)		0.53	1.04	0.52	1.18	0.50	1.29
API FILTRATE (cm3 / 30 min.)		10.5		10		9	
HPHT FILTRATE (cm3 / 30 min.)	°F / °C						
API : HPHT (Cake / 32nd in.)		1		1		1	
pH		9.5		9.5		9.5	
ALKALINITY MUD (Pm)							
ALKALINITY FILTRATE (Pf / Mf)		0.17	0.8	0.16	0.8	0.16	0.8
CHLORIDE (mg / L)		21000		22400		22100	
TOTAL HARDNESS AS CALCIUM (mg / L)		360		360		360	
SULPHITE (mg / L)							
KCL (% by Wt.)		4.0		4.5		4.0	
K + (mg / L)		21616		24318		21616	
PHPA (Calc ppb)		1.1		1.2			
METHYLENE BLUE CAPACITY (ppb / % by vol)		12.5	1.4	12.5	1.4	13.8	1.5
BENTONITE ADDED (ppb / % by vol)							
OTHER PRODUCTS ADDED (ppb / % by vol)							
OIL (% by Vol)							
TOTAL WATER (% by Vol)		96.4		96.4		96.4	
TOTAL SOLIDS (% by Vol)		3.6		3.6		3.6	
SAND (% by Vol)		0.1		0.1		0.1	

MUD PROPERTY SPECIFICATIONS

MUD COMMENTS

Build 100 bbls premix mud with 6% KCL mud with1.5ppg Rheopac-LV, 1.2ppb JK161LV and blend into active system slowly. 50bbls 20ppb PHB was built on pill tank then mixed into active system. Run centrifuge to maintain M.wt as specified and discard drilled solids.
Redress shakers screen with 4xAPI 170 (8 ea API 170 new supply by DrillSearch). Wet cutting on shakers observed with 4%KCL concentration.

Turkeys water used : 150 bbls

OPERATIONAL COMMENTS

Continued drill 12.25" hole to 150mVD. Run magnetic single short. Drill ahead to 249mVD at report time.

Water Source Turkeys nest water

MUD ACCOUNTING (BBLS)

FLUID BUILT		FLUID LOSSES		SUMMARY	
Drill Water	0	S.C.E.	132	Start Vol	465
Chemical	169	Discharge	0	Received	0
Sump/SeaWat	0	Downhole	0	Backload	0
Other Rec'd	0	Tripping	0	Built	169
Other Built	0	Other	0	Lost sub	0
				Lost srf	132

TOTAL MUD ON RIG (bbls) : 502

PRODUCT USAGE

Product	UnitSize	Start	Received	Used	Close
Water	1 bbl	1169	0	150	1019
KCl (fine)	25 Kg Sack	1084	0	144	940
Maxigel	25 Kg Sack	443	0	62	381
JK-161 LV	25 Kg Sack	84	0	8	76
Rheopac L	25 Kg Sack	104	0	8	96
Xanthan Gum (P)	25 Kg Sack	80	0	6	74
Caustic Soda	25 Kg Drum	46	0	3	43
Soda Ash	25 Kg Sack	55	0	2	53
Sodium Sulphite	25 Kg Sack	90	0	2	88
Idcide-20	20 Ltr Drum	71	0	1	70

SOLIDS CONTROL EQUIPMENT

Type					Hrs	OF	UF
Desander	Cone Size		Qty	0	0	0	0
Desilter	Cone Size		Qty	0	0	0	0
Mud Cleaner					0	0	0
Centrifuge 1	Scomo DE-1000				24	8.6	13.5
Centrifuge 2					0	0	0
Cuttings Dryer					0	0	0
Degasser					0		
Shale Shaker #1	170x170x170x170				24		
Shale Shaker #2	170x170x170x170				24		
					0		
					0		
					0		

SOLIDS ANALYSIS

Salt %	2.0	HGS %	
		LGS %	1.5
Corrected Solids %	1.5	Drilled Solids%	1.5

Time Breakdown

Analysis Item	Hrs
Drilling	23
Other	1

CURRENCY	DAILY COST	CUMULATIVE COSTS
AUD	$8,286.02	$13,996.66

Rheochem Engineer: Roni Tang **Office:** Perth **Telephone:** +61 **Fax:** +61

WATER BASED MUD
Daily Drilling Report

RHEOCHEM

Report #	3	Total MD	251 to 591	m	
Rig #	918	Total VD	251 to 591	m	
Date	09/02/13	Daily Depth Drilled	340	m	
Spud Date	07/02/13	Interval Depth Drilled	591	m	

OPERATOR	DrillSearch	CONTRACTOR	Ensign
REPORT FOR	Ray Holmes/Kevin Gordon	REPORT FOR	Scott Cameron
WELL NAME AND No.	Tibor 1 {Rev 2}	FIELD: ATP539	LOCATION: Cooper Basin / STATE: Queensland

BHA	BIT TYPE	JET SIZE	DEPTHS/CASING	MUD VOLUME (BBL)	CIRCULATION DATA
BIT SIZE (") 12.25	Baker Hughes PDC	14 14 14 14 14 / 14 14 0 0 0	15.25 Riser Length m	HOLE VOL 284 / MUD INHOLE 275	PUMP SIZE 5.5 x 9 Inches
DRILL PIPE SIZE (") 4.5	TYPE	LENGTH 9 m	16 Conductor @ 7 m	Active Pits 336 / Reserve Pits 145	PUMP MODEL Emco F-800 / % EFFICIENCY 97
DRILL PIPE SIZE (") 4.5	TYPE HW	LENGTH 38 m	Surface @ m	TOTAL CIRCULATING VOL 611	BBL / STK 0.0642 / STK / MIN 224
DRILL COLLAR SIZE (") 8	6.5	LENGTH 27 18 m	Intermediate @ m	STORAGE TANKS 0	BBL / MIN 14.37 / GAL / MIN 604
			Prod. or LNR @ m		

CIRCULATION DATA		
CIRCULATION PRESS	608	psi
SURFACE TO BIT	2	min
BOTTOMS UP	18	min
TOT CIRC TIME	43	min
ECD	8.98	ppg

MUD PROPERTIES

		FL	Pit	FL
SAMPLE FROM				
MUD TYPE		4KPP	4KPP	4KPP
TIME SAMPLE TAKEN		5:30	14:10	19:15
FLOWLINE TEMPERATURE	°F / °C	122 50	124 51	125 52
TOTAL MEASURED DEPTH (TMD)	Metres	407	520	591
WEIGHT	ppg / SG	8.9 1.07	8.9 1.07	8.9 1.07
FUNNEL VISCOSITY (sec / qt) API		40	43	41
RHEOLOGY 600 : 300 RPM	120 °F / 49 °C	35 25	40 29	37 27
RHEOLOGY 200 : 100 RPM	120 °F / 49 °C	19 14	22 17	22 15
RHEOLOGY 6 : 3 RPM	120 °F / 49 °C	6 4	7 5	6 5
PLASTIC VISCOSITY cP @	120 °F / 49 °C	10	11	10
YIELD POINT (lb / 100 ft^2)	120 °F / 49 °C	15	18	17
GEL STRENGTH (lb / 100 ft^2)	10sec/10min/30min	4 10 16	6 11 17	5 10 16
LOW SHEAR RATE VISCOSITY (LSRV)				
n K (lb / 100 ft^2)		0.49 1.21	0.46 1.61	0.45 1.59
API FILTRATE (cm^3 / 30 min.)		10	10.5	9.5
HPHT FILTRATE (cm^3 / 30 min.)	°F / °C			
API : HPHT (Cake / 32nd in.)		1	1	1
pH		9.5	9.5	9.5
ALKALINITY MUD (Pm)		0.11	0.12	0.11
ALKALINITY FILTRATE (Pf / Mf)		0.16 1.0	0.17 0.8	0.17 0.8
CHLORIDE (mg / L)		25300	24700	23800
TOTAL HARDNESS AS CALCIUM (mg / L)		880	560	560
SULPHITE (mg / L)				
KCL (% by Wt.)		5.0	5.0	4.5
K + (mg / L)		27020	27020	24318
PHPA (Calc ppb)		1.1	1	1
METHYLENE BLUE CAPACITY (ppb / % by vol)		13.8 1.5	13.8 1.5	13.8 1.5
BENTONITE ADDED (ppb / % by vol)		20 2.2	25 2.8	25 2.8
OTHER PRODUCTS ADDED (ppb / % by vol)				
OIL (% by Vol)				
TOTAL WATER (% by Vol)		95.6	95.6	95.6
TOTAL SOLIDS (% by Vol)		4.4	4.4	4.4
SAND (% by Vol)		0.15	0.15	0.15

MUD PROPERTY SPECIFICATIONS

MUD COMMENTS

Got increasing hardness to 880 mg/ltr. Treated active with soda ash. Built 100bbls 25ppb PHB and blend into active system. Built and blend 5%KCL premix with 1.0ppg Rheopac LV, soda ash and caustic soda to into active system for maintain mud properties as spesified. Continuously run centrifuge to discard drilled solids and maintain M.wt.
Redress 1 shaker with 4x API 200 (4ea new screen supply by DrillSearch)
Turkeys nest water used : 150bbls

OPERATIONAL COMMENTS

Continued drill to 471.49mVD. Perform magnetic sigle short survey. Drill ahead to 591mVD at report time.

Perform survey every 3 joint's drilled

Water Source Turkeys nest water

MUD ACCOUNTING (BBLS)

FLUID BUILT		FLUID LOSSES		SUMMARY	
Drill Water	350	S.C.E.	105	Start Vol	502
Chemical	21	Discharge	0	Received	0
Sump/SeaWat	0	Downhole	12	Backload	0
Other Rec'd	0	Tripping	0	Built	371
Other Built	0	Other	0	Lost sub	12
				Lost srf	105

TOTAL MUD ON RIG (bbls) : 756

PRODUCT USAGE

Product	UnitSize	Start	Received	Used	Close
Water	1 bbl	1019	0	350	669
KCl (fine)	25 Kg Sack	940	0	168	772
Maxigel	25 Kg Sack	381	0	62	319
Rheopac L	25 Kg Sack	96	0	12	84
JK-161 LV	25 Kg Sack	76	0	10	66
Soda Ash	25 Kg Sack	53	0	6	47
Xanthan Gum (P)	25 Kg Sack	74	0	6	68
Caustic Soda	25 Kg Drum	43	0	4	39
Idcide-20	20 Ltr Drum	70	0	1	69

SOLIDS CONTROL EQUIPMENT

Type			Hrs	OF	UF
Desander	Cone Size	Qty 0	0	0	0
Desilter	Cone Size	Qty 0	0	0	0
Mud Cleaner			0	0	0
Centrifuge 1	Scomo DE-1000		24	8.65	14.1
Centrifuge 2			0	0	0
Cuttings Dryer			0	0	0
Degasser			0		
Shale Shaker #1	170x170x170x170		24		
Shale Shaker #2	200x200x200x200		24		
			0		
			0		
			0		

SOLIDS ANALYSIS

Salt %	2.2	HGS %	
		LGS %	2.0
Corrected Solids %	2.0	Drilled Solids%	-0.7

Time Breakdown

Analysis Item	Hrs
Other	2
Drilling	22

CURRENCY	DAILY COST	CUMULATIVE COSTS
AUD	$9,718.84	$23,715.50

Rheochem Engineer: Roni Tang **Office:** Perth **Telephone:** +61 **Fax:** +61

WATER BASED MUD
Daily Drilling Report

RHEOCHEM

Report #	4	Total MD	591	to 754	m
Rig #	918	Total VD	591	to 754	m
Date	10/02/13	Daily Depth Drilled		163	m
Spud Date	07/02/13	Interval Depth Drilled		754	m

OPERATOR	DrillSearch	CONTRACTOR	Ensign
REPORT FOR	Ray Holmes/Kevin Gordon	REPORT FOR	Scott Cameron
WELL NAME AND No.	Tibor 1 {Rev 2}	FIELD: ATP539	LOCATION: Cooper Basin / STATE: Queensland

BHA	BIT TYPE	JET SIZE	DEPTHS/CASING	MUD VOLUME (BBL)	CIRCULATION DATA
BIT SIZE (") 12.25	None	0 0 0 0 0 / 0 0 0 0 0	15.25 Riser Length m	HOLE VOL 362 / MUD INHOLE 362	PUMP SIZE 5.5 x 9 Inches
DRILL PIPE SIZE (") 0	TYPE	LENGTH 0 m	16 Conductor @ 7 m	Active Pits 320 / Reserve Pits 46	PUMP MODEL Emco F-800 / % EFFICIENCY 97
DRILL PIPE SIZE (")	TYPE HW	LENGTH 0 m	Surface @ m	TOTAL CIRCULATING VOL 682	BBL / STK / STK / MIN
DRILL COLLAR SIZE (") 0	0	LENGTH 0 0 m	Intermediate @ m	STORAGE TANKS 0	BBL / MIN / GAL / MIN
			Prod. or LNR @ m		CIRCULATION PRESS psi; SURFACE TO BIT 0 min; BOTTOMS UP 0 min; TOT CIRC TIME min; ECD

MUD PROPERTIES

SAMPLE FROM		FL	Pit	Pit
MUD TYPE		4KPP	4KPP	4KPP
TIME SAMPLE TAKEN		5:05	11:30	17:00
FLOWLINE TEMPERATURE	°F / °C	132 / 56		
TOTAL MEASURED DEPTH (TMD)	Metres	733	754	754
WEIGHT	ppg / SG	9.0 / 1.08	9.0 / 1.08	8.9 / 1.07
FUNNEL VISCOSITY (sec / qt) API		43	42	42
RHEOLOGY 600 : 300 RPM	120 °F / 49 °C	41 / 29	39 / 28	39 / 28
RHEOLOGY 200 : 100 RPM	120 °F / 49 °C	22 / 16	22 / 16	21 / 16
RHEOLOGY 6 : 3 RPM	120 °F / 49 °C	7 / 6	7 / 6	6 / 5
PLASTIC VISCOSITY cP @	120 °F / 49 °C	12	11	11
YIELD POINT (lb / 100 ft²)	120 °F / 49 °C	17	17	17
GEL STRENGTH (lb / 100 ft²)	10sec/10min/30min	6 / 11 / 17	6 / 11 / 17	6 / 10 / 16
LOW SHEAR RATE VISCOSITY (LSRV)				
n K (lb / 100 ft²)		0.50 / 1.29	0.48 / 1.42	0.48 / 1.42
API FILTRATE (cm³ / 30 min.)		9	9	9.5
HPHT FILTRATE (cm³ / 30 min.)	°F / °C			
API : HPHT (Cake / 32nd in.)		1	1	1
pH		9.5	9.5	9.5
ALKALINITY MUD (Pm)		0.12	0.11	0.12
ALKALINITY FILTRATE (Pf / Mf)		0.16 / 1.0	0.16 / 1.0	0.16 / 1.0
CHLORIDE (mg / L)		22600	22100	22300
TOTAL HARDNESS AS CALCIUM (mg / L)		520	480	400
SULPHITE (mg / L)				
KCL (% by Wt.)		4.0	4.0	4.0
K + (mg / L)		21616	21616	21616
PHPA (Calc ppb)		1	1	1
METHYLENE BLUE CAPACITY (ppb / % by vol)		13.8 / 1.5	13.8 / 1.5	13.8 / 1.5
BENTONITE ADDED (ppb / % by vol)		12.8 / 1.4	12.8 / 1.4	12.8 / 1.4
OTHER PRODUCTS ADDED (ppb / % by vol)				
OIL (% by Vol)				
TOTAL WATER (% by Vol)		94.9	94.9	95.6
TOTAL SOLIDS (% by Vol)		5.2	5.2	4.4
SAND (% by Vol)		0.15	0.15	0.15

MUD PROPERTY SPECIFICATIONS

MUD COMMENTS

Maintain mud properties as specified. Built and blend into active 80bbls 4%KCL premix mud with 1.2ppb Rheopac-LV, 1.2 JK161LV, caustic and soda ash to maintain surface volume. Prepared 50bbls 30ppb PHB with traces Quikseal M on pill tank for Hivis sweep. Treated mud with SI 70P and soda ash. Idcide was used to prevent bacterial degradation. Run centrifuge to lower down Mwt to 8.9ppg Perform preventive maintenance on centrifuge. Turkeys nest water used: 80 bbls

OPERATIONAL COMMENTS

Drill to TD @ 754mVD. Circulate bottom up. Pump 20bbls Hivis sweep. Circulate out sweep. Perform Magnetic single short survey. Pump 20bbls with traces Quikseal M. Circulate shakers run clean. Spot 20bbls Hivis on bottom. Flow check. Static. POOH to surface. No drag was recorded. L/O 12.25" BHA. R/D flowline and conductor riser. R/U to run 9-5/8" casing. PJSM. Prepare to RIH 9-5/8" casing at report time.

Water Source Turkeys nest water

MUD ACCOUNTING (BBLS)

FLUID BUILT		FLUID LOSSES		SUMMARY	
Drill Water	80	S.C.E.	93	Start Vol	756
Chemical	10	Discharge	0	Received	0
Sump/SeaWat	0	Downhole	7	Backload	0
Other Rec'd	0	Tripping	18	Built	90
Other Built	0	Other	0	Lost sub	7
				Lost srf	111

TOTAL MUD ON RIG (bbls) : 728

PRODUCT USAGE

Product	UnitSize	Start	Received	Used	Close
Water	1 bbl	669	0	80	589
KCl (fine)	25 Kg Sack	772	0	72	700
Maxigel	25 Kg Sack	319	0	42	277
Xanthan Gum (P)	25 Kg Sack	68	0	7	61
Sodium Sulphite	25 Kg Sack	88	0	4	84
Rheopac L	25 Kg Sack	84	0	3	81
JK-161 LV	25 Kg Sack	66	0	2	64
SI-70P	20 Ltr Drum	4	0	2	2
Soda Ash	25 Kg Sack	47	0	2	45
Caustic Soda	25 Kg Drum	39	0	1	38
Idcide-20	20 Ltr Drum	69	0	1	68
Quickseal (M)	18 Kg Sack	100	0	1	99

SOLIDS CONTROL EQUIPMENT

Type		Hrs	OF	UF
Desander	Cone Size Qty 0	0	0	0
Desilter	Cone Size Qty 0	0	0	0
Mud Cleaner		0	0	0
Centrifuge 1	Scomo DE-1000	18	8.7	14
Centrifuge 2		0	0	0
Cuttings Dryer		0	0	0
Degasser		0		
Shale Shaker #1	170x170x170x170	12		
Shale Shaker #2	200x200x200x200	24		
		0		
		0		
		0		

SOLIDS ANALYSIS

Salt %	2.0	HGS %	
		LGS %	2.2
Corrected Solids %	2.2	Drilled Solids%	0.8

Time Breakdown

Analysis Item	Hrs
Circulating	1
Drilling	6
Tripping	6
Other	5
Running Casing	6

CURRENCY	DAILY COST	CUMULATIVE COSTS
AUD	$5,258.96	$28,974.45

Rheochem Engineer: Roni Tang **Office:** Perth **Telephone:** +61 **Fax:** +61

WATER BASED MUD
Daily Drilling Report

RHEOCHEM

Report #	5	Total MD	754	to	754	m
Rig #	918	Total VD	754	to	754	m
Date	11/02/13	Daily Depth Drilled			0	m
Spud Date	07/02/13	Interval Depth Drilled			754	m

OPERATOR	DrillSearch	CONTRACTOR	Ensign	
REPORT FOR	Ray Holmes/Kevin Gordon	REPORT FOR	Scott Cameron	
WELL NAME AND No.	Tibor 1 {Rev 2}	FIELD ATP539	LOCATION Cooper Basin	STATE Queensland

BHA	BIT TYPE	JET SIZE	DEPTHS/CASING	MUD VOLUME (BBL)		CIRCULATION DATA		
BIT SIZE (") 12.25	None	0 0 0 0 0 / 0 0 0 0 0	15.25 Riser Length m	HOLE VOL 192	MUD INHOLE 192	PUMP SIZE 5.5 x 9 Inches		CIRCULATION PRESS psi
DRILL PIPE SIZE (")	TYPE	LENGTH 0 m	16 Conductor @ 7 m	Active Pits 427	Reserve Pits 170	PUMP MODEL Emco F-800	% EFFICIENCY 97	SURFACE TO BIT 0 min
DRILL PIPE SIZE (")	TYPE HW	LENGTH 0 m	9.625 Surface @ 752 m	TOTAL CIRCULATING VOL 619		BBL / STK	STK / MIN	BOTTOMS UP 0 min
DRILL COLLAR SIZE (") 0	0	LENGTH 0 0 m	Intermediate @ m					TOT CIRC TIME min
			Prod. or LNR @ m	STORAGE TANKS 0		BBL / MIN	GAL / MIN	ECD

MUD PROPERTIES

SAMPLE FROM		Pit		
MUD TYPE		4KPP		
TIME SAMPLE TAKEN		13:00		
FLOWLINE TEMPERATURE	°F / °C			
TOTAL MEASURED DEPTH (TMD)	Metres	754		
WEIGHT	ppg / SG	8.9	1.07	
FUNNEL VISCOSITY (sec / qt) API		41		
RHEOLOGY 600 : 300 RPM	120 °F / 49 °C	33	24	
RHEOLOGY 200 : 100 RPM	120 °F / 49 °C	19	14	
RHEOLOGY 6 : 3 RPM	120 °F / 49 °C	5	4	
PLASTIC VISCOSITY cP @	120 °F / 49 °C	9		
YIELD POINT (lb / 100 ft^2)	120 °F / 49 °C	15		
GEL STRENGTH (lb / 100 ft^2)	10sec/10min/30min	4	10	15
LOW SHEAR RATE VISCOSITY (LSRV)				
n K (lb / 100 ft^2)		0.46	1.37	
API FILTRATE (cm^3 / 30 min.)		10		
HPHT FILTRATE (cm^3 / 30 min.)	°F / °C			
API : HPHT (Cake / 32nd in.)		1		
pH		9.0		
ALKALINITY MUD (Pm)		0.10		
ALKALINITY FILTRATE (Pf / Mf)		0.12	0.8	
CHLORIDE (mg / L)		19900		
TOTAL HARDNESS AS CALCIUM (mg / L)		440		
SULPHITE (mg / L)		80		
KCL (% by Wt.)		4.0		
K + (mg / L)		21616		
PHPA (Calc ppb)		1		
METHYLENE BLUE CAPACITY	(ppb / % by vol)	12.5	1.4	
BENTONITE ADDED	(ppb / % by vol)	12.8	1.4	
OTHER PRODUCTS ADDED	(ppb / % by vol)			
OIL (% by Vol)				
TOTAL WATER (% by Vol)		95.7		
TOTAL SOLIDS (% by Vol)		4.4		
SAND (% by Vol)		0.1		

MUD PROPERTY SPECIFICATIONS

MUD COMMENTS

Discharge 45bbls death volume mud from desilter tank to have space prior cementing job (As per Co.Man approval). Got good cement return on surface. No losses during cementing job. Discharge and clean sand trap. Treated acive with Idcice to prevent bacterial degradation and Soda ash used for lower down Hardness. Run centrifuge on surface volume to discard drilled solid.

Turkeys nest water used : 189bbls

OPERATIONAL COMMENTS

Run 9-5/8" casing to 752mVD as set shoe depth. Without any issue. Circulate clean. Repair on Cellar pump. R/U cementing equipment's. PJSM. Perform cementing job by pump 35bbls spacer, 208bbls 11.8ppg lead slurry and 36bbls 15.8ppg tail slurry. Displace with189bbls water. Got cement return to surface, No losses during cementing job. WOC. R/D cementing equipment's. N/U BOP's and choke line at report time.

Water Source Turkeys nest water

MUD ACCOUNTING (BBLS) / SUMMARY

FLUID BUILT		FLUID LOSSES		SUMMARY	
				Start Vol	728
Drill Water	189	S.C.E.	39	Received	0
Chemical	0	Discharge	55	Backload	0
Sump/SeaWat	0	Downhole	0	Built	189
Other Rec'd	0	Tripping	0	Lost sub	0
Other Built	0	Other	34	Lost srf	128

TOTAL MUD ON RIG (bbls) : 789

PRODUCT USAGE

Product	UnitSize	Start	Received	Used	Close
Water	1 bbl	589	0	189	400
Idcide-20	20 Ltr Drum	68	0	2	66
Soda Ash	25 Kg Sack	45	0	2	43

SOLIDS CONTROL EQUIPMENT

Type		Hrs	OF	UF
Desander	Cone Size / Qty 0	0	0	0
Desilter	Cone Size / Qty 0	0	0	0
Mud Cleaner		0	0	0
Centrifuge 1	Scomo DE-1000	12	8.7	13.5
Centrifuge 2		0	0	0
Cuttings Dryer		0	0	0
Degasser		0		
Shale Shaker #1	170x170x170x170	9		
Shale Shaker #2	200x200x200x200	9		
		0		
		0		
		0		

Time Breakdown

Analysis Item	Hrs
Circulating	3
Running Casing	3
Cementing Job	4
Nipple-up BOP	8
Other	6

SOLIDS ANALYSIS

Salt %	1.9	HGS %	
		LGS %	2.4
Corrected Solids %	2.4	Drilled Solids%	1.0

CURRENCY	DAILY COST	CUMULATIVE COSTS
AUD	$276.02	$29,250.47

Rheochem Engineer: Roni Tang **Office:** Perth **Telephone:** +61 **Fax:** +61

WATER BASED MUD
Daily Drilling Report

RHEOCHEM

Report #	6	Total MD	754	to	755	m
Rig #	918	Total VD	754	to	755	m
Date	12/02/13	Daily Depth Drilled		1	m	
Spud Date	07/02/13	Interval Depth Drilled		1	m	

OPERATOR	DrillSearch	CONTRACTOR	Ensign
REPORT FOR	Ray Miller/Kevin Gordon	REPORT FOR	Scott Cameron
WELL NAME AND No.	Tibor 1 {Rev 2}	FIELD: ATP539	LOCATION: Cooper Basin / STATE: Queensland

BHA	BIT TYPE	JET SIZE	DEPTHS/CASING	MUD VOLUME (BBL)	CIRCULATION DATA
BIT SIZE (") 8.5	Baker Hughes PDC	12 12 12 12 12 / 0 0 0 0 0	15.25 Riser Length m	HOLE VOL 192 / MUD INHOLE 160	PUMP SIZE 5.5 x 9 Inches
DRILL PIPE SIZE (") 4.5	TYPE	LENGTH 568 m	16 Conductor @ 7 m	Active Pits 427 / Reserve Pits 177	PUMP MODEL Emco F-800 / % EFFICIENCY 97
DRILL PIPE SIZE (") 4.5	TYPE HW	LENGTH 37 m	9.625 Surface @ 752 m	TOTAL CIRCULATING VOL 587	BBL / STK 0.0642 / STK / MIN 151
DRILL COLLAR SIZE (") 6.5	6.5	LENGTH 132 18 m	Intermediate @ m	STORAGE TANKS 0	BBL / MIN 9.69 / GAL / MIN 407
			Prod. or LNR @ m		CIRCULATION PRESS 605 psi; SURFACE TO BIT 3 min; BOTTOMS UP 14 min; TOT CIRC TIME 60 min; ECD 10.81 ppg

MUD PROPERTIES

SAMPLE FROM		Pit	FL
MUD TYPE		4PHB	4KPP
TIME SAMPLE TAKEN		5:15	23:00
FLOWLINE TEMPERATURE	°F / °C		
TOTAL MEASURED DEPTH (TMD)	Metres	754	755
WEIGHT	ppg / SG	8.8 / 1.06	8.9 / 1.07
FUNNEL VISCOSITY (sec / qt) API		41	42
RHEOLOGY 600 : 300 RPM	120 °F / 49 °C	33 / 24	34 / 25
RHEOLOGY 200 : 100 RPM	120 °F / 49 °C	19 / 15	19 / 15
RHEOLOGY 6 : 3 RPM	120 °F / 49 °C	5 / 4	6 / 4
PLASTIC VISCOSITY cP @	120 °F / 49 °C	9	9
YIELD POINT (lb / 100 ft^2)	120 °F / 49 °C	15	16
GEL STRENGTH (lb / 100 ft^2)	10sec/10min/30min	4 / 9 / 15	4 / 9 / 14
LOW SHEAR RATE VISCOSITY (LSRV)			
n K (lb / 100 ft^2)		0.46 / 1.37	0.44 / 1.57
API FILTRATE (cm^3 / 30 min.)		10	10
HPHT FILTRATE (cm^3 / 30 min.)	°F / °C		
API : HPHT (Cake / 32nd in.)		1	1
pH		9.0	9.5
ALKALINITY MUD (Pm)		0.08	0.11
ALKALINITY FILTRATE (Pf / Mf)		0.12 / 0.8	0.16 / 1.0
CHLORIDE (mg / L)		20000	21000
TOTAL HARDNESS AS CALCIUM (mg / L)		440	480
SULPHITE (mg / L)		80	80
KCL (% by Wt.)		4.0	4.0
K + (mg / L)		21616	21616
PHPA (Calc ppb)		1	0.6
METHYLENE BLUE CAPACITY (ppb / % by vol)		12.5 / 1.4	12.5 / 1.4
BENTONITE ADDED (ppb / % by vol)		9.29 / 1.0	9.29 / 1.0
OTHER PRODUCTS ADDED (ppb / % by vol)			
OIL (% by Vol)			
TOTAL WATER (% by Vol)		96.4	95.7
TOTAL SOLIDS (% by Vol)		3.6	4.4
SAND (% by Vol)		0.1	0.1

MUD PROPERTY SPECIFICATIONS

MUD COMMENTS

Turkeys nest water analysis ph=7, Cl-= 1800mg/l, TH=440mg/l. Continue run centrifuge to process surface volume. Add 1.2ppb sodium sulphite to active system. Built 50bbls 25ppb PHB on pill tank, then transfer slowly into active system. 5%KCL premix was built with1.5ppb Rheopac-LV, caustic soda and soda ash. Treat active with SAPP and sodium bicarbonate to prevent cement contamination. Discharge cement water while displace we with mud.
Re-dress shakers screen with 4xAPI 270 (8ea new screens supply by DrillSearch).
Turkeys nest water used = 150 bbls

OPERATIONAL COMMENTS

Continued N/U BOP's. Perform BOP's test.PJSM. M/U & RIH 8-1/2" BHA to tag TOC. DOC on short system via pill tank, float collar, shoe track and 3 mtr new formation. Displace well with 4%KCL/PHB/POL mud. Drill 3mtr new formation at report time.

Water Source Waterbore 2 and 3

MUD ACCOUNTING (BBLS)

FLUID BUILT		FLUID LOSSES		SUMMARY	
Drill Water	200	S.C.E.	21	Start Vol	789
Chemical	8	Discharge	212	Received	0
Sump/SeaWat	0	Downhole	0	Backload	0
Other Rec'd	0	Tripping	0	Built	208
Other Built	0	Other	0	Lost sub	0
				Lost srf	233

TOTAL MUD ON RIG (bbls) : 764

PRODUCT USAGE

Product	UnitSize	Start	Received	Used	Close
Water	1 bbl	400	3000	150	3250
KCl (fine)	25 Kg Sack	700	0	48	652
Maxigel	25 Kg Sack	277	0	22	255
Rheopac L	25 Kg Sack	81	0	5	76
JK-161 LV	25 Kg Sack	64	0	4	60
Sodium Sulphite	25 Kg Sack	84	0	4	80
Caustic Soda	25 Kg Drum	38	0	2	36
Idcide-20	20 Ltr Drum	66	0	2	64
SAPP	25 Kg Sack	40	0	2	38
Soda Ash	25 Kg Sack	43	0	2	41
Sodium Bicarbonate	25 Kg Sack	45	0	1	44
Xanthan Gum (P)	25 Kg Sack	61	0	1	60

SOLIDS CONTROL EQUIPMENT

Type					Hrs	OF	UF
Desander	Cone Size		Qty	0	0	0	0
Desilter	Cone Size		Qty	0	0	0	0
Mud Cleaner					0	0	0
Centrifuge 1	Scomo DE-1000				12	8.7	13.5
Centrifuge 2					0	0	0
Cuttings Dryer					0	0	0
Degasser					0		
Shale Shaker #1	270x270x270x270				12		
Shale Shaker #2	270x270x270x270				12		
					0		
					0		
					0		

SOLIDS ANALYSIS

Salt %	2.0	HGS %	
		LGS %	2.3
Corrected Solids %	2.3	Drilled Solids%	1.3

Time Breakdown

Analysis Item	Hrs
BOP Test	8
Other	4
Tripping	5
Drilling	7

CURRENCY	DAILY COST	CUMULATIVE COSTS
AUD	$3,582.92	$32,833.39

Rheochem Engineer: Roni Tang **Office:** Perth **Telephone:** +61 **Fax:** +61

WATER BASED MUD
Daily Drilling Report

RHEOCHEM

Report #	7	Total MD	755 to 888	m	
Rig #	918	Total VD	755 to 888	m	
Date	13/02/13	Daily Depth Drilled	133	m	
Spud Date	07/02/13	Interval Depth Drilled	134	m	

OPERATOR	DrillSearch	CONTRACTOR	Ensign
REPORT FOR	Ray Miller/Kevin Gordon	REPORT FOR	Scott Cameron
WELL NAME AND No.	Tibor 1 {Rev 2}	FIELD: ATP539	LOCATION: Cooper Basin / STATE: Queensland

BHA	BIT TYPE	JET SIZE	DEPTHS/CASING	MUD VOLUME (BBL)	CIRCULATION DATA
BIT SIZE (") 8.5	Baker Hughes PDC	12 12 12 12 12 / 0 0 0 0 0	15.25 Riser Length m	HOLE VOL 222 / MUD INHOLE 186	PUMP SIZE 5.5 x 9 Inches
DRILL PIPE SIZE (") 4.5	TYPE	LENGTH 701 m	16 Conductor @ 7 m	Active Pits 358 / Reserve Pits 144	PUMP MODEL Emco F-800 / % EFFICIENCY 97
DRILL PIPE SIZE (") 4.5	TYPE HW	LENGTH 37 m	9.625 Surface @ 752 m	TOTAL CIRCULATING VOL 544	BBL / STK 0.0642 / STK / MIN 150
DRILL COLLAR SIZE (") 6.5	6.5	LENGTH 132 18 m	Intermediate @ m	STORAGE TANKS 0	BBL / MIN 9.62 / GAL / MIN 404
			Prod. or LNR @ m		CIRCULATION PRESS 910 psi; SURFACE TO BIT 3 min; BOTTOMS UP 16 min; TOT CIRC TIME 57 min; ECD 9.16 ppg

MUD PROPERTIES

		FL	Pit	FL
SAMPLE FROM				
MUD TYPE		4PHB	4PHB	4PHB
TIME SAMPLE TAKEN		6:00	12:40	18:00
FLOWLINE TEMPERATURE	°F / °C	132 / 56	132 / 56	133 / 56
TOTAL MEASURED DEPTH (TMD)	Metres	775	833	888
WEIGHT	ppg / SG	8.9 / 1.07	8.9 / 1.07	8.9 / 1.07
FUNNEL VISCOSITY (sec / qt) API		43	42	42
RHEOLOGY 600 : 300 RPM	°F / °C	37 / 27	35 / 26	35 / 26
RHEOLOGY 200 : 100 RPM	°F / °C	23 / 17	22 / 16	22 / 17
RHEOLOGY 6 : 3 RPM	°F / °C	7 / 6	7 / 5	6 / 5
PLASTIC VISCOSITY cP @	°F / °C	10	9	9
YIELD POINT (lb / 100 ft^2)	°F / °C	17	17	17
GEL STRENGTH (lb / 100 ft^2)	10sec/10min/30min	6 10 15	6 10 14	6 11 15
LOW SHEAR RATE VISCOSITY (LSRV)				
n K (lb / 100 ft^2)		0.45 1.59	0.43 1.80	0.43 1.80
API FILTRATE (cm^3 / 30 min.)		10	9	9
HPHT FILTRATE (cm^3 / 30 min.)	°F / °C		9.5	
API : HPHT (Cake / 32nd in.)		1	1	1
pH		9.5	9.5	9.5
ALKALINITY MUD (Pm)		0.10	0.11	0.10
ALKALINITY FILTRATE (Pf / Mf)		0.16 1.0	0.17 0.8	0.16 0.8
CHLORIDE (mg / L)		22500	23300	23800
TOTAL HARDNESS AS CALCIUM (mg / L)		440	440	440
SULPHITE (mg / L)		80	80	80
KCL (% by Wt.)		4.0	4.5	4.5
K + (mg / L)		21616	24318	24318
PHPA (Calc ppb)		0.56	0.6	0.56
METHYLENE BLUE CAPACITY (ppb / % by vol)		11.3 1.2	11.3 1.2	11.3 1.2
BENTONITE ADDED (ppb / % by vol)		8.47 0.9	8.47 0.9	8.5 0.9
OTHER PRODUCTS ADDED (ppb / % by vol)				
OIL (% by Vol)				
TOTAL WATER (% by Vol)		95.7	95.8	95.7
TOTAL SOLIDS (% by Vol)		4.4	4.3	4.4
SAND (% by Vol)		0.1		0.1

MUD PROPERTY SPECIFICATIONS

MUD COMMENTS

Continue run centrifuge to discard drilled solids. Maintain mud properties as specified. Mixed Sodium sulphate, Idcide-20 into active. With 4%KCL concentration observed cutting on shakers lack on inhibitiont, increase the %KCL concentration to 4.5. Maintain addition water 1-2bbl/hrs to replenish evaporation. Change 2 ea broken screen, 2 ea API 270 new

Turkeys nest water used : 70bbls

OPERATIONAL COMMENTS

Continue drill 3mtr new formation to 757mVD. Circulate hole clean. Perform LOT with M.wt 8.9ppg. LOT result 16.7ppg EMW. Drill 8-5" formation to 888 mVD at report time.

Water Source Water bore 2&3

MUD ACCOUNTING (BBLS)

FLUID BUILT		FLUID LOSSES		SUMMARY	
Drill Water	70	S.C.E.	143	Start Vol	764
Chemical	10	Discharge	0	Received	0
Sump/SeaWat	0	Downhole	13	Backload	0
Other Rec'd	0	Tripping	0	Built	80
Other Built	0	Other	0	Lost sub	13
				Lost srf	143

TOTAL MUD ON RIG (bbls) : 688

PRODUCT USAGE

Product	UnitSize	Start	Received	Used	Close
KCl (fine)	25 Kg Sack	652	0	96	556
Water	1 bbl	3250	0	70	3180
Rheopac L	25 Kg Sack	76	0	10	66
Xanthan Gum (P)	25 Kg Sack	60	0	4	56
Caustic Soda	25 Kg Drum	36	0	2	34
Idcide-20	20 Ltr Drum	64	0	2	62
Soda Ash	25 Kg Sack	41	0	2	39
Sodium Sulphite	25 Kg Sack	80	0	2	78
JK-161 LV	25 Kg Sack	60	0	1	59

SOLIDS CONTROL EQUIPMENT

Type			Hrs	OF	UF
Desander	Cone Size	Qty 0	0	0	0
Desilter	Cone Size	Qty 0	0	0	0
Mud Cleaner			0	0	0
Centrifuge 1	Scomo DE-1000		24	8.6	13.4
Centrifuge 2			0	0	0
Cuttings Dryer			0	0	0
Degasser			0		
Shale Shaker #1	270x270x270x270		24		
Shale Shaker #2	270x270x270x270		24		
			0		
			0		
			0		

SOLIDS ANALYSIS

Salt %	2.2	HGS %	
		LGS %	2.0
Corrected Solids %	2.0	Drilled Solids%	1.1

Time Breakdown

Analysis Item	Hrs
LOT	1
Circulating	1
Drilling	22

CURRENCY	DAILY COST	CUMULATIVE COSTS
AUD	$5,161.21	$37,994.59

Rheochem Engineer: Roni Tang **Office:** Perth **Telephone:** +61 **Fax:** +61

WATER BASED MUD
Daily Drilling Report

RHEOCHEM

Report #	8	Total MD	888 to 1050	m
Rig #	918	Total VD	888 to 1050	m
Date	14/02/13	Daily Depth Drilled	162	m
Spud Date	07/02/13	Interval Depth Drilled	296	m

OPERATOR	DrillSearch	CONTRACTOR	Ensign
REPORT FOR	Ray Miller/Kevin Gordon	REPORT FOR	Scott Cameron
WELL NAME AND No.	Tibor 1 {Rev 2}	FIELD: ATP539	LOCATION: Cooper Basin / STATE: Queensland

BHA	BIT TYPE	JET SIZE	DEPTHS/CASING	MUD VOLUME (BBL)	CIRCULATION DATA
BIT SIZE (") 8.5	Baker Hughes PDC	12 12 12 12 12 / 0 0 0 0 0	15.25 Riser Length m	HOLE VOL 259 / MUD INHOLE 220	PUMP SIZE 5.5 x 9 Inches
DRILL PIPE SIZE (") 4.5	TYPE	LENGTH 863 m	16 Conductor @ 7 m	Active Pits 358 / Reserve Pits 112	PUMP MODEL Emco F-800 / % EFFICIENCY 97
DRILL PIPE SIZE (") 4.5	TYPE HW	LENGTH 37 m	9.625 Surface @ 752 m	TOTAL CIRCULATING VOL 578	BBL / STK 0.0642 / STK / MIN 157
DRILL COLLAR SIZE (") 6.5	6.5	LENGTH 132 18 m	Intermediate @ m	STORAGE TANKS 0	BBL / MIN 10.07 / GAL / MIN 423
			Prod. or LNR @ m		CIRCULATION PRESS 1163 psi; SURFACE TO BIT 4 min; BOTTOMS UP 18 min; TOT CIRC TIME 57 min; ECD 9.4 ppg

MUD PROPERTIES

SAMPLE FROM		FL	Pit	FL
MUD TYPE		4PHB	4PHB	4PHB
TIME SAMPLE TAKEN		6:00	14:00	19:10
FLOWLINE TEMPERATURE	°F / °C	131 55	132 56	134 57
TOTAL MEASURED DEPTH (TMD)	Metres	965	1010	1050
WEIGHT	ppg / SG	9.0 1.08	9.1 1.09	9.1 1.09
FUNNEL VISCOSITY (sec / qt) API		41	43	43
RHEOLOGY 600 : 300 RPM	120 °F / 49 °C	36 26	38 28	40 29
RHEOLOGY 200 : 100 RPM	120 °F / 49 °C	21 15	22 17	22 17
RHEOLOGY 6 : 3 RPM	120 °F / 49 °C	6 5	7 6	7 5
PLASTIC VISCOSITY cP @	120 °F / 49 °C	10	10	11
YIELD POINT (lb / 100 ft^2)	120 °F / 49 °C	16	18	18
GEL STRENGTH (lb / 100 ft^2)	10sec/10min/30min	5 11 17	5 12 17	6 14 20
LOW SHEAR RATE VISCOSITY (LSRV)				
n K (lb / 100 ft^2)		0.47 1.39	0.44 1.80	0.46 1.61
API FILTRATE (cm^3 / 30 min.)		9	9	9
HPHT FILTRATE (cm^3 / 30 min.)	°F / °C		10	
API : HPHT (Cake / 32nd in.)		1	1	1
pH		9.5	9.5	9.5
ALKALINITY MUD (Pm)		0.10	0.10	0.10
ALKALINITY FILTRATE (Pf / Mf)		0.17 0.8	0.16 0.8	0.16 1.0
CHLORIDE (mg / L)		23100	22700	22900
TOTAL HARDNESS AS CALCIUM (mg / L)		440	440	400
SULPHITE (mg / L)		80	80	80
KCL (% by Wt.)		4.5	4.5	4.5
K + (mg / L)		24318	24318	24318
PHPA (Calc ppb)		0.39	0.39	0.39
METHYLENE BLUE CAPACITY (ppb / % by vol)		11.3 1.2	11.3 1.2	11.5 1.3
BENTONITE ADDED (ppb / % by vol)		7.48 0.8	7.48 0.8	7.5 0.8
OTHER PRODUCTS ADDED (ppb / % by vol)				
OIL (% by Vol)				
TOTAL WATER (% by Vol)		94.9	94.1	94.1
TOTAL SOLIDS (% by Vol)		5.2	5.9	5.9
SAND (% by Vol)		0.15	0.15	0.15

MUD PROPERTY SPECIFICATIONS

MUD COMMENTS

Keep maintain mud properties as spesified. Built 70bbls 4%KCL fresh mud and blend with mud from active then transfer back into active tank. Redress shakers screen with 4xAPI 325 (8ea new shakers screen by Drillsearch). Run centrifuge continuously to discard drilled solid. 1-2bbl/hrs water add into possum belly to replenish evaporation. Discharge 10 bbls sandtrap.

Turkeys nest water used : 110 bbls

OPERATIONAL COMMENTS

Continued drill to 1050mVD at report time. Take survey every 3 joint drill

Water Source Water bore 2&3

MUD ACCOUNTING (BBLS)

FLUID BUILT		FLUID LOSSES		SUMMARY	
Drill Water	110	S.C.E.	85	Start Vol	688
Chemical	3	Discharge	10	Received	0
Sump/SeaWat	0	Downhole	16	Backload	0
Other Rec'd	0	Tripping	0	Built	113
Other Built	0	Other	0	Lost sub	16
				Lost srf	95

TOTAL MUD ON RIG (bbls) : 690

PRODUCT USAGE

Product	UnitSize	Start	Received	Used	Close
Water	1 bbl	3180	0	110	3070
KCl (fine)	25 Kg Sack	556	0	30	526
Idcide-20	20 Ltr Drum	62	0	2	60
Rheopac L	25 Kg Sack	66	0	2	64
Soda Ash	25 Kg Sack	39	0	2	37
Sodium Sulphite	25 Kg Sack	78	0	2	76
Xanthan Gum (P)	25 Kg Sack	56	0	2	54
Caustic Soda	25 Kg Drum	34	0	1	33

SOLIDS CONTROL EQUIPMENT

Type			Hrs	OF	UF
Desander	Cone Size	Qty 0	0	0	0
Desilter	Cone Size	Qty 0	0	0	0
Mud Cleaner			0	0	0
Centrifuge 1	Scomo DE-1000		24	8.9	13.6
Centrifuge 2			0	0	0
Cuttings Dryer			0	0	0
Degasser			0		
Shale Shaker #1	325x325x325x325		24		
Shale Shaker #2	325x325x325x325		24		
			0		
			0		
			0		

SOLIDS ANALYSIS

Salt %	2.2	HGS %	
		LGS %	3.6
Corrected Solids %	3.6	Drilled Solids%	2.8

Time Breakdown

Analysis Item	Hrs
Other	1
Drilling	23

CURRENCY	DAILY COST	CUMULATIVE COSTS
AUD	$1,843.41	$39,838.00

Rheochem Engineer: Roni Tang **Office:** Perth **Telephone:** +61 **Fax:** +61

WATER BASED MUD
Daily Drilling Report

RHEOCHEM

Report #	9	Total MD	1050 to 1273	m	
Rig #	918	Total VD	1050 to 1273	m	
Date	15/02/13	Daily Depth Drilled	223	m	
Spud Date	07/02/13	Interval Depth Drilled	223	m	

OPERATOR	DrillSearch	CONTRACTOR	Ensign
REPORT FOR	Ray Miller/Kevin Gordon	REPORT FOR	Scott Cameron
WELL NAME AND No.	Tibor 1 {Rev 2}	FIELD: ATP539	LOCATION: Cooper Basin / STATE: Queensland

BHA	BIT TYPE	JET SIZE	DEPTHS/CASING	MUD VOLUME (BBL)	CIRCULATION DATA
BIT SIZE (") 8.5	Baker Hughes PDC	12 12 12 12 12 / 0 0 0 0 0	15.25 Riser Length m	HOLE VOL 311 / MUD INHOLE 266	PUMP SIZE 5.5 x 9 Inches
DRILL PIPE SIZE (") 4.5	TYPE	LENGTH 1,086 m	16 Conductor @ 7 m	Active Pits 359 / Reserve Pits 118	PUMP MODEL Emco F-800 / % EFFICIENCY 97
DRILL PIPE SIZE (") 4.5	TYPE HW	LENGTH 37 m	9.625 Surface @ 752 m	TOTAL CIRCULATING VOL 625	BBL / STK 0.0642 / STK / MIN 149
DRILL COLLAR SIZE (") 6.5	6.5	LENGTH 132 18 m	Intermediate @ m	STORAGE TANKS 0	BBL / MIN 9.56 / GAL / MIN 402
			Prod. or LNR @ m		CIRCULATION PRESS 1013 psi; SURFACE TO BIT 5 min; BOTTOMS UP 23 min; TOT CIRC TIME 65 min; ECD 9.24 ppg

MUD PROPERTIES

SAMPLE FROM		FL	Pit	FL
MUD TYPE		3KPO	3KPO	3KPO
TIME SAMPLE TAKEN		5:45	13:00	18:30
FLOWLINE TEMPERATURE	°F / °C	134 57	137 58	137 58
TOTAL MEASURED DEPTH (TMD)	Metres	1143	1189	1273
WEIGHT	ppg / SG	9.0 1.08	9.0 1.08	9.0 1.08
FUNNEL VISCOSITY (sec / qt) API		40	41	40
RHEOLOGY 600 : 300 RPM	120 °F / 49 °C	35 25	38 27	37 26
RHEOLOGY 200 : 100 RPM	120 °F / 49 °C	20 14	21 15	21 15
RHEOLOGY 6 : 3 RPM	120 °F / 49 °C	6 4	6 5	6 5
PLASTIC VISCOSITY cP @	120 °F / 49 °C	10	11	11
YIELD POINT (lb / 100 ft2)	120 °F / 49 °C	15	16	15
GEL STRENGTH (lb / 100 ft2)	10sec/10min/30min	5 9 14	5 10 14	5 10 16
LOW SHEAR RATE VISCOSITY (LSRV)				
n K (lb / 100 ft2)		0.49 1.21	0.49 1.25	0.51 1.09
API FILTRATE (cm3 / 30 min.)		9	8	8.5
HPHT FILTRATE (cm3 / 30 min.)	250 °F / 121 °C		19	
API : HPHT (Cake / 32nd in.)		1	1	1
pH		9.0	9.5	9.5
ALKALINITY MUD (Pm)		0.08	0.10	0.10
ALKALINITY FILTRATE (Pf / Mf)		0.12 0.8	0.16 0.8	0.16 1.0
CHLORIDE (mg / L)		21400	27500	23100
TOTAL HARDNESS AS CALCIUM (mg / L)		400	400	400
SULPHITE (mg / L)		40	80	80
KCL (% by Wt.)		4.0	4.0	4.0
K + (mg / L)		21616	21616	21616
PHPA (Calc ppb)		0.21	0.21	
METHYLENE BLUE CAPACITY (ppb / % by vol)		10.4 1.1	10.0 1.1	10.0 1.1
BENTONITE ADDED (ppb / % by vol)		5.6 0.6	5.58 0.6	5.6 0.6
OTHER PRODUCTS ADDED (ppb / % by vol)				
OIL (% by Vol)				
TOTAL WATER (% by Vol)		94.9	94.9	94.8
TOTAL SOLIDS (% by Vol)		5.2	5.2	5.2
SAND (% by Vol)		0.15	0.15	0.2

MUD PROPERTY SPECIFICATIONS

Mud Wt	8.9-9.0	Yld Pt	20-15	API Loss	<9
MBT	<11	HPHT Los	@250F	LGS	<3

MUD COMMENTS

Discharge sandtrap as Co.Man approval. Dilute 120bbls 4%KCL premix mud into active to maintain M.wt and surface volume. Redress shaker#1 with 2xAPI400, 2xAPI325. Keep adding 1-2bbls water into possum belly to replenish evaporation. Run centrifuge to discard drilled solids and maintain Mwt. Used 4 ea API400 new screen by Drillsearch.
No Microflow added to drilling fluid as per DrillSearch Request.
Turkeys nest water used : 220bbls

OPERATIONAL COMMENTS

Drill 8.5" formation to 1273mVD at report time. Take survey every 3 joints drilled.

Water Source Water bore 2&3

MUD ACCOUNTING (BBLS)

FLUID BUILT		FLUID LOSSES		SUMMARY	
Drill Water	220	S.C.E.	122	Start Vol	690
Chemical	10	Discharge	60	Received	0
Sump/SeaWat	0	Downhole	18	Backload	0
Other Rec'd	0	Tripping	0	Built	230
Other Built	0	Other	0	Lost sub	18
				Lost srf	182

TOTAL MUD ON RIG (bbls) : 720

PRODUCT USAGE

Product	UnitSize	Start	Received	Used	Close
Water	1 bbl	3070	0	220	2850
KCl (fine)	25 Kg Sack	526	0	96	430
Rheopac L	25 Kg Sack	64	0	10	54
Xanthan Gum (P)	25 Kg Sack	54	0	4	50
Caustic Soda	25 Kg Drum	33	0	2	31
Idcide-20	20 Ltr Drum	60	0	2	58
Soda Ash	25 Kg Sack	37	0	2	35
Sodium Sulphite	25 Kg Sack	76	0	2	74

SOLIDS CONTROL EQUIPMENT

Type					Hrs	OF	UF
Desander	Cone Size		Qty	0	0	0	0
Desilter	Cone Size		Qty	0	0	0	0
Mud Cleaner					0	0	0
Centrifuge 1	Scomo DE-1000				24	8.8	13.5
Centrifuge 2					0	0	0
Cuttings Dryer					0	0	0
Degasser					0		
Shale Shaker #1	400x400x325x325				24		
Shale Shaker #2	325x325x325x325				24		
					0		
					0		
					0		

SOLIDS ANALYSIS

Salt %	2.1	HGS %	
		LGS %	2.9
Corrected Solids %	2.9	Drilled Solids%	2.3

Time Breakdown

Analysis Item	Hrs
Other	1
Drilling	23

CURRENCY	DAILY COST	CUMULATIVE COSTS
AUD	$5,045.22	$44,883.23

Rheochem Engineer: Roni Tang **Office:** Perth **Telephone:** +61 **Fax:** +61

WATER BASED MUD
Daily Drilling Report

RHEOCHEM

Report #	10	Total MD	1273 to 1456	m	
Rig #	918	Total VD	1273 to 1456	m	
Date	16/02/13	Daily Depth Drilled	183	m	
Spud Date	07/02/13	Interval Depth Drilled	406	m	

OPERATOR	DrillSearch	CONTRACTOR	Ensign
REPORT FOR	Ray Miller/Kevin Gordon	REPORT FOR	Scott Cameron
WELL NAME AND No.	Tibor 1 {Rev 2}	FIELD: ATP539	LOCATION: Cooper Basin / STATE: Queensland

BHA	BIT TYPE	JET SIZE	DEPTHS/CASING	MUD VOLUME (BBL)	CIRCULATION DATA
BIT SIZE (") 8.5	Baker Hughes PDC	12 12 12 12 12 / 0 0 0 0 0	15.25 Riser Length m	HOLE VOL 353 / MUD INHOLE 308	PUMP SIZE 5.5 x 9 Inches
DRILL PIPE SIZE (") 4.5	TYPE	LENGTH 1,086 m	16 Conductor @ 7 m	Active Pits 331 / Reserve Pits 95	PUMP MODEL Emco F-800 / % EFFICIENCY 97
DRILL PIPE SIZE (") 4.5	TYPE HW	LENGTH 37 m	9.625 Surface @ 752 m	TOTAL CIRCULATING VOL 639	BBL / STK 0.0642 / STK / MIN 147
DRILL COLLAR SIZE (") 6.5	6.5	LENGTH 132 18 m	Intermediate @ m	STORAGE TANKS 0	BBL / MIN 9.43 / GAL / MIN 396
			Prod. or LNR @ m		CIRCULATION PRESS 1140 psi; SURFACE TO BIT 6 min; BOTTOMS UP 27 min; TOT CIRC TIME 68 min; ECD 9.35 ppg

MUD PROPERTIES

		Pit	FL	Pit
SAMPLE FROM		Pit	FL	Pit
MUD TYPE		3KPO	3KPO	3KPO
TIME SAMPLE TAKEN		5:10	14:20	19:00
FLOWLINE TEMPERATURE	°F / °C		138 59	140 60
TOTAL MEASURED DEPTH (TMD)	Metres	1357	1409	1456
WEIGHT	ppg / SG	9.1 1.09	9.0 1.08	9.0 1.08
FUNNEL VISCOSITY (sec / qt) API		40	41	42
RHEOLOGY 600 : 300 RPM	120 °F / 49 °C	36 26	36 26	39 28
RHEOLOGY 200 : 100 RPM	120 °F / 49 °C	20 14	20 15	21 16
RHEOLOGY 6 : 3 RPM	120 °F / 49 °C	6 4	6 5	6 5
PLASTIC VISCOSITY cP @	120 °F / 49 °C	10	10	11
YIELD POINT (lb / 100 ft2)	120 °F / 49 °C	16	16	17
GEL STRENGTH (lb / 100 ft2)	10sec/10min/30min	5 10 16	5 10 16	5 11 16
LOW SHEAR RATE VISCOSITY (LSRV)				
n K (lb / 100 ft2)		0.47 1.39	0.47 1.39	0.48 1.42
API FILTRATE (cm3 / 30 min.)		8	7.5	7.5
HPHT FILTRATE (cm3 / 30 min.)	250 °F / 121 °C		24	
API : HPHT (Cake / 32nd in.)		1	1	1
pH		9.5	9.5	9.5
ALKALINITY MUD (Pm)		0.10	0.10	0.10
ALKALINITY FILTRATE (Pf / Mf)		0.16 1.0	0.17 0.8	0.16 0.8
CHLORIDE (mg / L)		23400	23200	22700
TOTAL HARDNESS AS CALCIUM (mg / L)		400	320	320
SULPHITE (mg / L)		80	80	80
KCL (% by Wt.)		4.0	4.0	4.0
K + (mg / L)		21616	21616	21616
PHPA (Calc ppb)				
METHYLENE BLUE CAPACITY (ppb / % by vol)		10.0 1.1	10.0 1.1	10.0 1.1
BENTONITE ADDED (ppb / % by vol)		4.51 0.5	4.51 0.5	4.5 0.5
OTHER PRODUCTS ADDED (ppb / % by vol)				
OIL (% by Vol)				
TOTAL WATER (% by Vol)		94.1	94.8	94.8
TOTAL SOLIDS (% by Vol)		6.0	5.2	5.3
SAND (% by Vol)		0.2	0.2	0.25

MUD PROPERTY SPECIFICATIONS

Mud Wt	8.9-9.0	Yld Pt	20-15	API Loss	<9
MBT	<11	HPHT Los	@250F	LGS	<3

MUD COMMENTS

Change broken screen 2ea API 400 new and 4ea API325 used and 2 ea API325 new this due to drill on sand formation. Got increasing M.wt to 9.1ppg while drilling. Increase dilution into active and dump sandtrap as per Co.Man approval. Continuously run centrifuge to process surface volume while POOH and drilling. Treated active with Idcide to prevent bacterial degradation.
4 Sacks Lime was used for Rig Camp.
Turkey nest water used : 150bbls

OPERATIONAL COMMENTS

Drill to 1357mVD. Pump 20bbls Hivis. Circulate shakers clean. Flow check. Static. POOH to 1202mVD. Tight hole recorded. Circulate bottom up. POOH to casing shoe. Flow check. RIH back to bottom. Resume drill 8.5" formation to 1456mVD at report time.

Water Source	Water bore 2&3

MUD ACCOUNTING (BBLS)

FLUID BUILT		FLUID LOSSES		SUMMARY	
Drill Water	150	S.C.E.	77	Start Vol	720
Chemical	6	Discharge	30	Received	0
Sump/SeaWat	0	Downhole	17	Backload	0
Other Rec'd	0	Tripping	18	Built	156
Other Built	0	Other	0	Lost sub	17
				Lost srf	125

TOTAL MUD ON RIG (bbls) : 734

PRODUCT USAGE

Product	UnitSize	Start	Received	Used	Close
Water	1 bbl	2850	0	150	2700
KCl (fine)	25 Kg Sack	430	0	46	384
Rheopac L	25 Kg Sack	54	0	15	39
Sodium Sulphite	25 Kg Sack	74	0	5	69
Lime	20 Kg Sack	54	0	4	50
Soda Ash	25 Kg Sack	35	0	4	31
Xanthan Gum (P)	25 Kg Sack	50	0	2	48
Caustic Soda	25 Kg Drum	31	0	1	30

SOLIDS CONTROL EQUIPMENT

Type			Hrs	OF	UF
Desander	Cone Size	Qty 0	0	0	0
Desilter	Cone Size	Qty 0	0	0	0
Mud Cleaner			0	0	0
Centrifuge 1	Scomo DE-1000		23	8.8	14
Centrifuge 2			0	0	0
Cuttings Dryer			0	0	0
Degasser			0		
Shale Shaker #1	400x400x325x325		24		
Shale Shaker #2	325x325x325x325		24		
			0		
			0		
			0		

SOLIDS ANALYSIS

Salt %	2.0	HGS %	
		LGS %	3.0
Corrected Solids %	3.0	Drilled Solids%	2.5

Time Breakdown

Analysis Item	Hrs
Tripping	8
Other	2
Drilling	14

CURRENCY	DAILY COST	CUMULATIVE COSTS
AUD	$3,820.82	$48,704.04

Rheochem Engineer: Roni Tang **Office:** Perth **Telephone:** +61 **Fax:** +61

WATER BASED MUD
Daily Drilling Report

RHEOCHEM

Report #	11	Total MD	1456 to 1482	m	
Rig #	918	Total VD	1456 to 1482	m	
Date	17/02/13	Daily Depth Drilled	26	m	
Spud Date	07/02/13	Interval Depth Drilled	432	m	

OPERATOR	DrillSearch	CONTRACTOR	Ensign
REPORT FOR	Ray Miller/Kevin Gordon	REPORT FOR	Scott Cameron
WELL NAME AND No.	Tibor 1 {Rev 2}	FIELD: ATP539	LOCATION: Cooper Basin / STATE: Queensland

BHA	BIT TYPE	JET SIZE	DEPTHS/CASING	MUD VOLUME (BBL)	CIRCULATION DATA
BIT SIZE (") 8.5	Baker Hughes PDC	12 12 12 12 12 / 0 0 0 0 0	15.25 Riser Length m	HOLE VOL 359 / MUD INHOLE 314	PUMP SIZE 5.5 x 9 Inches
DRILL PIPE SIZE (") 4.5	TYPE	LENGTH 1,086 m	16 Conductor @ 7 m	Active Pits 328 / Reserve Pits 88	PUMP MODEL Emco F-800 / % EFFICIENCY 97
DRILL PIPE SIZE (") 4.5	TYPE HW	LENGTH 37 m	9.625 Surface @ 752 m	TOTAL CIRCULATING VOL 642	BBL / STK / STK / MIN
DRILL COLLAR SIZE (") 6.5	6.5	LENGTH 132 18 m	Intermediate @ m	STORAGE TANKS 0	BBL / MIN / GAL / MIN
			Prod. or LNR @ m		CIRCULATION PRESS psi; SURFACE TO BIT 0 min; BOTTOMS UP 0 min; TOT CIRC TIME min; ECD

MUD PROPERTIES

SAMPLE FROM		FL	Pit	Pit
MUD TYPE		3KPO	3KPO	3KPO
TIME SAMPLE TAKEN		9:00	14:00	18:00
FLOWLINE TEMPERATURE	°F / °C	142 61		
TOTAL MEASURED DEPTH (TMD)	Metres	1482	1482	1482
WEIGHT	ppg / SG	9.3 1.12	9.3 1.12	9.3 1.12
FUNNEL VISCOSITY (sec / qt) API		43	45	45
RHEOLOGY 600 : 300 RPM	120 °F / 49 °C	43 30	47 33	47 33
RHEOLOGY 200 : 100 RPM	120 °F / 49 °C	22 16	24 18	24 18
RHEOLOGY 6 : 3 RPM	120 °F / 49 °C	6 5	7 6	7 6
PLASTIC VISCOSITY cP @	120 °F / 49 °C	13	14	14
YIELD POINT (lb / 100 ft2)	120 °F / 49 °C	17	19	19
GEL STRENGTH (lb / 100 ft2)	10sec/10min/30min	5 10 17	6 12 20	6 12 20
LOW SHEAR RATE VISCOSITY (LSRV)				
n K (lb / 100 ft2)		0.52 1.18	0.51 1.37	0.51 1.37
API FILTRATE (cm3 / 30 min.)		6	5	5
HPHT FILTRATE (cm3 / 30 min.)	250 °F / 121 °C		16	16
API : HPHT (Cake / 32nd in.)		1	1	1
pH		9.5	9.5	9.5
ALKALINITY MUD (Pm)		0.10	0.10	0.10
ALKALINITY FILTRATE (Pf / Mf)		0.17 0.8	0.16 0.8	0.16 0.8
CHLORIDE (mg / L)		22800	22500	22500
TOTAL HARDNESS AS CALCIUM (mg / L)		320	320	320
SULPHITE (mg / L)		80	80	80
KCL (% by Wt.)		4.0	4.0	4.0
K + (mg / L)		21616	21616	21616
PHPA (Calc ppb)				
METHYLENE BLUE CAPACITY (ppb / % by vol)		10.0 1.1	10.5 1.2	10.5 1.2
BENTONITE ADDED (ppb / % by vol)		4.18 0.5	4.18 0.5	4.18 0.5
OTHER PRODUCTS ADDED (ppb / % by vol)				
OIL (% by Vol)				
TOTAL WATER (% by Vol)		93.7	93.7	93.7
TOTAL SOLIDS (% by Vol)		6.3	6.3	6.3
SAND (% by Vol)		0.2	0.2	0.2

MUD PROPERTY SPECIFICATIONS

Mud Wt	8.9-9.0	Yld Pt	20-15	API Loss	<9
MBT	<11	HPHT Los	@250F	LGS	<3

MUD COMMENTS

Increase M.wt to 9.3ppg and reduce API fluids loss by mixed Rheopac LV into active below 5ml as requested by DrillSearch. Redress both shakers with4xAPI325 and stop run centrifuge while increase M.wt from 9.0ppg to 9.3ppg. Built Hivis pill to sweep hole. Observed no significant cutting increase when Hivis on surface.

Turkeys nest water used: 50 bbls

OPERATIONAL COMMENTS

Drill to 1461mVD. Got tight hole. Working on pipe. Pump Hivis. Observed no significant cutting increase on shaker. Reciprocate and rotate string till hole clean and able to run to bottom without rotation. Resume drill to 1482mVD. Back ream and work Kelly and single free from 1482mVD to 1461mVD. Lay out single. Continue back ream from 1461mVD to 1454mVD. Circulate, reciprocateand rotate string while increase mud weight to 9.3ppg. RIH back to 1482 without rotation. Resume drill with slow ROP. Pump Hivis sweep. Circulate clean. Flow check. POOH to surface to cahnge bit. RIH back to bottom at report time.

Water Source	water bore 2&3

MUD ACCOUNTING (BBLS)

FLUID BUILT		FLUID LOSSES		SUMMARY	
Drill Water	50	S.C.E.	39	Start Vol	734
Chemical	11	Discharge	0	Received	0
Sump/SeaWat	0	Downhole	11	Backload	0
Other Rec'd	0	Tripping	15	Built	61
Other Built	0	Other	0	Lost sub	11
				Lost srf	54

TOTAL MUD ON RIG (bbls) : 730

PRODUCT USAGE

Product	UnitSize	Start	Received	Used	Close
Barite	25 Kg Sack	1514	0	240	1274
Water	1 bbl	2700	0	50	2650
Rheopac L	25 Kg Sack	39	0	10	29
Xanthan Gum (P)	25 Kg Sack	48	0	6	42
Idcide-20	20 Ltr Drum	58	0	1	57
Sodium Sulphite	25 Kg Sack	69	0	1	68

SOLIDS CONTROL EQUIPMENT

Type			Hrs	OF	UF
Desander	Cone Size	Qty 0	0	0	0
Desilter	Cone Size	Qty 0	0	0	0
Mud Cleaner			0	0	0
Centrifuge 1	Scomo DE-1000		6	8.8	14
Centrifuge 2			0	0	0
Cuttings Dryer			0	0	0
Degasser			0		
Shale Shaker #1	325x325x325x325		12		
Shale Shaker #2	325x325x325x325		12		
			0		
			0		
			0		

SOLIDS ANALYSIS

Salt %	2.0	HGS %	1.1
		LGS %	2.9
Corrected Solids %	4.1	Drilled Solids%	2.5

Time Breakdown

Analysis Item	Hrs
Drilling	4
Other	5
Tripping	15

CURRENCY	DAILY COST	CUMULATIVE COSTS
AUD	$5,387.71	$54,091.75

Rheochem Engineer: Roni Tang **Office:** Perth **Telephone:** +61 **Fax:** +61

WATER BASED MUD
Daily Drilling Report

RHEOCHEM

Report #	12	Total MD	1482	to 1656	m
Rig #	918	Total VD	1482	to 1656	m
Date	18/02/13	Daily Depth Drilled		174	m
Spud Date	07/02/13	Interval Depth Drilled		606	m

OPERATOR	DrillSearch	CONTRACTOR	Ensign
REPORT FOR	Ray Miller/Kevin Gordon	REPORT FOR	Scott Cameron
WELL NAME AND No.	Tibor 1 {Rev 2}	FIELD: ATP539	LOCATION: Cooper Basin / STATE: Queensland

BHA	BIT TYPE	JET SIZE	DEPTHS/CASING	MUD VOLUME (BBL)	CIRCULATION DATA
BIT SIZE (") 8.5	Baker Hughes PDC	12 12 12 12 12 / 0 0 0 0 0	15.25 Riser Length m	HOLE VOL 399 / MUD INHOLE 346	PUMP SIZE 5.5 x 9 Inches
DRILL PIPE SIZE (") 4.5	TYPE	LENGTH 1,469 m	16 Conductor @ 7 m	Active Pits 303 / Reserve Pits 92	PUMP MODEL Emco F-800 / % EFFICIENCY 97
DRILL PIPE SIZE (") 4.5	TYPE HW	LENGTH 37 m	9.625 Surface @ 752 m	TOTAL CIRCULATING VOL 649	BBL / STK 0.0642 / STK / MIN 147
DRILL COLLAR SIZE (") 6.5	6.5	LENGTH 132 18 m	Intermediate @ m	STORAGE TANKS 0	BBL / MIN 9.43 / GAL / MIN 396
			Prod. or LNR @ m		CIRCULATION PRESS 1109 psi; SURFACE TO BIT 7 min; BOTTOMS UP 30 min; TOT CIRC TIME 69 min; ECD 9.61 ppg

MUD PROPERTIES

SAMPLE FROM		FL	Pit	FL
MUD TYPE		3KPO	3KPO	3KPO
TIME SAMPLE TAKEN		5:45	13:00	18:30
FLOWLINE TEMPERATURE	°F / °C	145 63	145 63	145 63
TOTAL MEASURED DEPTH (TMD)	Metres	1509	1580	1656
WEIGHT	ppg / SG	9.3 1.12	9.3 1.12	9.3 1.12
FUNNEL VISCOSITY (sec / qt) API		46	46	45
RHEOLOGY 600 : 300 RPM	°F / °C	46 33	46 33	45 32
RHEOLOGY 200 : 100 RPM	°F / °C	26 19	27 19	26 18
RHEOLOGY 6 : 3 RPM	°F / °C	8 6	8 7	7 6
PLASTIC VISCOSITY cP @	°F / °C	13	13	13
YIELD POINT (lb / 100 ft^2)	°F / °C	20	20	19
GEL STRENGTH (lb / 100 ft^2)	10sec/10min/30min	7 13 19	7 14 19	6 14 20
LOW SHEAR RATE VISCOSITY (LSRV)				
n K (lb / 100 ft^2)		0.48 1.67	0.48 1.67	0.49 1.49
API FILTRATE (cm^3 / 30 min.)		4	4	4
HPHT FILTRATE (cm^3 / 30 min.)	250 °F / 121 °C		13	
API : HPHT (Cake / 32nd in.)		1	1	1
pH		9.5	9.5	9.5
ALKALINITY MUD (Pm)		0.10	0.08	0.10
ALKALINITY FILTRATE (Pf / Mf)		0.17 0.8	0.14 0.8	0.17 0.8
CHLORIDE (mg / L)		22600	24500	25600
TOTAL HARDNESS AS CALCIUM (mg / L)		320	320	320
SULPHITE (mg / L)		80	80	80
KCL (% by Wt.)		4.0	4.0	4.0
K + (mg / L)		21616	21616	21616
PHPA (Calc ppb)				
METHYLENE BLUE CAPACITY (ppb / % by vol)		10.5 1.2	10.5 1.2	10.7 1.2
BENTONITE ADDED (ppb / % by vol)		3.58 0.4	3.58 0.4	3.58 0.4
OTHER PRODUCTS ADDED (ppb / % by vol)				
OIL (% by Vol)				
TOTAL WATER (% by Vol)		93.6	93.6	93.5
TOTAL SOLIDS (% by Vol)		6.5	6.5	6.5
SAND (% by Vol)		0.2	0.2	0.25

MUD PROPERTY SPECIFICATIONS

Mud Wt	8.9-9.0	Yld Pt	20-15	API Loss	<9
MBT	<11	HPHT Los	@250F	LGS	<3

MUD COMMENTS

Built 40ppb LCM pill withQuikseal M and Sandseal F. Spot to bottom 3bbls every connection. Adjust viscosity with Xantangum and Rheopac LV to lower down fluids loss as requested. Salt was used to maintain M.wt in active. Maintain addition 1-2bbls/hrs water into possum belly to replenish evaporation. Run centrifuge to discard drilled solids. Change 4ea API325 damage screen with 2ea new screen and 2ea used screen

Turkeys nest water used : 100bbls

OPERATIONAL COMMENTS

Continued RIH and ream down 6 joints to bottom @ 1482mVD. Spot 3bbls LCM pill every connection drilled. Drill ahead to 1656mVD at report time.

Water Source Water bore 2&3

MUD ACCOUNTING (BBLS)

FLUID BUILT		FLUID LOSSES		SUMMARY	
Drill Water	100	S.C.E.	69	Start Vol	730
Chemical	12	Discharge	20	Received	0
Sump/SeaWat	0	Downhole	12	Backload	0
Other Rec'd	0	Tripping	0	Built	112
Other Built	0	Other	0	Lost sub	12
				Lost srf	89

TOTAL MUD ON RIG (bbls) : 741

PRODUCT USAGE

Product	UnitSize	Start	Received	Used	Close
Water	1 bbl	2650	0	100	2550
Salt	25 Kg Sack	732	0	60	672
Rheopac L	25 Kg Sack	29	0	14	15
Quickseal (M)	18 Kg Sack	99	0	10	89
Sand Seal (fine)	25 Kg Sack	50	0	10	40
Caustic Soda	25 Kg Drum	30	0	2	28
Sodium Sulphite	25 Kg Sack	68	0	2	66
Xanthan Gum (P)	25 Kg Sack	42	0	2	40
Defoam A	25 Kg Drum	11	0	1	10
Soda Ash	25 Kg Sack	31	0	1	30

SOLIDS CONTROL EQUIPMENT

Type			Hrs	OF	UF
Desander	Cone Size	Qty 0	0	0	0
Desilter	Cone Size	Qty 0	0	0	0
Mud Cleaner			0	0	0
Centrifuge 1	Scomo DE-1000		18	9.1	14
Centrifuge 2			0	0	0
Cuttings Dryer			0	0	0
Degasser			0		
Shale Shaker #1	325x325x325x325		24		
Shale Shaker #2	325x325x325x325		24		
			0		
			0		
			0		

SOLIDS ANALYSIS

Salt %	2.2	HGS %	1.0
		LGS %	3.0
Corrected Solids %	4.0	Drilled Solids%	2.6

Time Breakdown

Analysis Item	Hrs
Drilling	23
Other	1

CURRENCY	DAILY COST	CUMULATIVE COSTS
AUD	$4,629.21	$58,720.96

Rheochem Engineer: Roni Tang **Office:** Perth **Telephone:** +61 **Fax:** +61

WATER BASED MUD
Daily Drilling Report

RHEOCHEM

Report #	13	Total MD	1656	to 1723	m
Rig #	918	Total VD	1656	to 1723	m
Date	19/02/13	Daily Depth Drilled		67	m
Spud Date	07/02/13	Interval Depth Drilled		673	m

OPERATOR	DrillSearch	CONTRACTOR	Ensign
REPORT FOR	Ray Miller/Kevin Gordon	REPORT FOR	Scott Cameron
WELL NAME AND No.	Tibor 1 {Rev 2}	FIELD: ATP539	LOCATION: Cooper Basin / STATE: Queensland

BHA	BIT TYPE	JET SIZE	DEPTHS/CASING	MUD VOLUME (BBL)	CIRCULATION DATA
BIT SIZE (") 8.5	None	0 0 0 0 0 / 0 0 0 0 0	15.25 Riser Length m	HOLE VOL 414 / MUD INHOLE 414	PUMP SIZE 5.5 x 9 Inches
DRILL PIPE SIZE (") 0	TYPE	LENGTH 0 m	16 Conductor @ 7 m	Active Pits 230 / Reserve Pits 86	PUMP MODEL Emco F-800 / % EFFICIENCY 97
DRILL PIPE SIZE (")	TYPE HW	LENGTH m	9.625 Surface @ 752 m	TOTAL CIRCULATING VOL 644	BBL / STK / STK / MIN
DRILL COLLAR SIZE (") 0	0	LENGTH 0 m	Intermediate @ m	STORAGE TANKS 0	BBL / MIN / GAL / MIN
			Prod. or LNR @ m		

CIRCULATION PRESS psi; SURFACE TO BIT 0 min; BOTTOMS UP 0 min; TOT CIRC TIME min; ECD

MUD PROPERTIES

		Pit	Pit
SAMPLE FROM		Pit	Pit
MUD TYPE		3KPO	3KPO
TIME SAMPLE TAKEN		5:20	16:00
FLOWLINE TEMPERATURE	°F / °C		
TOTAL MEASURED DEPTH (TMD)	Metres	1723	1723
WEIGHT	ppg / SG	9.3 1.12	9.3 1.12
FUNNEL VISCOSITY (sec / qt) API		46	46
RHEOLOGY 600 : 300 RPM	120 °F / 49 °C	46 33	45 32
RHEOLOGY 200 : 100 RPM	120 °F / 49 °C	26 19	22 19
RHEOLOGY 6 : 3 RPM	120 °F / 49 °C	7 6	7 6
PLASTIC VISCOSITY cP @	120 °F / 49 °C	13	13
YIELD POINT (lb / 100 ft2)	120 °F / 49 °C	20	19
GEL STRENGTH (lb / 100 ft2)	10sec/10min/30min	7 14 19	7 13 19
LOW SHEAR RATE VISCOSITY (LSRV)			
n K (lb / 100 ft2)		0.48 1.67	0.49 1.49
API FILTRATE (cm3 / 30 min.)		4	4
HPHT FILTRATE (cm3 / 30 min.)	250 °F / 121 °C		13
API : HPHT (Cake / 32nd in.)		1	1
pH		9.5	9.5
ALKALINITY MUD (Pm)		0.10	0.10
ALKALINITY FILTRATE (Pf / Mf)		0.17 0.8	0.16 1.0
CHLORIDE (mg / L)		25400	25400
TOTAL HARDNESS AS CALCIUM (mg / L)		320	320
SULPHITE (mg / L)		80	80
KCL (% by Wt.)		4.0	4.0
K + (mg / L)		21616	21616
PHPA (Calc ppb)			
METHYLENE BLUE CAPACITY (ppb / % by vol)		10.8 1.2	10.8 1.2
BENTONITE ADDED (ppb / % by vol)		3.42 0.4	3.4 0.4
OTHER PRODUCTS ADDED (ppb / % by vol)			
OIL (% by Vol)			
TOTAL WATER (% by Vol)		93.9	93.9
TOTAL SOLIDS (% by Vol)		6.2	6.1
SAND (% by Vol)		0.25	0.25

MUD PROPERTY SPECIFICATIONS

Mud Wt	8.9-9.0	Yld Pt	20-15	API Loss	<9
MBT	<11	HPHT Los	@250F	LGS	<3

MUD COMMENTS

Pump 3bbls LCM pill every connection. While drilling keep adding water 1-2bbls into possum belly to replenish evaporation. Built 40bbls Hivis pill with mud from active and adjust viscosity with Xantangum. Barite was used to built 40bbls Slug 11.2ppg on pill tank. Treated active with Idcide and Sodium Sulphate. Run centrifuge to process surface volume.

Turkeys nest water used: 25bbls

OPERATIONAL COMMENTS

Drill to TD @ 1723mVD at 11:00PM. Pump 20bbls Hivis sweep. Circulate hole clean. Flow check. Wiper trip to 1400mVD. Tight hole recorded @1420-1420mVD. Work pipe. Continued tripping to 1300mVD. RIH back to bottom. Circulate hole clean. Flow check. Static. Take survey. Slug pipe. POOH to surface and rack back BHA to mast. R/U Schlumberger wireline equipments. PJSM. Perform wireline logging at report time.

Water Source Water bore 2&3

MUD ACCOUNTING (BBLS)

FLUID BUILT		FLUID LOSSES		SUMMARY	
Drill Water	25	S.C.E.	21	Start Vol	741
Chemical	5	Discharge	0	Received	0
Sump/SeaWat	0	Downhole	6	Backload	0
Other Rec'd	0	Tripping	14	Built	30
Other Built	0	Other	0	Lost sub	6
				Lost srf	35

TOTAL MUD ON RIG (bbls) : 730

PRODUCT USAGE

Product	UnitSize	Start	Received	Used	Close
Barite	25 Kg Sack	1274	0	80	1194
Water	1 bbl	2550	0	25	2525
Rheopac L	25 Kg Sack	15	0	10	5
Soda Ash	25 Kg Sack	30	0	8	22
Sodium Sulphite	25 Kg Sack	66	0	2	64

SOLIDS CONTROL EQUIPMENT

Type			Hrs	OF	UF
Desander	Cone Size	Qty 0	0	0	0
Desilter	Cone Size	Qty 0	0	0	0
Mud Cleaner			0	0	0
Centrifuge 1	Scomo DE-1000		12	9.1	14
Centrifuge 2			0	0	0
Cuttings Dryer			0	0	0
Degasser			0		
Shale Shaker #1	325x325x325x325		10		
Shale Shaker #2	325x325x325x325		10		
			0		
			0		
			0		

SOLIDS ANALYSIS

Salt %	2.2	HGS %	1.4
		LGS %	2.3
Corrected Solids %	3.7	Drilled Solids%	2.0

Time Breakdown

Analysis Item	Hrs
Circulating	1
Logging	10
Other	3
Tripping	10

CURRENCY	DAILY COST	CUMULATIVE COSTS
AUD	$2,424.40	$61,145.36

Rheochem Engineer: Roni Tang **Office:** Perth **Telephone:** +61 **Fax:** +61

WATER BASED MUD
Daily Drilling Report

RHEOCHEM

Report #	14	Total MD	1723	to 1723	m
Rig #	918	Total VD	1723	to 1723	m
Date	20/02/13	Daily Depth Drilled		0	m
Spud Date	07/02/13	Interval Depth Drilled		0	m

OPERATOR	DrillSearch	CONTRACTOR	Ensign
REPORT FOR	Ray Miller/Don Castelo	REPORT FOR	David Doherty
WELL NAME AND No.	Tibor 1 {Rev 2}	FIELD: ATP539	LOCATION: Cooper Basin / STATE: Queensland

BHA	BIT TYPE	JET SIZE	DEPTHS/CASING	MUD VOLUME (BBL)	CIRCULATION DATA
BIT SIZE (") 8.5	None	0 0 0 0 0 / 0 0 0 0 0	15.25 Riser Length m	HOLE VOL 414 / MUD INHOLE 414	PUMP SIZE 5.5 x 9 Inches
DRILL PIPE SIZE (")	TYPE	LENGTH 0 m	16 Conductor @ 7 m	Active Pits 276 / Reserve Pits 76	PUMP MODEL Emco F-800 / % EFFICIENCY 97
DRILL PIPE SIZE (")	TYPE HW	LENGTH 0 m	9.625 Surface @ 752 m	TOTAL CIRCULATING VOL 690	BBL / STK / STK / MIN
DRILL COLLAR SIZE (") 0	0	LENGTH 0 0 m	Intermediate @ m	STORAGE TANKS 0	BBL / MIN / GAL / MIN
			Prod. or LNR @ m		

CIRCULATION PRESS psi; SURFACE TO BIT 0 min; BOTTOMS UP 0 min; TOT CIRC TIME min; ECD

MUD PROPERTIES

SAMPLE FROM				Pit		Pit				
MUD TYPE				3KPO		3KPO				
TIME SAMPLE TAKEN				9:00		16:00				
FLOWLINE TEMPERATURE	°F / °C									
TOTAL MEASURED DEPTH (TMD)	Metres			1723		1723				
WEIGHT	ppg / SG			9.3	1.12	9.3	1.12			
FUNNEL VISCOSITY (sec / qt) API				46		43				
RHEOLOGY 600 : 300 RPM	120 °F / 49 °C			45	32	44	31			
RHEOLOGY 200 : 100 RPM	120 °F / 49 °C			22	19	24	18			
RHEOLOGY 6 : 3 RPM	120 °F / 49 °C			7	6	7	6			
PLASTIC VISCOSITY cP @	120 °F / 49 °C			13		13				
YIELD POINT (lb / 100 ft2)	120 °F / 49 °C			19		18				
GEL STRENGTH (lb / 100 ft2)	10sec/10min/30min			7	13 19	6	12 17			
LOW SHEAR RATE VISCOSITY (LSRV)										
n K (lb / 100 ft2)				0.49	1.49	0.50	1.33			
API FILTRATE (cm3 / 30 min.)				4		4				
HPHT FILTRATE (cm3 / 30 min.)	°F / °C									
API : HPHT (Cake / 32nd in.)				1		1				
pH				9.5		9.5				
ALKALINITY MUD (Pm)				0.10		0.08				
ALKALINITY FILTRATE (Pf / Mf)				0.16	1.0	0.15	0.8			
CHLORIDE (mg / L)				25400		23600				
TOTAL HARDNESS AS CALCIUM (mg / L)				320		320				
SULPHITE (mg / L)				80		180				
KCL (% by Wt.)				4.0		4.0				
K + (mg / L)				21616		21616				
PHPA (Calc ppb)										
METHYLENE BLUE CAPACITY (ppb / % by vol)				10.8	1.2	10.5	1.2			
BENTONITE ADDED (ppb / % by vol)				3.2	0.4	3.2	0.4			
OTHER PRODUCTS ADDED (ppb / % by vol)										
OIL (% by Vol)										
TOTAL WATER (% by Vol)				93.8		93.8				
TOTAL SOLIDS (% by Vol)				6.2		6.2				
SAND (% by Vol)				0.25		0.2				

MUD PROPERTY SPECIFICATIONS

Mud Wt	8.9-9.0	Yld Pt	20-15	API Loss	<9
MBT	<11	HPHT Los	@250F	LGS	<3

MUD COMMENTS

Built 50bbls PHB mud on premix and weight up with Salt to 9.3ppg then blend into active system to maintain surface volume. Trated active with Idcide and sodium sulphite. Discharge 5bbls sandtrap. Change 2ea API325 damage screen with 2ea used screen. Losses during logging 13bbls.
Balance excess inventory for sodium sulphite, Idcide and Maxigel
Turkeys nest water used: 50bbls

OPERATIONAL COMMENTS

Continued perform schlumberger wireline logging. R/D schlumberger logging tools.PJSM. L/D 8.5" BHA from mast at report time.

Water Source Water bore 2&3

MUD ACCOUNTING (BBLS)

FLUID BUILT		FLUID LOSSES		SUMMARY	
Drill Water	50	S.C.E.	0	Start Vol	730
Chemical	4	Discharge	5	Received	0
Sump/SeaWat	0	Downhole	0	Backload	0
Other Rec'd	0	Tripping	0	Built	54
Other Built	0	Other	13	Lost sub	0
				Lost srf	18

TOTAL MUD ON RIG (bbls) : 766

PRODUCT USAGE

Product	UnitSize	Start	Received	Used	Close
Water	1 bbl	2525	0	50	2475
Salt	25 Kg Sack	672	0	48	624
Rheopac L	25 Kg Sack	5	0	5	0
Caustic Soda	25 Kg Drum	28	0	1	27
Soda Ash	25 Kg Sack	22	0	1	21

SOLIDS CONTROL EQUIPMENT

Type			Hrs	OF	UF
Desander	Cone Size	Qty 0	0	0	0
Desilter	Cone Size	Qty 0	0	0	0
Mud Cleaner			0	0	0
Centrifuge 1	Scomo DE-1000				
Centrifuge 2			0	0	0
Cuttings Dryer			0	0	0
Degasser			0		
Shale Shaker #1	325x325x325x325				
Shale Shaker #2	325x325x325x325				
			0		
			0		
			0		

SOLIDS ANALYSIS

Salt %	2.1	HGS %	1.3
		LGS %	2.6
Corrected Solids %	3.9	Drilled Solids%	2.3

Time Breakdown

Analysis Item	Hrs
Logging	14
Other	5
Tripping	5

CURRENCY	DAILY COST	CUMULATIVE COSTS
AUD	$1,028.11	$62,173.46

Rheochem Engineer: Roni Tang **Office:** Perth **Telephone:** +61 **Fax:** +61

WATER BASED MUD
Daily Drilling Report

RHEOCHEM

Report #	15	Total MD	1723	to 1723	m
Rig #	918	Total VD	1723	to 1723	m
Date	21/02/13	Daily Depth Drilled		0	m
Spud Date	07/02/13	Interval Depth Drilled		0	m

OPERATOR	DrillSearch	CONTRACTOR	Ensign
REPORT FOR	Ray Miller/Don Castle	REPORT FOR	David Doherty
WELL NAME AND No.	Tibor 1 {Rev 2}	FIELD: ATP539	LOCATION: Cooper Basin / STATE: Queensland

BHA	BIT TYPE	JET SIZE	DEPTHS/CASING	MUD VOLUME (BBL)	CIRCULATION DATA
BIT SIZE (") 8.5	None	0 0 0 0 0 / 0 0 0 0 0	15.25 Riser Length m	HOLE VOL 414 / MUD INHOLE 376	PUMP SIZE 5.5 x 9 Inches
DRILL PIPE SIZE (") 4.5	TYPE	LENGTH 1,637 m	16 Conductor @ 7 m	Active Pits 303 / Reserve Pits 80	PUMP MODEL Emco F-800 / % EFFICIENCY 97
DRILL PIPE SIZE (")	TYPE HW	LENGTH 0 m	9.625 Surface @ 752 m	TOTAL CIRCULATING VOL 679	BBL / STK / STK / MIN
DRILL COLLAR SIZE (") 0	0	LENGTH 0 0 m	Intermediate @ m	STORAGE TANKS 0	BBL / MIN / GAL / MIN
			Prod. or LNR @ m		

CIRCULATION DATA	
CIRCULATION PRESS	psi
SURFACE TO BIT	0 min
BOTTOMS UP	0 min
TOT CIRC TIME	min
ECD	

MUD PROPERTIES

SAMPLE FROM			Pit								
MUD TYPE			3KPO								
TIME SAMPLE TAKEN			12:30								
FLOWLINE TEMPERATURE		°F / °C									
TOTAL MEASURED DEPTH (TMD)		Metres	1723								
WEIGHT		ppg / SG	9.3	1.12							
FUNNEL VISCOSITY (sec / qt) API			45								
RHEOLOGY 600 : 300 RPM		120 °F / 49 °C	45	32							
RHEOLOGY 200 : 100 RPM		120 °F / 49 °C	24	18							
RHEOLOGY 6 : 3 RPM		120 °F / 49 °C	7	6							
PLASTIC VISCOSITY cP @		120 °F / 49 °C	13								
YIELD POINT (lb / 100 ft2)		120 °F / 49 °C	19								
GEL STRENGTH (lb / 100 ft2)		10sec/10min/30min	6	13	18						
LOW SHEAR RATE VISCOSITY (LSRV)											
n K (lb / 100 ft2)			0.49	1.49							
API FILTRATE (cm3 / 30 min.)			4								
HPHT FILTRATE (cm3 / 30 min.)		°F / °C									
API : HPHT (Cake / 32nd in.)			1								
pH			9.5								
ALKALINITY MUD (Pm)			0.08								
ALKALINITY FILTRATE (Pf / Mf)			0.14	0.8							
CHLORIDE (mg / L)			23600								
TOTAL HARDNESS AS CALCIUM (mg / L)			320								
SULPHITE (mg / L)			180								
KCL (% by Wt.)			4.0								
K + (mg / L)			21616								
PHPA (Calc ppb)											
METHYLENE BLUE CAPACITY (ppb / % by vol)			10.5	1.2							
BENTONITE ADDED (ppb / % by vol)			3.2	0.4							
OTHER PRODUCTS ADDED (ppb / % by vol)											
OIL (% by Vol)											
TOTAL WATER (% by Vol)			93.8								
TOTAL SOLIDS (% by Vol)			6.2								
SAND (% by Vol)			0.2								

MUD PROPERTY SPECIFICATIONS

Mud Wt	8.9-9.0	Yld Pt	20-15	API Loss	<9
MBT	<11	HPHT Los	)@250F	LGS	<3

MUD COMMENTS

No mud chemicals was used. Run centrifuge to process mud while circulate.

OPERATIONAL COMMENTS

P/U 24 joints 2-7/8" tubing stinger and mule shoe. RIH with DP to 1637mVD for perform plug#1. Circulate. Wait on Halliburton cementing at report time

Water Source	Water bore 2&3

MUD ACCOUNTING (BBLS)

FLUID BUILT		FLUID LOSSES		SUMMARY	
Drill Water	0	S.C.E.	7	Start Vol	766
Chemical	0	Discharge	0	Received	0
Sump/SeaWat	0	Downhole	0	Backload	0
Other Rec'd	0	Tripping	0	Built	0
Other Built	0	Other	0	Lost sub	0
				Lost srf	7

TOTAL MUD ON RIG (bbls) : 759

PRODUCT USAGE

Product	UnitSize	Start	Received	Used	Close

SOLIDS CONTROL EQUIPMENT

Type					Hrs	OF	UF
Desander	Cone Size		Qty	0	0	0	0
Desilter	Cone Size		Qty	0	0	0	0
Mud Cleaner					0	0	0
Centrifuge 1	Scomo DE-1000				6	9.1	14
Centrifuge 2					0	0	0
Cuttings Dryer					0	0	0
Degasser					0		
Shale Shaker #1	325x325x325x325				12		
Shale Shaker #2	325x325x325x325				0		
					0		
					0		
					0		

SOLIDS ANALYSIS

Salt %	2.1	HGS %	1.3
		LGS %	2.6
Corrected Solids %	3.9	Drilled Solids%	2.3

Time Breakdown

Analysis Item	Hrs
Tripping	8
Circulating	6
Other	10

CURRENCY	DAILY COST	CUMULATIVE COSTS
AUD		$62,173.46

Rheochem Engineer: Roni Tang **Office:** Perth **Telephone:** +61 **Fax:** +61

WATER BASED MUD
Daily Drilling Report

RHEOCHEM

Report #	16	Total MD	1723	to 1723	m
Rig #	918	Total VD	1723	to 1723	m
Date	22/02/13	Daily Depth Drilled		0	m
Spud Date	07/02/13	Interval Depth Drilled		0	m

OPERATOR	DrillSearch	CONTRACTOR	Ensign
REPORT FOR	Ray Miller/Don Castle	REPORT FOR	David Doherty
WELL NAME AND No.	Tibor 1 {Rev 2}	FIELD: ATP539	LOCATION: Cooper Basin / STATE: Queensland

BHA	BIT TYPE	JET SIZE	DEPTHS/CASING	MUD VOLUME (BBL)	CIRCULATION DATA
BIT SIZE (") 8.5	None	0 0 0 0 0 / 0 0 0 0 0	15.25 Riser Length m	HOLE VOL 414 / MUD INHOLE 414	PUMP SIZE 5.5 x 9 Inches
DRILL PIPE SIZE (") 0	TYPE	LENGTH m	16 Conductor @ 7 m	Active Pits 0 / Reserve Pits 0	PUMP MODEL Emco F-800 / % EFFICIENCY 97
DRILL PIPE SIZE (")	TYPE HW	LENGTH 0 m	9.625 Surface @ 752 m	TOTAL CIRCULATING VOL 414	BBL / STK / STK / MIN
DRILL COLLAR SIZE (") 0	0	LENGTH 0 0 m	Intermediate @ m	STORAGE TANKS 0	BBL / MIN / GAL / MIN
			Prod. or LNR @ m		

CIRCULATION DATA	
CIRCULATION PRESS	psi
SURFACE TO BIT	0 min
BOTTOMS UP	0 min
TOT CIRC TIME	min
ECD	

MUD PROPERTIES

SAMPLE FROM				
MUD TYPE	3KPO			
TIME SAMPLE TAKEN				
FLOWLINE TEMPERATURE °F / °C				
TOTAL MEASURED DEPTH (TMD) Metres				
WEIGHT ppg / SG				
FUNNEL VISCOSITY (sec / qt) API				
RHEOLOGY 600 : 300 RPM °F / °C				
RHEOLOGY 200 : 100 RPM °F / °C				
RHEOLOGY 6 : 3 RPM °F / °C				
PLASTIC VISCOSITY cP @ °F / °C				
YIELD POINT (lb / 100 ft2) °F / °C				
GEL STRENGTH (lb / 100 ft2) 10sec/10min/30min				
LOW SHEAR RATE VISCOSITY (LSRV)				
n K (lb / 100 ft2)				
API FILTRATE (cm3 / 30 min.)				
HPHT FILTRATE (cm3 / 30 min.) °F / °C				
API : HPHT (Cake / 32nd in.)				
pH				
ALKALINITY MUD (Pm)				
ALKALINITY FILTRATE (Pf / Mf)				
CHLORIDE (mg / L)				
TOTAL HARDNESS AS CALCIUM (mg / L)				
SULPHITE (mg / L)				
KCL / K2SO4				
K + (mg / L)				
PHPA (Calc ppb)				
METHYLENE BLUE CAPACITY (ppb / % by vol)				
BENTONITE ADDED (ppb / % by vol)				
OTHER PRODUCTS ADDED (ppb / % by vol)				
OIL (% by Vol)				
TOTAL WATER (% by Vol)	0.0			
TOTAL SOLIDS (% by Vol)	-62.5			
SAND (% by Vol)				

MUD PROPERTY SPECIFICATIONS

Mud Wt	8.9-9.0	Yld Pt	20-15	API Loss	<9
MBT	<11	HPHT Los @250F		LGS	<3

MUD COMMENTS

Discharge mud contaminated cement while perform cement plug job. Displace mud with corrosion inhibitor water. Discharge all muds to the sump. Prepare to clean mud tanks. Undress both shakers screen. Balance salt inventory.
Transport some chemicals to Wamberal 1 well.

Turkeys nest water used : 250bbls

OPERATIONAL COMMENTS

Conduct P&A, the 1st cement plug set at 1637mVD. The 2nd cement plug set at1331mVD. 3rd cement plug 781mVD. WOC while L/D excess DP. RIH to tag TOC. Displace well with water. Pressure test casing. POOH and L/O DP. Prepare tp perform last cement plug from 30mVD to surface at report time.

Water Source Water bore2&3

MUD ACCOUNTING (BBLS)

FLUID BUILT		FLUID LOSSES		SUMMARY	
Drill Water	250	S.C.E.	0	Start Vol	760
Chemical	4	Discharge	600	Received	0
Sump/SeaWat	0	Downhole	0	Backload	0
Other Rec'd	0	Tripping	0	Built	254
Other Built	0	Other	0	Lost sub	0
				Lost srf	600

TOTAL MUD ON RIG (bbls) : 414

PRODUCT USAGE

Product	UnitSize	Start	Received	Used	Close
Water	1 bbl	2475	0	250	2225
Salt	25 Kg Sack	624	0	48	576
Ancor 1 (20Lt)	20 Ltr	16	0	4	12

SOLIDS CONTROL EQUIPMENT

Type			Hrs	OF	UF
Desander	Cone Size	Qty 0	0	0	0
Desilter	Cone Size	Qty 0	0	0	0
Mud Cleaner			0	0	0
Centrifuge 1	Scomo DE-1000				
Centrifuge 2			0	0	0
Cuttings Dryer			0	0	0
Degasser			0		
Shale Shaker #1	325x325x325x325				
Shale Shaker #2	325x325x325x325				
			0		
			0		
			0		

SOLIDS ANALYSIS

Salt %	0.0	HGS %	
		LGS %	-62.5
Corrected Solids %	-62.5	Drilled Solids%	-62.5

Time Breakdown

Analysis Item	Hrs
Circulating	2
Tripping	6
Cementing Job	9
Other	7

CURRENCY	DAILY COST	CUMULATIVE COSTS
AUD	$1,229.63	$63,403.09

Rheochem Engineer: Roni Tang **Office:** Perth **Telephone:** +61 **Fax:** +61

WATER BASED MUD
Daily Drilling Report

RHEOCHEM

Report #	17	Total MD	1723	to	1723	m
Rig #	918	Total VD	1723	to	1723	m
Date	23/02/13	Daily Depth Drilled			0	m
Spud Date	07/02/13	Interval Depth Drilled			0	m

OPERATOR	DrillSearch	CONTRACTOR	Ensign
REPORT FOR	Ray Miller/Don Castle	REPORT FOR	David Doherty
WELL NAME AND No.	Tibor 1 {Rev 2}	FIELD: ATP539	LOCATION: Cooper Basin / STATE: Queensland

BHA	BIT TYPE	JET SIZE	DEPTHS/CASING	MUD VOLUME (BBL)	CIRCULATION DATA
BIT SIZE (") 8.5	None	0 0 0 0 0 / 0 0 0 0 0	15.25 Riser Length m	HOLE VOL 414 / MUD INHOLE 414	PUMP SIZE 5.5 x 9 Inches
DRILL PIPE SIZE (")	TYPE	LENGTH 0 m	16 Conductor @ 7 m	Active Pits 0 / Reserve Pits 0	PUMP MODEL Emco F-800 / % EFFICIENCY 97
DRILL PIPE SIZE (")	TYPE HW	LENGTH 0 m	9.625 Surface @ 752 m	TOTAL CIRCULATING VOL 414	BBL / STK / STK / MIN
DRILL COLLAR SIZE (") 0	0	LENGTH 0 0 m	Intermediate @ m	STORAGE TANKS 0	BBL / MIN / GAL / MIN
			Prod. or LNR @ m		

CIRCULATION DATA	
CIRCULATION PRESS	psi
SURFACE TO BIT	0 min
BOTTOMS UP	0 min
TOT CIRC TIME	min
ECD	

MUD PROPERTIES

SAMPLE FROM			
MUD TYPE	3KPO		
TIME SAMPLE TAKEN			
FLOWLINE TEMPERATURE °F / °C			
TOTAL MEASURED DEPTH (TMD) Metres			
WEIGHT ppg / SG			
FUNNEL VISCOSITY (sec / qt) API			
RHEOLOGY 600 : 300 RPM °F / °C			
RHEOLOGY 200 : 100 RPM °F / °C			
RHEOLOGY 6 : 3 RPM °F / °C			
PLASTIC VISCOSITY cP @ °F / °C			
YIELD POINT (lb / 100 ft2) °F / °C			
GEL STRENGTH (lb / 100 ft2) 10sec/10min/30min			
LOW SHEAR RATE VISCOSITY (LSRV)			
n K (lb / 100 ft2)			
API FILTRATE (cm3 / 30 min.)			
HPHT FILTRATE (cm3 / 30 min.) °F / °C			
API : HPHT (Cake / 32nd in.)			
pH			
ALKALINITY MUD (Pm)			
ALKALINITY FILTRATE (Pf / Mf)			
CHLORIDE (mg / L)			
TOTAL HARDNESS AS CALCIUM (mg / L)			
SULPHITE (mg / L)			
KCL / K2SO4			
K + (mg / L)			
PHPA (Calc ppb)			
METHYLENE BLUE CAPACITY (ppb / % by vol)			
BENTONITE ADDED (ppb / % by vol)			
OTHER PRODUCTS ADDED (ppb / % by vol)			
OIL (% by Vol)			
TOTAL WATER (% by Vol)	0.0		
TOTAL SOLIDS (% by Vol)	-62.5		
SAND (% by Vol)			

MUD PROPERTY SPECIFICATIONS

Mud Wt	8.9-9.0	Yld Pt	20-15	API Loss	<9
MBT	<11	HPHT Los	@250F	LGS	<3

MUD COMMENTS

Clean all mud tanks. Undress both shakers. 3 sack SAPP was used for Scomi and 34 sacks Barite was damage.

Note.
Transfer out all mud chemicals from Tibor 1 chemicals inventory.
Mud chemicals transport to Wamberal 1 well base on Tibor 1 DFCR E918 0006 23022013 and transport to Adelaide base on Tibor 1 DFCR E918 0007 23022012

OPERATIONAL COMMENTS

Perform last cement plug from 30mVD to surface. N/D BOP's. Clean mud tanks. Rig release on 23 February 2013 @ 12:00hrs.

Water Source Water bore 2&3

MUD ACCOUNTING (BBLS)

FLUID BUILT		FLUID LOSSES		SUMMARY	
Drill Water	0	S.C.E.	0	Start Vol	414
Chemical	0	Discharge	0	Received	0
Sump/SeaWat	0	Downhole	0	Backload	0
Other Rec'd	0	Tripping	0	Built	0
Other Built	0	Other	0	Lost sub	0
				Lost srf	0

TOTAL MUD ON RIG (bbls) : 414

PRODUCT USAGE

Product	UnitSize	Start	Received	Used	Close
Barite	25 Kg Sack	1194	0	34	-354
SAPP	25 Kg Sack	38	0	3	0

SOLIDS CONTROL EQUIPMENT

Type					Hrs	OF	UF
Desander	Cone Size		Qty	0	0	0	0
Desilter	Cone Size		Qty	0	0	0	0
Mud Cleaner					0	0	0
Centrifuge 1	Scomo DE-1000						
Centrifuge 2					0	0	0
Cuttings Dryer					0	0	0
Degasser					0		
Shale Shaker #1	325x325x325x325						
Shale Shaker #2	325x325x325x325						
					0		
					0		
					0		

SOLIDS ANALYSIS

Salt %	0.0	HGS %	
		LGS %	-62.5
Corrected Solids %	-62.5	Drilled Solids%	-62.5

Time Breakdown

Analysis Item	Hrs
Other	24

CURRENCY	DAILY COST	CUMULATIVE COSTS
AUD	$623.60	$64,026.69

Rheochem Engineer: Roni Tang **Office:** Perth **Telephone:** +61 **Fax:** +61

Appendix 3 – Deviation Survey Report

TIBOR 1: Deviation Surveys					
Magnetic Decl.:	7.36 °	Vertical Section Direction:	0.0 °	Calculate after tie-back depth?	
Ref. N/S:	0.0 m	Ref. E/W:	0.0 m	Tie-Back Depth (MD):	
Comments:	Teledrift Surveys taken every 3rd single drilled.				

MD (m)	Incl. (°)	Azimuth (°)	TVD (m)	Vert. Sect. (m)	+N/-S (m)	+E/-W (m)	Dog-leg (deg/30m)	Closure (m)	Day #	Tool
33.0	0.0	0.00							#7 (07 Feb 2013)	Teledrift
60.0	0.0	0.00							#8 (08 Feb 2013)	Teledrift
88.0	1.0	0.00							#8 (08 Feb 2013)	Teledrift
97.0	0.5	0.00							#8 (08 Feb 2013)	Teledrift
124.0	0.5	0.00							#8 (08 Feb 2013)	Teledrift
161.0	0.5	0.00							#8 (08 Feb 2013)	Teledrift
185.0	0.5	0.00							#8 (08 Feb 2013)	Teledrift
217.0	0.5	0.00							#8 (08 Feb 2013)	Teledrift
246.0	0.5	0.00							#8 (08 Feb 2013)	Teledrift
275.0	0.5	0.00							#8 (08 Feb 2013)	Teledrift
305.0	0.5	0.00							#8 (08 Feb 2013)	Teledrift
343.0	0.5	0.00							#9 (09 Feb 2013)	Teledrift
373.0	0.5	0.00							#9 (09 Feb 2013)	Teledrift
402.0	1.0	0.00							#9 (09 Feb 2013)	Teledrift
431.0	0.5	0.00							#9 (09 Feb 2013)	Teledrift
451.0	0.5	0.00							#9 (09 Feb 2013)	Teledrift
487.0	0.5	0.00							#9 (09 Feb 2013)	Teledrift
516.0	0.5	0.00							#9 (09 Feb 2013)	Teledrift
545.0	0.5	0.00							#9 (09 Feb 2013)	Teledrift
574.0	0.5	0.00							#9 (09 Feb 2013)	Teledrift
603.0	0.5	0.00							#9 (09 Feb 2013)	Teledrift
631.0	0.5	0.00							#9 (09 Feb 2013)	Teledrift
662.0	0.5	0.00							#10 (10 Feb 2013)	Teledrift
691.0	0.5	0.00							#10 (10 Feb 2013)	Teledrift
720.0	0.5	0.00							#10 (10 Feb 2013)	Teledrift
751.0	0.5	0.00							#10 (10 Feb 2013)	Teledrift
776.0	1.0	0.00							#13 (13 Feb 2013)	Teledrift
806.0	1.5	0.00							#13 (13 Feb 2013)	Teledrift
835.0	1.0	0.00							#13 (13 Feb 2013)	Teledrift
865.0	1.0	0.00							#13 (13 Feb 2013)	Teledrift
890.0	0.5	0.00							#13 (13 Feb 2013)	Teledrift
924.0	2.0	0.00							#13 (13 Feb 2013)	Teledrift
932.0	2.0	0.00							#13 (13 Feb 2013)	Teledrift
940.0	1.0	0.00							#14 (14 Feb 2013)	Teledrift
960.0	2.0	0.00							#14 (14 Feb 2013)	Teledrift

990.0	0.5	0.00							#14 (14 Feb 2013)	Teledrift
1,019.0	0.5	0.00							#14 (14 Feb 2013)	Teledrift
1,047.0	0.5	0.00							#14 (14 Feb 2013)	Teledrift
1,104.0	0.5	0.00							#15 (15 Feb 2013)	Teledrift
1,133.0	0.5	0.00							#15 (15 Feb 2013)	Teledrift
1,162.0	0.5	0.00							#15 (15 Feb 2013)	Teledrift
1,192.0	0.5	0.00							#15 (15 Feb 2013)	Teledrift
1,230.0	0.5	0.00							#15 (15 Feb 2013)	Teledrift
1,250.0	0.5	0.00							#15 (15 Feb 2013)	Teledrift
1,280.0	0.5	0.00							#15 (15 Feb 2013)	Teledrift
1,297.0	0.5	0.00							#15 (15 Feb 2013)	Teledrift

Magnetic Decl.:	7.36 °	Vertical Section Direction:	0.0 °	Calculate after tie-back depth?	
Ref. N/S:	0.0 m	Ref. E/W:	0.0 m	Tie-Back Depth (MD):	
Comments:	Magnetic Single Shot survey taken every 150mRT.				

MD (m)	Incl. (°)	Azimuth (°)	TVD (m)	Vert. Sect. (m)	+N/-S (m)	+E/-W (m)	Dog-leg (deg/30m)	Closure (m)	Day #	Tool
0.0	0.0	0.00	0.0		0.0	0.0			#7 (07 Feb 2013)	
141.0	0.3	203.00	141.0	-0.340	-0.3	-0.1	0.064	0.4	#8 (08 Feb 2013)	MagneticSS
305.0	0.8	241.00	305.0	-1.290	-1.3	-1.3	0.108	1.8	#8 (08 Feb 2013)	MagneticSS
451.0	0.3	270.00	451.0	-1.784	-1.8	-2.6	0.114	3.1	#9 (09 Feb 2013)	MagneticSS
631.0	0.5	154.00	631.0	-2.490	-2.5	-2.7	0.114	3.7	#9 (09 Feb 2013)	MagneticSS
741.0	1.3	90.00	741.0	-2.922	-2.9	-1.3	0.319	3.2	#10 (10 Feb 2013)	MagneticSS
890.0	1.8	110.00	889.9	-3.722	-3.7	2.6	0.147	4.6	#13 (13 Feb 2013)	MagneticSS
985.0	1.8	118.00	984.9	-4.933	-4.9	5.4	0.079	7.3	#14 (14 Feb 2013)	MagneticSS
1,062.0	1.0	100.00	1,061.8	-5.617	-5.6	7.1	0.352	9.0	#14 (14 Feb 2013)	MagneticSS
1,158.0	0.3	98.00	1,157.8	-5.798	-5.8	8.2	0.219	10.0	#15 (15 Feb 2013)	MagneticSS
1,300.0	0.5	25.00	1,299.8	-5.288	-5.3	8.8	0.106	10.3	#15 (15 Feb 2013)	MagneticSS
1,388.0	0.8	17.00	1,387.8	-4.352	-4.4	9.1	0.107	10.1	#16 (16 Feb 2013)	MagneticSS
1,712.0	1.5	210.00	1,711.8	-5.862	-5.9	7.7	0.212	9.7	#19 (19 Feb 2013)	MagneticSS

Appendix 4 – Leak Off Test Report

Drillsearch	Standard No:		
	Revision No: 1	Revised By: Kirby Sayles	
	Revision Date: 07/12/2012	Date: 13/02/2013	
	Approved By: Kirby Sayles	Time:	

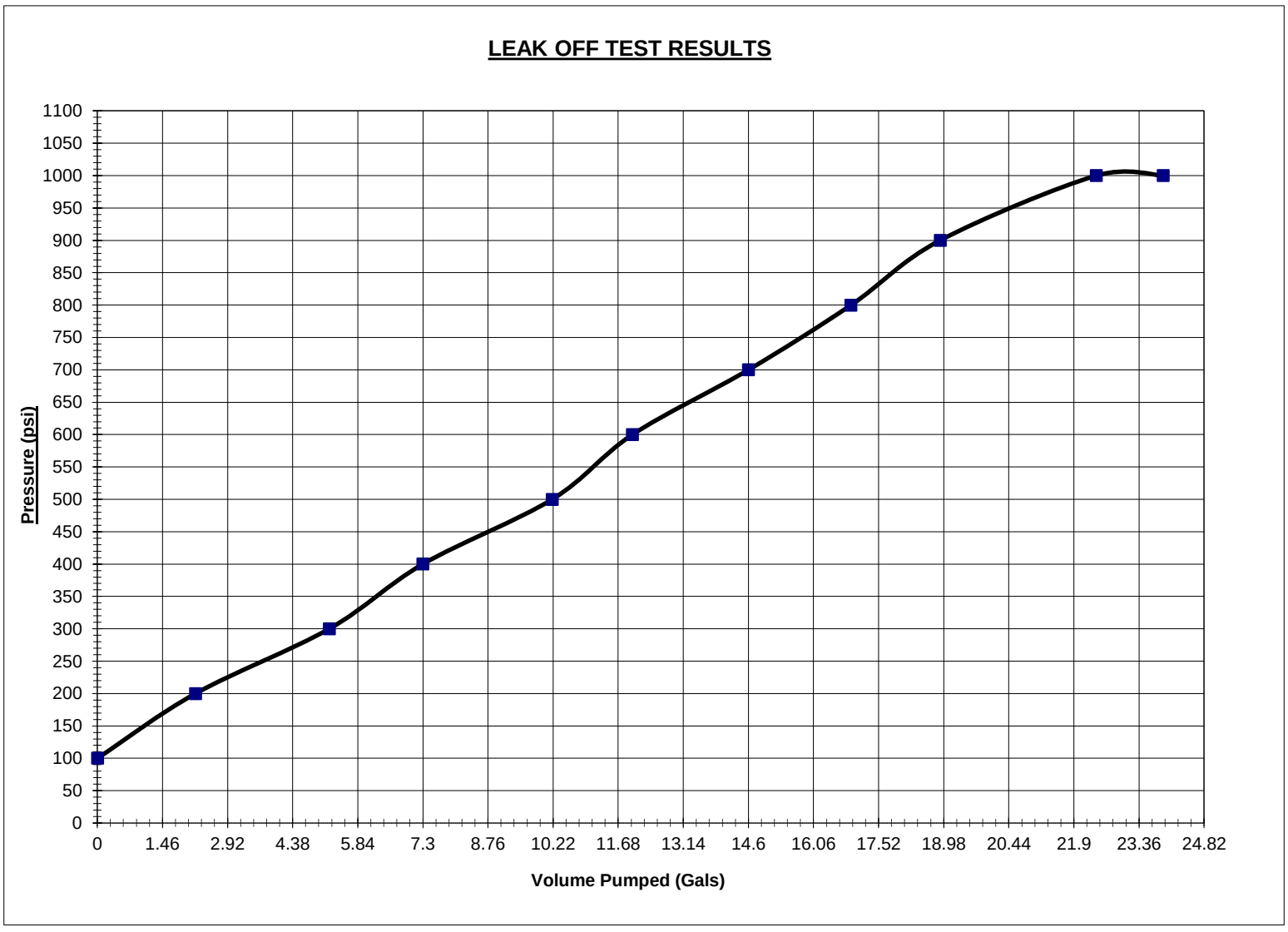
LEAK OFF TEST

WELL: TIBOR-1 **RIG:** ENSIGN 918 **DATE:** 13.02.2013

CASING SIZE: 9.625 (inch) DLS Rig Representative: Kevin Gordon

A.	MUD DENSITY IN USE:	8.9	(ppg)
B.	HOLE DEPTH:	2483	(ft)
C.	SHOE DEPTH:	2464	(ft)
D.	LEAK-OFF PRESSURE (GRAPH):	1000	(psi)
E.	EQUIVALENT DENSITY: LEAK-OFF PRES. (D) (psi) / SHOE DEPTH (C) (ft) x 0.052 + MUD DENSITY IN USE (A) (ppg)	**16.7**	**(ppg) (EMW)**
F.	MAXIMUM PRESSURE RECORDED:	1000	(psi)
G.	VOLUME PUMPED:	23.9	(gals)
H.	VOLUME REGAINED:	21.3	(gals)

Gals pumped	0	2.2	5.2	7.3	10.2	12	14.6	16.9	18.9	22.4	23.9						
PRESSURE:	100	200	300	400	500	600	700	800	900	1000	1000						



Appendix 5 – Casing and Cementing Report

Drillsearch

Oil and Gas Production and Exploration
Level 16 / 55 Clarence Street Sydney NSW 2000

Cooper Basin Onshore

Tibor #1 (Oil Well)

Post Job Report

Prepared for Matthew Siegmann and Martik Berberian
5th March 2013
Revision: 1.0

Submitted by Ekkalak Wuthayavanich

HALLIBURTON

Friday, 5th March 2013

TO: Drillsearch
ATT: **Matthew Siegmann and Martik Berberian**
RE: **Tibor #1 – Post Job Report Rev1.0**

Dear Matthew, Martik

Please find attached a Post Job Report for Tibor #1– 9-5/8" Surface Casing cement job and the P&A cement job.

Included are the following:

- 9-5/8" Surface Casing to ≈750m
  - Lead Slurry planned to be 11.8 ppg ; TOC is at surface with 75% OH Excess.
  - Tail Slurry planned to be 15.8 ppg to 100m above the 9 5/8 with 75% OH Excess

  Note Excess to Be Reviewed before the job. Amount of Cement to be requested from Drillsearch co-man.
- Job Summary
  - Job Log
  - Key Performance Indicators
  - Customer Satisfaction Survey
- Job Charts.

- Plug and Abandonment
  - Plug #1 is planned to be 15.6 ppg slurry HTB Cement blend with 10% OH excess based on calliper data.
  - Plug #2 is planned to be 15.6 ppg slurry HTB Cement followed by 15.8 ppg slurry class "G" with 10% OH excess based on calliper data.
  - Plug #3 and 4 are planned to be 15.8 ppg slurry Class "G" with 10% OH excess based on calliper data

  Note Excess to Be Reviewed before the job. Amount of Cement to be requested from Drillsearch co-man.
- Job Summary
  - Job Log
  - Key Performance Indicators
  - Customer Satisfaction Survey
- Job Charts

Regards,

Ekkalak Wuthayavanich
Technical Professional
Cementing

Revision History

Rev. 0.0	*Initial End of the well report*
Rev 1.0	*Updated with actual cement volume pumped.*

Table of Contents

1.0 Proposed 9-5/8" Surface Casing

JOB PARAMETERS			
Casing measured depth:	755m	BHST temperature:	54°C
True vertical depth:	755m	BHCT temperature:	41°C
Depth to top lead:	Surface	Drilling mud type:	KCl+Polymer
Depth to top tail:	655m	Drilling mud density:	≈8.90ppg

WELLBORE

Casing/Tubing

0-755m 9 5/8in 36ppf Casing (K-55 BTC)

Annulus

0-755m 12.25in open hole (75% excess)

SPACERS

Spacer - 40.0bbl Freshwater at 8.33ppg

Freshwater	42.00 gal/bbl	(125m OH annular fill / 5min contact time)

Contact times are based on the displacement rate.

LEAD CEMENT - EconoCem™

Composition		Properties	
Adelaide Brighton Class G		Surface density:	11.80 ppg
Bentonite	12.00 %BWOC	Surface yield:	2.77 ft³/sk
HR-5	0.26 %BWOC	Total mixing fluid:	16.61 gal/sk
Freshwater	16.61 gal/sk	Thickening time (70 Bc):	≈5:01
NF-6	0.125 gal/10bblMF		

Note that %BWOC are based on a 94 lb sack

TAIL CEMENT - HalCem™

Composition		Properties	
Adelaide Brighton Class G		Surface density:	15.80 ppg
Freshwater	5.08 gal/sk	Surface yield:	1.15 ft³/sk
HR-5	0.09% BWOC	Total mixing fluid:	5.08 gal/sk
NF-6	0.125 gal/10bblMF	Thickening time (70 Bc):	≈3:30

VOLUME CALCULATIONS

Lead Cement

9 5/8in Casing / 12.25in hole volume	655 m x 0.1830 bbl/m	119.9 bbl
9 5/8in Casing / 12.25in hole excess	0.75 x 119.9 bbl	89.9 bbl
	Total lead slurry volume =209.8 bbl	
Quantity of lead cement	209.8 bbl x 5.6146 / 2.77 ft³/sk	425 sacks
Quantity of lead mix fluid	425 sacks x 16.61 gal/sk	168.1 bbl

Tail Cement

9 5/8in Casing / 12.25in hole volume	100 m x 0.1830 bbl/m	18.3 bbl
9 5/8in Casing / 12.25in hole excess	0.75 x 18.3 bbl	13.7 bbl
Shoe track volume	12 m x 0.2536 bbl/m	3.0 bbl
	Total tail slurry volume =35.1 bbl	
Quantity of tail cement	35.1 bbl x 5.6146 / 1.15 ft³/sk	171 sks
Quantity of tail mix fluid	171 sks x 5.08 gal/sk	20.7 bbl

Displacement

9 5/8in Casing volume	738 m x 0.2536 bbl/m	188.4 bbl
	Total displacement volume =188.4 bbl	

The final job calculations are to be completed on location by cementer, based on actual well parameters. All calculations from slurry volumes to additive dosages & requirements must be verified by the independent calculations of the drilling rep.

PUMPING SCHEDULE & TIMES

	Volume (bbl)	Rate (bbl/min)	Time (min)
Make up lines	N/A	N/A	30
Rig circulate 2 x Hole volume:	866.5	8.0	108
CMT Unit pump Fresh Water + Test lines	40.0	8.0	5
Release bottom plug:	N/A	N/A	5
Mix & pump lead cement:	209.8	5.0	42
Mix & pump tail cement:	35.1	4.0	9
Release top plug + Flush Lines	N/A	N/A	10
CMT Unit pump displacement:	188.4	8.0	24

Total job time (including circulation):	***233 min***	***3hr 53min***
Minimum lead cement thickening time (with 2hr safety factor):	***205 min***	***3hr 25min***
Minimum tail cement thickening time (with 2hr safety factor):	***163 min***	***2hr 43min***

2.0 9-5/8" Job Summary

HALLIBURTON	CUSTOMER	Start Date mm/dd/yy	End Date mm/dd/yy
	DrillSearch	10-Feb-13	12-Feb-13

Cementing Services Post Job Report Summary

WELL Name & Number	RIG Name & Number	HES REP	CUSTOMER REP
Tibor #1	Ensign #18	Mark Dale	Guy Holmes
JOB PURPOSE CODE		**SALES ORDER No.**	**CUSTOMER PO#**
SURFACE CASING 7521		0900209425	0

WELL CATEGORY	WELL TYPE	TECHNOLOGY	COUNTRY	BASE OF OPS	BDA
25 Production	01 OIL	01 None	Australia	Moomba	Perth

PERSONELL

SAP#	PERSONNEL	HOURS	SAP#	PERSONNEL	HOURS	SAP#	PERSONNEL	HOURS
413978	Stephan Vianello	2	483810	Mark Dale	65	515829	Jesse Quinn	56
535418	Damien Boxall	65						

EQUIPMENT

SAP#	PUMPING / MIXING	HOURS	SAP#	BULK/COMPRESSORS	HOURS	SAP#	VEHICLES/OTHER	HOURS
10047716	SKD 7116	65	10981407	Bill - YHL 436	65	11816384	SY98CS - DOLLY	65
			12023800	GEMMA - SY36DI	56	10942587	XIT-524 KENWORTH T900	56
						11534231	WAN544 - MACK BUNK TRUCK	65

FLOAT EQUIPMENT AND CASING EQUIPMENT

PN#	FLOAT EQUIPMENT	QTY	PN#	PLUGS	QTY	PN#	OTHER	QTY
	9 5/8 float shoe	1		9 5/8 top plug			9 5/8 centraliser	15
	9 5/8 float collar	1		9 5/8 bottom plug				

WELL PROFILE

WELL COMPONENT	SIZE (in)	WEIGHT (ppf)	GRADE	THREAD	TOP (MD) (ft)	END (MD) (ft)	END (TVD) (ft)	EXCESS %	LENGTH (ft)
open hole	12 1/4							75%	2467.5
9 5/8 surface casing	9.625	36	k55	btc	0	2467.5	2467.5		

HALLIBURTON	CUSTOMER	Start Date mm/dd/yy	End Date mm/dd/yy
	DrillSearch	10-Feb-13	12-Feb-13

Cementing Services Post Job Report Summary

WELL Name & Number	RIG Name & Number	HES REP	CUSTOMER REP
Tibor #1	Ensign #18	Mark Dale	Guy Holmes
JOB PURPOSE CODE		**SALES ORDER No.**	**CUSTOMER PO#**
SURFACE CASING 7521		0 900209425	0

WELL CATEGORY	WELL TYPE	TECHNOLOGY	COUNTRY	BASE OF OPS	BDA
25 Production	01 OIL	01 None	Australia	Moomba	Perth

FLUID SUMMARY (Refer to Lab Reports for full details)

	DETAIL	UOM	FLUID 1 Spacer	2 Lead	3 Tail	4 Displace	5	6	7	8	9	10	11	12	TOTAL
PROPERTIES	Volume	bbls	40	240	36	191									507
	Density	ppg	8.33	11.80	15.80	8.33									NA
	Yield	cuft/sk		2.76	1.16										NA
	Water Requirement	gal/sk		16.56	5.09										NA
	Total Fluid Req	gal/sk		16.58	5.11										NA
CMT	Micromatrix	sk													0
	ABC Class 'G'	sk		423	175										598
H2O		bbls													0
		bbls													0
CHEMICAL	Bentonite	lb		4,771											4,771
	HR-5	lb		103	15										118
	nf-6	gal		1	1										2
	Tuned Spacer III														0
															0

HALLIBURTON

CUSTOMER SATISFACTION SURVEY

Sales Order #:	0 9002094 25	**Line Item:**	10
Customer:	DrillSearch	**Job Type (BOM):**	SURFACE CASING 7521
Customer	Guy Holmes	**API / UWI:** (Leave Blank if unknown)	
Well Name:	Tibor #1	**Well Number:**	
Well Type:	01 OIL	**Well Country:**	Australia
H2S Present:	No/Yes	**Well State:**	Perth

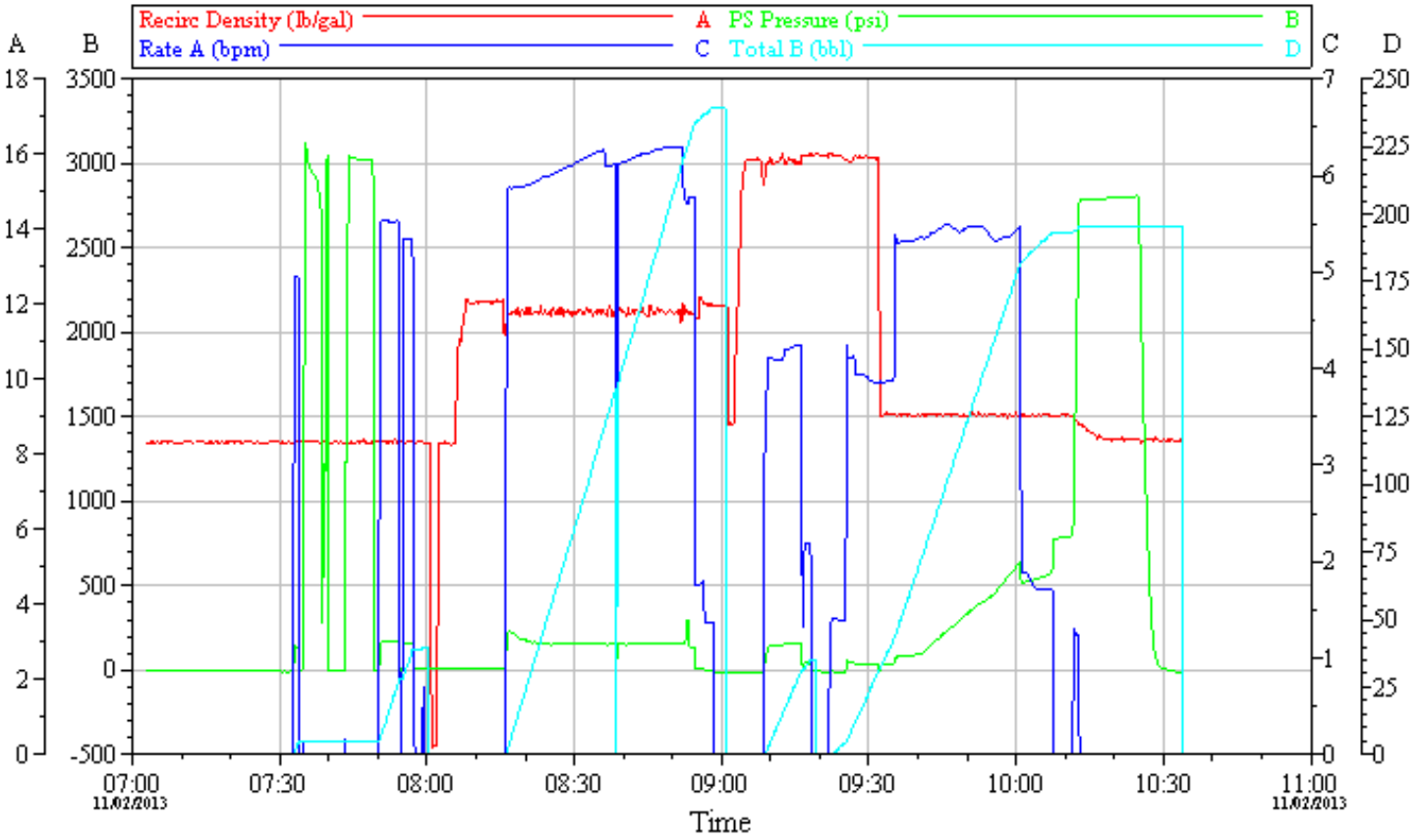
Dear Customer,

We hope that you were satisfied with the service quality of this job performed by Halliburton. It is the aim of our management and service personnel to deliver equipment and service of a standard unmatched in the service sector of the energy industry.

Please take the time to let us know if our performance met with your satisfaction. Please be as critical as possible to ensure we constantly improve our service. Your comments are of great value to us and are intended for the exclusive use of Halliburton.

CATEGORY	CUSTOMER SATISFACTION RESPONSE	
Survey Conducted Date	The date the survey was conducted	12/02/2013
Survey Interviewer	The survey interviewer is the person who initiated the survey.	Mark Dale
Customer Participation	Did the customer participate in this survey? (Y/N)	
Customer Representative	Enter the Customer representative name	Guy Holmes
HSE	Was our HSE performance satisfactory? Circle Y or N	
Equipment	Were you satisfied with our Equipment? Circle Y or N	
Personnel	Were you satisfied with our people? Circle Y or N	
Customer Comment		
CUSTOMER SIGNATURE		

3.0 9-5/8" Job Charts



4.0 Plug and Abandonment

4.1 P&A Plug #1 8.984532 ” OH Section 1,637-1,480 mRT

JOB PARAMETERS

Plug bottom MD:	1,637 mRT	BHST temperature:	120°C
Plug bottom TVD:	1,637 mRT	BHCT temperature:	96°C
Plug top MD:	1,480 mRT	Drilling mud type:	WBM
Plug length:	157 m	Drilling mud density:	≈9.10ppg
Plug length with DP in:	168m		

WELLBORE

Workstring

0-1,637mRT 4 ½ in 16.6 ppf tubing (ID= 3.826 in)

Annulus

0-1,637mRT 8.984532 in open hole (10% excess)

SPACERS

Spacer - Freshwater at 8.34ppg

Freshwater	42.00 gal/bbl	20.0bbl ahead and 4.3 bbl behind to balance (83 m annular fill / 3min contact time)

Contact times are based on the displacement rate.

CEMENT SLURRY - PlugCem™

Composition		Properties	
Adelaide Brighton Class G		Surface density:	15.60 ppg
SSA-1	35.0% BWOC	Surface yield:	1.56 ft³/sk
HR-12	0.17% BWOC	Total mixing fluid:	6.62 gal/sk
CFR-3	0.30% BWOC		
Freshwater	6.62 gal/sk		
NF-6	0.125 gal/10bblMF		

Note that %BWOC are based on a 94 lb sack
Note : HTB Blend = ABC “G” + 35% BWOC SSA-1

VOLUME CALCULATIONS

Cement

8.984532 in hole volume	157 m x 0.2573 bbl/m	40.4 bbl
8.984532 in hole excess	0.10 x 40.4 bbl	4.0 bbl
	Slurry volume =44.4 bbl	
Quantity of cement	44.4 bbl x 5.6146 / 1.56 ft³/sk	160 sacks
Quantity of mix fluid	160 sacks x 6.62 gal/sk	25.2 bbl

Displacement

4 ½ in tubing volume	1,378 m x 0.0467 bbl/m	64.3 bbl
	Total displacement volume =64.3 bbl	

The final job calculations are to be completed on location by cementer, based on actual well parameters. All calculations from slurry volumes to additive dosages & requirements must be verified by the independent calculations of the drilling rep.

PUMPING SCHEDULE & TIMES

	Volume (bbl)	Rate (bbl/min)	Time (min)
Make up lines & pressure test:	N/A	N/A	30
Circulate 1.5 x hole volume::	650.9	6.0	108
Pump spacers ahead:	20.0	6.0	3
Mix & pump cement:	44.4	5.0	9
Pump spacers behind:	4.3	6.0	1
Pump displacement:	64.8	6.0	11
Pull workstring 152 m above TOC:	309m	9.1m/min	34
Note: The flow rate is to be slowed down to 1-2 BPM for the last 5 bbls of the displacement.			
Drop wiper ball:	N/A	N/A	5
Circulate workstring clean:	62.0	6.0	10

Total job time (including circulation):	***211 min***	***3hr 31min***
Minimum cement thickening time (with 2hr safety factor):	***190 min***	***3hr 10min***

MINIMUM MATERIAL REQUIREMENTS

Spacer - Freshwater

Freshwater	24.3 bbl

Cement

Adelaide Brighton Class G	7 MT(164 ft³)
SSA-1	5,264 lbs
HR-12	26 lbs
CFR-3	45 lbs
Fresh Water	25.2 bbl
NF-6	1 gal

These are estimates calculated on the information given. Calculations should be confirmed on the job site well in advance. The final job calculations are to be completed by cementer, based on actual well parameters. All Calculations must be verified by the independent calculation of the Drillsearch Co-man on site.

4.2 Plug #1 Job Procedure

Note: Set firm base below the plug such as Fast Drill bridge plug or Hi-Vis Pill at depth for successful cement plug

Note: Prior to commencing the balance plug, drill pipe should be run to 1,637 m and the well circulated thoroughly (1.5 times hole volumes recommended) in order to adequately clean and to remove any debris that may be left prior to spotting cement plug.

1. Rig up cementing unit to pump down the drill pipe.
2. Pump 5.0 bbls freshwater spacer ahead to establish circulation.
3. Pressure test surface lines to 2,000 psi. Bleed off.

   Note: Max pressure to be discussed with Drillsearch co-man.
4. Pump 15.0 bbls freshwater spacer ahead.
5. Mix and pump 44.4 bbls of 15.6ppg slurry on surface
6. Pump 4.3 bbl freshwater behind.
7. Displace with 64.3 bbls of displacement fluid to spot the balanced plug. (Under displaced by 0.5 bbls to aid dry POOH, **OR** as agreed by Company Representative onsite)

   Note: The flow rate is to be slowed down to 1-2 BPM for the last 5 bbls of the displacement.

   Note: re-calculate numbers above with actual string and actual well condition on location and double check with Drillsearch co-man.
8. Begin pulling drill pipe slowly (1 joint per minute) back to 152m above theoretical TOC and reverse circulate drill pipe clean.
9. Ensure that workstring clean before POOH

4.3 P&A Plug #2 8.881801" OH Section 1,331-1,164 mRT

JOB PARAMETERS

Plug bottom MD:	1,331 mRT	BHST temperature:	97°C
Plug bottom TVD:	1,331 mRT	BHCT temperature:	78°C
Plug top MD:	1,164 mRT	Drilling mud type:	WBM
Plug length:	167 m	Drilling mud density:	≈9.10ppg
Plug length with DP in:	179 m		

WELLBORE

Workstring

0-1,331mRT 4 ½ in 16.6 ppf tubing (ID= 3.826 in)

Annulus

0-1,3311mRT 8.881801 in open hole (10% excess)

SPACERS

Spacer - Freshwater at 8.34ppg

Freshwater	42.00 gal/bbl	20.0bbl ahead and 4.4 bbl behind to balance (86 m annular fill / 3min contact time)

Contact times are based on the displacement rate.

CEMENT SLURRY - PlugCem™ 2a

Composition		Properties	
Adelaide Brighton Class G		Surface density:	15.60 ppg
SSA-1	35.00% BWOC	Surface yield:	1.56 ft³/sk
HR-12	0.17% BWOC	Total mixing fluid:	6.62 gal/sk
CFR-3	0.30% BWOC		
Freshwater	6.62 gal/sk		
NF-6	0.125 gal/10bblMF		

Note that %BWOC are based on a 94 lb sack
Note : HTB Blend = ABC "G" + 35% BWOC SSA-1

CEMENT SLURRY - PlugCem™ 2b

Composition		Properties	
Adelaide Brighton Class G		Surface density:	15.80 ppg
HR-5	0.30% BWOC	Surface yield:	1.16 ft³/sk
CFR-3	0.25% BWOC	Total mixing fluid:	5.07 gal/sk
Freshwater	5.07 gal/sk		
NF-6	0.125 gal/10bblMF		

Note that %BWOC are based on a 94 lb sack

VOLUME CALCULATIONS

Cement

8.881801 in hole volume	167 m x 0.2514bbl/m	42.0 bbl
8.881801 in hole excess	0.10 x 42.0 bbl	4.2 bbl
	Slurry volume =46.2 bbl	

Quantity of cement 2a (HTB Blend)	18.5 bbl x 5.6146 / 1.56 ft³/sk	67 sacks
Quantity of cement 2b (G Cement)	27.7 bbl x 5.6146/1.16 ft³/sk	134 sacks
Quantity of mix fluid 2a (HTB Blend) plug	67 sacks x 6.62 gal/sk	10.6 bbls
Quality of mix fluid 2b plug	134 sacks x 5.07 gal/sk	16.2 bbls

Displacement

4 ½ in tubing volume	1,058 m x 0.0467 bbl/m	49.4 bbl
	Total displacement volume =49.4 bbl	

The final job calculations are to be completed on location by cementer, based on actual well parameters. All calculations from slurry volumes to additive dosages & requirements must be verified by the independent calculations of the drilling rep.

PUMPING SCHEDULE & TIMES

	Volume (bbl)	Rate (bbl/min)	Time (min)
Make up lines & pressure test:	N/A	N/A	30
Circulate 1.5 x hole volume::	516.4	6.0	86
Pump spacers ahead:	20.0	6.0	3
Mix & pump Cement 2a(HTB Blend)	18.5	5.0	4
Mix & pump Cement 2b (G Cement)	27.7	5.0	6
Pump spacers behind:	4.4	6.0	1
Pump displacement:	49.4	6.0	8
Pull workstring 152 m above TOC:	319m	9.1m/min	35
Note: The flow rate is to be slowed down to 1-2 BPM for the last 5 bbls of the displacement.			
Drop wiper ball:	N/A	N/A	5
Circulate workstring clean:	47.0	6.0	8

Total job time (including circulation):	***185 min***	***3hr 05min***
Minimum cement thickening time (with 2hr safety factor):	***186 min***	***3hr 06min***

MINIMUM MATERIAL REQUIREMENTS

Spacer - Freshwater

Freshwater	28.1 bbl

Cement 2a (HTB Blend)

Adelaide Brighton Class G	3 MT(70 ft³)
SSA-1	2,204 lbs
HR-12	11 lbs
CFR-3	19 lbs
Fresh Water	10.6 bbl
NF-6	1 gal

Cement 2b (G Class)

Adelaide Brighton Class G	6 MT(141 ft³)
HR-5	38 lbs
CFR-3	31 lbs
Fresh Water	16.2 bbl
NF-6	1 gal

These are estimates calculated on the information given. Calculations should be confirmed on the job site well in advance. The final job calculations are to be completed by cementer, based on actual well parameters. All Calculations must be verified by the independent calculation of the Drillsearch Co-man on site.

4.4 Plug #2 Job Procedure

Note: Set firm base below the plug such as Fast Drill bridge plug or Hi-Vis Pill at depth for successful cement plug

Note: Prior to commencing the balance plug, drill pipe should be run to 1,331 m and the well circulated thoroughly (1.5 times hole volumes recommended) in order to adequately clean and to remove any debris that may be left prior to spotting cement plug.

1. Rig up cementing unit to pump down the drill pipe.
2. Pump 5.0 bbls freshwater spacer ahead to establish circulation.
3. Pressure test surface lines to 2,000 psi. Bleed off.

   Note: Max pressure to be discussed with Drillsearch co-man.
4. Pump 15.0 bbls freshwater spacer ahead.
5. Mix and pump 18.5 bbls slurry 2a (HTB Blend) of 15.6ppg slurry on surface
6. Mix and pump 27.2 bbls slurry 2b (G Class) of 15.8 ppg slurry on surface
7. Pump 4.4 bbl freshwater behind.
8. Displace with 49.4 bbls of displacement fluid to spot the balanced plug. (Under displaced by 0.5 bbls to aid dry POOH, **OR** as agreed by Company Representative onsite)

   Note: The flow rate is to be slowed down to 1-2 BPM for the last 5 bbls of the displacement.

   Note: re-calculate numbers above with actual string and actual well condition on location and double check with Drillsearch co-man*.*
9. Begin pulling drill pipe slowly (1 joint per minute) back to 152m above theoretical TOC and reverse circulate drill pipe clean.
10. Ensure that Workstring clean before POOH

4.5 P&A Plug #3 9.741473" OH Section 781-691 mRT

JOB PARAMETERS

Plug bottom MD:	781 mRT	BHST temperature:	56°C
Plug bottom TVD:	781 mRT	BHCT temperature:	45°C
Plug top MD:	691 mRT	Drilling mud type:	WBM
Plug length:	90 m	Drilling mud density:	≈9.10ppg
Plug length with DP in:	97 m		

WELLBORE

Workstring

0-781mRT	4 ½ in 16.6 ppf tubing (ID= 3.826 in)

Annulus

0-750 mRT	9 5/8in 36ppf casing (8.921in ID)
750-781 mRT	9.741473 in open hole (20% excess)

SPACERS

Spacer - Freshwater at 8.34ppg

Freshwater	42.00 gal/bbl	20.0bbl ahead and 4.9 bbl behind to balance (56m annular fill / 3min contact time)

Contact times are based on the displacement rate.

CEMENT SLURRY - PlugCem™

Composition		Properties	
Adelaide Brighton Class G		Surface density:	15.80 ppg
HR-5	0.09% BWOC	Surface yield:	1.15 ft³/sk
Freshwater	5.08 gal/sk	Total mixing fluid:	5.08 gal/sk
NF-6	0.125 gal/10bblMF		

Note that %BWOC are based on a 94 lb sack

VOLUME CALCULATIONS

Cement

9 5/8in casing volume	59 m x 0.2536 bbl/m	15.0 bbl
9.741473 in hole volume	31 m x 0.3024 bbl/m	9.4 bbl
9.741473 in hole excess	0.20 x 9.4 bbl	1.9 bbl
	Slurry volume =26.2 bbl	
Quantity of cement	26.2 bbl x 5.6146 / 1.15 ft³/sk	128 sacks
Quantity of mix fluid	128 sacks x 5.08 gal/sk	15.5 bbl

Displacement

4 ½ in tubing volume	578 m x 0.0467 bbl/m	27.0 bbl
	Total displacement volume = 27.0 bbl	

The final job calculations are to be completed on location by cementer, based on actual well parameters. All calculations from slurry volumes to additive dosages & requirements must be verified by the independent calculations of the drilling rep.

PUMPING SCHEDULE & TIMES

	Volume (bbl)	Rate (bbl/min)	Time (min)
Make up lines & pressure test:	N/A	N/A	30
Circulate 1.5 x hole volume::	281.3	6.0	47
Pump spacers ahead:	20.0	6.0	3
Mix & pump cement:	26.2	5.0	5
Pump spacers behind:	4.9	6.0	1
Pump displacement:	27.0	6.0	4
Pull workstring 152 m above TOC:	242 m	9.1m/min	26
Note: The flow rate is to be slowed down to 1-2 BPM for the last 5 bbls of the displacement.			
Drop wiper ball:	N/A	N/A	5
Circulate workstring clean:	25.0	6.0	4

Total job time (including circulation):	***125 min***	***2hr 05min***
Minimum cement thickening time (with 2hr safety factor):	***165 min***	***2hr 45min***

MINIMUM MATERIAL REQUIREMENTS

Spacer - Freshwater

Freshwater	24.9 bbl

Cement

Adelaide Brighton Class G	5 MT(117 ft³)
HR-5	11 lbs
Fresh Water	15.5 bbl
NF-6	1 gal

These are estimates calculated on the information given. Calculations should be confirmed on the job site well in advance. The final job calculations are to be completed by cementer, based on actual well parameters. All Calculations must be verified by the independent calculation of the Drillsearch Co-man on site.

4.6 Plug #3 Job Procedure

Note: Set firm base below the plug such as Fast Drill bridge plug or Hi-Vis Pill at depth for successful cement plug

Note: Prior to commencing the balance plug, drill pipe should be run to 781 m and the well circulated thoroughly (1.5 times hole volumes recommended) in order to adequately clean and to remove any debris that may be left prior to spotting cement plug.

1. Rig up cementing unit to pump down the drill pipe.
2. Pump 5.0 bbls freshwater spacer ahead to establish circulation.
3. Pressure test surface lines to 2,000 psi. Bleed off.

   Note: Max pressure to be discussed with Drillsearch co-man.
4. Pump 15.0 bbls freshwater spacer ahead.
5. Mix and pump 26.2 bbls of 15.8ppg slurry on surface
6. Pump 4.9 bbl freshwater behind.
7. Displace with 27.0 bbls of displacement fluid to spot the balanced plug. (Under displaced by 0.5 bbls to aid dry POOH, **OR** as agreed by Company Representative onsite)

   Note: The flow rate is to be slowed down to 1-2 BPM for the last 5 bbls of the displacement.

   Note: re-calculate numbers above with actual string and actual well condition on location and double check with Drillsearch co-man.
8. Begin pulling drill pipe slowly (1 joint per minute) back to 152m above theoretical TOC and reverse circulate drill pipe clean.
9. Ensure that workstring clean before POOH
10. WOC and tag cement plug to confirm cement is hard and in place.
11. Pressure test cement plug to ≈1,510 (To be discussed with Co-man at well site.) psi to confirm shoe cement is hard and in place (≈500 psi above leak off)

    Note : WOC should be at least the time for the cement plug reach 500 psi or 3,000 psi for a KOP. Best results have been obtained by a mandatory 24 Hrs before disturbing the plug.

4.7 P&A Plug 4 Details – 9 5/8 in Casing (5-30 mRT)

JOB PARAMETERS			
Plug bottom MD:	30 mRT	BHST temperature:	33°C
Plug bottom TVD:	30 mRT	BHCT temperature:	27°C
Plug top MD:	5 mRT	Drilling mud type:	WBM
Plug length:	25 m	Drilling mud density:	≈9.10ppg
Plug length with DP in:	27 m		

WELLBORE

Workstring

0-30 mRT	4 ½ in 16.6 ppf tubing (ID= 3.826 in)

Annulus

0-30 mRT	9 5/8 in 36 ppf Casing (8.921in ID)

SPACERS

Spacer - Freshwater at 8.34ppg

Freshwater	42.00 gal/bbl	10.0bbl ahead and 0.1bbl behind to balance (53m annular fill / 2min contact time)

Contact times are based on the displacement rate.

CEMENT SLURRY - PlugCem™

Composition		Properties	
Adelaide Brighton Class G		Surface density:	15.80 ppg
Freshwater	5.08 gal/sk	Surface yield:	1.15 ft³/sk
NF-6	0.125 gal/10bblMF	Total mixing fluid:	5.08 gal/sk

Note that %BWOC are based on a 94 lb sack

VOLUME CALCULATIONS

Cement

9 5/8in casing volume	25 m x 0.2536 bbl/m	6.3 bbl
	Slurry volume =6.3 bbl	
Quantity of cement	6.3 bbl x 5.6146 / 1.15 ft³/sk	31 sacks
Quantity of mix fluid	31 sacks x 5.08 gal/sk	3.8 bbl

Displacement

4 ½ in tubing volume

Total displacement volume = --- bbl

The final job calculations are to be completed on location by cementer, based on actual well parameters. All calculations from slurry volumes to additive dosages & requirements must be verified by the independent calculations of the drilling rep.

PUMPING SCHEDULE & TIMES

	Volume (bbl)	Rate (bbl/min)	Time (min)
Make up lines & pressure test:	N/A	N/A	30
Circulate 1.5 x hole volume::	10.6	6.0	2
Pump spacers ahead:	10.0	6.0	2
Mix & pump cement:	6.3	5.0	1
Pump spacers behind:	0.1	6	-
Pump displacement:	-	-	-
Slowly Pull workstring to Surface and Flush lines	-	-	-
Drop wiper ball:	N/A	N/A	-
Circulate workstring clean:	20.0	6.0	3

Total job time (including circulation):	***38 min***	***0hr 38min***
Minimum cement thickening time (with 2hr safety factor):	***158 min***	***2hr 38min***

MINIMUM MATERIAL REQUIREMENTS

Spacer - Freshwater

Freshwater	10.1 bbl

Cement

Adelaide Brighton Class G	1 MT(23 ft³)
Fresh Water	3.8 bbl
NF-6	1 gal

These are estimates calculated on the information given. Calculations should be confirmed on the job site well in advance. The final job calculations are to be completed by cementer, based on actual well parameters. All Calculations must be verified by the independent calculation of the Drillsearch Co-man on site.

4.8 Plug #4 Job Procedure

Note: Set firm base below the plug such as Fast Drill bridge plug or Hi-Vis Pill at depth for successful cement plug

Note: Prior to commencing the balance plug, drill pipe should be run to 30 m and the well circulated thoroughly (1.5 times hole volumes recommended) in order to adequately clean and to remove any debris that may be left prior to spotting cement plug.

1. Rig up cementing unit to pump down the drill pipe.
2. Pump 5.0 bbls freshwater spacer ahead to establish circulation.
3. Pressure test surface lines to 1,500 psi. Bleed off.

   Note: Max pressure to be discussed with Drillsearch co-man.
4. Pump 5.0 bbls freshwater spacer ahead.
5. Mix and pump 6.3 bbls of 15.8ppg slurry on surface
6. Pump 0.1 bbl freshwater behind.
7. Begin pulling drill pipe slowly (1 joint per minute) back to Surface and flush lines.
8. Pump Fresh Water through Workstrings , ensure that workstrings are clean.
9. WOC should be at least the time for the cement plug reach 500 psi or 3,000 psi for a KOP. Best results have been obtained by a mandatory 24 Hrs before disturbing the plug.

5.0 Plug and Abandonment Job Summary

HALLIBURTON	CUSTOMER	Start Date mm/dd/yy	End Date mm/dd/yy
	Drillsearch	20-Feb-13	24-Feb-13

Cementing Services Post Job Report Summary

WELL Name & Number	RIG Name & Number	HES REP	CUSTOMER REP
Tibor # 1	Ensign # 918	H.Klingberg	R.Miller
JOB PURPOSE CODE		**SALES ORDER No.**	**CUSTOMER PO#**
PLUG TO ABANDON 7528		0 9C0231392	0

WELL CATEGORY	WELL TYPE	TECHNOLOGY	COUNTRY	BASE OF OPS	BDA
03 Wildcat	01 OIL	0	Australia	Moomba	Perth

PERSONELL

SAP#	PERSONNEL	HOURS	SAP#	PERSONNEL	HOURS	SAP#	PERSONNEL	HOURS
373336	Brendan Harding	4	311861	Haydn Klingberg	108	496370	Clint Rawson	108

EQUIPMENT

SAP#	PUMPING / MIXING	HOURS	SAP#	BULK/COMPRESSORS	HOURS	SAP#	VEHICLES/OTHER	HOURS
11709008	Elite 3 - Diablo	108	11261210	1210 - SY41BB	108	10942587	XIT-524 KENWORTH T900	108
			12107178	JANET - SY88DM	108	11061441	SY88AP DOLLY	108
						11991431	MACK SY07FQ	108

FLOAT EQUIPMENT AND CASING EQUIPMENT

PN#	FLOAT EQUIPMENT	QTY	PN#	PLUGS	QTY	PN#	OTHER	QTY

WELL PROFILE

WELL COMPONENT	SIZE (in)	WEIGHT (ppf)	GRADE	THREAD	TOP (MD) (ft)	END (MD) (ft)	END (TVD) (ft)	EXCESS %	LENGTH (ft)

HALLIBURTON	CUSTOMER	Start Date mm/dd/yy	End Date mm/dd/yy
	Drillsearch	20-Feb-13	24-Feb-13

Cementing Services Post Job Report Summary

WELL Name & Number	RIG Name & Number	HES REP	CUSTOMER REP
Tibor # 1	Ensign # 918	H.Klingberg	R.Miller
JOB PURPOSE CODE		**SALES ORDER No.**	**CUSTOMER PO#**
PLUG TO ABANDON 7528		0 9002381392	0

WELL CATEGORY	WELL TYPE	TECHNOLOGY	COUNTRY	BASE OF OPS	BDA
03 Wildcat	01 OIL	0	Australia	Moomba	Perth

FLUID SUMMARY (Refer to Lab Reports for full details)

	DETAIL	UOM	FLUID 1 Plug # 1	2 Plug # 2a	3 Plug # 2b	4 Plug # 3	5 Plug # 4	6	7	8	9	10	11	12	TOTAL
PROPERTIES	Volume	bbls	44	19	28	26	6								123
	Density	ppg	15.60	15.60	15.80	15.80	16								NA
	Yield	cuft/sk	1.56	1.56	1.16	1.16	1								NA
	Water Requirement	gal/sk	6.62	6.62	5.07	5.07	5								NA
	Total Fluid Req	gal/sk													NA
CMT	ABC Class 'G'	sk													0
	HTB	sk	160	67	134	128	31								520
H2O		bbls													0
		bbls													0
CHEMICAL	HR-12	lb	26	11											37
	CFR-3L	lb	45	19	31										95
	HR-5	lb			38	11									49
	NF-6	gal/	1`	1	1	1									3
															0

HALLIBURTON

CUSTOMER SATISFACTION SURVEY

Sales Order #:	0 9002313 92	**Line Item:**	10
Customer:	Drillsearch	**Job Type (BOM):**	PLUG TO ABANDON 7528
Customer	R.Miller	**API / UWI:** (Leave Blank if unknown)	
Well Name:	Tibor # 1	**Well Number:**	
Well Type:	01 OIL	**Well Country:**	Australia
H2S Present:	No/Yes	**Well State:**	Perth

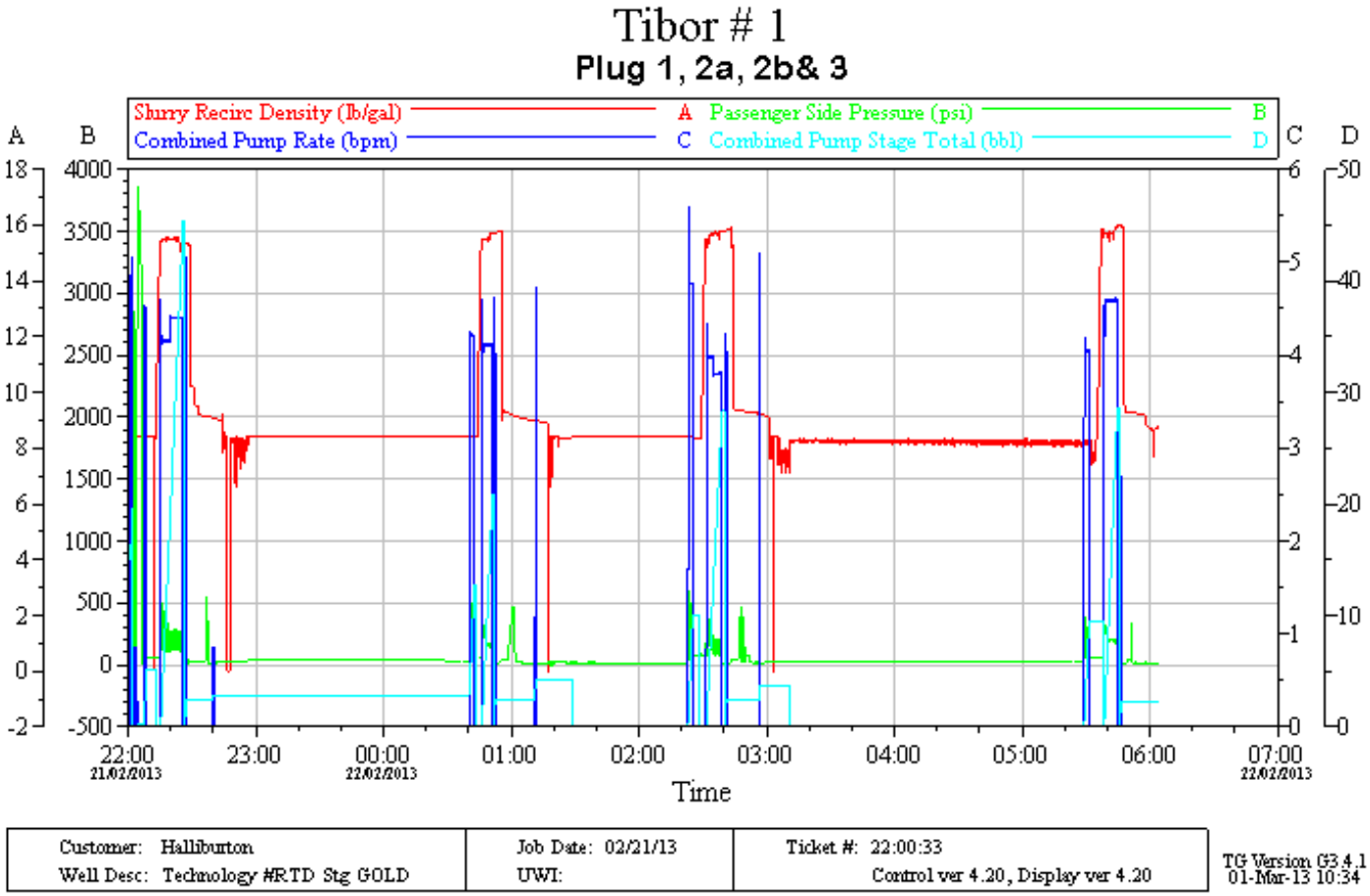
Dear Customer,

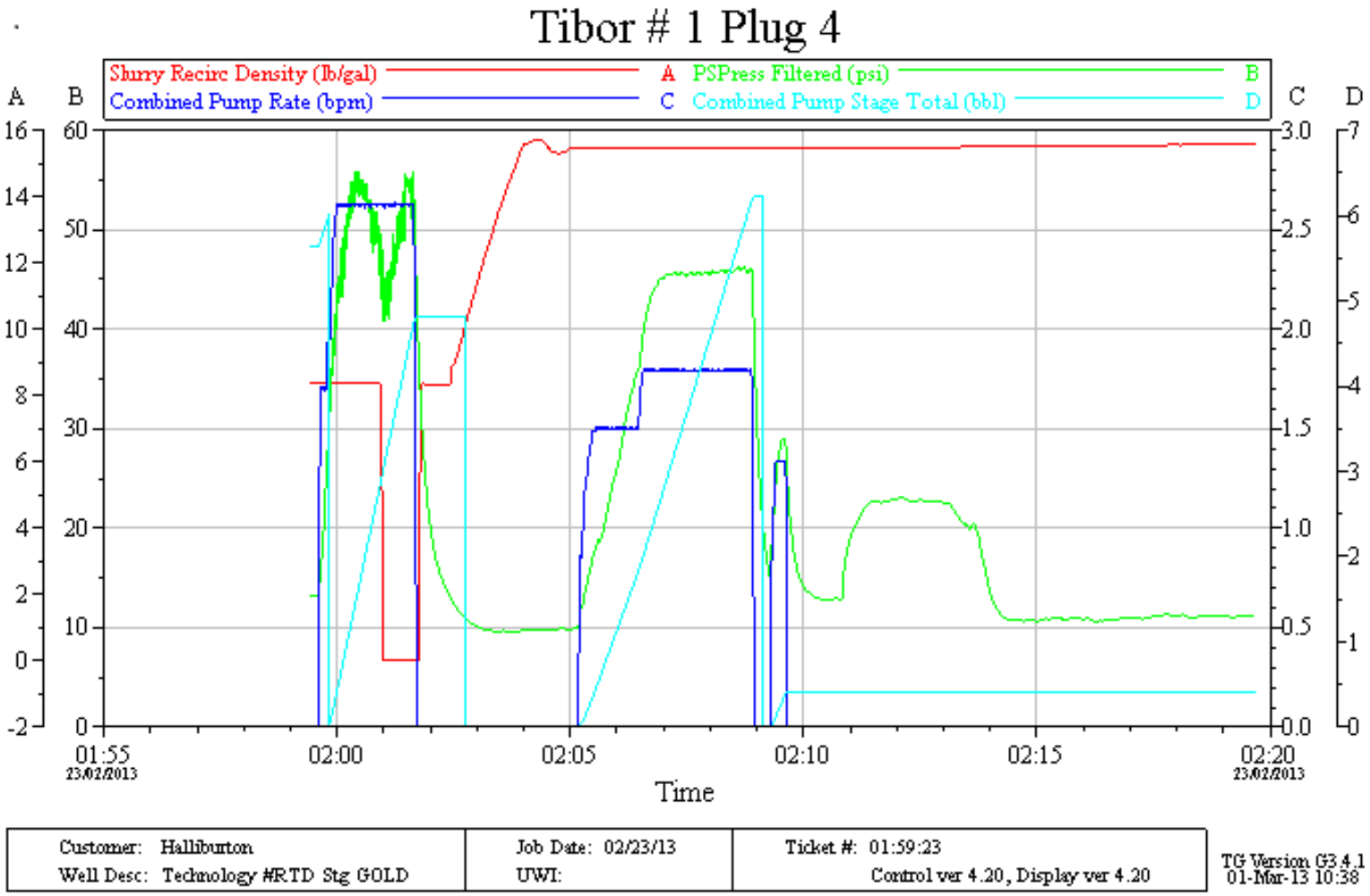
We hope that you were satisfied with the service quality of this job performed by Halliburton. It is the aim of our management and service personnel to deliver equipment and service of a standard unmatched in the service sector of the energy industry.

Please take the time to let us know if our performance met with your satisfaction. Please be as critical as possible to ensure we constantly improve our service. Your comments are of great value to us and are intended for the exclusive use of Halliburton.

CATEGORY	CUSTOMER SATISFACTION RESPONSE	
Survey Conducted Date	The date the survey was conducted	20/02/2013
Survey Interviewer	The survey interviewer is the person who initiated the survey.	H.Klingberg
Customer Participation	Did the customer partipcipate in this survey? (Y/N)	✓
Customer Representative	Enter the Customer representative name	R.Miller
HSE	Was our HSE performance satisfactory? Circle Y or N	✓
Equipment	Were you satisfied with our Equipment? Circle Y or N	✓
Personnel	Were you satisfied with our people? Circle Y or N	✓
Customer Comment		
CUSTOMER SIGNATURE	Ray C Miller	

6.0 Plug and Abandonment Job Charts




Tibor # 1 Plug 4
Slurry Recirc Density (lb/gal)
A
PSPress Filtered (psi)
B
Combined Pump Rate (bpm)
C
Combined Pump Stage Total (bbl)
D
A
B
C
D
16
14
12
10
8
6
4
2
0
-2
60
50
40
30
20
10
0
3.0
2.5
2.0
1.5
1.0
0.5
0.0
7
6
5
4
3
2
1
0
01:55
23/02/2013
02:00
02:05
02:10
02:15
02:20
23/02/2013
Time
Customer: Halliburton
Well Desc: Technology #RTD Stg GOLD
Job Date: 02/23/13
UWI:
Ticket #: 01:59:23
Control ver 4.20, Display ver 4.20
TG Version G3.4.1
01-Mar-13 10:38

Appendix 6 – Bit Record

PERFORMANCE AND DULL GRADING REPORT

Bit #	1RR1				
Customer	Drillsearch	Location	Tibor-1	Rig	Ensign 918
Bit Type	12 ¼" FC519	Serial No.	7032698	Date Run	7-Feb-13

BIT PERFORMANCE	
Depth Out	754 mRT
Meterage	743.3 m
Hours (drilling)	53.75 hrs
KREV	213
ROP	13.85 m/hr
WOB	2 / 6 (3.5avg)
RPM	60 / 126 (95 avg)
Drive System	Kelly / Rotary
Inc / Azi – Start	0.0°
Inc / Azi – End	0.5°
Mud Weight	8.8 / 8.9ppg
Nozzles/TFA	7 x 14/32" / 1.052in²
Flowrate	550-600gpm (575avg)
SPP	850 (avg)
HSI	1.02
Mud Type	WBM
Formation	Winton / Mackunda
Lithology	Silts/Sands/Clays Coal/Cemented-Sands/Carbonate Stringers

Dull Grade	I	O	DC	L	B	G	OC	RP
Rig	1	1	WT	A	X	I	ER	TD

Customer	Drillsearch	Location	Tibor-1	Rig	Ensign
Bit Type	12 ¼" FC519	Serial No.	7032698	Date Run	7-Feb-13

Comments Good drilling performance through 743.7m 12-1/4" drilling section. (Total hours run on Triclops-1 and Tibor-1 = 124.25 - Total meterage drilled = 1496.8m)..
Good penetration rates through top formations while control drilling to hold inclination. Carbonate, cemented sand and coal stringers encountered throughout run resulting in reduced penetration rate in parts. Green dull with minimum wear. Minor erosion and tiger stripes to bit body indicate formation – matrix contact due to high depth of cut.
Bit inguage and recommended for re-run.

Blade #1

Blade #2

[Type a quote from the document or the summary of an interesting point. You can position the text box anywhere in the document. Use the Drawing Tools tab to change the formatting of the pull quote text box.]

Blade #3	Blade #4	Blade #5

PERFORMANCE AND DULL GRADING REPORT

Customer	Drillsearch	Location	Tibor-1	Rig	Ensign-918
Bit Type	8 ½" Q505F	Serial No.	7143496	Date Run	13-02-2013

BIT PERFORMANCE	
Depth Out	1482m
Footage	603m
Hours (drilling)	
KREV	
ROP (On Bottom)	
WOB	0-20klbs
RPM (Total)	40-120
Drive System	Kelly Rotary
Inc – Start	-
Inc – End	-
Mud Weight	9ppg
Nozzles/TFA	7x11/32"
Flowrate	400gpm
SPP	4000-6000
HSI	1.41
Mud Type	WBM
Formation	Alladu/Toolbuc/Wallumbilla
Lithology	Siltstone / Sandstone/Dolomite
Recommendation	Run QD505X PDC

Dull Grade	I	O	DC	L	B	G	OC	RP
Rig								
HCC	1	2	CT	S	X	1	WT	TQ

Customer	Drillsearch	Location	Tibor-1	Rig	Ensign-918
Bit Type	8 ½" Q505F	Serial No.	7143496	Date Run	13-02-2013

Comments	8 ½" Q505F drilled from casing shoe to 1482m. Bit pulled due to erratic torque assuming bit damage. Bit pulled relatively green, slightly under gauge. Drilled through non-rotating float collar. Compared to Q505F ran on Triclops-1 offset, which drilled a rotating collar, this may acoount for some gauge cutter damage observed below.

Damaged cutters in the shoulder

Bit pulled for intermitted torque.
Bit graded under guage.

PERFORMANCE AND DULL GRADING REPORT

Bit #	3				
Customer	Drillsearch	Location	Tibor-1	Rig	Ensign 918
Bit Type	DP505X	Serial No.	7143509	Date Run	17-Feb-13

BIT PERFORMANCE	
Depth Out	1723
Meterage	237
Hours (drilling)	15.5
KREV	69
ROP	15 – 25m/hr (Avg 15.29)
WOB	15 – 20Kips
RPM	75 - 90
Drive System	Kelly-Rotary
Inc / Azi – Start	1°
Inc / Azi – End	1.75°
Mud Weight	9.3ppg
Nozzles/TFA	7 x 11/32"/
Flowrate	400gpm
SPP	1150psi
HSI	1.41 HP/ IN²
Mud Type	WBM
Formation	Adori/ Birkhead/ Hutton
Lithology	Sandstone/ Sand/ Sandstone

Dull Grade	I	O	DC	L	B	G	OC	RP
Rig	1	1	CT	A	X	I	RR	TD

Customer	Drillsearch	Location	Tibor-1	Rig	Ensign 918
Bit Type	DP505X	Serial No.	7143509	Date Run	17-Feb-13

Comments Good drilling performance from 1486m to 1723m TD. (Total hours = 15.5 - Total meterage drilled = 237m).
Good penetration rates through Sandstone & sand formations. Green dull with minimum wear.
Bit inguage and recommended for re-run.

Appendix 7 – Daily Geology Reports (DGR)

Drillsearch

Tibor-1 Drilling

Date: 07 Feb 2013 | **DAILY GEOLOGY REPORT NUMBER: 1** | (associated DDR # 7)

Well Details

Depth MDBRT	: 34.0 m	**Report Period**	: 00:00 - 24:00	**Date**	: 07 Feb 2013
Depth TVDBRT	: 34.0 m	**Last Csg Size**	:	**24hr Progress**	: 23.3 m
Depth TVDSS	: -106.15 m	**Last Csg Shoe MD**	:	**Report Start Depth**	: 8.6 m
RT - GL	: 5.15 m	**Last Csg Shoe TVD**	:	**Report End Depth**	: 50.0 m
Ground Level	: 135.0 m	**FIT / LOT**	: /	**Days since Spud**	: 0.29
RT - Hanger	:	**Liner (MDRT/TVDRT)**	: /	**Rig**	: Ensign 918
Hole Size	: 12.250 in			**Mud Weight**	: 8.80 ppg
Last Survey (MDRT/TVDRT)	: 33.0 m /			**Mud Type**	: Spud mud
Survey Deviation	: Inc. 0.00 ° Az 0.00 °				

Geology 24hr Operations Summary

24hr Summary:	Completed rig up and and preparations to commence drilling. Spud Tibor-1 at 19:00 on February 7, 2013. Commenced drilling 12.25" surface hole from 8.6 mMDRT and continued to 34.0 mMDRT
24hr Forward Plan:	Continue drilling 12.25" hole to section TD and +/- 753.0 mMDRT.

Formation Tops

Formation	Prognosed			Actual			Diff.	Thickness	Pick Criteria
	MDRT (m)	TVDRT (m)	TVDSS (m)	MDRT (m)	TVDRT (m)	TVDSS (m)	+/- TVD (m)	TVD (m)	
Winton Formation	5.0	5.0	-135.15	8.6	8.6	-131.55	3.6 Low		Surface
Mackunda Formation	615.0	615.0	474.85						
Allaru Mudstone	700.0	700.0	559.85						
Toolebuc Formation	929.0	929.0	788.85						
Wallumbilla Formation	975.0	975.0	834.85						
Cadna-Owie Formation	1215.0	1215.0	1074.85						
Murta Formation	1286.0	1286.0	1145.85						
Namur Sandstone	1316.0	1316.0	1175.85						
Westbourne Formation	1412.0	1412.0	1271.85						
Adori Sandstone	1482.0	1482.0	1341.85						
Birkhead Formation	1541.0	1541.0	1400.85						
Hutton Sandstone	1638.0	1638.0	1497.85						

Printed on 07 Feb 2013

Drillsearch

Lithology Summary

Internal m MDRT	ROP (m/h)	Lithology Comments	
8.6 - 30.0	Min :3.00 Avg :18.00 Max :45.00	**Lithology Summary**	Interbedded CLAYSTONE and ARGILLACEOUS SANDSTONE
		Lithology Description	CLAYSTONE: very pale orange to greyish orange, firm, minor soft, sub-blocky, weakly calcareous, trace very fine arenaceous material, trace carbonaceous detritus. ARGILLACEOUS SANDSTONE: dark yellow orange to very light grey, trace translucent, friable, fine to very fine grained, sub-rounded to angular, well sorted, subspherical, abundant argillaceous matrix, weak siliceous cement, very poor visible porosity, no hydrocarbon fluorescence.
		Gas & Shows Comments	Nil
		ROP Comments	
30.0 - 50.0	Min :15.00 Avg :36.00 Max :27.00	**Lithology Summary**	ARGILLACEOUS SANDSTONE with an overlaying thin interbed of CLAYSTONE
		Lithology Description	ARGILLACEOUS SANDSTONE: medium dark grey to dark greenish grey, friable to occasionally firm, very fine to minor fine grained,, subangular to rounded, moderatelywell sorted, subspherical to subelongated, 50% argillaceous matrix supported, occasional weak siliceous cement, trace lithic fragments, trace carbonaceous material, nil visible porosity, no hydrocarbon fluorescence. CLAYSTONE: medium dark grey to commonly dark greenish grey, minor brownish grey, soft to firm, subblocky, silty in part, commonly arenaceous, grading to Argillaceous Sandstone in part, trace carbonaceous detritus.
		Gas & Shows Comments	Nil
		ROP Comments	

Gas Summary

Gas Type	Depth m	Total Gas Units	C1 ppm	C2 ppm	C3 ppm	iC4 ppm	nC4 ppm	iC5 ppm	nC5 ppm	CO2 ppm	H2S ppm
Background	8.6 - 50.0	0.0									

General Comments

Comments

06:00 Hrs Update

Depth (MDRT):	99.0m
Progress Since Midnight:	65.0m
Operation Summary:	Drilling 12.25" surface hole at 99.0 mMDRT.
ROP Summary:	
Formation Summary:	Winton Formation
Lithology Summary:	Interbedded CLAYSTONE and SANDSTONE.
Gas Summary:	No gas recorded at surface

Wellsite Geologist(s)

(Days) - Alan Wrightstone (Nights) -

Printed on 07 Feb 2013

Drillsearch

Tibor-1 Drilling

Date: 08 Feb 2013 | **DAILY GEOLOGY REPORT NUMBER: 2** | (associated DDR # 8)

Well Details

Depth MDBRT	: 331.0 m	**Report Period**	: 00:00 - 24:00	**Date**	: 08 Feb 2013
Depth TVDBRT	: 331.0 m	**Last Csg Size**	:	**24hr Progress**	: 295.0 m
Depth TVDSS	: 190.85 m	**Last Csg Shoe MD**	:	**Report Start Depth**	: 50.0 m
RT - GL	: 5.15 m	**Last Csg Shoe TVD**	:	**Report End Depth**	: 380.0 m
Ground Level	: 135.0 m	**FIT / LOT**	: /	**Days since Spud**	: 1.29
RT - Hanger	:	**Liner (MDRT/TVDRT)**	: /	**Rig**	: Ensign 918
Hole Size	: 12.250 in			**Mud Weight**	: 8.80 ppg
Last Survey (MDRT/TVDRT)	: 305.0 m /			**Mud Type**	: Spud mud
Survey Deviation	: Inc. 0.70 ° Az 241.00 °				

Geology 24hr Operations Summary

24hr Summary:	Drilled 12-1/4" surface hole from 50.0 to 331.0 mMDRT taking surveys every three joints.
24hr Forward Plan:	Continue drilling 12-1/4" surface hole to section TD at +/- 753 mMDRT.

Formation Tops

Formation	Prognosed			Actual			Diff.	Thickness TVD (m)	Pick Criteria
	MDRT (m)	TVDRT (m)	TVDSS (m)	MDRT (m)	TVDRT (m)	TVDSS (m)	+/- TVD (m)		
Winton Formation	5.0	5.0	-135.15	8.6	8.6	-131.55	3.6 Low		Surface
Mackunda Formation	615.0	615.0	474.85						
Allaru Mudstone	700.0	700.0	559.85						
Toolebuc Formation	929.0	929.0	788.85						
Wallumbilla Formation	975.0	975.0	834.85						
Cadna-Owie Formation	1215.0	1215.0	1074.85						
Murta Formation	1286.0	1286.0	1145.85						
Namur Sandstone	1316.0	1316.0	1175.85						
Westbourne Formation	1412.0	1412.0	1271.85						
Adori Sandstone	1482.0	1482.0	1341.85						
Birkhead Formation	1541.0	1541.0	1400.85						
Hutton Sandstone	1638.0	1638.0	1497.85						

Printed on 08 Feb 2013

Drillsearch

Lithology Summary

Internal m MDRT	ROP (m/h)	Lithology Comments	
50.0 - 110.0	Min :5.40 Avg :36.40 Max :93.90	**Lithology Summary**	SANDSTONE with occasional ARGILLACEOUS SILTONE laminations.
		Lithology Description	ARGILLACEOUS SANDSTONE: medium dark grey to dark greenish grey, friable to occasionally firm, very fine to minor fine grained,, subangular to rounded, moderatelywell sorted, subspherical to subelongated, 50% argillaceous matrix supported, occasional weak siliceous cement, trace lithic fragments, trace carbonaceous material, nil visible porosity, no hydrocarbon fluorescence. ARGILLACEOUS SILTSTONE: light grey to light greenish grey, firm, subblocky, trace calcareous, minor clay material, occasioanl very fine to minor fine sand.
		Gas & Shows Comments	
		ROP Comments	
110.0 - 170.0	Min :9.90 Avg :24.10 Max :29.60	**Lithology Summary**	Massive CLAYSTONE with a thin ARGILLACEOUS LIMESTONE lamination at 150.0 mMDRT.
		Lithology Description	CLAYSTONE: light grey to common light greenish grey, minor light brownish grey, soft to rarely firm, subblocky, silty in part, trace lithic specks, trace very fine grained loose quartz, non-calcareous. ARGILLACEOUS LIMESTONE: mudstone, brownish grey to olive grey, firm to commonly moderately hard, blocky to subblocky, silty in part, commonly argillaceous, trace carbonaceous specks.
		Gas & Shows Comments	
		ROP Comments	
170.0 - 210.0	Min :3.20 Avg :20.90 Max :28.70	**Lithology Summary**	Massive ARGILLACEOUS SANDSTONE
		Lithology Description	ARGILLACEOUS SANDSTONE: light grey to very light green grey, light olive grey in part, friable, fine to dominantly very fine, sub-angular to angular, well sorted, sub-spherical, abundant very light grey argillaceous matrix, minor weak siliceous cement, trace lithic fragments, trace brownish black carbonaceous specks, very poor visible porosity, no hydrocarbon fluorescence.
		Gas & Shows Comments	
		ROP Comments	
210.0 - 380.0	Min :3.20 Avg :26.50 Max :34.70	**Lithology Summary**	Interbedded ARGILLACEOUS SILTSTONE and ARGILLACEOUS SANDSTONE which grades to SANDSTONE near base of the section.
		Lithology Description	ARGILLACEOUS SANDSTONE: light grey to very light green grey, trace light olive grey, friable, silt sized to fine grained, minor medium grained, , subangular to angular, well sorted, subspherical, abundant very light grey argillaceous matrix, trace weak siliceous cement, trace lithic fragments, trace brownish black carbonaceous specks and microlaminations, rare micromicaceous specks, nil to very poor visible porosity, no hydrocarbon fluorescence. ARGILLACEOUS SILTSTONE: very light grey to light greenish grey, minor light brownish grey, soft to rare firm, abundant argillaceous material, trace brownish black carbonaceous specks, grading to SILTY CLAYSTONE in part.
		Gas & Shows Comments	
		ROP Comments	

Gas Summary

Gas Type	Depth m	Total Gas Units	C1 ppm	C2 ppm	C3 ppm	iC4 ppm	nC4 ppm	iC5 ppm	nC5 ppm	CO2 ppm	H2S ppm
Background	50.0 - 110.0	0.0	0								
Background	110.0 - 170.0	0.0	0								
Background	170.0 - 210.0	0.0	0								
Background	210.0 - 328.0	0.0	0								
Background	328.0 - 380.0	3.0	750	3	1						

Printed on 08 Feb 2013

Drillsearch

General Comments
Comments

06:00 Hrs Update	
Depth (MDRT):	413.0m
Progress Since Midnight:	314.0m
Operation Summary:	Drilled 12-1/4" surface hole from 331.0 to 413.0 mMDRT.
ROP Summary:	Steady around 25 m/hr.
Formation Summary:	Winton Formation
Lithology Summary:	Argillaceous Siltstone and Argillaceous Sandstone
Gas Summary:	First appearance of background gas from 329.0 mMDRT.

Wellsite Geologist(s)	
(Days) - Alan Wrightstone	(Nights) -

Printed on 08 Feb 2013

Drillsearch

Tibor-1 Drilling

Date: 09 Feb 2013 | **DAILY GEOLOGY REPORT NUMBER: 3** | (associated DDR # 9)

Well Details

Depth MDBRT	: 655.0 m	**Report Period**	: 00:00 - 24:00	**Date**	: 09 Feb 2013
Depth TVDBRT	: 655.0 m	**Last Csg Size**	:	**24hr Progress**	: 324.0 m
Depth TVDSS	: 514.85 m	**Last Csg Shoe MD**	:	**Report Start Depth**	: 331.0 m
RT - GL	: 5.15 m	**Last Csg Shoe TVD**	:	**Report End Depth**	: 710.0 m
Ground Level	: 135.0 m	**FIT / LOT**	: /	**Days since Spud**	: 2.29
RT - Hanger	:	**Liner (MDRT/TVDRT)**	: /	**Rig**	: Ensign 918
Hole Size	: 12.250 in			**Mud Weight**	: 8.80 ppg
Last Survey (MDRT/TVDRT)	: 631.0 m / 631.0 m			**Mud Type**	: Spud mud
Survey Deviation	: Inc. 0.50 ° Az 154.00 °				

Geology 24hr Operations Summary

24hr Summary:	Drilled 12-1/4" surface hole from 331.0 to 655.0 mMDRT taking regular surveys.
24hr Forward Plan:	Drill to section TD, POOH, rig up and run 9-5/8" casing.

Formation Tops

Formation	Prognosed			Actual			Diff.	Thickness	Pick Criteria
	MDRT (m)	TVDRT (m)	TVDSS (m)	MDRT (m)	TVDRT (m)	TVDSS (m)	+/- TVD (m)	TVD (m)	
Winton Formation	5.0	5.0	-135.15	10.7	10.7	-129.45	5.7 Low	622.3	Surface
Mackunda Formation	615.0	615.0	474.85	633.0	633.0	492.85	18 Low	0.0	Lithology/ROP
Allaru Mudstone	700.0	700.0	559.85						
Toolebuc Formation	929.0	929.0	788.85						
Wallumbilla Formation	975.0	975.0	834.85						
Cadna-Owie Formation	1215.0	1215.0	1074.85						
Murta Formation	1286.0	1286.0	1145.85						
Namur Sandstone	1316.0	1316.0	1175.85						
Westbourne Formation	1412.0	1412.0	1271.85						
Adori Sandstone	1482.0	1482.0	1341.85						
Birkhead Formation	1541.0	1541.0	1400.85						
Hutton Sandstone	1638.0	1638.0	1497.85						

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Lithology Summary			
Internal m MDRT	**ROP (m/h)**	**Lithology Comments**	
380.0 - 480.0	Min :2.60 Avg :25.60 Max :34.90	**Lithology Summary**	Interbedded SILTY CLAYSTONE and SANDSTONE
		Lithology Description	SILTY CLAYSTONE: brownish grey to medium grey, trace light grey to light brownish grey, soft to minor firm, commonly silty in part, trace brownish black carbonaceous specks. SANDSTONE: generally loose, very light grey to medium grey,common translucent, very fine to fine, subangular to subrounded, well sorted, subspherical, minor firm and friable, occasional argillaceous matrix, minor moderate calcareous cement, occasional weak siliceous cement, minor green grey lithics, trace brownish black carbonaceous material, poor visible porosity, no hydrocarbon fluorescence.
		Gas & Shows Comments	Generally 7-10 units background with occasional minor peaks (max 39 units at 435.0 mMDRT)
		ROP Comments	Mostly steady around 25 m/hr with occasional harder stringers.
480.0 - 530.0	Min :5.20 Avg :27.50 Max :34.20	**Lithology Summary**	Massive CLAYSTONE with minor SANDSTONE interbeds near base
		Lithology Description	CLAYSTONE: brownish grey to medium dark grey, minor medium grey, soft to predominantly firm, trace silty in part, moderately calcareous in part, trace brownish black carbonaceous specks, trace very fine grained loose quartz. SANDSTONE: friable to commonly moderately hard, very light grey to medium grey, translucent, light greenish grey, very fine to fine, subangular to subrounded, well sorted, subspherical, trace argillaceous matrix, common moderate calcareous cement, minor weak siliceous cement, minor green grey lithics, minor brownish black carbonaceous material, trace loose medium grained quartz, nil to very poor visible porosity, no hydrocarbon fluorescence.
		Gas & Shows Comments	Background variable between 5 - 10 units.
		ROP Comments	Steady drilling at 27.5 m/hr.
530.0 - 610.0	Min :4.90 Avg :27.60 Max :35.60	**Lithology Summary**	Interbedded SILTSTONE and SANDSTONE
		Lithology Description	SILTSTONE: medium light grey to greyish brown, minor very light grey, soft to firm, trace moderately hard, subblocky, minor very fine quartz grains, 10% lithics,micromcaceous in part,, non-calcareous, trace very fine carbonaceous detritus, rare fine coally laminations. SANDSTONE: friable to commonly moderately hard, very light grey to medium grey, translucent, light greenish grey, very fine to fine, subangular to subrounded, well sorted, subspherical, trace argillaceous matrix, common moderate calcareous cement, minor weak siliceous cement, minor green grey lithics, minor brownish black carbonaceous material, nil to very poor visible porosity, no hydrocarbon fluorescence.
		Gas & Shows Comments	Background variable between 5 - 15 units with occasional minor peaks (max 42 units at 547.0 mMDRT).
		ROP Comments	Steady with occasional stringers.
610.0 - 710.0	Min :4.70 Avg :26.10 Max :56.00	**Lithology Summary**	SILTSTONE with minor SANDSTONE laminations that decrease with depth
		Lithology Description	SILTSTONE: medium light grey to greyish brown, minor very light grey, trace brownish black, soft to firm, minor moderately hard, subblocky to occasionally blocky, minor very fine quartz grains, 10% lithics,micromcaceous in part,, non-calcareous, occasional very fine carbonaceous detritus, rare fine coally laminations. SANDSTONE: friable to commonly moderately hard, very light grey to medium grey, translucent, light greenish grey, very fine to fine, trace medium grained, subangular to subrounded, moderately well sorted, subspherical, trace argillaceous matrix, common moderate to strong calcareous cement, minor weak siliceous cement, minor green grey lithics, minor brownish black carbonaceous material, nil to very poor visible porosity, no hydrocarbon fluorescence.
		Gas & Shows Comments	Background variable between 5 - 15 units.
		ROP Comments	Steady around 26.1 m/hr.

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Gas Summary

Gas Type	Depth m	Total Gas Units	C1 ppm	C2 ppm	C3 ppm	iC4 ppm	nC4 ppm	iC5 ppm	nC5 ppm	CO2 ppm	H2S ppm
Background	380.0 - 480.0	9.0	2,050	10	1	1	1	0	0	0	0
Peak	428.0	32.0	6,875	8	5	2	1	1	0	0	0
Peak	435.0	39.0	8,649	74	7	3	2	1	0	0	0
Peak	443.0	34.0	7,559	55	11	7	3	2	1	0	0
Background	480.0 - 530.0	10.0	2,400	20	15	7	4	3	1	0	0
Background	530.0 - 610.0	10.0	2,500	35	10	7	1	2	1	0	0
Peak	548.0	42.0	8,793	124	18	15	2	4	1	0	0
Background	610.0 - 710.0	10.0	2,500	40	20	10	3	2	1	0	0

General Comments

Comments

06:00 Hrs Update

Depth (MDRT):	750.0m
Progress Since Midnight:	95.0m
Operation Summary:	Drilled 12-1/4" surface hole from 655.0 to 750.0 mMDRT.
ROP Summary:	Steady around 25 m/hr.
Formation Summary:	Mackunda Formation
Lithology Summary:	Siltstone with minor Sandstone
Gas Summary:	Background 10 - 15 units.

Wellsite Geologist(s)

(Days) - Alan Wrightstone (Nights) -

Printed on 09 Feb 2013

Drillsearch

Tibor-1 Drilling

Date: 10 Feb 2013 | **DAILY GEOLOGY REPORT NUMBER: 4** | (associated DDR # 10)

Well Details

Depth MDBRT	: 754.0 m	**Report Period**	: 00:00 - 24:00	**Date**	: 10 Feb 2013
Depth TVDBRT	: 754.0 m	**Last Csg Size**	:	**24hr Progress**	: 99.0 m
Depth TVDSS	: 613.85 m	**Last Csg Shoe MD**	:	**Report Start Depth**	: 655.0 m
RT - GL	: 5.15 m	**Last Csg Shoe TVD**	:	**Report End Depth**	: 754.0 m
Ground Level	: 135.0 m	**FIT / LOT**	: /	**Days since Spud**	: 3.29
RT - Hanger	:	**Liner (MDRT/TVDRT)**	: /	**Rig**	: Ensign 918
Hole Size	: 12.250 in			**Mud Weight**	: 8.80 ppg
Last Survey (MDRT/TVDRT)	: 751.0 m / 741.0 m			**Mud Type**	: Spud mud
Survey Deviation	: Inc. 0.50 ° Az 0.00 °				

Geology 24hr Operations Summary

24hr Summary:	Drilled 12-1/4" surface hole to 754.0 mMDRT (section TD). Circulated hole clean and spotted HiVis pill on bottom. POOH to surface and rigged up to run 9-5/8" casing. Commenced running casing.
24hr Forward Plan:	Rig up cement unit and cement casing. Install and pressure test BOPS.

Formation Tops

Formation	Prognosed			Actual			Diff.	Thickness TVD (m)	Pick Criteria
	MDRT (m)	TVDRT (m)	TVDSS (m)	MDRT (m)	TVDRT (m)	TVDSS (m)	+/- TVD (m)		
Winton Formation	5.0	5.0	-135.15	10.7	10.7	-129.45	5.7 Low	622.3	Surface
Mackunda Formation	615.0	615.0	474.85	633.0	633.0	492.85	18 Low	0.0	Lithology/ROP
Allaru Mudstone	700.0	700.0	559.85						
Toolebuc Formation	929.0	929.0	788.85						
Wallumbilla Formation	975.0	975.0	834.85						
Cadna-Owie Formation	1215.0	1215.0	1074.85						
Murta Formation	1286.0	1286.0	1145.85						
Namur Sandstone	1316.0	1316.0	1175.85						
Westbourne Formation	1412.0	1412.0	1271.85						
Adori Sandstone	1482.0	1482.0	1341.85						
Birkhead Formation	1541.0	1541.0	1400.85						
Hutton Sandstone	1638.0	1638.0	1497.85						

Lithology Summary

Internal m MDRT	ROP (m/h)	Lithology Comments	
710.0 - 754.0	Min :7.70 Avg :26.90 Max :33.20	**Lithology Summary**	SILTSTONE with minor SANDSTONE laminations and a thin DOLOMITE stringer as the base of the section.
		Lithology Description	SILTSTONE: medium light grey to greyish brown, occasional very light grey, soft to firm, common moderately hard, subblocky to occasionally blocky, minor very fine quartz grains, 10% lithics, non-calcareous, occasional very fine carbonaceous detritus, rare fine coally laminations. SANDSTONE:moderately hard, occasionally firm and friable, very light grey to medium grey, translucent, light greenish grey, very fine to fine, trace medium grained, subangular to subrounded, moderately well sorted, subspherical, trace argillaceous matrix, common moderate to strong calcareous cement, minor weak siliceous cement, trace brownish black carbonaceous material, nil to very poor visible porosity, no hydrocarbon fluorescence. DOLOMITE: olive grey to brown grey, very hard, subfissile, crypto- to micro-crystalline, trace very finebrownish black carbonaceous specks.
		Gas & Shows Comments	Constant between 10 - 20 units, no peaks observed.
		ROP Comments	Steady at around 27 m/hr.

Gas Summary

Gas Type	Depth m	Total Gas Units	C1 ppm	C2 ppm	C3 ppm	iC4 ppm	nC4 ppm	iC5 ppm	nC5 ppm	CO2 ppm	H2S ppm
Background	710.0 - 754.0	13.0	2,600	90	75	23	8	3	1	0	0

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General Comments
Comments

06:00 Hrs Update	
Depth (MDRT):	754.0m
Progress Since Midnight:	0.0m
Operation Summary:	Run casing to 746.0 mMDRT, wash to bottom. Fix faulty cellar pump.
ROP Summary:	No drilling done.
Formation Summary:	Mackunda Formation
Lithology Summary:	SILTSTONE with minor SANDSTONE laminations that decrease with depth.
Gas Summary:	No gas observed.

Wellsite Geologist(s)	
(Days) - Alan Wrightstone	(Nights) -

Printed on 10 Feb 2013

Drillsearch

Tibor-1 Drilling

Date: 11 Feb 2013 | **DAILY GEOLOGY REPORT NUMBER: 5** | (associated DDR # 11)

Well Details

Depth MDBRT	: 754.0 m	**Report Period**	: 00:00 - 24:00	**Date**	: 11 Feb 2013
Depth TVDBRT	: 754.0 m	**Last Csg Size**	: 9.625 in	**24hr Progress**	:
Depth TVDSS	: 613.85 m	**Last Csg Shoe MD**	: 750.9 m	**Report Start Depth**	: 655.0 m
RT - GL	: 5.15 m	**Last Csg Shoe TVD**	: 750.9 m	**Report End Depth**	: 754.0 m
Ground Level	: 135.0 m	**FIT / LOT**	: /	**Days since Spud**	: 4.29
RT - Hanger	:	**Liner (MDRT/TVDRT)**	: /	**Rig**	: Ensign 918
Hole Size	: 12.250 in			**Mud Weight**	: 8.80 ppg
Last Survey (MDRT/TVDRT)	: 751.0 m / 741.0 m			**Mud Type**	: Spud mud
Survey Deviation	: Inc. 0.50 ° Az 0.00 °				

Geology 24hr Operations Summary

24hr Summary:	Run 9-5/8" casing to 746.0 mMDRT, wash to bottom. Circulate hole clean until clean. Rig up cement unit and pump cement as per program. Rig down cementing/casing equipment and clear rig floor. Install BOPs.
24hr Forward Plan:	Complete testing BOPs, make up 8-1/2" production drilling assembly. Run in hole and drill cement and 3m new formation, perform LOT. Commence drilling 8-1/2" production hole section.

Formation Tops

Formation	Prognosed			Actual			Diff.	Thickness	Pick Criteria
	MDRT (m)	TVDRT (m)	TVDSS (m)	MDRT (m)	TVDRT (m)	TVDSS (m)	+/- TVD (m)	TVD (m)	
Winton Formation	5.0	5.0	-135.15	10.7	10.7	-129.45	5.7 Low	622.3	Surface
Mackunda Formation	615.0	615.0	474.85	633.0	633.0	492.85	18 Low	0.0	Lithology/ROP
Allaru Mudstone	700.0	700.0	559.85						
Toolebuc Formation	929.0	929.0	788.85						
Wallumbilla Formation	975.0	975.0	834.85						
Cadna-Owie Formation	1215.0	1215.0	1074.85						
Murta Formation	1286.0	1286.0	1145.85						
Namur Sandstone	1316.0	1316.0	1175.85						
Westbourne Formation	1412.0	1412.0	1271.85						
Adori Sandstone	1482.0	1482.0	1341.85						
Birkhead Formation	1541.0	1541.0	1400.85						
Hutton Sandstone	1638.0	1638.0	1497.85						

General Comments

Comments

06:00 Hrs Update

Depth (MDRT):	754.0m
Progress Since Midnight:	0.0m
Operation Summary:	Complete nippling up BOPs, pressure test BOPs. Leak in choke manifold, re-grease and re-test. Continued testing BOPs (all tests good).
ROP Summary:	No drilling done.
Formation Summary:	Mackunda formation
Lithology Summary:	SILTSTONE with minor SANDSTONE laminations that decrease with depth.
Gas Summary:	Nil

Wellsite Geologist(s)

(Days) - Alan Wrightstone (Nights) -

Printed on 11 Feb 2013

Drillsearch

Tibor-1 Drilling

Date: 12 Feb 2013 | **DAILY GEOLOGY REPORT NUMBER: 6** | (associated DDR # 12)

Well Details

Depth MDBRT	: 754.0 m	**Report Period**	: 00:00 - 24:00	**Date**	: 12 Feb 2013
Depth TVDBRT	: 754.0 m	**Last Csg Size**	: 9.625 in	**24hr Progress**	:
Depth TVDSS	: 613.85 m	**Last Csg Shoe MD**	: 750.9 m	**Report Start Depth**	: 655.0 m
RT - GL	: 5.15 m	**Last Csg Shoe TVD**	: 750.9 m	**Report End Depth**	: 754.0 m
Ground Level	: 135.0 m	**FIT / LOT**	: / 16.64 ppg	**Days since Spud**	: 5.29
RT - Hanger	:	**Liner (MDRT/TVDRT)**	: /	**Rig**	: Ensign 918
Hole Size	: 8.500 in			**Mud Weight**	: 8.90 ppg
Last Survey (MDRT/TVDRT)	: 751.0 m / 741.0 m			**Mud Type**	: KCL/PHB/POL mud
Survey Deviation	: Inc. 0.50 ° Az 0.00 °				

Geology 24hr Operations Summary

24hr Summary:	N/U up flow and flare lines. M/U test plug and test BOPs. Re-greasae leaky choke manifold and re-test. L/O test plu and M/U test cup, test BOPs. Leaking at wellhead/casing connection. Re-seat cup and re-test, good test. RIH and set wear bushing, slipped and cut drilling line. M/U 8-1/2" production drilling BHA and RIH. Tag TOC at 736.7 mMDRT.Drill cement, float, shoe and rathole to 754.0 mMDRT.
24hr Forward Plan:	Drill 3m new formation, perform LOT. Commence drilling 8-1/2" production hole.

Formation Tops

Formation	Prognosed			Actual			Diff.	Thickness	Pick Criteria
	MDRT (m)	TVDRT (m)	TVDSS (m)	MDRT (m)	TVDRT (m)	TVDSS (m)	+/- TVD (m)	TVD (m)	
Winton Formation	5.0	5.0	-135.15	10.7	10.7	-129.45	5.7 Low	622.3	Surface
Mackunda Formation	615.0	615.0	474.85	633.0	633.0	492.85	18 Low	0.0	Lithology/ROP
Allaru Mudstone	700.0	700.0	559.85						
Toolebuc Formation	929.0	929.0	788.85						
Wallumbilla Formation	975.0	975.0	834.85						
Cadna-Owie Formation	1215.0	1215.0	1074.85						
Murta Formation	1286.0	1286.0	1145.85						
Namur Sandstone	1316.0	1316.0	1175.85						
Westbourne Formation	1412.0	1412.0	1271.85						
Adori Sandstone	1482.0	1482.0	1341.85						
Birkhead Formation	1541.0	1541.0	1400.85						
Hutton Sandstone	1638.0	1638.0	1497.85						

General Comments

Comments

06:00 Hrs Update

Depth (MDRT):	769.0m
Progress Since Midnight:	15.0m
Operation Summary:	Drilled 3m new formation to 757.0 mMDRT. Perform LOT (result = 16.7 ppg EMW). Drilled new hole to 769.0 mMDRT.
ROP Summary:	Steady at 15-20 m/hr.
Formation Summary:	Mackunda Formation
Lithology Summary:	Siltstone
Gas Summary:	Low, around 3-5 units.

Wellsite Geologist(s)

(Days) - Alan Wrightstone (Nights) -

Printed on 12 Feb 2013

Drillsearch

Tibor-1 Drilling

Date: 13 Feb 2013 | **DAILY GEOLOGY REPORT NUMBER: 7** | (associated DDR # 13)

Well Details

Depth MDBRT	: 933.0 m	**Report Period**	: 00:00 - 24:00	**Date**	: 13 Feb 2013
Depth TVDBRT	: 933.0 m	**Last Csg Size**	: 9.625 in	**24hr Progress**	: 186.0 m
Depth TVDSS	: 792.85 m	**Last Csg Shoe MD**	: 750.9 m	**Report Start Depth**	: 754.0 m
RT - GL	: 5.15 m	**Last Csg Shoe TVD**	: 750.9 m	**Report End Depth**	: 940.0 m
Ground Level	: 135.0 m	**FIT / LOT**	: / 16.64 ppg	**Days since Spud**	: 6.29
RT - Hanger	:	**Liner (MDRT/TVDRT)**	: /	**Rig**	: Ensign 918
Hole Size	: 8.500 in			**Mud Weight**	: 8.90 ppg
Last Survey (MDRT/TVDRT)	: 932.0 m / 889.9 m			**Mud Type**	: KCL/PHB/POL mud
Survey Deviation	: Inc. 2.00 ° Az 0.00 °				

Geology 24hr Operations Summary

24hr Summary:	Drill 3m new formaiton to 757.0 mMDRT, circulate hole for LOT. Perform LOT (16.6 EMW). Drilled 8-1/2" production hole from 757.0 to 933.0 mMDRT surveying reguarly to monitor inclination.
24hr Forward Plan:	Drill 8-1/2" production hole to +/- 1400.0 mMDRT, perform wiper trip to shoe, continue drilling well TD at 1738.0 mMDRT.

Formation Tops

Formation	Prognosed			Actual			Diff.	Thickness	Pick Criteria
	MDRT (m)	TVDRT (m)	TVDSS (m)	MDRT (m)	TVDRT (m)	TVDSS (m)	+/- TVD (m)	TVD (m)	
Winton Formation	5.0	5.0	-135.15	10.7	10.7	-129.45	5.7 Low	622.3	Surface
Mackunda Formation	615.0	615.0	474.85	633.0	633.0	492.85	18 Low	117.0	Lithology/ROP
Allaru Mudstone	700.0	700.0	559.85	750.0	750.0	609.85	50 Low	0.0	Lithology
Toolebuc Formation	929.0	929.0	788.85						
Wallumbilla Formation	975.0	975.0	834.85						
Cadna-Owie Formation	1215.0	1215.0	1074.85						
Murta Formation	1286.0	1286.0	1145.85						
Namur Sandstone	1316.0	1316.0	1175.85						
Westbourne Formation	1412.0	1412.0	1271.85						
Adori Sandstone	1482.0	1482.0	1341.85						
Birkhead Formation	1541.0	1541.0	1400.85						
Hutton Sandstone	1638.0	1638.0	1497.85						

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Drillsearch

Lithology Summary

Internal m MDRT	ROP (m/h)	Lithology Comments	
754.0 - 790.0	Min :3.60 Avg :13.10 Max :19.60	**Lithology Summary**	SILTSTONE with trace SANDSTONE laminations
		Lithology Description	SILTSTONE: olive grey to greyish brown, minor medium to medium light grey, soft to firm, minor moderately hard, subblocky to occasionally blocky, weakly calcareous, trace very fine quartz grains, 10% lithics, trace SANDSTONE: firm and friable, very light grey to medium grey, translucent, light greenish grey, very fine to fine, subangular to subrounded, moderately well sorted, subspherical, trace argillaceous matrix, common moderate to strong calcareous cement, nil to very poor visible porosity, no hydrocarbon fluorescence.
		Gas & Shows Comments	Around 5-9 units throughout the interval, no peaks seen.
		ROP Comments	Generally steady at 17 m/hr with occasional thin hard setions.
790.0 - 830.0	Min :3.80 Avg :19.40 Max :33.50	**Lithology Summary**	Massive SILTSTONE with trace thin LIMESTONE laminations.
		Lithology Description	SILTSTONE: medium dark grey, trace brownish grey to olive grey, firm to moderately hard, subblocky to occasionally blocky, weakly carcalreous, occasionally argillaceous in part. LIMESTONE: mudstone, yellowish grey, soft, subblocky, commonly argillaceous.
		Gas & Shows Comments	Consistently 5-7 units throughout the interval, no peaks seen.
		ROP Comments	Steady around 20 m/hr, occasional slow stringers.
830.0 - 940.0	Min :1.50 Avg :17.00 Max :34.90	**Lithology Summary**	Massive SILTSTONE with occasional LIMESTONE stringers.
		Lithology Description	SILTSTONE: medium dark grey, minor brownish grey to olive grey, firm to moderately hard, subblocky to occasionally blocky, weakly carcalreous, occasionally argillaceous in part. LIMESTONE: mudstone, yellowish grey to occasionally very light grey, soft, subblocky, commonly argillaceous.
		Gas & Shows Comments	Steady 10 units increasing to a steady 20-25 unit backrgound from 866.0 mMDRT.
		ROP Comments	Generall steady around 17 m/hr, but decreased slowly with depth. From 933.0 mMDRT WOB was reduced to control inclination (increased from 1 to 2 deg). This caused a drop in average ROP to around 5-10 m/hr near base of the section (from 933.0 mMDRT).

Gas Summary

Gas Type	Depth m	Total Gas Units	C1 ppm	C2 ppm	C3 ppm	iC4 ppm	nC4 ppm	iC5 ppm	nC5 ppm	CO2 ppm	H2S ppm
Background	754.0 - 790.0	8.0	1,200	54	48	10	6	2	1	0	0
Background	790.0 - 830.0	6.0	870	50	48	14	9	2	1	0	0
Background	830.0 - 866.0	6.0	850	54	65	16	15	2	1	0	0
Background	866.0 - 940.0	20.0	1,750	180	350	80	160	40	30	0	0

General Comments

Comments

06:00 Hrs Update

Depth (MDRT):	963.0m
Progress Since Midnight:	30.0m
Operation Summary:	Drilled 8-1/2" production hole from 933.0 to 963.0 mMDRT.
ROP Summary:	Around 5-10 m/hr. Has been controlled due to concerns over inclination since 933.0 mMDRT.
Formation Summary:	Allaru Formation
Lithology Summary:	SILTSTONE with traces of LIMESTONE.
Gas Summary:	Steady around 20 units.

Printed on 13 Feb 2013

Wellsite Geologist(s)	
(Days) - Alan Wrightstone	(Nights) -

Printed on 13 Feb 2013

Drillsearch

Tibor-1 Drilling

Date: 14 Feb 2013 | **DAILY GEOLOGY REPORT NUMBER: 8** | (associated DDR # 14)

Well Details

Depth MDBRT	: 1,100.0 m	**Report Period**	: 00:00 - 24:00	**Date**	: 14 Feb 2013
Depth TVDBRT	: 1,100.0 m	**Last Csg Size**	: 9.625 in	**24hr Progress**	: 167.0 m
Depth TVDSS	: 959.85 m	**Last Csg Shoe MD**	: 750.9 m	**Report Start Depth**	: 933.0 m
RT - GL	: 5.15 m	**Last Csg Shoe TVD**	: 750.9 m	**Report End Depth**	: 1,120.0 m
Ground Level	: 135.0 m	**FIT / LOT**	: / 16.64 ppg	**Days since Spud**	: 7.29
RT - Hanger	:	**Liner (MDRT/TVDRT)**	: /	**Rig**	: Ensign 918
Hole Size	: 8.500 in			**Mud Weight**	: 9.10 ppg
Last Survey (MDRT/TVDRT)	: 1,062.0 m / 1,061.8 m			**Mud Type**	: KCL/PHB/POL mud
Survey Deviation	: Inc. 1.00 ° Az 100.00 °				

Geology 24hr Operations Summary

24hr Summary:	Drilled 8-1/2" production hole from 933.0 to 1100.0 mMDRT controlling drilling parameters to aid in directional control (limit inclination buildup).
24hr Forward Plan:	Drill 8-1/2" hole to 1400.0 mMDRT, wiper trip to shoe, continue drilling to well TD at +/- 1738.0 mMDRT.

Formation Tops

Formation	Prognosed			Actual			Diff.	Thickness	Pick Criteria
	MDRT (m)	TVDRT (m)	TVDSS (m)	MDRT (m)	TVDRT (m)	TVDSS (m)	+/- TVD (m)	TVD (m)	
Winton Formation	5.0	5.0	-135.15	10.7	10.7	-129.45	5.7 Low	622.3	Surface
Mackunda Formation	615.0	615.0	474.85	633.0	633.0	492.8300000	18 Low	117.0	Lithology/ROP
Allaru Mudstone	700.0	700.0	559.85	750.0	750.0	609.82	50 Low	219.9	Lithology
Toolebuc Formation	929.0	929.0	788.85	970.0	969.9	829.74	40.9 Low	70.0	Lithology
Wallumbilla Formation	975.0	975.0	834.85	1040.0	1039.9	899.7500000	64.9 Low	0.0	Lithology
Cadna-Owie Formation	1215.0	1215.0	1074.85						
Murta Formation	1286.0	1286.0	1145.85						
Namur Sandstone	1316.0	1316.0	1175.85						
Westbourne Formation	1412.0	1412.0	1271.85						
Adori Sandstone	1482.0	1482.0	1341.85						
Birkhead Formation	1541.0	1541.0	1400.85						
Hutton Sandstone	1638.0	1638.0	1497.85						

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Lithology Summary		
Internal m MDRT	**ROP (m/h)**	**Lithology Comments**
940.0 - 970.0	Min :2.00 Avg :8.50 Max :18.50	**Lithology Summary**: Massive SILTSTONE with occasional thin LIMESTONE stringers. **Lithology Description**: SILTSTONE: medium dark grey to dark grey, oocasional greyish black to olive black, firm to moderately hard in part, subblocky to subfissile, commmonly argillaceous, moderately calcareous. LIMESTONE: mudstone, yellowish grey to occasionally very light grey, soft, subblocky, commonly argillaceous. **Gas & Shows Comments**: Averaging 25 units with a peak of 62 units at 970.0 mMDRT. **ROP Comments**: Mostly variable between 5 and 10 m/hr.
970.0 - 1,040.0	Min :2.00 Avg :11.80 Max :23.80	**Lithology Summary**: SILTSTONE with SILTY SANDSTONE interbeds. **Lithology Description**: SILTSTONE: greyish black to olive black, minor medium dark grey to dark grey, firm to moderately hard in part, subblocky to subfissile, commmonly argillaceous, moderately calcareous, trace soft, white calcareous material. SILTY SANDSTONE: friable to dominantly hard, translucent to very light grey, very fine to minor fine, common silt-sized, moderately well sorted, subangular to subrounded, subspherical, trace quartz silt matrix, minor argillaceous matrix, weak calcareous cement, rare to minor very fine grained glauconite, trace fine grained black lithics, no visible porosity, no hydrocarbon fluorescence. **Gas & Shows Comments**: Commonly around 15 - 20 units but baseline was elevated to 30 units between 970.0 and 979.0 mMDRT. A peak of 81 units was recorded at 977.5 mMDRT. **ROP Comments**: Mainly around 15 m/hr with occasional slower sections.
1,040.0 - 1,078.5	Min :2.30 Avg :23.30 Max :35.40	**Lithology Summary**: Massive SILTSTONE with occasional SANDSTONE interbeds and minor thin LIMESTONE laminations near base of the interval. **Lithology Description**: SILTSTONE: medium grey to olive grey, trace greyish black to olive black,, firm to rare moderately hard, subblocky to subfissile, argillaceous in part, arenaceous in part, moderately calcareous, trace loose very fine grained quartz. SANDSTONE: predominantly loose, occasionally firm and friable, translucent to very light grey, very fine to minor fine, trace silt-sized, moderately well sorted, subangular to subrounded, subspherical, rare quartz silt matrix, trace argillaceous matrix, weak calcareous cement, minor very fine grained glauconite, trace fine grained black lithics, no visible porosity, no hydrocarbon fluorescence. LIMESTONE: mudstone, white to very light grey, hard, blocky, occasional dark microlaminations. **Gas & Shows Comments**: Consistently between 15 and 20 units throughout the section without any peaks being seen. **ROP Comments**: Initially around 15 - 20 m/hr and increased gradually to 30 m/hr but the end of the section
1,078.5 - 1,120.0	Min :2.90 Avg :14.00 Max :29.90	**Lithology Summary**: Interbedded SANDSTONE and SILTSTONE with occasional thin LIMESTONE laminations. **Lithology Description**: SILTSTONE: medium grey to olive grey, trace greyish black to olive black,, firm to rare moderately hard, subblocky to subfissile, argillaceous in part, arenaceous in part, moderately calcareous, trace loose very fine grained quartz. SANDSTONE: loose, common firm and friable, translucent to very light grey, very fine to fine, moderately well sorted, subangular to subrounded, subspherical, rare quartz silt matrix, trace argillaceous matrix, minor calcareous cement, minor very fine grained glauconite, trace carbonaceous specks, no visible porosity, no hydrocarbon fluorescence. LIMESTONE: mudstone, white to very light grey, minor very light brown, firm to commonly hard, blocky, occasional dark microlaminations, slightly dolomitic in part. **Gas & Shows Comments**: Variable between 15 and 30 untis without any significant peaks being seen. **ROP Comments**: Steady around 10 - 12 m/hr.

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Gas Summary

Gas Type	Depth m	Total Gas Units	C1 ppm	C2 ppm	C3 ppm	iC4 ppm	nC4 ppm	iC5 ppm	nC5 ppm	CO2 ppm	H2S ppm
Background	940.0 - 970.0	25.0	1,840	210	430	100	200	55	45	0	0
Background	970.0 - 1,040.0	15.0	1,280	110	190	40	90	25	25	0	0
Peak	970.0	62.0	4,980	580	1,100	230	490	120	100	0	0
Peak	977.5	81.0	8,700	840	1,275	200	460	90	80	0	0
Background	1,040.0 - 1,078.5	18.0	1,985	150	210	40	90	20	15	0	0
Background	1,078.5 - 1,120.0	17.0	1,885	150	220	45	100	20	20	0	0

General Comments

Comments

06:00 Hrs Update

Depth (MDRT):	1,135.0m
Progress Since Midnight:	35.0m
Operation Summary:	Drilled 8-1/2" production hole from 1100.0 to 1135.0 mMDRT.
ROP Summary:	Around 5-10 m/hr. Has been controlled due to concerns over inclination since 933.0 mMDRT.
Formation Summary:	Wallumbilla Formation
Lithology Summary:	SILTSTONE and SANDSTONE interbeds with occasional LIMESTONE stringers.
Gas Summary:	Steady between 5-10 units.

Wellsite Geologist(s)

(Days) - Alan Wrightstone (Nights) -

Printed on 14 Feb 2013

Drillsearch

Tibor-1 Drilling

Date: 15 Feb 2013 | **DAILY GEOLOGY REPORT NUMBER: 9** | (associated DDR # 15)

Well Details

Depth MDBRT	: 1,338.0 m	**Report Period**	: 00:00 - 24:00	**Date**	: 15 Feb 2013
Depth TVDBRT	: 1,338.0 m	**Last Csg Size**	: 9.625 in	**24hr Progress**	: 238.0 m
Depth TVDSS	: 1,197.85 m	**Last Csg Shoe MD**	: 750.9 m	**Report Start Depth**	: 1,100.0 m
RT - GL	: 5.15 m	**Last Csg Shoe TVD**	: 750.9 m	**Report End Depth**	: 1,356.0 m
Ground Level	: 135.0 m	**FIT / LOT**	: / 16.64 ppg	**Days since Spud**	: 8.29
RT - Hanger	:	**Liner (MDRT/TVDRT)**	: /	**Rig**	: Ensign 918
Hole Size	: 8.500 in			**Mud Weight**	: 9.00 ppg
Last Survey (MDRT/TVDRT)	: 1,300.0 m / 1,299.8 m			**Mud Type**	: KCL/PHB/POL mud
Survey Deviation	: Inc. 0.50 ° Az 25.00 °				

Geology 24hr Operations Summary

24hr Summary:	Drilled 8-1/2" production hole from 1100.0 to 1338.0 mMDRT, taking survery as programmed.
24hr Forward Plan:	Wiper trip to shoe, continue drilling to well TD at +/- 1738.0 mMDRT.

Formation Tops

Formation	Prognosed			Actual			Diff.	Thickness	Pick Criteria
	MDRT (m)	TVDRT (m)	TVDSS (m)	MDRT (m)	TVDRT (m)	TVDSS (m)	+/- TVD (m)	TVD (m)	
Winton Formation	5.0	5.0	-135.15	10.7	10.7	-129.45	5.7 Low	622.3	Surface
Mackunda Formation	615.0	615.0	474.85	633.0	633.0	492.8300000	18 Low	117.0	Lithology/ROP
Allaru Mudstone	700.0	700.0	559.85	750.0	750.0	609.82	50 Low	161.9	Lithology
Toolebuc Formation	929.0	929.0	788.85	912.0	911.9	771.75	17.1 High	58.0	Lithology
Wallumbilla Formation	975.0	975.0	834.85	970.0	969.9	829.75	5.1 High	245.0	Lithology
Cadna-Owie Formation	1215.0	1215.0	1074.85	1215.0	1214.9	1074.75	0.1 High	66.0	Lithology
Murta Formation	1286.0	1286.0	1145.85	1281.0	1280.9	1140.75	5.1 High	33.0	Lithology
Namur Sandstone	1316.0	1316.0	1175.85	1314.0	1313.9	1173.75	2.1 High	0.0	Lithology
Westbourne Formation	1412.0	1412.0	1271.85						
Adori Sandstone	1482.0	1482.0	1341.85						
Birkhead Formation	1541.0	1541.0	1400.85						
Hutton Sandstone	1638.0	1638.0	1497.85						

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Lithology Summary			
Internal m MDRT	**ROP (m/h)**	**Lithology Comments**	
1,120.0 - 1,215.0	Min :3.30 Avg :17.60 Max :33.30	**Lithology Summary**	Interbedded SILTSTONE and SANDSTONE with minor LIMESTONE laminations at base.
		Lithology Description	SILTSTONE: greyish black to olive black, minor dark grey, minor medium grey, moderately hard to predominantly very hard, commonly brittle, rare firm, subblocky to occasionally subfissile, argillaceous in part, commonly arenaceous in part, weakly calcareous in part, trace loose medium grained white calcite, trace disseminated pyrite. SANDSTONE: firm to moderately hard aggregates, ocassionally friable, translucent to very light grey, very fine to fine, moderately well sorted, subangular to subrounded, subspherical, occasional quartz silt matrix, minor calcareous cement, minor very fine grained glauconite, trace carbonaceous specks, rare light brownish grey dolomite, nil to very poor visible porosity, no hydrocarbon fluorescence. LIMESTONE: mudstone, white to very light brown, soft to crumbly, subblocky, common brown argillaceous microlaminations, slightly dolomitic, trace loose medium to coarse calcite grains.
		Gas & Shows Comments	Background of 25 units increasing to 50 units in relation to increasing ROP.
		ROP Comments	Average ROP 12m/hr to 1184 mMDRT, increased WOB giving average ROP of 25m/hr.
1,215.0 - 1,266.0	Min :3.60 Avg :24.70 Max :33.40	**Lithology Summary**	Interbedded SANDSTONE and SILTSTONE with SILTSTONE decreasing with depth.
		Lithology Description	SANDSTONE: friable to loose, minor hard very well cemented aggregates, translucent to very light grey, minor dark yellowish brown, very fine to lower fine grained, moderately well sorted, subangular to subrounded, subspherical, rarely silty in part, occasional light grey argillaceous matrix, strong calcareous-dolomitic cement, rare fine grained white and reddish brown lithics and feldspar fragments, trace glauconite, nil to very poor visible porosity, no hydrocarbon fluorescence. ARENACEOUS SILTSTONE: dark grey to medium grey, common greyish black to olive black, moderately hard to predominantly very hard, commonly brittle, subblocky to minor subfissile, commonly arenaceous in part grading to ARENACEOUS SILTSTONE, non to weakly calcareous in part, trace loose medium grained white calcite.
		Gas & Shows Comments	Steady 28 units background, starting to increase from 1258 mMDRT to 47 units at base.
		ROP Comments	Mainly steady at 25m/hr
1,266.0 - 1,281.0	Min :8.00 Avg :24.90 Max :32.40	**Lithology Summary**	Massive SANDSTONE.
		Lithology Description	SANDSTONE: medium dark grey to greyish black, slightly hard to very hard, sub-blocky to blocky, very fine to lower very fine grained, common silt, well sorted, sub-angular to sub-rounded, sub-elongate to sub-spherical, grading to ARENACEOUS SILTSTONE, common medium dark grey, hard, upper very fine-grained cuttings, common strong calcareous-dolomitic cement in medium dark grey cuttings, argillaceous cement in greyish black cuttings, common black coal grains in greyish black cuttings, common K-feldspar grains in medium dark grey cuttings, medium dark grey cuttings indicate fine clean sand lamillae with poor visible porosity, nil to poor visible porosity in greyish black cuttings, no hydrocarbon fluorescence.
		Gas & Shows Comments	Steady 45-50 units with a peak at 1272.5 mMDRT
		ROP Comments	Decreasing from 27m/hr to 18m/hr with depth.

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Lithology Summary

Internal m MDRT	ROP (m/h)	Lithology Comments	
1,281.0 - 1,314.0	Min :11.30 Avg :23.10 Max :34.10	**Lithology Summary**	Dominantly SANDSTONE with minor interbedded SILTSTONE.
		Lithology Description	SANDSTONE: medium light grey, slightly hard, sub-block to blocky, rare medium to lower very fine, dominantly fine to lower-fine grained, rare coarse shattered quartz grains/mineral vein fragments, moderately sorted, sub-angular, sub-spherical to sub-elongate, cement variable, weak calcareous-dolomitic cement in places grading to strong siliceous cement, common K-feldspar, common kaolin, nil to poor visible porosity, nil hydrocarbon fluorescence. ARENACEOUS SILTSTONE: greyish black, slightly hard, brittle, blocky in places, sub-fissile in places, argillaceous matrix, arenaceous, weak dolomitic cement, rare k-feldspar, rare coal grains.
		Gas & Shows Comments	80 units background, gradual decrease after peak at 1290 mMDRT
		ROP Comments	Relatively steady with slower interval near base.
1,314.0 - 1,356.0	Min :5.70 Avg :17.90 Max :29.40	**Lithology Summary**	Dominantly SANDSTONES with occasional ARENACEOUS SILTSTONE interbeds.
		Lithology Description	SANDSTONE: translucent loose grains, coarse to very fine, very poorly sorted, angular, sub-elongate to elongate, weak siliceous cement, rare lithic fragments, rare K-feldspar grains, moderate inferred porosity, no hydrocarbon fluorescence. ARENACEOUS SILTSTONE: dark grey, firm, sub-blocky, crumbly, common black carbonaceous grains, common K-feldspar.
		Gas & Shows Comments	Initial background of 55 units, decreasing to 30 units with depth.
		ROP Comments	Marginally faster in the upper sections of the interval.

Gas Summary

Gas Type	Depth m	Total Gas Units	C1 ppm	C2 ppm	C3 ppm	iC4 ppm	nC4 ppm	iC5 ppm	nC5 ppm	CO2 ppm	H2S ppm
Background	1,120.0 - 1,215.0	28.0	4,300	360	374	68	123	27	23	0	0
Background	1,215.0 - 1,266.0	28.0	3,670	276	285	61	141	42	42	0	0
Peak	1,242.5	46.4	5,194	450	506	114	246	73	66	0	0
Background	1,266.0 - 1,281.0	50.0	5,780	549	579	130	290	93	84	0	0
Peak	1,272.5	83.9	9,637	944	1,023	239	535	174	159	0	0
Background	1,281.0 - 1,314.0	71.0	8,390	815	830	206	431	158	132	0	0
Background	1,314.0 - 1,356.0	40.0	5,392	403	265	49	116	45	47	0	0

General Comments

Comments
Updated formation tops for Toolebuc and Wallumbilla in Formations Table.

06:00 Hrs Update

Depth (MDRT):	1,357.0m
Progress Since Midnight:	19.0m
Operation Summary:	Drilled ahead with 8 1/2" BHA, performed wiper trip to shoe.
ROP Summary:	Steady 16m/hr
Formation Summary:	Lower NAMUR FORMATION
Lithology Summary:	SANDSTONE
Gas Summary:	Steady 30 units.

Wellsite Geologist(s)

(Days) - Alan Wrightstone (Nights) -

Printed on 15 Feb 2013

Drillsearch

Tibor-1 Drilling

Date: 16 Feb 2013 | **DAILY GEOLOGY REPORT NUMBER: 10** | (associated DDR # 16)

Well Details

Depth MDBRT	: 1,473.0 m	**Report Period**	: 00:00 - 24:00	**Date**	: 16 Feb 2013
Depth TVDBRT	: 1,473.0 m	**Last Csg Size**	: 9.625 in	**24hr Progress**	: 135.0 m
Depth TVDSS	: 1,332.85 m	**Last Csg Shoe MD**	: 750.9 m	**Report Start Depth**	: 1,338.0 m
RT - GL	: 5.15 m	**Last Csg Shoe TVD**	: 750.9 m	**Report End Depth**	: 1,473.0 m
Ground Level	: 135.0 m	**FIT / LOT**	: / 16.64 ppg	**Days since Spud**	: 9.29
RT - Hanger	:	**Liner (MDRT/TVDRT)**	: /	**Rig**	: Ensign 918
Hole Size	: 8.500 in			**Mud Weight**	: 9.00 ppg
Last Survey (MDRT/TVDRT)	: 1,388.0 m / 1,387.8 m			**Mud Type**	: KCL/PHB/POL mud
Survey Deviation	: Inc. 0.80 ° Az 17.00 °				

Geology 24hr Operations Summary

24hr Summary:	Drilled ahead with 8 1/2" BHA to 1463 mMDRT (kelly-down), p/u to ream, encountered tight spot at 1457 mMDRT, worked string, encountered tight spot at 1451 mMDRT while reaming, worked string up, RIH and tagged top of 8m MD of fill, reamed down through fill, pumped pill, reamed to bottom, reamed last pipe three times before making connection and drilled ahead.
24hr Forward Plan:	Drill ahead with 8 1/2" BHA.

Formation Tops

Formation	Prognosed			Actual			Diff.	Thickness TVD (m)	Pick Criteria
	MDRT (m)	TVDRT (m)	TVDSS (m)	MDRT (m)	TVDRT (m)	TVDSS (m)	+/- TVD (m)		
Winton Formation	5.0	5.0	-135.15	10.7	10.7	-129.45	5.7 Low	622.3	Surface
Mackunda Formation	615.0	615.0	474.85	633.0	633.0	492.8300000	18 Low	117.0	Lithology/ROP
Allaru Mudstone	700.0	700.0	559.85	750.0	750.0	609.82	50 Low	161.9	Lithology
Toolebuc Formation	929.0	929.0	788.85	912.0	911.9	771.75	17.1 High	58.0	Lithology
Wallumbilla Formation	975.0	975.0	834.85	970.0	969.9	829.75	5.1 High	245.0	Lithology
Cadna-Owie Formation	1215.0	1215.0	1074.85	1215.0	1214.9	1074.75	0.1 High	66.0	Lithology
Murta Formation	1286.0	1286.0	1145.85	1281.0	1280.9	1140.75	5.1 High	33.0	Lithology
Namur Sandstone	1316.0	1316.0	1175.85	1314.0	1313.9	1173.75	2.1 High	101.0	Lithology
Westbourne Formation	1412.0	1412.0	1271.85	1415.0	1414.9	1274.75	2.9 Low	44.9	ROP
Adori Sandstone	1482.0	1482.0	1341.85	1460.0	1459.8	1319.65	22.2 High	0.0	ROP/Lithology
Birkhead Formation	1541.0	1541.0	1400.85						
Hutton Sandstone	1638.0	1638.0	1497.85						

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Lithology Summary			
Internal m MDRT	**ROP (m/h)**	**Lithology Comments**	
1,356.0 - 1,380.0	Min :6.10 Avg :16.50 Max :25.20	**Lithology Summary**	SANDSTONES with rare ARENACEOUS SILTSTONE beds decreasing with depth.
		Lithology Description	SANDSTONE: loose, translucent to very light grey, very fine to medium grained, subrounded to rarely subangular, very well sorted, moderate sphericity, trace weak siliceous cement, trace fine grained calcite, fair to good inferred porosity, no fluoresence. SILTSTONE: dark grey to greyish black, firm to occasionally moderately hard, blocky, very finely arenaceous, carbonaceous, noon-calcareous, trace micromicaceous in part.
		Gas & Shows Comments	Remains consistent.
		ROP Comments	Relatively consistent through interval.
1,380.0 - 1,386.0	Min :16.70 Avg :21.10 Max :25.50	**Lithology Summary**	Massive SANDSTONE.
		Lithology Description	SANDSTONE: loose to common friable aggregates, translucent to very light grey (50%), brownish black to greyish black (50%), very fine to lower medium grained, subrounded to rarely subangular, very well sorted, moderate sphericity, trace fractured grains, occasional weak siliceous cement, trace very light grey argillaceous matrix, very silty where brownish black to greyish black grading to ARENACEOUS SILTSTONE, trace fine grained calcite, trace very fine grained black lithics/carbonaceous specks, trace pyritic cement, poor visual porosity, trace dull yellow pinpoint fluorescence, bluish white crush cut, thick yellowish white residue ring.
		Gas & Shows Comments	Rising background with single good gas peak, lack of lighter gas compounds infer a heavy residual hydrocarbon.
		ROP Comments	Remains consistent, increases at end of interval.
1,386.0 - 1,415.0	Min :3.90 Avg :13.00 Max :25.60	**Lithology Summary**	Massive SANDSTONE, becomes fine and better sorted with depth.
		Lithology Description	SANDSTONE: loose, translucent to very light grey, very fine to medium grained, subrounded to rarely subangular, very well sorted, moderate sphericity, trace weak siliceous cement, trace fine grained calcite, fair to good inferred porosity, no fluoresence.
		Gas & Shows Comments	Single high peak at top of interval before dropping down to lower background that shown in previous interval.
		ROP Comments	Initial ROP decreases quickly and remains consistent through interval.
1,415.0 - 1,460.0	Min :5.20 Avg :17.40 Max :28.40	**Lithology Summary**	SANDSTONES with minor ARENACEOUS SILTSTONE beds becoming absent with depth.
		Lithology Description	SANDSTONE: firm to friable, translucent to very light grey, very fine to medium grained, rare lower coarse grained, subrounded to rarely subangular, moderately well sorted, moderate sphericity, trace weak siliceous cement, minor fine grained calcite, poor to fair inferred porosity, no fluoresence. SILTSTONE: dark yellowish brown to yellowish brown, minor greyish black to brownish black, firm to minor moderately hard, subblocky to rarely subfissile, commonly arenaceous grading to ARENACEOUS SILTSTONE in part, micromicaceous in part, non-calcareous.
		Gas & Shows Comments	Background increases from previous interval. Single peak at 1445.5 mMDRT, lack of lighter compounds infers heavy residual hydrocarbons.
		ROP Comments	Slight increase through centre of interval.
1,460.0 - 1,476.0	Min :4.30 Avg :7.90 Max :13.40	**Lithology Summary**	Massive SANDSTONE
		Lithology Description	SANDSTONE: translucent, loose, fine sand cuttings slightly firm, brittle, platy, very fine to medium, rare lower coarse grains, sub-rounbded to rarely sub-angular, sub-elongate, fines sub-spherical, moderately sorted, weak silicious cement, common K-feldspar grains, poor to fair inferred porosity, trace dull yellow/green patchy fluorescence, very pale bluish white crush cut, thin pale blue/white residue ring.
		Gas & Shows Comments	Cuttings with non-mineral fluorencence rare. Background gas drops below previous interval.
		ROP Comments	Consistent through interval.

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Oil Shows

Basic Details							Oil Stain Details													
Depth From (m)	Depth To (m)	Thickness (m)	Formation	Lithology	MW Over Balance	Increase in ROP into Show Interval	Visual Porosity	Show Lithology With Fluor	White Light: Amount of Stain	White Light: Stain Colour	White Light: Cut Colour	White Light: Amount of Residue	Fluor Colour	Fluor Distrib	Fluor Intensity	Dominant Cut Fluor	HC Residue Spot Dish	HC Odour	Oil Scum in Mud	Show Rate (Category)
1,380.0	1,383.0	3.00	Namur Sandstone	Sandstone	Nil	None	5% or less	Trace	Nil	Nil	Nil	Nil	Yellow	Pin Point	Dull	Crush	Thick Ring	None	None	-
1,470.0	1,473.0	3.00	Adori Sandstone	Sandstone	Nil	None	5% or less	Trace	Nil	Nil	Nil	Nil	Yellow	Patchy	Dull	Crush	Nil	None	None	-

Gas Summary

Gas Type	Depth m	Total Gas Units	C1 ppm	C2 ppm	C3 ppm	iC4 ppm	nC4 ppm	iC5 ppm	nC5 ppm	CO2 ppm	H2S ppm
Background	1,356.0 - 1,380.0	27.0	3,760	266	182	40	81	34	35	0	0
Background	1,380.0 - 1,386.0	50.0	5,722	617	520	118	225	89	70	0	0
Peak	1,384.5	150.0	15,043	2,149	1,967	465	893	335	243	0	0
Background	1,386.0 - 1,415.0	23.0	1,878	230	266	73	163	76	70	0	0
Peak	1,387.5	180.0	16,458	2,542	2,451	611	1,191	485	357	0	0
Background	1,415.0 - 1,460.0	24.0	2,633	218	180	54	112	67	58	0	0
Peak	1,426.5	48.0	7,367	525	388	109	210	117	99	0	0
Peak	1,435.5	82.6	7,092	911	831	247	474	249	188	0	0
Peak	1,445.0	114.2	10,179	1,262	1,183	376	753	433	335	0	0
Background	1,460.0 - 1,476.0	17.0	1,707	123	99	31	68	45	45	0	0

General Comments

Comments
Potential wash-out of hole, base at 1463 mMDRT, more wash-outs likely in Westbourne and Adori Formations.

06:00 Hrs Update

Depth (MDRT):	1,482.0m
Progress Since Midnight:	9.0m
Operation Summary:	Drilling ahead with 8 1/2" BHA.
ROP Summary:	Steady 16m/hr
Formation Summary:	Upper Adori Formation.
Lithology Summary:	Massive clean SANDSTONE
Gas Summary:	Generally remaining low. Unusually low C1 compared to heavier compounds infers traces of heavy/residual hydrocarbon.

Wellsite Geologist(s)

(Days) - Alan Wrightstone (Nights) - Craig Bunting

Printed on 16 Feb 2013

Drillsearch

Tibor-1 Drilling

Date: 17 Feb 2013 | **DAILY GEOLOGY REPORT NUMBER: 11** | (associated DDR # 17)

Well Details

Depth MDBRT	: 1,486.0 m	**Report Period**	: 00:00 - 24:00	**Date**	: 17 Feb 2013
Depth TVDBRT	: 1,485.9 m	**Last Csg Size**	: 9.625 in	**24hr Progress**	: 13.0 m
Depth TVDSS	: 1,345.75 m	**Last Csg Shoe MD**	: 750.9 m	**Report Start Depth**	: 1,476.0 m
RT - GL	: 5.15 m	**Last Csg Shoe TVD**	: 750.9 m	**Report End Depth**	: 1,495.0 m
Ground Level	: 135.0 m	**FIT / LOT**	: / 16.64 ppg	**Days since Spud**	: 10.29
RT - Hanger	:	**Liner (MDRT/TVDRT)**	: /	**Rig**	: Ensign 918
Hole Size	: 8.500 in			**Mud Weight**	: 9.30 ppg
Last Survey (MDRT/TVDRT)	: 1,388.0 m / 1,387.8 m			**Mud Type**	: KCL/PHB/POL mud
Survey Deviation	: Inc. 0.80 ° Az 17.00 °				

Geology 24hr Operations Summary

24hr Summary:	Drill ahead to 1486.5 mMDRT, experienced problems picking up at connections, POOH to surface, bit 1/16" under-gauge on lower 2/3, in-gauge at shoulders, some damage to teeth, RIH w/ new bit, reamed down last 7 joints and drilled remaining 4m MDRT to next connection, mud loss on trip in-line with former trips, drilled ahead with 8 1/2" BHA.
24hr Forward Plan:	Drill ahead with 8 1/2" BHA.

Formation Tops

Formation	Prognosed			Actual			Diff.	Thickness TVD (m)	Pick Criteria
	MDRT (m)	TVDRT (m)	TVDSS (m)	MDRT (m)	TVDRT (m)	TVDSS (m)	+/- TVD (m)		
Winton Formation	5.0	5.0	-135.15	10.7	10.7	-129.45	5.7 Low	622.3	Surface
Mackunda Formation	615.0	615.0	474.85	633.0	633.0	492.8300000	18 Low	117.0	Lithology/ROP
Allaru Mudstone	700.0	700.0	559.85	750.0	750.0	609.82	50 Low	161.9	Lithology
Toolebuc Formation	929.0	929.0	788.85	912.0	911.9	771.75	17.1 High	58.0	Lithology
Wallumbilla Formation	975.0	975.0	834.85	970.0	969.9	829.75	5.1 High	245.0	Lithology
Cadna-Owie Formation	1215.0	1215.0	1074.85	1215.0	1214.9	1074.75	0.1 High	66.0	Lithology
Murta Formation	1286.0	1286.0	1145.85	1281.0	1280.9	1140.75	5.1 High	33.0	Lithology
Namur Sandstone	1316.0	1316.0	1175.85	1314.0	1313.9	1173.75	2.1 High	101.0	Lithology
Westbourne Formation	1412.0	1412.0	1271.85	1415.0	1414.9	1274.75	2.9 Low	44.9	ROP
Adori Sandstone	1482.0	1482.0	1341.85	1460.0	1459.8	1319.65	22.2 High	0.0	ROP/Lithology
Birkhead Formation	1541.0	1541.0	1400.85						
Hutton Sandstone	1638.0	1638.0	1497.85						

Lithology Summary

Internal m MDRT	ROP (m/h)	Lithology Comments	
1,476.0 - 1,495.0	Min :3.00 Avg :6.20 Max :9.70	**Lithology Summary**	Massive SANDSTONES with rare ARENACEOUS SILTSTONE stringers. This interval ends at end of bit-run.
		Lithology Description	SANDSTONE: translucent, loose, fine sand cuttings slightly firm, brittle, platy, very fine, rare lower coarse grains, sub-rounbded, sub-spherical becoming angular, sub-elongate with depth, well sorted, weak silicious cement becoming variably cemented with depth weak to strong, common K-feldspar grains, occasional kaolinite matrix, abundant fine carbonaceous grains in 1482-1485mMDRT sample, poor to fair inferred porosity, rare mineral fluorescence.
		Gas & Shows Comments	Gas levels remain low.
		ROP Comments	ROP remains consistent.

Gas Summary

Gas Type	Depth m	Total Gas Units	C1 ppm	C2 ppm	C3 ppm	iC4 ppm	nC4 ppm	iC5 ppm	nC5 ppm	CO2 ppm	H2S ppm
Background	1,476.0 - 1,495.0	10.8	1,064	98	86	26	53	31	27	0	0

Drillsearch

General Comments
Comments
* Potential wash-out of hole, base at 1463 mMDRT, more wash-outs likely in Westbourne and Adori Formations. * Increased mud weight from 9.0 to 9.3 ppg at 1482.0 mMDRT before drilling ahead.

06:00 Hrs Update	
Depth (MDRT):	1,509.0m
Progress Since Midnight:	23.0m
Operation Summary:	Drilled ahead with 8 1/2" BHA.
ROP Summary:	Steady 7m/hr
Formation Summary:	Continuing through the Adori Formation.
Lithology Summary:	Massive SANDSTONE continues.
Gas Summary:	Gas levels drop to a new background at 1473 mMDRT. There is also a relative reduction in the C3-C5 fraction compared to the C1 and C2 from 1473 downwards which likely represents a fluid boundary.

Wellsite Geologist(s)	
(Days) - Alan Wrightstone	(Nights) - Craig Bunting

Printed on 17 Feb 2013

Drillsearch

Tibor-1 Drilling

Date: 18 Feb 2013 | **DAILY GEOLOGY REPORT NUMBER: 12** | (associated DDR # 18)

Well Details

Depth MDBRT	: 1,723.0 m	**Report Period**	: 00:00 - 24:00	**Date**	: 18 Feb 2013
Depth TVDBRT	: 1,723.0 m	**Last Csg Size**	: 9.625 in	**24hr Progress**	: 237.0 m
Depth TVDSS	: 1,582.85 m	**Last Csg Shoe MD**	: 750.9 m	**Report Start Depth**	: 1,495.0 m
RT - GL	: 5.15 m	**Last Csg Shoe TVD**	: 750.9 m	**Report End Depth**	: 1,723.0 m
Ground Level	: 135.0 m	**FIT / LOT**	: / 16.64 ppg	**Days since Spud**	: 11.29
RT - Hanger	:	**Liner (MDRT/TVDRT)**	: /	**Rig**	: Ensign 918
Hole Size	: 8.500 in			**Mud Weight**	: 9.30 ppg
Last Survey (MDRT/TVDRT)	: 1,712.0 m / 1,711.8 m			**Mud Type**	: KCL/PHB/POL mud
Survey Deviation	: Inc. 1.50 ° Az 210.00 °				

Geology 24hr Operations Summary

24hr Summary:	Drill ahead with 8 1/2" BHA to 1723mMDRT (TD), circulated hole clean.
24hr Forward Plan:	Wiper trip, POOH, prepare for wireline logging programme.

Formation Tops

Formation	Prognosed			Actual			Diff.	Thickness	Pick Criteria
	MDRT (m)	TVDRT (m)	TVDSS (m)	MDRT (m)	TVDRT (m)	TVDSS (m)	+/- TVD (m)	TVD (m)	
Winton Formation	5.0	5.0	-135.15	10.7	10.7	-129.45	5.7 Low	622.3	Surface
Mackunda Formation	615.0	615.0	474.85	633.0	633.0	492.83	18 Low	117.0	Lithology/ROP
Allaru Mudstone	700.0	700.0	559.85	750.0	750.0	609.82	50 Low	161.9	Lithology
Toolebuc Formation	929.0	929.0	788.85	912.0	911.9	771.75	17.1 High	58.0	Lithology
Wallumbilla Formation	975.0	975.0	834.85	970.0	969.9	829.75	5.1 High	245.0	Lithology
Cadna-Owie Formation	1215.0	1215.0	1074.85	1215.0	1214.9	1074.75	0.1 High	66.0	Lithology
Murta Formation	1286.0	1286.0	1145.85	1281.0	1280.9	1140.75	5.1 High	33.0	Lithology
Namur Sandstone	1316.0	1316.0	1175.85	1314.0	1313.9	1173.75	2.1 High	101.0	Lithology
Westbourne Formation	1412.0	1412.0	1271.85	1415.0	1414.9	1274.75	2.9 Low	44.9	ROP
Adori Sandstone	1482.0	1482.0	1341.85	1460.0	1459.8	1319.65	22.2 High	66.0	ROP/Lithology
Birkhead Formation	1541.0	1541.0	1400.85	1526.0	1525.8	1385.65	15.2 High	97.0	Lithology
Hutton Sandstone	1638.0	1638.0	1497.85	1623.0	1622.8	1482.65	15.2 High	0.0	Lithology/ROP

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Lithology Summary

Internal m MDRT	ROP (m/h)	Lithology Comments	
1,495.0 - 1,526.0	Min :5.00 Avg :9.30 Max :14.10	**Lithology Summary**	Massive SANDSTONE continuation of the Adori Formation.
		Lithology Description	SANDSTONE: translucent, slightly hard to hard, crumbly to brittle, commonly loose sand, sub-blocky, occasionally medium to fine, moderately to well sorted, angular, sub-elongate, white kaolinite infill in places, variable weak to strong siliceous cement, rare K-feldspar, poor to fair porosity, rare mineral fluorescence.
		Gas & Shows Comments	Gas remains at a low level.
		ROP Comments	Consistent through the interval.
1,526.0 - 1,590.0	Min :7.30 Avg :34.40 Max :21.10	**Lithology Summary**	Top of Birkhead Formation, dominantly SANDSTONE with common ARENACEOUS SILTSTONES decreasing with depth near base.
		Lithology Description	SANDSTONE: predominantly as loose, common firm to friable aggreagates, translucent to very light grey, upper medium to lower fine, tarce very fine, moderately well sorted, subrounded to commonly angular, subelongate, trace white kaolinite infill in places, variably weak to strong siliceous cement, trace quartz overgrowths, minor fine grained black carbonaceous grains/specks in matrix, rare K-feldspar, abundant light brownish grey sticky clay washing out during sample preparation, poor to fair inferred porosity, no fluorescence. ARENACEOUS SILTSTONE: olive black - brownish black, hard, brittle, subblocky to subfissile, abundantly arenaceous, common fine black carbonaceous grains and flakes, moderately calcareous with occasional white calcite lamination/veins, micromicaceous in part, no fluorenscence.
		Gas & Shows Comments	Gas maintains the background from the preceding interval up until 1540mMDRT whereupon the background increases slightly and increasing further in the centre of the interval.
		ROP Comments	Generally increases slightly though the interval.
1,590.0 - 1,623.0	Min :15.20 Avg :22.70 Max :30.40	**Lithology Summary**	SANDSTONES with minor ARENACEOUS SILTSTONES quickly becoming mostly ARENACEOUS SILTSTONE, common SANDSTONES and traces of COAL with depth.
		Lithology Description	SANDSTONE: friable to commonly firm aggreagates, translucent to very light grey, lower medium to upper fine,occasional very fine, moderately well sorted, subrounded to subangular, subelongate, minor white kaolinite infill in places, occasional weak siliceous cement, trace quartz overgrowths, minor calcareous cement, minor calcite infill, common fine grained black carbonaceous grains/ specks in matrix, minor light greyish brown sticky clay washing out during sample preparation, in 1599-1602 sample only: poor inferred porosity, spotty dull yellowish white fluorescence, very dull yellowish white crush cut, pale yellowish white thin residue ring. ARENACEOUS SILTSTONE: olive black - brownish black, brownisg grey to dark yellowish brown, firm to moderately hard, bsubblocky to blocky, abundantly arenaceous, common fine black carbonaceous grains and flakes, moderately calcareous with trace white calcite lamination/veins, micromicaceous in part, trace very carbonaceous and grading to SILTY COAL, no fluorenscence. COAL: brownish black, very hard, blocky, subvitreous, lightly argillaceous in part.
		Gas & Shows Comments	After initial peaks gas background remains consistent.
		ROP Comments	Initially slows, increases towards base.

Drillsearch

Lithology Summary

Internal m MDRT	ROP (m/h)	Lithology Comments	
1,623.0 - 1,723.0	Min :11.60 Avg :33.00 Max :22.60	**Lithology Summary**	Top Hutton Formation is immediate massive SANDSTONES continuing to TD.
		Lithology Description	SANDSTONE: loose, translucent to very light grey, coarse to lower very fine, repeating cycles of upper very coarse to lower very fine sand becoming coarse to lower very fine over c.10m MD intervals from 1686 to TD, common coarse re-worked shattered quartz, occasionally subrounded to angular, sub-spherical to elongate, poorly sorted, trace quartz overgrowths, grain supported, trace light brownish grey clay wasing out during sample preparation, in samples 1686-1689mMDRT and 1710-1713MMDRT only trace dull yellow/green patchy fluorescence, very pale bluish white crush cut, thin pale blue/white residue ring, rare mineral fluorescence in other samples.
		Gas & Shows Comments	Gas levels increase slightly at 1671mMDRT. At this depth the fluid signature changes to infer a slightly heavier hydrocarbon signature but not the water-saturation zone. As gas levels are generally low the signature is not clear.
		ROP Comments	Generally consistent.

Oil Shows

Basic Details							Oil Stain Details													
Depth From (m)	Depth To (m)	Thickness (m)	Formation	Lithology	MW Over Balance	Increase in ROP into Show Interval	Visual Porosity	Show Lithology With Fluor	White Light: Amount of Stain	White Light: Stain Colour	White Light: Cut Colour	White Light: Amount of Residue	Fluor Colour	Fluor Distrib	Fluor Intensity	Dominant Cut Fluor	HC Residue Spot Dish	HC Odour	Oil Scum in Mud	Show Rate (Category)
1,677.0	1,680.0	3.00	Hutton Sandstone	Sandstone	Nil	None	5% or less	Trace	Nil	Nil	Nil	Nil	Yellow	Spotted	Faint	Crush	Thin Ring	None	None	-
1,686.0	1,689.0	3.00	Hutton Sandstone	Sandstone	Nil	None	5% or less	Trace	Nil	Nil	Nil	Nil	Yellow	Spotted	Faint	Crush	Thin Ring	None	None	-

Gas Summary

Gas Type	Depth m	Total Gas Units	C1 ppm	C2 ppm	C3 ppm	iC4 ppm	nC4 ppm	iC5 ppm	nC5 ppm	CO2 ppm	H2S ppm
Background	1,495.0 - 1,526.0	13.8	1,337	144	130	39	76	41	31	0	0
Background	1,526.0 - 1,590.0	28.7	3,293	325	238	53	128	54	52	0	0
Peak	1,541.0	213.6	15,421	2,232	2,507	813	1,812	809	726	0	0
Peak	1,559.0	73.9	8,201	1,039	778	159	376	129	120	0	0
Peak	1,562.0	80.2	8,820	1,144	880	189	433	155	143	0	0
Background	1,590.0 - 1,623.0	42.7	5,647	475	281	70	127	67	55	0	0
Peak	1,591.0	137.9	14,078	2,009	1,606	397	804	338	265	0	0
Peak	1,593.5	142.9	14,234	2,143	1,750	430	867	355	276	0	0
Background	1,623.0 - 1,723.0	42.3	6,096	466	242	56	100	55	43	0	0
Peak	1,636.0	67.0	8,660	894	572	143	238	118	81	0	0
Peak	1,641.5	67.0	8,660	894	572	143	238	118	81	0	0
Peak	1,674.5	87.9	9,488	1,184	910	247	426	208	138	0	0
Peak	1,677.5	76.4	9,544	933	934	155	298	134	104	0	0
Peak	1,692.0	72.4	9,337	979	572	122	231	104	80	0	0
Peak	1,721.0	71.0	9,041	939	526	112	210	98	76	0	0

General Comments

Comments

* Worked tight spots POOH at 1421mMDRT and 1432mMDRT.

06:00 Hrs Update	
Depth (MDRT):	1,723.0m
Progress Since Midnight:	0.0m
Operation Summary:	Continued to circulate hole clean, POOH to 1365, RIH to TD, POOH.
ROP Summary:	Relatively consistent, slightly faster through the base of the Birkhead Formation
Formation Summary:	SANDSTONE and ARENACEOUS SILTSTONE in Birkhead Formation and massive SANDSTONE in Hutton Formation.
Lithology Summary:	MOSTLTY SANDSTONE with ARENACEOUS SILTSTONE
Gas Summary:	Generally low levels consistent with increase in mud weight, some peaks.

Wellsite Geologist(s)	
(Days) - Alan Wrightstone	(Nights) - Craig Bunting

Printed on 18 Feb 2013

Drillsearch

Tibor-1 Drilling

Date: 19 Feb 2013 | **DAILY GEOLOGY REPORT NUMBER: 13** | (associated DDR # 19)

Well Details

Depth MDBRT	: 1,723.0 m	**Report Period**	: 00:00 - 24:00	**Date**	: 19 Feb 2013
Depth TVDBRT	: 1,723.0 m	**Last Csg Size**	: 9.625 in	**24hr Progress**	: 0.0 m
Depth TVDSS	: 1,582.85 m	**Last Csg Shoe MD**	: 750.9 m	**Report Start Depth**	: 1,723.0 m
RT - GL	: 5.15 m	**Last Csg Shoe TVD**	: 750.9 m	**Report End Depth**	: 1,723.0 m
Ground Level	: 135.0 m	**FIT / LOT**	: / 16.64 ppg	**Days since Spud**	: 12.29
RT - Hanger	:	**Liner (MDRT/TVDRT)**	: /	**Rig**	: Ensign 918
Hole Size	: 8.500 in			**Mud Weight**	: 9.30 ppg
Last Survey (MDRT/TVDRT)	: 1,712.0 m / 1,711.8 m			**Mud Type**	: KCL/PHB/POL mud
Survey Deviation	: Inc. 1.50 ° Az 210.00 °				

Geology 24hr Operations Summary

24hr Summary:	Continued circulating while confirming 1723mMDRT as TD, flow-check: static, POOH on wiper trip to 1365mMDRT working tight spots at 1423mMDRT and 1421mMDRT until clear, RIH to bottom, washed down the last 10mMD, ran survey, POOH to surface, clear drill-floor and rig up for wireline logging, PJSM w/ Schlumberger WL crew, rig up and test Run#1 tool string, RIH w/ Run#1 and log as per programme, POOH, lay out WL tools, m/u Run#2, no function test performed on MAST tool pre-run, WL witness asked for function test- MAST tool found to not be working correctly, POOH, run internal diagnostics, recalibrate tool, function test- tool working, RIH w/ Run#2.
24hr Forward Plan:	Continue to RIH and log w/ Run#2, R/D Run#2, R/U Run#3 and perform VSI checkshots as per programme.

Formation Tops

Formation	Prognosed			Actual			Diff.	Thickness	Pick Criteria
	MDRT (m)	TVDRT (m)	TVDSS (m)	MDRT (m)	TVDRT (m)	TVDSS (m)	+/- TVD (m)	TVD (m)	
Winton Formation	5.0	5.0	-135.15	10.7	10.7	-129.45	5.7 Low	622.3	Surface
Mackunda Formation	615.0	615.0	474.85	633.0	633.0	492.83	18 Low	117.0	Lithology/ROP
Allaru Mudstone	700.0	700.0	559.85	750.0	750.0	609.82	50 Low	161.9	Lithology
Toolebuc Formation	929.0	929.0	788.85	912.0	911.9	771.75	17.1 High	58.0	Lithology
Wallumbilla Formation	975.0	975.0	834.85	970.0	969.9	829.75	5.1 High	245.0	Lithology
Cadna-Owie Formation	1215.0	1215.0	1074.85	1215.0	1214.9	1074.75	0.1 High	66.0	Lithology
Murta Formation	1286.0	1286.0	1145.85	1281.0	1280.9	1140.75	5.1 High	33.0	Lithology
Namur Sandstone	1316.0	1316.0	1175.85	1314.0	1313.9	1173.75	2.1 High	101.0	Lithology
Westbourne Formation	1412.0	1412.0	1271.85	1415.0	1414.9	1274.75	2.9 Low	43.9	ROP
Adori Sandstone	1482.0	1482.0	1341.85	1460.0	1458.8	1318.65	23.2 High	67.0	ROP/Lithology
Birkhead Formation	1541.0	1541.0	1400.85	1526.0	1525.8	1385.65	15.2 High	97.0	Lithology
Hutton Sandstone	1638.0	1638.0	1497.85	1623.0	1622.8	1482.65	15.2 High	0.0	Lithology/ROP

General Comments

Comments

Field Wireline Log Formation top picks (mMDRT):
Toolebuc Formation: 950.0 m
Wallumbilla Formation: 978 m
Cadna Owie Formation: 1209 m
Murta Member: 1290 m
Namur Sandstone Member: 1315.8 m
Westbourne Formation: 1408.0 m
Adori Sandstone: 1456.0 m
Birkhead Formation: 1526.0 m
Hutton Sandstone: 1622.0 m
Loggers TD: 1723.5 m

Printed on 19 Feb 2013

06:00 Hrs Update	
Depth (MDRT):	1,723.0m
Progress Since Midnight:	0.0m
Operation Summary:	Continued to RIH w/ Run#2, tagged bottom, logged hole, L/O WL tools.
ROP Summary:	
Formation Summary:	
Lithology Summary:	
Gas Summary:	

Wellsite Geologist(s)	
(Days) - Alan Wrightstone	(Nights) - Craig Bunting

Drillsearch

Tibor-1 Drilling

Date: 20 Feb 2013 | **DAILY GEOLOGY REPORT NUMBER: 14** | (associated DDR # 20)

Well Details

Depth MDBRT	: 1,723.0 m	**Report Period**	: 00:00 - 24:00	**Date**	: 20 Feb 2013
Depth TVDBRT	: 1,723.0 m	**Last Csg Size**	: 9.625 in	**24hr Progress**	: 0.0 m
Depth TVDSS	: 1,582.85 m	**Last Csg Shoe MD**	: 750.9 m	**Report Start Depth**	: 1,723.0 m
RT - GL	: 5.15 m	**Last Csg Shoe TVD**	: 750.9 m	**Report End Depth**	: 1,723.0 m
Ground Level	: 135.0 m	**FIT / LOT**	: / 16.64 ppg	**Days since Spud**	: 13.29
RT - Hanger	:	**Liner (MDRT/TVDRT)**	: /	**Rig**	: Ensign 918
Hole Size	: 8.500 in			**Mud Weight**	: 9.30 ppg
Last Survey (MDRT/TVDRT)	: 1,712.0 m / 1,711.8 m			**Mud Type**	: KCL/PHB/POL mud
Survey Deviation	: Inc. 1.50 ° Az 210.00 °				

Geology 24hr Operations Summary

24hr Summary:	Continued logging up with run #2 (PPC-MAST-GPIT), laid out tools at surface, picked up and ran in hole with run #3 (Checkshots). Picked up and took seismic data, laid out tools at surface and rigged down all wireline equipment. Ran in hole and laid out all BHA components. Picked up 2-7/8" cement stinger and ran into the hole to first plug depth (1638.0 mMDRT). Circulated hole while waiting on cement truck to arrive.
24hr Forward Plan:	Plug and abandon well with four cement plugs, prepare for rig move and handover to next contractor.

Formation Tops

Formation	Prognosed			Actual			Diff.	Thickness TVD (m)	Pick Criteria
	MDRT (m)	TVDRT (m)	TVDSS (m)	MDRT (m)	TVDRT (m)	TVDSS (m)	+/- TVD (m)		
Winton Formation	5.0	5.0	-135.15	10.7	10.7	-129.45	5.7 Low	622.3	Surface
Mackunda Formation	615.0	615.0	474.85	633.0	633.0	492.83	18 Low	117.0	Lithology/ROP
Allaru Mudstone	700.0	700.0	559.85	750.0	750.0	609.82	50 Low	161.9	Lithology
Toolebuc Formation	929.0	929.0	788.85	912.0	911.9	771.75	17.1 High	58.0	Lithology
Wallumbilla Formation	975.0	975.0	834.85	970.0	969.9	829.75	5.1 High	245.0	Lithology
Cadna-Owie Formation	1215.0	1215.0	1074.85	1215.0	1214.9	1074.75	0.1 High	66.0	Lithology
Murta Formation	1286.0	1286.0	1145.85	1281.0	1280.9	1140.75	5.1 High	33.0	Lithology
Namur Sandstone	1316.0	1316.0	1175.85	1314.0	1313.9	1173.75	2.1 High	101.0	Lithology
Westbourne Formation	1412.0	1412.0	1271.85	1415.0	1414.9	1274.75	2.9 Low	43.9	ROP
Adori Sandstone	1482.0	1482.0	1341.85	1460.0	1458.8	1318.65	23.2 High	67.0	ROP/Lithology
Birkhead Formation	1541.0	1541.0	1400.85	1526.0	1525.8	1385.65	15.2 High	97.0	Lithology
Hutton Sandstone	1638.0	1638.0	1497.85	1623.0	1622.8	1482.65	15.2 High	0.0	Lithology/ROP

General Comments

Comments

Field Wireline Log Formation top picks (mMDRT):
Toolebuc Formation: 950.0 m
Wallumbilla Formation: 978 m
Cadna Owie Formation: 1209 m
Murta Member: 1290 m
Namur Sandstone Member: 1315.8 m
Westbourne Formation: 1408.0 m
Adori Sandstone: 1456.0 m
Birkhead Formation: 1526.0 m
Hutton Sandstone: 1622.0 m
Loggers TD: 1723.5 m

Wireline Suite1:
Run 1: EDTC-SP-PPC-HNGS-HGNS-PEX-HRLA-ADT
Run 2: EDTC-MAST-PPC-FMI
Run 3: Checkshots-GR

This is the final DGR for Tibor-1

Printed on 20 Feb 2013

06:00 Hrs Update	
Depth (MDRT):	1,723.0m
Progress Since Midnight:	0.0m
Operation Summary:	Circulating the hole while waiting on cement truck to arrive.
ROP Summary:	No new formation drilled.
Formation Summary:	Hutton Formation
Lithology Summary:	Sandstone
Gas Summary:	Trip gas from 1638. 0mMDRT: 67 units

Wellsite Geologist(s)	
(Days) - Alan Wrightstone	(Nights) - Craig Bunting

Printed on 20 Feb 2013

Appendix 8 – Composite Log

Provided electronically on CD

Appendix 9 – Cuttings Descriptions

Tibor-1 Cuttings Descriptions													
												LITHOLOGY: colour, hardness, fracture and texture, grain size, sorting, angularity, sphericity, matrix, cementation, accessories and fossils, porosity, hydrocarbon shows.	
Depth From	**Depth To**	**CLYST %**	**SLTST %**	**SST %**	**COAL %**	**LST %**	**DOL %**	**META %**	**VOLC %**	**PLUT %**	**CMT %**	**Description**	**Comments**
10	20	70		30								CLAYSTONE: very pale orange to greyish orange, firm, minor soft, sub-blocky, weakly calcareous, trace very fine arenaceous material, trace carbonaceous detritus. ARGILLACEOUS SANDSTONE: dark yellow orange to very light grey, trace translucent, friable, fine to very	**Surficial Sediments & Winton Formation** from surface.
20	30	80		20								as above	
30	40	100										CLAYSTONE: medium dark grey to commonly dark greenish grey, minor brownish grey, soft to firm, subblocky, silty in part, commonly arenaceous, grading to Argillaceous Sandstone in part, trace carbonaceo detritus.	
40	50	100										as above	
50	60	100										ARGILLACEOUS SANDSTONE: medium dark grey to dark greenish grey, friable to occasionally firm, very fine to minor fine grained,, subangular to rounded, moderatelywell sorted, subspherical to subelongated, 50% argillaceous matrix supported, occasional weak siliceous cement, trace lithic fragments, trace carbonaceous	
60	70		40	60								ARGILLACEOUS SILTSTONE: light grey to light greenish grey, firm, subblocky, trace calcareous, minor clay material, occasioanl very fine to minor fine sand. ARGILLACEOUS SANDSTONE: as above.	
70	80		10	90								SANDSTONE: light grey to light greenish grey aggregates, friable to moderately hard, very fine to fine, predominantly medium, subangular to angular, minor subrounded, moderately well sorted, subspherical to subelongated, minor argillaceous matrix, common loose fine to medium grained quartz, weakly calcareous in	
80	90		5	95								SANDSTONE: generally as above but less loose quartz (trace). ARGILLACEOUS SILTSTONE: as above.	
90	100		30	70								SANDSTONE: as above. ARGILLACEOUS SILTSTONE: as above.	
100	110		70	30								SANDSTONE: as above. ARGILLACEOUS SILTSTONE: as above.	
110	120	100										CLAYSTONE: light grey to common light greenish grey, minor light brownish grey, soft to rarely firm, subblocky, silty in part, trace lithic specks, trace very fine grained loose quartz, non-calcareous.	
120	130	100										CLAYSTONE: generally as above but trace light brownish grey and no loose quartz grains.	
130	140	100										CLAYSTONE: as above.	
140	150	95	5									CLAYSTONE: as above. ARGILLACEOUS LIMESTONE: mudstone, brownish grey to olive grey, firm to commonly moderately hard, blocky to subblocky, silty in part, commonly argillaceous, trace carbonaceous specks.	
150	160	100										CLAYSTONE: medium grey, greenish grey to predominantly dark greenish grey, soft to minor firm, subbloc silty in part, trace brownish black carbonaceous specks, weakly calcareous in part.	
160	170	100										CLAYSTONE: as above.	
170	180			100								ARGILLACEOUS SANDSTONE: light grey to very light green grey, light olive grey in part, friable, fine to dominantly very fine, sub-angular to angular, well sorted, sub-spherical, abundant very light grey argillaceous matrix, minor weak siliceous cement, trace lithic fragments, trace brownish black carbonaceous specks, very	
180	190			100								ARGILLACEOUS SANDSTONE: as above.	
190	200			100								ARGILLACEOUS SANDSTONE: generally as above, slightly silty in part.	
200	210			100								SANDSTONE (90%): mottled very light grey to light green grey, translucent to transparent, loose, very fine to fine, subangular to subrounded, moderately well sorted, subspherical, trace argillaceous matrix, minor weak calcareous, trace weak siliceous cement, trace lithics, poor visible porosity, no hydrocarbon fluorescence.	
210	220		30	70								ARGILLACEOUS SILTSTONE: very light grey to light greenish grey, trace light brownish grey, soft to occasionally firm, common argillaceous material, trace brownish black carbonaceous specks. ARGILLACEOUS SANDSTONE: as above.	
220	230		50	50								ARGILLACEOUS SILTSTONE: as above but overall becoming firmer. ARGILLACEOUS SANDSTONE: as above.	
230	240		20	80								ARGILLACEOUS SILTSTONE: as above. ARGILLACEOUS SANDSTONE: as above but predominantly loose.	
240	250		30	70								ARGILLACEOUS SILTSTONE: as above. ARGILLACEOUS SANDSTONE: as above,rare brownish black coal detritus.	
250	260		30	70								ARGILLACEOUS SILTSTONE: as above. ARGILLACEOUS SANDSTONE: as above.	
260	270		50	50								ARGILLACEOUS SILTSTONE: as above. ARGILLACEOUS SANDSTONE: as above.	
270	280		40	60								ARGILLACEOUS SANDSTONE: light grey to very light green grey, trace light olive grey, friable, silt sized to fine grained, minor medium grained, , subangular to angular, well sorted, subspherical, abundant very light grey argillaceous matrix, trace weak siliceous cement, trace lithic fragments, trace brownish black	
280	290		50	50								ARGILLACEOUS SILTSTONE: as above. ARGILLACEOUS SANDSTONE: as above.	
290	300		40	60								ARGILLACEOUS SILTSTONE: as above. ARGILLACEOUS SANDSTONE: as above, silty firmer in part.	
300	310		60	40								ARGILLACEOUS SILTSTONE: as above. ARGILLACEOUS SANDSTONE: as above, trace disseminated pyrite.	
310	320		40	60								ARGILLACEOUS SILTSTONE: as above. ARGILLACEOUS SANDSTONE: as above but slightly more loose grained.	
320	330		20	80								ARGILLACEOUS SILTSTONE: as above. ARGILLACEOUS SANDSTONE: as above.	
330	340		10	90								ARGILLACEOUS SILTSTONE: as above, commonly grading to SILTY CLAYSTONE.. SANDSTONE: loose, very light grey to light green grey, medium grey,minor translucent, friable, very fine to fine, subangular to subrounded, well sorted, subspherical, occasional argillaceous matrix, minor weak	
340	350		40	60								ARGILLACEOUS SILTSTONE: as above. SANDSTONE: as above, slightly more argillaceous matrix.	
350	360		60	40								ARGILLACEOUS SILTSTONE: as above. SANDSTONE: as above.	
360	370		30	70								ARGILLACEOUS SILTSTONE: as above. SANDSTONE: as above, predominantly friable.	
370	380		50	50								ARGILLACEOUS SILTSTONE: as above. SANDSTONE: as above, increased amount of argillaceous matrix, grading to ARGILLACEOUS SANDSTONE.	
380	390	30		70								SILTY CLAYSTONE: brownish grey to medium grey, trace light grey to light brownish grey, soft to minor firm, commonly silty in part, trace brownish black carbonaceous specks. SANDSTONE: generally loose, very light grey to medium grey,common translucent, very fine to fine,	
390	400	40		60								SILTY CLAYSTONE: as above. SANDSTONE: as above, rarely friable	
400	410	30		70								SILTY CLAYSTONE: as above. SANDSTONE: as above, trace very hard and very well cemented with calcareous cement.	
410	420	50		50								SILTY CLAYSTONE: as above. SANDSTONE: as above.	
420	430	80		20								SILTY CLAYSTONE: as above. SANDSTONE: as above.	
430	440	100		TR								SILTY CLAYSTONE: as above, common silt sized to very fine grained quartz, graing to ARENACEOUS SANDSTONE in part.. SANDSTONE: as above.	
440	450	100										SILTY CLAYSTONE: as above, common silt sized to very fine grained quartz, graing to ARENACEOUS CLAYSTONE in part.	
450	460	20		80								SILTY CLAYSTONE: as above. SANDSTONE: as above, comonly friable.	

460	470	10		90								SILTY CLAYSTONE: brownish grey to medium grey, trace light grey to light brownish grey, soft to minor firm, decreasingly silty in part, trace brownish black carbonaceous specks. SANDSTONE: friable to commonly moderately hard, very light grey to medium grey, translucent, light	
470	480	40		60								SILTY CLAYSTONE: as above. SANDSTONE: as above.	
480	490	100		TR								CLAYSTONE: brownish grey to medium dark grey, minor medium grey, soft to predominantly firm, trace silty in part, moderately calcareous in part, trace brownish black carbonaceous specks, trace very fine grained loose quartz.	
490	500	100										CLAYSTONE: as above.	
500	510	100										CLAYSTONE: as above.	
510	520	60		40								SANDSTONE: as above. CLAYSTONE: as above, silty grading to SILTY CLAYSTONE.	
520	530	30		70								SANDSTONE: as above. SILTY CLAYSTONE: as above.	
530	540		40	60								SILTSTONE: medium light grey to greyish brown, minor very light grey, soft to firm, trace moderately hard, subblocky, minor very fine quartz grains, 10% lithics,micromcaceous in part,, non-calcareous, trace very fine carbonaceous detritus, rare fine coally laminations. SANDSTONE: friable to	
540	550		20	80								SILTSTONE: as above. SANDSTONE: as above.	
550	560		30	70								SILTSTONE: as above. SANDSTONE: as above.	
560	570		20	80								SILTSTONE: as above. SANDSTONE: as above.	
570	580		40	60								SILTSTONE: as above, becoming softer and more argillaceous in part, grading to ARGILLACEOUS SILTSTONE.. SANDSTONE: as above.	
580	590		50	50								SILTSTONE: as above, trace disseminated pyrite. SANDSTONE: as above.	
590	600		50	50								SILTSTONE: as above. SANDSTONE: as above.	
600	610		10	90								SILTSTONE: as above. SANDSTONE: as above.	
610	620		70	30								SILTSTONE: as above, occasionally blocky. SANDSTONE: as above.	
620	630		50	50								SILTSTONE: as above SANDSTONE: as above.	
630	640		70	30								SILTSTONE: medium light grey to greyish brown, minor very light grey, trace brownish black, soft to firm, minor moderately hard, subblocky to occasionally blocky, minor very fine quartz grains, 10% lithics,micromcaceous in part,, non-calcareous, occasional very fine carbonaceous detritus, rare fine coally	**Mackunda Formation** picked from cuttings and ROP at 633.0 m.
640	650		90	10								SILTSTONE: as above SANDSTONE: as above.	
650	660		70	30								SILTSTONE: as above but overall becoming firmer. SANDSTONE: as above.	
660	670		80	20								SILTSTONE: as above SANDSTONE: as above.	
670	680		90	10								SILTSTONE: medium light grey to greyish brown, occasional very light grey,soft to firm, common moderately hard, subblocky to occasionally blocky, minor very fine quartz grains, 10% lithics, non-calcareous, occasional very fine carbonaceous detritus, rare fine coally laminations.	
680	690		95	5								SILTSTONE: as above SANDSTONE: as above.	
690	700		100	TR								SILTSTONE: as above, trace very light grey. SANDSTONE: as above.	
700	710		100	TR								SILTSTONE: as above. SANDSTONE: as above.	
710	720		90	10								SILTSTONE: as above, argillaceous grading to SILTY CLAYSTONE. SANDSTONE:moderately hard, occasionally firm and friable, very light grey to medium grey, translucent, light greenish grey, very fine to fine, trace medium grained, subangular to subrounded, moderately well sorted,	
720	730		100	TR								SILTSTONE: as above. SANDSTONE: as above.	
730	740		100	TR								SILTSTONE: as above, weakly calcareous in part.. SANDSTONE: as above.	
740	750		90	10								SILTSTONE: as above. SANDSTONE: as above.	
750	754		90	10			TR					SILTSTONE: as above. SANDSTONE: as above. DOLOMITE: olive grey to brown grey, very hard, subfissile, crypto- to micro-crystalline, trace very fine	**12-1/4" section TD at 754.0 mMDRT**
754	760		95	5			TR					SILTSTONE: as above. SANDSTONE: as above.	**Allaru Formation** picked from cuttings at 750.0 m.
760	770		95	5								SILTSTONE: olive grey to greyish brown, minor medium to medium light grey,soft to firm, minor moderately hard, subblocky to occasionally blocky, weakly calcareous, trace very fine quartz grains, 10% lithics, trace SANDSTONE: firm and friable, very light grey to medium grey, translucent, light greenish grey, very fine to	
770	780		90	10								SILTSTONE: as above. SANDSTONE: as above.	
780	790		100	TR								SILTSTONE: as above. SANDSTONE: as above.	
790	800		100	TR		TR						SILTSTONE: as above. SANDSTONE: as above. LIMESTONE: mudstone, yellowish grey, soft, subblocky, commonly argillaceous.	
800	810		100	TR		TR						SILTSTONE: as above. SANDSTONE: as above. LIMESTONE: as above.	
810	820		100	TR		TR						SILTSTONE: as above. SANDSTONE: as above. LIMESTONE: as above.	
820	830		100									SILTSTONE: as above but becoming more argillaceous..	
830	840		100			TR						SILTSTONE: medium dark grey, trace brownish grey to olive grey, firm to moderately hard, subblocky yo occasionally blocky, weakly carcalreous, occasionally argillaceous in part. LIMESTONE: as above.	
840	850		100									SILTSTONE: as above.	
850	860		100									SILTSTONE: as above.	
860	870		100									SILTSTONE: as above.	
870	880		100									SILTSTONE: as above, slightly more bownish grey..	
880	890		100			TR						SILTSTONE: medium dark grey, minor brownish grey to olive grey, firm to moderately hard, subblocky yo occasionally blocky, weakly carcalreous, occasionally argillaceous in part. LIMESTONE: mudstone, yellowish grey to occasionally very light grey, soft, subblocky, commonly argillaceous.	
890	900		100			TR						SILTSTONE: as above, trace disseminated pyrite. LIMESTONE: as above..	
900	910		100			TR						SILTSTONE: as above. LIMESTONE: as above..	
910	920		100			TR						SILTSTONE: as above. LIMESTONE: as above..	**Toolebuc Formation** picked from cuttings at 912.0 m.

920	930		100			TR						SILTSTONE: as above. LIMESTONE: as above..	
930	940		100			TR						SILTSTONE: as above. LIMESTONE: as above..	
940	950		100			TR						SILTSTONE: as above. LIMESTONE: as above..	
950	960		100									SILTSTONE: medium dark grey to dark grey, oocasional greyish black to olive black, firm to moderately hard in part, subblocky to subfissile, commmonly argillaceous, moderately calcareous.	
960	970		100									SILTSTONE: as above.	
970	980		100									SILTSTONE: greyish black to olive black, minor medium dark grey to dark grey, firm to moderately hard in part, subblocky to subfissile, commmonly argillaceous, moderately calcareous, trace soft, white calcareous material.	**Wallumbilla Formation** picked from cuttings at 1040.0 m.
980	990		70	30								SILTSTONE: as above. SILTY SANDSTONE: friable to dominantly hard, translucent to very light grey, very fine to minor fine, common silt-sized, moderately well sorted, subangular to subrounded, subspherical, trace quartz silt matrix, minor	
990	1000		50	50								SILTSTONE: as above. SILTY SANDSTONE: as above.	
1000	1010		90	10								SILTSTONE: as above. SILTY SANDSTONE: as above, trace loose medium to coarse grained calcite.	
1010	1020		90	10								SILTSTONE: as above. SILTY SANDSTONE: as above.	
1020	1030		95	5								SILTSTONE: as above. SILTY SANDSTONE: as above.	
1030	1040		10	90								SILTSTONE: medium grey to olive grey, trace greyish black to olive black,, firm to rare moderately hard, subblocky to subfissile, argillaceous in part, arenaceous in part, moderately calcareous, trace loose very fine grained quartz.	
1040	1050		95	5								SILTSTONE: as above. SANDSTONE: as above.	
1050	1060		95	5		TR						SILTSTONE: as above. SANDSTONE: as above. LIMESTONE: mudstone, white to very light grey, hard, blocky, occasional dark microlaminations.	
1060	1070		100	TR		TR						SILTSTONE: as above. SANDSTONE: as above. LIMESTONE: as above.	
1070	1080		100	TR		TR						SILTSTONE: as above. SANDSTONE: as above. LIMESTONE: as above.	
1080	1090		30	70		TR						SILTSTONE: as above. SANDSTONE: as above, but predominantly firm to moderately hard aggregates, miinor loose grains. LIMESTONE: as above.	
1090	1100		20	80		TR						SILTSTONE: as above. SANDSTONE: loose, common firm and friable, translucent to very light grey, very fine to fine, moderately well sorted, subangular to subrounded, subspherical, rare quartz silt matrix, trace argillaceous matrix, minor	
1100	1110		30	70		TR						SILTSTONE: as above. SANDSTONE: as above. LIMESTONE: mudstone, white to very light grey, minor very light brown, firm to commonly hard, blocky,	
1110	1120		50	50								SILTSTONE: as above. SANDSTONE: as above, but predominantly firm to moderately hard aggregates, minor loose grains, trace siliceous cement, slightly more glauconite in matrix.	
1120	1130		70	30								SILTSTONE: as above. SANDSTONE: as above.	
1130	1140		80	20								SILTSTONE: as above. SANDSTONE: as above.	
1140	1150		80	20								SILTSTONE: as above. SANDSTONE: as above.	
1150	1160		70	30								SILTSTONE: greyish black to olive black, minor dark grey, moderately hard to occasionally very hard, minor firm, subblocky to subfissile, argillaceous in part, commonly arenaceous in part, weakly calcareous in part, trace loose very fine grained quartz. SANDSTONE:	
1160	1170		80	20								SILTSTONE: as above. SANDSTONE: as above.	
1170	1180		70	30								SILTSTONE: as above. SANDSTONE: as above.	
1180	1190		60	40								SILTSTONE: as above, trace disseminated pyrite. SANDSTONE: as above, most aggregates very hard, common white fine grained lithics.	
1190	1200											SILTSTONE: greyish black to olive black, minor dark grey, minor medium grey, moderately hard to predominantly very hard, commonly brittle, rare firm, subblocky to occasionally subfissile, argillaceous in part, commonly arenaceous in part, weakly calcareous in part, trace loose medium grained white calcite, trace	
1200	1203		95	5								SILTSTONE: as above. SANDSTONE: as above, increased silt matrix, grading to SILTY SANDSTONE..	
1203	1206		100	TR								SILTSTONE: as above. SILTY SANDSTONE: as above.	
1206	1209		80	15		5						SILTSTONE: as above. SILTY SANDSTONE: as above. LIMESTONE: mudstone, white to very light brown, soft to crumbly, subblocky, common brown argillaceous	
1209	1212		20	80		TR						SILTSTONE: as above. SILTY SANDSTONE: as above. LIMESTONE: as above.	
1212	1215		30	70								SILTSTONE: as above. SILTY SANDSTONE: as above.	
1215	1218		10	90								SILTSTONE: dark grey to medium grey, common greyish black to olive black, moderately hard to predominantly very hard, commonly brittle, subblocky to trace subfissile, trace argillaceous in part , commonly arenaceous in part grading to ARENACEOUS SILTSTONE, weakly calcareous in part, trace loose medium grained white calcite. SANDSTONE: hard to very hard, commonly loose, translucent to very light grey, very fine to lower fine grained, moderately well sorted, subangular to subrounded, subspherical, trace silty in part, strong calcareous-dolomitic cement, rare white lithic and feldspar fragments, trace glauconite, nil to very poor visible porosity, no hydrocarbon fluorescence	**Cadna Owie Formation** picked from cuttings at 1215 m.
1218	1221		10	90								ARENACEOUS SILTSTONE: as above. SANDSTONE: as above, less very hard and more friable aggregate	
1221	1224		40	60								ARENACEOUS SILTSTONE: as above. SANDSTONE: as above, minor medium grainec	
1224	1227		20	80								ARENACEOUS SILTSTONE: as above. SANDSTONE: as above.	
1227	1230		20	80								ARENACEOUS SILTSTONE: as above. SANDSTONE: as above.	
1230	1233		30	70								ARENACEOUS SILTSTONE: dark grey to medium grey, common greyish black to olive black, moderately hard to predominantly very hard, commonly brittle, subblocky to minor subfissile, commonly arenaceous in part grading to ARENACEOUS SILTSTONE, non to weakly calcareous in part, trace loose medium grained white calcite. SANDSTONE: as above, trace reddish brown fine grained lithics	
1233	1236		10	90								ARENACEOUS SILTSTONE: as above. SANDSTONE: as above, predominantly friable to occasionally firm, minor moderately hard aggregates, occasionally loose grains	
1236	1239		5	95								ARENACEOUS SILTSTONE: as above. SANDSTONE: friable to loose, minor hard very well cemented aggregates, translucent to very light grey, minor dark yellowish brown, very fine to lower fine grained, moderately well sorted, subangular to subrounded, subspherical, rarely silty in part, occasional light grey argillaceous matrix, strong calcareous-dolomitic cement, rare fine grained white and reddish brown lithics and feldspar fragments, trace glauconite, nil to very poor visible porosity, no hydrocarbon fluorescence.	
1239	1242		TR	100								ARENACEOUS SILTSTONE: as above. SANDSTONE: as above.	
1242	1245		5	95								ARENACEOUS SILTSTONE: as above. SANDSTONE: as above, less aggregated	
1245	1248		TR	100								ARENACEOUS SILTSTONE: as above. SANDSTONE: as above.	
1248	1251		TR	100								ARENACEOUS SILTSTONE: as above. SANDSTONE: as above.	
1251	1254		TR	100								ARENACEOUS SILTSTONE: as above. SANDSTONE: as above.	
1254	1257			100								ARENACEOUS SILTSTONE: as above. SANDSTONE: as above.	

1257	1260											SANDSTONE: friable, minor hard very well cemented aggregates, translucent to very light grey, minor dark yellowish brown, very fine to lower fine grained, moderately well sorted, subangular to subrounded, subspherical, rarely silty in part, occasional light grey argillaceous matrix, strong calcareous-dolomitic cement, rare fine grained white lithics and feldspar fragments, trace glauconite, nil to very poor visible porosity, no hydrocarbon fluorescence.	
1260	1263			100								SANDSTONE: as above.	
1263	1266			100								SANDSTONE: as above.	
1266	1269			100								SANDSTONE: friable, trace firm aggregates, translucent to very light grey, common dark yellowish brown to light brownish grey, very fine to lower very fine grained, commonly silt-sized grained, moderately well sorted, subangular to subrounded, subspherical, silty where dark yellowish brown to light brownish grey, grading to AERNACEOUS SILTSTONE, occasional light grey argillaceous matrix, common strong calcareous-dolomitic cement, rare fine grained white and black lithics, rare glauconite, nil to very poor visible porosity, no hydrocarbon fluorescence	
1269	1272			100								SANDSTONE: as above.	
1272	1275			100								SANDSTONE: as above.	
1275	1278			100								SANDSTONE: as above.	
1278	1281			100								SANDSTONE: medium dark grey to greyish black, slightly hard to very hard, sub-blocky to blocky, very fine to lower very fine grained, common silt, well sorted, sub-angular to sub-rounded, sub-elongate to sub-spherical, grading to ARENACEOUS SILTSTONE, common medium dark grey, hard, upper very fine-grained cuttings, common strong calcareous-dolomitic cement in medium dark grey cuttings, argillaceous cement in greyish black cuttings, common black coal grains in greyish black cuttings, common K-feldspar grains in medium dark grey cuttings, medium dark grey cuttings indicate fine clean sand lamillae with poor visible porosity, nil to poor visible porosity in greyish black cuttings, no hydrocarbon fluorescence.	
1281	1284		90	10								ARENACEOUS SILTSTONE: greyish black, slightly hard, brittle, blocky in places, sub-fissile in places, argillaceous matrix, arenaceous, weak dolomitic cement, rare k-feldspar, rare coal grains. SANDSTONE: medium dark grey, lower very fine, as abov	**Murta Formation** picked from cuttings at 1281 m.
1284	1287		90	10								ARENACEOUS SILTSTONE and SANDSTONE as above	
1287	1290		80	20								ARENACEOUS SILTSTONE and SANDSTONE as above	
1290	1293		80	20								ARENACEOUS SILTSTONE: greyish black, slightly hard, brittle, blocky in places, sub-fissile in places, argillaceous matrix, arenaceous, weak dolomitic cement, rare k-feldspar, rare coal grains. SANDSTONE: medium light grey, slightly hard, sub-block to blocky, rare medium to lower very fine, dominantly fine to lower-fine grained, rare coarse shattered quartz grains/mineral vein fragments, moderately sorted, sub-angular, sub-spherical to sub-elongate, cement variable, weak calcareous-dolomitic cement in places grading to strong siliceous cement, common K-feldspar, common kaolin, nil to poor visible porosity, nil hydrocarbon fluorescence.	Sand starting to become coarser, more angular and les well sorted with depth
1293	1296		50	50								ARENACEOUS SILTSTONE: greyish black, slightly hard, brittle, blocky in places, sub-fissile in places, argillaceous matrix, arenaceous, weak dolomitic cement, rare k-feldspar, rare coal grains. SANDSTONE: medium grey to transparent grains, slightly hard, sub-blocky, brittle, very coarse shattered quartz to fine, very poorly sorted, angular, sub-elongate, strong siliceous cement, common fused silica, common K-feldspar grains, poor to moderate visible porosity, nil hydrocarbon fluorescence.	
1296	1299		20	80								ARENACEOUS SILTSTONE: as above, SANDSTONE: as above, rarely coarse to very fine, moderate to weak cement.	Sand becoming finer with depth
1299	1302		10	90								ARENACEOUS SILTSTONE: as above, SANDSTONE: as above, rarely medium, to very fine dominantly very fine, moderate to weak cement	
1302	1305			100								SANDSTONE: medium grey to transparent grains, slightly hard, sub-blocky, brittle, dominantly loose sand, commonly coarse to lower very fine, dominantly very fine, poorly to moderately sorted, sub-angular, sub-spherical, coarse grains angular, sub-elongate, strong siliceous cement, common fused silica, common K-feldspar grains, poor to moderate visible porosity, nil hydrocarbon fluorescence.	
1305	1308		90	10								ARENACEOUS SILTSTONE: olive black, firm, slightly hard in places, sub-blocky in places, sub-fissile in places, commonly friable, argillaceous matrix, arenaceous, argillaceous cement, rare k-feldspar, rare black carbonaceous grains. SANDSTONE: medium light grey, slightly hard, sub-blocky, fine to lower very fine, moderately sorted, angular, sub-spherical to sub-elongate, moderate siliceous cement, common K-feldspar, common kaolin infill, nil to poor visible porosity, nil hydrocarbon fluorescence.	
1308	1311			100								SANDSTONE: medium light grey, slightly hard, sub-blocky, fine to lower very fine, moderately sorted, angular, sub-spherical to sub-elongate, moderate siliceous cement, common K-feldspar, common kaolin infill, nil to poor visible porosity, nil hydrocarbon fluorescenc	
1311	1314		10	90								SANDSTONE: as above. ARENACEOUS SILTSTONE: greyish black, slightly hard, brittle, blocky in places, sub-fissile in places, argillaceous matrix, arenaceous, weak dolomitic cement, rare k-feldspar, rare coal grains.	
1314	1317			100								SANDSTONE: translucent loose grains, coarse to very fine, very poorly sorted, angular, sub-elongate to elongate, weak siliceous cement, rare lithic fragments, rare K-feldspar grains, moderate inferred porosity, no hydrocarbon fluorescence	**Namur Formation** picked from cuttings at 1314 m.
1317	1320			100								SANDSTONE: as above	
1320	1323			100								SANDSTONE: as above	
1323	1326		10	90								SANDSTONE: translucent loose grains,coarse to fine, poorly sorted, sub-angular to angular, sub-spherical sub-elongate, weak siliceous cement, rare lithic fragments, rare K-feldspar grains, moderate inferred porosity, 10% pin-point pale green/yellow mineral fluorescence in sandstones. SILTSTONE: dark grey, rare olive bla cuttings, firm, sub-blocky, sub-fissile where olive black, crumbly, rarely arenaceous to commonly argillaceous.	Siltstone changes (slightly shaley in places)
1326	1329		30	70								SANDSTONE: translucent loose grains,very coarse to very fine, very poorly sorted, angular, sub-spherical to sub-elongate, weak siliceous cement, rare lithic fragments, rare K-feldspar grains, moderate inferred porosity, rare fine sandstone cuttings showing pale green/yellow mineral fluorescence, no visible cut fluorescence. ARENACEOUS SILTSTONE: dark grey, firm, sub-blocky, crumbly, common black carbonaceous grains, common K-feldspar.	Siltstone becomes arenaceous, not shaley
1329	1332		50	50								SANDSTONE: as above, traces pin-point pale green/yellow mineral fluorescence in sandstones. ARENACEOUS SILTSTONE: as above	
1332	1335		60	40								SANDSTONE: translucent loose grains, very coarse to fine, very poorly sorted, angular, 50% shattered quartz, sub-spherical to sub-elongate, weak siliceous cement, rare lithic fragments, rare K-feldspar grains, moderate inferred porosity, rare fine sandstone cuttings showing pale green/yellow mineral fluorescence, no visible cut fluorescence . ARENACEOUS SILTSTONE: dark grey, firm, sub-blocky, crumbly, common black carbonaceous grains, common K-feldspar.	
1335	1338			100								SANDSTONE: translucent loose grains,coarse to fine, poorly sorted, sub-angular, sub-spherical to sub-elongate, weak siliceous cement, rare lithic fragments, rare K-feldspar grains, moderate inferred porosity, abundant pin-point pale green/yellow mineral fluorescenc	Sand becomes slightly better sorted
1338	1341			100								SANDSTONE: as above medium to fine grained, traces pin-point pale green/yellow mineral fluorescence	
1341	1344		20	80								SANDSTONE: translucent loose grains,rarely medium to lower very fine, very poorly sorted, angular, sub-spherical to sub-elongate, weak siliceous cement, rare lithic fragments, rare K-feldspar grains, poor inferred porosity, rare fine sandstone cuttings showing pale green/yellow mineral fluorescence, no visible cut fluorescence . ARENACEOUS SILTSTONE: dark grey, firm, sub-blocky, crumbly, common black carbonaceous grains, common K-feldspar.	
1344	1347		20	80								SANDSTONE: as above, ARENACEOUS SILTSTONE: as above	
1347	1350		10	90								SANDSTONE: as above. ARENACEOUS SILTSTONE: dark grey, firm, sub-blocky, crumbly, common black carbonaceous grains, common K-feldspar.	
1350	1353		10	90								SANDSTONE: translucent loose grains,rarely coarse to lower very fine, very poorly sorted, angular, sub-spherical to sub-elongate, weak siliceous cement, rare lithic fragments, rare K-feldspar grains, poor inferred porosity, rare fine sandstone cuttings showing pale green/yellow mineral fluorescence, no visible cut fluorescence . ARENACEOUS SILTSTONE: dark grey, firm, sub-blocky, crumbly, common black carbonaceous grains, common K-feldspar.	
1353	1356			100								SANDSTONE: as above	
1356	1359		10	90								SANDSTONE: occasional dark yellowish brown to light brownish grey which appears as hard aggregates. SILTSTONE: dark grey to greyish black, firm to occasionally moderately hard, blocky, very finely arenaceous, carbonaceous, noon-calcareous, trace micromicaceous in part.	
1359	1362		5	95								SANDSTONE: loose, translucent to very light grey, very fine to medium grained, subrounded to rarely subangular, very well sorted, moderate sphericity, trace weak siliceous cement, trace fine grained calcite, fair to good inferred porosity, no fluoresence. SILTSTONE: as above.	
1362	1365		TR	100								SANDSTONE: as above. SILTSTONE: as above.	
1365	1368		TR	100								SANDSTONE: as above. SILTSTONE: as above.	
1368	1371			100								SANDSTONE: as above.	
1371	1374			100								SANDSTONE: as above.	
1374	1377			100								SANDSTONE: as above.	
1377	1380			100								SANDSTONE: as above.	
1380	1383			100								SANDSTONE: loose to common friable aggregates, translucent to very light grey (50%), brownish black to greyish black (50%), very fine to lower medium grained, subrounded to rarely subangular, very well sorted, moderate sphericity, trace fractured grains, occasional weak siliceous cement, trace very light grey argillaceous matrix, very silty where brownish black to greyish black grading to ARENACEOUS SILTSTONE, trace fine grained calcite, trace very fine grained black lithics/carbonaceous specks, trace pyritic cement, poor visual porosity, ***trace dull yellow pinpoint fluorescence, bluish white crush cut, thick yellowish white residue ring.***	
1383	1386			100								SANDSTONE: as above, brownish black to greyish black (90%), translucent to very light grey (10%), very poor visual porosity, no fluoresence	
1386	1389			100								SANDSTONE: loose, translucent to very light grey, very fine to medium grained, subrounded to rarely subangular, very well sorted, moderate sphericity, trace weak siliceous cement, trace fine grained calcite, fair to good inferred porosity, no fluoresence.	
1389	1392			100								SANDSTONE: as above.	
1392	1395			100								SANDSTONE: as above.	
1395	1398			100								SANDSTONE: as above.	
1398	1401			100								SANDSTONE: as above, slightly more carbonaceous detritus, rare mica.	
1401	1404			100								SANDSTONE: as above.	
1404	1407			100								SANDSTONE: as above.	
1407	1410			100								SANDSTONE: as above.	
1410	1413			100								SANDSTONE: as above, becoming finer with depth, lower very fine to upper fine grained..	

1413	1416		5	95								SANDSTONE: loose, translucent to very light grey, very fine to medium grained, subrounded to rarely subangular, very well sorted, moderate sphericity, trace fractured grains, trace weak siliceous cement, occasional fine grained calcite, fair to good inferred porosity, no fluoresence. SILTSTONE: greyish black to brownish black, minor dark yellowish brown, firm to occasionally moderately hard, subblocky to rarely subfissile, commonly arenaceous grading to ARENACEOUS SILTSTONE in part, micromicaceous in part, non-calcareous	**Westbourne Formation** picked from ROP at 1415 m.
1416	1419		TR	100								SANDSTONE: as above. SILTSTONE: as above.	
1419	1422		TR	100								SANDSTONE: as above, trace coarse grained. SILTSTONE: as above.	
1422	1425		TR	100								SANDSTONE: as above. SILTSTONE: as above.	
1425	1428		5	95								SANDSTONE: as above. SILTSTONE: as above.	
1428	1431		10	90								SANDSTONE: as above. SILTSTONE: dark yellowish brown to yellowish brown, minor greyish black to brownish black, firm to minor moderately hard, subblocky to rarely subfissile, commonly arenaceous grading to ARENACEOUS SILTSTONE in part, micromicaceous in part, non-calcareous	
1431	1434		20	80								SANDSTONE: firm to friable, translucent to very light grey, very fine to medium grained, rare lower coarse grained, subrounded to rarely subangular, moderately well sorted, moderate sphericity, trace weak siliceous cement, minor fine grained calcite, poor to fair inferred porosity, no fluoresence. ARENACEOUS SILTSTONE: as above.	
1434	1437		5	95								SANDSTONE: as above, but predominantly as loose grains with occasional friable aggregates. ARENACEOUS SILTSTONE: as above.	
1437	1440		10	90								SANDSTONE: as above, but predominantly as firm to friable aggregates with weak siliceous cement and as trace loose grains . ARENACEOUS SILTSTONE: as above.	
1440	1443		20	80								SANDSTONE: as above. ARENACEOUS SILTSTONE: as above.	
1443	1446		5	95								SANDSTONE: as above. ARENACEOUS SILTSTONE: as above, slightly more micromicaceous overa	
1446	1449		TR	100								SANDSTONE: as above. ARENACEOUS SILTSTONE: as above.	
1449	1452		TR	100								SANDSTONE: as above. ARENACEOUS SILTSTONE: as above.	
1452	1455		TR	100								SANDSTONE: as above. ARENACEOUS SILTSTONE: as above.	
1455	1458		TR	100								SANDSTONE: as above. ARENACEOUS SILTSTONE: as above.	
1458	1461		TR	100								SANDSTONE: as above. ARENACEOUS SILTSTONE: as above.	
1461	1464		TR	100								SANDSTONE: translucent, loose, fine sand cuttings slightly firm, brittle, platy, very fine to medium, rare lower coarse grains, sub-rounbded to rarely sub-angular, sub-elongate, fines sub-spherical, moderately sorted, weak silicious cement, common K-feldspar grains, poor to fair inferred porosity, very rare mineral fluorescence.	**Adori Formation** picked from ROP at 1460 m.
1464	1467		TR	100								SANDSTONE: translucent, loose, fine sand cuttings slightly firm, brittle, platy, very fine, rare lower coarse grains, sub-rounbded, sub-spherical, well sorted, weak silicious cement, common K-feldspar grains, poor to fair inferred porosity, rare mineral fluorescenc	Sandstones becoming finer with depth
1467	1470											SANDSTONE: as above	
1470	1473		TR	100								SANDSTONE: as above, **trace dull yellow/green patchy fluorescence, very pale bluish white crush cut, thin pale blue/white residue ring**	
1473	1476		TR	100								SANDSTONE: as above	
1476	1479		TR	100								SANDSTONE: as above, no fluorescence, no shows. ARENACEOUS SILTSTONE: as above.	
1479	1482		TR	100								SANDSTONE: as above. ARENACEOUS SILTSTONE: as above.	
1482	1485		TR	100								SANDSTONE: as above, abundant very fine grained black carbonaceous specks.. ARENACEOUS SILTSTONE: as above.	
1485	1488			100								SANDSTONE: translucent, slightly hard to hard, crumbly to brittle, commonly loose sand, sub-blocky, fine, well sorted, angular, sub-elongate, white kaolinite infill in places, variable weak to strong siliceous cement, abundant black carbonaceous grains decreasing quickly with depth, common lithic fragments, rare K-feldspar, poor to fair porosity, common mineral fluorescenc	
1488	1491			100								SANDSTONE: as above **without the black carbonaceous grains**	
1491	1494			100								SANDSTONE: as above	1493.8 mMDRT formation becomes very hard
1494	1497			100								SANDSTONE: as above, **common shattered quartz**	
1497	1500			100								SANDSTONE: as above (no shattered quartz)	SANDSTONE becoming slightly coarser with depth
1500	1503			100								SANDSTONE: translucent, slightly hard to hard, crumbly to brittle, commonly loose sand, sub-blocky, **occasionally medium to fine, moderately to well sorted**, angular, sub-elongate, white kaolinite infill in places, variable weak to strong siliceous cement, rare K-feldspar, poor to fair porosity, rare mineral fluorescence.	
1503	1506			100								SANDSTONE: as above	
1506	1509			100								SANDSTONE: as above	
1509	1512			100								SANDSTONE: as above	
1512	1515			100								SANDSTONE: as above	
1515	1518			100								SANDSTONE: as above	
1518	1521			100								SANDSTONE: as above	
1521	1524			100								SANDSTONE: as above	
1524	1527		30	70								SANDSTONE: as above. ARENACEOUS SILTSTONE: olive black - brownish black, hard, brittle, sub-blocky, arenaceous, common fine black carbonaceous grains and flakes, no fluorenscenc	**Birkhead Formation** picked from lihto/ROP at 1526 m.
1527	1530		30	70								SANDSTONE: as above. ARENACEOUS SILTSTONE: as above.	
1530	1533		20	80								SANDSTONE: predominantly as loose, common firm to friable aggreagates, translucent to very light grey, upper medium to lower fine, tarce very fine, moderately well sorted, subrounded to commonly angular, subelongate, trace white kaolinite infill in places, variably weak to strong siliceous cement, trace quartz overgrowths, minor fine grained black carbonaceous grains/specks in matrix, rare K-feldspar, abundant light brownish grey sticky clay washing out during sample preparation, poor to fair inferred porosity, no fluorescence. ARENACEOUS SILTSTONE: olive bla brownish black, hard, brittle, subblocky to subfissile, abundantly arenaceous, common fine black carbonaceous grains and flakes, moderately calcareous with occasional white calcite lamination/veins, micromicaceous in part, no fluorenscence.	
1533	1536		5	95								SANDSTONE: as above. ARENACEOUS SILTSTONE: as above.	
1536	1539		20	80								SANDSTONE: as above, also commonly appearing as firm to friable very fine grained aggregates. ARENACEOUS SILTSTONE: as above.	
1539	1542		10	90								SANDSTONE: as above. ARENACEOUS SILTSTONE: as above.	
1542	1545		20	80	TR							SANDSTONE: as above. ARENACEOUS SILTSTONE: as above. COAL: brownish black, hard, blocky, brittle, subvitreous	
1545	1548		10	85	5							SANDSTONE: as above, aggregates very well cemented with siliceous cement in part (very hard), trace loc coarse grained clear quartz. ARENACEOUS SILTSTONE: as above, minor fine grained quartz inclusions, becoming very carbonaceous in part grading to SILTY COAL. COAL: brownish black, hard, blocky, brittle, subvitreous	
1548	1551		20	80								SANDSTONE: as above. ARENACEOUS SILTSTONE: as above.	
1551	1554		5	95								SANDSTONE: as above, less aggregated, 90% loose, 10% aggregated. ARENACEOUS SILTSTONE: as above.	
1554	1557		10	90								SANDSTONE: predominantly loose, minor friable predominantly hard aggreagates, translucent to very light grey, upper medium to lower fine, trace very fine, moderately well sorted, subrounded to commonly angular, subelongate, trace white kaolinite infill in places, variably weak to strong siliceous cement, trace quartz overgrowths, occasional calcite infill, minor fine grained black carbonaceous grains/specks in matrix, abundant light greyish brown sticky clay washing out during sample preparation, poor to fair inferred porosity, no fluorescence. ARENACEOUS SILTSTONE: olive black - brownish black, hard, brittle, subblocky to subfissile, abundantly arenaceous, common fine black carbonaceous grains and flakes, moderately calcareous with occasional white calcite lamination/veins, micromicaceous in part, occasionaly very carbonaceous and grading to SILTY COAL, no fluorenscence.	
1557	1560		30	70								SANDSTONE: as above. ARENACEOUS SILTSTONE: as above.	
1560	1563		20	80								SANDSTONE: as above, trace more predominanlty medium grained. ARENACEOUS SILTSTONE: as above.	
1563	1566		20	80	TR							SANDSTONE: as above, trace more predominanlty medium grained. ARENACEOUS SILTSTONE: as above. COAL: brownish black, hard, hackly, commonly brittle, subvitreous, very silty grading to SILTY COAL in part.	
1566	1569		30	70	TR							SANDSTONE: as above. ARENACEOUS SILTSTONE: as above common brownish grey . COAL: as above	
1569	1572		30	70	TR							SANDSTONE: as above but with more prevalent calcite infill in aggregates. ARENACEOUS SILTSTONE: as above. COAL: as above	
1572	1575		25	75								SANDSTONE: as above. ARENACEOUS SILTSTONE: as above.	
1575	1578		10	90								SANDSTONE: as above, trace aggregated. ARENACEOUS SILTSTONE: as above.	
1578	1581		5	95								SANDSTONE: as above. ARENACEOUS SILTSTONE: as above.	
1581	1584		TR	100								SANDSTONE: loose, translucent to very light grey, upper medium to lower fine, common very fine, moderately well sorted, subrounded, subelongate, trace quartz overgrowths, minor fine grained black carbonaceous grains/specks, abundant light greyish brown sticky clay washing out during sample preparati poor inferred porosity, no fluorescence. . ARENACEOUS SILTSTONE: as above.	
1584	1587		TR	100								SANDSTONE: as above. ARENACEOUS SILTSTONE: as above.	

1587	1590		10	90								SANDSTONE: as above, commonly as firm to friable aggregates with trace siliceous cement and minor calcareous cement.. ARENACEOUS SILTSTONE: as above.	
1590	1593		20	80	TR							SANDSTONE: as above. ARENACEOUS SILTSTONE: as above. COAL: brownish black, very hard, blocky, subvitreous, lightly argillaceous in pa	
1593	1596		40	60	TR							SANDSTONE: friable to commonly firm aggreagates, translucent to very light grey, lower medium to upper fine,occasional very fine, moderately well sorted, subrounded to subangular, subelongate, minor white kaolinite infill in places, occasional weak siliceous cement, trace quartz overgrowths, minor calcareous cement, minor calcite infill, common fine grained black carbonaceous grains/specks in matrix, minor light greyish brown sticky clay washing out during sample preparation, poor inferred porosity, no fluorescence. ARENACEOUS SILTSTONE: olive black - brownish black, brownisg grey to dark yellowish brown, firm to moderately hard, bsubblocky to blocky, abundantly arenaceous, common fine black carbonaceous grains and flakes, moderately calcareous with trace white calcite lamination/veins, micromicaceous in part, trace very carbonaceous and grading to SILTY COAL, no fluorenscence. COAL: as above.	
1596	1599		50	50	TR							SANDSTONE: as above. ARENACEOUS SILTSTONE: as above. COAL: as above.	
1599	1602		60	40	TR							SANDSTONE: as above but with ***spotty dull yellowish white fluorescence, very dull yellowish white crush cut, pale yellowish white thin residue ring.*** ARENACEOUS SILTSTONE: as above. COAL: as above.	
1602	1605		20	80								SANDSTONE: as above, no fluorescence . ARENACEOUS SILTSTONE: as above.	
1605	1608		90	10	TR							SANDSTONE: as above, no fluorescence . ARENACEOUS SILTSTONE: as above. COAL: as above.	
1608	1611		80	20								SANDSTONE: as above, no fluorescence . ARENACEOUS SILTSTONE: as above.	
1611	1614		20	80								SANDSTONE: as above, no fluorescence . ARENACEOUS SILTSTONE: as above.	
1614	1617		10	90								SANDSTONE: as above, no fluorescence . ARENACEOUS SILTSTONE: as above.	
1617	1620		50	50								SANDSTONE: as above, no fluorescence . ARENACEOUS SILTSTONE: as above.	
1620	1623			100								SANDSTONE: loose, translucent to very light grey, lower coarse to very fine, predominantly medium grained, subrounded to occasionally subrounded, good sphericity, poorly sorted, trace quartz overgrowths, grain supported, trace brownish black carbonaceous material, trace light brownish grey clay wasing out during sample preparation, no fluorescence, no shows	**Hutton Formation** picked from lihto/ROP at 1623 m.
1623	1626			100								SANDSTONE: as above.	
1626	1629		5	95								SANDSTONE: as above. SILTSTONE: as above.	
1629	1632		5	95								SANDSTONE: as above. SILTSTONE: as above.	
1632	1635			100								SANDSTONE: as above.	
1635	1638			100								SANDSTONE: as above.	
1638	1641			100								SANDSTONE: as above.	
1641	1644			100								SANDSTONE: as above.	
1644	1647			100								SANDSTONE: as above.	
1647	1650			100								SANDSTONE: as above, occasional friable aggregates with weak siliceous cement.	
1650	1653			100								SANDSTONE: loose, translucent to very light grey, lower coarse to very fine, predominantly medium grained, occasionally subrounded to angular, sub-spherical to elongate, poorly sorted, trace quartz overgrowths, grain supported, trace light brownish grey clay wasing out during sample preparation, no fluorescence, no shows	
1653	1656			100								SANDSTONE: as above	
1656	1659			100								SANDSTONE: as above	
1659	1662			100								SANDSTONE: loose, translucent to very light grey **upper very coarse to lower very fine, common coarse re-worked shattered quartz**, occasionally subrounded to angular, sub-spherical to elongate, poorly sorted, trace quartz overgrowths, grain supported, trace light brownish grey clay wasing out during sample preparation, no fluorescence, no shows	SANDSTONE becoming coarser with depth to 1668
1662	1665			100								SANDSTONE: as above	
1665	1668											SANDSTONE: loose, translucent to very light grey, upper very coarse to lower very fine, common coarse re-worked shattered quartz, occasionally subrounded to angular, sub-spherical to elongate, poorly sorted, trace quartz overgrowths, grain supported, trace light brownish grey clay wasing out during sample preparation, no fluorescence, no shows	
1668	1671			100								SANDSTONE: as above	
1671	1674			100								SANDSTONE: as above	
1674	1677											SANDSTONE: loose, translucent to very light grey **medium to lower very fine**, occasionally subrounded to angular, **sub-spherical to sub-elongate**, **moderately sorted** , trace quartz overgrowths, grain supported, trace light brownish grey clay wasing out during sample preparation, no fluorescence, no shows.	
1677	1680		Tr	100								SANDSTONE: as above. ARENACEOUS SILTSTONE: olive black - brownish black, firm to moderately hard, sub-blocky to blocky, abundantly arenaceous, common fine black carbonaceous grains and flakes, moderately calcareous, rarely micromicaceous in part **trace dull yellow/green patchy fluorescence, very pale bluish white crush cut, thin pale blue/white residue ring.**	
1680	1683			100								SANDSTONE: loose, translucent to very light grey, medium to lower very fine, occasionally subrounded to angular, sub-spherical to sub-elongate, moderately sorted, trace quartz overgrowths, grain supported, trace light brownish grey clay wasing out during sample preparation, traces mineral fluorescence.	
1683	1686			100								SANDSTONE: as above **coarse to lower very fine, poorly sorted.**	
1686	1689		Tr	100								**SANDSTONE: loose, translucent to very light grey, upper very coarse to lower very fine, common coarse re-worked shattered quartz, occasionally subrounded to angular, sub-spherical to elongate, poorly sorted, trace quartz overgrowths, grain supported, trace light brownish grey clay wasing out during sample preparation, trace dull yellow/green patchy fluorescence, very pale bluish white crush cut, thin pale blue/white residue ring**	Suddenly coarse, becomes finer with depth
1689	1692			100								SANDSTONE: as above	
1692	1695											SANDSTONE: loose, translucent to very light grey **medium to lower very fine**, occasionally subrounded to angular, sub-spherical to sub-elongate **moderately sorted** , trace quartz overgrowths, grain supported, trac light brownish grey clay wasing out during sample preparation, traces mineral fluorescence.	
1695	1698			100								**SANDSTONE: loose, translucent to very light grey, upper very coarse to lower very fine, common coarse re-worked shattered quartz, occasionally subrounded to angular, sub-spherical to elongate, poorly sorted, trace quartz overgrowths, grain supported, trace light brownish grey clay wasing out during sample preparation, traces mineral fluorescence, no shows.**	Suddenly coarse, becomes finer with depth
1698	1701			100								SANDSTONE: as above, **occasionally upper very coarse to lower very fine**	
1701	1704			100								SANDSTONE: as above, **occasionally upper very coarse to lower very fine**	
1704	1707			100								SANDSTONE: as above, **occasionally upper very coarse to lower very fine**	
1707	1710			100								SANDSTONE: as above, **occasionally upper very coarse to lower very fine**	
1710	1713			100								**SANDSTONE: loose, translucent to very light grey, upper very coarse to lower very fine, common coarse re-worked shattered quartz, occasionally subrounded to angular, sub-spherical to elongate, poorly sorted, trace quartz overgrowths, grain supported, trace light brownish grey clay wasing out during sample preparation, traces mineral fluorescence, no shows.**	Suddenly coarse, becomes finer with depth
1713	1716			100								SANDSTONE: as above, **occasionally upper very coarse to lower very fine**	
1716	1719			100								SANDSTONE: as above, **occasionally upper very coarse to lower very fine**	
1719	1723			100								**SANDSTONE: loose, translucent to very light grey, upper very coarse to lower very fine, common coarse re-worked shattered quartz, occasionally subrounded to angular, sub-spherical to elongate, poorly sorted, trace quartz overgrowths, grain supported, trace light brownish grey clay wasing out during sample preparation, traces mineral fluorescence, no shows.**	

Appendix 10 – Wireline Report and Log Data

Log Data provided electronically on CD

Electric Wireline Operations
End of Well Report

Tibor - 1
SW Queensland/Australia

Prepared by:

Mohd Rothi Hamzah
afriQA Ltd
22 February 2013

Table of Contents

1. Introduction

This EOW report intended to serve as a permanent and accurate record of the Wireline Formation Evaluation program performed on exploration well Tibor-1. Tibor - 1 located in SW Queensland Block- ATP 539 and operated by Drillsearch Energy Limited.

An operational audit performed by afriQA Ltd, a specialist Wireline Operations Quality Assurance consultancy group. An audit performed for logging operations over the whole 8.5" hole section.

The main purpose of the audit was to ensure:

- The safety culture espoused by the Contractor was consistent with industry norms and compliant with both the Contractor's and the Clients own policies
- That the Formation Evaluation objectives met.
- The Formation Evaluation program completed in an efficient manner possible
- To assist with continuous improvement

In addition to the EOW report, a technical report for each logging operation performed on Tibor-1 completed and delivered by afriQA Ltd.

The Formation Evaluation program performed by Schlumberger. The afriQA audit performed by Mohd Rothi Hamzah.

2. Critical Formation Evaluation Objectives

The wireline logging programme was a fundamental part of the data acquisition required to achieve the FE objectives, namely the acquisition of appropriate wireline logs will fully evaluate the drilled section as per the detailed logging program.

The proposed Tibor-1 conventional oil & gas exploration well located in ATP-539P, in the Cooper/Eromanga Basin, SW Queensland. Tibor-1 is a commitment well for permit ATP 539P. It is located approximately 250km NE of Moomba (Figure 1).

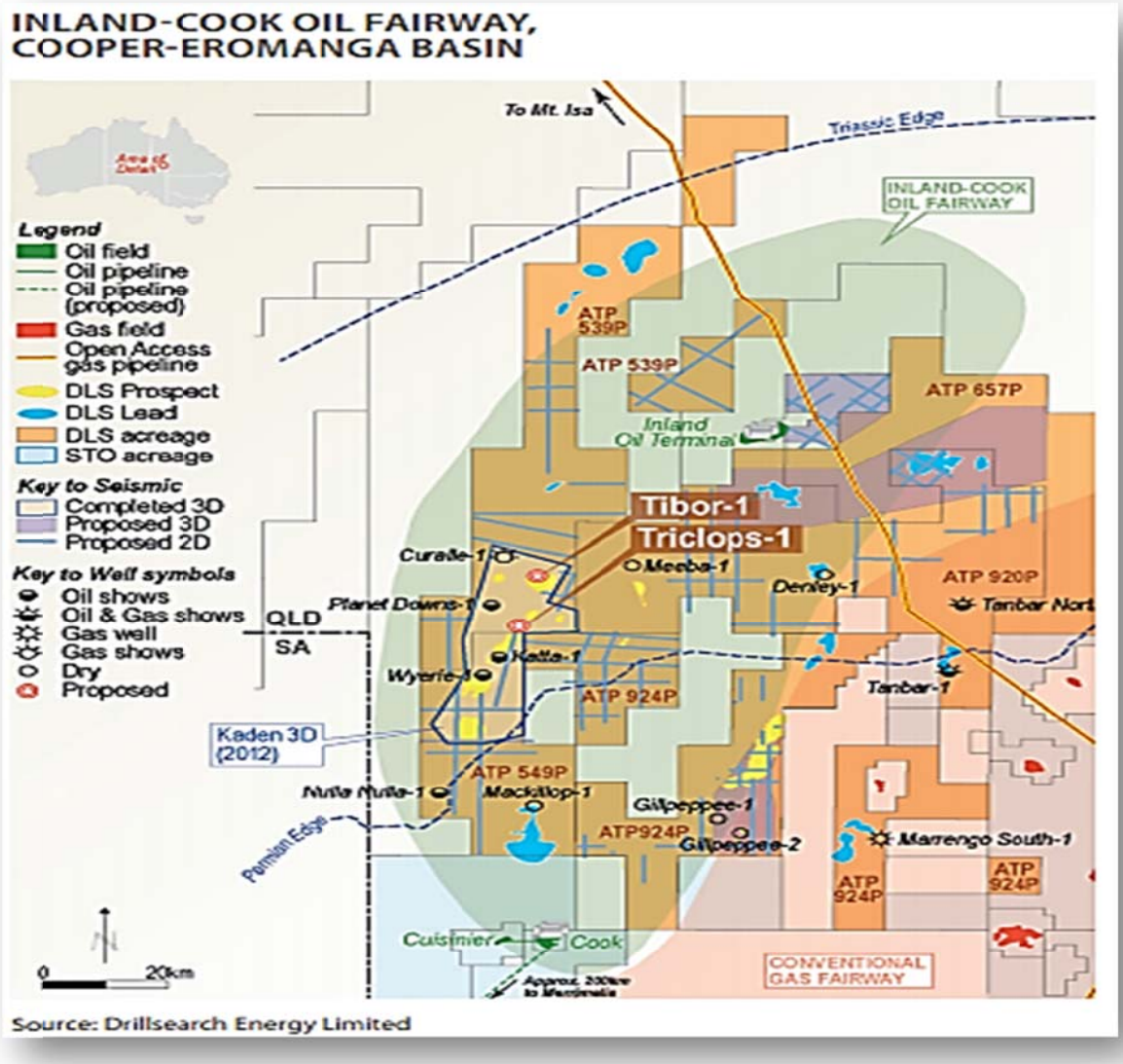


Figure 1.0 Tibor-1 Location Map

The closest offset wells that can be used to correlate Tibor-1 are Planet Downs -1, Katta-1 well, Meeba-1 and Curalle-1.

The well will test a fault related anticline with approximately 14m of independent closure. The location is approximately 52km SW of Inland Oil Field and 92km NE of Cook Oil Field.

The primary targets are the Middle Jurassic Hutton Sandstone and sands of the Late Jurassic Birkhead Formation. Secondary targets are sands of the Late Jurassic Namur Sandstone. There is potential for stacked pay as the closure extends from the Top of the Early Cretaceous Murta Formation to within the Middle Jurassic Hutton Sandstone.

The Hutton and Birkhead sands have expected average porosities of approximately 11%, and 10% respectively. Offset data indicates that the net to gross of the Hutton Sandstone ranges from 15 to 85%. The Birkhead Formation has variable net to gross, with sands typically <5m thick. The Birkhead sand exists within a shaley silty interval.

The aims of the Tibor-1 Oil Exploration well are to:

1. Drill a vertical well over the entire Cretaceous and most of the Jurassic section of the Eromanga Basin. The well will reach total depth (TD) within the Middle Jurassic Hutton Sandstone at 1738 m MDRT.
2. All sands from the Top Namur Sandstone to TD are potential targets.
3. Test the hydrocarbon prospectivity of a new play fairway within the "Inland Cook" region by demonstrating oil migration from the Yamma Yamma Depression into the western flank of the SWQ Eromanga Basin.
4. Evaluate the potential for economic oil in place (OIP) within Tibor-1.
5. Contribute to the current commitment of 2 wells within ATP 539P block
6. Run wireline logs including a minimum of Gamma Ray, Spectra Gamma Ray, Density, Neutron, Sonic, Resistivity, Dielectric and Seismic checkshot.

Having identified the presence of oil and/or associated liquids through mud logs and wireline logging in any one of the 2 primary targets, the next step is to establish the following key reservoir parameters to characterise the reservoir and enable reservoir development planning including estimates of the following for each oil bearing zone. This information is likely to be determined through a combination of wireline results and drill stem test (DST):

- Reservoir Fluid properties including gas composition and condensate yield for PVT modelling.
- Zone pressure and temperature
- Reservoir kh
- Skin and non-darcy skin parameters
- AOF and inflow potential of each zone

3. Safety

There were no **LTI's** during Schlumberger operations on Tibor -1.

The planning and execution of the well objectives in a safe and environmentally sound manner was a fundamental requirement of all aspects of the drilling programme. All operations were executed in accordance with the HSE management systems and the Schlumberger SOP.

In accordance with these overall objectives, specifically to the wireline logging activities, prior to individual operations, a toolbox talk was held at the worksite where the immediate operation was outlined, and any safety issues were discussed between the crews. The Wireline QA Supervisor was present at every Toolbox talk, and reviewed and approved the JSA in agreement with the worksite supervisors.

SAFETY	**PRE-JOB SAFETY MEETING HELD ADEQUATE FOR THE OPERATION**	✓
	CORRECT PPE WORN AT ALL TIMES	✓
	RA SOURCE HANDLING PROCEDURES CORRECTLY EXECUTED	✓
	BEFORE AND AFTER LOG SURVEYS COMPLETED	✓
	RA STORED IN A SAFE AREA CORRECTLY BARRIERE OFF	✓
	LIFTING PLAN IN PLACE FOR EQUIPMENT TRANSFER TO AND FROM THE CATWALK	✓
	SP GROUND CABLES FOR LOGGING IN GOOD CONDITION	✓
	SAFETY SWITCH OPERATIONAL	✓
	GENERAL SAFETY PROCEDURES ARE FOLLOWED AT ALL TIMES	✓

4. General Well Information

Background

The 12.25" open hole section on Tibor-1 was drilled from 10.6 m MDRT to 754.0 mMDRT. No basic formation evaluation wireline log was performed for this section. The hole was cased with 9 5/8" casing before commencing to drill the Tibor-1, 8.5" hole section. The 8.5" section was drilled from 754.0 mMDRT to a total depth (TD) of 1723.0 mMDRT at which point wireline log Run 1, 2 and 3 were completed.

The well was planned to be a vertical well. The well angle started to build up to 1.75 degrees when reaching 900 m. The decision to drill ahead with less weight on the bit and this did help to maintain

the well deviation around 2 degrees. At around 1500 m, the rig experienced high torque during drilling and decision taken to pull out of the hole. The rig crew suspected the bit has gone under gauge and gave problems to stabilizer to pass. On the surface, the bit and stabilizer diameter were OK, but the decision was made to run with a new 8 ½" PDC bit. The new bit drill to TD without any more problems.

The Hutton formation tops were found at 1623 m, and TD was then set at 1723m (-/+100m into Hutton)

General

Well	Tibor-1
Block	**ATP 539P**
Type	**Exploration**
Operator	**Drillsearch Energy Limited**
EWL Contractor	**Schlumberger**
Area	**Roma**
Latitude	**25° 52' 17.796" S**
Longitude	**141° 16' 19.413" E**
Drilling Supervisor	**Ray C.Wills**
Logging Engineer	**Mary Kate Henrikson/Tamara Svetlichnaya**
Logging Witness	**Mohd Rothi Hamzah/ Ian Wrightstone**

Rig data

Rig	**ENSIGN 918**	
KB-RT	**NA**	**m**
RT-GL	**5.15**	**m**
GL-MSL	**135.00**	**m**

Sub-surface well information

	Run 1: Tibor - 1
Bit Size	**8.5 in**
TD Driller	**1723.0 mMDRT**
TD Logger	**1723.5 mMDRT**
Casing Shoe Driller	**751.0 mMDRT**
Casing Shoe Logger	**750.0 mMDRT**
Circulation Stopped at TD	**19- Feb-2013 04:20**
Circulation Time	**60 min**
Max Well Deviation	**2.0 deg @ 932.0 mMDRT**
Casing size	**9 5/8 in**

Mud system

	Run 1:
Mud Type	3KCL-PHB-Polymer
Mud Weight	9.3 ppg
Mud Viscosity	46.0 sec
HPHT Fluid Loss	4.0 cc
PH	9.5
Corr Solids	4.0 %vol
Oil/Water Ratio	NA
CL (whole mud)	24,400 mg/l
Rmf @Temp	0.1300 @ 33.4°C
Rm @ Temp	0.1300 @ 33.4°C
Rmc @ Temp	0.5100 @ 33.4°C

5. Schlumberger tool mnemonics

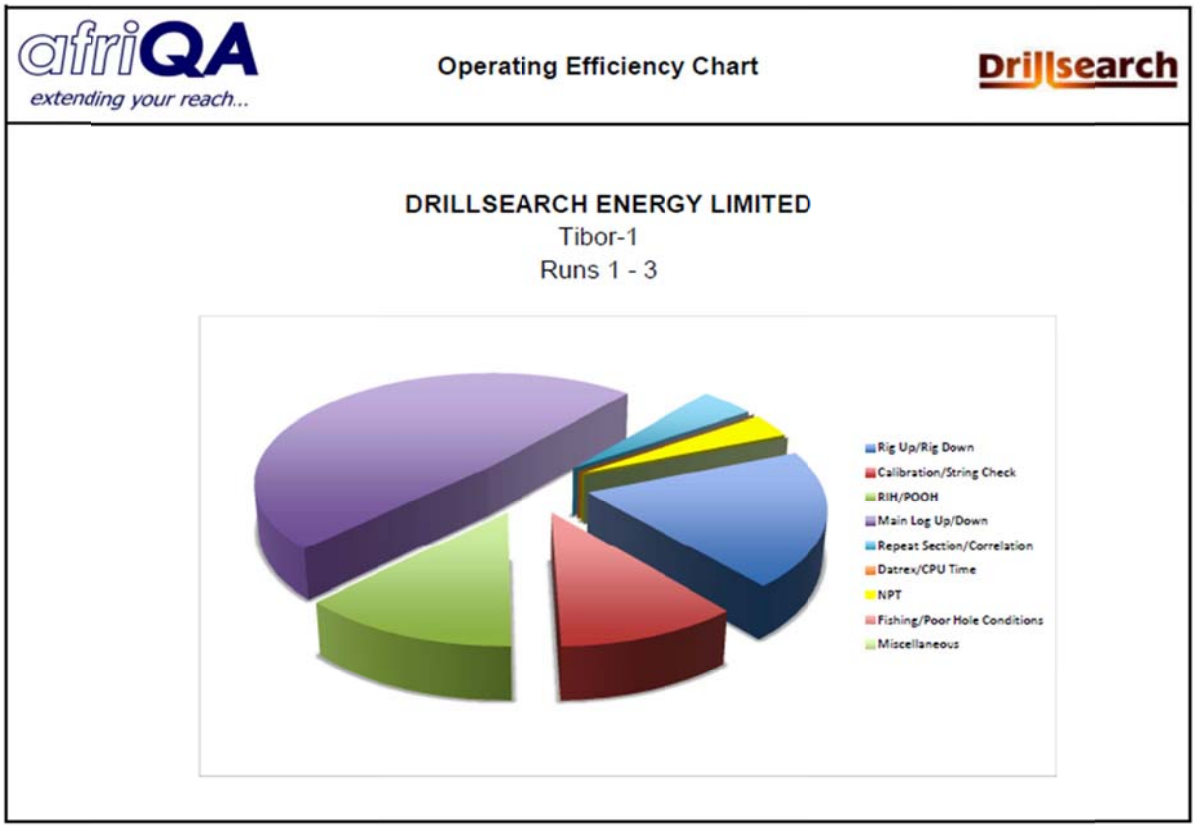
EDTC	Gamma Telemetry tool
HNGS	Natural Gamma Ray Spectrometry tool
HGNS	Highly Integrated Gamma Ray Neutron Sonde
PEX(TLD)	Platform Express (Three-Detector Lithology Density)
HRLA	High-Resolution Laterolog Array
MAST	Sonic Scanner (MISP)
ADT	Array Dielectric Tool
SP	Spontaneous Potential
PPC	Powered Caliper
GPIT	General Purpose Inclinometry Tool
VSI	Versatile Sonic Imager

6. Tibor -1 Run 1 Activity summary and Operating Efficiency

For a detailed account of the Activity Summary, please refer to the afriQA Operational Reports for each logging suite.

RUN	SERVICES	RIG UP	RIG DOWN	TOTAL	LOST TIME	BHT
		dd/mm hh:mm	dd/mm hh:mm	TIME	(Contractor)	°C
1	EDTC/PPC/HGNS/PEX/HRLA/ADT/SP	19/02 10:40	19/02 20:20	09:40	00:00	108.9
2	EDTC/PPC/MAST/PPC/GPIT	19/02 20:20	20/02 05:40	09:20	00:55	114.4
3	VSI-CHECKSHOT	20/02 05:40	20/02 13:40	08:00	00:00	118.9
	TOTAL TIME FOR WIRELINE OPERATIONS			**27:00**	**00:55**	
	OPERATING EFFICIENCY (1-LT/OT)x 100			**96.6 (%)**		

Tibor-1 Operating Efficiency Run 1, 2 and 3



6.1 Summary Run-1: EDTC/HGNS/HGNS/TLD/HRLA/ADT/SP

Run 1 completed in 9 hours and 40 min without NPT recorded.

Narrative

Job Hazard Analysis was done between the logging and drill crew prior to rigging up the sheave wheels. Discussion covered all aspects of logging operations and handling of radioactive sources. The logging crew consisted of an engineer and two operators. The rig crew were very helpful to organise the proper position of the lower sheave chain. The sheaves rig-up was done safely without any problems.

First run consisting of EDTC/PPC/HNGS/PEX/HRLA/ADT/SP was rig-up and made up vertically without any problem. After installing the thermometers and setting tool depth, the crew begin to install the radioactive sources. The tool string was then run in the hole to casing shoe.

The Schlumberger primary depth control procedures were followed closely. The first point of reference was taken around 100m. Running in hole speed was set to around 3600 ft/hr to avoid undesired depth slippage for the first run. HRLA and MCFL calibration performed below the casing shoe. The Density and Dielectric caliper were also verified inside casing prior to logging down.

Down log was logged from casing shoe to 17100 m to avoid areas around TD. Only HRLA, GR, Spectra GR, SP and TNPH data were valid as all calipers were closed. Another depth control observation was done during down log. The measurements indicated that the downlog depth could be used as depth references. Tools were pulled back to log repeat pass from 1670 to 1570 m for all sensors. This specific interval would cover top of Hutton sandstone and Birkhead sandstone. Upon completion of repeat pass, the tool was run in the hole to TD.

The main pass recorded in high resolution from total depth to 20m above casing shoe depth (750.0 m) at 1800 ft/hr. On the completion of the main pass, the tool string was pulled to surface. Logging crew removed the radioactive sources and engineer begin to perform the after log verifications. The crew started to rig down the tool string completely.

Summary

1. Run 1 was the 1st run in the hole and the down log would serve as the main depth reference log as per Schlumberger procedures.
2. Downlog logged from casing shoe to TD. The data were not presented
3. PPC was run below the cablehead as a short axis kit.
4. RXO data being a pad device was affected by washed out borehole.
5. Neutron was run in decentralized position. Neutron porosity was corrected for whole mud salinity of 41,277 (ppm) and logged in Limestone matrix.

6. RHOZ Density was corrected for borehole and mud density, and presented in Limestone Compatible scale.
7. The borehole volume and cement volume was computed from the CAL1 calliper (density tool). The density caliper has been reset to casing ID 0f 8.914".
8. Maximum reading BHT from thermometer was 108.9 deg C at 1691.0 mMDRT 11hrs 20 min after final TD circulation.
9. Bulk Density (RHOZ) and ADT data were affected badly by washed out and borehole rugosity.

OBSERVATIONS AND LOG QUALITY CONTROL	
1. DEPTH CONTROL	**Run 1 down log was the main depth reference log**
2. RHOZ	**Good repeatable data recorded. Density corrections (HDRA) within expected range over gauge hole. Borehole rugosity (washout) affected density data badly.**
3. GR	**Good data recorded.**
4. TPHI	**Good repeatable data recorded. Corrected for whole mud salinity of 41,277 ppm. Borehole rugosity (washout) affected porosity data badly.**
5. HNGS	**Good data recorded.**
6. ADT	**Good data recorded. Proper QC cannot be done because of processing requirement. All the QC flags were OK.**
7. HRLA	**Good repeatable data recorded. Different invasion profile observed across the washout zones.**

6.2 Summary Run-2: EDTC/PPC/MAST(Sonic Scanner)/PPC/GPIT

Run 2 completed in 9 hours 20 Minutes with 55 minutes NPT recorded.

Narrative

On completion of Run 1, the crew prepared the PPC tool on the catwalk prior to rigging up. The crew had to set the top PPC arms to fully operational and performed caliper calibration. The crew spent a considerable amount of operating time (55 minutes) to do this. Once completed, the crew rig up all the tool string without at problems. The engineer set the tool zero and decided to run in the hole without function check the tools first. At 50m, the engineer failed to initialize the sonic scanner (MAST). This was the same problem seen during surface checkout and the engineer should have learnt from it. The engineer decided to pull back to surface to troubleshoot the problem. The sonic scanner started to work again after a while and proceed to run in hole.

Engineer stopped at casing shoe, to check the caliper reading and reset it to 9 5/8" casing ID. The sonic scanner was set to BHC mode and downlog logged from casing shoe to TD at 6000 ft/hr. No problem seen, and the formation compressional slowness was almost similar to the offset well (Planets Down-1). The repeat pass was done first, with sonic scanner set to standard mode. In standard mode, the sonic scanner will provide fullwave monopole and fullwave cross dipole. The GPIT tool was run to provide directional data for anisotropy processing. The main pass logged from TD to surface. No problem seen on the main pass and all formation slowness were good.

The sonic scanner data required more processing at Schlumberger data centre to produce more correct slowness.

Summary

1. Run 2 correlated to Run 1
2. Sonic scanner was logged in BHC mode for down log in order to log using faster logging speed at 6000 ft/hr.
3. Sonic scanner log in the standard sonic mode for repeat pass and main pass. Fullwave monopole, inline dipole and cross dipole recorded in this mode.
4. GPIT data and QC flags were all showing good inclinometry data: which were also recorded. GPIT also read good field intensity and field magnetometer for the well.
5. PPC caliper showing same borehole washout seen by the density tool. PPC is a 2-axis caliper.

OBSERVATIONS AND LOG QUALITY CONTROL	
1. Depth Control	**Run 2 down log tied into run 1**
2. GR	Good repeatable data recorded
3. MAST(Sonic Scanner)	Reasonable data recorded. Sonic fullwave and cross dipole need further processing in Schlumberger data centre.
4. GPIT	Good data recorded
5. PPC	Good data recorded

6.3 Summary Run-3: EDTC/VSI

Run 3 completed in 8 hours with no NPT recorded.

Narrative

On completion of Run 2, the seismic single level checkshot survey using VSI tool was rigged up. The VSI tool still uses the EDTC as its telemetry and gamma ray data. Schlumberger own vibrator used for the seismic source energy. The seismic engineer selected the best position for the vibrator in order to reduce the sonic energy travel through the surface casing. The maximum distance, the vibrator

from the rig floor are a 50 m radius. Once the tool and the vibrator were verified to be functioning, engineer started to run in hole. The zero depth of the tool string was 1.09 m above the geophone.

As per the SOP, several checkshot surveys were done as calibration points while running in hole. The same levels will be shot on the way up to reconfirm the tool functionality.

The requested checkshot levels were all the formation tops. This formation top depths were selected by the client, based on the first run and mud log. The first level was at total depth and the engineer positioned the tool at 1721.5 m. This depth was found not good, and the bad geophone coupling could be due to washed out. The engineer tried to slack the cable from the surface but not able to improve the signal received. The tool was then moving to 1721.0 m, and reasonably good data were obtained. The tool was then pulled up to the next level requested. All together 11 formation tops have been requested. In addition, the engineer also surveys the MSL depth (141.15m) and near to ground level (10.6 m). On each survey depth, at least 3 shots fired for data stacking to improve the signal to noise ratio.

The tool reach surface safely and rig down.

Summary

1. Run: 3 correlated to Run: 1 using gamma ray from the EDTC tool.
2. Checkshot level at MSL and GL were done as per standard operation requirement.
3. All formation top depths were given by the client before starting the operation.
4. Checkshots were done from the deepest shot depth to the shallowest depth.
5. The anchor was kept open from first shot depth to the last shot depth.
6. Stacking technique was used to increase the signal to noise ratio. At least 3 shots were fired to do this at each depth.

OBSERVATIONS AND LOG QUALITY CONTROL	
1. Depth Control	**Run 3 log tied into run 1**
2. GR	Good repeatable data recorded
3. VSI(Seismic Imager)	Reasonable good data recorded. Checkshot data need further processing in Schlumberger data centre.

Figure-1 Schlumberger Logging truck and satellite disk setup.

Figure-2 PPC-Powered Caliper used for short-axis kit.

Figure 3- MAST- Sonic Scanner receiver for monopole and dipole

Figure 4- VSI-Single level

Figure 5- CO2 Liquefied Gas use by HNGS detector.

7. Summary and Recommendations for continuous improvement

During the Tibor-1 wireline logging operations, there were NPT of 55 minutes recorded. The lost time happened on run2. The sonic scanner (MAST) failed to initialize properly upon powering up the tool. The same problem happened during surface checkout. The only way to solve this problem is by running cartridge internal diagnostic, which is not normal.

The short axis kit ran in run 1 was not working well. The density and ADT calipers still read bigger than PPC across washout zone.

Run 1 finished successfully and without any problems. The pad device and neutron tool was affected by the borehole rugosity and washout. The log can be monitored in town via the Interact, transmitted over the satellite system.

The Sonic scanner for run 2 was run in standard mode. In standard mode fullwave monopole and fullwave cross-dipole were recorded. GPIT was run in combination to provide directional data for

anisotropy processing. No shear from monopole in Wallumbilla formation due to soft formation. The shear slowness can be obtained using the inline dipole data. The last run, seismic checkshot completed without any problems at all.

The assigned engineers for this job were very knowledgeable in operating the logging system and logging tools. However they still need to read log real time.

Nevertheless, the advantages of Schlumberger system and logging tools are its reliability and easiness for engineers to operate.

7.1 Highlights:

1. No accidents recorded during the logging operation.
2. No environmental incidents recorded.
3. Good commitment shown by the wireline crew to perform the operation in a safe and efficient manner.
4. All formation evaluation objectives were met.
5. Satellite communication system work and log data successfully transferred via INTERACT after the run completed.
6. Witness can follow the log via the second screen.

7.2 Lowlights:

1. Full back up strings were not loaded out for the job. Only PEX(TLD) and VSI mobilized with full backup.
2. In real time, only log plot (PDs) can be transmitted via interact to base.
3. Fishing kit missing 3 5/8" spiral grapple. Only the 3 3/8" spiral grapple inside the kit.
4. Poor real time logging data QC.

7.3 Best practices and Continuous improvement:

1. Inspect all rig-up equipment before every load out or at the wellsite to ensure operational status
2. Mobilise QA/QC supervisor to assist with tool checks in SLB base. This will reduce the time required on site for an audit and in so, significantly reducing the direct cost due to equipment standby rates on site.
3. Perform pre-job logging plan review with SLB in ROMA or MOOMBA to ensure correct equipment is mobilised to the site for upcoming operations.
4. Initiate a customer rig book in aiding efficient hand-over between engineers in charge and being consistent to client requirements.
5. Request RITE maintenance history for the specific Schlumberger equipment being mobilised to site.

HEADING INFORMATION & RUN SUMMARY

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Well	Tibor-1	Rig	Ensign 918		Mud Type	3KCL-PHB-Polymer	
Block	ATP 539	RKB	NA	m	Mud Weight	9.30	ppg
Type	Exploration	RT Elevation	5.15	m above GL	Mud Viscosity	46	s
Operator	Drillsearch Energy Limited	Ground Level	350.00	m above MSL	Fluid Loss	4	cc
EWL Contractor	Schlumberger	Bit Size	8.50	in	PH	9.5	
Area	SW Queensland	TD Driller	1723.00	m MDRT	Corr Solids	4.0	%vol
Latitude	25deg 52' 17.796" S	TD Logger	1723.50	m MDRT	Oil/Water Ratio	NA	
Longitude	141deg 16' 19.413" E	CSG Shoe Driller	751.00	m	Cl^- (whole mud)	25400	mg/L
Drilling Supervisor	Ray C. Miller	CSG Shoe Logger	750.00	m	Rmf @ temp	0.130	33.4 °C
Logging Engineer	MaryKate Henrikson/Tamara Svetlichnaya	Circ Stopped at TD	19-Feb-13 04:20	dd/mm/yy hh:mm	Rm @ temp	0.130	33.4 °C
Logging Witness	Rothi Hamzah/Alan Wrightstone/B.Craig	Circulation time	60	min	Rmc @ temp	0.510	33.4 °C
Job start date	19-Feb-13	Max Dev @ depth	2.00	deg @ 932 m MDRT			

SERVICES	RIG UP dd/mm hh:mm	RIG DOWN dd/mm hh:mm	TOTAL TIME	LOST TIME (due to Contractor)	LOST TIME (3rd party NPT)	TOP LOGGED INTERVAL (m)	BOTTOM LOGGED INTERVAL (m)
Run 1: ERCD/EDTC/SP/PPC/HNGS/PEX(TLD)/HRLA/ADT	19/02 10:40	19/02 20:20	9:40	00:00	00:00	750.0	1723.5
Run 2 - ERCD/EDTC/PPC/MAST/PPC/GPIT	19/02 20:20	20/02 05:40	9:20	00:55	00:00	10.0	1723.5
Run 3 Checkshot - 1 X VSI with Vibrosis	20/02 05:40	20/02 13:40	8:00	00:00	00:00	10.0	1721.5
TOTAL TIME FOR THE LOGGING JOB			27:00	0:55	0:00		
OPERATING EFFICIENCY (1-LT/OT)x 100			96.60%				

SCHLUMBERGER SERVICE QUALITY

The Schlumberger logging crew on the Ensign-918 for Tibor-1 performed well during the logging operation and showed good commitment. Unfortunately, due to intermittent tool initialization failure, the total operating efficiency was lower than expected 100%. The Schlumberger DCS support during the operation was of a high standard with good communication between the processing centre, the COMPANY office based personnel and the field. Good quality geological and Petro-physical data was recorded. The equipment failures need to be investigated, and error cause removal reports submitted. Refer to the summary sheet for a detailed breakdown of highlights and lowlights during the operations.

EQUIPMENT QA/QC

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Well	Tibor-1	TD Driller	1723.00	m	CSG Shoe Driller	751.00	m
Block	ATP 539	TD Logger	1723.50	m	CSG Shoe Logger	750.00	m
EWL Contractor	Schlumberger	Bit Size	8.50	in	Circ Stopped at TD	19-Feb-13 04:20	dd/mm/yy hh:mm
Job date	19-Feb-13	Max Dev @ depth	2.00	deg @ 932 m MDRT	Circulation time	60	min
Logging Engineer	MaryKate Henrikson/Tamara Svetlichnaya	Mud Type	3KCL-PHB-Polymer		Rmf @ temp	0.130	33.4 °C
Logging Witness	Rothi Hamzah/Alan Wrightstone/B.Craig	Mud Weight	9.30	ppg	Rm @ temp	0.130	33.4 °C
Report Date	20-Feb-13	Suite	1		Rmc @ temp	0.510	33.4 °C

Equipment QC

Logging Run	Tool Type	Description	Primary Equipment Asset Number	CALIBRATED	Backup Equipment Asset Number	CALIBRATED	COMMENTS
Run 1: ECRD/EDTC/SP/PPC/HNGS/PEX(TLD)/HRLA/ADT	LEH-QT	Cable head	1183	NA			8k weak point
	ECRD	Electrical release cable head	1183	NA			
	SPA-A	Spontaneous Potential	9999	NA			
	AH-369	Mass Isolation sub	1890	NA			
	EDTC-BB	Down hole telemetry	8225	18 February 2013	8536	NA	Back-up: MDT
	EDTH-B	Down hole telemetry	8217		8537	NA	Back-up: MDT
	PPC-B	Powered Caliper	8075	19 February, 2013			
	AH-120	Knuckle Joint	838	NA			
	Adapter-Head	Spacer		NA			
	AH-184	Knuckle Joint	5998	NA			
	HEH-K	Spectral GR HNGS housing	19	NA			
	HNGS-BA	Spectral GR Sonde	19	11 January, 2013			
	HNGH-AA	Spectral GR housing	47				
	HNGC-BA	Spectral GR cartridge	221				
	HGNH-B	Neutron Gamma Ray	2954	14 February 2013			
	HGNS-H	Neutron Gamma Ray	3892				
	HRCC-H	Density Housing	4854				
	HRDD-BS	Density Back Scatter	41224	14 February, 2013			
	HRMS-H	Density Sonde	3931	14 February, 2013			
	HRGD-H	Density Pad	4967	14 February, 2013			
	AH-184	Mass Isolation sub	5954	NA			
	HRUC-B	Laterolog Upper cartridge	939				
	HRUH-B	Laterolog Upper housing	933				
	HRLS-B	Laterolog Sonde	928	19 February, 2013			
	HRLC-B	Laterolog Lower cartridge	920				
	HRLH-B	Laterolog Lower housing	915				
	AH-270	Mass Isolation sub	759	NA			
	HECH-KDB	ADT	772	NA			
	ADC-C	ADT	789				
	ADS-C	ADT	761				
	ADP-C	ADT	761	18 February, 2013			
Run 2: ECRD/EDTC/PPC/MAST/PPC/GPIT/SPACER	LEH-QT	Cable head	1183	NA			8k weak point
	ECRD	Electrical release cable head	1183	NA			
	SAH-F	Swivel	1890	NA			
	EDTC-BB	Down hole telemetry	8225	19 February 2013			
	EDTH-B	Down hole telemetry	8217	19 February, 2013			
	PPC	Positioning Powered Caliper	8075	19 February, 2013			
	ECH-SF	Sonic Scanner	8257	NA			
	MAPC-BA	Sonic Scanner	8265	NA			
	MAMS-BA	Sonic Scanner	8262	NA			
	MASS-BA	Sonic Scanner	8218	NA			
	MAXS-BA	Sonic Scanner	8221	NA			
	PPC-B	Postioning Powered Caliper	8291	19 February 2013			
	GPIH-B	GPIT	2816	18 February 2013			
	DHRU-F	GPIT	1823	NA			
	GPIC-H	GPIT	1823	NA			
Surface	OSLCG	Wireline logging truck	3144	NA	NA	NA	SMALL TYPE
	OSAO	Mobile Lab - MDT capable	NA	NA			SUPPLY BOX
	IDW	Depth measuring device	978	26-Oct-12	NA		
	7-46ZVXS	Wireline (LENGTH: 2945m)	75134	NA	NA	NA	ROPE SC: 10/2/13
	QBX	Vibro Truck	WZG 406	NA			

EQUIPMENT PREPARATION REMARKS

1. Only one (1) set of a complete string mobilized to the wellsite except extra TLD and VSI (Checkshot)

2. Standalone system was inside the logging truck. No backup system available or mobilized for this job. Second screen available for the client to use. The plotter machine installed inside the system was working.

3. The logging operations were based on DRY CASE programme inclusive of seismic checkshot run.

4. All pre-log verifications performed during pre-job check on the surface and before rig-up. Resistivity tools were checked without test harness. Only HRLA harness mobilized but not use during tool checkout.

5. MAST tool failed to initialize upon power up during checkout. The engineer has to do internal cartridge diagnostic test first and then the tool start to work properly. This is the same tool used on the last well, when the same problem seen. Several fast power up sequences managed to solve the problem.

6. All stand-offs diameter measured manually, and the tool diagram handed to the company representative before rig-up. Final OD for a tool with standoff was 8".

7. The HNGS (Spectra Gamma Ray) detector was cooled with liquified gas-CO2 before rig-up to 2 degC as per Schlumberger SOP.

8. MAST cross dipole operation was tested on the surface, but dipole waveforms and monopole waveforms were not tested because special shuck or half-trough was not mobilized.

9. All PPC setting levels were checked during surface test. Level 2 will be used for logging with MAST (Sonic Scanner)

10. Short axis mode will be utilised on the first run. Short axis modification consisting of PPC/Knuckle/Spacer/Knuckle connected between EDTC and HNGS.

EQUIPMENT QA/QC

Well	**Tibor-1**	**TD Driller**	**1723.00**	**m**	**CSG Shoe Driller**	**751.00**	**m**
Block	**ATP 539**	**TD Logger**	**1723.50**	**m**	**CSG Shoe Logger**	**750.00**	**m**
EWL Contractor	**Schlumberger**	**Bit Size**	**8.50**	**in**	**Circ Stopped at TD**	**19-Feb-13 04:20**	**dd/mm/yy hh:mm**
Job date	**19-Feb-13**	**Max Dev @ depth**	**2.00**	**deg @ 932 m MDRT**	**Circulation time**	**60**	**min**
Logging Engineer	**MaryKate Henrikson/Tamara Svetlichnaya**	**Mud Type**	**3KCL-PHB-Polymer**		**Rmf @ temp**	**0.13**	**33.4 °C**
Logging Witness	**Rothi Hamzah/Alan Wrightstone/B.Craig**	**Mud Weight**	**9.30**	**ppg**	**Rm @ temp**	**0.130**	**33.4 °C**
Report Date	**20-Feb-13**	**Suite**	**1**		**Rmc @ temp**	**0.510**	**33.4 °C**

Equipment QC

Logging Run	Tool Type	Description	Primary Equipment Asset Number	CALIBRATED	Backup Equipment Asset Number	CALIBRATED	COMMENTS
Run 3: MDT	LEH-QT	Cable head	1876				
	ECRD	Electrical release cable head	1876				
	EDTC-BB	Down hole telemetry	8536				
	EDTH-B	Down hole telemetry	8537				
	MRPC	MDT power cartridge	871				
	MRCH	MDT power cartridge housing	1083				
	MRMS	6 Tank sample carrier	75				
	MPSR	450cc Sample chamber	-				
	MPSR	450cc Sample chamber	-				
	MPSR	450cc Sample chamber	-				
	MPSR	450cc Sample chamber	-				
	MPSR	450cc Sample chamber	-				
	MPSR	450cc Sample chamber	-				
	MRPO	MDT Pump	541				
	MRSC	Sample chamber - large volume	612				Exit port
	MRFA	MDT Fluid analyser	8263				
	MRHY	MDT hydraulics	751				
	MRPQ	MDT probe section	541	8 February, 2012			CQG 3290
	MRPP	MDT Power panel					
	MRTM	MDT communications panel					
Run 4: ZO-VSI-CHECKSHOT	LEH-QT	Cable head	1183				
	ECRD	Electrical release cable head	1183				
	EDTC-BB	Down hole telemetry	8225		8536		
	EDTH-B	Down hole telemetry	8217	20 February 2013	8537		
	AH-199	Cross over	5035				
	VSPC-BA	VSP Power cartridge	8070		8073		
	VSCC-BB	VSP communication cartridge	8070		8073		
	VSIS-CA	VSI geophone	8313		8311		
	AH-244	Cross over	8071				
	VPO	Vib Pro vib control panel	1526				
	WSAM	Seismic acquisition panel	1747				
Run 5: MSCT	LEH-QT	Cable head					
	SGH-K	Gamma Ray	3322				
	MCCM	Rotary coring tool	239				
	MCEC-AA	Rotary coring tool	240				
	MDMU-AA	Rotary coring tool	8090				
	MCRCM	Rotary coring tool	691				
	MCPP	Power panel	239				

EQUIPMENT PREPARATION REMARKS

1. VSI was not checked during surface checkout. The crew still waiting for the vibrator to be at the rig site.

2. The checkshot will run as a single level tool.

3. MDT and MSCT were not operational check on surface.

PRE-JOB QA/QC CHECKS

Well	Tibor-1	TD Driller	1723.00	m	CSG Shoe Driller	751.00	m
Block	ATP 539	TD Logger	1723.50	m	CSG Shoe Logger	750.00	m
EWL Contractor	Schlumberger	Bit Size	8.50	in	Circ Stopped at TD	19-Feb-13 04:20	dd/mm/yy hh:mm
Job date	19-Feb-13	Max Dev @ depth	2.00	deg @ 932 m MDRT	Circulation time	60	min
Logging Engineer	MaryKate Henrikson/Tamara Svetlichnaya	Mud Type	3KCL-PHB-Polymer		Rmf @ temp	0.13	33.4 °C
Logging Witness	Rothi Hamzah/Alan Wrightstone/B.Craig	Mud Weight	9.30	ppg	Rm @ temp	0.130	33.4 °C
Report Date	20-Feb-13	Suite	1		Rmc @ temp	0.510	33.4 °C

Pre-Job QA/QC Checks		STATUS	COMMENTS
SURFACE EQUIPMENT	WIRELINE CONTINUITY AND INSULATION	Good	Checked at the base and was recorded on the cable sheet
	CABLEHEAD CONTINUITY AND INSULATION	NA	inside the truck
	WIRELINE LENGTH SUFFICIENT FOR LOGGING JOB	NA	Primary 75134 = 2945m;
	WIRELINE TORTURE TEST	NA	Not checked, readily installed with ERCD and ready to go. Build new rope socket in Roma-10th Feb 2013
	DEPTH ENCODER SURFACE CHECK	Good	IDW # 1933 Calibration date 26-Oct-2012.
	MULTI METER AND MEGGER IN GOOD WORKING ORDER	28/1/2013	
	GEIGER COUNTER IN GOOD WORKING ORDER	28 January, 2013	Calibration due date July 2013.
	RA SOURCE INSTALLATION TOOL IN GOOD WORKING ORDER	Good	
	SOURCE CATCHER IN GOOD WORKING ORDER	11/1/2013	Using makeup plate - Dual purposes
	LIFTING CAPS IN GOOD CONDITION AND CERTIFIED	Good	Certified in date
	TOOL STAND-OFFS CALIPERED FOR ACCURATE OD AND DIAGRAMS WITH CO-MAN	Good	Physically measured OK
	EQUIPMENT FUNCTIONALLITY CHECK ON PRIMARY AND BACK-UP SYSTEM	27/11/2012	CompleteBACK up tool supplied. BACKUP only- 1xvsi / 1x TLD
	COPY OF MASTER CALIBRATION ON PRIMARY AND BACK-UP SYSTEM	28 January, 2013	Verified during logging
	RIG-UP EQUIPMENT CERTIFICATION	Good	
	CABLE CUTTER AVAILABILITY	NA	Not checked
	WEAK POINT SELECTION	10/2/2013	8k weak point in ECRD.
CALIBRATIONS	SHOP CALIBRATION	Good	
	BEFORE LOG SURVEY	Good	
	AFTER LOG SURVEY	Good	
	CALIBRATION EQUIPMENT CONDITION	Good	
SAFETY	PRE-JOB SAFETY MEETING HELD ADEQUATE FOR THE OPERATION	Good	
	CORRECT PPE WORN AT ALL TIMES	Good	
	RA SOURCE HANDLING PROCEDURES CORRECTLY EXECUTED	Good	
	BEFORE AND AFTER LOG SURVEYS COMPLETED	Good	
	RA AND EXPLOSIVE BUNKERS STORED IN A SAFE AREA CORRECTLY BARRIERED OFF	Satisfactory	Under pipe rack-posted sign board only-not barriered off
	LIFTING PLAN IN PLACE FOR EQUIPMENT TRANSFER TO AND FROM CATWALK	Good	Picked up sources using rig tugger line.
	GROUND CABLES FOR EXPLOSIVE OPERATIONS IN GOOD CONDITION	NA	
	SAFETY SWITCH OPERATIONAL	NA	
	GENERAL SAFETY PROCEDURES FOLLOWED AT ALL TIMES	Yes	
FISHING	FISHING BOX INVENTORY UPDATED AND COMPLETE	29 January, 2013	Not checked-Short on time-Crew arrived late
	FISHING EQUIPMENT CERTIFIED AND IN GOOD CONDITION	29 January, 2013	Engineers confirmation only
	COPY OF FISHING OPERATING PROCEDURES IN THE FISHING BOX	NA	Engineers confirmation only
	FISHING HAND TOOLS IN GOOD OPERATING CONDITION	NA	Engineers confirmation only
	TWO UNUSED CABLE HEAD GRAPPLES AVAILABLE	Good	
	CABLE CLAMP IN GOOD CONDITION	Good	
TLC KIT	MALE WET CONNECT CHECKED FOR CONTINUITY AND INSOLATION	NA	
	FEMALE WET CONNECT CHECKED FOR CONTINUITY AND INSOLATION	NA	
	SIDE ENTRY SUB AVAILABLE AND CERTIFIED	NA	
	ALL RELEVANT CROSS-OVERS AVAILABLE AND CERTIFIED	NA	
	WET CONNECTS FUNCTION TESTED FOR LATCHING AND SYSTEM COMMUNICATION	NA	
	CABLE GUARD AVAILABLE	NA	
	TLC HAND TOOL IN GOOD CONDITION	NA	
	COPY OF TLC PROCEDURES AVAILABLE IN UNIT	NA	
UNIT	SYSTEM AND BACK-UP OPERATING CORRECTLY	NA	No back-up. Stand alone system
	WINCH IN OPERATIONAL CONDITION	Good	Need to remedy- brake catching the drum flange when drum moving downward.
	BACK-UP WIRELINE AVAILABLE ON LOCATION AND IN GOOD CONDITION	NA	
	ALL FLUID LEVELS CHECKED AND SATISFACTORY	Good	
	AC'S OPERATIONAL	Fair	Not enough and hot. only one unit available
	LIGHTS ADQUATE	Good	
	POWER PACK AND GENERATOR OPERATIONAL	Good	Not check-available for MSCT also
	UNIT CHECK SHEET COMPLETED BEFORE EVERY JOB	Not Done	Should be initiated by Engineer
WORKSHOP	RE-HEAD SPARE PARTS AVAILABLE	Good	
	BACK-OFF EQUIPMENT CHECKED, LABLED AND STORED READY STATE	NA	
	MECHANICAL SETTING TOOL OPERATIONAL, REDRESS KITS AVAILABLE	NA	
	BOP AVAILABLE, SERVICED AND IN READY STATE	NA	
	SQUEEZE GUNS AVAILABLE	NA	
	SPARE CABLE HEAD BUILD, CHECKED AND READY	NA	
	AC'S OPERATIONAL	NA	
	LIGHTS ADEQUATE	NA	
	GR/CCL TOOLS AVAILABLE FOR VARIOUS OPERTIONS AND HOLE ID's	NA	
	HAND TOOLS ADEQUATE	NA	

PRE-JOB QA/QC R E M A R K S

1. The Schlumberger crew arrived on site about 20hrs from rig up time. Only the first two (2) confirmed runs were surface check. VSI-Checkshot was not checked because vibrator still on the way

2. All down-hole equipment was checked on site as per the Equipment QC sheet

3. All rig-up equipment was checked on the site and all with certificates.

4. Successfully setup satellite communication at the wellsite. The crew does experienced a problem the first few hours.

5. RA survey was done prior to moving the sources to assigned secured location.

6. Cablehead was already made up, hence cable test only limited to insulation and continuity test.

SEQUENCE OF EVENTS RUN 1

Well	Tibor-1	TD Driller	1723.00	m	CSG Shoe Driller	751.00	m
Block	ATP 539	TD Logger	1723.50	m	CSG Shoe Logger	750.00	m
EWL Contractor	Schlumberger	Bit Size	8.50	in	Circ Stopped at TD	19-Feb-13 04:20	dd/mm/yy hh:mm
Job date	19-Feb-13	Max Dev @ depth	2.00	deg @ 932 m MDRT	Circulation time	60	min
Logging Engineer	MaryKate Henrikson/Tamara Svetlichnaya	Mud Type	3KCL-PHB-Polymer		Rmf @ temp	0.130	33.4 °C
Logging Witness	Rothi Hamzah/Alan Wrightstone/B.Craig	Mud Weight	9.3	ppg	Rm @ temp	0.130	33.4 °C
Report Date	22-Feb-13	Logging Suite	1		Rmc @ temp	0.510	33.4 °C

Start	End	Hrs	Code	Operation and Comments
dd/mm hh:mm	dd/mm hh:mm	(hh:mm)		***Run 1: ECRD/EDTC/SP/PPC/HNGS/PEX(TLD)/HRLA/ADT***
19/02 10:40	19/02 11:00	0:20	1	Conduct pre-job safety meeting on the drill floor with Schlumberger and rig crew. Work permit was issued, and general rig-up and rig-down were discussed. The discussion topic also includes radiation safety.
19/02 11:00	19/02 12:30	1:30	1	Rig up wireline equipment and make up Run 1 tool string-EDTC/SP/PPC/HNGS/HGNS/PEX/HRLA/ADT
19/02 12:30	19/02 12:45	0:15	2	Completed tool rig up and perform surface Tool check. Installed thermometers into the housing of cablehead prior to setting tool "zero depth". Zero tool string at 31.95 m (bottom cablehead) and getting ready to install radioactive sources.
19/02 12:45	19/02 13:00	0:15	2	Installed density and neutron sources. Rih slowly at 1000 ft/hr passing through BOP and to 100m depth for depth control test.
19/02 13:00	19/02 13:20	0:20	3	Stop at 100m and perform depth control I.e marking the cable in front of the IDW. The mark was then moved this mark to the rotary table depth. The depth mark at rotary table was 170.91m. Therefore, the cable distance between the IDW and the rotary table is 70.91 m. The next checkout will be closed to TD.
19/02 13:20	19/02 13:40	0:20	3	Continue running in the hole to 50 m below casing shoe for downhole tool check.
19/02 13:40	19/02 13:55	0:15	4	Opened and log up with caliper into casing shoe and inside casing. ADT caliper read 8.892" and density caliper read 8.594" before resetting to casing ID of 8.9". Reset calipers to nominal casing ID.
19/02 13:55	19/02 15:00	1:05	4	Record down log at 3600ft/hr from 750m to 1721m with SP/GR/SGR/CN/HRLA. All pad devices data were recorded but not usable because of closed calipers. Logging system cannot switch off data from tools if not required. Another depth control performed at 1650.0 m and the depth difference of 0.3m from surface reading.
19/02 15:00	19/02 15:05	0:05	3	Moved up to repeat pass interval. Opening calipers on the way up.
19/02 15:05	19/02 15:25	0:20	5	Record repeat pass at 1800 ft/hr. The PEX (Density, Neutron and Gamma Ray) was logged in Hi res mode (6 spf). No tension over pull experienced on this pass. The logging cable tension was reading 3800lbs, and the head tension was reading 2050lbs.
19/02 15:25	19/02 15:37	0:12	3	Stopped repeat pass and closed calipers. Then run back in the hole to TD for main pass.
19/02 15:37	19/02 17:35	1:58	4	Reached TD and slacked around 2 meters of cable. Opened caliper and start recording main pass with PEX in High Resolution mode. No over pull experienced during logging. The cable speed was maintained between 1400 to 1600 ft/hr. Total depth logger is at 1723.5 m.
19/02 17:35	19/02 18:20	0:45	3	Stopped main pass logging 20m above the 9 5/8" casing shoe. Closed calipers and pull out of the hole to the surface. Casing logger is at 750.0 m.
19/02 18:20	19/02 18:50	0:30	2	Reached surface removed thermometers and radioactive sources. The thermometers read 228, 228 and 226 degf.
19/02 18:50	19/02 19:10	0:20	2	Perform after log verifications and started rig down tool
19/02 19:10	19/02 20:20	1:10	1	Completed rig down run 1.
Total hours:		**9.67**	(decimal)	

Logging Codes:

1. Rigging up, rigging down
2. Calibrations, tool checks
3. Running in, pulling out of hole
4. Logging up, logging down
5. Repeat Section, depth correlation
6. Data transmission, CPU time.
7. NPT due to wireline contractor
8. Drilling / wellbore conditions related NPT

REMARKS

1. Run 1 was the first run in the hole and will serve as the primary depth reference. First run depth control was done as per Schlumberger SOP.

2. All wireline depth was measured from RT - 5.15 m above GL. The GL was 135.0 m above MSL.

3. Well is almost vertical and run 1 was deployed on wireline. The maximum deviation recorded was 2.0 degrees at 932m.

4. Down log was performed and not presented. No downlog data were not used to splice to repeat and main pass for final data delivery.

5. The SP data was recorded for all logging passes. SP tool was the most bottom tool in the toolstring.

6. The HRLA was run stood off and logged at high resolution. Two sets of rubber fin standoffs were positioned below and above the sonde. The average fin width was about 1.5 inches. 4 fins were required to makeup one rubber fin stand-off.

7. Only internal check was done for HRLA. The sonde electrodes were not checked using the special test harness.

8. The density caliper (PEX) and ADT caliper read 8.594" and 8.892" inside casing during before log check. True casing ID = 8.914". Caliper data was corrected to true casing ID before BHV and CV calculations were completed. The density and ADT caliper calibrations were done on the surface during surface checkout. 8" and 12" caliper rings were used for calibrations.

9. Total hole volume = 39.55 m^3 computed from 1723.5m - 750 m using data from Density-arm calliper.

10. Total cement volume = 24.77 m^3 computed from 1723.5 m - 750 m using data from Density-arm calliper for 5 1/2" casing to set.

11. The borehole temperature from the maximum reading thermometers were 108.9 deg C, 108.9 deg C and 107.8 deg C at 1691.0 m after 11 hours 20 min final TD circulation stop.

12. ADTdata were not observed and QC properly during logging. All ADT data require further process in town to get the final ouput data. While logging only the diagnostic data flags were used, to ensure ADT working properly.

13. No tension overpull experienced while logging.

14. Radioactive installation and retrievable were done safely. Tugger line was used to bring the RA sources from catwalk to the rig floor.

OBSERVATIONS AND LOG QUALITY CONTROL

* DEPTH CONTROL:	Run1 will serve as the main depth reference file. Depth control SOP was done properly by the logging crew.
* EDTC:	Good repeatable data recorded. EDTC also give out additional GR data. This the shallowest GR data from the log
*HNGS	Data from Uranium(URAN), Potassium(POTA) and Thorium(THOR) responding normally over all the formations logged. Only at the interval between 975 m to 978 m, Uranium curve read higher than normal but the K, and TH showed no increment at all. Good repeaatble data recorded.
*HGNS	Good repeatble data recorded. All the parameters used for loggings were correct. Neutron porosity data were badly affected by the borehole rugosity and washout. Neutron was recorded in Limsetone Matrix. Borehole correction and mud salinity correction applied. Mud salinity used 41,277 ppm from the whole mud.
*TLD	Good repeatable data recorded. All the parameters used for loggings were correct. Density data were badly affected by the borehole rugosity and washout. The tool string was setup with short-axis mode. Mud weight and borehole correction applied to the density data. PEF value over the sandstone was around 2.0 (slightly on the high side). Limestone compatible scale used for presentation.
*MCFL	Good repeatable data recorded. RXO data read lower than HRLA due to borehole enlargement. RXO data were badly affected by the borehole rugosity and washout.
* HRLA:	Good repeatable data recorded. The shallowest HRLA resistivity (RLA1) read higher than the deepest resistivity (RLA5) due to borehole enlargement.
*ADT	ADT output data was not QC during logging. Data need further processing. All QC flags were good.
* SP:	Good data recorded.

SEQUENCE OF EVENTS RUN 2

Well	Tibor-1	TD Driller	1723.00	m	CSG Shoe Driller	751.00	m
Block	ATP 539	TD Logger	1723.50	m	CSG Shoe Logger	750.00	m
EWL Contractor	Schlumberger	Bit Size	8.50	in	Circ Stopped at TD	19-Feb-13 04:20	dd/mm/yy hh:mm
Job date	19-Feb-13	Max Dev @ depth	2.00	deg @ 932 m MDRT	Circulation time	60	min
Logging Engineer	MaryKate Henrikson/Tamara Svetlichnaya	Mud Type	3KCL-PHB-Polymer		Rmf @ temp	0.130	33.4 °C
Logging Witness	Rothi Hamzah/Alan Wrightstone/B.Craig	Mud Weight	9.3	ppg	Rm @ temp	0.130	33.4 °C
Report Date	22-Feb-13	Logging Suite	1		Rmc @ temp	0.510	33.4 °C

Start	End	Hrs	Code	Operation and Comments
dd/mm hh:mm	dd/mm hh:mm	(hh:mm)		***Run 2 - ECRD/EDTC/PPC/MAST/PPC/GPIT***
19/02 20:20	19/02 21:15	0:55	2	Crew work on one of the PPC tool arms back to normal standard operation. Function test 2 PPC calipers together and calibrate caliper.
19/02 21:15	19/02 22:00	0:45	1	Rig up run 2 -EDTC/PPC/MAST/PPC/GPIT and installed thermometers in cablehead.
19/02 22:00	19/02 22:10	0:10	3	Set zero @25.46 m and rih. No functional check on Sonic Scanner prior running in hole. Requested to check tool and experienced same tool initialization failure as seen on job preparation at the wellsite.
19/02 22:10	19/02 23:05	0:55	7	Engineer decided to move back to surface for troubleshoot the Sonic Scanner tool. Same initialization problem experienced during job preparation on surface. Tool initialization process solved and reset tool ZERO and continue running in the hole to casing shoe.
19/02 23:05	19/02 23:40	0:35	3	Running in the hole to casing shoe for PPC caliper check. Casing arrival while running in hole read 55us/ft
19/02 23:40	19/02 23:50	0:10	2	Reached the casing shoe and verify PPC calipers.
19/02 23:50	20/02 00:35	0:45	4	Log down sonic scanner in BHC mode at 6,000ft/hr from casing shoe to 1710.0 m
20/02 00:35	20/02 00:55	0:20	5	Moved up to repeat interval. Set the sonic scanner in standard full wave mode and logged repeat pass from 1670.0 m to 1570.0 m.
20/02 00:55	20/02 01:00	0:05	3	Stopped repeat pass and close PPC calipers. Run in the hole to TD for main pass.
20/02 01:00	20/02 04:55	3:55	4	Log main pass from TD to surface. Logging speed set in between 1400 to 1600 ft/hr. Sonic scanner set to standard fullwave mode.
20/02 04:55	20/02 05:00	0:05	2	On the surface and read thermometers. Thermometers read 238, 238 and 236 degF.
20/02 05:00	20/02 05:40	0:40	1	Rig down run 2.
Total hours:		**9.33**	(decimal)	

Logging Codes:

1. Rigging up, rigging down
2. Calibrations, tool checks
3. Running in, pulling out of hole
4. Logging up, logging down
5. Repeat Section, depth correlation
6. Data transmission, CPU time.
7. NPT due to wireline contractor
8. Drilling / wellbore conditions related NPT

REMARKS

1. Run 2 was tied into main pass of Run 1: SP/HNGS/PEX/HRLA/ADT.
2. Sonic scanner (MAST) and GPIT were run centralised using slipover centralizers and Powered Calipers(PPC)
3. Sonic scanner log in standard fullwave mode from TD to surface. Fullwave mode logging consisting of fullwave monopole, inline dipole and cross dipole.
4. Sonic scanner casing log can be used to evaluate the cement bond qualitatively behind the 9 5/8" casing.
5. General Positioning Inclinometry Tool is required to provide directional data for sonic cross dipole anisotropy processing
6. GPIT will not give valid data inside casing, hence not processing can be done for anisotropy determination.
7. PPC calipers were closed when logging inside casing.
8. Logging down from casing shoe to 1710m at 6,000 ft/hr. BHC mode was used for sonic scanner logging, whilst calipers were in a closed position.
9. The borehole temperature from the maximum reading thermometers were 114.4 deg C, 114.4 deg C and 113.3 deg C at 1697m after 22 hours 40 min final TD circulation

OBSERVATIONS AND LOG QUALITY CONTROL

*** DEPTH CONTROL:**	**Log correlated to Run 1 - SP/HNGS/PEX/HRLA/ADT**
*** EDTC:**	**Good repeatable GR data recorded.**
*** PPC:**	**Both PPC calipers work and good repeatable data recorded. Formation anisotropy can be seen from the behaviour of the orthogonal calipers of the PPC.**
*** MAST(Sonic Scanner):**	**Good repeatable data recorded. Shear arrival from monopole disappeared from about 1115m due to soft Wallumbilla Formation. The Shear arrival can be obtained from the dipole waveform arrival.**
*** GPIT:**	**Good repeatable data recorded. All the output positioning data from the tool were good as per the well location.**

SEQUENCE OF EVENTS RUN 3

afriQA extending your reach...

Drillsearch

Well	Tibor-1	TD Driller	1723.00	m	CSG Shoe Driller	751.00	m
Block	ATP 539	TD Logger	1723.50	m	CSG Shoe Logger	750.00	m
EWL Contractor	Schlumberger	Bit Size	8.50	in	Circ Stopped at TD	19-Feb-13 04:20	dd/mm/yy hh:mm
Job date	19-Feb-13	Max Dev @ depth	2.00	deg @ 932 m MDRT	Circulation time	60	min
Logging Engineer	MaryKate Henrikson/Tamara Svetlichnaya	Mud Type	3KCL-PHB-Polymer		Rmf @ temp	0.130	33.4 °C
Logging Witness	Rothi Hamzah/Alan Wrightstone/B.Craig	Mud Weight	9.3	ppg	Rm @ temp	0.130	33.4 °C
Report Date	22-Feb-13	Logging Suite	1		Rmc @ temp	0.510	33.4 °C

Start	End	Hrs	Code	Operation and Comments
dd/mm hh:mm	dd/mm hh:mm	(hh:mm)		***Run 3: 1x VSI (CHECKSHOT)***
20/02 05:40	20/02 06:10	0:30	1	Rig-up Run 3 tool string
20/02 06:10	20/02 06:35	0:25	2	Function test vsi with the vibrator and Install thermometers in cable head.
20/02 06:35	20/02 06:55	0:20	4	Stop at 140.15m (MSL) to perform checkshot check point. Several shot were taken to improve signal to noise seen during data processing. Close anchor and move down to the next checkshot check point.
20/02 06:55	20/02 07:20	0:25	4	Stop at 633.0 m to perform the second checkshot check point. Several shots were taken to improve signal to noise during processing. Close anchor and run in the hole for GR correlation.
20/02 07:20	20/02 08:10	0:50	3	Stop at 1650m to start depth correlation with run:1
20/02 08:10	20/02 08:40	0:30	5	Perform depth correlation using GR (from EDTC). Depth shifted applied and moved to TD to do first checkshot level.
20/02 08:40	20/02 09:25	0:45	4	First checkshot level at 1721.5m. Geophone received data were noisy. Referencing to run:1, area around TD was full of washout zone. Several shots were made, but received data was still noisy. Moved tool up to 1721.0m to see if this depth can provide a better result. The data improved drastically, and several shots were attempted to improve signal to noise ratio.
20/02 09:25	20/02 11:35	2:10	4	Proceed shooting at the requested checkshot levels: 1622m, 1526m, 1456m, 1408m, 1315m, 1290.12m, 1210.6m, 978.19m, 940.47m and 750.0 m. Several shots were attempted every depth to improve signal to noise ratio when data are stack. When done moved up to 140.15 (MSL) for calibration checkshot.
20/02 11:35	20/02 12:35	1:00	4	Reached 140.15m to do this MSL checkshot.
20/02 12:35	20/02 12:55	0:20	4	Several shots attempted at 140.15m depth to improved data. When done moved to GL at 10.6m.
20/02 12:55	20/02 13:05	0:10	4	Performed the last checkshot level at 10.6m. Very noisy data observed and tried to remove the noise source. Several shots were attempted to improve signal to noise ration.
20/02 13:05	20/02 13:12	0:07	3	Out of the hole and removed thermometer for inspection. Thermometer read 246, 247 and 246 degF.
20/02 13:12	20/02 13:17	0:05	1	Start rigging down VSI tool and sheaves
20/02 13:17	20/02 13:40	0:23	1	Complete rig down and rign to Ensign.
Total hours:		**8.00**	(decimal)	

Logging Codes:

1. Rigging up, rigging down
2. Calibrations, tool checks
3. Running in, pulling out of hole
4. Logging up, logging down
5. Repeat Section, depth correlation
6. Data transmission, CPU time.
7. NPT due to wireline contractor
8. Drilling / wellbore conditions related NPT

REMARKS

1. Run 3 was tied into Run 1 depth at 1670 m.
2. Checkshot survey performed from the deepest to the shallowest level. Checkshot depth were all from the formation tops seen on run:1 and mud logging.
3. Several checkshot calibrations points were taken on the way in the hole. It values repeating within tolerances on the way out.
4. Checkshot Survey was also done at GL and MSL. Background noise increase as the depth get closer to surface.
5. Reduction in signal gain was used in order to interpret signal better as the depth get closer to surface.
6. The borehole temperature from the maximum reading thermometers were 118.9 degC, 118.9 degC and 119.4 degC at 1711m after 28 hours 20 min final TD circulation

OBSERVATIONS AND LOG QUALITY CONTROL

DEPTH CONTROL:	**Log correlated using GR curve to Run 1 - SP/HNGS/PEX/HRLA/ADT**
EDTC:	**Good repeatable GR data recorded.**
VSI	**Good checkshot survey data recorded. The velocity profile (Time vs TVD Depth plot) use to QC survey data real time.**

Operating Efficiency Chart

DRILLSEARCH ENERGY LIMITED

Tibor-1

Runs 1 - 3

LQC LOG PRESENTATIONS

Well	Tibor-1	TD Driller	1723.00	m	CSG Shoe Driller	751.00	m
Block	ATP 539	TD Logger	1723.50	m	CSG Shoe Logger	750.00	m
EWL Contractor	Schlumberger	Bit Size	8.50	in	Circ Stopped at TD	19-Feb-13 04:20	dd/mm/yy hh:mm
Job date	19-Feb-13	Max Dev @ depth	2.00	deg @ 932 m MDRT	Circulation time	60	min
Logging Engineer	MaryKate Henrikson/Tamara Svetlichnaya	Mud Type	3KCL-PHB-Polymer		Rmf @ temp	0.130	33.4 °C
Logging Witness	Rothi Hamzah/Alan Wrightstone/B.Craig	Mud Weight	9.3	ppg	Rm @ temp	0.130	33.4 °C
Report Date	20-Feb-13	Suite	1		Rmc @ temp	0.510	33.4 °C

LOG DATA		Run 1 HRLA/MCFL	Run 1 TLD/HGNS	Run 1 HNGS	Run 2 MAST
PRESENTATION	HEADING,INSERT,TAIL: Accuracy & completeness	OK	OK	OK	OK
	TD/FR/CSG - TOOL SKETCH (when applicable)	OK	OK	OK	OK
	MUD/RMF/TEMP:-WELL SKETCH (deviation) _TOOL/SOFTWARE TYPE/No.	OK	OK	OK	OK
	CURVE ID/SCALES	OK	OK	OK	OK
	PRINT QUALITY (digital copy)	OK	OK	OK	OK
	DATA FORMAT DELIVERY: LAS, ACROBAT PDF and PDS for LOGS and SEG-Y for VSP	OK	OK	OK	OK
	REMARKS	OK	OK	OK	OK
	LOGGING INCIDENTS- Wiper trips- Special circumstances affecting log	Note 1	Note 1	OK	OK
CALIBRATIONS	SHOP CALIBRATION - BEFORE SURVEY	OK	OK	OK	OK
	AFTER SURVEY	OK	OK	OK	OK
	TOP LOGGED INTERVAL	750.0 m	750 m	750 m	10 m
	BOTTOM LOGGED INTERVAL	1723.5 m	1723.5 m	1723.5 m	1723.5 m
OPERATING PROCEDURES	DEPTH MATCH/CONTROL: Overlap logs from separate runs	OK	OK	OK	Note 2
	LOGS ARE CORRECTED FOR BOREHOLE EFFECTS	OK	Note 6	Note 7	OK
	LOGGING SPEED	OK	OK	OK	OK
	LOGS ARE CORRECTED FOR ANY NOISE, SPIKES, etc…..	OK	OK	OK	OK
	CENTRALIZATION/STAND OFF	OK	OK	OK	OK
	SOFTWARE TYPE/CONSTANTS, SAMPLING RATE	Note 3	Note 3	Note 3	Note 3
	STANDARD SCALES	OK	OK	OK	OK
	REPEAT SECTION	OK	OK	OK	OK
	RESPONSE IN AGREEMENT WITH NEARBY WELLS	Note 4	OK	OK	OK
	LOG ANOMALIES/FAILURES	Note 4	OK	OK	OK
	GENERAL DATA QUALITY	OK	OK	OK	OK
	PRINT QUALITY	OK	OK	OK	OK
	DOCUMENTS IN FINAL PACKAGE IN AGREEMENT WITH CLIENT LIST	OK	OK	OK	OK

LOGGING ENVIRONMENT					
ENVIRONMENTAL EFFECTS	IRREGULAR TOOL MOTION	OK	OK	OK	OK
	BOREHOLE/CASING GEOMETRY	Note 5	Note 5	Note 5	Note 5
	Casing/tubing not to spec, damaged - Poor cementation - Multi-string casing/tubing	OK	OK	OK	OK
	HOLE/CASING FLUID				
	INTERFERENCE: External noise - Nearby casing - Debris - Fish	OK	OK	OK	OK
	Formation of unusual mineralogical composition or texture	OK	OK	OK	OK
	OUTSIDE TOOL SPECS: Temperature - Pressure - Hole size - Deviation	OK	OK	OK	OK

REMARKS L Q C LOG PRESENTATIONS

Please refer to SOE sheets for service specific LQC remarks

NOTE 1	Washed out areas advesrely affected the log data.
NOTE 2	Run 2 was depth matched to Run 1 between 1670 m and 1570 m.
NOTE 3	Run 1 and 2 were recorded in Maxwell.
NOTE 4	HRLA shallow resistivity measuring higher than the deep resistivity in washed out hole.
NOTE 5	There were sections of borehole break-out observed over the open hole interval.
NOTE 6	HGNS neutron corrected for hole size and borehole salinity only.
NOTE 7	Borehole k% applied to HNGS data.

LQC LOG PRESENTATIONS

Well	Tibor-1	TD Driller	1723.00	m	CSG Shoe Driller	751.00	m
Block	ATP 539	TD Logger	1723.50	m	CSG Shoe Logger	750.00	m
EWL Contractor	Schlumberger	Bit Size	8.50	in	Circ Stopped at TD	19-Feb-13 04:20	dd/mm/yy hh:mm
Job date	19-Feb-13	Max Dev @ depth	2.00	deg @ 932 m MDRT	Circulation time	60	min
Logging Engineer	MaryKate Henrikson/Tamara Svetlichnaya	Mud Type	3KCL-PHB-Polymer		Rmf @ temp	0.130	33.4 °C
Logging Witness	Rothi Hamzah/Alan Wrightstone/B.Craig	Mud Weight	9.3	ppg	Rm @ temp	0.130	33.4 °C
Report Date	20-Feb-13	Suite	1		Rmc @ temp	0.510	33.4 °C

LOG DATA		Run 2 PPC	Run 2 GPIT		
PRESENTATION	HEADING,INSERT,TAIL: Accuracy & completeness	OK	OK		
	TD/FR/CSG - TOOL SKETCH (when applicable)	OK	OK		
	MUD/RMF/TEMP:-WELL SKETCH (deviation) _TOOL/SOFTWARE TYPE/No.	OK	OK		
	CURVE ID/SCALES	OK	OK		
	PRINT QUALITY	OK	OK		
	DATA FORMAT DELIVERY: LAS, ACROBAT PDF and PDS for LOGS and SEG-Y for VSP	OK	OK		
	REMARKS	OK	OK		
	LOGGING INCIDENTS- Wiper trips- Special circumstances affecting log	OK	Note 1		
CALIBRATIONS	SHOP CALIBRATION - BEFORE SURVEY	OK	OK		
	AFTER SURVEY	OK	OK		
	TOP LOGGED INTERVAL	750 m	750		
	BOTTOM LOGGED INTERVAL	1273.5 m	1273.5 m		
OPERATING PROCEDURES	DEPTH MATCH/CONTROL: Overlap logs from separate runs	OK	OK		
	LOGS ARE CORRECTED FOR BOREHOLE EFFECTS	OK	OK		
	LOGGING SPEED	OK	OK		
	LOGS ARE CORRECTED FOR ANY NOISE, SPIKES, etc…..	OK	OK		
	CENTRALIZATION/STAND OFF	OK	OK		
	SOFTWARE TYPE/CONSTANTS, SAMPLING RATE	Note 2	Note 2		
	STANDARD SCALES	OK	OK		
	REPEAT SECTION	OK	OK		
	RESPONSE IN AGREEMENT WITH NEARBY WELLS	OK	OK		
	LOG ANOMALIES/FAILURES	OK	OK		
	GENERAL DATA QUALITY	OK	OK		
	PRINT QUALITY	OK	OK		
	DOCUMENTS IN FINAL PACKAGE IN AGREEMENT WITH CLIENT LIST	OK	OK		

LOGGING ENVIRONMENT					
ENVIRONMENTAL EFFECTS	IRREGULAR TOOL MOTION	OK	OK		
	BOREHOLE/CASING GEOMETRY	Note 3	Note 3		
	Casing/tubing not to spec, damaged - Poor cementation - Multi-string casing/tubing	OK	OK		
	HOLE/CASING FLUID	OK	OK		
	INTERFERENCE: External noise - Nearby casing - Debris - Fish	OK	OK		
	Formation of unusual mineralogical composition or texture	OK	OK		
	OUTSIDE TOOL SPECS: Temperature - Pressure - Hole size - Deviation	OK	OK		

REMARKS L Q C LOG PRESENTATIONS	
Please refer to SOE sheets for service specific LQC remarks	
NOTE 1	Run 2 was depth matched to Run 1.
NOTE 2	Run 2 was recorded in Maxwell.
NOTE 3	There were sections of borehole break-out observed over the open hole interval.

SUMMARY AND RECOMMENDATIONS

Well	Tibor-1	TD Driller	1723.00	m	CSG Shoe Driller	751.00	m
Block	ATP 539	TD Logger	1723.50	m	CSG Shoe Logger	750.00	m
EWL Contractor	Schlumberger	Bit Size	8.50	in	Circ Stopped at TD	19-Feb-13 04:20	dd/mm/yy hh:mm
Job date	19-Feb-13	Max Dev @ depth	2.00	deg @ 932 m MDRT	Circulation time	60	min
Logging Engineer	Mary Kate Henrickson/Tamara S.	Mud Type	3KCL-PHB-Polymer		Rmf @ temp	0.130	33.4 °C
Logging Witness	Rothi Hamzah/Alan Wrightstone/B.Craig	Mud Weight	9.3	ppg	Rm @ temp	0.130	33.4 °C
Report Date	20-Feb-13	Suite	1		Rmc @ temp	0.510	33.4 °C

RUN	SERVICES	RIG UP dd/mm hh:mm	RIG DOWN dd/mm hh:mm	TOTAL TIME	LOST TIME (due to Contractor)	LOST TIME (3rd Party NPT)	BHT °C	TEMP DEPTH m TVDBRT
Run 1: ERCD/EDTC/SP/PPC/HNGS/PEX(TLD)/HRLA/A		19/02 10:40	19/02 20:20	09:40	00:00	00:00	108.9	1691.0
Run 2 - ERCD/EDTC/PPC/MAST/PPC/GPIT		19/02 20:20	20/02 05:40	09:20	00:55	00:00	114.4	1697.0
Run 3 Checkshot - 1 X VSI with Vibrosis		20/02 05:40	20/02 13:40	08:00	00:00	00:00	118.9	1711.0
TOTAL TIME FOR WIRELINE OPERATIONS				27:00	0:55	00:00		
OPERATING EFFICIENCY (1-LT/OT)x 100				96.60%				

SUMMARY

Tibor-1: This is the second well for Drillsearch in this block ATP 539P. As usual being an exploration well, Tibor-1 is a vertical well. Based on the mud logging result, the total drill depth was shallower than planned when the Hutton Formation top came higher. Once again, based on the mud logging result, the Dry Case logging programme came to forced.. Only three (3) logging run attempted 1: Triple Combo/ADT 2: Sonic 3: Checkshot.

The crew of six (6) and all the logging equipment mobilized from Roma arrived to the wellsite on the 18th February24hrs before the rig up time. The only delay was on the seismic vibrator truck. The vibrator truck arrived at the wellsite the next day when the logging operation already started. The crew started checking the first two confirmed runs. The MDT and MSCT run were not check and kept inside the tool basket. The crew decided to check the VSI-Checkshot together with the vibrator and extremely confident that the tool will work. The surface checkout went well except the sonic scanner. The sonic scanner appeared not initializing properly. The only way to get it to work was by running diagnostic test to test the tool internal cartridge. The first run is setup differently, to position the TLD and ADT pads across the short axis (smaller ID).

On the job, no tool problem experienced for the first run – SP/HNGS/PEX/HRLA/ADT. Standard depth control process applied for the first run in hole. The technique was just comparing the difference in the distance from the IDW to the rotary table, near the surface and close to a total depth. Log down logged from casing shoe to 2710.0 m at 3600 ft/hr. The downlog data can be used to splice or merge with main pass log if required. Only pad device data were unusable because the calipers still remain in close position. Repeat log interval was logged from 1670 m to 1570 m. This selected interval will comprise of top Hutton sandstone and Birkhead sandstone. Main pass logged from the total depth to 9 5/8" casing shoe. Density, Gamma Ray Neutron and Laterolog logged in high resolution mode. Density, neutron and MCFL data quality were affected by borehole rugosity and washout. The short axis mode was not working for Hutton and Birkhead sandstone. All tool calibrations and verifications were all within tolerances.

The second run Sonic Scanner (MAST) failed again on tool initialization on surface. NPT recorded for this problem is 55 minutes. Two sets of PPC and slip-over centralizers utilised to keep the sonic scanner centralized in the borehole. Repeat pass logged over the same interval as the first run. Main pass logged, from TD to surface at 1800 ft/hr. The sonic scanner logged in standard mode for both passes. GPIT ran in combination with sonic scanner for anisotropy processing.
VSI-Checkshot was the third run. The vibrator used as the sonic energy source and positioned within 50m from the rig. A single level VSI tool used gamma ray for depth correlation from EDTC section. Several calibration shots attempted at different depth while running in hole to TD. All requested formation tops completed without serious problems. Several planned shot depths need to be revised due to poor signal close to washout zone. The MSL and GL checkshot performed as planned.

Total operating time (OT) of the whole operations is 27 hrs with NPT of 55 minutes.

HIGHLIGHTS INCLUDED

1. Successful setting up stattelite communication with schlumberger base.
2. Introduction of short-axis modification on first run to improve PEX and ADT across washout zone.
3. Good commitment shown by the logging crew during the entire operation.
4. Good quality geological and petrophysical data recorded. Most of the data read closely to the offset well.
5. Good collaboration between Schlumberger office based personnel and the field to process the ADT and Sonic scanner log.
6. Engineer making sure main pass was on depth to avoid delay in processing later. Engineer experience in data formating and deliverable process.
7. Engineer provide maintenance history for tools mobilized.
8. No HS&E issues during the entire operation.

LOWLIGHTS INCLUDED

1. Sonic scanner had same initialization problem and more serious this time. On Triclops-1 tool required several quick power up to get it to work. Same tool used for both wells.

2. Fishing kit only has one size spiral grapple, 3 3/8". The kit should be completed with 3 5/8" spiral grapple in it.

3. Interact communication only streaming logging PDs and not the actual logging data for the first two (2) runs.

4. All log data QCed base on the data flags. Green is good, and Red is bad. This stop the engineer from reading the displayed curves and take necessary actions required.

5. Engineer still struggles to understand the sonic scanner presentation and sonic show windows on the screen.

7. Standalone system with no backup wasn't desirable for a job that is far away from any wireline base. At the very least, the main CPU where the system program reside should have a backup.

8. Only one (1) set of tools was mobilized to location except another PEX(TLD) and VSI. Backup PEX(TLD) if run need new calibration in town. This tool still has old calibration saved inside it.

8. MCFL and HRLA checked without test box. Only HRLA test box available but not used during surface checkout.

9. PPC adjustment (previously used for short axis) and calibration tool long time to do (55 minutes), prior rigging up run 2.

10. The Radioactive storage area at the well site need better security. The shields need another long chain and safe-lock to secure to any structure at the well site. A copy of all radioactive materials should be given to rig superitendent.

RECOMMENDATIONS

1. Interact data streaming should be able to streaming the log data real time. Schlumberger base system should have the capability to manipulate log data. In this case, it will help the crew at the wellsite to concentrate on the logging operations better.

2. Cable head maintenance records and cable book need to be kept inside the logging truck at all times.

3. Tools mobilized to wellsite should have most up to-date calibration.

4. Fishing kit mobilized to wellsite should come with the inventory list.

5. ALARA should be followed closely during any type of radioactive usages at the wellsite. Ensure new operators trained to handle radioactive.

BEST PRACTICES

Ensure all runs are checked on primary and back-up surface system and that all calibrations are available on both systems.
Initiate a customer rig book in aiding efficient hand-over between engineer in charge and assisting the problem tracking process.
Assign dedicated crew chiefs to assist engineers during rig-up and rig-down operations, thus eliminating extended working hours.
All field logs to be QC'ed by afriQA witness before final field copies are distributed.
Unspliced and marked wirelines need to be assigned for all exploration projects.
Make use of dedicated field crews as far as practically possible to drive continuous improvement.
Schlumberger EIC/FSM must officially update the client once per week on all outstanding and close out action items assigned.

Appendix 11 – Petrophysical Report

Log provided electronically on CD

Tibor-1 – Formation Evaluation

The Tibor-1 exploration well was a vertical drilled to a total depth (TD) of 1723.5 mMDRT targeting the Hutton Sandstone as the primary objective and the Namur and Adori formations as secondary objectives.

A 9-$^{5}/_{8}$" casing string was set at 750.9 mMDRT and the prospective sequences were drilled in 8-½" hole to TD where wireline logging was carried out as described below. LWD logs were not acquired in the Tibor-1 well.

Wireline logging was carried out using Schlumberger wireline services. Tibor-1 wireline logs were analysed over the 8-½" hole section.

The Tibor-1 well has been plugged and abandoned.

In addition to the available wireline log responses, data which may be available from gas chromatograph readings and cuttings descriptions have been integrated into the formation evaluation.

Unless otherwise specified all depths mentioned below are wireline depths referenced to the drill floor.

Discussion

Wireline log interpretation of Tibor-1 was carried out using a probabilistic interpretation (Minsolver module) within the Interactive Petrophysics (IP) software application. An explanation of the interpretive procedure has been included as **Appendix-2**. Petrophysical analysis was performed across the Toolebuc formation and from the Murta Member to TD (1290.0 – 1723.5 mMDRT).

The petrophysical model was constructed based on offset wells in the ATP 539 exploration block. Offset wells within the area include Triclops-1, Curalle-1, Planet Downs-1, Cook-1, Inland-1 and Inland-3 (core across the Hutton). Formation salinities were estimated using water analysis recovered from DST's and Pickett plots in offset wells. Water saturation parameters and coefficients were computed using Modified Simandoux. Saturation equations and parameters are detailed in the Interpretation Parameters section.

A separate petrophysical model was created for the Toolebuc Fm. Elevated gas was observed across the Toolebuc Fm. Cuttings descriptions indicate the Toolebuc is predominantly a calcareous siltstone. Spectral Gamma Ray across the Toolebuc indicate elevated Uranium content which is likely associated with elevated total organic carbon (TOC). TOC estimations were conducted using the deltalogR technique; however quantities cannot be calibrated because core data is not available.

The dielectric scanner (ADT) tool was deployed in the Tibor-1 well to reduce uncertainty in the water saturation calculation by measuring the total water volume in the flushed zone.

The porosities which have been interpreted across the Tibor-1 well are believed to be within the accuracy of measurement error inherent in the tools. The gas chromatograph readings taken from the drilling fluids do not display responses which would normally be associated with hydrocarbon accumulations. The Hutton, Namur and Adori Sandstones of the Tibor-1 well are interpreted as being wet.

Logs Acquired and Drilling Fluid Parameters

The following table itemises the logs acquired in the Tibor-1 well and the drilling fluid parameters at the time of the logging runs.

Table 1: Logging Acquisition Parameters

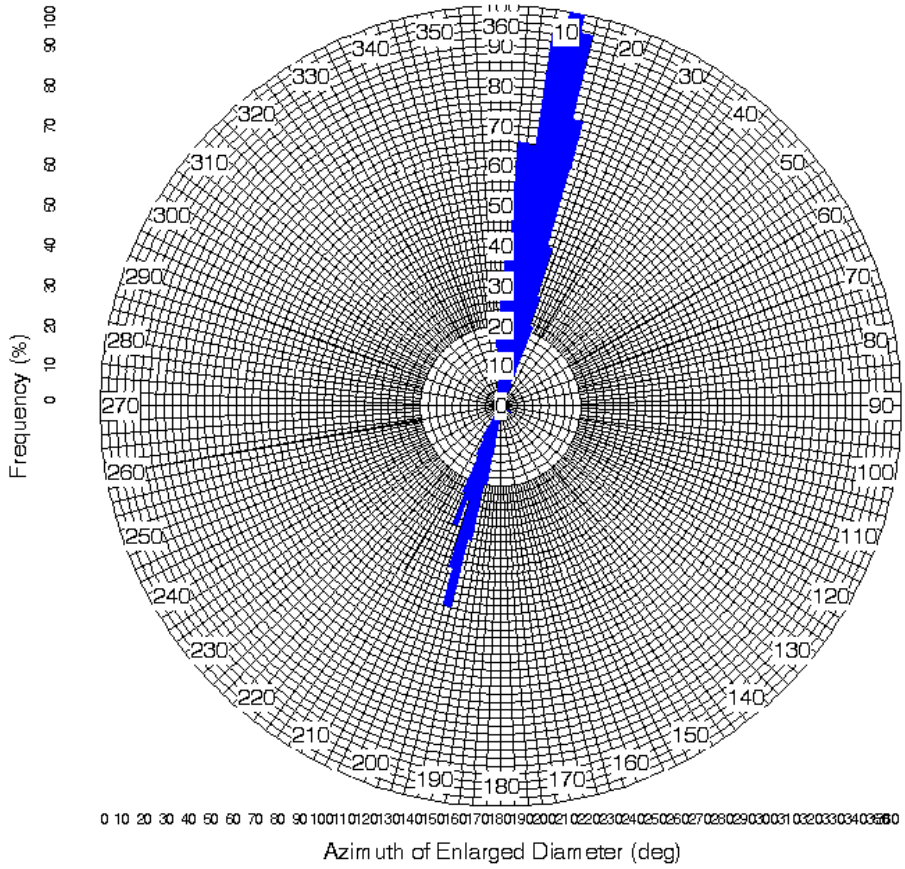
Well Name	Tibor-1	Tibor-1	Tibor-1
Logging Company	Schlumberger	Schlumberger	Schlumberger
Logging Date	19-Feb-2013	19-Feb-2013	20-Feb-2013
Suite No.	1	1	1
Run No.	1	2	3
	HRLA-PEX-HNGS-ADT	MSIP-GPIT-GR-PPC	VSP (Zero Offset)
Bottom Log Interval	1723.5	1723.5	1723.5
Top Log Interval	750.0	Surface	750.0
Casing Size @ Depth	750.9	750.9	750.9
Bit Size	8.5 inch	8.5 inch	8.5 inch
Drilling Fluid Type	KCL Polymer	KCL Polymer	KCL Polymer
Drilling Fluid Density	9.3 lb/gal	9.3 lb/gal	9.3 lb/gal
Drilling Fluid Viscosity	46 s	46 s	46 s
Drilling Fluid Loss	4.0 cm3	4.0 cm3	4.0 cm3
Drilling Fluid pH	9.5	9.5	9.5
R_M @ Temp degC	0.13 @ 33.4	0.13 @ 33.4	0.13 @ 33.4
R_{MF} @ Temp degC	0.13 @ 33.4	0.13 @ 33.4	0.13 @ 33.4
R_{MC} @ Temp degC	0.51 @ 33.4	0.51 @ 33.4	0.51 @ 33.4
Maximum Recorded Temp	108	113.8	Not recorded
Circulation Stopped	19-Feb-2013 @ 04:20	19-Feb-2013 @ 04:20	19-Feb-2013 @ 04:20
Logger on Bottom	19-Feb-2013 @ 15:34	20-Feb-2013 @ 00:54	Not recorded

Remarks

Caliper responses from the previous Triclops-1 well indicate preferential borehole breakout in the NNE-SSW plane. Based on the results from Triclops-1 well, a powered position caliper (PPC) and swivel head adapter was run in the Tibor-1 well in an attempt to align the density and ADT tool in the short axis of the wellbore by applying caliper pressure in the long axis (Calipers 2 & 4). Overall, breakout was not large enough to keep the tool in the short axis; however log quality was better than in Triclops-1. The density tool did a reasonable job of correcting for poor hole condition; however log responses indicate porosity readings are still higher than expected.

The X-Y caliper (PPC) in Run 1 indicates that the orientation of breakout occurs predominantly in the NNE-SSW plane. **Figure 1** below displays an azimuthal frequency plot of the X-Y caliper from the PPC log in Run 1.

Figure 1: Caliper Orientation and Breakout of X-Caliper



		# Points Total:	18777
Start Depth:	1703.82 m	**# Points Plotted:**	4315
Stop Depth:	749.999 m	**# Points Absent:**	0
Sampling Rate:	0.0508 m	**# Points Cut:**	14461
X Max Value:	359.998 deg	**# > X Scale Max:**	1
X Min Value:	0.0205994 deg	**# < X Scale Min:**	0

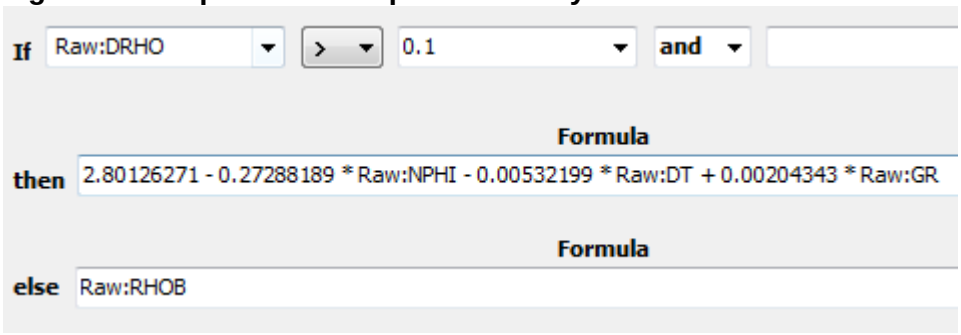
All tool responses indicate that the tools are within the calibration limits.

Log Processing

All recorded wireline log responses were corrected for borehole and environment effects utilising algorithms which emulate the published corrections charts for each of the individual tools.

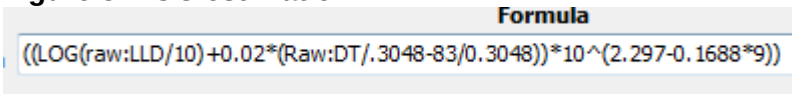
Density data affected by poor hole condition was corrected utilising GR, Neutron and Sonic logs in a multi-linear regression based on offset wells. The regression was then applied to zones where density data was of poor quality where DRHO > 0.10 g/cc. Figure 2 below displays the multi-linear regression used to apply the 'best' density across the well:

Figure 2: Computation for optimal density



Across the Toolebuc Fm total organic carbon (TOC) was estimated using the deltalogR technique. Core data is not available to calibrate TOC quantities within the Toolebuc; therefore elevated uncertainty exists within the petrophysical model. Estimated TOC across the Toolebuc Fm is displayed in **Figure 3** below:

Figure 3: TOC estimation

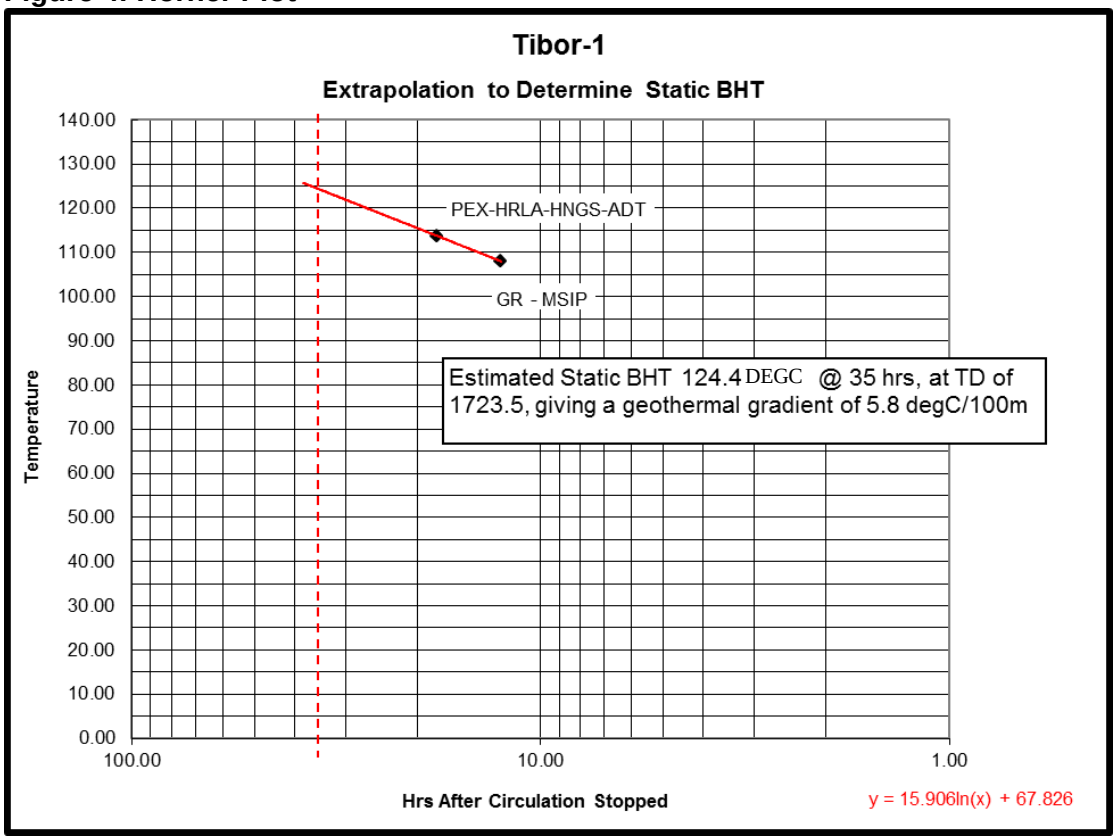


ADT data was processed by Schlumberger Data Consulting Services (DCS) team.

Sonic compressional and shear data were acquired from TD to surface. DLIS files were sent to Schlumberger DCS for processing and relabelling. Full waveforms were obtained in the event future processing is required.

A bottom hole reservoir temperature of 124.4^{0}C at 1723.5 mMDRT was extrapolated using a Horner plot. Temperatures were taken from logging runs 1 and 2 for the extrapolation resulting in a geothermal gradient of 5.77 degC/100m (3.17 degF/100ft). **Figure 4** below displays the resultant temperatures on a Horner plot.

Figure 4: Horner Plot



Interpretation Parameters

The following are tabulations of the analysis parameters utilised in each of the interpreted intervals in the Tibor-1 well.

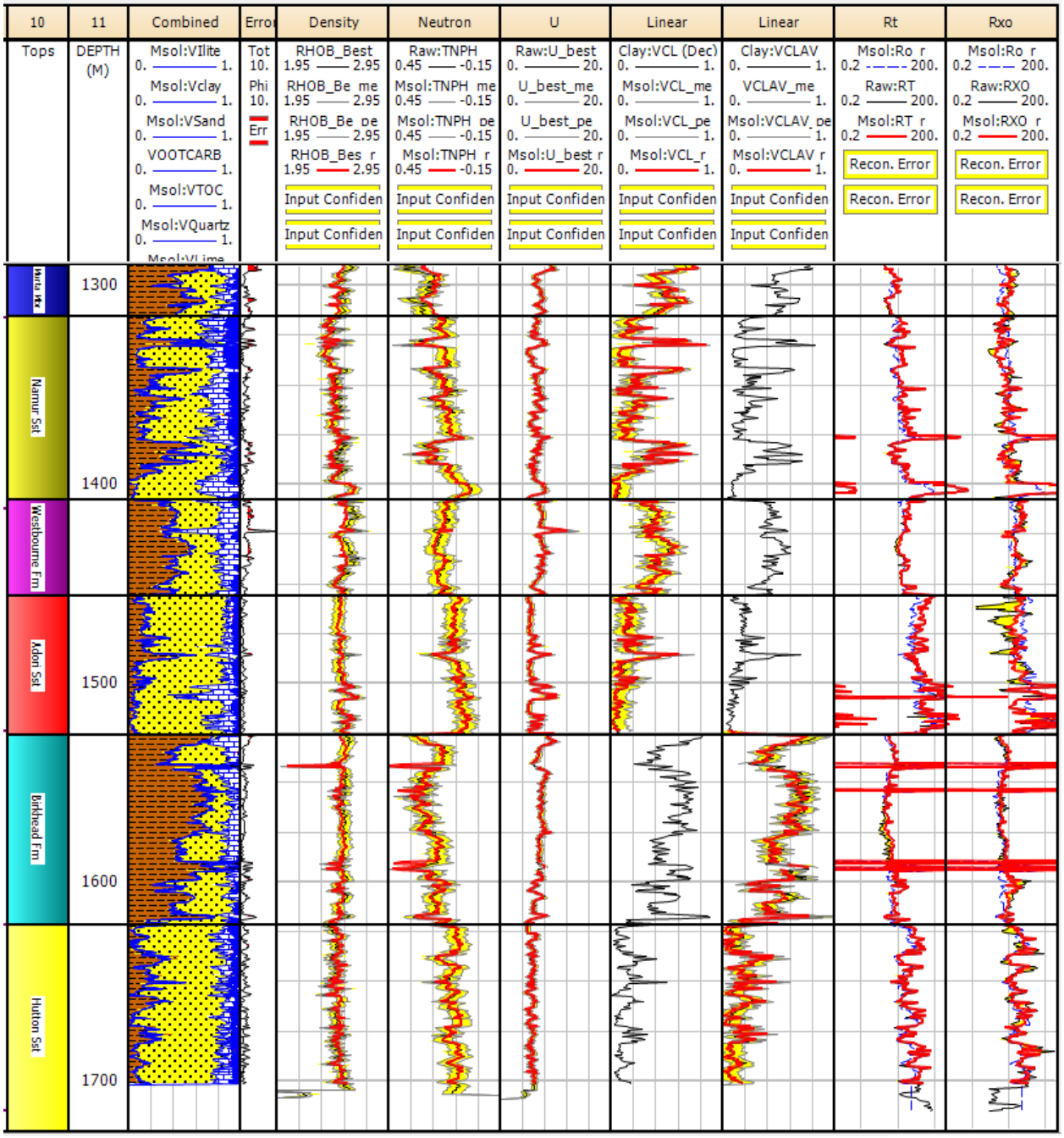
Table 2: Formational Interpretation Parameters

Formation Name	Toolebuc	Murta	Namur	Adori	Birkhead	Hutton
Top (m)	950	1290	1315.8	1456.0	1526.0	1622.0
Base (m)	978	1315.8	1408.0	1526.0	1622.0	1725.0
GR-Clean (GAPI)	10	15	15	15	15	12
GR-Clay (GAPI)	125	150	150	210	125	205
RHO-Matrix (g/cc)	2.79	2.60	2.60	2.59	2.59	2.58
RHOB-Clay (g/cc)	2.70	2.65	2.65	2.65	2.65	2.65
NPHI-Matrix (v/v)	0.000	-0.030	-0.030	-0.030	-0.030	-0.030
NPHI-Clay (v/v)	0.470	0.430	0.430	0.350	0.340	0.350
dT-Matrix (us/ft)	47	52	52	52	52	52
dT-Clay (us/ft)	120	100	100	96	100	100
Resistivity Clay (ohmm)	1.41	3.4	4.3	6.1	3.3	3.3
Rxo Clay (ohmm)	2.8	6.6	8.1	8.7	4.1	4.1
a	1.0	1.0	1.0	1.0	1.0	1.0
m	2.1	2.2	2.0	2.2	2.0	2.2
n	2.1	2.2	2.0	2.2	2.0	2.2
R_W-Salinity (ppm NaCl eq)	18135	8730	8730	10360	14025	11240
R_W(ohm) @ 25^{0}F (23.9^{0}C)	0.325	0.641	0.641	0.546	0.412	0.506
Saturation Eqn	Mod Sim	Mod Sim	Mod Sim	Mod Sim	Mod Sim	Mod Sim

Interpretation Parameters – Plots

As an interpretive quality control, the software back calculates pseudo logs for each of the inputs. By comparing the pseudo log with the actual this quantifies the error and uncertainty within the model. **Figure 5** below displays the uncertainty of each of the predicted inputs along with the overall error of the probabilistic model.

Figure 5: Probabilistic Error and Uncertainty



Pressure Data, Testing, Sampling and Analysis

Formation pressure data was not acquired in the Tibor-1 well.

Image Log Data and Analysis

Image data was not acquired in the Tibor-1 well.

Petrophysical Summary

The definitions of ‘Reservoir’ and ‘Pay’ as utilised in this interpretation are as follows;

- Net reservoir is defined as any interval where PHI_E > 8% and V_{CL} < 35%, and,
- Pay is defined as any interval where PHI_E > 8%, V_{CL} < 35% and S_W < 60%.

Further work is required to define net reservoir and net pay.

The following are petrophysical parameter tabulations of intervals interpreted in the Tibor-1 well.

Table 3: Net Reservoir Petrophysical Summary by Formation

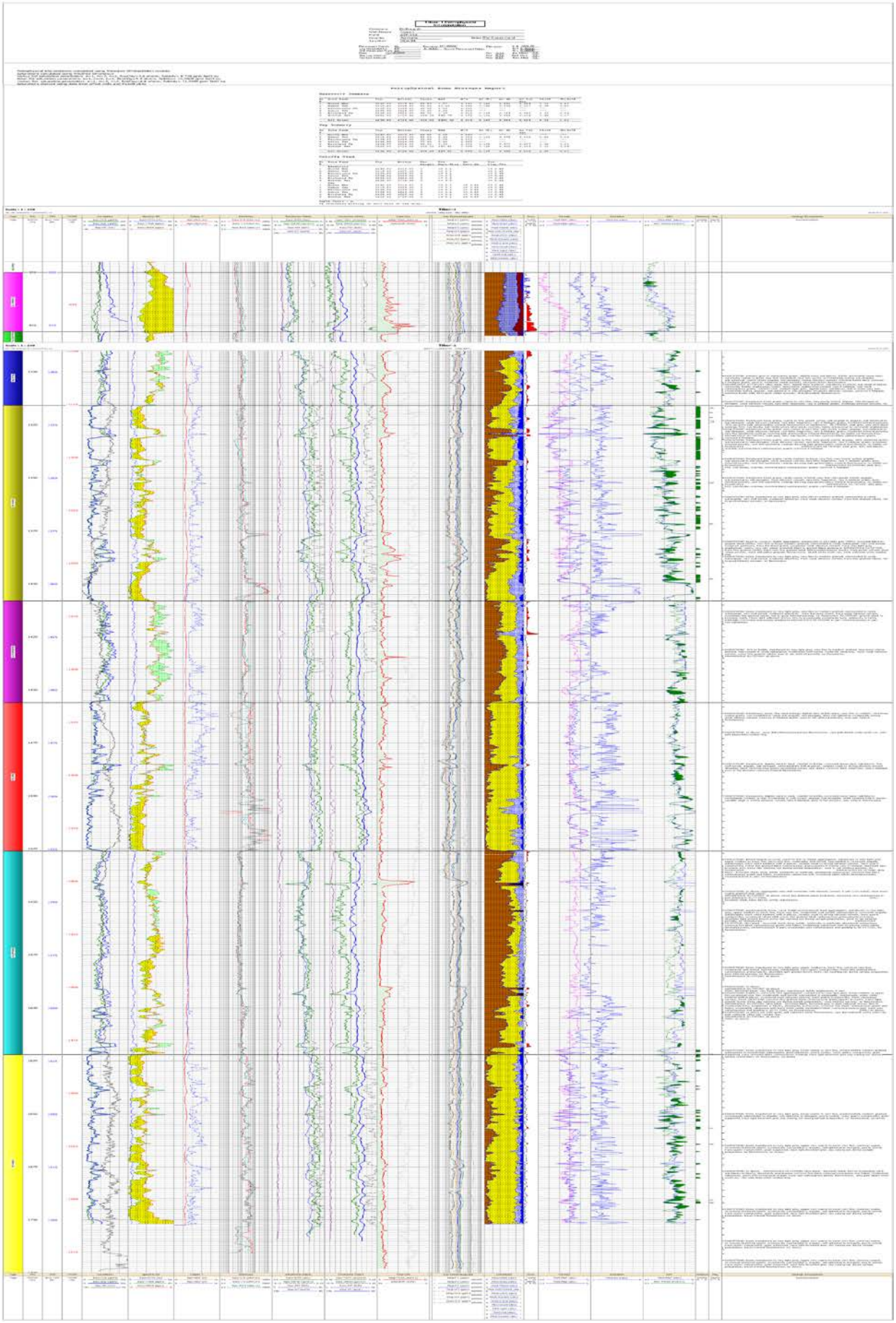
Zone Name	Top	Bottom	Gross	Net	N/G	Av Phi	Av Sw	Av Vcl	Phi*H	PhiSo*H
Murta Mbr	1290	1315.8	25.8	1.07	0.041	0.122	0.961	0.266	0.13	0.01
Namur Sst	1315.8	1408	92.2	40.39	0.438	0.126	0.823	0.127	5.08	0.9
Westbourne Fm	1408	1456	48	0	0	---	---	---	---	---
Adori Sst	1456	1526	70	0	0	---	---	---	---	---
Birkhead Fm	1526	1622	96	1.15	0.012	0.116	0.723	0.162	0.13	0.04
Hutton Sst	1622	1725.02	103.02	8.76	0.085	0.113	0.825	0.114	0.99	0.17

Table 4: Net Pay Petrophysical Summary by Formation

Zone Name	Top	Bottom	Gross	Net	N/G	Av Phi	Av Sw	Av Vcl	Phi*H	PhiSo*H
Murta Mbr	1290	1315.8	25.8	0	0	---	---	---	---	---
Namur Sst *	1315.8	1408	92.2	2.44	0.026	0.116	0.579	0.142	0.28	0.12
Westbourne Fm	1408	1456	48	0	0	---	---	---	---	---
Adori Sst	1456	1526	70	0	0	---	---	---	---	---
Birkhead Fm *	1526	1622	96	0.15	0.002	0.102	0.607	0.23	0.02	0.01
Hutton Sst *	1622	1725.02	103.02	0.91	0.009	0.115	0.601	0.103	0.11	0.04

* Artificial Net pay interpreted due to borehole breakout and rugosity issues.

Appendix 1
Petrophysical Interpretation



Appendix 2

Interpretation Procedures

Data received from the logging contractor is loaded into the IP software application and the relevant log header information is entered in the appropriate fields. In cases where there has been more than one logging run in any programmed logging suite the response curves are added to the file and depth matched to ensure that the acquired log responses from each of the individual runs are on depth. In cases where there have been multiple logging suites run in the borehole the acquired responses are edited to remove both the initial tool pick-up and the final casing responses from the data before the curves are merged to allow display of a complete data-set.

Borehole and environment corrections are applied to all recorded tool responses using algorithms which emulate the correction charts published by the appropriate logging contractor company and using the parameters which have been supplied from the wellsite, or entered upon the contractors well log headers.

A BADHOLE flag is created, using standard cross-plotting techniques, to disallow certain input logs so as to avoid computing erroneous results. When the BADHOLE conditions are met neither the Density nor the Neutron log responses are used in the computations for the affected depth interval.

Calculation of R_T (true formational resistivity), R_{XO} (flushed zone resistivity and DI (the diameter of invasion) is calculated using the appropriate butterfly charts as supplied by the various logging companies.

Where R_{XO} is unable to be calculated due to borehole quality, or acquisition problems, then R_{XO} is deemed to be equal to R_T. In this case it is not possible to calculate the flushed zone water saturation (S_{XO}) which is usually presented as the movable hydrocarbon on the final presentation plots.

In situations where appropriate butterfly charts are not available to assist in the calculation of R_T the invasion corrected R_T is calculated using the following relationship;

$$R_T = 1.7 * R_D – 0.7 * R_S$$

Where:

R_T = true formational resistivity,
R_D = corrected deep resistivity log, and,
R_S = shallow resistivity log.

The volume of clay (V_{CL}) is able to be computed using any of the following indicators;

- Gamma Ray (GR),
- Spontaneous Potential (SP),
- Sonic (DT),
- Neutron (NPHI),
- True formational resistivity (R_T),
- Density and Neutron (RHOB & NPHI),
- Sonic and Density (DT & RHOB),
- Neutron & Sonic (NPHI & DT), and,
- M / N (log derived M factor & N factor).

Not all indicators are always used. If a resultant V_{CL} curve is not deemed to be reasonable, or if a particular indicator has insufficient resolution to be meaningful, that indicator is not used in the final calculation of V_{CL}.

As individual clay indicators tend to be pessimistic the final V_{CL} is deemed to be the minimum of the values calculated using the utilised clay indicators.

Deterministic Interpretation Procedures

Total porosity (PHI_T) is calculated utilising standard cross plotting techniques and using the corrected log response curves. The log response curves which are used in the calculation of total porosity are dependent upon the quality of the individual response curves and the borehole conditions over the zone which is being interpreted.

The hierarchal use of log response curves for the calculation of the total porosity is as follows;

- RHOB & NPHI if good hole conditions are met,
- RHOB if good hole conditions are met and NPHI is unavailable, and,
- DT if good hole conditions are not met.

Effective porosity is computed as follows;

$PHI_E = PHI_T * (1 – V_{CL})$

Within this petrophysical interpretation water saturation has been determined by utilisation of the Modified Simandoux equation.

The Modified Simandoux equation can be written as follows;

S_W = (((V_{CL} /ResClay)^2 + 4* PHI_E ^m/(a* R_W *(1- V_{CL})* R_T))^(1/n) - VcL/ResClay)/(2* PHI_E ^m/(a* R_W *(1- V_{CL})))

Where:

S_W = calculated water saturation (fraction),
R_T = true formational resistivity (ohmm),
V_{CL} = calculated volume of clay (fraction),
R_{CL} = resistivity of the clay (ohmm),
PHI_E = calculated effective porosity (fraction),
R_W = formation water resistivity,
ResClay = Resistivity of Clay
a = empirical factor (tortuosity factor),
m = cementation exponent, and,
n = saturation exponent.

When hydrocarbons are computed as being present in the interpreted section hydrocarbon corrections are applied immediately after computing the water saturations. This is an iterative process which corrects the density and neutron log responses due to the presence of hydrocarbons. The hydrocarbon corrected density and neutron logs are then used to recompute PHI_T, PHI_E and thus S_W once again. Since the iteration process is a converging process, where changes to the calculated log values become smaller and smaller, there is no point continuing past a certain point. For this reason the iterative process is terminated once certain conditions are met. For the process utilised in this interpretive procedure the iterative loop continues for as long as the difference in value between of two successive calculations of PHI_E is greater than 0.001 (0.1%). Once the difference in two successive calculations of PHI_E is less than 0.001 (0.1%) the iterative loop is terminated.

Lithology is computed using standard cross plotting techniques. Where all of the required log responses curves (RHOB, NPHI and PE) are available a RHOMAA (apparent matrix density from the Density/Neutron cross-plot) vs. UMATA (apparent photo electric matrix cross section) plot is constructed with a ternary diagram based upon the pure mineral endpoints for quartz, calcite and dolomite overlain on the cross plot. The position of any given point within the ternary diagram defines the volumes of individual minerals which will comprise the lithology for the given depth interval. Where the requisite curves which make up the RHOMAA vs UMATA cross plot are either missing, or have been disallowed due to BADHOLE conditions, the matrix is deemed to be constituted of the mineral corresponding to the value entered for either the RHO_{MA} (matrix density) or DT_{MA} (sonic matrix).

Probabilistic Interpretation Procedure

In this method the user defines the mineral inputs and fluid phases present in each zone. The user also defines which logs will be used that is most representative to define the zone of interest. According to these inputs (minerals and logs) the software calculates the most probable distribution of minerals and fluids. As a quality control, the software back calculates pseudo logs of each of the inputs. By doing so it quantifies the error within the model.

The resultant petrophysical interpretation can be adjusted by changing the input logs or minerals (usually clay). Inputs can also be given different weighting factors (trust) to rely more heavily on certain logs. In order for the probabilistic model to compute a unique solution the model must satisfy the following requirement:

(# of minerals) + (# of fluid phases) <= (# of input curves) + 1

This method of interpretation can provide excellent results provided the minerals and log inputs are representative of the downhole lithology.

Appendix 12 – MudLogging Data *(Geoservices)*

Provided electronically on CD

DATA PROCESSING REPORT

Tibor 1 Well Completion Report:

Appendix 8 – Composite Log
Appendix 10 – Wireline Report and Log Data
Appendix 11 – Petrophysical Report
Appendix 12 – Mudlogging Data

DUE TO ITS LARGE FILE SIZE

DATA CAN BE OBTAINED FROM

QDEX Scanning Manager
Department of Natural Resources and Mines (DNRM)
Geological Survey of Queensland
Exploration Data Centre
68 Pineapple St.
Zillmere
Queensland Australia
4034

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Fax 07 3263 7019