

**CONFIDENTIAL**

<b>Date:</b>	08 October 2001	<b>Last Casing:</b>	9 5/8" @ 1784.4 mMDRT
<b>Report Number:</b>	8	<b>LOT:</b>	1.85 sg
<b>Report Period:</b>	00:00-24:00 Hours	<b>Mud Weight:</b>	1.15 sg
<b>Depth @ 24:00 Hours:</b>	2156 mMDRT	<b>ECD</b>	1.23 sg
<b>Depth (mTVDR)</b>	2155.7 mTVDR	<b>Mud Type:</b>	KCl – PHPA – Glycol
<b>Lag Depth:</b>	N/A	<b>Mud Chlorides:</b>	42000 mg/l
<b>Last Depth:</b>	1797 mMDRT	<b>Est. Pore Press:</b>	Normal
<b>Progress:</b>	359m	<b>Last Survey Depth:</b>	2142.68 mMDRT
<b>Water Depth:</b>	82.0 m LAT	<b>Deviation:</b>	0.66° @ 64.11° azimuth
<b>RT-Sea Level:</b>	25 m	<b>Bit Diameter:</b>	8 1/2"

---

**OPERATIONS SUMMARY**

---

**24 HOUR SUMMARY:** *Conducted Leak off Test. Drilled 8 1/2" hole to 2156mMDRT, circulated hole clean, pulled out of hole for wireline logging.*

**NEXT 24 HOURS:** *Conduct wireline logging as per program.*

**CURRENT OPERATION @ 06:00 Hrs 09/10/2001:** *Running PEX-DSI wireline log.*

---

**GEOLOGICAL SUMMARY**

---

**LITHOLOGY:**

**INTERVAL:** 1790 - 1817

**ROP range:** 15 – 74

**Av ROP:** 33

**SILTY CLAYSTONE.**

**SILTY CLAYSTONE (100%):** brownish grey to olive grey, soft to firm, sticky to dispersive, common to abundant quartz silt, trace very fine quartz grains, subangular, to subrounded, minor glauconite, trace carbonaceous detritus, trace micro mica, trace disseminated pyrite.

**INTERVAL:** 1817 - 1844

**ROP range:** 7 – 47

**Av ROP:** 29

**SILTY CLAYSTONE AND MINOR ARGILLACEOUS SANDSTONE.**

**SILTY CLAYSTONE (99%):** as above.

**ARGILLACEOUS SANDSTONE (1%):** very light grey, light brown-grey, friable, very fine grained quartz, subangular to subrounded, well sorted, slightly spherical, trace sideritic cement, abundant light grey argillaceous material, common silty quartz, trace carbonaceous detritus, tight visual porosity, no fluorescence.

**INTERVAL:** 1844 - 1865

**ROP range:** 8 – 92

**Av ROP:** 33

**SILTY CLAYSTONE AND MINOR ARGILLACEOUS SANDSTONE.**

**SILTY CLAYSTONE (85%):** brown grey to medium grey, soft rare firm, sticky to dispersive, abundant quartz silt, trace carbonaceous detritus, trace micro mica, trace disseminated pyrite, trace to rare glauconite.

**ARGILLACEOUS SANDSTONE (15%):** very light to medium grey, friable, predominantly very fine common fine grained quartz, subangular to subrounded, well sorted, slightly spherical, abundant light grey argillaceous matrix, minor quartz silt, trace siliceous cement, trace very fine carbonaceous detritus, trace glauconite, 5% visual intergranular porosity, no fluorescence.



---

**CONFIDENTIAL**

---

**INTERVAL:** 1865 - 1895

**ROP range:** 7 – 74

**Av ROP:** 36

**SILTY CLAYSTONE AND MINOR SANDSTONE.**

**SILTY CLAYSTONE (80%):** as above.

**SANDSTONE (20%):** very light grey rare medium grey, friable, predominantly very fine minor fine grained quartz, subangular, to subrounded, well sorted, slightly spherical, trace siliceous cement, common light grey argillaceous matrix, minor quartz silt, trace lithic fragments, trace carbonaceous detritus, trace disseminated pyrite, 10% visual porosity, no fluorescence.

**INTERVAL:** 1895 - 1934

**ROP range:** 87 – 113

**Av ROP:** 39

**SILTY CLAYSTONE AND SANDSTONE.**

**SILTY CLAYSTONE (75%):** as above.

**SANDSTONE (25):** very light grey rare medium grey, friable to loose, very fine to fine minor medium and rare coarse grained quartz, subangular, to subrounded, poorly sorted, slightly spherical, trace to minor pyritic cement, trace siliceous cement, minor light grey argillaceous matrix, minor quartz silt, trace lithic fragments, trace carbonaceous detritus, trace disseminated pyrite, 10% visual porosity 15% inferred porosity, no fluorescence.

**INTERVAL:** 1934 - 2000

**ROP range:** 7 – 159

**Av ROP:** 59

**SILTY CLAYSTONE AND SANDSTONE.**

**SILTY CLAYSTONE (50%):** brown grey to medium grey, soft to firm, sticky, to dispersive, abundant silty quartz, grading in parts to Argillaceous Siltstone, trace carbonaceous detritus and microlaminae, trace micro mica, trace disseminated and nodular pyrite.

**SANDSTONE (50%):** very light grey, colourless, clear to translucent, loose minor friable aggregates, very fine to coarse minor very coarse and rare very fine quartz grains (rare coarse to very coarse quartz shards - conglomerate?), subangular, to subrounded, poorly sorted, slightly spherical, trace aggregates with weak siliceous cement, rare pyrite cement, rare light grey argillaceous matrix, trace quartz silt, trace carbonaceous detritus, 10% to 20% inferred porosity, no fluorescence

**INTERVAL:** 2000 -2156

**ROP range:** 15 – 174

**Av ROP:** 56

**SANDSTONE AND MINOR SILTSTONE.**

**SANDSTONE (85%):** predominantly clear, minor very light grey to very light brownish grey, also colourless, clear to opaque, loose to minor friable, fine to pebble predominantly medium to coarse grained, subangular, to minor subrounded, slightly spherical, poorly sorted, commonly fractured quartz grains, trace silica and pyrite cements, rare clay and silt matrix, trace carbonaceous material, trace mica, trace glauconite, trace fluorescent amber, 20% to 25% inferred intergranular porosity. No shows.

**SILTSTONE (15%):** light brownish grey to medium grey, soft to friable, also moderately hard, predominantly quartzose, minor micaceous, common to abundant clay matrix, minor disseminated very fine quartz grains, minor to common carbonaceous streaks, rare mica, trace pyrite, trace glauconite, trace fluorescent amber, rarely grades to carbonaceous siltstone.

**CONFIDENTIAL****GAS SUMMARY:****Background Gas**

INTERVAL(mMDRT)	Total GAS (%)	CO <sub>2</sub> (%)	C1 (%)	C2 (%)	C3 (%)	iC4 (%)	NC4 (%)	C5 (%)
1790 - 1817	0.04 – 0.06	0.009 – 0.026	0.02 – 0.03	nil	nil	nil	nil	nil
1817 - 1844	0.04 – 0.07	0.008 – 0.023	0.02 – 0.04	nil	nil	nil	nil	nil
1844 - 1865	0.04 – 0.10	0.012 – 0.027	0.02 – 0.06	nil	nil	nil	nil	nil
1865 - 1895	0.05 – 3.13	0.008 – 0.023	0.02 – 2.84	0 – 0.03	0 – 0.03	0 – 0.003	0 – 0.002	nil
1895 - 1934	0.08 – 0.75	0.009 – 0.023	0.05 – 0.44	0 – 0.01	0 – 0.01	nil	nil	nil
1934 - 2000	0.08 – 0.14	0.006 – 0.026	0.06 – 0.11	0 – 0.01	0 – 0.005	nil	nil	nil
2000 - 2156	0/02 – 0.22	0.006 – 0.045	0.01 – 0.21	0 – 0.01	0 – 0.005	nil	nil	Nil

**Trip Gas**

DEPTH (mMDRT)	Total GAS (%)	C1 (%)	C2 (%)	C3 (%)	iC4 (%)	nC4 (%)	C5 (%)
Nil							

**Connection Gas**

DEPTH (mMDRT)	Total GAS (%)	C1 (%)	C2 (%)	C3 (%)	iC4 (%)	nC4 (%)	C5 (%)
Nil							

**Peaks**

DEPTH (mMDRT)	Total GAS (%)	C1 (%)	C2 (%)	C3 (%)	iC4 (%)	nC4 (%)	C5 (%)
1887	3.13	2.8	0.03	0.03	0.003	0.002	Nil

**HYDROCARBON FLUORESCENCE:**

Nil

**FORMATION PRESSURE ESTIMATION:**

Normal.

**SAMPLE QUALITY:**

Adequate. Sandstone texture "pasted" by PDC bit action – common white siliceous flour.

**LWD**

Sensor	Meters behind drill bit
Resistivity	3.76
GR	3.83
Direction / Inclination	12.63

Recorded data recovered.

**MUDLOGGING EQUIPMENT/PERSONNEL:**

Drilling completed, samples from 1790 to TD still drying. Mudlog pressure log etc completed but still undergoing proof reading and editing. Two crew members (sample catchers) booked off for 09/10/01.

**WIRELINE**

MUD DATA			
MUD TYPE	Aquadrill (KCI-PHPA-Glycol)	pH	9.5
Mud weight	1.16 sg	FL	4.0 ml
Viscosity	54	Rmf	0.100 @ 22°
Chlorides	42000 mg/l	Rm	0.130 @ 22°
Baryte	1.55% wt/vol	Rmc	0.200 @ 22°



---

**CONFIDENTIAL**

---

<b>WIRELINE LOGGING PROGRAM</b>	
1: PEX – DSI (HNGS-SP-MCFL-HRLA-DSI-TLD-TNPH-LEH-QT-GPIT)	In progress
2: CSAT (Dual Geophone – 15m) Checkshot	To be done
3: CST (1 gun 30 shots)	To be done

Note wireline logger's TD 2155 mMDRT  
Loggers casing shoe @ 1787.5 mMDRT

**WELLSITE GEOLOGISTS**

M. Bilek / G. Weste