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# **DRILLING FLUID SUMMARY**

**FOR : KAROON GAS**

**WELL : MEGASCOLIDES 1  
RE – ST1**

**GIPPSLAND BASIN**

**VICTORIA**

Prepared by : Peter Aronetz  
Andre Skujins

Date : December 2006

Operator : Karoon Gas  
Well : Megascoides 1 – Re St1  
Rig : Century Resources # 11  
Start Ops : 14 December 2006 - 00:00 Hrs  
Rig Release : 29 December 2006 - 16:00 Hrs



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Appendix A

**Operator** : Karoon Gas  
**Well** : Megascoides 1 – Re St1  
**Rig** : Century Resources # 11  
**Start Ops** : 14 December 2006 - 00:00 Hrs  
**Rig Release** : 29 December 2006 - 16:00 Hrs



## 1. WELL DATA & SUMMARY

### WELL DATA:

<b>Operator:</b>	KAROON Gas - (UPSTREAM Petroleum)		
<b>Contractor:</b>	CENTURY	Rig 11	
<b>Well type:</b>	Appraisal	PEP 162 EL 4537	Re-Entry/Sidetrack
<b>Eng. Arrival Date:</b>	10 December 2006		
<b>Start Date:</b>	14 December 2006	00:00 hrs	
<b>TD Date:</b>	26 December 2006	11:00 hrs	
<b>Rig Release Date:</b>	29 December 2006	16:00 hrs	
<b>Eng. Release Date:</b>	29 December 2006		
<b>Total Days on Well:</b>	20		

Interval	Hole Depth (m)	Casing Size (inch)	Interv. Depth (m)	Mud Wt. (lb/gal)	Mud Type
8 1/2" Hole to TD	1980	NONE	345	9.0	KCl / POLYMER
			<b>Total</b>	<b>Chemicals:</b>	\$34,573.37

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## SUMMARY:

The well had been made ready for re-entry and Rig 11 of CENTURY Resources was accepted for operations by 24:00 hrs on the 13<sup>th</sup> of December 2006. The re-entry operations started at 00:00 hours on the 14<sup>th</sup> of December 2006.

Drill water was pumped from a dam, located on an adjoining property. The initial supply found in the day-tank, prior to the start of well operations, had the following properties:

pH	:	7.5
Chlorides	:	420 mg/l
Pf/Mf	:	0.0 / 0.02
Hardness	:	40 mg/l

It appeared, that the well might have begun to side-track between 534 and 619m. Therefore the mud-up of the fluid system with KCl and PAC-R additions was brought forward and carried out at this depth. The original program called for this to happen at the level of the next cement plug, which was expected at a depth of 1750 m.

After being plugged back to and side-tracked from 1635 m, two cores were cut from 1881 to 1895 m, with an average core recovery of 83%. The well reached a total depth of 1980 m on the 26th of December and was logged without problems. DST's were not run and the well was P+A.

The rig was released at 16:00 hrs on the 29th of December 2006.

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9-5/8" Casing : J-55 @ 504 metres  
HOLE SIZE : 8½" Clean-out  
MUD TYPE : Muddy water to 640 m, then KCI/POLYMER  
INTERVAL : 0 – 1766 metres  
CASING : None

During the rig-up phase a 15 ppb Bentonite spud-mud had been prepared to drill the rat and mouse holes and the socks installed. This fluid remained in the pre-mix tank.

During the final phase of the work carried out for rig acceptance, an 8½" SECURITY milled tooth bit, model SDH1558, type EBXSC1S, SN 108588, with 3x20 jets installed was made up to a bit sub and Kelly.

Operations to re-enter the well started at midnight on the 14<sup>th</sup> of December and the top of the SFC CMT plug was found at 6m. Started drilling out the cement plug, then picking up a non-magnetic drill collar and continued drilling cement. Broke through at 34m and picked up the remainder of the BHA, while washing down each component. Below the NMDC, the BHA consisted of 11 x 6¼" DC and 6 lengths of 4½" HWDP.

At first it was assumed that the BHA would be run in the hole and after tagging the second CMT plug, the old drilling fluid circulated out and dumped. It was anticipated for the fluid to show substantial bacterial degradation. However, washing down each part of the BHA soon made dumping the contaminated fluid impractical, as excessive water consumption occurred with the dumping.

The system was treated with 2 cans of biocide. This somewhat alleviated the strong smell of the circulated fluid. A spot analysis showed a pH of 11, an alkalinity reading of 0.42 / 0.85 for Pf/Mf, Chlorides of 550 mg/l and a total hardness of 200 mg/l.

Continued washing down, as drill pipe singles were picked up from the racks. Locating the second cement plug around 470 m did not materialise, as far observations of the WOB went, although small cement fragments kept on being screened out at the shakers. At 534 m this operation was halted and the hole circulated clean.

Rigged up for and carried out a formation leak-off test with 8.6 ppg fluid in the hole. A leak-off pressure of 750 psi was established and a casing seat fracture rating of 17.3 ppg calculated. POOH with drill string for a change of BHA.

This consisted of the addition of two string stabilisers, one above the NMDC and the second unit two drill collars further up. RIH to 516 m, when the string took weight. Reamed and washed to 557 m. At this depth firm cement was encountered and this was drilled out.

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The appearance of what appeared to be formation cuttings at surface resulted in the decision being made to advance the mud-up procedure, in case the hole did side-track and a new hole was being drilled.

To the 80 bbls of Bentonite fluid that had remained in the Pre-mix tank, 30 bbls of water that sat in the Pill were added and 20 sx of AUS-GEL were mixed into the resulting fluid. This was then blended into the active system. Chemical additions were continued with 126 sx of KCl direct into the active system, for a targeted concentration of just above 3%. This also necessitated the application of Defoamer.

For the PAC-R addition - initially about 1.5 ppb - the Pre-mix tank was refilled from the active system and 4 sx PAC-R added. This had thickened that batch sufficiently to prevent any further addition of the polymer. The Pre-mix was then bled back into the active system and the procedure repeated several times. As circulation was not continuous, the addition of the initial 20 sx of this material to the system took some time.

Broke through the cement at 619 m and started picking up single joints of drill pipe. Only 50 m down the string took weight and it became necessary to put on the Kelly and ream/wash through these obstructions. By 750 m the hole was clear and it was possible to continue to RIH, picking up singles.

At a depth of 990 m the string took weight again and from then on in, reaming and washing was required to reach the programmed depth of 1766 m. The effects of the bacterial degradation become more pronounced as more of the 2 year-old, starch-based fluid was circulated out from further down in the hole. Biocide continued to be added to the system, in an attempt to reduce the most noticeable effect - a pungent smell.

While washing down towards the target depth, the fluid system continued being treated toward having acceptable properties for the side track operations. The chemical additions consisted of the on-going treatment with PAC-R and KCl, and Defoamer was added when required. With KCl now part of the system came the need to provide Sodium Sulphite as an Oxygen scavenger, to reduce the corrosive nature of the fluid.

When the top of the cement plug, expected at around 1640 m did not materialise, the hole continued to be washed to 1766 m. At this depth the decision was made to stop and condition the fluid, prior to running a Multi-shot deviation survey. Added more PAC-R to further reduce the filtrate and also impart some viscosity to the fluid.

The incorporation of the fluid in the bottom third of the hole had resulted in a substantial deterioration of the fluid properties. Extra KCl also needed to be added to offset the diluting effect of the original fresh-water based fluid.

With the mud properties getting closer to the programmed values, attention was switched to the preparations for the upcoming trip and subsequent setting of the

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Kick-off CMT plug. Prepared 45 bbls of a Xanthan Gum-based HiVis pill. That was spotted on bottom, to act as a base for the cement plug. At this point the Multi-Shot tool was dropped down the drill string. With the survey tool in place, the string was pulled back two stands to 1716 m and a heavy, KCl-based pill pumped. Pulled drill string from the hole, in accordance with instructions from the MS tool operator.

While the results of the survey were developed and processed, the cement stinger, consisting of 15 lengths of 3½" tubing, totalling 140 m, were prepared and made up. With the all-clear on the survey results, the stinger was RIH on 4½" drill pipe, picking up extra DP singles as required to reach a depth of 1744 m. Connected circulating line and circulated hole clean.

Rigged up HALLIBURTON, pumped 20 bbl water spacer and pressure tested lines. Mixed and pumped 45 bbls 16.5 ppg cement, followed by 2 bbls of water. Displaced cement with 71 bbls drilling mud.

Pulled back 8 stands to 1640 m and circulated 11400 strokes with two pumps. About 10 bbls of watered-back mud were dumped, no cement was seen at surface. POOH with cementing string and laid down cement stinger.

Made up polishing BHA, RIH to 478 m, put on Kelly and circulated while WOC. RIH and found top of cement at 1622 m. Dressed plug to 1635 m and circulated hole clean with 2 pumps and 20000 pump strokes. Mixed and pumped a KCl-based heavy pill and POOH with BHA # 3.

Made up kick-off BHA (#4) using the same (re-run) bit, a 4/5 lobe mud motor, Monel NMDC, 11 of the previously used 12x6¼" DC and 6 lengths of 4½" HWDP. Total BHA length amounted to 184.08m. RIH to cement plug, oriented string, and commenced kick-off.

Drilled to 1659 m, with increasing positive indication that kick-off had taken place. At 1659 m ran a single shot and confirmed kick-off. Circulated bottoms up, mixed and pumped a KCl-based heavy pill and POOH for change of BHA.

For BHA #5 a DBS PDC bit, type FM3553, S/N 10881881, with 5 x 11 jets installed was made up to a NB stabiliser, followed by the NMDC. Two conventional 6¼" Drill Collars were then picked up, before a second string stabiliser was included and then 6 more 6¼" DC. Made up jars, an additional 3x6¼" DC, followed by 6 lengths of 4½" HWDP. The length of the entire BHA came to 179.66 m.

RIH to casing shoe, slipped and cut drilling line. RIH to 1630 m, picked up kelly, reamed and washed to bottom at 1659 m. Bedded in bit and resumed drilling.

While drilling at 1848 m tight hole conditions were experienced when making a connection. Worked string free, mixed and pumped a 25 bbl EXTRA-SWEEP pill and circulated around. This did not bring any extra cuttings out of the hole. Resumed drilling and reached core point at 1881 m.

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When at about 1840 m, orders were received to lower the fluid density to 9.0 ppg, preferably to 8.9 ppg. Because of several delays experienced while trying to achieve this goal, the conditioning of the drilling fluid had to continue, after core point had been reached.

The surface system was shortened to include only the sections of the solids control equipment tank. All compartments of the suction/pre-mix tank/pill tank were isolated and in effect a quarter of the existing system, about 230 bbls of fluid, were dumped. A total of 290 bbls of new premix was made. This consisted of fresh lease water with 2 ppb of PAC-R being added. The resulting fluid was blended back into the active system and a final density of just under 9.0 ppg recorded.

Once this result had been attained, a 20-stand check trip to 1490 m was made. Hole condition were good, however when running back in the hole, the string took weight around the 1848 m level. Worked string and continued RIH to bottom. During this time a further EXTRA-SWEEP pill was mixed in the pill tank.

This was now pumped around, confirming that hole cleaning had been effective. The last survey for this interval was run and the drill string pulled from the hole, without the use of a heavy pill. With the BHA at surface, the Monel DC and all three stabilisers were laid out.

Made up a HALLIBURTON RTTS packer and RIH to 467 m, at which depth a casing test to 2500 psi was carried out. Retrieved and laid out packer.

An 18 m core barrel, consisting of 3 sections and 4 stabilisers was assembled. This was headed by a type MCP662 core bit, SN 8492C with a TFA of 1.010 in<sup>2</sup>. Ran coring assembly in the hole with 11x6¼" DC and 6x4½" HWDP to a depth of 1881 m, with the last three singles being washed down. Circulated hole clean, dropped ball and commenced coring.

Cut core # 1 from 1881 to 1889 m. At this point the Stand Pipe Pressure began to increase. The coring process was halted and the coring assembly pulled from the hole. Recovered 6.6 m of core, being 82.5% of the core cut. Serviced core barrel and ran back in the hole to 1805 m. Reamed and washed to bottom at 1889 m and resumed coring.

Cut core # 2 from 1889 to 1895 m. Stopped coring at this depth and POOH. Recovered 5 m core, being 83.5% of the core cut. The core barrel was serviced and laid out.

Made up BHA # 7, which was again a packed assembly, identical to BHA # 6 and RIH to 1877 m. Picked up Kelly and washed/reamed rat hole to bottom. 2 m of fill were recorded. Resumed drilling and the well was pronounced to be at TD at a depth of 1980 m.

The drilling fluid used during the final phase of this well continued to be maintained at a density of 9.0 ppg. The falling of substantial amounts of rain required extra polymer additions, to keep the required levels of viscosity and rheology.

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The hole was circulated clean and a single shot survey run, which did however result in a misrun. Pulled drill string from the hole and prepared to log the well. This was carried out with a logging unit from PRECISION Logging and included Repeat formation test points.

At the completion of the logging program the decision was made to plug and abandon this well. Three cement plugs were set on top of HiVis pills and the drill string laid down incrementally.

The rig was released for the move to MEGASCOLIDES 2 at 16:00 hrs, on the 29th of December 2006.

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## 2. OBSERVATIONS & RECOMMENDATIONS

This well, being a re-entry and subsequent side-track was drilled as programmed, no deviations from the program were necessary. There were no difficulties with getting E-logs down the hole.

With recycling fluid from the sump a definite option, it is essential to have a dedicated pump available for that purpose. This is currently not the case. Recommended is the provision of an electrically driven, flexi-shaft operated, submersible pump, which can be switched on and off on demand. COATES HIRE provides items like that, which have been used quite successfully in the past. This pump should be designated 'Drilling Fluid use ONLY' and should preferably not be made available for pumping out cellars and other duties – unless the pumped volume is being re-used as drilling fluid. This is to ensure, that if the pump is needed for recycling, it has not been made inoperative by other applications.

The shale shakers worked well; once the maintenance of lower than planned density became imperative, a combination of 2x175 + 1x140 mesh screen was used with good effect.

Initial difficulties with the mud mixing pump were overcome with the fitting of a new impeller. The output of both the de-sander and desilter was impaired by the presence of washed out cones. Spares were expected to arrive soon. In effect, the sometimes excessive discharge of lower than expected density underflow, was a blessing in disguise, as it resulted in dilution by default or stealth. And at time that assisted in keeping down the fluid density. By the end of the well, the desander pump had been overhauled, a second new desander cone installed and working pressure gauges fitted to both appliances

In the main, the tank system and the associated equipment worked at an acceptable level. The passage area on the solids-control tank would benefit from relocation of the 6" line, which supplies the desander.

One problem, that requires urgent rectification is the skimmer-equaliser in the solids-control tank. The current arrangement does not permit the skimmer to be completely raised and thus fully isolate the Solids-control tank from the Suction/Premix/Pill tank combination. This position is required, when a shortened system needs to be used. Once it had – with a lot of effort - been lifted to its highest position, it then proved near impossible to lower it again.

The answer would appear in placing a 45° elbow into the movable skimmer pipe, to raise the opening thereof. A re-design of the raising/lowering winch and associated cabling may assist - as well as servicing of the rotational joint of the skimmer.

### Hole Gauge

Hole gauge was relatively poor. The previously drilled Megascolides # 1 also suffered from poor hole gauge and it was fully expected that running an inhibitive

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KCl based fluid would lead to improvements. As a consequence of the poor gauge, a number of Laboratory Tests were carried out (see Appendix A) to determine what the possible mechanisms leading to washed hole were, and whether the fluid design could be improved to improve hole gauge.

The Laboratory Tests found that the formations in question were quite dispersive but contained little to no montmorillonite type clays – these are the types of clays that are most commonly found to cause problems when there is inadequate KCl in the fluid system. These findings were backed up by field testing – little to no K+ was being used up in base exchange, leading to the same conclusion that KCl was not a vital additive and did not aid in stabilising the hole.

Lab tests found that relatively high concentrations of PHPA did aid in reducing the dispersive nature of the samples that had been tested. As a consequence, a similar mud along with PHPA was programmed for the next well, Megascolides # 2.

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### 3.1 COST ANALYSIS by PRODUCT

PRODUCT	Usage	COST	% of COST
AMC Biocide G	16	\$3,013.28	8.7%
AMC Defoamer	14	\$2,049.60	5.9%
AMC PAC-R	89	\$14,461.61	41.8%
AUS-GEL	54	\$658.26	1.9%
Baryte	36	\$358.20	1.0%
Caustic Soda	1	\$50.73	0.2%
Citric Acid	2	\$146.50	0.4%
Class A Cement			
KWIKSEAL - C			
KWIKSEAL - F			
KWIKSEAL - M			
Lime	1	\$9.35	0.1%
Potassium Chloride (TG)	336	\$6,760.32	19.5%
ROD-FREE 205Lt			
ROD-FREE 25Lt			
Salt			
SAPP			
Soda Ash	33	\$603.90	1.7%
Sodium Sulphite	22	\$828.96	2.4%
Xanthan Gum	14	\$5,070.66	14.6%
XTRA - Sweep	5	\$562.00	1.6%
<b>TOTAL CHEMS.</b>		<b>\$34,573.37</b>	<b>100.00%</b>
<b>ENGINEERING</b>	--		
<b>TOTALS</b>		<b>\$34,573.37</b>	<b>100.00%</b>

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### 3.2 COST ANALYSIS by INTERVAL

INTERVAL	8½" HOLE	Post TD	WELL TOTAL
	SFC – 1980 m	LOGs, DST &	
<b>CASING</b>	7" NOT RUN	COMPLETION	
Set		N/A	
<b>Total Cost - Interval</b>	<b>\$34,573.37</b>		<b>\$34,211.18</b>
<b>Interval days</b>	<b>15</b>		<b>15</b>
<b>Metres drilled</b>	<b>345.0 m</b>		<b>345.0 m</b>
<b>Mud mixed</b>	<b>1720 bbls</b>		<b>1720 bbls</b>
<b>Cost per day</b>	<b>\$2,304.89</b>		<b>\$2,280.75</b>
<b>Cost per metre</b>	<b>\$100.21</b>		<b>\$99.16</b>
<b>Drilling fluid mixed per m hole drilled</b>			
	4.99 bbls		4.99 bbls
<b>Cost per bbl</b>	<b>\$20.10</b>		<b>\$19.89</b>



## 4. MATERIALS RECONCILIATION

FOR  
MEGASCOLIDES 1- RE-ST1

TRANSFERRED TO:  
MEGASCOLIDES 2

PRODUCT	Cost	lbs per UNIT	prev. well N/A	Starting Balance	Written off Damaged	TOTAL Received	TOTAL Used	FINAL BALANCE	Delivery Ticket Numbers
AMC Biocide G	\$188.33	50		32		32	16	16	
AMC Defoamer	\$146.40	55		17		17	14	3	
AMC PAC-R	\$162.49	55		64		160	89	71	
AMC PHPA	\$120.61	55		60		60		60	
AUS-BEN		55							
AUS-DEX	\$58.79	55		96		96		96	
AUS-GEL	\$12.19	55		420		420	54	366	
Baryte	\$9.95	55		560		560	36	524	
Calcium Chloride	\$19.65	55							
Caustic Soda	\$50.73	55		22		22	1	21	
Citric Acid	\$73.25	55				40	2	38	
Class A Cement		88							
KWIKSEAL - C	\$58.63	40		32		32		32	
KWIKSEAL - F	\$58.63	40		32		32		32	
KWIKSEAL - M	\$58.63	40		32		32		32	
Lime	\$9.35	44		12		12	1	11	
Potassium Chloride (TG)	\$20.12	55		336		756	336	420	
ROD-FREE 205Lt	\$1,023.75	450		1		1		1	
ROD-FREE 25Lt	\$124.85	55							
Salt	\$10.09	55							
SAPP	\$73.46	55							
Soda Ash	\$18.30	55		41		41	33	8	
Sodium Sulphite	\$37.68	55		42		42	22	20	
Xanthan Gum	\$362.19	55		30		30	14	16	
XTRA - Sweep	\$112.40	12		10		10	5	5	

<b>Total Weight Kg</b>	<b>43,544</b>
<b>Value of Stock on hand</b>	<b>\$63,856</b>



## 5. FLUID PROPERTIES SUMMARY

Date	Mud Type	Temp	Depth	Weight	Vis	PV	YP	Gels		Filtrate		Solids				pH	Pf	Mf	Pm	Cl-	Ca++	SO3=	K+	KCl
								10 sec	10 min	API	Cake	Solids	Water	Sand	MBT									
14-Dec-06	MUDDY WATER	26.2	534	8.55	30	1	1	0	0	NC		1.5	98.5	0	2.0	11.5	0.51	1.00	650	280	0		0.0	
15-Dec-06	KCl/POLYMER	26.5	592	8.70	33	3	6	2	3	NC	3	1.1	98.9	0.1	10.0	13.5	3.50	1.90	2.25	18,500	840	0	22,200	4.1
	KCl/POLYMER	28	1005	8.85	38	7	2	1	1	22.0	2	2.1	97.9	0.2	6.7	13.5	4.20	1.28	2.05	15,400	680	50	20,500	3.8
16-Dec-06	KCl/POLYMER	34	1766	9.30	36	6	2	1	1	20.0	2	6.2	93.8	0.8	11.0	10.5	1.90	0.18	1.95	11,000	1180	150	11,300	2.1
	KCl/POLYMER	46.5	1766	9.25	42	12	3	1	1	13.0	2	5.9	94.1	0.8	11.5	10.0	1.65	0.12	1.82	13,500	1280	120	11,900	2.2
17-Dec-06	KCl/POLYMER	42.2	1640	9.20	44	14	4	1	0	12.0	2	5.5	94.5	0.3	10.0	11.0	1.82	0.12	1.85	14,500	980	100	13,000	2.4
18-Dec-06	KCl/POLYMER	41.5	1635	9.20	48	11	9	1	0	10.0	2	5.2	94.8	0.5	10.5	11.0	1.90	0.27	2.00	15,800	800	250	16,800	3.1
19-Dec-06	KCl/POLYMER	38.2	1636	9.20	47	11	8	0	1	9.5	1	5.1	94.9	0.3	10.0	11.5	2.55	0.31	3.10	16,700	980	200	17,800	3.3
	KCl/POLYMER	43.4	1641	9.20	49	9	18	1	2	9.0	1	4.9	95.1	0.3	9.0	12.5	2.85	0.38	3.90	19,500	1200	150	20,500	3.8
20-Dec-06	KCl/POLYMER	42.2	1646	9.20	50	18	12	0	1	7.8	1	4.8	95.2	0.2	9.0	12.0	2.64	0.45	2.50	18,900	560	150	21,600	4.0
	KCl/POLYMER	43	1659	9.20	52	22	12	1	2	7.5	1	4.9	95.1	0.2	9.0	12.0	2.55	0.43	2.42	19,000	520	150	20,500	3.8
21-Dec-06	KCl/POLYMER	42.2	1680	9.25	53	20	11	1	2	8.2	1	5.2	94.8	0.5	10.0	12.5	2.75	0.47	2.55	19,200	360	200	21,600	4.0
	KCl/POLYMER	45.7	1749	9.35	52	20	11	1	2	7.7	1	5.9	94.1	0.8	11.0	12.5	2.68	0.55	2.60	19,800	280	250	22,200	4.1
22-Dec-06	KCl/POLYMER	47.5	1843	9.25	53	19	13	1	2	7.5	1	5.1	94.9	0.5	12.0	11.5	1.90	0.35	2.00	18,800	260	120	21,600	4.0
	KCl/POLYMER	45.5	1881	8.95	46	14	9	0	1	7.0	1	3.7	96.3	TRC	7.0	10.0	1.60	0.17	1.32	10,000	280	25	11,300	2.1
23-Dec-06	KCl/POLYMER	37.5	1881	8.95	44	12	8	0	1	6.6	1	3.3	96.7	0.1	12.0	9.5	1.34	0.08	1.25	12,100	480	50	15,100	2.8
24-Dec-06	KCl/POLYMER	40.5	1889	9.00	47	13	9	0	1	7.0	1	4.0	96.0	0.2	12.0	9.2	1.15	0.10	1.15	12,300	240	150	13,000	2.4
25-Dec-06	KCl/POLYMER	38.9	1895	9.00	48	13	9	1	1	6.2	1	4.1	95.9	0.2	9.0	10.0	1.25	0.18	1.28	10,800	120	150	11,300	2.1
26-Dec-06	KCl/POLYMER	49.2	1980	9.05	53	20	17	2	2	6.4	1	4.3	95.7	0.15	7.50	9.8	0.92	0.16	1.35	12,900	160	200	13,500	2.5
27-Dec-06	KCl/POLYMER	--	1980	9.05	58	18	14	2	2	6.6	1	4.3	95.7	0.1	7.0	9.8	0.90	0.15	1.30	11,500	180	120	12,400	2.3
28-Dec-06	KCl/POLYMER	--	1980	9.05	57	17	16	2	2	6.6	1	4.3	95.7	0.1	7.0	9.8	0.90	0.14	1.25	11,700	180	100	12,400	2.3



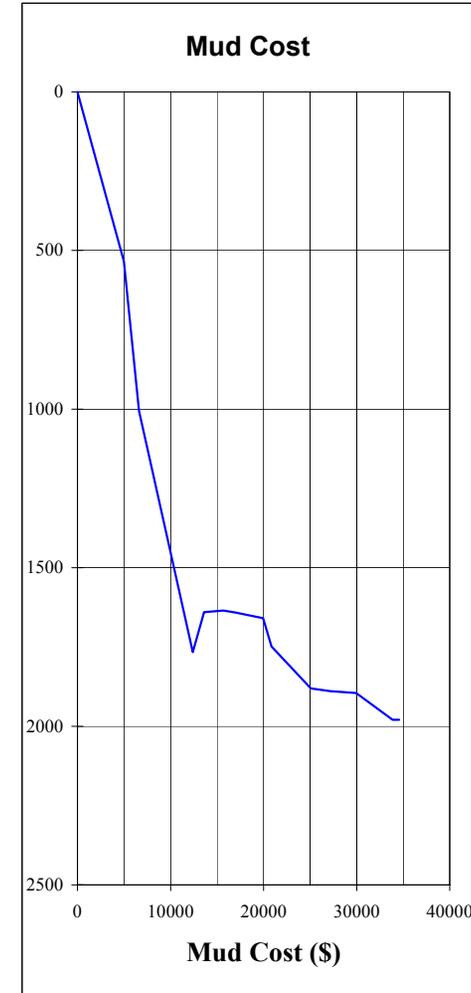
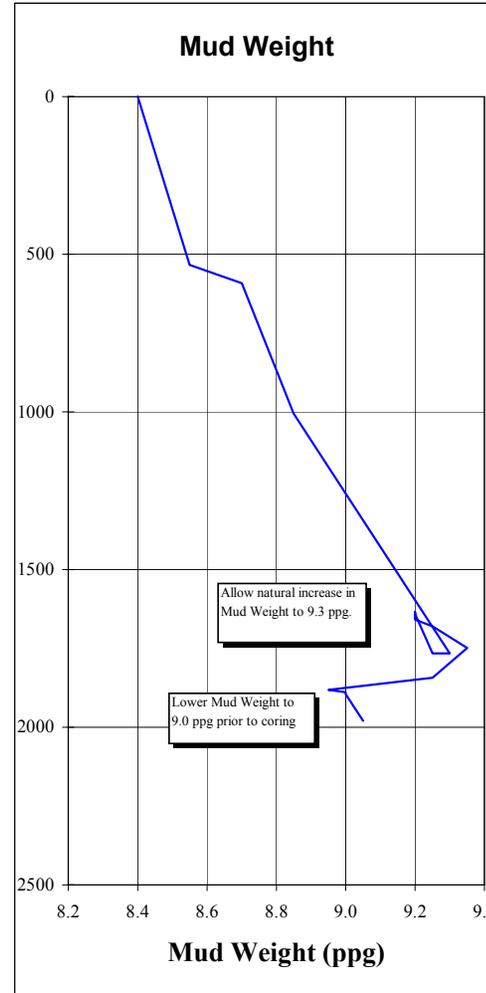
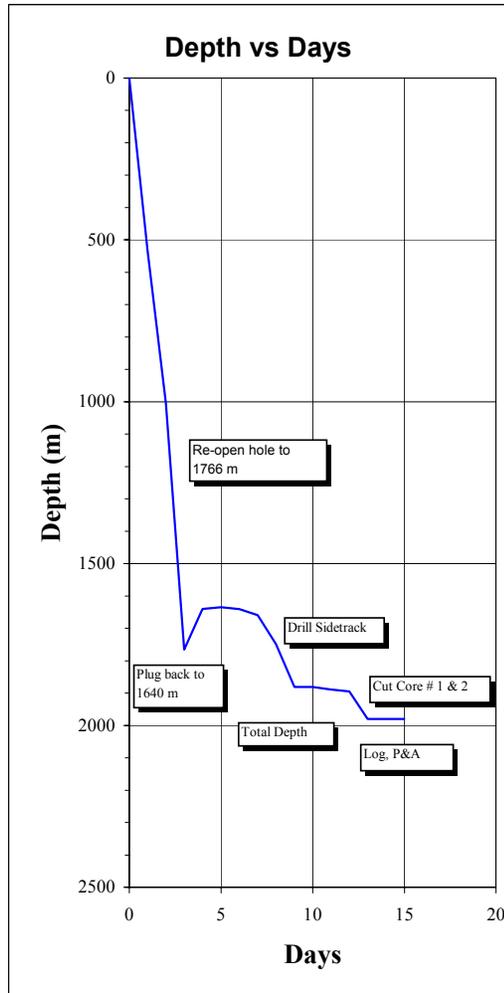
## 6. Mud Volume Analysis

Date	Hole Size	Interval		Mud Type	Fluid Built & Received					Fluid Disposed					Summary				
		From	To		Fresh Premix	Sump Premix	Direct Recirc	Water	Other	De-sander	De-silter	Surface Losses	Down-hole	Dumped	Other	Initial	Received	Disposed	Final
14-Dec-06	8-1/2"	0 m	534 m	KCl Polymer				565	130	10	0		1	120		0	695	131	564
15-Dec-06	8-1/2"	534 m	1175 m	KCl Polymer				50	130	24	48		5			564	180	77	666
16-Dec-06	8-1/2"	1175 m	1766 m	KCl Polymer				50	130	20	24		15	20		666	180	80	767
17-Dec-06	8-1/2"	1766 m	1640 m	KCl Polymer					70	0	0		0	11		767	70	11	826
18-Dec-06	8-1/2"	1640 m	1635 m	KCl Polymer				70		4	0		3			826	70	7	888
19-Dec-06	8-1/2"	1635 m	1641 m	KCl Polymer						8	0		7	10		888	0	25	864
20-Dec-06	8-1/2"	1641 m	1695 m	KCl Polymer						0	0		23			864	0	23	840
21-Dec-06	8-1/2"	1695 m	1758 m	KCl Polymer						4	0		2	10		840	0	16	824
22-Dec-06	8-1/2"	1758 m	1881 m	KCl Polymer	290			80		14	65		0	230		824	370	309	885
23-Dec-06	8-1/2"	1881 m	1881 m	KCl Polymer						2	2		3	35		885	0	42	844
24-Dec-06	8-1/2"	1881 m	1889 m	KCl Polymer				45		11	3		0			844	45	13	875
25-Dec-06	8-1/2"	1889 m	1908 m	KCl Polymer				90		19	11		0			875	90	29	936
26-Dec-06	8-1/2"	1908 m	1980 m	KCl Polymer				20		21	13		4	30		936	20	68	888
27-Dec-06	8-1/2"	1980 m	1980 m	KCl Polymer				10		0	0		0			888	10	0	898
28-Dec-06	8-1/2"	1980 m	1980 m	KCl Polymer					145	0	0		4	10		898	145	14	1029
<b>Sub Total</b>					<b>290</b>	<b>0</b>	<b>0</b>	<b>980</b>	<b>605</b>	<b>137</b>	<b>166</b>	<b>0</b>	<b>67</b>	<b>476</b>	<b>0</b>		<b>1875</b>	<b>846</b>	
<b>Well Total</b>					<b>290</b>	<b>0</b>	<b>0</b>	<b>980</b>	<b>605</b>	<b>137</b>	<b>166</b>	<b>0</b>	<b>67</b>	<b>476</b>	<b>0</b>		<b>1875</b>	<b>846</b>	

Dilution Factors			
	Interval Length	Dilution Vol	Dilution Factor
8 1/2" Hole	1980 m	1310 bbls	0.7 bbls/m



# 7. Graphs



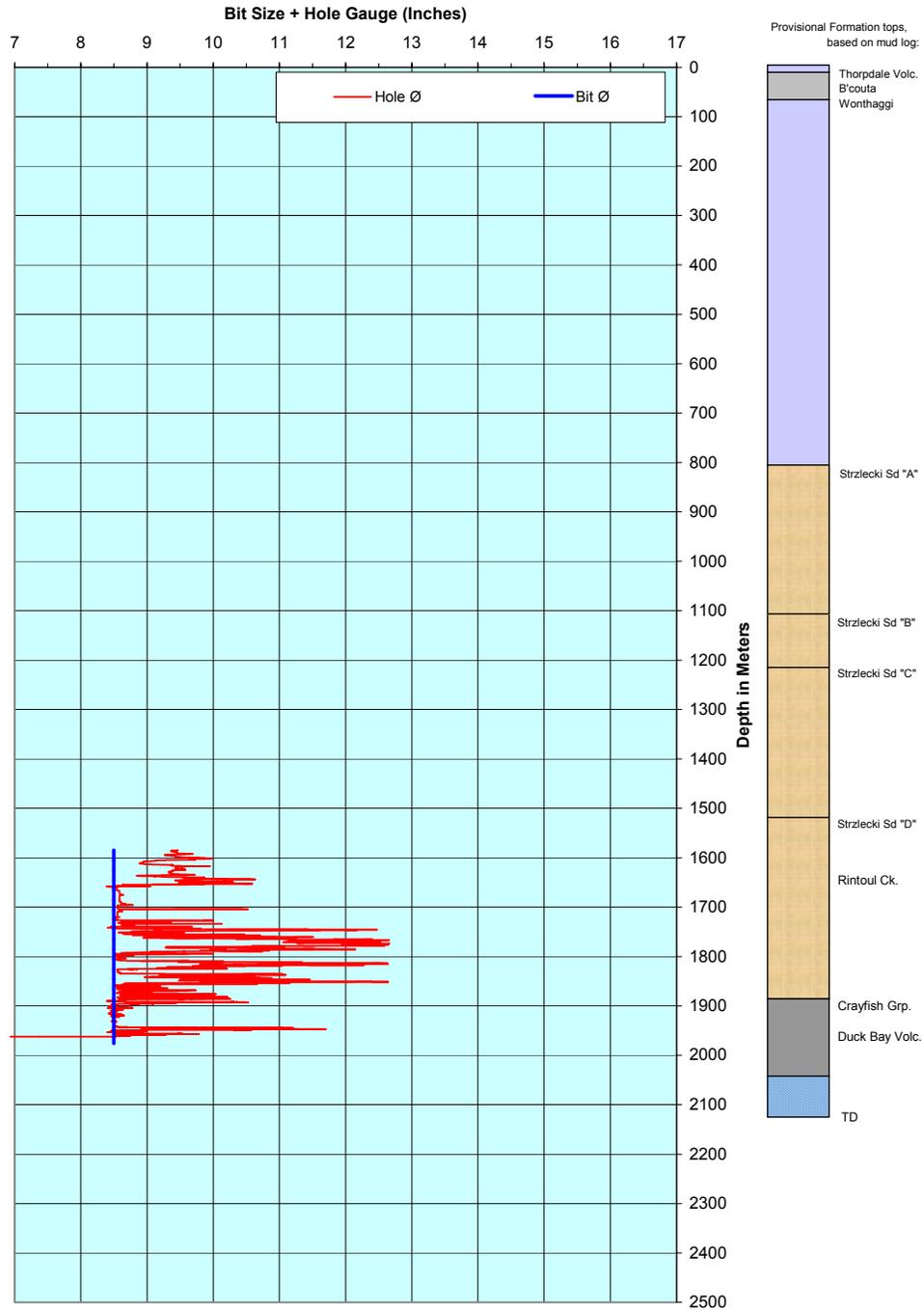


## 8. Bit & Hydraulics Record

Bit #	Size	Make	Type	Jets						Depth In	Depth Out	Depth Drilled	Hours	Cumm Hours	WOB	RPM	GPM	Mud Wt	Jet Vel	HHPb/sq"	Impact Force
1RR	8 1/2"	Security DBS	EBXSC15	20	20	20				6	1766	1760					8.3				
1RR2	8 1/2"	Security DBS	EBXSC15	20	20	20				1640							9.0				
1RR3	8 1/2"	Security DBS	EBXSC15	20	20	20				1635	1659	24	48	48	1	125	250	9.1	87	9	102
2	8 1/2"	Security DBS	FM3553	11	11	11	11	11		1659	1881	222	22	70	15	130	320	9.1	221	74	331
3	8 1/2"	Security DBS	MCP662	14	15	15	15	15	15	1881	1890	9	4	74	11	90	233	9.0	74	6	80
2RR	8 1/2"	Security DBS	FM3553	11	11	11	11	11		1895	1980	85	13	87	15	130	320	9.0	221	74	331



# 9. Calliper





## **10. DAILY DRILLING FLUIDS REPORTS**

# DRILLING FLUID REPORT



Report #	1	Date :	14-Dec-2006
Rig No	11	Spud :	14-Dec-2006
Depth	to 534		Metres

<b>OPERATOR</b> KAROON Gas / UPSTREAM Petr.		<b>CONTRACTOR</b> CENTURY	
<b>REPORT FOR</b> Brian HOLLAND		<b>REPORT FOR</b> Cesar MIACO	
<b>WELL NAME AND No</b> MEGASCOLIDES 1- RE-ST1		<b>FIELD</b> PEP 162 / EL 4567	<b>LOCATION</b> GIPPSLAND
		<b>STATE</b> VICTORIA	

DRILLING ASSEMBLY		JET SIZE		CASING		MUD VOLUME (BBL)		CIRCULATION DATA				
BIT SIZE	TYPE	20	20	20	9 5/8 SURFACE SET @	1654 ft	HOLE 127	PITS 329	PUMP SIZE 5 X 7 Inches		CIRCULATION PRESSURE 100 psi	
8.50	SEC-EBXSC1S				504 M				PUMP MODEL GD PZ-7	ASSUMED EFF 97 %	BOTTOMS UP 14 min	
DRILL PIPE SIZE	TYPE	Length			INTERMEDIATE SET @	ft	TOTAL CIRCULATING VOL. 456		BBL/STK@ 100% 0.0425	STK / MIN 200	TOTAL CIRC. TIME 68 min	
4.5	16.6 #	Mtrs			PRODUCTION/ LINER Set @	M	IN STORAGE 108		BBL/MIN 8.24	GAL / MIN 346	ANN VEL. (ft/min) 163	DP DCs 256 256
DRILL PIPE SIZE	TYPE	Length				M						
4.50	HW	Mtrs										
DRILL COLLARS		Length		MUD TYPE								
6.25	6.25	72	11	MUDDY WATER								

SAMPLE FROM		MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS					
		Suction		Mud Weight	MIN	API Filtrate	NC	HPHT Filtrate	--
TIME SAMPLE TAKEN		21:15		Plastic Vis	MIN	Yield Point		pH	9.0 - 10.0
DEPTH (ft) - (m)		Metres		KCI	NIL	PHPA	NIL	Sulphites	NIL
FLOWLINE TEMPERATURE		° C   ° F		<b>OBSERVATIONS</b> Fluid in use consists mainly of water, a small amount of the bentonite mud used to drill mouse and rat hole and fluid present in the hole. The expected bacterial degradation was offset with water addition and treatment with biocide. No fluid loss control and little rheology. Decision for System to be treated to be made, when at next CMT plug.					
WEIGHT		ppg   SG							
FUNNEL VISCOSITY (sec/qt) API @		26 °C							
PLASTIC VISCOSITY cP @		50 °C							
YIELD POINT (lb/100ft <sup>2</sup> )									
GEL STRENGTHS (lb/100ft <sup>2</sup> ) 10 sec/10 min		0   0							
RHEOLOGY		θ 600   θ 300							
RHEOLOGY		θ 200   θ 100							
RHEOLOGY		θ 6   θ 3							
FILTRATE API (cc's/30 min)		NC							
HPHT FILTRATE (cc's/30 min) @		-- ° F							
CAKE THICKNESS API : HPHT (32nd in)		--   --							
SOLIDS CONTENT (% by Volume)		1.5							
LIQUID CONTENT (% by Volume) OIL/WATER		0   98.5							
SAND CONTENT (% by Vol.)		0							
METHYLENE BLUE CAPACITY (ppb equiv.)		2.0							
pH		11.5							
ALKALINITY MUD (Pm)		0.51							
ALKALINITY FILTRATE (Pf / Mf)		0.51   1.00							
CHLORIDE (mg/L)		650							
TOTAL HARDNESS AS CALCIUM (mg/L)		280							
SULPHITE (mg/L)		0							
K+ (mg/L)									
KCl (% by Wt.)		0							
PHPA (ppb)									

Mud Accounting (bbls)				Solids Control Equipment									
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY		Type	Hrs	Cones	Hrs	Size	Hrs		
Premix (drill water)		Desander	10	INITIAL VOLUME	0	Centrifuge	N/A	Desander	2	12	Shaker #1	3x84	20
Premix (recirc from sump)		Desilter		+ FLUID RECEIVED	695	Degasser	Po'Boy	0	Desilter	10	0	3x84	20
Drill Water	565	Downhole	1			- FLUID LOST	131						
Direct Recirc Sump		Dumped	120	FLUID IN STORAGE	108			Overflow (ppg)	Underflow (ppg)	Output (Gal/Min.)			
Other	130	Surface						8.5	12.0	0.60			
TOTAL RECEIVED		TOTAL LOST		FINAL VOLUME									
695		131		564									

Product	Price	Start	Received	Used	Close	Cost	Solids Analysis		Bit Hydraulics & Pressure Data	
AMC Biocide G	\$ 188.33	32		2	30	\$ 376.66	% Vol	PPB	Jet Velocity	120
AUS-GEL	\$ 12.19	420		32	388	\$ 390.08	High Grav solids		Impact force	185
Caustic Soda	\$ 50.73	22		1	21	\$ 50.73	Total LGS	1.5 14.1	HHP	23
							Bentonite equiv.	0.1 0.6	HSI	0.4
							Drilled Solids	1.4 13.0	Bit Press Loss	111
							Salt	0.0 0.4	CSG Seat Frac Press	750 psi
							n @ 21:15 Hrs	0.58	Equiv. Mud Wt.	17.30 ppg
							K @ 21:15 Hrs	0.27	ECD	8.61 ppg
									Max Pressure @ Shoe :	
							DAILY COST		CUMULATIVE COST	
							\$817.47		\$817.47	

Any opinion and/or recommendation, expressed orally or written herein, has been prepared carefully and may be used if the user so elects, however, no representation or warranty is made by ourselves or our agents as to its correctness or completeness, and no liability is assumed for any damages resulting from the use of same.



# DRILLING FLUID REPORT



Report #	3	Date :	16-Dec-2006
Rig No	11	Spud :	14-Dec-2006
Depth	1175 to 1766	Metres	

OPERATOR	KAROON Gas / UPSTREAM Petroleum	CONTRACTOR	CENTURY Resources
REPORT FOR	Brian HOLLAND	REPORT FOR	Cesar MIACO
WELL NAME AND No	MEGASCOLIDES 1- RE-ST1	FIELD	PEP 162 / EL 4567
		LOCATION	GIPPSLAND
		STATE	VICTORIA

DRILLING ASSEMBLY		JET SIZE		CASING		MUD VOLUME (BBL)		CIRCULATION DATA						
BIT SIZE	TYPE	20	20	20	9 5/8	SURFACE SET @	1654	ft	HOLE	PITS	PUMP SIZE		CIRCULATION PRESSURE	
8.50	SEC-EBXSC1S						504	M	419	342	5.5 X 7	Inches	950 psi	
DRILL PIPE SIZE	TYPE	Length			INTERMEDIATE SET @	ft	TOTAL CIRCULATING VOL.		PUMP MODEL	ASSUMED EFF	BOTTOMS UP			
4.5	16.6 #	1599	Mtrs			M	761		GD PZ-7	97 %	51 min			
DRILL PIPE SIZE	TYPE	Length			PRODUCTION/ LINER Set @	ft	IN STORAGE		BBL/STK@ 100%	STK / MIN	TOTAL CIRC. TIME			
4.50	HW	56	Mtrs			M	6		0.0425	200	93 min			
D/Collars	TOOLS	Length			MUD TYPE									
6.25	6.25	100	11 Mtrs		KCl/POLYMER									

MUD PROPERTIES				MUD PROPERTY SPECIFICATIONS							
SAMPLE FROM				Below Shkr	Below Shkr	Mud Weight	MIN	API Filtrate	NC	HPHT Filtrate	--
TIME SAMPLE TAKEN				12:30	17:00	Plastic Vis	MIN	Yield Point		pH	9.0 - 10.0
DEPTH (ft) - (m)				1,766	1,766	KCl	NIL	PHPA	NIL	Sulphites	NIL

FLOWLINE TEMPERATURE				°C		°F		OBSERVATIONS					
WEIGHT				ppg	SG	9.30	1.116	9.25	1.109	Continue treatment of system with PAC-R, KCl; add Defoamer, Biocide and Sodium Sulphite as required. Further addition of PAC-R needed to bring API Filtrate into line.			
FUNNEL VISCOSITY (sec/qt) API @				47 °C		36		42		Please note adjustment of Pump Liner Ø from 5" to 5.5"			
PLASTIC VISCOSITY cP @				45 °C		6		12					
YIELD POINT (lb/100ft²)						2		3					
GEL STRENGTHS (lb/100ft²) 10 sec/10 min						1		1					
RHEOLOGY				θ 600	θ 300	14	8	27	15				
RHEOLOGY				θ 200	θ 100	5	3	10	6				
RHEOLOGY				θ 6	θ 3	1	0	1	0				
FILTRATE API (cc's/30 min)						20.0		13.0					
HPHT FILTRATE (cc's/30 min) @				-- °F		--		--					
CAKE THICKNESS API : HPHT (32nd in)						2		--					
SOLIDS CONTENT (% by Volume)						6.2		5.9					
LIQUID CONTENT (% by Volume) OIL/WATER						0		93.8		0		94.1	
SAND CONTENT (% by Vol.)						0.75		0.75					
METHYLENE BLUE CAPACITY (ppb equiv.)						11.0		11.5					
pH						10.5		10.0					
ALKALINITY MUD (Pm)						1.90		1.65					
ALKALINITY FILTRATE (Pf / Mf)						0		1.95		0.12		1.82	
CHLORIDE (mg/L)						11,000		13,500					
TOTAL HARDNESS AS CALCIUM (mg/L)						1180		1280					
SULPHITE (mg/L)						150		120					
K+ (mg/L)						11,000		11,600					
KCl (% by Wt.)						2.1		2.2					
PHPA (ppb)						0.00		0.00					

OPERATIONS SUMMARY			
Ream+wash fm 1175>1766m; condition mud. Drop Multi-shot survey Mix+pump HiVis pill, spot on bottom, pull back to 1716m, mix+pump KCl-based heavy pill, POOH to SFC, taking MS readings. Prepare CMT stinger.			

Mud Accounting (bbls)				Solids Control Equipment										
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY		Type	Hrs	Cones	Hrs	Size	Hrs			
Premix (drill water)		Desander	20	INITIAL VOLUME	666	Centrifuge	N/A	Desander	2	18	Shaker #1	3x84	18	
Premix (recirc from sump)		Desilter	24			Degasser	Po'Boy	0	Desilter	10	10	Shaker #2	3x84	18
Drill Water	50	Downhole	15	+ FLUID RECEIVED	180									
Direct Recirc Sump		Dumped	20	- FLUID LOST	80									
Other	130	Surface		FLUID in STORAGE	6									
TOTAL RECEIVED	180	TOTAL LOST	80	FINAL VOLUME	767			Overflow (ppg)	Underflow (ppg)	Output (Gal/Min.)				
						Desander	9.2	10.5	0.79					
						Desilter	9.2	9.8	1.69					

Mud Accounting (bbls)				Solids Analysis				Bit Hydraulics & Pressure Data						
Product	Price	Start	Received	Used	Close	Cost	% Vol	PPB	Jet Velocity				120	
AMC Biocide G	\$ 188.33	28		2	26	\$ 376.66			Impact force				200	
AMC Defoamer	\$ 146.40	15		1	14	\$ 146.40	High Grav solids		HHP				24	
AMC PAC-R	\$ 162.49	50		20	30	\$ 3,249.80	Total LGS	5.9	55.5	HSI				0.4
AUS-GEL	\$ 12.19	368		2	366	\$ 24.38	Bentonite equiv.	0.7	6.4	Bit Press Loss				121
Baryte	\$ 9.95	560		1	559	\$ 9.95	Drilled Solids	5.2	47.0	CSG Seat Frac Press				750 psi
Potassium Chloride	\$ 20.12	210		72	138	\$ 1,448.64	Salt	0.8	7.8	Equiv. Mud Wt.				17.30 ppg
Sodium Sulphite	\$ 37.68	40		4	36	\$ 150.72	n @ 17:00 Hrs	0.85	ECD				9.70 ppg	
Xanthan Gum	\$ 362.19	30		1	29	\$ 362.19	K @ 17:00 Hrs	0.39	Max Pressure @ Shoe :				692 psi	

DAILY COST				CUMULATIVE COST			
\$5,768.74				\$12,384.81			
RMN ENGINEER	Peter ARONETZ	CITY	Adelaide Office	TELEPHONE	08 8338 7266		

Any opinion and/or recommendation, expressed orally or written herein, has been prepared carefully and may be used if the user so elects, however, no representation or warranty is made by ourselves or our agents as to its correctness or completeness, and no liability is assumed for any damages resulting from the use of same.



# DRILLING FLUID REPORT

Report #	4	Date :	17-Dec-2006
Rig No	11	Spud :	14-Dec-2006
Depth	1766	to	1640
Metres			

OPERATOR	KARON Gas / UPSTREAM Petroleum	CONTRACTOR	CENTURY Resources		
REPORT FOR	Brian HOLLAND	REPORT FOR	Cesar MIACO		
WELL NAME AND No	MEGASCOLIDES 1- RE-ST1	FIELD	PEP 162 / EL 4567	LOCATION	GIPPSLAND
		STATE	VICTORIA		

DRILLING ASSEMBLY		JET SIZE		CASING		MUD VOLUME (BBL)		CIRCULATION DATA					
BIT SIZE	TYPE			9 5/8	SURFACE SET @	1654	ft	HOLE	PITS	PUMP SIZE		CIRCULATION PRESSURE	
8.50					504	M		390	282	5.5 X 7	Inches	450 psi	
DRILL PIPE SIZE	TYPE	Length		INTERMEDIATE SET @	ft	TOTAL CIRCULATING VOL.		PUMP MODEL	ASSUMED EFF	BOTTOMS UP		68 min	
4.5	16.6 #	1473	Mtrs		M	672		GD PZ-7	97 %				
DRILL PIPE SIZE	TYPE	Length		PRODUCTION/ LINER Set @	ft	IN STORAGE		BBL/STK@100%	STK / MIN	TOTAL CIRC. TIME		145 min	
4.50	HW	56	Mtrs		M	154		0.0425	138				
D/Collars	TOOLS	Length		MUD TYPE									
6.25	6.25	100	11 Mtrs	KCl/POLYMER									
					BBL/MIN		GAL / MIN	ANN VEL. (ft/min)	DP DCS	113		176 176	
					5.69		239						

SAMPLE FROM		MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS					
TIME SAMPLE TAKEN		Below Shkr	Below Shkr	Mud Weight	MIN	API Filtrate	NC	HPHT Filtrate	--
DEPTH (ft) - (m)		15:30		Plastic Vis	MIN	Yield Point		pH	9.0 - 10.0
FLOWLINE TEMPERATURE		0 C	0 F	KCl	NIL	PHPA	NIL	Sulphites	NIL

WEIGHT	ppg	SG	9.20	1.103	<b>OBSERVATIONS</b> Add Soda Ash to system, prepare one more batch of KCl/PAC-R premix. Retain in P/Mix Tk. Also use KCl for pill while POOH w/- cementing string.
FUNNEL VISCOSITY (sec/qt) API @	42	0 C	44		
PLASTIC VISCOSITY cP @	45	0 C	14		
YIELD POINT (lb/100ft <sup>2</sup> )			4		
GEL STRENGTHS (lb/100ft <sup>2</sup> ) 10 sec/10 min			1	0	
RHEOLOGY	ø 600	ø 300	32	18	
RHEOLOGY	ø 200	ø 100	13	8	
RHEOLOGY	ø 6	ø 3	1	1	
FILTRATE API (cc's/30 min)			12.0		
HPHT FILTRATE (cc's/30 min) @	--	0 F	--		

LIQUID CONTENT (% by Volume) OIL/WATER		0	94.5	<b>OPERATIONS SUMMARY</b> Pick-up 15lengths (140m) 3 1/2" TBG for CMT stinger, RIH on 4 1/2" DP. to 1744m. Pump 20bbl water w/- rig pump, Rig up HALLIBURTON, and pressure test lines. Mix+pump 45bbls 16.5ppg cement, followed by 2bbls of water. Displace cement with 71bbls drilling mud. Pull back 8 stands to 1591m and circulate 11400 strokes w/- 2 pumps. Dump abt 10bbls of watery mud, no CMT observed at surface.. POOH cementing string and lay down cement stinger.
SAND CONTENT (% by Vol.)		0.25		
METHYLENE BLUE CAPACITY (ppb equiv.)		10.0		
pH		11.0		
ALKALINITY MUD (Pm)		1.82		
ALKALINITY FILTRATE (Pf / Mf)		0.12	1.85	
CHLORIDE (mg/L)		14,500		
TOTAL HARDNESS AS CALCIUM (mg/L)		980		
SULPHITE (mg/L)		100		
K+ (mg/L)		12,600		
KCl (% by Wt.)		2.4		
PHPA (ppb)	0.00		0.00	

Mud Accounting (bbls)						Solids Control Equipment										
FLUID BUILT & RECEIVED			FLUID DISPOSED			SUMMARY			Type	Hrs	Cones	Hrs	Size	Hrs		
Premix (drill water)			Desander			INITIAL VOLUME	767	Centrifuge	N/A	Desander	2	0	Shaker #1	3x84	14	
Premix (recirc from sump)			Desilter					Degasser	Po'Boy	0	Desilter	10	0	Shaker #2	3x84	18
Drill Water			Downhole	0		+ FLUID RECEIVED	70									
Direct Recirc Sump			Dumped	11		- FLUID LOST	11									
Other (CMT+Water spacer)	70		Surface			FLUID in STORAGE	154									
TOTAL RECEIVED	70		TOTAL LOST	11		FINAL VOLUME	826									

Product	Price	Start	Received	Used	Close	Cost	Solids Analysis		Bit Hydraulics & Pressure Data		
AMC PAC-R	\$ 162.49	30		3	27	\$ 487.47	% Vol	PPB	Jet Velocity		
Potassium Chloride	\$ 20.12	138		33	105	\$ 663.96	High Grav solids		Impact force #VALUE!		
Soda Ash	\$ 18.30	41		4	37	\$ 73.20	Total LGS	5.5	51.6	HHP	
							Bentonite equiv.	0.6	5.2	HSI	
							Drilled Solids	4.9	44.5	Bit Press Loss	
							Salt	0.9	8.4	CSG Seat Frac Press	750 psi
							n @ 15:30 Hrs	0.83		Equiv. Mud Wt.	17.30 ppg
							K @ 15:30 Hrs	0.52		ECD	9.40 ppg
										Max Pressure @ Shoe :	696 psi
							<b>DAILY COST</b>		<b>CUMULATIVE COST</b>		
							<b>\$1,224.63</b>		<b>\$13,609.44</b>		

RMN ENGINEER Peter ARONETZ CITY Adelaide Office TELEPHONE 08 8338 7266

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# DRILLING FLUID REPORT



Report #	6	Date :	19-Dec-2006
Rig No	11	Spud :	14-Dec-2006
Depth	1635 to 1641	Metres	

OPERATOR	KAROON Gas / UPSTREAM Petroleum	CONTRACTOR	CENTURY Resources
REPORT FOR	Brian HOLLAND	REPORT FOR	Cesar MIACO
WELL NAME AND No	MEGASCOLIDES 1- RE-ST1	FIELD	PEP 162 / EL 4567
		LOCATION	GIPPSLAND
		STATE	VICTORIA

DRILLING ASSEMBLY		JET SIZE		CASING		MUD VOLUME (BBL)		CIRCULATION DATA						
BIT SIZE	TYPE	20	20	20	9 5/8	SURFACE SET @	1654	ft	HOLE	PITS	PUMP SIZE		CIRCULATION PRESSURE	
8.50	SEC-EBXSC1S						504	M	349	515	5 1/2 X 7	Inches	630 psi	
DRILL PIPE SIZE	TYPE	Length			INTERMEDIATE SET @	ft	TOTAL CIRCULATING VOL.		PUMP MODEL	ASSUMED EFF	BOTTOMS UP			
4.5	16.6 #	1457	Mtrs			M	864		GD PZ-7	97 %	43 min			
DRILL PIPE SIZE	TYPE	Length			PRODUCTION/ LINER Set @	ft	IN STORAGE		BBL/STK@ 100%	STK / MIN	TOTAL CIRC. TIME			
4.50	HW	56.1	Mtrs			M	0		0.0425	174	120 min			
D/Collars	TOOLS	Length			MUD TYPE			BBL/MIN	GAL / MIN	ANN VEL.	DP	142		
6.25	6.25	99.9	28.4 Mtrs		KCI/POLYMER			7.17	301	(ft/min)	DCs	222 222		

SAMPLE FROM		MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS			
TIME SAMPLE TAKEN		Below Shkr	Below Shkr	Mud Weight	8.6 - 9.4	API Filtrate	10 - 6
DEPTH (ft) - (m)		10:35	22:00	Plastic Vis	MIN	Yield Point	12 - 25
FLOWLINE TEMPERATURE		Metres	1,636	KCI	3%	PHPA	NIL
WEIGHT		°C	38	HPHT Filtrate	--	pH	9.0 - 10.0
FUNNEL VISCOSITY (sec/qt) API @		°F	43	OBSERVATIONS			
PLASTIC VISCOSITY cP @		°C	47	Maintain fluid properties with additions of PAC-R, Sodium Sulphite + Biocide. No volume additions last 24 hours.			
YIELD POINT (lb/100ft <sup>2</sup> )			49				
GEL STRENGTHS (lb/100ft <sup>2</sup> ) 10 sec/10 min			11				
RHEOLOGY			9				
RHEOLOGY			8				
RHEOLOGY			18				
RHEOLOGY			1				
RHEOLOGY			1				
RHEOLOGY			2				
RHEOLOGY			1				
FILTRATE API (cc's/30 min)			1				
HPHT FILTRATE (cc's/30 min) @			1				
CAKE THICKNESS API : HPHT (32nd in)			1				
SOLIDS CONTENT (% by Volume)			1				
LIQUID CONTENT (% by Volume) OIL/WATER			1				
SAND CONTENT (% by Vol.)			1				
METHYLENE BLUE CAPACITY (ppb equiv.)			1				
pH			1				
ALKALINITY MUD (Pm)			1				
ALKALINITY FILTRATE (Pf / Mf)			1				
CHLORIDE (mg/L)			1				
TOTAL HARDNESS AS CALCIUM (mg/L)			1				
SULPHITE (mg/L)			1				
K+ (mg/L)			1				
KCI (% by Wt.)			1				
PHPA (ppb)			1				

OPERATIONS SUMMARY	
Complete making up directional BHA (#4), RIH to TOC @ 1635m	
Commence sidetrack. Reach 1641m @ 24:00 hrs.	

Mud Accounting (bbls)		Solids Control Equipment												
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY		Type	Hrs	Cones	Hrs	Size	Hrs			
Premix (drill water)		Desander	8	INITIAL VOLUME	888	Centrifuge	N/A	Desander	2	10	Shaker #1	3x84	24	
Premix (recirc from sump)		Desilter				Degasser	Po'Boy	Desilter	10	0	Shaker #2	3x84	24	
Drill Water		Downhole	7	+ FLUID RECEIVED										
Direct Recirc Sump		Dumped	10	- FLUID LOST	25									
Other		Surface		FLUID in STORAGE	0									
TOTAL RECEIVED		TOTAL LOST	25	FINAL VOLUME	864			Overflow (ppg)	9.2	Underflow (ppg)	9.5	Output (Gal/Min.)	0.53	
Product	Price	Start	Received	Used	Close	Cost	Solids Analysis		Bit Hydraulics & Pressure Data					
AMC Biocide G	\$ 188.33	25		2	23	\$ 376.66	% Vol	PPB	Jet Velocity				105	
AMC PAC-R	\$ 162.49	21		5	16	\$ 812.45	High Grav solids		Impact force				150	
Soda Ash	\$ 18.30	37		4	33	\$ 73.20	Total LGS	4.9	46.8	HHP				16
							Bentonite equiv.	0.5	4.6	HSI				0.3
							Drilled Solids	4.4	40.3	Bit Press Loss				91
							Salt	1.2	11.3	CSG Seat Frac Press				750 psi
							n @ 22:00 Hrs	0.41		Equiv. Mud Wt.				17.30 ppg
							K @ 22:00 Hrs	10.39		ECD				9.47 ppg
										Max Pressure @ Shoe :				696 psi
							DAILY COST		CUMULATIVE COST					
							\$1,262.31		\$16,955.42					

Mud Accounting (bbls)		Solids Control Equipment												
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY		Type	Hrs	Cones	Hrs	Size	Hrs			
Premix (drill water)		Desander	8	INITIAL VOLUME	888	Centrifuge	N/A	Desander	2	10	Shaker #1	3x84	24	
Premix (recirc from sump)		Desilter				Degasser	Po'Boy	Desilter	10	0	Shaker #2	3x84	24	
Drill Water		Downhole	7	+ FLUID RECEIVED										
Direct Recirc Sump		Dumped	10	- FLUID LOST	25									
Other		Surface		FLUID in STORAGE	0									
TOTAL RECEIVED		TOTAL LOST	25	FINAL VOLUME	864			Overflow (ppg)	9.2	Underflow (ppg)	9.5	Output (Gal/Min.)	0.53	
Product	Price	Start	Received	Used	Close	Cost	Solids Analysis		Bit Hydraulics & Pressure Data					
AMC Biocide G	\$ 188.33	25		2	23	\$ 376.66	% Vol	PPB	Jet Velocity				105	
AMC PAC-R	\$ 162.49	21		5	16	\$ 812.45	High Grav solids		Impact force				150	
Soda Ash	\$ 18.30	37		4	33	\$ 73.20	Total LGS	4.9	46.8	HHP				16
							Bentonite equiv.	0.5	4.6	HSI				0.3
							Drilled Solids	4.4	40.3	Bit Press Loss				91
							Salt	1.2	11.3	CSG Seat Frac Press				750 psi
							n @ 22:00 Hrs	0.41		Equiv. Mud Wt.				17.30 ppg
							K @ 22:00 Hrs	10.39		ECD				9.47 ppg
										Max Pressure @ Shoe :				696 psi
							DAILY COST		CUMULATIVE COST					
							\$1,262.31		\$16,955.42					

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# DRILLING FLUID REPORT

Report #	7	Date :	20-Dec-2006
Rig No	11	Spud :	14-Dec-2006
Depth	1641	to	1959
Metres			

<b>OPERATOR</b>	<b>KAROON Gas / UPSTREAM Petroleum</b>	<b>CONTRACTOR</b>	<b>CENTURY Resources</b>
<b>REPORT FOR</b>	<b>Brian HOLLAND</b>	<b>REPORT FOR</b>	<b>Cesar MIACO</b>
<b>WELL NAME AND No</b>	<b>MEGASCOLIDES 1- RE-ST1</b>	<b>FIELD</b>	<b>LOCATION</b>
		<b>PEP 162 / EL 4567</b>	<b>GIPPSLAND</b>
		<b>STATE</b>	<b>VICTORIA</b>

DRILLING ASSEMBLY		JET SIZE		CASING		MUD VOLUME (BBL)		CIRCULATION DATA					
BIT SIZE	TYPE	20	20	20	9 5/8	SURFACE SET @	1654	ft	HOLE	PITS	PUMP SIZE		CIRCULATION PRESSURE
8.50	SEC-EBXSC1S						504	M	448	422	5 1/2 X 7	Inches	650 psi
DRILL PIPE SIZE	TYPE	Length	Mtrs		INTERMEDIATE SET @	ft	TOTAL CIRCULATING VOL.		PUMP MODEL	ASSUMED EFF	BOTTOMS UP		
4.5	16.6 #					M	870		GD PZ-7	97 %	60 min		
DRILL PIPE SIZE	TYPE	Length	Mtrs		PRODUCTION/ LINER Set @	ft	IN STORAGE		BBL/STK@ 100%	STK / MIN	TOTAL CIRC. TIME		
4.50	HW	56.1				M	31		0.0425	175	125 min		
D/Collars	TOOLS	Length	Mtrs		MUD TYPE								
6.25	6.25	99.9	28.4		<b>KCI/POLYMER</b>								

SAMPLE FROM		MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS			
		Below Shkr	Below Shkr	Mud Weight	8.6 - 9.4	API Filtrate	10 - 6
TIME SAMPLE TAKEN		10:50	20:00	Plastic Vis	MIN	Yield Point	12 - 25
DEPTH (ft) - (m)	Metres	1,646	1,659	KCI	3%	PHPA	NIL
FLOWLINE TEMPERATURE	°C	42	109	HPHT Filtrate			--
WEIGHT	ppg	9.20	1.104	pH			9.0 - 10.0
FUNNEL VISCOSITY (sec/qt) API @	43 °C	50	52	Sulphites			80 - 150
PLASTIC VISCOSITY cP @	45 °C	18	22	<b>OBSERVATIONS</b>			

OBSERVATIONS							
Maintain fluid properties with additions of PAC-R, Sodium Sulphite + Biocide. Adding Soda Ash to reduce Ca+Mg level.							
No volume additions last 24 hours. Received supplementary mud chemical supplies.							

Mud Accounting (bbls)				Solids Control Equipment										
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY		Type	Hrs	Cones	Hrs	Size	Hrs			
Premix (drill water)		Desander		INITIAL VOLUME	864	Centrifuge	N/A	Desander	2	0	Shaker #1	2x140,1x84	20	
Premix (recirc from sump)		Desilter				Degasser	Po'Boy	0	Desilter	10	0	Shaker #2	2x140,1x84	20
Drill Water	40	Downhole	3	+ FLUID RECEIVED	40	Overflow (ppg)      Underflow (ppg)      Output (Gal/Min.)								
Direct Recirc Sump		Dumped		- FLUID LOST	3	Desander			0					
Other		Surface		FLUID in STORAGE	31	Desilter			0					
<b>TOTAL RECEIVED</b>	<b>40</b>	<b>TOTAL LOST</b>	<b>3</b>	<b>FINAL VOLUME</b>	<b>901</b>									

Mud Accounting (bbls)							Solids Control Equipment							
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY			Type	Hrs	Cones	Hrs	Size	Hrs		
Premix (drill water)		Desander		INITIAL VOLUME	864	Centrifuge	N/A	Desander	2	0	Shaker #1	2x140,1x84	20	
Premix (recirc from sump)		Desilter				Degasser	Po'Boy	0	Desilter	10	0	Shaker #2	2x140,1x84	20
Drill Water	40	Downhole	3	+ FLUID RECEIVED	40	Overflow (ppg)      Underflow (ppg)      Output (Gal/Min.)								
Direct Recirc Sump		Dumped		- FLUID LOST	3	Desander			0					
Other		Surface		FLUID in STORAGE	31	Desilter			0					
<b>TOTAL RECEIVED</b>	<b>40</b>	<b>TOTAL LOST</b>	<b>3</b>	<b>FINAL VOLUME</b>	<b>901</b>									
Product	Price	Start	Received	Used	Close	Cost	Solids Analysis			Bit Hydraulics & Pressure Data				
AMC Biocide G	\$ 188.33	23		1	22	\$ 188.33	% Vol	PPB	Jet Velocity	105				
AMC PAC-R	\$ 162.49	16	32	11	37	\$ 1,787.39	High Grav solids		Impact force	152				
Citric Acid	\$ 73.25		40	0	40	\$ 0.00	Total LGS	4.9	46.5	HHP				
Potassium Chloride	\$ 20.12	63	252	33	282	\$ 663.96	Bentonite equiv.	0.5	4.6	HSI				
Soda Ash	\$ 18.30	33		8	25	\$ 146.40	Drilled Solids	4.4	40.1	Bit Press Loss				
Sodium Sulphite	\$ 37.68	34		5	29	\$ 188.40	Salt	1.1	11.0	CSG Seat Frac Press				
							n @ 20:00 Hrs	0.72		Equiv. Mud Wt.				
							K @ 20:00 Hrs	1.96		ECD				
										Max Pressure @ Shoe :				
										696 psi				
							<b>DAILY COST</b>			<b>CUMULATIVE COST</b>				
							<b>\$2,974.48</b>			<b>\$19,929.90</b>				

RMN ENGINEER **Peter ARONETZ** CITY **Adelaide Office** TELEPHONE **08 8338 7266**

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# DRILLING FLUID REPORT



Report #	8	Date :	21-Dec-2006
Rig No	11	Spud :	14-Dec-2006
Depth	1695 to 1758	Metres	

OPERATOR	KAROON Gas / UPSTREAM Petroleum	CONTRACTOR	CENTURY Resources
REPORT FOR	Bruce PILAT	REPORT FOR	Cesar MIACO
WELL NAME AND No	MEGASCOLIDES 1- RE-ST1	FIELD	PEP 162 / EL 4567
		LOCATION	GIPPSLAND
		STATE	VICTORIA

DRILLING ASSEMBLY		JET SIZE		CASING		MUD VOLUME (BBL)		CIRCULATION DATA						
BIT SIZE	TYPE	11	11	11	9 5/8	SURFACE SET @	1654	ft	HOLE	PITS	PUMP SIZE	CIRCULATION PRESSURE		
8.50	DBS-FM3553						504	M	374	442	5.5 X 7	1000 psi		
DRILL PIPE SIZE	TYPE	Length			INTERMEDIATE SET @	ft	TOTAL CIRCULATING VOL.		PUMP MODEL	ASSUMED EFF	BOTTOMS UP			
4.5	16.6 #	1578	Mtrs			M	816		GD PZ-7	97 %	41 min			
DRILL PIPE SIZE	TYPE	Length			PRODUCTION/ LINER Set @	ft	IN STORAGE		BBL/STK@ 100%	STK / MIN	TOTAL CIRC. TIME			
4.50	HW	56.1	Mtrs			M	8		0.0514	162	102 min			
D/Collars	TOOLS	Length			MUD TYPE			BBL/MIN	GAL / MIN	ANN VEL.	DP			
6.25	6.25	99.9	23.7 Mtrs		KCI/POLYMER			8.08	339	(ft/min)	DCs	160 251 251		

SAMPLE FROM		MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS			
		Below Shkr	Below Shkr	Mud Weight	8.6 - 9.4	API Filtrate	10 - 6
TIME SAMPLE TAKEN		16:10	23:00	Plastic Vis	MIN	Yield Point	12 - 25
DEPTH (ft) - (m)	Metres	1,680	1,749	KCI	3%	PHPA	NIL
FLOWLINE TEMPERATURE	°C	42	109				
WEIGHT	ppg	9.25	1.110				
FUNNEL VISCOSITY (sec/qt) API @	46 °C	53	52				
PLASTIC VISCOSITY cP @	45 °C	20	20				
YIELD POINT (lb/100ft <sup>2</sup> )		11	11				
GEL STRENGTHS (lb/100ft <sup>2</sup> ) 10 sec/10 min		1 2	1 2				
RHEOLOGY	θ 600   θ 300	51   31	51   31				
RHEOLOGY	θ 200   θ 100	24   14	23   14				
RHEOLOGY	θ 6   θ 3	2   1	2   1				
FILTRATE API (cc's/30 min)		8.2	7.7				
HPHT FILTRATE (cc's/30 min) @	-- °F	--	--				
CAKE THICKNESS API : HPHT (32nd in)		1	--				
SOLIDS CONTENT (% by Volume)		5.2	5.9				
LIQUID CONTENT (% by Volume) OIL/WATER		0   94.8	0   94.1				
SAND CONTENT (% by Vol.)		0.50	0.75				
METHYLENE BLUE CAPACITY (ppb equiv.)		10.0	11.0				
pH		12.5	12.5				
ALKALINITY MUD (Pm)		2.75	2.68				
ALKALINITY FILTRATE (Pf / Mf)		0   2.55	0.55   2.60				
CHLORIDE (mg/L)		19,200	19,800				
TOTAL HARDNESS AS CALCIUM (mg/L)		360	280				
SULPHITE (mg/L)		200	250				
K+ (mg/L)		21,000	21,500				
KCI (% by Wt.)		4.0	4.1				
PHPA (ppb)		0.00	0.00				

**OBSERVATIONS**  
 Maintain fluid properties with additions of PAC-R, Sodium Sulphite + Biocide. Adding Soda Ash to reduce Ca+Mg level.  
 No fluid addition last 24 hours.  
 Start phasing in XANTHAN GUM to improve Low-End rheology.

Please note, that on the previous RPT the final depth on the RPT head should have read 1659m and not 1959m!

Mud Accounting (bbls)		Solids Control Equipment	
FLUID BUILT & RECEIVED		FLUID DISPOSED	
SUMMARY		Type	Hrs
Premix (drill water)	Desander	4	INITIAL VOLUME
Premix (recirc from sump)	Desilter		840
Drill Water	Downhole	2	+ FLUID RECEIVED
Direct Recirc Sump	Dumped	10	- FLUID LOST
Other	Surface		FLUID in STORAGE
			8
TOTAL RECEIVED	TOTAL LOST	16	FINAL VOLUME
			824

**OPERATIONS SUMMARY**  
 POOH to bit, lay down directional drilling tools. Make up packed BHA (#5), using 8½" DBS PDC bit type FM 3553, SN 10881881, 5x11 jets, TFA 0.463 in<sup>2</sup>. Include 1xNB Stab and 2xStr Stab + 11x6¼" DC. Total BHA length: 179.66m, includes jars.  
 RIH to shoe, slip+cut d/line, RIH to 1630m, pick up kelly, ream+ wash to bottom @ 1659m, resume drilling. Stop at 1711m, CO, check for flow and run DS: N45°E at 1698m. Resume drilling.  
 Reach 1758m @ 24:00 hrs.

Mud Accounting (bbls)		Solids Control Equipment	
FLUID BUILT & RECEIVED		FLUID DISPOSED	
SUMMARY		Type	Hrs
Premix (drill water)	Desander	4	INITIAL VOLUME
Premix (recirc from sump)	Desilter		840
Drill Water	Downhole	2	+ FLUID RECEIVED
Direct Recirc Sump	Dumped	10	- FLUID LOST
Other	Surface		FLUID in STORAGE
			8
TOTAL RECEIVED	TOTAL LOST	16	FINAL VOLUME
			824

Mud Accounting (bbls)		Solids Control Equipment	
FLUID BUILT & RECEIVED		FLUID DISPOSED	
SUMMARY		Type	Hrs
Premix (drill water)	Desander	4	INITIAL VOLUME
Premix (recirc from sump)	Desilter		840
Drill Water	Downhole	2	+ FLUID RECEIVED
Direct Recirc Sump	Dumped	10	- FLUID LOST
Other	Surface		FLUID in STORAGE
			8
TOTAL RECEIVED	TOTAL LOST	16	FINAL VOLUME
			824

RMN ENGINEER	Peter ARONETZ	CITY	Adelaide Office	TELEPHONE	08 8338 7266
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# DRILLING FLUID REPORT



Report #	9	Date :	22-Dec-2006
Rig No	11	Spud :	14-Dec-2006
Depth	1758 to 1881	Metres	

OPERATOR	KARON Gas / UPSTREAM Petroleum	CONTRACTOR	CENTURY Resources
REPORT FOR	Bruce PILAT	REPORT FOR	Cesar MIACO
WELL NAME AND No	MEGASCOLIDES 1- RE-ST1	FIELD	PEP 162 / EL 4567
		LOCATION	GIPPSLAND
		STATE	VICTORIA

DRILLING ASSEMBLY		JET SIZE		CASING		MUD VOLUME (BBL)		CIRCULATION DATA					
BIT SIZE	TYPE	11	11	11	9 5/8	SURFACE SET @	1654	ft	HOLE	PITS	PUMP SIZE		CIRCULATION PRESSURE
8.50	DBS-FM3553						504	M	400	409	5.5 X 7	Inches	950 psi
DRILL PIPE SIZE	TYPE	Length			INTERMEDIATE SET @	ft	TOTAL CIRCULATING VOL.		PUMP MODEL	ASSUMED EFF	BOTTOMS UP		
4.5	16.6 #	1701	Mtrs			M	809		GD PZ-7	97 %	44 min		
DRILL PIPE SIZE	TYPE	Length			PRODUCTION/LINER Set @	ft	IN STORAGE		BBL/STK@100%	STK / MIN	TOTAL CIRC. TIME		
4.50	HW	56.1	Mtrs			M	76		0.0514	162	110 min		
D/Collars	TOOLS	Length			MUD TYPE								
6.25	6.25	99.9	23.7 Mtrs		KCI/POLYMER								

SAMPLE FROM		MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS			
TIME SAMPLE TAKEN		Suction	Suction	Mud Weight	8.6 - 9.4	API Filtrate	10 - 6
DEPTH (ft) - (m)	Metres	1,843	1,881	Plastic Vis	MIN	Yield Point	12 - 25
FLOWLINE TEMPERATURE		48	119	KCI	3%	PHPA	NIL
WEIGHT	ppg SG	9.25	1.110	8.95	1.073	OBSERVATIONS	

Receive orders to reduce fluid density to 9.0ppg. Dump 25% of existing system, make up 290bbls new volume, using 2ppb PAC-R; add to remaining fluid, reduce WT to just below 9.0ppg. Prepare 2nd XTRA SWEEP.

FUNNEL VISCOSITY (sec/qt) API @	46 °C	53	46
PLASTIC VISCOSITY cP @	45 °C	19	14
YIELD POINT (lb/100ft <sup>2</sup> )		13	9
GEL STRENGTHS (lb/100ft <sup>2</sup> ) 10 sec/10 min		1	2
RHEOLOGY	θ 600   θ 300	51   32	37   23
RHEOLOGY	θ 200   θ 100	24   15	18   11
RHEOLOGY	θ 6   θ 3	2   1	1   0
FILTRATE API (cc's/30 min)		7.5	7.0
HPHT FILTRATE (cc's/30 min) @	-- °F	--	--
CAKE THICKNESS API : HPHT (32nd in)		1	--
SOLIDS CONTENT (% by Volume)		5.1	3.7
LIQUID CONTENT (% by Volume) OIL/WATER		0	94.9
SAND CONTENT (% by Vol.)		0.50	TRC
METHYLENE BLUE CAPACITY (ppb equiv.)		12.0	7.0
pH		11.5	10.0
ALKALINITY MUD (Pm)		1.90	1.60
ALKALINITY FILTRATE (Pf / Mf)		0	2.00
CHLORIDE (mg/L)		18,800	10,000
TOTAL HARDNESS AS CALCIUM (mg/L)		260	280
SULPHITE (mg/L)		120	25
K+ (mg/L)		21,000	11,000
KCI (% by Wt.)		4.0	2.1
PHPA (ppb)		0.00	0.00

**OPERATIONS SUMMARY**  
 Run DS @ 1746m - N45°E, drill to 1805m - DS @ 1791m - Misrun  
 Drill to 1814m - DS @ 1792m - Misrun; drill to 1833m, DS @ 1819m  
 N50°E. Drill to 1848m, tight hole on connection.; work and free string,  
 mix+pump 25bbls XTRA-SWEEP, no indication of cauttings build-up.  
 Drill to 1881m, CO and condition mud (reducing WT to 9.0ppg).  
 Make 20 stand check trip to 1490m, hole cond. good, tight at 1848m.  
 Back on bottom at 24:00 hrs.

Mud Accounting (bbls)			
FLUID BUILT & RECEIVED	FLUID DISPOSED	SUMMARY	
Premix (drill water)	Desander	INITIAL VOLUME	824
Premix (recirc from sump)	Desilter		
Drill Water	Downhole	+ FLUID RECEIVED	370
Direct Recirc Sump	Dumped	- FLUID LOST	309
Other	Surface	FLUID in STORAGE	76
<b>TOTAL RECEIVED</b>	<b>TOTAL LOST</b>	<b>FINAL VOLUME</b>	<b>885</b>

Solids Control Equipment							
Type	Hrs	Cones	Hrs	Size	Hrs		
Centrifuge	N/A	Desander	2	21	Shaker #1	2x140,1x84	24
Degasser	Po'Boy	0	Desilter	10	18	Shaker #2	2x140,1x84
		Overflow (ppg)		Underflow (ppg)		Output (Gal/Min.)	
		Desander		9.0		11.6	
		Desilter		9.0		10.9	
						0.46	
						2.54	

Product	Price	Start	Received	Used	Close	Cost	Solids Analysis		Bit Hydraulics & Pressure Data		
AMC Biocide G	\$ 188.33	21		3	18	\$ 564.99	% Vol	PPB	Jet Velocity	234	
AMC Defoamer	\$ 146.40	13		5	8	\$ 732.00	High Grav solids		Impact force	368	
AMC PAC-R	\$ 162.49	37	64	12	89	\$ 1,949.88	Total LGS	3.7	34.6	HHP	87
Citric Acid	\$ 73.25	40		2	38	\$ 146.50	Bentonite equiv.	0.4	3.8	HSI	1.5
Potassium Chloride (	\$ 20.12	282	168	0	450	\$ 0.00	Drilled Solids	3.2	29.4	Bit Press Loss	441
Soda Ash	\$ 18.30	21		4	17	\$ 73.20	Salt	0.6	5.8	CSG Seat Frac Press	750 psi
Sodium Sulphite	\$ 37.68	25		2	23	\$ 75.36	n @ 23:55 Hrs	0.69		Equiv. Mud Wt.	17.30 ppg
Xanthan Gum	\$ 362.19	28		1	27	\$ 362.19	K @ 23:55 Hrs	1.64		ECD	9.08 ppg
XTRA - Sweep	\$ 112.40	10		3	7	\$ 337.20				Max Pressure @ Shoe :	718 psi

						<b>DAILY COST</b>		<b>CUMULATIVE COST</b>	
						<b>\$4,241.32</b>		<b>\$25,092.06</b>	
RMN ENGINEER	Peter ARONETZ	CITY	Adelaide Office	TELEPHONE	08 8338 7266				

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# DRILLING FLUID REPORT

Report #	10	Date :	23-Dec-2006
Rig No	11	Spud :	14-Dec-2006
Depth	1881	to	1881
Metres			

<b>OPERATOR</b> KAROON Gas / UPSTREAM Petroleum		<b>CONTRACTOR</b> CENTURY Resources	
<b>REPORT FOR</b> Bruce PILAT		<b>REPORT FOR</b> Cesar MIACO	
<b>WELL NAME AND No</b> MEGASCOLIDES 1- RE-ST1		<b>FIELD</b> PEP 162 / EL 4567	<b>LOCATION</b> GIPPSLAND
		<b>STATE</b> VICTORIA	

DRILLING ASSEMBLY		JET SIZE		CASING		MUD VOLUME (BBL)		CIRCULATION DATA					
BIT SIZE	TYPE	14	15	15	9 5/8	SURFACE SET @	1654	ft	HOLE	PITS	PUMP SIZE		CIRCULATION
8.50	MCP662	15	15	15		504	M		400	404	5.5 X 7	Inches	PRESSURE
DRILL PIPE	TYPE	Length		INTERMEDIATE SET @		ft		TOTAL CIRCULATING VOL.		PUMP MODEL		ASSUMED EFF	BOTTOMS
SIZE 4.5	16.6 #	1695		M		M		804		GD PZ-7		97 %	UP
DRILL PIPE	TYPE	Length		PRODUCTION/ LINER Set @		ft		IN STORAGE		BBL/STK@ 100%		STK / MIN	TOTAL CIRC.
SIZE 4.50	HW	56.1		M		M		40		0.0514		82	TIME
D/Collars	TOOLS	Length		MUD TYPE						BBL/MIN		GAL / MIN	ANN VEL.
6.25	6.25	99.9		KCI/POLYMER						4.09		172	DP
		29.9										(ft/min)	DCs
		Mtrs											81
													127
													127

SAMPLE FROM		MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS			
TIME SAMPLE TAKEN		Suction	Suction	Mud Weight	< 9.0	API Filtrate	10 - 6
DEPTH (ft) - (m)			23:50	Plastic Vis	MIN	Yield Point	12 - 25
FLOWLINE TEMPERATURE		Metres	1,881	KCI	3%	PHPA	NIL
WEIGHT		ppg	8.95	HPHT Filtrate			--
FUNNEL VISCOSITY (sec/qt) API @		SG	1.073				
PLASTIC VISCOSITY cP @		°C	44				
YIELD POINT (lb/100ft <sup>2</sup> )			12				
GEL STRENGTHS (lb/100ft <sup>2</sup> ) 10 sec/10 min			8				
RHEOLOGY		θ 600	θ 300				
RHEOLOGY		θ 200	θ 100				
RHEOLOGY		θ 6	θ 3				
FILTRATE API (cc's/30 min)			32				
HPHT FILTRATE (cc's/30 min) @		°F	14				
CAKE THICKNESS API : HPHT (32nd in)			1				
SOLIDS CONTENT (% by Volume)			3.3				
LIQUID CONTENT (% by Volume) OIL/WATER			0				
SAND CONTENT (% by Vol.)			96.7				
METHYLENE BLUE CAPACITY (ppb equiv.)			0.10				
pH			12.0				
ALKALINITY MUD (Pm)			9.5				
ALKALINITY FILTRATE (Pf / Mf)			1.34				
CHLORIDE (mg/L)			0.08				
TOTAL HARDNESS AS CALCIUM (mg/L)			1.25				
SULPHITE (mg/L)			12,100				
K+ (mg/L)			480				
KCI (% by Wt.)			50				
PHPA (ppb)			14,700				
			2.8				
			0.00				

**OBSERVATIONS**  
 Change shaker screens to 2x175, 1x140; overhaul mixing pump.  
 No volume additions made or chemicals used last 24 hours.  
 Jet numbers+sizes indicated above are approximations to result in the reported TFA of 1.010in<sup>2</sup>.

OPERATIONS SUMMARY	
Pump 25bblsXTRA-SWEEP, CO, run DS @ 1869m - N52°E. POOH.	
Lay out stabs+NMDC. M/U RTTS packer, RIH to 467m, conduct CSG pressure test to 2500psi. POOH+lay out packer.	
Make up 18m core barrel, using CB1, MCP662, S/N 8492C	
RIH to 1881m, washing down the last 3 singles; Circulate hole clean.	

Mud Accounting (bbls)				Solids Control Equipment								
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY		Type	Hrs	Cones	Hrs	Size	Hrs	
Premix (drill water)		Desander	2	INITIAL VOLUME	885	Centrifuge	N/A	Desander	2	2	Shaker #1 2x175,1x140	12
Premix (recirc from sump)		Desilter	2			Degasser	Po'Boy	Desilter	10	2	Shaker #2 2x175,1x140	12
Drill Water		Downhole	3	+ FLUID RECEIVED								
Direct Recirc Sump		Dumped	35	- FLUID LOST	42							
Other		Surface		FLUID in STORAGE	40							
TOTAL RECEIVED		TOTAL LOST	42	FINAL VOLUME	844	Overflow (ppg)		Underflow (ppg)		Output (Gal/Min.)		
Product	Price	Start	Received	Used	Close	Cost	Desander	9.0	9.3	0.79		
							Desilter	9.0	9.5	0.55		

Mud Accounting (bbls)						Solids Control Equipment						
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY		Type	Hrs	Cones	Hrs	Size	Hrs	
Premix (drill water)		Desander	2	INITIAL VOLUME	885	Centrifuge	N/A	Desander	2	2	Shaker #1 2x175,1x140	12
Premix (recirc from sump)		Desilter	2			Degasser	Po'Boy	Desilter	10	2	Shaker #2 2x175,1x140	12
Drill Water		Downhole	3	+ FLUID RECEIVED								
Direct Recirc Sump		Dumped	35	- FLUID LOST	42							
Other		Surface		FLUID in STORAGE	40							
TOTAL RECEIVED		TOTAL LOST	42	FINAL VOLUME	844	Overflow (ppg)		Underflow (ppg)		Output (Gal/Min.)		
Product	Price	Start	Received	Used	Close	Cost	Desander	9.0	9.3	0.79		
							Desilter	9.0	9.5	0.55		

RMN ENGINEER	Peter ARONETZ	CITY	Adelaide Office	TELEPHONE	08 8338 7266
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# DRILLING FLUID REPORT



Report #	11	Date :	24-Dec-2006
Rig No	11	Spud :	14-Dec-2006
Depth	1881 to 1889	Metres	

OPERATOR	KAROON Gas / UPSTREAM Petroleum	CONTRACTOR	CENTURY Resources
REPORT FOR	Bruce PILAT	REPORT FOR	Cesar MIACO
WELL NAME AND No	MEGASCOLIDES 1- RE-ST1	FIELD	PEP 162 / EL 4567
		LOCATION	GIPPSLAND
		STATE	VICTORIA

DRILLING ASSEMBLY		JET SIZE		CASING		MUD VOLUME (BBL)		CIRCULATION DATA					
BIT SIZE	TYPE	14	15	15	9 5/8	SURFACE SET @	1654	ft	HOLE	PITS	PUMP SIZE		CIRCULATION PRESSURE
8.50	MCP662	15	15	15			504	M	401	392	5.5 X 7	Inches	400 psi
DRILL PIPE SIZE	TYPE	Length			INTERMEDIATE SET @	ft	TOTAL CIRCULATING VOL.		PUMP MODEL	ASSUMED EFF	BOTTOMS UP		
4.5	16.6 #	1703	Mtrs			M	793		GD PZ-7	97 %	75 min		
DRILL PIPE SIZE	TYPE	Length			PRODUCTION/LINER Set @	ft	IN STORAGE		BBL/STK@100%	STK / MIN	TOTAL CIRC. TIME		
4.50	HW	56.1	Mtrs			M	82		0.0514	95	185 min		
D/Collars	TOOLS	Length			MUD TYPE			BBL/MIN	GAL / MIN	ANN VEL.	DP		
6.25	6.25	99.9	29.9 Mtrs		KCI/POLYMER			4.74	199	(ft/min)	DCs	94 147 147	

SAMPLE FROM		MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS			
TIME SAMPLE TAKEN		Below Shkr	Below Shkr	Mud Weight	≤ 9.0	API Filtrate	10 - 6
DEPTH (ft) - (m)	Metres		22:30	Plastic Vis	MIN	Yield Point	12 - 25
FLOWLINE TEMPERATURE		####	41	KCI	3%	PHPA	NIL
WEIGHT	ppg	SG	9.00	HPHT Filtrate			--
FUNNEL VISCOSITY (sec/qt) API @		°C	47	pH			9.0 - 10.0
PLASTIC VISCOSITY cP @		°C	13	<b>OBSERVATIONS</b>			
YIELD POINT (lb/100ft <sup>2</sup> )			9	Maintain fluid properties, with a view to prevent increase of density.			
GEL STRENGTHS (lb/100ft <sup>2</sup> ) 10 sec/10 min			0	Adding ~5bbls/hr water @ shakers, running all solids-control equipment.			
RHEOLOGY	θ 600	θ 300	35	<b>OPERATIONS SUMMARY</b>			
RHEOLOGY	θ 200	θ 100	17	Cut core # 1 from 1881 to 89m, there incr. P/Press, stop coring, POOH			
RHEOLOGY	θ 6	θ 3	1	Recover 6.6m core, 82.5% of core cut. Service core barrel, M/U+RIH			
FILTRATE API (cc's/30 min)			7.0	to 1805m, wash to bottom @ 1889m. Prepare to start coring.			
HPHT FILTRATE (cc's/30 min) @		°F	--				
CAKE THICKNESS API : HPHT (32nd in)			1				
SOLIDS CONTENT (% by Volume)			4.0				
LIQUID CONTENT (% by Volume) OIL/WATER			0				
SAND CONTENT (% by Vol.)			0.15				
METHYLENE BLUE CAPACITY (ppb equiv.)			12.0				
pH			9.2				
ALKALINITY MUD (Pm)			1.15				
ALKALINITY FILTRATE (Pf / Mf)			0.10				
CHLORIDE (mg/L)			12,300				
TOTAL HARDNESS AS CALCIUM (mg/L)			240				
SULPHITE (mg/L)			150				
K+ (mg/L)			12,600				
KCI (% by Wt.)			2.4				
PHPA (ppb)			0.00				

Mud Accounting (bbls)		Solids Control Equipment											
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY		Type	Hrs	Cones	Hrs	Size	Hrs		
Premix (drill water)		Desander	11	INITIAL VOLUME	844	Centrifuge	N/A	Desander	2	8	Shaker #1 2x175,1x140	18	
Premix (recirc from sump)		Desilter	3			Degasser	Po'Boy	0	Desilter	10	8	Shaker #2 2x175,1x140	18
Drill Water	45	Downhole	0	+ FLUID RECEIVED	45								
Direct Recirc Sump		Dumped		- FLUID LOST	13								
Other		Surface		FLUID in STORAGE	82								
TOTAL RECEIVED	45	TOTAL LOST	13	FINAL VOLUME	875			Overflow (ppg)	Underflow (ppg)	Output (Gal/Min.)			
						Desander	9.0	9.0	9.5	0.92			
						Desilter	9.0	10.5	0.24				

Mud Accounting (bbls)		Solids Control Equipment											
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY		Type	Hrs	Cones	Hrs	Size	Hrs		
Premix (drill water)		Desander	11	INITIAL VOLUME	844	Centrifuge	N/A	Desander	2	8	Shaker #1 2x175,1x140	18	
Premix (recirc from sump)		Desilter	3			Degasser	Po'Boy	0	Desilter	10	8	Shaker #2 2x175,1x140	18
Drill Water	45	Downhole	0	+ FLUID RECEIVED	45								
Direct Recirc Sump		Dumped		- FLUID LOST	13								
Other		Surface		FLUID in STORAGE	82								
TOTAL RECEIVED	45	TOTAL LOST	13	FINAL VOLUME	875			Overflow (ppg)	Underflow (ppg)	Output (Gal/Min.)			
						Desander	9.0	9.0	9.5	0.92			
						Desilter	9.0	10.5	0.24				

Mud Accounting (bbls)		Solids Control Equipment											
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY		Type	Hrs	Cones	Hrs	Size	Hrs		
Premix (drill water)		Desander	11	INITIAL VOLUME	844	Centrifuge	N/A	Desander	2	8	Shaker #1 2x175,1x140	18	
Premix (recirc from sump)		Desilter	3			Degasser	Po'Boy	0	Desilter	10	8	Shaker #2 2x175,1x140	18
Drill Water	45	Downhole	0	+ FLUID RECEIVED	45								
Direct Recirc Sump		Dumped		- FLUID LOST	13								
Other		Surface		FLUID in STORAGE	82								
TOTAL RECEIVED	45	TOTAL LOST	13	FINAL VOLUME	875			Overflow (ppg)	Underflow (ppg)	Output (Gal/Min.)			
						Desander	9.0	9.0	9.5	0.92			
						Desilter	9.0	10.5	0.24				

Mud Accounting (bbls)		Solids Control Equipment											
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY		Type	Hrs	Cones	Hrs	Size	Hrs		
Premix (drill water)		Desander	11	INITIAL VOLUME	844	Centrifuge	N/A	Desander	2	8	Shaker #1 2x175,1x140	18	
Premix (recirc from sump)		Desilter	3			Degasser	Po'Boy	0	Desilter	10	8	Shaker #2 2x175,1x140	18
Drill Water	45	Downhole	0	+ FLUID RECEIVED	45								
Direct Recirc Sump		Dumped		- FLUID LOST	13								
Other		Surface		FLUID in STORAGE	82								
TOTAL RECEIVED	45	TOTAL LOST	13	FINAL VOLUME	875			Overflow (ppg)	Underflow (ppg)	Output (Gal/Min.)			
						Desander	9.0	9.0	9.5	0.92			
						Desilter	9.0	10.5	0.24				

Mud Accounting (bbls)		Solids Control Equipment											
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY		Type	Hrs	Cones	Hrs	Size	Hrs		
Premix (drill water)		Desander	11	INITIAL VOLUME	844	Centrifuge	N/A	Desander	2	8	Shaker #1 2x175,1x140	18	
Premix (recirc from sump)		Desilter	3			Degasser	Po'Boy	0	Desilter	10	8	Shaker #2 2x175,1x140	18
Drill Water	45	Downhole	0	+ FLUID RECEIVED	45								
Direct Recirc Sump		Dumped		- FLUID LOST	13								
Other		Surface		FLUID in STORAGE	82								
TOTAL RECEIVED	45	TOTAL LOST	13	FINAL VOLUME	875			Overflow (ppg)	Underflow (ppg)	Output (Gal/Min.)			
						Desander	9.0	9.0	9.5	0.92			
						Desilter	9.0	10.5	0.24				

Mud Accounting (bbls)		Solids Control Equipment											
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY		Type	Hrs	Cones	Hrs	Size	Hrs		
Premix (drill water)		Desander	11	INITIAL VOLUME	844	Centrifuge	N/A	Desander	2	8	Shaker #1 2x175,1x140	18	
Premix (recirc from sump)		Desilter	3			Degasser	Po'Boy	0	Desilter	10	8	Shaker #2 2x175,1x140	18
Drill Water	45	Downhole	0	+ FLUID RECEIVED	45								
Direct Recirc Sump		Dumped		- FLUID LOST	13								
Other		Surface		FLUID in STORAGE	82								
TOTAL RECEIVED	45	TOTAL LOST	13	FINAL VOLUME	875			Overflow (ppg)	Underflow (ppg)	Output (Gal/Min.)			
						Desander	9.0	9.0	9.5	0.92			
						Desilter	9.0	10.5	0.24				

Mud Accounting (bbls)		Solids Control Equipment											
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY		Type	Hrs	Cones	Hrs	Size	Hrs		
Premix (drill water)		Desander	11	INITIAL VOLUME	844	Centrifuge	N/A	Desander	2	8	Shaker #1 2x175,1x140	18	
Premix (recirc from sump)		Desilter	3			Degasser	Po'Boy	0	Desilter	10	8	Shaker #2 2x175,1x140	18
Drill Water	45	Downhole	0	+ FLUID RECEIVED	45								
Direct Recirc Sump		Dumped		- FLUID LOST	13								
Other		Surface		FLUID in STORAGE	82								
TOTAL RECEIVED	45	TOTAL LOST	13	FINAL VOLUME	875			Overflow (ppg)	Underflow (ppg)	Output (Gal/Min.)			
						Desander	9.0	9.0	9.5	0.92			
						Desilter	9.0	10.5	0.24				

Mud Accounting (bbls)		Solids Control Equipment											
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY		Type	Hrs	Cones	Hrs	Size	Hrs		
Premix (drill water)		Desander	11	INITIAL VOLUME	844	Centrifuge	N/A	Desander	2	8	Shaker #1 2x175,1x140	18	
Premix (recirc from sump)		Desilter	3			Degasser	Po'Boy	0	Desilter	10	8	Shaker #2 2x175,1x140	18
Drill Water	45	Downhole	0	+ FLUID RECEIVED	45								
Direct Recirc Sump		Dumped		- FLUID LOST	13								
Other		Surface		FLUID in STORAGE	82								
TOTAL RECEIVED	45	TOTAL LOST	13	FINAL VOLUME	875			Overflow (ppg)	Underflow (ppg)	Output (Gal/Min.)			
						Desander	9.0	9.0	9.5	0.92			
						Desilter	9.0	10.5	0.24				

Mud Accounting (bbls)		Solids Control Equipment											
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY		Type	Hrs	Cones	Hrs	Size	Hrs		
Premix (drill water)		Desander	11	INITIAL VOLUME	844	Centrifuge	N/A	Desander	2	8	Shaker #1 2x175,1x140	18	
Premix (recirc from sump)		Desilter	3			Degasser	Po'Boy	0	Desilter	10	8	Shaker #2 2x175,1x140	18
Drill Water	45	Downhole	0	+ FLUID RECEIVED	45								
Direct Recirc Sump		Dumped		- FLUID LOST	13								
Other		Surface		FLUID in STORAGE	82								
TOTAL RECEIVED	45	TOTAL LOST	13	FINAL VOLUME	875			Overflow (ppg)	Underflow (ppg)	Output (Gal/Min.)			
						Desander	9.0	9.0	9.5	0.92			
						Desilter	9.0	10.5	0.24				

Mud Accounting (bbls)		Solids Control Equipment										
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY		Type	Hrs	Cones	Hrs	Size	Hrs	
Premix (drill water)		Desander	11	INITIAL VOLUME	844	Centrifuge	N/A	Desander	2	8	Shaker #1 2x175,1x140	18
Premix (recirc from sump)		Desilter	3			Degasser						



# DRILLING FLUID REPORT

Report #	12	Date :	25-Dec-2006
Rig No	11	Spud :	14-Dec-2006
Depth	1889 to 1908	Metres	

<b>OPERATOR</b> KAROON Gas / UPSTREAM Petroleum		<b>CONTRACTOR</b> CENTURY Resources	
<b>REPORT FOR</b> Bruce PILAT		<b>REPORT FOR</b> Cesar MIACO	
<b>WELL NAME AND No</b> MEGASCOLIDES 1- RE-ST1		<b>FIELD</b> PEP 162 / EL 4567	<b>LOCATION</b> GIPPSLAND
		<b>STATE</b> VICTORIA	

DRILLING ASSEMBLY			JET SIZE		CASING		MUD VOLUME (BBL)		CIRCULATION DATA				
BIT SIZE	TYPE	11	11	11	9 5/8	SURFACE SET @	1654	ft	HOLE	PITS	PUMP SIZE		CIRCULATION PRESSURE
8.50	DBS-FM3553						504	M	406	426	5.5 X 7	Inches	730 psi
DRILL PIPE SIZE	TYPE	Length			INTERMEDIATE SET @	ft	TOTAL CIRCULATING VOL.		PUMP MODEL	ASSUMED EFF	BOTTOMS UP		
4.5	16.6 #	1728	Mtrs			M	832		GD PZ-7	97 %	48 min		
DRILL PIPE SIZE	TYPE	Length			PRODUCTION/ LINER Set @	ft	IN STORAGE		BBL/STK@100%	STK / MIN	TOTAL CIRC. TIME		
4.50	HW	56.1	Mtrs			M	104		0.0514	152	123 min		
D/Collars	TOOLS	Length			MUD TYPE								
6.25	6.25	99.9	23.7 Mtrs		KCI/POLYMER								

SAMPLE FROM		MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS			
TIME SAMPLE TAKEN		Below Shkr	Below Shkr	Mud Weight	≤ 9.0	API Filtrate	10 - 6
DEPTH (ft) - (m)		22:15		Plastic Vis	MIN	Yield Point	12 - 25
FLOWLINE TEMPERATURE		Metres	1,895	KCI	3%	PHPA	NIL
WEIGHT		ppg	SG	HPHT Filtrate			
FUNNEL VISCOSITY (sec/qt) API @		39 °C					
PLASTIC VISCOSITY cP @		45 °C					
YIELD POINT (lb/100ft <sup>2</sup> )							
GEL STRENGTHS (lb/100ft <sup>2</sup> ) 10 sec/10 min							
RHEOLOGY		θ 600	θ 300				
RHEOLOGY		θ 200	θ 100				
RHEOLOGY		θ 6	θ 3				
FILTRATE API (cc's/30 min)							
HPHT FILTRATE (cc's/30 min) @		-- °F					
CAKE THICKNESS API : HPHT (32nd in)							
SOLIDS CONTENT (% by Volume)							
LIQUID CONTENT (% by Volume) OIL/WATER							
SAND CONTENT (% by Vol.)							
METHYLENE BLUE CAPACITY (ppb equiv.)							
pH							
ALKALINITY MUD (Pm)							
ALKALINITY FILTRATE (Pf / Mf)							
CHLORIDE (mg/L)							
TOTAL HARDNESS AS CALCIUM (mg/L)							
SULPHITE (mg/L)							
K+ (mg/L)							
KCI (% by Wt.)							
PHPA (ppb)							

OBSERVATIONS			
Maintain fluid properties, with a view to increase low-end rheology.			
Water additions augmented by intermittent, exceptionally heavy rain.			

OPERATIONS SUMMARY			
Cut core # 2 from 1889 to 1895m. Halt coring, POOH.			
Recover 5m core, 83.5% of core cut. Service core barrel and lay out.			
Make up BHA # 7 (identical to BHA # 6), RIH to 1877m, wash to 1895m, found 2m fill. Drill to 1908m @ 24:00 hrs.			

Mud Accounting (bbls)					Solids Control Equipment								
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY		Type	Hrs	Cones	Hrs	Size	Hrs		
Premix (drill water)		Desander	19	INITIAL VOLUME	875	Centrifuge	N/A	Desander	2	10	Shaker #1 2x175,1x140	18	
Premix (recirc from sump)		Desilter	11			Degasser	Po'Boy	0	Desilter	10	10	Shaker #2 2x175,1x140	18
Drill Water	90	Downhole	0	+ FLUID RECEIVED	90								
Direct Recirc Sump		Dumped		- FLUID LOST	29								
Other		Surface		FLUID in STORAGE	104								
TOTAL RECEIVED	90	TOTAL LOST	29	FINAL VOLUME	936			Overflow (ppg)	Underflow (ppg)	Output (Gal/Min.)			
						Desander	8.9		9.1	1.32			
						Desilter	8.9		9.4	0.75			

Mud Accounting (bbls)						Solids Analysis				Bit Hydraulics & Pressure Data			
Product	Price	Start	Received	Used	Close	Cost	% Vol	PPB	Jet Velocity				
AMC Defoamer	\$ 146.40	6		2	4	\$ 292.80			220 ft/sec				
AMC PAC-R	\$ 162.49	85		3	82	\$ 487.47	High Grav solids		Impact force	326 lbs			
Potassium Chloride	\$ 20.12	448		25	423	\$ 503.00	Total LGS	4.1	38.4	HHP			
Soda Ash	\$ 18.30	13		4	9	\$ 73.20	Bentonite equiv.	0.6	5.6	HHP/in <sup>2</sup>			
Xanthan Gum	\$ 362.19	25		4	21	\$ 1,448.76	Drilled Solids	3.4	31.3	Bit Press. Loss			
							Salt	0.6	6.3	CSG Seat Frac Press.			
							n @ 22:15 Hrs	0.67		Equiv. Mud Wt.			
							K @ 22:15 Hrs	1.73		ECD			
										Max Pressure @ Shoe :			
						<b>DAILY COST</b>	<b>CUMULATIVE COST</b>						
						<b>\$2,805.23</b>	<b>\$29,950.91</b>						

RMN ENGINEER Peter ARONETZ CITY Adelaide Office TELEPHONE 08 8338 7266

Any opinion and/or recommendation, expressed orally or written herein, has been prepared carefully and may be used if the user so elects, however, no representation or warranty is made by ourselves or our agents as to its correctness or completeness, and no liability is assumed for any damages resulting from the use of same.

# DRILLING FLUID REPORT



Report #	13	Date :	26-Dec-2006
Rig No	11	Spud :	14-Dec-2006
Depth	1908 to 1980	Metres	

OPERATOR	KAROON Gas / UPSTREAM Petroleum	CONTRACTOR	CENTURY Resources
REPORT FOR	Bruce PILAT	REPORT FOR	Cesar MIACO
WELL NAME AND No	MEGASCOLIDES 1- RE-ST1	FIELD	PEP 162 / EL 4567
		LOCATION	GIPPSLAND
		STATE	VICTORIA

DRILLING ASSEMBLY		JET SIZE		CASING		MUD VOLUME (BBL)		CIRCULATION DATA					
BIT SIZE	TYPE	11	11	11	9 5/8	SURFACE SET @	1654	ft	HOLE	PITS	PUMP SIZE		CIRCULATION PRESSURE
8.50	DBS-FM3553						504	M	468	342	5.5 X 7	Inches	850 psi
DRILL PIPE SIZE	TYPE	Length	1800 Mtrs		INTERMEDIATE SET @	ft	TOTAL CIRCULATING VOL.		PUMP MODEL	ASSUMED EFF	BOTTOMS UP		
4.5	16.6 #					M	810		GD PZ-7	97 %	61 min		
DRILL PIPE SIZE	TYPE	Length	56.1 Mtrs		PRODUCTION/ LINER Set @	ft	IN STORAGE		BBL/STK@100%	STK / MIN	TOTAL CIRC. TIME		
4.50	HW					M	78		0.0514	154	116 min		
D/Collars	TOOLS	Length	99.9 23.7 Mtrs		MUD TYPE	KCI/POLYMER							
6.25	6.25												

SAMPLE FROM		MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS			
TIME SAMPLE TAKEN		Below Shkr	Below Shkr	Mud Weight	≤ 9.0	API Filtrate	10 - 6
DEPTH (ft) - (m)	Metres		16:45	Plastic Vis	MIN	Yield Point	12 - 25
FLOWLINE TEMPERATURE			1,980	KCI	3%	PHPA	NIL
WEIGHT	ppg	SG	9.05	HPHT Filtrate			--
FUNNEL VISCOSITY (sec/qt) API @	49 °C		53	pH			9.0 - 10.0
PLASTIC VISCOSITY cP @	4 °C		20	Sulphites			80 - 150
YIELD POINT (lb/100ft <sup>2</sup> )			17	<b>OBSERVATIONS</b>			
GEL STRENGTHS (lb/100ft <sup>2</sup> ) 10 sec/10 min			2 2	Continue established fluid treatment to maintain fluid parameters and improve rheology.			
RHEOLOGY	θ 600	θ 300	57				
RHEOLOGY	θ 200	θ 100	29				
RHEOLOGY	θ 6	θ 3	3				
FILTRATE API (cc's/30 min)			45.0				
HPHT FILTRATE (cc's/30 min) @	-- °F		--				
CAKE THICKNESS API : HPHT (32nd in)		--	1				
SOLIDS CONTENT (% by Volume)			4.3				
LIQUID CONTENT (% by Volume) OIL/WATER			0				
SAND CONTENT (% by Vol.)			0.15	<b>OPERATIONS SUMMARY</b>			
METHYLENE BLUE CAPACITY (ppb equiv.)			7.5	Drill to 1980m, well @ TD. Mix+pump sweep, make 20-stand check trip (no heavy pill). Run back to bottom, hole condition good.			
pH			9.8	Mix+pump 2nd sweep and CO. Mix+pump heavy, Barite-based pill.			
ALKALINITY MUD (Pm)			0.92	POOH + prepare to rig up for PRECISION E-Logs.			
ALKALINITY FILTRATE (Pf / Mf)			0.16	1.35			
CHLORIDE (mg/L)			12,900				
TOTAL HARDNESS AS CALCIUM (mg/L)			160				
SULPHITE (mg/L)			200				
K+ (mg/L)			13,100				
KCI (% by Wt.)			2.5				
PHPA (ppb)			0.00				

Mud Accounting (bbls)		FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY	
Premix (drill water)		Desander	21	Desander	21	INITIAL VOLUME	936
Premix (recirc from sump)		Desilter	13	Desilter	13		
Drill Water	20	Downhole	4	Downhole	4	+ FLUID RECEIVED	20
Direct Recirc Sump		Dumped	30	Dumped	30	- FLUID LOST	68
Other		Surface		Surface		FLUID in STORAGE	78
TOTAL RECEIVED	20	TOTAL LOST	68	FINAL VOLUME	888		

Mud Accounting (bbls)		FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY	
Premix (drill water)		Desander	21	Desander	21	INITIAL VOLUME	936
Premix (recirc from sump)		Desilter	13	Desilter	13		
Drill Water	20	Downhole	4	Downhole	4	+ FLUID RECEIVED	20
Direct Recirc Sump		Dumped	30	Dumped	30	- FLUID LOST	68
Other		Surface		Surface		FLUID in STORAGE	78
TOTAL RECEIVED	20	TOTAL LOST	68	FINAL VOLUME	888		

Mud Accounting (bbls)		FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY	
Premix (drill water)		Desander	21	Desander	21	INITIAL VOLUME	936
Premix (recirc from sump)		Desilter	13	Desilter	13		
Drill Water	20	Downhole	4	Downhole	4	+ FLUID RECEIVED	20
Direct Recirc Sump		Dumped	30	Dumped	30	- FLUID LOST	68
Other		Surface		Surface		FLUID in STORAGE	78
TOTAL RECEIVED	20	TOTAL LOST	68	FINAL VOLUME	888		

Mud Accounting (bbls)		FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY	
Premix (drill water)		Desander	21	Desander	21	INITIAL VOLUME	936
Premix (recirc from sump)		Desilter	13	Desilter	13		
Drill Water	20	Downhole	4	Downhole	4	+ FLUID RECEIVED	20
Direct Recirc Sump		Dumped	30	Dumped	30	- FLUID LOST	68
Other		Surface		Surface		FLUID in STORAGE	78
TOTAL RECEIVED	20	TOTAL LOST	68	FINAL VOLUME	888		

Mud Accounting (bbls)		FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY	
Premix (drill water)		Desander	21	Desander	21	INITIAL VOLUME	936
Premix (recirc from sump)		Desilter	13	Desilter	13		
Drill Water	20	Downhole	4	Downhole	4	+ FLUID RECEIVED	20
Direct Recirc Sump		Dumped	30	Dumped	30	- FLUID LOST	68
Other		Surface		Surface		FLUID in STORAGE	78
TOTAL RECEIVED	20	TOTAL LOST	68	FINAL VOLUME	888		

Mud Accounting (bbls)		FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY	
Premix (drill water)		Desander	21	Desander	21	INITIAL VOLUME	936
Premix (recirc from sump)		Desilter	13	Desilter	13		
Drill Water	20	Downhole	4	Downhole	4	+ FLUID RECEIVED	20
Direct Recirc Sump		Dumped	30	Dumped	30	- FLUID LOST	68
Other		Surface		Surface		FLUID in STORAGE	78
TOTAL RECEIVED	20	TOTAL LOST	68	FINAL VOLUME	888		

# DRILLING FLUID REPORT



Report #	14	Date :	27-Dec-2006
Rig No	11	Spud :	14-Dec-2006
Depth	1980	to	1980 Metres

OPERATOR	KAROON Gas / UPSTREAM Petroleum	CONTRACTOR	CENTURY Resources
REPORT FOR	Bruce PILAT	REPORT FOR	Cesar MIACO
WELL NAME AND No	MEGASCOLIDES 1- RE-ST1	FIELD	PEP 162 / EL 4567
		LOCATION	GIPPSLAND
		STATE	VICTORIA

DRILLING ASSEMBLY		JET SIZE		CASING		MUD VOLUME (BBL)		CIRCULATION DATA					
BIT SIZE	TYPE			9 5/8	SURFACE SET @	1654	ft	HOLE	PITS	PUMP SIZE		CIRCULATION PRESSURE	
8.50						504	M	466	374	5.5	X	7	psi
DRILL PIPE SIZE	TYPE	Length		INTERMEDIATE SET @	ft	TOTAL CIRCULATING VOL.		PUMP MODEL	ASSUMED EFF	BOTTOMS UP			
4.5	16.6 #	185	Mtrs		M	840		GD PZ-7	97 %	min			
DRILL PIPE SIZE	TYPE	Length		PRODUCTION/ LINER Set @	ft	IN STORAGE		BBL/STK@ 100%	STK / MIN	TOTAL CIRC. TIME			
	HW	0	Mtrs		M	58		0.0514		min			
D/Collars	TOOLS	Length		MUD TYPE									
	3.50	0	95.0 Mtrs	KCl/POLYMER									

SAMPLE FROM		MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS			
TIME SAMPLE TAKEN		Below Shkr	Below Shkr	Mud Weight	≤ 9.0	API Filtrate	10 - 6
DEPTH (ft) - (m)			22:00	Plastic Vis	MIN	Yield Point	12 - 25
FLOWLINE TEMPERATURE			1,980	KCl	3%	PHPA	NIL
WEIGHT			9.05			HPHT Filtrate	--
FUNNEL VISCOSITY (sec/qt) API @			1.085			pH	9.0 - 10.0
PLASTIC VISCOSITY cP @			58			Sulphites	80 - 150
YIELD POINT (lb/100ft <sup>2</sup> )			18			<b>OBSERVATIONS</b>	
GEL STRENGTHS (lb/100ft <sup>2</sup> ) 10 sec/10 min			14			No chemical or fluid additions (other than precipitation) last 24 hours.	
RHEOLOGY			50			Drilling fluid engineer tentatively to be released Fri. morning, Dec 29.	
RHEOLOGY			25				
RHEOLOGY			3				
FILTRATE API (cc's/30 min)			6.6				
HPHT FILTRATE (cc's/30 min) @			--				
CAKE THICKNESS API : HPHT (32nd in)			1				
SOLIDS CONTENT (% by Volume)			4.3				
LIQUID CONTENT (% by Volume) OIL/WATER			0				
SAND CONTENT (% by Vol.)			1				
METHYLENE BLUE CAPACITY (ppb equiv.)			7.0				
pH			9.8				
ALKALINITY MUD (Pm)			0.90				
ALKALINITY FILTRATE (Pf / Mf)			0.15				
CHLORIDE (mg/L)			11,500				
TOTAL HARDNESS AS CALCIUM (mg/L)			180				
SULPHITE (mg/L)			120				
K+ (mg/L)			12,100				
KCl (% by Wt.)			2.3				
PHPA (ppb)			0.00				

Mud Accounting (bbls)		Solids Control Equipment											
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY		Type	Hrs	Cones	Hrs	Size	Hrs		
Premix (drill water)		Desander		INITIAL VOLUME	888	Centrifuge	N/A	Desander	2	0	Shaker #1 2x175,1x140	0	
Premix (recirc from sump)		Desilter				Degasser	Po'Boy	0	Desilter	10	0	Shaker #2 2x175,1x140	0
Drill Water	10	Downhole	0	+ FLUID RECEIVED	10								
Direct Recirc Sump		Dumped		- FLUID LOST	0								
Other		Surface		FLUID in STORAGE	58								
TOTAL RECEIVED	10	TOTAL LOST	0	FINAL VOLUME	898								
Product	Price	Start	Received	Used	Close	Cost							

Mud Accounting (bbls)		Solids Control Equipment											
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY		Type	Hrs	Cones	Hrs	Size	Hrs		
Premix (drill water)		Desander		INITIAL VOLUME	888	Centrifuge	N/A	Desander	2	0	Shaker #1 2x175,1x140	0	
Premix (recirc from sump)		Desilter				Degasser	Po'Boy	0	Desilter	10	0	Shaker #2 2x175,1x140	0
Drill Water	10	Downhole	0	+ FLUID RECEIVED	10								
Direct Recirc Sump		Dumped		- FLUID LOST	0								
Other		Surface		FLUID in STORAGE	58								
TOTAL RECEIVED	10	TOTAL LOST	0	FINAL VOLUME	898								
Product	Price	Start	Received	Used	Close	Cost							

Mud Accounting (bbls)		Solids Control Equipment											
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY		Type	Hrs	Cones	Hrs	Size	Hrs		
Premix (drill water)		Desander		INITIAL VOLUME	888	Centrifuge	N/A	Desander	2	0	Shaker #1 2x175,1x140	0	
Premix (recirc from sump)		Desilter				Degasser	Po'Boy	0	Desilter	10	0	Shaker #2 2x175,1x140	0
Drill Water	10	Downhole	0	+ FLUID RECEIVED	10								
Direct Recirc Sump		Dumped		- FLUID LOST	0								
Other		Surface		FLUID in STORAGE	58								
TOTAL RECEIVED	10	TOTAL LOST	0	FINAL VOLUME	898								
Product	Price	Start	Received	Used	Close	Cost							

Mud Accounting (bbls)		Solids Control Equipment											
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY		Type	Hrs	Cones	Hrs	Size	Hrs		
Premix (drill water)		Desander		INITIAL VOLUME	888	Centrifuge	N/A	Desander	2	0	Shaker #1 2x175,1x140	0	
Premix (recirc from sump)		Desilter				Degasser	Po'Boy	0	Desilter	10	0	Shaker #2 2x175,1x140	0
Drill Water	10	Downhole	0	+ FLUID RECEIVED	10								
Direct Recirc Sump		Dumped		- FLUID LOST	0								
Other		Surface		FLUID in STORAGE	58								
TOTAL RECEIVED	10	TOTAL LOST	0	FINAL VOLUME	898								
Product	Price	Start	Received	Used	Close	Cost							

Mud Accounting (bbls)		Solids Control Equipment											
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY		Type	Hrs	Cones	Hrs	Size	Hrs		
Premix (drill water)		Desander		INITIAL VOLUME	888	Centrifuge	N/A	Desander	2	0	Shaker #1 2x175,1x140	0	
Premix (recirc from sump)		Desilter				Degasser	Po'Boy	0	Desilter	10	0	Shaker #2 2x175,1x140	0
Drill Water	10	Downhole	0	+ FLUID RECEIVED	10								
Direct Recirc Sump		Dumped		- FLUID LOST	0								
Other		Surface		FLUID in STORAGE	58								
TOTAL RECEIVED	10	TOTAL LOST	0	FINAL VOLUME	898								
Product	Price	Start	Received	Used	Close	Cost							

RMN ENGINEER	Peter ARONETZ	CITY	Adelaide Office	TELEPHONE	08 8338 7266
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DAILY COST		CUMULATIVE COST	
			<b>\$33,848.99</b>



**Operator** : **Karoon Gas**  
**Well** : **Megascolides 1 – Re St1**  
**Rig** : **Century Resources # 11**  
**Start Ops** : **14 December 2006 - 00:00 Hrs**  
**Rig Release** : **29 December 2006 - 16:00 Hrs**



## **APPENDIX A**



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Email: nsantarelli@imdex.com.au

**Clay Study**  
**For**  
**Karoo Gas**  
**Megascolides #1 Re-Entry**  
**Side Track #1**

**Prepared by:**  
**Sandeep Alphonso**  
**Nick Santarelli**  
**January 2007**



## Introduction

Washed shale samples from the Megascolides #1 sidetrack were sent to the AMC lab in Adelaide for testing. Samples were from 1650m, 1700m, 1750m, 1800m, and 1850m. The well had been drilled with a low % KCl Polymer fluid, and concerns that the samples had been exposed to KCl may have negated the effects of lab testing for fluid compatibility.

Unfortunately, dried and screened samples are not the best way to determine shale properties as they have been washed and are not really representative of the drilled structure. Bulk samples from the shakers – large uncut and unsorted samples, hole fill, cavings – are the best subjects for this type of test as some structural definition can be seen and large volumes of unaffected shale can be cut out from the surface affected by mud and water.

However, the washed samples did give some insight into the nature of the clays, and have confirmed some conclusions made in the past on other drilling projects in the area.

## Lab Methodology

Samples were all mixed together in a tub and mixed until consistent. Some fresh water was added to the cuttings until they showed some plasticity, and the samples were formed into 100 gm balls (dried). The balls were dried in an oven at 200 deg F for 3 hours until they started to crack.

Samples were then placed into a variety of fluids as follows:

1. 10% KCl Brine
2. 10% KCl Polymer
3. 10% KCl PHPA Polymer
4. Fresh Water Polymer (natural Polymer)
5. 10% KCl Polymer 6% Glycol
6. Fresh Water Polymer 6% Glycol.

Samples were placed in hot rolling chambers and hot rolled at 200 deg F for 14 hours, then allowed to cool.

Photographs of the samples were taken both before and after testing. K<sup>+</sup> ion measurements were taken after testing in order to determine sensitivity of the clays to potassium.



## Results

As expected, all samples returned in a disassociated state. This was expected as the re-formed samples are never as good a laboratory subject as original “chunks” from the well-bore as they have not been formed under the same pressures.

Samples from the KCl brine and 10% KCl Polymer appeared the most discreet – they looked like the cuttings had maintained their individual structure. The remaining samples returned in various states of “sludge”. These observations cannot be used as a determining factor for fluid compatibility, other than to say the presence of KCl helped to maintain cutting integrity.

The most telling observations were made in the K<sup>+</sup> content of the fluid, and the % weight loss of recovered samples.

All samples using KCl in the mud make up showed not appreciable sign of K<sup>+</sup> take-up. In itself, this does not tell us much, but in combination of the sample weight loss, it is significant. The loss of sample through dispersion was as high as 71% (KCl Brine), indicating highly dispersible clays.

A clay must hydrate before it can disperse, and the fact that it dispersed in a 10% KCl solution after having been drilled with a KCl mud shows how little the K<sup>+</sup> ion affects these clays.

The KCl brine solution showed the highest sample weight loss, the KCl mud with the most inhibitive coating polymers and glycol (also coating) showed the least weight loss (35.4%). In all samples, KCl Polymer muds performed better at minimising dispersion than the fresh water muds.

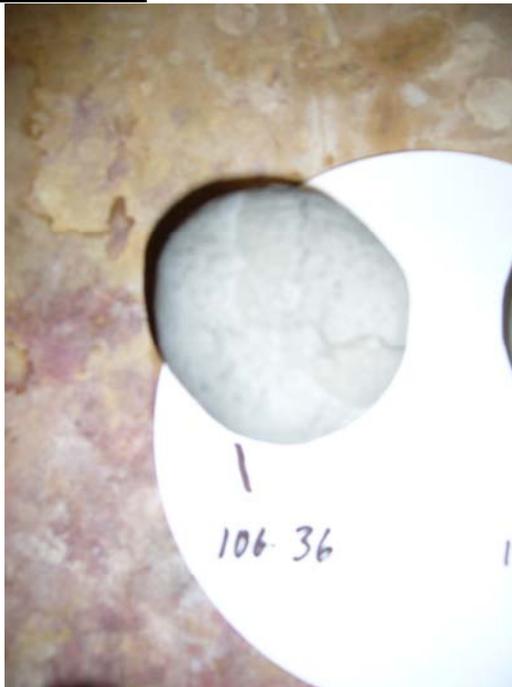


# RMN Drilling Fluids

## Photo Results

Sample #1

BEFORE  
TESTING



AFTER TESTING





**R M N**  
Drilling Fluids

Sample #2

BEFORE  
TESTING



AFTER  
TESTING





**R M N**  
Drilling Fluids

Sample #3

BEFORE  
TESTING

AFTER  
TESTING





# RMN Drilling Fluids

Sample #4

BEFORE  
TESTING

AFTER  
TESTING





**R M N**  
**Drilling Fluids**

**Sample #5**

**SAMPLE 5**

**BEFORE  
TESTING**



**AFTER  
TESTING**





**R M N**  
**Drilling Fluids**

Sample #6

BEFORE  
TESTING

AFTER  
TESTING





**Tabulated Results**

SAMPLE NO.	FLUID TYPE	FLUID FORMULA								KCl %	KCl % Loss	Wt In (gms)	Wt Out (gms)	% Loss	OBSERVATIONS
		KCl (ppb)	PAC R (ppb)	PAC L (ppb)	PHPA (ppb)	Xnthn G (ppb)	A-Dex (ppb)	MgO (ppb)	GLYCOL %						
1	10% KCl	40						0.5		10	0	106.36	30	71.8	<i>Sample appeared in good condition. Cuttings discreet, but 72% sample loss due to dispersion.</i>
2	10% KCl/ Polymer	40	1	2		0.25		0.5		10	0	104.16	41.12	60.5	<i>Sample appeared in good condition. Cuttings discreet, but 60% sample loss due to dispersion.</i>
3	10% KCl / Polymer / PHPA	40	1	2	0.75	0.25		0.5		10	0	101.38	46.16	54.5	<i>PHPA improved dispersion loss marginally to 55%, however samples appeared mushy.</i>
4	Fresh Water/ Starch		1			0.25	3	0.5				100.8	37.97	62.3	<i>Next highest loss compared with KCl Brine at 62%, samples mushy.</i>
5	10% KCl/ Polymer/ PHPA/ Glycol	40	1	2	0.75	0.25		0.5	6	10	0	102.2	66.06	35.4	<i>Lowest loss rate at 35% but samples very mushy.</i>
6	Fresh Water/ Starch/ Glycol		1			0.25	3	0.5	6			102.39	39.33	61.6	<i>Third highest loss at 61%, samples very mushy.</i>

**NOTES:** KCl loss in all samples containing KCl too low to measure, indicating high K+ not required to stop dispersion. Dispersion of 35-72% of samples indicate clays are reactive even after having been drilled with a KCl mud. This is consistent with observations made in the field for other operators, indicating dispersion and not ractiveness is the issue with these clays. Level of dispersion indicates the clays are highly reactive and hydrate quickly. Chemical inhibition alone is not necessarily