

LAKES OIL N.L. (A.B.N. 62 004 247 214)

DEADMAN HILL No.1

STRATIGRAPHIC WELL

WELL COMPLETION REPORT

BY

D.R. HORNER & J.N. MULREADY

LAKES OIL N.L. LEVEL 11, 500 COLLINS STREET, MELBOURNE 3000

January 2003



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Petroleum Development

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TABLE OF CONTENTS

-1

1.0	SUMMARY	l
	1.1 PERMIT PEP 157	l
2.0	WELL HISTORY	2
	2.1 GENERAL DATA	2
	2.2 RIG DATA	3
	2.3 DRILLING DATA	4
	2.4 LOGGING AND TESTING	8
3.0	GEOLOGY	9
	3.1 REGIONAL GEOLOGY	9
	3.2 EXPLORATION HISTORY	9
	3.3 TECTONIC HISTORY10	D
	3.4 STRUCTURAL ELEMENTS	D
	3.5 REASON FOR DRILLING	1
	3.6 STRATIGRAPHIC PROGNOSIS1	1
	3.7 STRATIGRAPHY12	2
4.0	DISCUSSION AND CONCLUSIONS1	7
5.0	COMPLETION1'	7

TABLE OF ATTACHMENTS

LIST OF FIGURES

- Figure 1 Location Map
- Figure 2a Well location on Seismic Line GH85-4
- Figure 2b Composite Section Showing Protea-1 & Deadman Hill-1
- Figure 3 Time vs Depth Curve

LIST OF TABLES

Table ILithostratigraphy Gippsland BasinTable IIStratigraphic Table Deadman Hill-1

LIST OF APPENDICES

Appendix 1 Daily Geological Reports Appendix 2 Palynology Report Appendix 3 Core Descriptions Appendix 4 Core Analysis Report Appendix 5 Well Site Survey

LIST OF ENCLOSURES

1 Strip Log

This is Page Number 914410 005X

This is an enclosure indicator page.

The page that follows this page is an uncatalogued fold-out (or A4 colour) with page number:

914410 005Y

and is enclosed within the document **PE914410** at this page.

Deadman Hill 1 Location Map



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Figure 1

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2.0 WELL HISTORY

2.1 GENERAL DATA

Well Name and Number	Deadman Hill No.1
Location	515827 E 5772245 N
Elevations	G.L. 58.6 m A.S.L. R.T. 59.6 m A.S.L. Latitude 38° 11' 50.9" S Longitude 147° 10' 50.7" E
Petroleum Tenement	PEP 157
Name of Operator	LAKES OIL N.L. A.C.N. 004 247 214 11 TH Level, 500 Collins Street, Melbourne.
Other Participants	None
Date Drilling Commenced	12 th May, 2002
Date Drilling Completed	28 th May, 2002
Date Rig Released	30 th May, 2002
Drilling Time to T.D.	18 days
Total Depth	839 m.
Status	Plugged and abandoned

2

2.2 RIG DATA

2.2.1 Drilling Contractor	Sides Engineering Pty Ltd 25 Garden Road, Clayton, Vic. 3168
2.2.2 Rig	Bourne 2000THD
2.2.3 Rig Carrier	Twin Steer Tri-axle
2.2.4 Weight Indicator	Hydraulic Pressure
2.2.5 Power	Cummins - Truck Engine
2.2.6 Rotary	Top Drive
2.2.7 Blocks	Not applicable
2.2.8 Pumps	Clarke 5.5X10 3 Cylinder Duplex
2.2.9 Mud mixing	Gardner Denver Duplex
2.2.10 Sump pump	Not applicable
2.2.11 Transfer Pump	Wreckair - Worm Drive
2.2.12 Tubulars	3.5" X 13.30 D.P. & 2.875" D.P.
2.2.13 Fishing Tools	None on Site
2.2.14 Handling Tools	Rented Tasman
2.2.15 Stablizer	12.25", 8.5" , 6"
2.2.16 Spare Parts	As reasonably required to conduct operations for programmed well.
2.2.17 Personnel	Driller plus 4 crew
2.2.18 Operation hours	Rig Operated Daylight Hours Only.

Deadman Hill-1 Time vs Depth



Figure 3

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2.3 DRILLING DATA

2.3.1 The following is the daily operations summary for Deadman Hill No.1. It has been compiled from the daily drilling reports. Onsite drilling supervision for Lakes Oil N.L. was provided by W. Westman. Refer also to the time/depth curve (Figure 3).

Γ	DATE	HOURS	OPERATION				
Γ	12-05-02	0	Spud Deadman Hill No.1 at 0900 hrs 12 th May, 2002.				
		7.5	Drill 12.25" hole to 60m.				
		0.5	Circulate hole clean.				
		1.0	POOH.				
		0.5	Shut down for night.				
ſ	13-05-02	0.5	Travel from town. Start up.				
		1.0	RIH to bottom. 6" of fill.				
		1.0	Circulate clean.				
		1.5	POOH.				
		6.0	Rig up and run 9.625" casing, cement casing.				
		0.5	Shut down for night.				
	14-05-02	0.5	Travel from town. Start up.				
		11.0	Back out landing joint. Rig up Braden Head, BOP's, Koomey, Choke Manifold				
			and Flare Line. Mix drilling mud. Function and pressure test BOP's, Choke				
			Manifold and Koomey				
		0.5	Shut down for night.				
	15-05-02	0.5	Travel from town. Start up.				
		1.5	Make up BHA, RIH.				
		0.5	Safety meeting - all personnel				
		1.0	RIH with 8.5" drilling assembly.				
		1.0	Drill out plug, shoe and rat hole.				
		4.5	Drill 8.5" hole from 60 - 204m.				
		0.5	Circulate and condition mud.				
		0.5 0.5	POOH 5 joints				
D	16-05-02	0.5	Shut down for night.				
	10-03-02	1.5	Travel from town. Start up. Install kelly cock.				
		0.5	RIH with 8.5" drilling assembly.				
		3.0	Drill 8.5" hole 204-335m.				
		1.0	Total loss of returns. Fill hole from top and allow to heal. Lost 40bbls.				
		3.5	Drill 8.5" hole 335-411m.				
1		0.5	Circulate and condition mud.				
		1.0	POOH 17 joints.				
		0.5	Shut down for night.				
ł	17-05-02	0.5	Travel from town. Start up.				
	1, 00 02	2.0	Work on flowline. Fit pipe to direst flow to bottom of possum belly.				
		0.5	RIH with 8.5" drilling assembly. Tag fill at 398m. Ream 398-411m. Circulate.				
		1.0	Drill 8.5" hole 411-418m.				
		1.5	Circulate and condition mud.				
		4.0	Drill 8.5" hole 418-519m.				
		0.5	Circulate and condition mud.				
		0.5	POOH 20 joints.				
		0.5	Shut down for night.				

18-05-02	0.5	Travel from town. Start up.
	1.0	RIH with 8.5" drilling assembly. Tag fill at 514m. Ream 514-519m. Circulate.
	1.0	Drill 8.5" hole 519-549m.
	1.5	Circulate and condition mud. Build mud volume.
	1.5	Drill 8.5" hole 549-564m.
	0.5	Circulate geological sample.
	4.5	POOH to run casing. Work tight spots.
	1.0	Prepare to run casing
	0.5	Shut down for night.
19-05-02	0.5	Travel from town. Start up.
	1.0	Prepare to run 7" casing. Unload truck with extra casing.
	8.5	Run 7" casing. Tag solid fill at 551m. Hang casing at 548.5m.
	1.0	Circulate casing and prepare to cement.
	0.5	Shut down for night.
20-05-02	1.5	Travel from town. Start up.
20-03-02	0.5	Cement 7" casing with 270 sx class A at 15.6 ppg.
	0.5	Displace cement with 71 bbls mud. Bumped plug OK 200 PSI over FCP. Floats
	0.25	held. CIP @ 08:15. Returns throughout.
	9.75	WOC. Set slips and prepare to lift BOP.
	0.5	Shut down for night.
21-05-02	0.5	Travel from town. Start up.
21-03-02	1.5	RIH. Tag plug at 436m. Pressure test pipe rams, Choke manifold, Annular to
	1.5	
	1.0	1000 PSI for 10 minutes - pressure test OK.
	1.0	Ream out plug, float and shoe. Ream out rat hole to 564m.
	0.5	Drill 6.125" hole 564 to 565m.
	1.0	Circulate bottom sample. Condition mud.
	3.0	POOH.
	1.0	Pick up core barrel.
	3.0	RIH.
	0.5	Shut down for night.
22-05-02	0.5	Travel from town. Start up.
	0.5	Wash to bottom with core barrel. Drop ball.
	2.0	Cut core #1. 565 to 574m.
	3.0	POOH.
	1.0	Recover core #1. 41% recovery 566.0 to 569.7m (3.7m).
	2.0	RIH with 6.125" bit. Break circulation.
	1.5	Drill 6.125" hole 574 to 589m.
	1.0	Circulate bottom sample. Pull back to shoe. Tight hole from filter cake.
	0.5	Shut down for night.
23-05-02	1.0	Travel from town. Start up. Replace wash pipe packing.
	0.5	RIH with drilling assembly. Wash to bottom.
	2.5	Drill 6.125" hole 589 to 648m.
	0.5	Repair kelly cock.
	5.5	Drill ahead 648 to 742m.
	1.0	Circulate bottom sample. Pull back to shoe.
	0.5	Shut down for night.
24-05-02	0.5	Travel from town. Start up.
	5.5	Wait on cross-over subs for 2.875" drill pipe. Circulate and condition mud.
	1.0	RIH with drilling assembly and 3.5" drill pipe.
	1.0	Ream tight hole from 646 to 742m.
	0.5	Circulate.
	2.0	Drill 6.125" hole 742 to 751m.

T	1.0	DOOL to shoe			
	1.0	POOH to shoe.			
	0.5	Shut down for night.			
1	0.5	Travel from town. Start up.			
	1.5	POOH to 30 joints drill pipe and BHA.			
	1.0	RIH with drilling assembly, 30 joints 3.5" DP, 2.875" DP.			
	0.5	Ream fill 730 to 751m.			
	6.5	Drill 6.125" hole 751 to 786m.			
	2.0	POOH to shoe.			
	0.5	Shut down for night.			
	0.5	Travel from town. Start up.			
	1.5	RIH with drilling assembly, 30jts 3.5" DP, 2.875" DP.			
	1.0	Wash and ream fill from 730m, firm fill 750 to 786m.			
	6.0	Drill 6.125" hole 786 to 827m.			
	2.0	POOH to shoe.			
		Shut down for night. Fuel up. Service rig.			
	0.5	Travel from town. Start up.			
	4.0	POOH with drilling assembly.			
	1.0	Pick up 18m core barrel.			
	2.0	RIH. Break circulation at shoe.			
	0.25	RIH. Wash through bridge at 576m.			
	0.25	RIH to 600m.			
	0.5	POOH to shoe - insufficient remaining daylight to fill barrel and POOH to shoe.			
	0.5	Shut down for night.			
	0.5	Travel from town. Start up.			
	0.5	RIH with core barrel.			
	1.0	Wash to bottom. 18m fill.			
1	8.0	Cut core #2 827 to 839m.			
	1.5	POOH to shoe.			
	0.5	Shut down for night			
	0.5	Travel from town. Start up.			
	2.5	POOH with core barrel.			
	1.5	Recover core. Lay down barrel.			
	2.5	RIH open ended to 570m.			
1	1.5	Place 50m (40sx) balanced cement plug across shoe.			
	0.5	POOH to 480m.			
	1.0 .	Circulate.			
	1.5	Shut down for night			
	0.5	Travel from town. Start up.			
	2.0	RIH open ended, tag cement at 530m.			
	2.0	POOH.			
1.5 Nipple down BOP's.					
0.5 Set surface plug.					
	5.5	Rig down and prepare to move.			
	0.5	Shut down for night.			

Deadman Hill No. 1 Well Completion Report

2.3.2 Hole sizes and depths:

12.25" (311mm) Spud to 60m. 8.5" (216mm) 60 to 564m. 6.125" (156mm) 564 to 839m.

2.3.3 Casing and cementing:

SURFACE:

SIZE:	9.625" / 244MM
Weight:	64.9 kg/m
Grade:	K55
Shoe setting depth:	49 m

INTERMEDIATE:

SIZE:	7" / 178MM
Weight:	34.2kg/m
Grade:	K55
Shoe setting depth:	548.5m
Cement quantity:	x class "A" 15.6 lb/gal

2.3.4 Deviation Surveys:

None taken.

- 2.3.5 Drilling Fluid:
 - (A) Spud 60 meters: Type: Freshwater/Gel spud mud.
 - (B) 60 839m. KCl/Polymer/PHPA.

2.3.6 Physical Mud Properties:

DEPTH	PPG	VIS	KCL%	PHPA LB/GAL
130	8.8	30	4.0	0.5
204	9.2	53	6.0	0.33
220	9.2	33	6	0.5
411	9	33	6	0.5
519	9.1	36	6	1.0
564	9.1	36	4	0.5
575	8.5	33	2	0.5
754	8.8	38	6	0.5
760	9.3	34	6	1.0
783	9.4	35	6	1.0
827	9.4	38	6	0.5
832	9.5	38	6	0.5

2.3.7 Water Supply:

Water was trucked to site from Sale.

n

2.3.8 Perforation:

None.

2.3.9 Plugging and Cementing:

Plug 1. 570 to 530m (across shoe) with 40 sacks of cement.

Plug 2. Surface

2.3.10 Bit Data

BIT RUN	1	2	3RR	4CH	4	3RR
Diameter	12.25"	8.5"	6.125"	6"	6.125"	6"
Type & Manufacture	Security S33	Varel L114	Varel L114	Core Head	Varel ETD14	Core Head
IADC code	114	114	127		437	
Serial number	209393	105479	180115		146729	
Nozzles	Open	14,14,11	12,12,12		14,14,11	
Depth in (m)	3	60	574		742	827
Depth out (m)	60	564			827	839
Drilled (cum/daily)	57	504	168		85	12
Hours (cum/daily)	7.5	16.5	9		14.5	8
Dull grade		6.6.WT.E.1/16/TD			1.1.WT.A.E.I.CP	1.1.I
Av. ROP m/hr		28.0			5.8	
WOB Klbs		5/10	5		5	
RPM		70	90		90	
Jet Velocity					145	
HHP@Bit					17	
ВНА		Bit/2XDC/Stab/4 XDC	Bit/2DC/Stab/9X 4.75"DC		Bit/2DC/Stab/9X4.7 5"DC	Core Barrel/10X4.75"DC

2.4 LOGGING AND TESTING

Wellsite Geologist: David Horner

Mudlogging: Hot wire hydrocarbon detection, depth and drill rate monitoring was provided by Denis Sisely.

Ditch Cutting Samples:

Cuttings were collected at 10 meter intervals from spud to 60m, then at 3m intervals to 839m (T.D.)

These being 1 set 500gm unwashed calico bag, and 1 set washed samplex tray.

Coring:

1 X 9m core was cut from 565 to 574m. Recovered 3.7m (566.0 to 569.7m - 41%). 1 X 12m core was cut from 827 to 839m. Recovered 9.0m (827.0 to 836.0m - 75%). See core analysis report.

Sidewall Cores: No sidewall cores were taken.

Appendix 1 Daily Geological Reports

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Appendix 2

Appendix 2 : Palynology

Palynological analysis of Upper Cretaceous in Deadman Hill–1, onshore Gippsland Basin.

by -

Alan D. Partridge

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Biostrata Report 2002/16

28th June 2002

Biostrata Report 2002/16

Sample Type	Depth	Visual Yield	Palynomorph Concentration	Preservation	No. SP Species	No. MP Species
Cuttings	564m	High	High	Poor-good	71+	5+
Core-1	566.1m	High	High	Poor-good	28+	7+
Core-1	568.4m	Moderate	Very high	Good-poor	22+	3+
Cuttings	795m	High	High	Poor-fair	33+	3+
Cuttings	826m	High	Moderate	Poor-fair	26+	3+
Core-2	827.25m	High-moderate	Very high	Fair-good	20+	4+
Core-2	831.8m	High	Moderate	Poor-good	16+	4+
Core-2	836.4	High	Moderate	Poor-fair	37+	4+

BASIC DATA

Table 2: Basic assemblage	data for Deadma	an Hill–1. onshore	Gippsland Basin.
			- FF-

Averages:

4+

31+

Table 3: Caved species abundances and occurrences in Deadman Hill-1.

Sample Type:	Cuttings	Cuttings	Cuttings
Depth (metres):	564	795	826
Spore-Pollen Species			
Aglaoreidia qualumis	Х		
Angiosperm pollen undiff.	1.5%		
Araucariacites australis	2.9%		
Baculatisporites spp.	0.7%		
Camarozonosporites bullatus	Х		
Clavifera triplex	Х		
Cyathidites paleospora	0.7%		
Cyathidites splendens	0.7%		
Dacrycarpites australiensis	0.7%		
Dicotetradites clavatus	0.7%		
Dilwynites granulatus	8.0%		
Dilwynites tuberculatus	Х		
Gleicheniidites circinidites	2.9%	<u> </u>	
Haloragacidites harrisii	16.1%	CV	CV
Herkosporites elliottii	Х		
Laevigatosporites spp.	1.5%		
Latrobosporites ovatus	Х	CV	
Lygistepollenites balmei	0.7%		
Lygistepollenites florinii	X	CV	

Biostrata Report 2002/16

Page 9

Table 3: Caved species abundances and occurrences in Deadman Hill-1 (continued).

Sample Type:	Cuttings	Cuttings	Cuttings
Depth:	564m	795m	826m
Malvacipollis subtilis	0.7%		
Nothofagidites brachyspinulosus	1.5%		
Nothofagidites deminutus	5.8%		
Nothofagidites emarcidus/heterus	17.5%	CV	CV
Nothofagidites falcatus	Х		
Nothofagidites flemingii	0.7%		
Nothofagidites goniatus	Х		
Nothofagidites vansteenisii	5.8%		
Periporopollenites demarcatus	2.2%		
Phyllocladidites mawsonii	13.9%	CV	
Podocarpidites spp.	7.3%		
Proteacidites adenanthoides	Х		
Proteacidites annularis	X		
Proteacidites crassus	X.		
Proteacidites grandis/leightonii	0.7%		
Proteacidites kopiensis	Х		
Proteacidites obscurus	0.7%		
Proteacidites recavus	X		
Proteacidites spp.	2.2%	CV	CV
Retitriletes spp.	X		
Sapotaceoidaepollenites rotundus	X		
Trichotomosulcites subgranulatus	Х		
Tricolp(or)ates spp.	1.5%	CV	CV
Tricolpites simatus	X		
Tricolporites adelaidensis	Х		
Tricolporites leuros	Х		
Tricolporites sphaerica	X		
Trilete spores undiff.	2.2%		
Triorites magnificus	Х		
Verrucosisporites kopukuensis	Х		
Total Spores:	8.8%		
Total Gymnosperms:	33.6%		
Total Angiosperms:	57.7%		
Total Spore-Pollen:	137	· · · · · · · · · · · · · · · · · · ·	

Abbreviations:

X= Present; cf. = Compared with; CV = Caved; † = Manuscript species RW = Reworked;

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Table 4: Upper Cretaceous species abundances and occurrences in Deadman Hill-1.

Sample Type:	Cutts	Core-1	Core-1	Cutts	Cutts	Core-2	Core-2	Core-2
Depth (metres):	564	566.1	568.4	795	826	827.25	831.8	836.4
Spore-Pollen Species								
Annulisporites microannulata			RW					
Aratrisporites spp.		RW						RW
Araucariacites australis	х	11.9%	13.6%	4.2%	4.9%	6.7%	4.3%	5.7%
Baculatisporites spp.		0.6%	0.6%			Х		1.4%
Callialasporites segmentatus		X		Х	0.7%			Х
Ceratosporites equalis		0.6%						X
Cicatricosisporites spp.			0.6%					
Cicatricosisporites cuneiformis							Х	
Cicatricosisp. pseudotripartitus							X	
Contignisporites cooksoniae	RW							
Corollina jardinae		cf.		0.7%	0.7%			
Corollina torosa	x	3.0%	0.6%					5.0%
Cupressacites sp.	<u> </u>	14.3%	32.7%	13.4%	7.6%	1.0%	0.7%	0.7%
<i>Cyathidites</i> spp. large >40µm	x	1.8%		X	X	X		2.8%
Cyathidites spp. small <40µm		1.8%	2.5%	7.7%	2.8%	1.9%	17.7%	7.8%
Cyathidites rafaeli					2.070		X	7.070
Dictyophyllidites spp.				0.7%		x		1.4%
Dictyotosporites complex		RW		0.770				RW
Dictyotosporites speciosus	RW	RW						RW
Dilwynites granulatus	x	14.3%	28.4%	21.8%	29.2%	72.4%	11.3%	12.8%
Dilwynites pusillus †		20.8%	20.170	5.6%	14.6%	8.6%	2.1%	2.1%
Foraminisporis dailyi		20.070	X		14.070	0.070	2.170	2.170 X
Gleicheniidites circinidites		0.6%		2.1%	0.7%	1.0%	1.4%	0.7%
Gymnosperm pollen undiff.	<u> </u>	0.070		2.170	3.5%	1.070	1.470	1.4%
Herkosporites elliottii			0.6%		0.7%			4.3%
Interulobites intraverrucatus			0.070		0.770			X
Klukisporites scaberis	X	X			X			X
Laevigatosporites ovatus			1.2%	0.7%	X		2.8%	X
Latrobosporites sp.			1.270	0.770	<u> </u>		2.070	A
Leptolepidites verrucosus	x	X	X	Х				X
Marattisporites scabratus				1.4%				<u>^</u>
Microbaculatispora spp.	<u> </u>			1.7/0		RW		
Microcachryidites antarcticus	x	4.2%	6.2%	4.2%	6.9%	3.8%	5.0%	4.3%
Neoraistrickia truncata	X	X	0.270	7.270	0.270	5.070	5.070	4.3%
Osmundacidites wellmanii	X	1.2%		0.7%	0.7%		2.1%	0.7%
Perotrilites jubatus		1.270	X	0.770	0.770	1.0%	2.170	0.770
Perotrilites majus	X	0.6%				1.0%		
Phyllocladidites eunuchus †		0.070		0.7%		1.0%		
Phyllocladidites mawsonii	<u> </u>					<u> </u>	0.70/	2.00/
Pilosisporites notensis	 			1.4%			0.7%	2.8%
Plicatipollenites spp.		RW	DW		סיי		<u> </u>	RW
Podocarpidites spp.			RW	22.50/	RW	0.001		
	<u> </u>	21.4%	7.4%	22.5%	18.8%	2.9%	46.1%	35.5%
Protohaploxypinus spp.		RW	ļ		<u> </u>			RW
Reticulatisporites pudens	RW		0.101	0.75				
Retitriletes spp.	Х	0.6%	0.6%	0.7%	Х	X	1	2.1%

Biostrata Report 2002/16

Page 11

Table 4: Upper Cretaceous species abundances and occurrences in Deadman Hill-1 (cont.).

Sample Type:	Cutts	Core-1	Core-1	Cutts	Cutts	Core-2	Core-2	Core-2
Depth (metres):	564	566.1	568.4	795	826	827.25	831.8	836.4
Retitriletes eminulus				х				Х
Retitriletes facetus	RW							
Retitriletes nodosus	Х			Х				x
Rugulatisporites spp.								0.7%
Ruffordiaspora australiensis			Х	Х		Х		
Stereisporites antiquisporites	Х	Х	Х	Х	2.1%	X		0.7%
Trichotomosulcites subgranulatus	Х	1.8%	2.5%	9.2%	5.6%	Х	2.1%	0.7%
Tricolp(or)ates spp.				0.7%	Х		3.5%	
Trilete spores undiff.	Х	0.6%	2.5%	1.4%	0.7%	Х		7.0%
Triporoletes reticulatus	X					X		
Vitreisporites signatus	Х		Х					X
Total Spores:	25.0%	8.3%	8.6%	15.5%	7.6%	4.8%	24.1%	29.1%
Total Gymnosperms:	75.0%	91.7%	91.4%	83.8%	92.4%	95.2%	72.3%	70.9%
Total Angiosperms:				0.7%			3.5%	
Total Spore-Pollen count:	20	168	162	142	144	105	141	141
Total MP count:	1	16	2	9	5	2	10	10
Combined MP + SP Count:	21	184	164	151	149	107	151	151
MP% in SP + MP counts	4.8%	8.7%	1.2%	6.0%	3.4%	1.9%	6.6%	6.6%
Microplankton								
Botryococcus braunii	X						Х	X
Circulisporites parvus							C	
Cleistosphaeridium sp.							X	
Luxadinium sp.		x						
Micrhvstridium sp. A	Х	С	Х	С	Х			С
Rimosicysta spp.	Х	. C	Х	С	С	X		
Rimosicysta aspera		X				X		
Rimosicysta concava	Х						·····	
Rimosicysta eversa	Х				X			
Rimosicysta kipperii		x	Х	Х				
Schizosporis reticulatus								X
Sigmopollis carbonis		X				X		X
Sigmopollis hispidus							X	
Wuroia spp.		С	С	С				
Wuroia tubiformis	X	X	X	X	X	x		
Wuroia unciformis		X	X			X		
Other Palynomorph							· · · · ·	· · · ·
Fungal fruiting bodies			X				X	
Fungal spores & hyphae	X	0.6%	0.6%	0.7%	1.4%		18.0%	1.4%
Reworked spore-pollen		1.7%	0.6%	0.770	1.77/0		10.070	1.4/0
Total Others:		4	2	1	2		31	2
Combined SP + Others count:		172	164	143	146	105	172	143
TOTAL SP + Others COUNT:	21	188	164	143	140	103	172	153

Abbreviations:

X= Present; cf. = Compared with; C = Common; † = Manuscript species

RW = Reworked;

Appendix 3 Core Descriptions

Appendix 3

LAKES OIL N.L.

914410 074

DEADMAN HILL No.1

WELLSITE CORE DESCRIPTIONS

CORE No.1

DEADMANS HILL No.1 CORE No.1 CUT 565.0 - 574.0m

RECOVERED 566.0 to 569.7m (3.7m) (41% recovery).

From drill rate correlation, the missing section of the core has been assessed to be 1 meter of core (presumably silty claystone) from the top lost due to pump problems and pump pressure build-ups, with the remaining loss of 4.3m (presumably friable very fine to fine gained sandstone) from the base of the core.

LITHOLOGY:

566.0 - 569.0m

SILTY CLAYSTONE: medium grey to occasionally medium dark grey, slightly to very silty, occasionally very finely arenaceous with quartz and partially altered feldspar sand grains, trace to common black coaly specks, trace to occasionally common micromica, firm, non fissile.

No apparent sedimentary structure, bedding at 0 degrees, rare slickensides.

569.0 - 569.7m

SANDSTONE: very light grey to occasionally light brown grey, very fine to rarely coarse, dominantly very fine to fine, angular to subrounded, dominantly subangular, poor to moderate sorting, common to abundant white argillaceous matrix, quartzose with abundant partially altered feldspar grains, trace to occasionally common grey lithics, trace fine black coaly detritus, friable, fair visual porosity, no oil fluorescence.

Thin band at top (4 cm) of coarser sandstone. No apparent sedimentary structure, bedding at 0 degrees.

DRILL RATES (min/m): 565-566 (11.0), 566-567 (29.0), 567-568 (29.0), 568-569 (23.0), 569-570 (2.0), 570-571 (1.0), 571-572 (3.0), 572-573 (3.0), 573-574 (1.0).

No ditch gas was detected whilst coring. No oil fluorescence was observed in the core.

SAMPLES TAKEN FOR ANAYSIS:

2 plugs were taken from the core for porosity/permeability/grain density analysis (569.22m, 569.55m) and were sent to Core Laboratories in Perth.

2 sections of core were taken for palynological analysis (566.1m, 568.4m) and were to sent to Dr. A. Partridge in Perth.

CORE No.2

CORE No.2 827.0 to 839.0m. Cut 12m. Rec 9.0m. (75%).

Note: missing section of core although deleted from bottom of the cored interval, is believed to be missing from several intervals throughout the core length. The core shows many rotational surfaces.

827.0 to 828.35 m.

Massive Claystone (100%).

CLAYSTONE: very dark grey, very silty, very carbonaceous, trace micromica, firm, non fissile. Occasional slickensided surfaces, no visible bedding or sedimentary structure.

828.35 to 832.5m.

Sandstone (50%) with finely interbedded interlaminated and grading to Claystone (50%).

SANDSTONE: light to medium grey, very fine to medium, occasional to common clay clasts to 4mm, angular to subrounded, dominantly subangular, poorly sorted, weak silica cement, composed of altered feldspars, grey green claystone clasts, minor quartz grains, trace to abundant black coaly detritus, friable to moderately hard, very poor visual porosity, no oil fluorescence.

CLAYSTONE: very dark grey, very silty, very carbonaceous, trace micromica, firm, non fissile, grading to CLAYSTONE: light to medium grey to grey brown, moderately to very silty, common to abundant black coaly detritus, occasionally very arenaceous with altered feldspar grains, trace micromica, firm, non fissile. Bedding 0-5 degrees, common diffused bedding (dewatering?), common sedimentary bedding.

832.5 to 834.1m. Massive Sandstone (100%)

SANDSTONE: light grey, occasionally light greenish grey, very fine to rarely medium, dominantly fine, angular to subrounded, dominantly subangular, moderately sorted, weak silica cement, nil to strong calcareous cement, common off white argillaceous matrix, composed of altered feldspar grains with common quartz and green grey black lithics, trace orange red lithics, trace brown and clear mica flakes, common to abundant black coaly detritus, friable to moderately hard, very poor visual porosity, no oil fluorescence.

Bedding 0-5 degrees, common diffused bedding (dewatering?).

834.1 to 836.0m.

Sandstone (50%) interbedded, interlaminated and grading to Claystone (50%).

SANDSTONE: light grey to slightly greenish grey, very fine to fine, dominantly fine, angular to subrounded, dominantly subangular, moderately to well sorted, weak silica and calcareous cements, common to abundant white argillaceous matrix, occasionally abundant light to medium grey argillaceous matrix, composed of feldspar grains with common quartz and grey green black lithics, trace red orange lithics, trace clear and brown mica flakes, abundant black coaly detritus, friable to moderately hard, very poor visual porosity, no oil fluorescence. CLAYSTONE: light to medium grey to grey brown, moderately to very silty, common to abundant black coaly detritus, occasionally very arenaceous with altered feldspar grains, trace micromica, firm, non fissile, grading to CLAYSTONE: very dark grey, very silty, very carbonaceous, trace to common micromica, firm, non fissile.

Bedding 0-8 degrees, common diffused bedding (dewatering?), common sedimentary bedding.

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Appendix 4 : Sample Analysis

914410 077

CORELABORATORIES AUSTRALIA PTY LTD

447-449 Belmont Ave, Kewdale, Perth WA 6105 Tel : (61 8) 9353 3944 Fax : (61 8) 9353 1369 Email: corelab@corelab.com.au

A Routine Analysis Study Of Selected Samples From Well : <u>DEADMAN HILL #1</u>

Australia

Prepared for LAKES OIL N.L.

July 2002

File: PRP-02029

Rock Properties Core Laboratories Australia Pty. Ltd. Perth Australia

These analyses, opinions or interpretations are based on observations and materials supplied by the client to whom, and for whose exclusive and confidential use, this report is made. The interpretations or opinions expressed represent the best judgment of Core Laboratories, (all errors and omissions excepted); but Core Laboratories and its officers and employees, assume no responsibility and make no warranty or representations, as to the productivity, proper operations, or profitableness of any oil gas or other mineral well or sand in connection with which such report is used or relied upon.



CORELABORATORIES AUSTRALIA PTY LTD

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Core Lab PETROLEUM SERVICES

20th July, 2002

Lakes Oil NL PO Box 300 Collins St West MELBOURNE VIC 8007

Attention : Mr. J. Mulready

Subject:Routine Core AnalysisWell:Deadman Hill #1File:PRP-02029

Dear Sir,

Presented herein is the final report of a routine core analysis study conducted on selected plug samples from the above well that arrived at our Perth laboratory at the end of May and the beginning of June, 2002.

We appreciate the opportunity to present this service to you. Please contact us should you require any further information or assistance.

Yours sincerely, Core Laboratories Australia Pty Ltd

James Brown Senior Core Analyst

INTRODUCTION

Core Laboratories Australia Pty Ltd (Core Lab) conducted a routine core analysis study on seven plug samples taken from the well Deadman Hill #1 on behalf of Lakes Oil NL (Lakes Oil). Services performed and presented in the report include:

- Permeability, porosity and grain density measurements

LABORATORY PROCEDURES

Sample Preparation

Seven horizontal, 1.5" diameter plugs were received and logged in. The samples were trimmed, then dried in a convection oven for 24 hours at 90° C. prior to analysis.

Grain Volume and Grain Density

The weight, diameter and length of all samples were measured before they were processed through the Ultrapore[™] porosimeter to determine grain volume. As a standard quality control measure, a calibration check plug was run after the samples. Grain density data was then calculated from grain volume and sample weight data.

Permeability and Porosity

Permeability and pore volume measurements were made on all samples at ambient pressure in the CMS[™]300 automated core measurement system. A standard check plug was run after the samples.

Klinkenberg permeability (Kinf) values are obtained directly from the CMS-300, since it operates by unsteady-state principles. Porosity data was obtained by combining pore volumes from the CMS-300 data with grain volumes from the Ultrapore porosimeter.

Plug sample porosity, permeability and grain density data are tabulated on page 2.

POROSITY, PERMEABILITY AND GRAIN DENSITY (Ambient)

SAMPLE	DEPTH	800psig NOB PRESSURE			GRAIN	COMMENTS
NUMBER	(m)	PERME	ABILITY	POROSITY	DENSITY	
		Kinf	Kair	(%)	(g/cc)	
		(md)	(md)	L		
	<u>L</u>	Co	ore 1		·	
1	569.22	4.06	5.51	28.4	2.64	
2	569.55	3.06	4.25	28.4	2.65	
		Co	ore 2			
3	827.40	0.538	0.591	18.5	2.61	
4	829.60	0.020	0.035	9.7	2.69	
5	830.30	0.021	0.054	19.6	2.68	
6	833.00	0.015	0.026	9.7	2.70	
7	833.75	0.013	0.026	12.2	2.70	

Appendix 5

Appendix 5

Well Site Survey

KLUGE JACKSON CONSULTANTS PTY. LTD. A.C.N. 004 778 947

SURVEYORS, ENGINEERS AND ESTATE PLANNERS

Office: Our Ref: Sale 02191-01

914410 082

DIRECTORS: H. Peter Kluge John Jackson

September 10th, 2002

Mr. J. Mulready, Lakes Oil N.L. Level 11, 500 Collins St, Melbourne, Vic., 3000

Dear Sir,

RE: AMG and AHD Survey of Wells at Boundary Creek-1, Deadman Hill-1 and Protea-1.

We have now completed the above survey and enclose our results.

The table of results shows the co-ordinates to the centre of the sign of the well head.

The levels are as indicated on sketch attached – Levels to the top of cap could not be taken at Boundary Creek and Protea as they were covered at time of survey.

Our AMG co-ordinates have been obtained from co-ordinated marks PM 18, PM 27 (Longford) and 3GI Radio Mast. The AMG co-ordinates are unadjusted using Topcon Total Station and should be of an accuracy of \pm 10cm. Latitude and Longitude have been obtained by converting AMG co-ordinates to latitude and longitude.

The AHD levels were obtained from PM 33 and are correct to ± 0.05 cm.

If you have any queries in the matter please contact the writer.

We thank you for your instructions and enclose our account.

Yours faithfully, KLUGE JACKSON CONSULTANTS PTY., LTD.,

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PETER KLUGE. enc.

SALE 45 Macalister Street, SALE, Vic 3850 (P.O. Box 47) Telephone (03) 5144 3877 Facsimile (03) 5144 6591 MAFFRA 119 Johnson Street, MAFFRA Vic 3860

Telephone (03) 5147 2126

TRARALGON

Suite 3/29 Breed Street, TRARALGON Vic 3844 (P.O. Box 412) Telephone (03) 5174 4808 Facsimile (03) 5174 6969

KLUGE JACKSON CONSULTANTS PTY. LTD. A.C.N. 004 778 947 SURVEYORS, ENGINEERS AND ESTATE PLANNERS 914410 083

Office: Our Ref:

Sale 6: 02191-02



DIRECTORS:

H. Peter Kluge John Jackson

BOUNDARY CREEK_1-A





SALE 45 Macal

45 Macalister Street, SALE, Vic 3850 (P.O. Box 47) Telephone (03) 5144 3877 Facsimile (03) 5144 6591 MAFFRA 119 Johnson Street, MAFFRA Vic 3860

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KLUGE JACKSON CONSULTANTS PTY. LTD.

A.C.N. 004 778 947

SURVEYORS, ENGINEERS AND ESTATE PLANNERS

914410 084

- Office: Our Ref:

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Sale 02191-02 - 3 -

DIRECTORS: H. Peter Kluge John Jackson

September 10th, 2002

TABLE OF SURVEY RESULTS

<u>Deadman Hill - 1</u>

AHD Level of Top of Cap	57.45
AHD Level of Top of Sign	59.96
AMG Co-ordinate of Centre of sign.	Easting 515 827.27 Northing 5 772 244.60
Latitude	S 38°11'50.90"
Longitude	E 147°10'50.72"
Approximate AHD surface Level at Bore	58.57

The AMG coordinates shown above are for Zone 55.

Coordinates are in AGD 66.

SALE 45 Macalister Street, SALE, Vic 3850 (P.O. Box 47) Telephone (03) 5144 3877 Facsimile (03) 5144 6591

MAFFRA 119 Johnson Street, MAFFRA Vic 3860

Telephone (03) 5147 2126

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Suite 3/29 Breed Street, TRARALCON Vic 3844 (P.O. Box 412) Telephone (03) 5174 4808 Facsimile (03) 5174 6969

PE914411

This is an enclosure indicator page. The enclosure PE914411 is enclosed within the container PE914410 at this location in this document.

	4411 has the following characteristics:
ITEM_BARCODE =	
CONTAINER_BARCODE =	
NAME =	Deadman Hill-1 Lithology Log
BASIN =	GIPPSLAND
OFFSHORE? =	Y
$DATA_TYPE =$	WELL
DATA_SUB_TYPE =	WELL LOG
	Deadman Hill-1 Lithology Strip Log,
	Scale 1:500 m, Part 1 of 4, Enclosure
	of Well Completion Report
REMARKS =	
DATE WRITTEN =	
DATE PROCESSED =	
DATE RECEIVED =	
RECEIVED FROM =	
—	
	Deadman Hill-1
CONTRACTOR =	
AUTHOR =	
	Lakes Oil NL
TOP_DEPTH =	
BOTTOM_DEPTH =	200
ROW_CREATED_BY =	DN07_SW
(Inserted by DNRE -	Vic Govt Mines Dept)

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PE914413

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This is an enclosure indicator page. The enclosure PE914413 is enclosed within the container PE914410 at this location in this document.

The enclosure PE91	4413 has the following characteristics:
ITEM BARCODE =	-
CONTAINER BARCODE =	
	Deadman Hill-1 Lithology Log
	GIPPSLAND
OFFSHORE? =	
DATA TYPE =	
DATA_SUB_TYPE =	
	Deadman Hill-1 Lithology Strip Log,
	Scale 1:500 m, Part 3 of 4, Enclosure
	of Well Completion Report
REMARKS =	or were compression report
DATE WRITTEN =	
—	
DATE_PROCESSED =	
DATE_RECEIVED =	
RECEIVED_FROM =	
_	Deadman Hill-1
CONTRACTOR =	
AUTHOR =	
	Lakes Oil NL
TOP_DEPTH =	440
BOTTOM_DEPTH =	600
ROW_CREATED_BY =	DN07_SW
(Inserted by DNRE -	Vic Govt Mines Dept)

PE914412

This is an enclosure indicator page. The enclosure PE914412 is enclosed within the container PE914410 at this location in this document.

The enclosure PE91	4412 has the following characteristics:
ITEM_BARCODE =	PE914412
CONTAINER BARCODE =	PE914410
– NAME =	Deadman Hill-1 Lithology Log
	GIPPSLAND
OFFSHORE? =	Y
DATA TYPE =	WELL
DATA_SUB_TYPE =	
	Deadman Hill-1 Lithology Strip Log,
	Scale 1:500 m, Part 2 of 4, Enclosure
	of Well Completion Report
REMARKS =	
DATE_WRITTEN =	
DATE_PROCESSED =	
DATE_RECEIVED =	
RECEIVED_FROM =	
—	Deadman Hill-1
CONTRACTOR =	
AUTHOR =	
ORIGINATOR =	Lakes Oil NL
TOP_DEPTH =	200
$BOTTOM_DEPTH =$	450
ROW_CREATED_BY =	DN07_SW
(Inserted by DNRE -	Vic Govt Mines Dept)

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PE914414

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This is an enclosure indicator page. The enclosure PE914414 is enclosed within the container PE914410 at this location in this document.

The enclosure PE91 ITEM BARCODE =	4414 has the following characteristics:
CONTAINER BARCODE =	
_	
	Deadman Hill-1 Lithology Log GIPPSLAND
OFFSHORE? =	_
DATA_TYPE =	
DATA_SUB_TYPE =	-
DESCRIPTION =	Deadman Hill-1 Lithology Strip Log,
	Scale 1:500 m, Part 4 of 4, Enclosure
	of Well Completion Report
REMARKS =	
DATE_WRITTEN =	
DATE_PROCESSED =	
DATE RECEIVED =	25-APR-2003
RECEIVED FROM =	Lakes Oil NL
WELL NAME =	Deadman Hill-1
CONTRACTOR =	
AUTHOR =	
ORIGINATOR =	Lakes Oil NL
TOP DEPTH =	
BOTTOM DEPTH =	
ROW_CREATED_BY =	
	2
(Inserted by DNRE -	Vic Govt Mines Dept)