

PETROLEUM REGULATIONS

03 AUG 1992

ANGLO AUSTRALIAN OIL COMPANY N.L.

WELL COMPLETION REPORT

KILLARA NO. 1

PEP 101

OTWAY BASIN VICTORIA

Prepared by:
I.D. Buckingham

July, 1992

VOLUME 2 : APPENDICES

APPENDIX

I

DETAILS OF

DRILLING PLANT

GEARHART DRILLING SERVICES PTY. LTD.

RIG NO. 2

INVENTORY

TYPE: Superior Model 700E SCR

CAPACITY: 11,000 ft. - 3,350m nominal

DRAWWORKS: One superior Model 700E SCR electric driven drawworks complete with auxiliary brake and sandreel. Maximum input H.P. 1000. Driven by EMD motor.

One Foster Model 37 make-up spinning cathead. Mounted on Drillers side.

One Foster Model 24 Break-out cathead. Mounted off Drillers side.

Transmission - 2 speed transmission with high chain 1 1/4" triple 26T to 24T. Twin disc PO218 air clutch. Low chain 1 1/4" triple 20T to 39T twin disc PO218 air clutch.

ENGINES: Four Caterpillar Model 3412 PCTA diesel engines.

MAST: Floor mounted cantilever mast dreco - model No: M12713-510 designed in accordance with A.P.I. specification 4E "Drilling and Well Servicing Structures".

Clear Working Height - 127'.
Base width - 13' 6".
Hook Load

Gross normal capacity -	510,000 lbs
Hook load capacity with:	
10 lines strung	- 410,000 lbs
8 lines strung	- 365,000 lbs
6 lines strung	- 340,000 lbs
4 lines strung	- 306,000 lbs

Maximum wind load 100 m.p.h. - no setback
Maximum wind load 84 m.p.h. - rated setback
Adjustable racking board with capacity for 108 stands

of 4^{1/2}" Drill Pipe, 10 stands of 6^{1/2}" Drill Collars, 3 stands of 8" Drill Collars designed to withstand an A.P.I. windload of 84 m.p.h. with pipe racked.

- CROWNBLOCK: 215 ton with five 36" sheaves and one 36" fastline sheave grooved 1^{1/8}".
- SUB-STRUCTURE: 1 Piece 14' (H) X 13'6" (W) X 50' (L) with 12' BOP clearance. Set-back -200,000 lbs-casing = 210,000 lbs.
- RIG LIGHTING: Explosion proof fluorescent.
- TRAVELLING BLOCK: One 667 Crosby McKissick 250 tonne combination block hook Web Wilson 250 ton hydra - hook unit 5 - 36" sheaves.
- KELLY DRIVE: one 20 HDP Varco Kelly Drive Bushing
- KELLY: one square kelly drive 4^{1/4}" X 40' complete with scabbard.
- SWIVEL: one Oilwell PC-300 ton swivel
- ROTARY TABLE: one Oilwell A 20^{1/2}" Rotary table torque tube driven from Drawworks.
- AIR COMPRESSORS & RECEIVERS: two LeRoi Dresser Model 660A air compressor packages complete with 10 H.P. motors rated at 600 volt 60 Hz 3 phase. Receivers each 120 gallon capacity and fitted with relief valves.
- INSTRUMENT'N: one 6 pen Drill Sentry Recorder to record:
Weight (D) 1 - Martin Decker Sealrite
1 - Cameron Deadline Type
Penetration (feet)
Pump Pressure (0 - 6000 P.S.I.)
Electric Rotary Torque
Rotary Speed (R.P.M.)
Pump S.P.M. (with selector switch)
- one Drillers console including the following equipment:
Martin Decker weight indicator Type 'D'
electric rotary torque gauge Pit scan.
S.P.M. gauge (2 per console).

Rotary R.P.M. gauge.
one set of 'Double Shot'
Deviation instrument 'Totco'.
One set of mud testing laboratory standard
kit (Baroid).

DRILLING LINE: 5,000 X 1^{1/8}" OD Tiger Brand.

MUD PUMPS: 1. Gardner Denver Mud Pump.
Model No. PZHVE 750. Driven by 800 HP EMD
Motor.

1. National KSH-280 6" X 12" Duplex mud pump
powered by two GM 6-71 engines.

GENERATORS: 4 Brown Boveri 600 volt 3 phase 60 Hz AC generators.
Powered by 4 CAT 3412 PCTA Diesel Engines.

B.O.P'S &
ACCUMULATOR: one HYDRIL 13^{5/8}" X 3000 P.S.I. spherical
annular B.O.P., studded top and flanged bottom.
Height 14".
one HYDRIL 13^{5/8}" X 5000 P.S.I. flanged double gate
B.O.P.
one GALAXIE 13^{5/8}" X 5,000 P.S.I. 3000 double
studded adaptor flanges complete with studs and nuts.
one cup tester. GRAY complete with test cups for 9^{5/8}"
and 13^{3/8}".
one WAGNER Model 130 - 160 3 bnd 160 gallon
accumulator consisting of:
sixteen 11 gallon bladder type bottles.
one 20 H.P. electric driven triplex pump 600 volt 60
Hz 3 phase motor and controls.
one WAGNER Model A-60 auxiliary air pump 4.5
gals/min.
one Wagner Model UM2SCB5S mounted hydraulic
control panel with five 1" stainless steel fitted
selector valves and two stripping controls and
pressure reducing valves. Three 4" hydraulic
readout gauges:
- one for annular pressure
- one for accumulator pressure
- one for manifold pressure.
one WAGNER Model GMSB - 5A five station
remote Drillers Control with three pressure
readback gauges, increase and decrease control for

annular pressure.

- SPOOLS:** one set flanged adaptor spools to mate 13^{5/8}"
LOT X 5000 P.S.I. A.P.I. B.O.P. flange to following
wellhead flanges:
12" X 900 series, height 14"
10" X 900 series, height 14"
8" X 900 series, height 14"
B.O.P. spacer. Flange 12" 3000 R57 studded X
6" 3000 R45 flange, height 16".
B.O.P. spacer spool (drilling spool) 12" 5000 X
12" 5000 BX160, height 14".
- KELLY COCKS:** one GRIFFITH Lower Kelly Cock 6^{1/2}" O.D. with
4^{1/2}" X H connections.
one GRIFFITH Upper Kelly Cock 7^{3/4}" with 6^{5/8}" A.P.I.
connections.
- DRILL PIPE SAFETY VALVE:** one GRIFFITH 6^{1/2}" inside blowout preventors
(4^{1/2}" X H)
one GRIFFITH 6^{1/2}" stabbing valve (4^{1/2}" X H)
- CHOKE MANIFOLD:** one MCEVOY choke and kill manifold 2" - 3000 P.S.I.
- MUD SYSTEM:** one pill tank capacity 25 bbls.
two mix tanks capacity 108 bbls
one reserve tank capacity 120 bbls.
one desilt tank capacity 120 bbls.
one desand tank capacity 120 bbls.
one shaker tank capacity 130 bbls.
one sand trap capacity 15 bbls.
- WATER TANK:** 400 bbls.
- FUEL TANKS:** one 140 bbls.
one 6000 gallons
- MIXING PUMPS:** five MISSION Magnum 5" X 6" X 14" centrifugal pumps
complete with 50 H.P. 600 volt 3 phase 60 HZ
explosion proof electric motors.
- TRIP TANK PUMP:** one MISSION Magnum 2" X 3" centrifugal pump
complete with 20 H.P. 600 volt 60 Hz 3 phase
explosion proof motors.

WATER TRANSFER PUMPS: three MISSION Magnum 2" X 3" centrifugal pump complete with 20 H.P. 600 volt 60 Hz 3 phase explosion proof motors.

MUD AGITATORS: six GEOLOGRAPH/PIONEER 40 TD - 15" 'PITBULL' mud agitators with 15 H.P. 600 volt 60 Hz 3 phase electric motors.

SHALE SHAKER: one BRANDT - Dual tandem shale shaker.

DESANDER: one PIONEER T8-6 'SANDMASTER' desander.

DESILTER: one PIONEER T12-4 'SILTMASTER' desilter.

DRILL PIPE: 10,000' of 4^{1/2}" Grade 'E' 16.60 lbs/ft hard banded drill pipe 326 joints.

DRILL COLLARS:

- 1 - 6^{1/2}" OD DC (short) 15'.
- 24 - 6^{1/2}" ODDC's.
- 3 actual 8" OD DC's.
- 9 actual joints of 4^{1/2}" hevi-wate drill pipe.

- Two Bit Subs - 6^{5/8}" Reg Dbl Box.
- Two Bit Subs - 4^{1/2}" Reg X 4^{1/2}" XH Dbl Box.
- One XO Sub - 7^{5/8}" Reg X 6^{5/8}" Reg Dbl Box.
- One XO Sub - 4^{1/2}" XH Box X 4^{1/2}" IF Pin.
- One XO Sub - 4^{1/2}" Reg X 4^{1/2}" XH Dbl Pin.
- Two XO Sub - 6^{5/8}" Reg Pin X 4^{1/2}" XHBox.
- One Junk Sub - 6^{5/8}" Reg Pin X 6^{5/8}" Reg Box.
- One Junk Sub - 4^{1/2}" Reg Box X 4^{1/2}" Reg Pin
- One Junk Sub - 4^{1/2}" Reg Box X 4^{1/2}" XHBox.
- Two Kelly Saver Sub s/w rubber 4^{1/2}" XHPXB.
- Two Circular Subs - 4^{1/2}" XH X 1502 Hammr Union.

ELEVATORS:

- One 4^{1/2}" BJ 250 ton 18 degree taper D/P elevators
- One 2^{7/8}" IUS 100 ton tubing elevators
- One 2^{7/8}" EUI 100 ton tubing elevators
- One 13^{3/8}" BAASH ROSS 150 ton S/Door Elevators
- One 13^{3/8}" S/Joint P.U. elevators
- One 9^{5/8}" WEBB WILSON 150 ton S/Door elevator
- One 9^{5/8}" S/Joint P.U. elevators
- One 7" BJ 200 ton S/Door elevators
- One 7" S/Joint P.U. elevators

all P.U. elevators c/w slings and swivel
One 8" WEBB WILSON 150 ton S/Door elevators D/C
One 5^{3/4}" WEBB WILSON 150 ton S/Door elevators D/C
above c/w lift nubbing and bails.

ROTARY SLIPS: Two 4^{1/2}" VARCO SD ML slips
One 3^{1/2}" VARCO SD ML tubing slips
Two 8" - 6^{1/2}" DCS-R drill collar slips

ROTARY TONGS: One BJ Type 'B' c/w latch & lug jaws 13^{3/8}"-3^{1/2}"

CASING SLIPS: Three 13^{3/8}"-9^{5/8}"-7" VARCO CSML csg slips

BIT BREAKERS: Four 17^{1/2}"-12^{1/4}"-8^{1/2}"-6"

FISHING TOOLS: One 8^{1/8}" BOWEN Series 150 F.S. o/shot.
One 10^{5/8}" BOWEN Series 150 F.S. O/shot c/w grapples
& packoffs to fish contractors down hole equipment
One 8 O.D. Fishing magnet 4^{1/2}" Reg Pin
One Reverse Circ Junk Basket 4^{1/2}" XH Box
One Junk Basket mill type c/w mill shoe 4^{1/2}" Reg Pin
One Jars 6^{1/2}" O.D. GRIFFITHS fishing 4^{1/2}" XHPXB
One Jar Accelerator Griffiths fishing 6^{1/2}" O.D. 4^{1/2}" XH
PXB
One Bumper Sub 6^{1/2}" O.D. fishing 4^{1/2}" XHPXB.
One 12" Junk Mill - 6^{5/8}" Reg Pin
One 8" Junk Mill 4^{1/2}" Reg Pin

ROTARY REAMERS: One 6^{1/2}" O.D. DRILCO N.B. Roller Reamer c/w Type K
cutters 8^{1/2}" hole.

PUP JOINTS: Three 5' - 10'; - 15'; 4^{1/2}" O.D. Grade 'G' Pup Joints.

AUGER: One 27^{1/2}" Auger 4^{1/2}" XH Box

RATHOLE DIGGER: One fabricated rotary table chain driven

POWERTONG: One FARR 13^{5/8}" - 5^{1/2}" Hydraulic Power Tongs c/w
hyd. power pack & hoses & torque gauge assembly.

End of Appendix 1

APPENDIX

II

SUMMARY OF WELLSITE OPERATIONS

SUMMARY OF WELLSITE OPERATIONS

Prior to rig arrival, a 18" conductor pipe had been installed and cemented.

The Gearhart Drilling Services Pty. Ltd. Rig No. 2 was rigged up and Killara No. 1 was spudded at 2330 hours, 6th June, 1991.

An 8^{1/2}" pilot hole was drilled to 46 m. A 12^{1/4}" drilling assembly was made up and a 12^{1/4}" hole drilled to 292 m where a sample was circulated, the hole was then drilled to 305.7 m where a wiper trip to surface, followed by a strap and second wiper trip were made. Surveys were run at 33 m, 76 m, 150 m, 226 m and 307 m.

Layed out 8" Drill Collars and Stabilizer and rigged up to run 9^{5/8}" casing. Picked up shoe and ran casing with shoe at 304.8 m., rigged up and cemented.

The Braidenhead, B.O.P's, choke manifold, and flareline were installed and the B.O.P.'s were successfully tested to the following pressures:

Blind Rams 1500 psi

HCR - Choke Manifold 1500 psi

The 8^{1/2}" BHA was picked up and run in the hole and the float collar, cement and shoe were drilled out and after drilling 2 metres of new hole, a formation integrity test was performed.

Drilling 8^{1/2}" hole continued to 1065 m with surveys run at 459 m, 610 m, 769 m, 912 m, 997 m and 1053 m. At 1065 m a sample was circulated. Tight hole between 659 m and 1065 m was reamed and drilling continued to 1353 m where a sample was circulated. Surveys were run at 1157 m, 1242 m and 1337 m. Performed a 12 stand wiper trip working tight hole

between 405 m and 1050 m. Continued drilling 8^{1/2}" hole to 1425 m, surveyed at 1422 m, circulated sample.

Drilled from 1425 m to 1746 m running surveys at 1469 m, 1526 m, 1564 m, 1631 m, 1659 m, 1706 m, 1716 m and 1743 m and circulating samples at 1502 m and 1662 m. POOH, picked up test cup, made up and tested rams to 1500 psi, made up new bit and ran in hole.

Drilled 8^{1/2}" hole to 2026 m running surveys at 1792 m, 1801 m and 1896 m. Circulated samples at 1761 m, 1841 m, 1870 m 1896 m and 2026 m. At 2026 m after circulating pulled back 2 stands, picked up kelly and circulated bottoms up. Flow checked well, pumped pill and performed 20 stand wiper trip. Carried out a 10 minute circulation below packer seats then pulled 2 stands above packer seats and circulated hole clean. Flow checked well again, pumped slug, strapped out of hole. Made up test tools and ran in hole.

Made up test head and choke, set packer and chased it down for 7 metres. Carried out DST No.1. Pulled out of hole, lay down test head and choke manifold, chained out of hole.

Ran in hole with 8^{1/2}" drilling assembly, reamed from 1947 m to 2026 m and then continued drilling to 2409 m. Surveys were run at 2094 m, 2255 m, 2264 m and 2397 m. Circulated samples up at 2212 m, 2276 m, 2361 m and 2409 m. The total depth of 2409 m was reached at 0630 hours 25th June, 1991.

Completed wiper trip, circulated sample up, strapped out of hole and rigged up to log. Drill strap tallied 2409.09 m and trip strap recorded 2408.83 m.

The following logs were then run by Haliburton Logging Services:

DLL/MSFL/GR/SP/CAL

BCS/GR

FED

CIS (Velocity Survey)

SWC

After analysing logs a decision was made to plug and abandon the well. Open ended drill pipe was run in to 1794 m, the mud circulated, the hole cooled and cement Plug No. 1 run. Pulled out of hole, rigged up and ran cement Plug No.'s 2 and No.3. Pulled up 3 stands, picked up kelly and circulated. Rigged up and lay down drill pipe, made up bit and ran in hole. Tagged cement at 487.91 m and polished back top of plug to 492.91 m, circulated hole clean and pulled out.

Made up test tools and carried out DST No.2. Pulled packer free, pulled 10 singles and reverse circulated. Pulled out of hole laying out test tools. Ran in with open ended drill pipe to 491 m and ran cement Plug No.4. Pulled back to 334 m and set cement Plug No.5. Layed out excess drill pipe, flushed BOP's and choke valves with water and prepared BOP's for removal. Removed casing spool and ran in hole and tagged cement at 302 m. Rigged up and ran cement Plug No.6. Pulled out of hole, lay down drill pipe and ran cement Plug No.7. Layed out drill pipe and kelly.

The rig was released at 1600 hours, 29th June, 1991.

End of Appendix 2

APPENDIX

III

DRILLING FLUID

RECAP

ANGLO AUSTRALIAN OIL CO. N.L.
DRILLING FLUIDS RECAP
KILLARA NO. 1
PEP 101, OTWAY BASIN, VICTORIA

Prepared by : M Olejniczak
Dated : June 1951

BAROID AUSTRALIA PTY. LTD.

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ANGLO AUSTRALIAN OIL Co. N.L.
 KILLARA NO. 1
PEP 101, OTWAY BASIN, VICTORIA

WELL SUMMARY

Operator : Anglo Australian Oil Co. N.L.
 Well Name : Killara No. 1
 Location : PEP 101. Otway Basin, VICTORIA
 Contractor/Rig : Gearhart Drilling, Rig 2
 Rig on Location : 5 June 1991
 Spud Date : 6 June 1991
 RKB Elevation : 4.6m
 Total Depth : 2409m
 Date Reached TD : 28 June 1991 (Final P & A started)
 Total Days Drilling : 23 days
 Rig off Location : 29 June 1991
 Total Days on Well : 25 days

<u>Drilling Fluid Type</u>	<u>Interval</u>	<u>Hole Size</u>	<u>Cost (AS)</u>
Freshwater Bentonite-Lime	11m - 307m	12 1/4"	\$ 1,297.91
KCL-EZ MUD-Polymer	307m - 2409m	8 1/2"	\$45,137.68

Mud Materials Charged to Drilling \$46,435.59

Engineer on Location from June 6 to June 28:
 Drilling Fluid Engineering: 24 days @ \$500.00 \$12,000.00

Total Cost Drilling Materials & Engineering \$58,435.59

Mud Materials not Charged to Drilling \$ 1,185.11

Casing Programme : 16" Cond at 11m RKB
 9 5/8" Csg at 304 m RKB
 TD at 2409m

Drilling Supervisor : Ken Smith
 Baroid Drilling Fluid Engineer: Manfred Dejniczak

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ANGLO AUSTRALIAN OIL Co. N.L.
KILLARA NO. 1
PEP 101, OTWAY BASIN, VICTORIA

INTRODUCTION

The Killara No. 1 well was drilled to 2,409m in June 1991, using Gearhart Rig 2, over twenty four days from spud to abandonment.

A fresh water AQUAGEL spud mud was used for the 12 1/4" hole, without any mud or hole problems, although drilling of the surface volcanics down to 36m, took quite some time. The mud cost of \$1,297.00 was very close to the programmed \$1,405.00 and the 9 5/8" casing was set to 304m without significant problems.

The 8 1/2" hole was then drilled to 2,409m over twenty days, using a KCl-EZ MUD-Polymer mud system. This gave an unusually long open hole section of 202m and yet there were only minor tight hole problems that effected drilling time. Two drill stem tests were successfully run, without problems, one during drilling, and one after logging. The caliper log showed a very good in gauge hole over most of the section. All these factors show that the mud system, used in conjunction with low bit hydraulics, achieved the objectives of a good trouble free hole.

Mud costs for the 8 1/2" hole exceeded that programmed; this was partly due to additional costs arising from increased KCl concentrations and other on-site variations in mud the programme resulting in additional AQUAGEL and DEXTRID usage through the Pretty Hill formation. This was done with the aim of minimising hole problems. As well as the above, there were additional polymer requirements that were not programmed but did contribute to hole stability.

We feel that the lack of hole problems, together with trouble free running of the logging and testing programme, fully justified this approach.

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ANGLO AUSTRALIAN OIL Co. N.L.
KILLARA NO. 1
PEP 101, OTWAY BASIN, VICTORIA

DISCUSSION BY INTERVAL

12 1/4" Hole - Surface to 307m - 3 days

The Killara No. 1 location was situated on top of a ridge of volcanic rock; that created difficulties digging the sump, as the bulldozer could only penetrate about 1 1/2 metres, and also problems drilling the surface hole.

It had been planned to spud in using a Dyna Drill, through the surface volcanics, but this was found to be not functioning. It then took a full day to drill the kelly rathole and the drill-pipe mousehole, using an 8 1/2" bit and then reaming out with a 12 1/4" bit. Water was circulated from the pits, with high viscosity pre-hydrated AQUAGEL, spotted from the pre-mixing tanks.

Following this the surface hole was spudded in as an 8 1/2" pilot hole, to minimise problems with volcanic boulders, at 23.30 hours on June 6, 1991.

The entire mud system was simultaneously mudded up using pre-hydrated AQUAGEL and Lime, to give a viscosity above 40 seconds and a yield point above 25lb/100sq ft for good hole cleaning. The pilot hole was drilled to 46m after breaking through the volcanics into the Gellibrand Marl at 36m. A 12 1/4" assembly was picked up and the hole opened up before continuing drilling normal 12 1/4" hole through the marl.

Drilling continued without further problems with the mud volume and viscosity being controlled, through the highly dispersive marl, using water and small amounts of Lime only. The mud basically becoming a native clay mud.

At 306m a wiper trip was run to surface without problems and with no fill on running back to bottom. The hole was then circulated clean, with a large amount of sticky cuttings returned to surface at bottoms up, with the flowline becoming partially blocked. Additional water was then added giving a final viscosity of 45 seconds, prior to pulling out to run casing.

The 9 5/8" casing was then run and cemented to 304m. It had to be washed down the last 4m through fill, and was cemented with an 11.8 ppg Bentonite lead slurry and a 15.6 ppg neat tail slurry. Forty barrels of cement was returned to surface indicating that the hole had been in good gauge.

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ANGLO AUSTRALIAN OIL Co. N.L.
KILLARA NO. 1
PEP 101, OTWAY BASIN, VICTORIA

DISCUSSION BY INTERVAL cont.

8 1/2" Hole - 307m to 2409m - 20 days

As the Gellibrand Marl had been very sticky and there was less than 300m expected to be drilled before reaching the top of the Eumeralla formation, it was decided to begin with a low KCL concentration, immediately, rather than from about 550m as originally programmed.

The settling tanks were dumped and cleaned out while waiting on cement and pressure testing the B.O.P. stack. Only about 150 bbl of old mud were retained and diluted with an equal volume of water. This was then used to drill out the cement and casing shoe, with the cement contamination left untreated, to give a lightly flocculated mud. A formation leak off test was run at 307m.

Drilling then continued relatively rapidly through the remainder of the Gellibrand, and through the sandier sections of the Clifton, Dillwyn, Pebble Point and Sherbrook formations, into the top of the Eumeralla at 589m. The mud was maintained as a KCl-CMC mud, by maintaining volume with additions of pre-mixed KCl and CMC (HV) only. The KCl concentration was only run at 2%, the filtrate was gradually reduced to 15cc, and the viscosity was maintained around 40 seconds for good carrying capacity.

From 550m, near the top of the Eumeralla, the mud was run as the programmed KCL-EZ MUD-Polymer, with all additions made in the form of pre-mixed KCL, PAC-R and EZ MUD. No water for dilution was added from anywhere else, so that mud properties would remain stable. The drilling rate remained relatively rapid, with the mud weight increasing to 9.5 ppg by 870m. The dilution rate was increased and the KCl gradually raised to 3%. With one shaker in poor condition, only B40 over B60 screens were run during the faster drilling. Both desander and desilter were also in poor condition, with only half their cones operating due to a lack of spare parts. Nevertheless the mud weight was reduced to 9.3 ppg by 1000m. Only a low dilution rate of 0.8 bbl/m was required suggesting the hole was still in good gauge. Occasional spiralling of the pipe while making connections, also suggested tight hole, although there were no problems making connections. These indications, plus a good return of cuttings at the shakers, even though they were still slightly soft, indicated that the mud was performing as anticipated.

The first trip for a bit change was run at 1065m, with the hole being only slightly tight up to 659m, and with no problems running back in. The running of a stabiliser on the first bit run, instead of a slick assembly as some engineers do, would have helped make this first trip being trouble free.

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ANGLO AUSTRALIAN OIL Co. N.L.
KILLARA NO. 1
PEP 101, OTWAY BASIN, VICTORIA

DISCUSSION BY INTERVAL cont.

8 1/2" Hole cont.

Drilling then continued through the lower Eumeralla, at a much reduced drilling rate of about one single per hour. The cuttings at the shakers became noticeably finer and stickier, with the mud weight again increasing to 9.5 ppg and the viscosity also rising to 58 seconds. The filtrate, which had been down to 7.6cc, also increased to 10cc with the build up of fine solids. Only one shaker was run with a finer combination of B40 over B100 screens. Little could be done as dilution had to be severely restricted, with the small sump on site very nearly full. To help control the viscosity, EZ MUD additions were stopped, with the pre-mix made up of only PAC-R and KCl. The viscosity fell back to 45 seconds.

A wiper trip was run at 1357m, with 12 stands pulled before the pipe came freely, with up to 45,000 lb overpull. Soon after, at 1422m, a full trip had to be run to retrieve a broken survey wireline, with no tight hole problems. However, there was a significant increase in blocky cavings and an increase in mud viscosity after the trip.

In response to these minor problems the KCl percentage was slowly increased to 4 1/2%, at which it was maintained for the rest of the well. At about 1500m, the sump was extended with a bulldozer to about double its original capacity. Dilution then recommenced with whole premixed KCL-PAC R-EZ MUD, rapidly bringing the mud properties back to their desired levels.

From this point on the mud properties were maintained quite consistently, with typical properties being as follows:

Mud Weight	-	9.3 to 9.4 ppg
Viscosity	-	38 - 40 seconds
Yield point	-	11 to 15 lb/100 sq ft
Filtrate	-	5.5 to 6.8cc
Chlorides	-	23,000 to 25,000 mg/lt
% KCL	-	4 to 4 1/2

The drilling continued to slow to around 4m/hr into the Crayfish formation from 1540m. Trips for bit changes were made at 1662m and 1743m without problems. Several minor sand drilling breaks were circulated out, but the lithology was mainly a massive siltstone/claystone.

At 2026m, after circulating out a break with a show, it was decided to run a drill stem test. After running a 20 stand wiper trip, the hole was circulated clean again, before pulling out. The drill stem test was then run without any operational problems.

BAROID AUSTRALIA PTY. LTD.

ANGLO AUSTRALIAN OIL Co. N.L.
KILLARA NO. 1
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DISCUSSION BY INTERVAL cont.

8 1/2" Hole cont.

Drilling then continued into the sands of the Pretty Hill formation from 2072m. With a lack of native clays in the formation cuttings, and an apparent increase in downhole filtration losses indicated by an increased mud consumption, it was then decided to change the mud pre-mix recipe. Pre-hydrated AQUAGEL was added to maintain the mud clay content at about 8 ppb, with the PAC-R reduced and Dextrid added to maintain a low filtrate, while keeping up the viscosity. The addition of the AQUAGEL and lowering of the filtrate was also done with the intention of reducing downhole filter cake build-up, which together with gauge hole, could give serious tripping problems.

The next trip, run at 2289m, had tight hole from 2250m to 2068m, with one stand in particular taking a half hour to work out. This did appear to be due to filter cake build-up across permeable sands in good gauge hole. Running back in did not give any problems.

Steady drilling then continued without any significant changes till T.D. was decided upon at 2409m. The hole was circulated clean and a 30 stand wiper trip run without problems. The mud viscosity was deliberately increased to 50 seconds to improve hole clean again; Halliburton wireline logs were run for about one day.

There were no hole problems experienced running logs and the caliper log showed the hole to be in good gauge as had been expected, with most of the hole being between 8 1/2" to 9". Only the section of lower Eumeralla from 1,000m to 1,500m was slightly enlarged to be between 9" to 10". This also corresponded to the only section that had showed cavings after a trip.

The good hole condition, particularly with such a long open hole section of 2,102m meant that the KCl-EZ MUD-Polymer mud system had succeeded in it's purpose. It should be pointed out that the relatively low hydraulics, with a bit nozzle velocity of 276 ft/sec through 12/32nd" nozzles and a pump rate of 285 gpm, was also a vital ingredient in achieving a good gauge hole.

Following logging it was decided to run a second drill stem test across the Pebble Point formation much higher up the hole. Three cement plugs were set first, with the third plug dressec down to 490m. The second drill stem test was then run successfull' run off this plug without problems.

The well was then plugged and abandoned on June 28, 1991.

BAROID AUSTRALIA PTY. LTD.

ANGLO AUSTRALIAN OIL Co. N.L.
KILLARA NO. 1
PEP 101, OTWAY BASIN, VICTORIA

CONCLUSIONS AND RECOMMENDATIONS

1. The resultant very good gauge 8 1/2" hole achieved with what was really only minor tight hole problems, indicates that this combination of a 3-4% KCl-EZ MUD-Polymer system and low bit hydraulics works well. A subsequent well for another operator over the same sections, with this same combination produced the same inn gauge hole and minor tight hole problems.
2. Aiming to produce a near gauge hole for accurate wireline logging, will always result in some tight hole problems, as logging will always result in some tight hole problems, as there will always be some lithologies where filter cake will build up, and others where there will be minor irregularities in direction. Minimising hole deviation, and downhole filter cake build-up is all that can be done to alleviate this. In this case, the tight hole problems were only minor, and gave us an indication that the hole gauge was good, so mud and hydraulics parameters were maintained.
3. Changing the mud recipe in the sandier sections of the Pretty Hill formation, to maintain the mud clay content, viscosity, yield point, and reduce filtrate resulted in very consistent mud properties. In previous wells, using polymer muds through sandy sections has often resulted in downhole filter cake build-up, despite the mud having an excellent API filtrate. This occurs when the mud solids lack the larger surface area clay particles, which are in abundance while drilling claystones and siltstones. Under downhole conditions of increased temperature and pressure, the finer lower surface area solids don't seal as effectively, resulting in a thicker filter cake. We didn't have any major problems with this, nor was much filter cake observed on the logs. For these reasons, I would recommend this same approach, of maintaining the mud clay content with additional pre-hydrated AQUAGEL, through major sandy sections, in subsequent wells.
4. The mud weight throughout the 8 1/2" hole was a little higher than desired, at 9.3 to 9.4 ppg. The combination of all the solids control equipment being in poor operating condition and dilution being restricted by lack of disposal room in the sump, were the main reasons for this. A mud weight of 9.1 to 9.2 ppg would have been the ideal. In fact a subsequent well for another operator, with a different rig, achieved a consistent 9.1 ppg with the same mud system, through the same formations. However, the solids control equipment was all in better operating condition, and there was no problem with dilution due to sump limitations.

BAF OIL AUSTRALIA PTY. L'D.

ANGLO AUSTRALIAN OIL Co. N.L.
KILLARA NO. 1
PEP 101, OTWAY BASIN, VICTORIA

CONCLUSIONS AND RECOMMENDATIONS cont.

5. Mud costs for the 8 1/2" section were significantly higher, at \$45,137.00 than was originally programmed at \$32,440.00. The main reason for this was that PAC-R concentration was under-programmed at 1 ppb, when 1.5 ppb was required. This would on its own account for six and a half thousand dollars difference. If increased costs associated with changing the mud programme through the sandstone section of the Pretty Hill formation (using additional AQUAGEL and DEXTRID) and using a slightly higher KCl concentration, are allowed for, the cost difference is accounted for. It should be noted that the actual amount of mud used, was very close to the estimated 3460 bbls. Also, the mud did it's job of providing a near trouble free well, with two drill stem tests successfully run.

BAR OIL AUSTRALIA PTY. L D.

Baroid Australia Pty. Ltd.

MATERIAL RECAP

COMPANY Anglo-Australian Oil Co. N.L. HOLE SIZE 12 1/4"
 WELL Killara No. 1 CONTRACTOR/RIG Gearhart Rig 2
 LOCATION PEP 101, Otway Basin, VIC MUD TYPE Spud Mud

INTERVAL TO (m) 307 DRILLING DAYS 3 COST/DAY \$432.64
 FROM (m) 11 ROTATING HRS. 29.5 COST/M \$4.38
 DRILLED (m) 296 COST/BBL \$1.50
 DATE Jun 8, 1991 MUD CONSUMPTION FACTOR (bbl/m) 2.93

MATERIAL	UNIT	UNIT COST	QUANTITY		CONC (ppb)		TOTAL COST (A\$)	
			EST	ACT	EST	ACT	ESTIMATE	ACTUAL
Barite	50kg	12.47						
AQUAGEL	25kg	10.88	116	113	10.1	7.2	1,262.08	1,229.44
Caustic Soda	25kg	33.37	3	1	0.3	0.1	100.11	33.37
Lime	25kg	7.02	6	5	0.5	0.3	42.12	35.10

DIESEL	Bbls							
CHEMICAL VOLUME	Bbls			7				
FRESH WATER	Bbls		630	860				
SEA WATER	Bbls							
TOTAL MUD MADE	Bbls		630	867				
COST LESS BARYTES							\$1,404.31	\$1,297.91
COST WITH BARYTES							<u>\$1,404.31</u>	<u>\$1,297.91</u>

COMMENTS

Used AQUAGEL/Lime/Native Clay Spud Mud

BAROID AUSTRALIA PTY. LTD.

Baroid Australia Pty. Ltd.

MATERIAL RECAP

COMPANY Anglo-Australian Oil Co. N.L. HOLE SIZE 8 1/2"
 WELL Killara No. 1 CONTRACTOR/RIG Gearhart Rig 2
 LOCATION PEP 101, Otway Basin, VIC MUD TYPE KCl/EZ MUD/PAC-R

INTERVAL TO (m) 2409 DRILLING DAYS 20 COST/DAY \$2,256.88
 FROM (m) 307 ROTATING HRS. 259 COST/M \$21.47
 DRILLED (m) 2102 COST/BBL \$12.54
 DATE Jun 28, 1991 MUD CONSUMPTION FACTOR (bbl/m) 1.71

MATERIAL	UNIT	UNIT COST	QUANTITY		CONC (pp)		ESTIMATE	TOTAL COST (A\$)	
			EST	ACT	EST	ACT		ESTIMATE	ACTUAL
Barite	50kg	12.47		40		1.2			498.80
AQUAGEL	25kg	10.88	51	157	0.8	2.4	554.88		1,708.16
Caustic Soda	25kg	33.37	3	19	0.0	0.3	100.11		634.03
Sodium Bicarbonate	50kg	40.36		4		0.1			161.44
CMC HV	25kg	90.04	3	20	0.0	0.3	270.12		1,800.80
EZ MUD	5gal	97.43	94	76	1.1	1.0	9,158.42		7,404.68
PAC-R	50lb	178.01	69	101	0.9	1.4	12,282.69		17,979.01
Caustic Potash	25kg	49.19	35	13	0.5	0.2	1,721.65		639.47
KCl (Ag grade)	50kg	20.49	440	500	13.0	15.7	9,015.60		10,245.00
DEXTRID	25kg	64.21		63		1.0			4,045.23
Lime	25kg	7.02		3		0.0			21.06
Soda Ash	25kg	16.63	18		0.3		299.34		

DIESEL	Bbls								
CHEMICAL VOLUME	Bbls			99					
FRESH WATER	Bbls		3720	3500					
SEA WATER	Bbls								
TOTAL MUD MADE	Bbls		3720	3599					
COST LESS BARYTES							\$33,402.81		\$44,638.88
COST WITH BARYTES							<u>\$33,402.81</u>		<u>\$45,137.68</u>

COMMENTS

Includes materials used for drilling 8 1/2" Hole up to the end of Halliburton wireline logging.

BAROID AUSTRALIA PTY. LTD.

Baroid Australia Pty. Ltd.

MATERIAL RECAP

COMPANY Anglo-Australian Oil Co. N.L. HOLE SIZE
 WELL Killara No. 1 CONTRACTOR/RIG Gearhart Rig 2
 LOCATION PEP 101, Otway Basin, VIC MUD TYPE

INTERVAL TO (m) DRILLING DAYS COST/DAY
 FROM (m) ROTATING HRS. COST/M
 DRILLED (m) COST/BBL
 DATE Jun 28, 1991 MUD CONSUMPTION FACTOR (bbl/m)

MATERIAL	UNIT	UNIT COST	QUANTITY		CONC (pp)		TOTAL COST (A\$)	
			EST	ACT	EST	ACT	ESTIMATE	ACTUAL

Barite

MATERIALS NOT CHARGED TO DRILLING

Cementing:

AQUAGEL	25kg	10.88	27				293.76
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Sump:

BARAFLOC	11b	10.00	1				10.00
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Testing:

Sodium Bicarbonate	50kg	40.36	1				40.36
PAC-R	50lb	178.01	2				356.02
DEXTRID	25kg	64.21	5				321.05
KCl (Ag grade)	50kg	20.49	8				163.92

DIESEL	Bbls						
CHEMICAL VOLUME	Bbls		3				
FRESH WATER	Bbls						
SEA WATER	Bbls						
TOTAL MUD MADE	Bbls		3				
COST LESS BARYTES							\$1,185.11
COST WITH BARYTES							<u>\$1,185.11</u>

COMMENTS

BAROID AUSTRALIA PTY. LTD.

Baroid Australia Pty. Ltd.

PROPERTY RECAP

COMPANY Anglo-Australian Oil Co. N.L.
 WELL Killara No. 1
 LOCATION PEP 101, Otway Basin, VIC

CONTRACTOR/RIG Gearhart Rig 2

DATE July 1991

DATE	DEPTH m	ROPE SIZE in	F'LL TEM C	MUD WT PPG	VIS SEC	PV	YP	GELS		FILTRATE API ml	PR	PF	MF	Cl mg/l	Ca mg/ xwt	KCl wt %	SD	SOL	RETORT		MBC	REMARKS/TREATMENT	
								10 SEC	10 min										H2O %	OIL %			
June	11																						
6	12	12-1/4		8.7	30					22	3	10	0.4	800	20	.25	3.5		96.5		12	16" COND @ 11M DRILL RATHOLE/HOUSEHOLE	
7	86	12-1/4	31	8.85	37	8	13	10	22	22	3	10	0.3										
8	307	12-1/4	3	9	45	7	30	30	40	4	4	8	0.03	1500	20	.25	5		95		18	DRILL 12-1/4" HOLE DRILL/WIPER TRIP/CASE	
9	307	12-1/4		9.1	39	9	12	6	14	30	3	10	0.25	11000	500	0.1	4.5		95.5		8	NIPPLE UP & TEST. NEW MUD	
10	593	8-1/2	32	9.2	45	15	10	1	7	10	2	9.5	0.12	13500	600	2.5	0.1	5	95		8	DRILL, INCREASE KCL %	
11	1059	8-1/2	35	9.3	43	16	2	4	8	1	9	9	0.05	15000	200	3	0.1	6	94		7	DRILL	
12	1276	8-1/2	43	9.5	58	20	30	20	30	10	2	8.5	0	18500	300	3.5	TI	7	93		11	TRIP, DRILL. SUMP FULL.	
13	1425	8-1/2	43	9.6	52	20	24	6	22	7.6	1	9	0.05	22000	220	4	TI	7.5	91.5		12	DRILL, WIPER, DRILL, TRIP	
14	1574	8-1/2	44	9.4	38	11	10	1	2	6.8	1	9.5	0.1	24500	180	4.5	TI	5	95		10	DRILL	
15	1664	8-1/2	41	9.4	39	12	11	1	2	6.2	1	9	0.05	24000	400	4.5	TI	5	95		11	DRILL, TRIP	
16	1743	8-1/2	42	9.4	40	14	11	1	2	6	1	10	0.2	24000	160	4.5	TI	5	95		9	DRILL	
17	1804	8-1/2	46	9.4	40	13	12	1	2	6.1	1	10	0.15	24500	100	4.5	TI	5	95		8	TRIP, DRILL	
18	1907	8-1/2	18	9.4	43	17	13	1	2	6	1	9.2	0.07	25000	220	4.5	TI	5	95		8	DRILL	
19	2026	8-1/2	43	9.3	43	16	15	1	2	4.8	1	9	0.05	23500	220	4.5	TI	4.5	96.5		8	DRILL, WIPER TRIP	
20	2026	8-1/2		9.35	48	20	17	1	2	5.5	1	9	0.05	22000	250	4	TI	4.5	96.5		7	DST NO. 1	
21	2120	8-1/2	47	9.3	40	14	11	1	2	4.8	1	9.5	0.05	23000	350	4.5	TI	4.5	95.5		8	DRILL	
22	2234	8-1/2	49	9.3	40	13	11	1	3	6.2	1	9.5	0.05	23000	150	4.5	TI	4.5	95.5		8	DRILL	
23	2289	8-1/2	53	9.3	42	13	14	3	10	6.5	1	9.5	0.05	23000	130	4.5	TI	4.5	95.5		8	DRILL, TRIP	
24	2395	8-1/2	56	9.25	44	13	14	2	10	6.4	1	9.5	0.1	20000	80	4	TI	4.5	95.5		8	DRILL	
25	2409	8-1/2		9.3	50	17	20	6	14	6.4	2	9.5	0.1	20000	80	4	TI	4.5	95.5		9	DRILL, T.D. LOG	
26	2409	8-1/2		9.3	50	17	20	6	14	6.4	2	9.5	0.1	20000	80	4	TI	4.5	95.5		9	LOGGING	
27	2409	8-1/2		9.2	38	14	8	1	2	6.4	1	11.5	0.4	17500	250	3	TI	4	96		8	SET PLUGS	
28	2409	8-1/2		9.2	38	14	8	1	2	6.4	1	11.5	0.4	17500	250	3	TI	4	96		8	DST NO. 2, PLUG & ABANDON	

Baroid Australia Pty. Ltd.

BIT RECORD

COMPANY Anglo-Australian Oil Co. N.L.
 WELL Killara No. 1
 LOCATION PEP 101, Otway Basin, VIC

CONTRACTOR/RIG: Gearhart Rig 2

DATE: July 1991

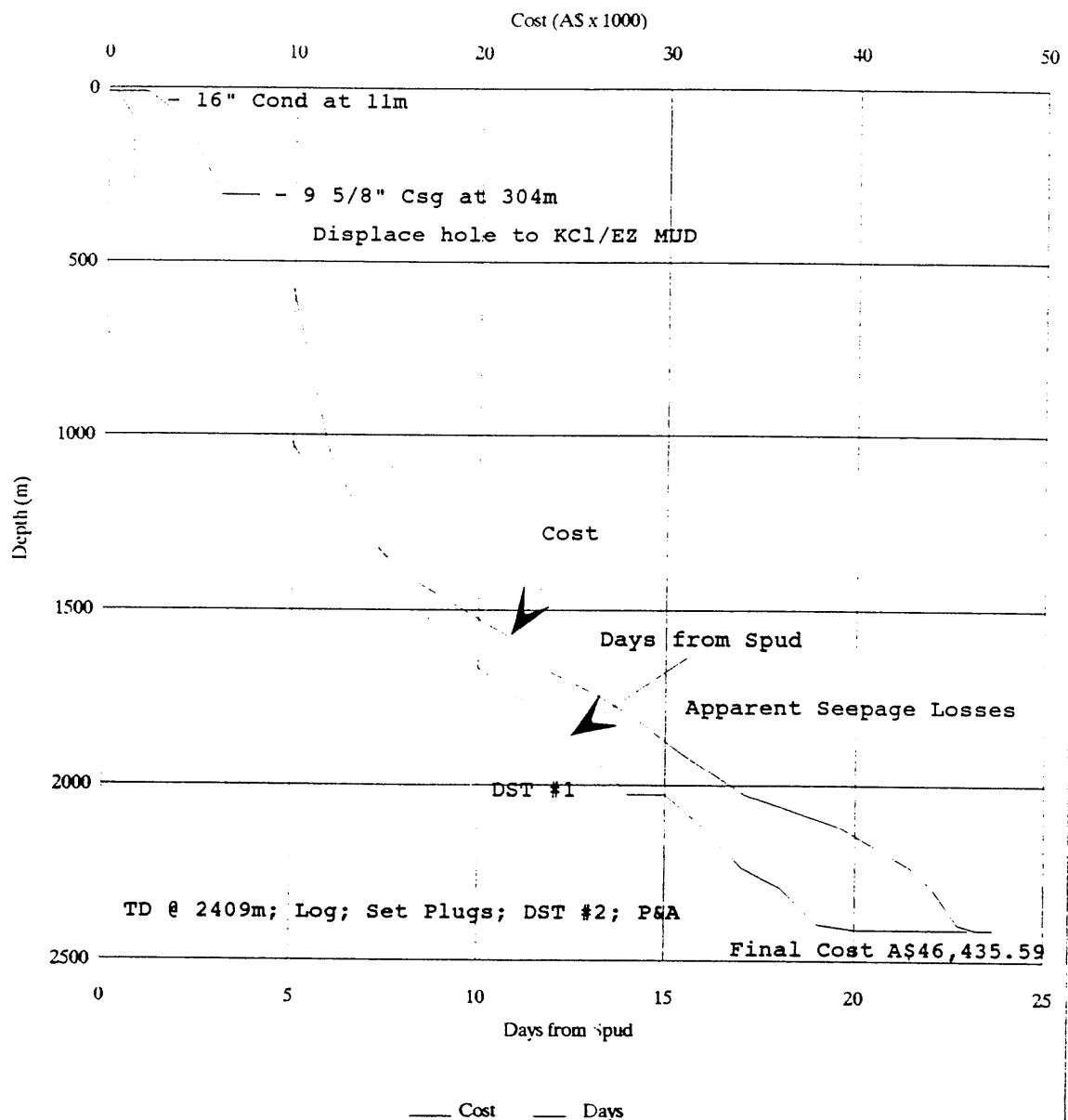
BIT NO.	BIT SIZE in	MAKE	TYPE	JETS	DEPTH OUT m	MTRS DRLLD	HRS ON BIT	RATE m/hr	ACC DRLG HRS	BIT WT kLB	RPM	VERT DEV. deg.	PUMP PRESS psi	PUMP RATE gpm	MUD WT ppg	MUD VIS sec	CONDITION		REMARKS
																	T	B G	
1RR	8.50	VAR	V517	10/10/OP	46	35	10.5	3.3	10.5	4	120		150	350	8.7	42			Drill Pilot Hole
2RR	12.25	SEC	S33S	15/15/15	24	13	4.5	2.9	15	4	120		900	500	8.7	42	2	3	I Open Hole
3RR	12.25	VAR	L114	15/15/15	307	283	14.5	19.5	29.5	20	120	0.25	1300	537	9.0	45	4	3	I Csg Point
4	8.50	VAR	L116	12/12/12	1065	758	33.5	22.6	63	25	140	1.00	1000	286	9.3	43	3	3	I Drill
5	8.50	VAR	L116	12/12/12	1425	360	30.5	11.8	93.5	30	140	1.50	1100	286	9.5	58	2	3	I Drill
6	8.50	HTC	J22	12/12/12	1662	237	38.5	6.2	132	25	100	0.80	1000	286	9.4	40	1	2	I Drill
7	8.50	VAR	L114	12/12/12	1746	84	23	3.7	155	30	120	2.00	1100	286	9.4	40	1	3	I Drill
8	8.50	HTC	ATJ11	12/12/12	2026	280	51	5.5	206	35	80	1.50	1100	286	9.3	43			Drill; DST #1
9RR	8.50	HTC	ATJ11	12/12/12	2276	250	51	4.9	257	35	60		1200	286	9.3	40	2	5	I Drill
10RR	8.50	HTC	J22	12/12/12	2409	133	31.5	4.2	288.5	35	60		1400	286	9.3	47	2	7	I Drill to TD

Baroid Australia Pty. Ltd.

COST/DAYS GRAPH

COMPANY Anglo-Australian Oil Co. N.L.
 WELL Killara No. 1
 LOCATION PEP 101, Otway Basin, VIC

DEPTH vs COST & DAYS



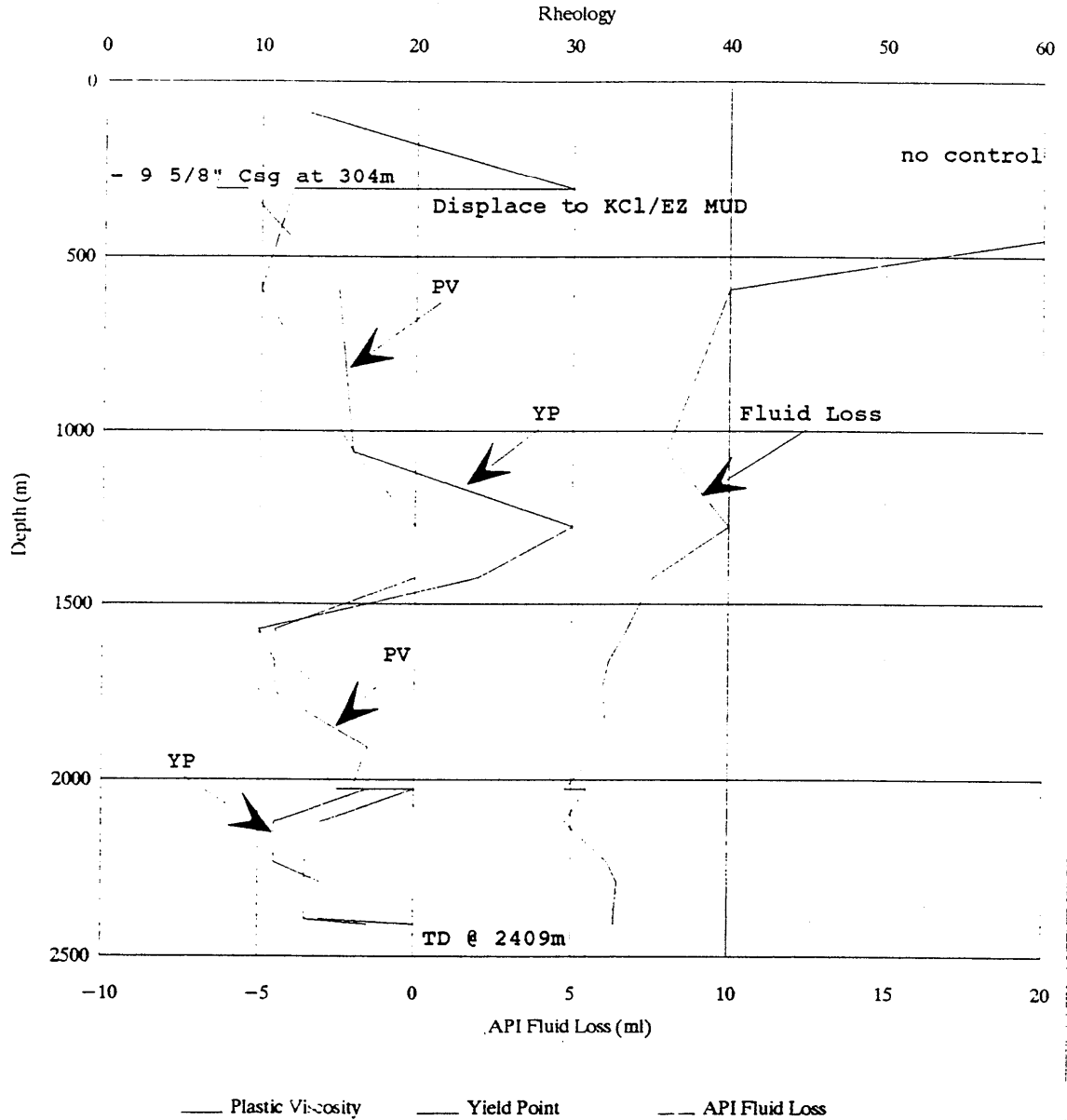
BAROID AUSTRALIA PTY. LTD.

Baroid Australia Pty. Ltd.

PROPERTIES GRAPH #1

COMPANY Anglo-Australian Oil Co. N.L.
WELL Killara No. 1
LOCATION PEP 101, Otway Basin, VIC

DEPTH vs RHEOLOGY & FILTRATION



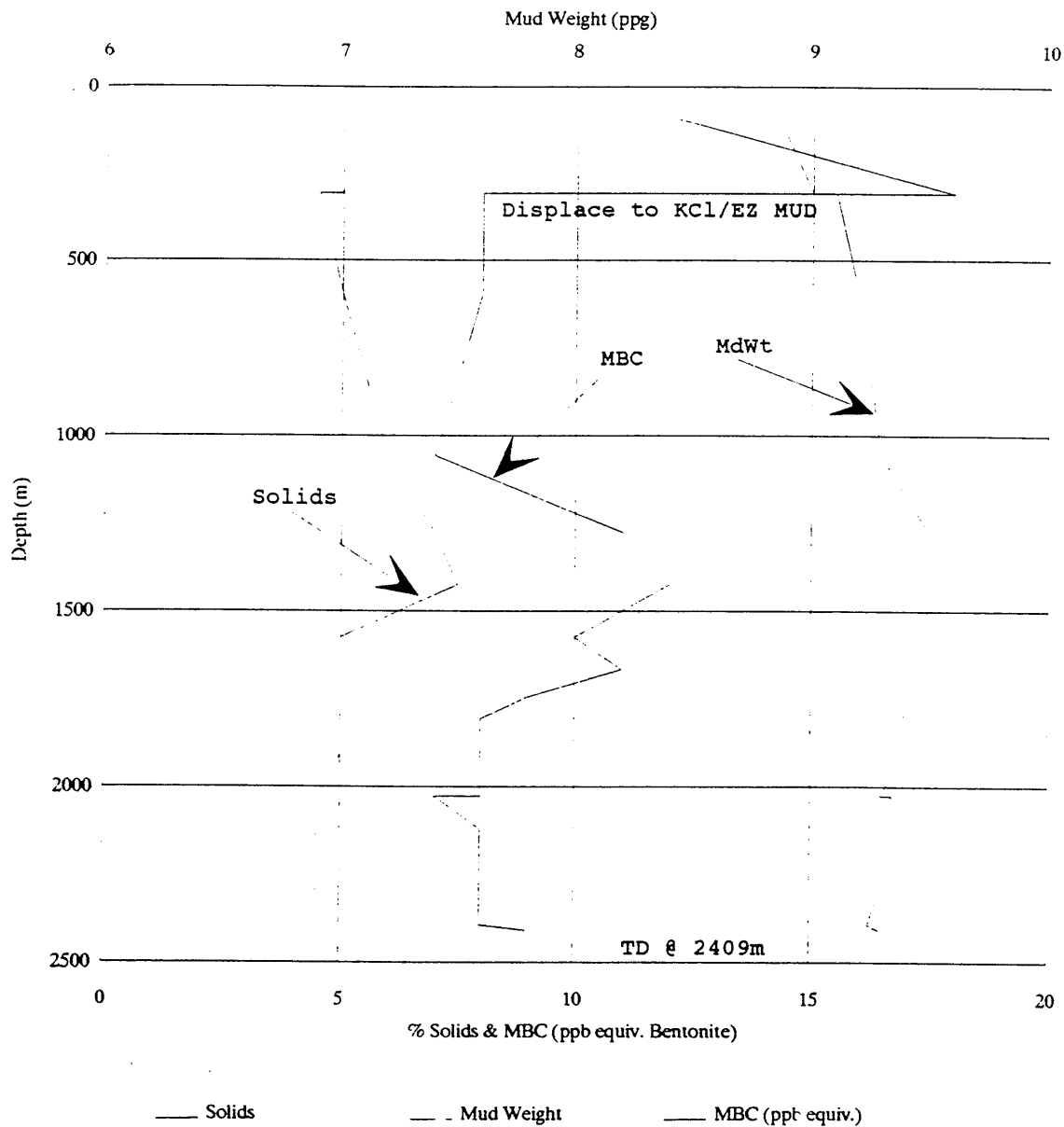
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Baroid Australia Pty. Ltd.

PROPERTIES GRAPH #2

COMPANY Anglo-Australian Oil Co. N.L.
WELL Killara No. 1
LOCATION PEP 101, Otway Basin, VIC

DEPTH vs MUD WT, SOLIDS & MBC

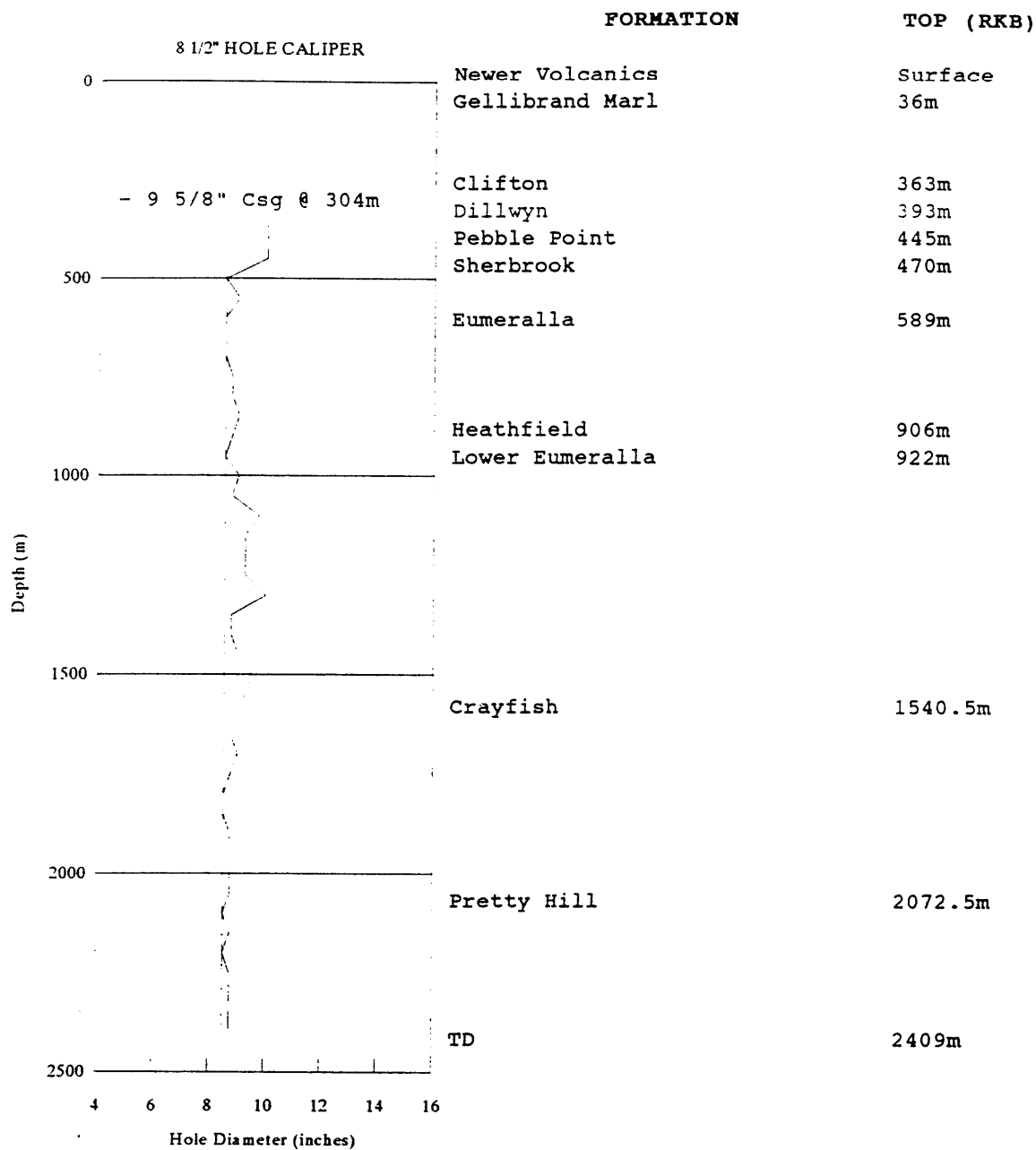


BAROID AUSTRALIA PTY. LTD.

Baroid Australia Pty. Ltd.

CALIPER/FORMATION TOPS

COMPANY Anglo-Australian Oil Co. N.L.
 WELL Killara No. 1
 LOCATION PEP 101, Otway Basin, VIC



BAROID AUSTRALIA PTY. LTD.

BAROID AUSTRALIA
MATERIALS RECONCILIATION

OPERATOR: Anglo Australian Oil Co. N.L.
WELL: Killara No. 1
OPERATOR REP.: Ken Smith

DATE: 1991	DT NO	DELIVERIES			TOTAL DELIVERIES	USAGE			TOTAL USAGE	ENDING INVENTORY	VARIANCE
		327259 29/5	327260 6/6	12/6		12 1/4"	8 1/2"	OTHER			
MATERIAL											
BARITE 50KG	200	40			240			40	40	200	
AQUAGEL 25KG	320				320		113	157	297	23	
CAUSTIC 25KG	20				20		1	19	20		
LIME 25KG	20				20		5	3	8	12	
SODA ASH 25KG	20				20					20	
BICARB 50KG	5				5			4	5		
CMC[HV] 25KG	20				20			20	20		
MICA 15KG	36				36					36	
EZ MUD 5GAL	32	64			96			76	76	20	
PAC-R 50LB		80	40		120			101	103	17	
KOH 25KG		40			40			13	13	27	
KCL[AG] 50KG		240	380		620			500	508	112	
DEXTRID 25KG		80			80			63	68	12	
E.SPOT 208LT		2			2					2	
BARAFLOC 1LB		2			2					1	
WELL 30KC			1		1				1	1	

BAROID AUSTRALIA PTY. LTD.

BAROID AUSTRALIA
WEEKLY INVENTORY

OPERATOR:
WELL:

Anglo Australian Oil Co. N.L.
Killara No. 1

DATE: 1991	JUNE 6		JUNE 7		JUNE 8		JUNE 9		JUNE 10		JUNE 11		JUNE 12		TOTALS	
	BEG	REC	USE	REC	USE	REC	USE	REC	USE	REC	USE	REC	USE	REC	USE	BAL
MATERIAL																
BARITE 50KG		200		40											240	240
AQUAGEL 25KG		320	35		78		27								320	140
CAUSTIC 25KG		20	1										3		20	11
LIME 25KG		20	2		3										20	5
SODA ASH 25KG		20													20	20
HTCARR 50KG		5													5	3
CMC[HV] 25KG		20							20						20	20
MICA 15KG		36													36	36
EZ MUD 5GAL		32		64						2	10				96	18
PAC-R 50LB				80						3	16				80	28
KOH 25KG				40											40	40
KCL[AG] 50KG				240						60	60				240	156
DEXTRID 25KG				80											80	80
E. SPOT 208LT				2											2	2
BARAFLOC 1LB				2											2	2
B-CIDE 30KG													1		2	1

BAROID AUSTRALIA PTY. LTD.

BAROID AUSTRALIA
INVENTORY

OPERATOR:
WELL:

Anglo Australian Oil Co. N.L.
Killara No. 1

DATE:1991	JUNE 13		JUNE 14		JUNE 15		JUNE 16		JUNE 17		JUNE 18		JUNE 19		TOTALS	
	BEG	USE	REC	USE	REC	USE	REC	USE	REC	USE	REC	USE	REC	USE	REC	BAL
MATERIAL																
BARITE 50KG	240															240
AQUAGEL 25KG	180													8		172
CAUSTIC 25KG	9	3		2				2								9
LIME 25KG	15															15
SODA ASH 25KG	20															20
BICARB 50KG	2													1		1
CMC[HV] 25KG																
MICA 15KG	36															36
EZ MUD 5GAL	78	2		8				4		6				10		43
PAC-R 50LB	52	10	40	16				5		5				4		57
KOH 25KG	40									1				1		38
KCL[AG] 50KG	84	60	380	52				24		20				35		218
DEXTRID 25KG	80							30						12		68
E.SPOT 208LT	2															2
BARAFLOC 1LB	1															1
B-CIDE 30KG			1												1	1

BAROID AUSTRALIA PTY. LTD.

BAROID AUSTRALIA
WEEKLY INVENTORY

OPERATOR:
WELL:

Anglo Australian Oil Co. N.L.
Killara No. 1

DATE:1991	JUNE 20			JUNE 21			JUNE 22			JUNE 23			JUNE 24			JUNE 25			JUNE 26			TOTALS		
	BEG	REC	USE	BEG	REC	USE	BEG	REC	USE	BEG	REC	USE	BEG	REC	USE	BEG	REC	USE	BEG	REC	USE	BAL		
BARITE 50KG	240																							
AQUAGEL 25KG	172			54																		40	200	
CAUSTIC 25KG							65															149	23	
LIME 25KG	15																					3	12	
SODA ASH 25KG	20																						20	
BICARB 50KG	1																						1	
CMC[HV] 25KG																								
MICA 15KG	36																						36	
EZ MUD 5GAL	35			6			7															15	20	
PAC-R 50LB	35			7			3															16	19	
KOH 25KG	38			3			2															11	27	
KCL[AG] 50KG	218			38			32															98	120	
DEXTRID 25KG	68			27			16															51	17	
E.SPOT 208LT	2																						2	
BARAFLOC 1LB	1																						1	
B-CIDE 30KG	1																						1	

BAROID AUSTRALIA PTY. LTD.

BAROID AUSTRALIA
WEEKLY INVENTORY

OPERATOR:
WELL:

Anglo Australian Oil Co. N.L.
Killara No. 1

DATE: 1991	JUNE 27			JUNE 28			JUNE 29			JUNE 30			JULY 1			JULY 2			JULY 3			TOTALS		
	BEG	REC	USE	REC	USE	REC	USE	REC	USE	REC	USE	REC	USE	REC	USE	REC	USE	REC	USE	REC	USE	BAL		
BARITE 50KG	200																						200	
AQUAGEL 25KG	23																						23	
CAUSTIC 25KG																								
LIME 25KG	12																						12	
SODA ASH 25KG	20																						20	
BICARB 50KG	1		1																				1	
CMC[HV] 25KG																								
MICA 15KG	36																						36	
EZ MUD 5GAL	20																						20	
PAC-R 50LB	19		2																				17	
NOH 4JAG	27																						27	
KCL[AG] 50KG	120		8																				112	
DEXTRID 25KG	17		5																				12	
E.SPOT 208LT	2																						2	
BARAFLOC 1LB	1																						1	
B-CIDE 30KG	1																						1	

BAROID AUSTRALIA PTY. LTD.



NL Baroid



DRILLING MUD REPORT NO. 1

DATE <u>6 June 1991</u>	DEPTH <u>12m</u>
SPUD DATE <u>6/6/91</u>	PRESENT ACTIVITY <u>Drilling 8 1/2 inch hole</u>

OPERATOR <u>ANGLO AUSTRALIAN</u>	CONTRACTOR <u>GENIELEC</u>	RIG NO. <u>2</u>
REPORT FOR <u>KEN SMITH</u>	REPORT FOR <u>T. DOLLEY</u>	SECTION, TOWNSHIP, RANGE <u>KOROR</u>
WELL NAME AND NO. <u>KILDEE No 1</u>	FIELD OR BLOCK NO. <u>PIEF 101</u>	COUNTY, PARISH OR OFFSHORE AREA <u>OTWAY BASIN</u>
		STATE/PROVINCE <u>VICTORIA</u>

DRILLING ASSEMBLY			CASING		MUD VOLUME (BBL)		CIRCULATION DATA		
BIT SIZE <u>8</u>	TYPE <u>V517</u>	JET SIZE <u>OPEN</u>	SURFACE SET <u>END @ 11 m</u>	HOLE <u>5 bbl</u>	PITS <u>350 bbl</u>	PUMP SIZE X IN. <u>6x2</u>	ANNULAR VEL. (FT/MIN) DP _____ DC _____		
DRILL PIPE SIZE <u>5</u>	TYPE <u>1951b</u>	LENGTH _____	INTERMEDIATE SET @ _____ FT	TOTAL CIRCULATING VOLUME <u>355 bbl</u>		PUMP MAKE, MODEL <u>P230</u>	ASSUMED EFFICIENCY % <u>97</u>	CIRCULATION PRESSURE (PSI) <u>300</u>	
DRILL PIPE SIZE _____	TYPE _____	LENGTH _____	INTERMEDIATE SET @ _____ FT	IN STORAGE <u>20 bbl</u>	WEIGHT <u>(RenaGel)</u>	BBL/STK <u>0.068</u>	STK/MIN <u>120</u>	BOTTOMS UP (MIN) _____	
DRILL COLLAR SIZE _____	LENGTH _____	PRODUCTION OR LINER SET @ _____ FT	MUD TYPE <u>FW Gel</u>			BBL/MIN <u>8.16</u>	GAL/MIN <u>345</u>	TOTAL CIRC. TIME (MIN) _____	

MUD PROPERTIES				MUD PROPERTY SPECIFICATIONS		
Sample From _____	<input type="checkbox"/> F.L. <input type="checkbox"/> PIT	<input type="checkbox"/> F.L. <input type="checkbox"/> PIT	WEIGHT _____	VISCOSITY _____	FILTRATE _____	
Time Sample Taken <u>24.00</u>	BY AUTHORITY <input type="checkbox"/> OPERATOR'S WRITTEN <input type="checkbox"/> DRILLING CONTRACTOR <input type="checkbox"/> OPERATOR'S REPRESENTATIVE <input type="checkbox"/> OTHER			REMARKS RECOMMENDED TREATMENT		
Flowline Temperature °F _____	Weight <input checked="" type="checkbox"/> (ppg) <input type="checkbox"/> (lb/cu. ft.) <input type="checkbox"/> Sp.G <u>8.7</u>			ARRIVED ON SITE 00:30hrs 6/6/91.		
Depth (ft) _____	Funnel Viscosity (sec/qt) API @ °F <u>30</u>			A/C DRILLING RENT RATION.		
Yield Point (lb/100 ft²) _____	Plastic Viscosity cP @ °F _____			VOLCANIC ROCK ON SURFACE OF LOCATION		
Get Strength (lb/100 ft²) 10 sec/10 min. _____	Yield Point (lb/100 ft²) _____			HOLE RATIOLE TOOK 2+ HRS TO COMPLETE;		
Filtrate API (cm³/30 min.) _____	Get Strength (lb/100 ft²) 10 sec/10 min. _____			DRILLING 8 1/2 PILOT HOLE, 12 1/2 HOLE AND		
API HTHP Filtrate (cm³/30 min.) @ °F _____	Filtrate API (cm³/30 min.) _____			THEN WOUND TO AND STABILISE TO BEAM IT		
Cake Thickness (32nd in. API/HTHP) _____	API HTHP Filtrate (cm³/30 min.) @ °F _____			OUT.		
Solids Content (%by Vol.) <input type="checkbox"/> calculated <input type="checkbox"/> retort _____	Cake Thickness (32nd in. API/HTHP) _____			DRILLED MUDSHOLE OVER 4 1/2 HRS.		
Liquid Content (%by Vol.) Oil/Water _____	Solids Content (%by Vol.) <input type="checkbox"/> calculated <input type="checkbox"/> retort _____			USED WATER FROM PITS, SPOTTING 14-UIS		
Sand Content (%by Vol.) _____	Liquid Content (%by Vol.) Oil/Water _____			PREPARATED BENTONITE FROM MIXING TANK		
Methylene Blue Capacity <input type="checkbox"/> lb/bbl equiv. <input type="checkbox"/> cm³/cm³ mud _____	Sand Content (%by Vol.) _____			SPUD IN 8 1/2 PILOT SURFACE HOLE		
pH <input type="checkbox"/> Strip <input type="checkbox"/> Meter @ °F _____	Methylene Blue Capacity <input type="checkbox"/> lb/bbl equiv. <input type="checkbox"/> cm³/cm³ mud _____			AT 2330hrs. MADE IN A NEW HOLE		
Alkalinity Mud (Pm) _____	pH <input type="checkbox"/> Strip <input type="checkbox"/> Meter @ °F _____			TO MIDNIGHT.		
Alkalinity Filtrate (P/M) _____	Alkalinity Mud (Pm) _____			BEGINNING TO MUD UP MAIN ACIUV		
Alternate Alkalinity Filtrate (P/P2) _____	Alkalinity Filtrate (P/M) _____			MUD SYSTEM.		
Chloride (mg/L) _____	Alternate Alkalinity Filtrate (P/P2) _____			DRILLWATER MAKUP. CHLORIDES 300mg/L		
Total Hardness as Calcium (mg/L) _____	Chloride (mg/L) _____			TOTAL HARDNESS 80mg/L		
Water used (bbl) <u>500</u>	Total Hardness as Calcium (mg/L) _____					

PRODUCT INVENTORY	EQUIPMENT												
	ARRIVE (50kg)	ARRIVE (25kg)	MICR (15kg)	CRUSK (25kg)	LIME (25kg)	CMC (10kg)	CMC (25kg)	SOPH (25kg)	FRON (25kg)	FRON (50kg)	FRON (25kg)	SIZE	HRS/TOUR
STARTING INVENTORY	200	320	36	20	20	20	20	5	32			Centrifuge	
RECEIVED												Degasser	
USED LAST 24 HR	-	35	-	1	2	-	-	-	-	-	-	Desander	-
CLOSING INVENTORY	200	285	36	19	18	20	20	5	32			Desilter	-
OST LAST 24 HR	-	30	-	33	14	-	-	-	-	-	-	Shaker (1) (20/360)	6
												Other (2) (20/360)	1
												DAILY COST	\$ 428.21
												CUMULATIVE COST	\$ 428.21

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REPRESENTATIVE: <u>MONTANA</u>	HOME ADDRESS: <u>170, 3011th</u>	TELEPHONE: _____
PHONE NUMBER: _____	WAREHOUSE LOCATION: <u>170, 3011th</u>	TELEPHONE: _____



NL Baroid



DRILLING MUD REPORT NO. 2

DATE 7 June 1991 DEPTH 22m

SPUD DATE 6/6/91 PRESENT ACTIVITY DRILLING

OPERATOR CONTRACTOR RIG NO.

REPORT FOR ANGLO AUSTRALIAN CONTRACTOR GEORGE HART REPORT FOR T. DOHERTY SECTION, TOWNSHIP, RANGE 2

WELL NAME AND NO. KEN SMITH FIELD OR BLOCK NO. P.P.P. 101 COUNTY, PARISH OR OFFSHORE AREA OTWAY BASIN STATE/PROVINCE VIC 3280

DRILLING ASSEMBLY CASING MUD VOLUME (BBL) CIRCULATION DATA

Table with columns for BIT SIZE, TYPE, JET SIZE, SURFACE, HOLE, PITS, PUMP SIZE, ANNULAR VEL., DRILL PIPE SIZE, INTERMEDIATE, TOTAL CIRCULATING VOLUME, PUMP MAKE, MODEL, ASSUMED EFF, CIRCULATION PRESSURE, DRILL PIPE SIZE, INTERMEDIATE, IN STORAGE, WEIGHT, BBL/STK, STK/MIN, BOTTOMS UP, DRILL COLLAR SIZE, LENGTH, PRODUCTION OR LINER, MUD TYPE, BBL/MIN, GAL/MIN, TOTAL CIRC. TIME.

MUD PROPERTIES MUD PROPERTY SPECIFICATIONS

Sample From F.L. PIT F.L. PIT WEIGHT VISCOSITY FILTRATE

Time Sample Taken 11:20 24:00 BY AUTHORITY OPERATOR'S WRITTEN DRILLING CONTRACTOR OPERATOR'S REPRESENTATIVE OTHER

Flowline Temperature °F 31°C

Depth (ft/m) 33m 22m RIMMERS RECOMMENDED TREATMENT

Weight (ppg) (lb/cu. ft.) (Sp.G) 8.7 8.8

Funnel Viscosity (sec/qt) API @ °F 42 37

Plastic Viscosity cP @ °F 5 8

Yield Point (lb/100 ft²) 27 15

Get Strength (lb/100 ft²) 10 sec/10 min. 12 24 10 22

Filtrate API (cm³/30 min.) 12 22

API HTHP Filtrate (cm³/30 min.) @ °F

Cake Thickness (32nd in. API/HTHP) 3/2 3/2

Solids Content (%by Vol.) calculated retort 3 3 1/2

Liquid Content (%by Vol.) Oil/Water -/97 -/96 1/2

Sand Content (%by Vol.) 1/2 1/4

Methylene Blue Capacity lb/bbl equiv. cm³/cm³ mud - 12

pH Strip Meter @ °F 10.5 10.0

Alkalinity Mud (Pm) - 1.6

Alkalinity Filtrate (P/M) 1.1 1.3 0.3 0.4

Alternate Alkalinity Filtrate (P/P2)

Chloride (mg/L) 1300 200

Total Hardness as Calcium (mg/L) 20 20

WATER usage (bbl.) 110

CONTINUE DRILLING FROM HOLE TO 46m, ABOUT 1 SINGLE AFTER FRANKING THROUGH SUBMER BASAL INTO SAND AND LIMESTONE. PICKING UP AND PICKING UP 12" BIT. RESUME DRILLING, OPENING UP FROM HOLE TO 12" THEN CONTINUE DRILLING 12" HOLE THROUGH MACE. MIXED BOUNCES AND LIME IN AREA. SYSTEM TO MAINTAIN 40° VISCOSITY WITH FRANKING BASAL. USING WATER / LIME ONCE USED. CONTINUE DRILLING MORE.

Table with columns for PRODUCT INVENTORY, STARTING INVENTORY, RECEIVED, USED LAST 24 HR, LOSING INVENTORY, COST LAST 24 HR, EQUIPMENT, SIZE, HRS/TOUR, DAILY COST, CUMULATIVE COST.

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THIS COPY TO AREA MANAGER

REPRESENTATIVE NAME ADDRESS TELEPHONE

MOBILE UNIT AREHOUSE LOCATION TELEPHONE

NL

NL Baroid



DRILLING MUD REPORT NO. 3

DATE <u>2 June 1971</u>	DEPTH <u>307m</u>
SPUD DATE <u>6/4/71</u>	PRESENT ACTIVITY <u>WIP ON CEMENT</u>

OPERATOR <u>ANGLE AUSTRALIAN</u>	CONTRACTOR <u>GEARHART</u>	RIG NO. <u>2</u>
REPORT FOR <u>KEEN SMITH</u>	REPORT FOR <u>T. DUNNITY</u>	SECTION, TOWNSHIP, RANGE <u>KOENIG</u>
WELL NAME AND NO. <u>KILLICK No 1</u>	FIELD OR BLOCK NO. <u>Block 101</u>	COUNTY, PARISH OR OFFSHORE AREA <u>OTWAY BASIN VIC 3000</u>

DRILLING ASSEMBLY			CASING		MUD VOLUME (BBL)		CIRCULATION DATA			
BIT SIZE <u>12 1/4</u>	TYPE <u>6 1/4</u>	JET SIZE <u>3x15</u>	SURFACE SET <u>CAND @ 11</u>	HOLE <u>150 hbl</u>	PITS <u>320 hbl</u>	PUMP SIZE X IN. <u>658</u>	ANNULAR VEL. (FT/MIN) DP <u>101</u> DC <u>170</u>			
DRILL PIPE SIZE <u>4 1/2</u>	TYPE <u>16.6 lb</u>	LENGTH <u>32.15</u>	INTERMEDIATE SET <u>@</u>	FT	TOTAL CIRCULATING VOLUME <u>470 hbl</u>	PUMP MAKE, MODEL <u>P220</u>	ASSUMED EFF %	CIRCULATION PRESSURE (PSI) <u>1300</u>		
DRILL PIPE SIZE <u>4 1/2</u>	TYPE <u>11wmp</u>	LENGTH <u>54.8m</u>	INTERMEDIATE SET <u>@</u>	FT	IN STORAGE	WEIGHT	BBL/STK <u>0.063</u>	STK/MIN <u>122</u>	BOTTOMS UP (MIN) <u>10</u>	
DRILL COLLAR SIZE <u>12 1/2 BHO</u>	LENGTH <u>215.10</u>	PRODUCTION OR LINER SET <u>@</u>	FT	MUD TYPE <u>11wmp</u>	BBL/MIN <u>12.78</u>	GAL/MIN <u>537</u>	TOTAL CIRC. TIME (MIN) <u>37</u>			

Sample From	MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS		
	<input type="checkbox"/> F.L. <input checked="" type="checkbox"/> PIT	<input type="checkbox"/> F.L. <input type="checkbox"/> PIT	WEIGHT	VISCOSITY	FILTRATE
Time Sample Taken	<u>12:00</u>		BY AUTHORITY <input type="checkbox"/> OPERATOR'S WRITTEN <input type="checkbox"/> DRILLING CONTRACTOR <input type="checkbox"/> OPERATOR'S REPRESENTATIVE <input type="checkbox"/> OTHER		
Flowline Temperature °F °C	<u>30°C</u>		RECOMMENDED TREATMENT		
Depth (#)	<u>306m</u>		<p><u>REMARKS</u></p> <p>CONTINUED DRILLING THROUGH MUD TO 306m. RAN WIPER TRIP TO SURFACE WITHOUT PROBLEMS. HAS NO FILL RUNNING BACK IN TO BOTTOM.</p> <p>DRILLED ANOTHER METAL AND CIRCULATED HOLE CLEAN FOR 1 HOUR. HAS PARTIAL BLOCKAGE OF FLOW FLOWLINE FROM LARGE STICKY CUTTINGS AFTER WIPER TRIP.</p> <p>RAN 4 1/2 CASING, WASHING DOWN CASE 4m OF FILL. CIRCULATED CASING THROUGH CEMENT WITH 118 PPS 4% GEL CEMENT SLURRY AND 156 PPS NET TAIL SLURRY. HAS 45% RETURN AT SURFACE ON DISPLACEMENT.</p> <p>HIGHLY DISPERSIVE MUD INCREASED VISCOSITY AND DILUTION RATE.</p> <p><u>NOTE:</u> MATERIAL USED FOR CEMENT MIX WATER. * NOT INCLUDED IN DRILLING MUD COSTS.</p>		
Weight <input checked="" type="checkbox"/> (ppg) <input type="checkbox"/> (lb/cu. ft.) <input type="checkbox"/> Sp.G	<u>9.0</u>				
Funnel Viscosity (sec/qt) API @ °F	<u>45 / /</u>				
Elastic Viscosity cP @ °F	<u>7</u>				
Gel Point (lb/100 ft²)	<u>30</u>				
Get Strength (lb/100 ft²) 10 sec/10 min.	<u>30 / 40</u>				
Filtrate API (cm³/30 min.)	<u>NO CONTROL</u>				
API HTHP Filtrate (cm³/30 min.) @ °F	<u>- / /</u>				
Cake Thickness (32nd in. API/HTHP)	<u>4/32</u>				
Solids Content (%by Vol.) <input type="checkbox"/> calculated <input type="checkbox"/> retort	<u>5</u>				
Liquid Content (%by Vol.) Oil/Water	<u>- / 95</u>				
Sand Content (%by Vol.)	<u>44</u>				
Methylene Blue Capacity <input checked="" type="checkbox"/> lb/bbl equiv. <input type="checkbox"/> cm³/cm³ mud	<u>18</u>				
API <input checked="" type="checkbox"/> Strip <input type="checkbox"/> Meter @ °F	<u>8.0</u>				
Alkalinity Mud (Pm)	<u>0.7</u>				
Alkalinity Filtrate (P/M)	<u>0.03 / 12</u>				
Formate Alkalinity Filtrate (P./P₂)	<u>- / /</u>				
Chloride (mg/L)	<u>1500</u>				
Total Hardness as Calcium (mg/L)	<u>20</u>				
Water Used (bbl)	<u>250</u>				

PRODUCT INVENTORY	EQUIPMENT											DAILY COST	CUMULATIVE COST	
	BRARIS 50K	NGIN 25K	CHISIC 25K	LIME 25K	FE MINO 15.11	PAR R 50B	PAR R 25K	ACE 15.50K	KONI 25K	FAVOR 50K	SIZE			HRS/TOUR	HOUR
STARTING INVENTORY	241	207	19	15	96	80	80	200	40	2				
RECEIVED														
USED LAST 24 HR	-	27	-	-	-	-	-	-	-	-				
ENDING INVENTORY	240	180	19	15	96	80	80	200	40	2				
USED LAST 24 HR	-	<u>295.79</u>	-	-	-	-	-	-	-	-				
												<u>\$ 1297.91</u>		

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REPRESENTATIVE <u>MANFRED OLIVERA</u>	HOME ADDRESS <u>MELBOURNE</u>	TELEPHONE
MOBILE UNIT	WAREHOUSE LOCATION <u>MELBOURNE</u>	TELEPHONE



NL Baroid



DRILLING MUD REPORT NO. 4

DATE 9 June 19 11	DEPTH 30 in
SPUD DATE 4/1/11	PRESENT ACTIVITY NIPPLE

OPERATOR Angelo Muscatello	CONTRACTOR GEORGINA	RIG NO. 2
REPORT FOR KEN SMITH	REPORT FOR T. D. ...	SECTION, TOWNSHIP, RANGE

WELL NAME AND NO. KILGORE No 1	FIELD OR BLOCK NO. C-101	COUNTY, PARISH OR OFFSHORE AREA	TOWNSHIP	STATE/PROVINCE
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DRILLING ASSEMBLY			CASING		MUD VOLUME (BBL)		CIRCULATION DATA		
BIT SIZE	TYPE	JET SIZE	SET	SURFACE @ FT	HOLE (HOLE) PITS	PUMP SIZE X IN.	ANNULAR VEL. (FT/MIN) DP DC		
DRILL PIPE SIZE	TYPE	LENGTH	SET	INTERMEDIATE @ FT	TOTAL CIRCULATING VOLUME	PUMP MAKE, MODEL	ASSUMED EFF 97%	CIRCULATION PRESSURE (PSI) NO CIRC	
DRILL PIPE SIZE	TYPE	LENGTH	SET	INTERMEDIATE @ FT	IN STORAGE WEIGHT	BBL/STK	STK/MIN	BOTTOMS UP (MIN)	
DRILL COLLAR SIZE	LENGTH	PRODUCTION OR LINER SET	@	FT	MUD TYPE	BBL/MIN	GAL/MIN	TOTAL CIRC. TIME (MIN)	

MUD PROPERTIES				MUD PROPERTY SPECIFICATIONS		
Sample From	<input type="checkbox"/> F.L. <input type="checkbox"/> PIT	<input type="checkbox"/> F.L. <input type="checkbox"/> PIT	WEIGHT	VISCOSITY	FILTRATE	
Time Sample Taken	BY AUTHORITY			<input type="checkbox"/> OPERATOR'S WRITTEN <input type="checkbox"/> DRILLING CONTRACTOR <input type="checkbox"/> OPERATOR'S REPRESENTATIVE <input type="checkbox"/> OTHER		
Flowline Temperature °F	REMARKS			RECOMMENDED TREATMENT		
Depth (ft)	No Circulation			WAIT ON CEMENT. MIXED 20 FT TOP UP JOB BY HAND.		
Weight <input type="checkbox"/> (ppg) <input type="checkbox"/> (lb/cu. ft.) <input type="checkbox"/> Sp.G				NIPPLED UP AND PRESSURE TESTED B.O.F., HYDRO. DONE CORRE.		
Funnel Viscosity (sec/qt) API @ °F				DUMPED SANDLINE AND SETTING TANKS AND WASHED THEM OUT.		
Plastic Viscosity cP @ °F				RE-MIXED 150 BBL OLD MUD TO BE USED FOR DRILLING OUT CEMENT, DILLON WITH WATER.		
Yield Point (lb/100 ft²)				MIXED SLOW SLOWLY TO 40/60.		
Get Strength (lb/100 ft²) 10 sec/10 min.						
Filtrate API (cm³/30 min.)						
API HTHP Filtrate (cm³/30 min.) @ °F						
Cake Thickness (32nd in. API/HTHP)						
Solids Content (%by Vol.) <input type="checkbox"/> calculated <input type="checkbox"/> retort						
Liquid Content (%by Vol.) Oil/Water						
Sand Content (%by Vol.)						
Methylene Blue Capacity <input type="checkbox"/> lb/bbl equiv. <input type="checkbox"/> cm³/cm³ mud						
pH <input type="checkbox"/> Strip <input type="checkbox"/> Meter @ °F						
Alkalinity Mud (Pm)						
Alkalinity Filtrate (P/M)						
Alternate Alkalinity Filtrate (P/P₂)						
Chloride (mg/L)						
Total Hardness as Calcium (mg/L)						
WATER USR: (bbl) —						

PRODUCT INVENTORY	EQUIPMENT													
	SIZE													
STARTING INVENTORY	24	120	19	15	96	80	80	24	40	2				
RECEIVED														
USED LAST 24 HR														
CLOSING INVENTORY	24	120	19	15	96	80	80	24	40	2				
COST LAST 24 HR														
DAILY COST											CUMULATIVE COST			
											\$ 1277.91 ✓			

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REPRESENTATIVE MONTY ...	HOME ADDRESS M. ...	TELEPHONE
MOBILE UNIT	WAREHOUSE LOCATION	TELEPHONE

NL

NL Baroid



DRILLING MUD REPORT NO. 45

DATE 10 June 19 11	DEPTH 593m
SPUD DATE 6/4/11	PRESENT ACTIVITY DRILLING

OPERATOR DANIELA MURPHY	CONTRACTOR GEORGE	RIG NO. 2
REPORT FOR KEN SMITH	REPORT FOR T ROBERT	SECTION, TOWNSHIP, RANGE KUSO
WELL NAME AND NO. KILLARNO No 1	FIELD OR BLOCK NO. P.F. 101	COUNTY, PARISH OR OFFSHORE AREA OTWAY STATE/PROVINCE VICTORIA

DRILLING ASSEMBLY			CASING		MUD VOLUME (BBL)		CIRCULATION DATA				
BIT SIZE 2 1/2	TYPE L116	JET SIZE 3x12	SURFACE SET 9 1/2 @ 304 FT	INTERMEDIATE SET @ FT	HOLE 115 bbl	PITS 300 bbl	PUMP SIZE X IN. 6x8	ANNULAR VEL. (FT/MIN) DP 134 DC 232			
DRILL PIPE SIZE 4 1/2	TYPE 16-6/16	LENGTH	TOTAL CIRCULATING VOLUME 415 bbl		PUMP MAKE, MODEL P2 80		ASSUMED EFF 97 %	CIRCULATION PRESSURE (PSI) 950			
DRILL PIPE SIZE 6 1/2	TYPE HWDP	LENGTH 55.8	IN STORAGE 30 bbl		WEIGHT		BBU/STK 0.068	STK/MIN 100	BOTTOMS UP (MIN) 14		
DRILL COLLAR SIZE 6 1/2	TYPE BHD	LENGTH 115.8	PRODUCTION OR LINER SET @ FT		MUD TYPE KCL/POLYMER		BBU/MIN 68	285 GAL/MIN	TOTAL CIRC. TIME (MIN) 61		

MUD PROPERTIES			MUD PROPERTY SPECIFICATIONS		
Sample From	<input type="checkbox"/> F.L. @ PIT	<input type="checkbox"/> F.L. @ PIT	WEIGHT	VISCOSITY	FILTRATE
Time Sample Taken	18.00	24.00	BY AUTHORITY <input type="checkbox"/> OPERATOR'S WRITTEN <input type="checkbox"/> DRILLING CONTRACTOR <input type="checkbox"/> OPERATOR'S REPRESENTATIVE <input type="checkbox"/> OTHER		
Flowline Temperature °F			RECOMMENDED TREATMENT		
Depth (ft)			COMPILED PRESSURE TESTING. DRAINED OUT MUDHOUSE AGAIN. MADE UP 2 1/2 BBL AND R.I.H. DRILLED OUT Casing AND SIDE 7.307L USING OLD MUD MIXTURE WITH @ WATER AND SOME NEW Casing/KCL MUD. THE 8 TPTG, 30L AND N.C. ... AFTER DRILLING OUT. RAN LUBE OIL TEST. AFTER CIRC HOLE CLEAN FOR 10 MIN. THEN CONTINUED DRILLING		
Weight (ppg) <input type="checkbox"/> (lb/cu. ft.) <input type="checkbox"/> Sp.G	9.1	9.2	INITIALLY MAINTAINED PARTICLE CONCENTRATION MUD BY RETAINING LOW CONCENTRATION. GRADUALLY INCREASED KCL % AND RAN FILTRATE @ 30 MIN @ NEW MUD. MUD. RAN @ 12 MUD ADJUSTED TO ABOUT 500.		
Funnel Viscosity (sec/qt) API @ °F	39	45	n = 0.68 k = 0.36		
Plastic Viscosity cP @ °F	9	15			
Yield Point (lb/100 ft²)	12	10			
Get Strength (lb/100 ft²) 10 sec/10 min.	6/14	1/7			
Filtrate API (cm³/30 min.)	30	10			
API HTHP Filtrate (cm³/30 min.) @ °F	-	-			
Cake Thickness (32nd in. API/HTHP)	3/32	2/32			
Solids Content (%by Vol.) <input type="checkbox"/> calculated <input type="checkbox"/> retort	4.5	5			
Liquid Content (%by Vol.) Oil/Water Soln	-/955	-/95			
Sand Content (%by Vol.)	0.1	0.1			
Methylene Blue Capacity <input type="checkbox"/> lb/bbl equiv. <input type="checkbox"/> cm³/cm³ mud	8	8			
pH <input checked="" type="checkbox"/> Strip <input type="checkbox"/> Meter @ °F	10.0	9.5			
Alkalinity Mud (Pm)	2.8	1.2			
Alkalinity Filtrate (P/M)	25/0.3	12/0.2			
Alternate Alkalinity Filtrate (P/P₂)	-	-			
Chloride (mg/L)	11,000	13,500			
Total Hardness as Calcium (mg/L)	500	600			
WATER USED (bbl)	480				
NEEDLE VISE FINE IMPORT. 15	276/375				
% KCL IN LIT SOLN	2.70	2.570			

PRODUCT INVENTORY	EQUIPMENT										DAILY COST	CUMULATIVE COST			
	BRKING	SOLY	GRAL	2 1/2	CAISSIN	LIM.	1/2 MUD	PAK-R	PAK-2	KCL B			KOIL	THIN SPUR	
STARTING INVENTORY	240	120	17	15	96	20	80	240	40	2					
RECEIVED															
USED LAST 24 HR	-	-	-	-	2	3	-	60	-	-					
CLOSING INVENTORY	240	120	17	15	94	77	80	180	40	2					
COST LAST 24 HR	-	-	-	-	14.30	54.00	-	12.14	-	-				\$ 3759.01	\$ 5,057.00

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REPRESENTATIVE MANFRED OLEFIN	HOME ADDRESS MAGUIRNE	TELEPHONE
MOBILE UNIT	WAREHOUSE LOCATION DREIDERS	TELEPHONE



NL Baroid



DRILLING MUD REPORT NO. 6

DATE <u>10 June 1991</u>	DEPTH <u>1051 m.</u>
SPUD DATE <u>6/6/91</u>	PRESENT ACTIVITY <u>DRILLING</u>

OPERATOR <u>ANGLO-AUSTRALIAN</u>	CONTRACTOR <u>GEORGINA</u>	RIG NO. <u>2</u>
REPORT FOR <u>KEN SMITH</u>	REPORT FOR <u>T. ROBERT</u>	SECTION, TOWNSHIP, RANGE <u>KORBIT</u>
WELL NAME AND NO. <u>KILGARD No. 1</u>	FIELD OR BLOCK NO. <u>P.F. 101</u>	COUNTY, PARISH OR OFFSHORE AREA <u>OTWAY BASIN</u>
		STATE/PROVINCE <u>VICTORIA</u>

DRILLING ASSEMBLY			CASING		MUD VOLUME (BBL)		CIRCULATION DATA				
BIT SIZE <u>8 1/2</u>	TYPE <u>L116</u>	JET SIZE <u>3x2</u>	SURFACE SET <u>9 1/2 @ 304</u>	FT	HOLE <u>215</u>	PITS <u>300</u>	PUMP SIZE X IN. <u>6x8</u>	ANNULAR VEL. (FT/MIN) DP <u>134</u> DC <u>232</u>			
DRILL PIPE SIZE <u>4 1/2</u>	TYPE <u>16.6/16</u>	LENGTH <u>55.8m</u>	INTERMEDIATE SET @	FT	TOTAL CIRCULATING VOLUME <u>515</u>		PUMP MAKE, MODEL <u>P230</u>	ASSUMED EFF% <u>7%</u>	CIRCULATION PRESSURE (PSI) <u>1000</u>		
DRILL PIPE SIZE <u>4 1/2</u>	TYPE <u>HWDP</u>	LENGTH <u>55.8m</u>	INTERMEDIATE SET @	FT	IN STORAGE	WEIGHT	BBL/STK <u>0.063</u>	STK/MIN <u>100</u>	BOTTOMS UP (MIN) <u>25</u>		
DRILL COLLAR SIZE <u>6 1/2</u>	TYPE <u>B11A</u>	LENGTH <u>195.4m</u>	PRODUCTION OR LINER SET @	FT	MUD TYPE <u>KCL/F2 mud/polymer</u>		BBL/MIN <u>6.8</u>	GAL/MIN <u>225</u>	TOTAL CIRC. TIME (MIN) <u>76</u>		

Sample From	MUD PROPERTIES	
	<input type="checkbox"/> F.L. <input type="checkbox"/> PIT	<input type="checkbox"/> F.L. <input type="checkbox"/> PIT
Time Sample Taken	<u>12:00</u>	<u>24:00</u>
Flowline Temperature °C	<u>-</u>	<u>35</u>
Depth (ft)	<u>267</u>	<u>1059m</u>
Weight <input checked="" type="checkbox"/> (ppg) <input type="checkbox"/> (lb/cu. ft.) <input type="checkbox"/> Sp.G	<u>9.5</u>	<u>9.3</u>
Funnel Viscosity (sec/qt) API @ °F	<u>43</u>	<u>43</u>
Plastic Viscosity cP @ °F	<u>17</u>	<u>16</u>
Yield Point (lb/100 ft²)	<u>13</u>	<u>16</u>
Get Strength (lb/100 ft²) 10 sec/10 min.	<u>3/10</u>	<u>2/4</u>
Filtrate API (cm³/30 min.)	<u>10</u>	<u>20</u>
API HTHP Filtrate (cm³/30 min.) @ °F	<u>-</u>	<u>-</u>
Cake Thickness (32nd in. API/HTHP)	<u>2/32</u>	<u>1</u>
Solids Content (%by Vol.) <input type="checkbox"/> calculated <input checked="" type="checkbox"/> retort	<u>7</u>	<u>6</u>
Liquid Content (%by Vol.) Oil/Water	<u>-/93</u>	<u>-/94</u>
Sand Content (%by Vol.)	<u>0.25</u>	<u>0.1</u>
Methylene Blue Capacity <input checked="" type="checkbox"/> lb/bbl equiv <input type="checkbox"/> cm³/cm³ mud	<u>8</u>	<u>7</u>
pH <input checked="" type="checkbox"/> Strip <input type="checkbox"/> Meter @ °F	<u>9.0</u>	<u>9.0</u>
Alkalinity Mud (P/m)	<u>0.5</u>	<u>0.4</u>
Alkalinity Filtrate (P/M)	<u>205/1</u>	<u>105/1</u>
Alternate Alkalinity Filtrate (P/M) n/k	<u>0.52/23</u>	<u>-</u>
Chloride (mg/L)	<u>13,500</u>	<u>15,000</u>
Total Hardness as Calcium (mg/L)	<u>600</u>	<u>200</u>
<u>YAKEL BY LST SOLN</u>	<u>2 1/4</u>	<u>3.0</u>
<u>WATER USED (bbl)</u>	<u>380</u>	
<u>WATER USED (liters)</u>	<u>276</u>	<u>379</u>

MUD PROPERTY SPECIFICATIONS

WEIGHT VISCOSITY FILTRATE

BY AUTHORITY OPERATOR'S WRITTEN DRILLING CONTRACTOR
 OPERATOR'S REPRESENTATIVE OTHER

REMARKS: RECOMMENDED TREATMENT

CONTINUE STEADY PACE DRILLING THROUGH EUMEREA FORMATION. NO PROBLEM MAKING CONNECTIONS, OCCASIONAL SPINNING ON PIPE SUCCESSFULLY SECURED TIGHT. CUTTINGS AT SURFACE STILL SIGNIFICANT BUT NOT AN EXCESSIVE AMOUNT. DRILLING RATE OF 0.2 bbl/m RELATIVELY LOW TO CONCENTRATED MUD WITH 43PPG, SO SURFACE HARDENING TO CONTINUE. WILL CONTINUE TO SLOWLY RAISE RATE TOWARDS 4.0 FOR LOWER TEMPERATURE. MUD WEIGHT RISE TO 9.5PPG, RATHER LOW FOR 2 RIGS IN THE AREA, BUT INCLUDING DRILLING RATE, CAME FROM THE 100 TO 200 PPM 9.5PPG.

PRODUCT INVENTORY	EQUIPMENT															
	SIZE	HRS/TOUR		SIZE		HRS/TOUR		SIZE		HRS/TOUR						
STARTING INVENTORY																
RECEIVED																
USED LAST 24 HR																
CLOSING INVENTORY																
COST LAST 24 HR																
	<u>20</u>	<u>120</u>	<u>19</u>	<u>15</u>	<u>94</u>	<u>77</u>	<u>20</u>	<u>180</u>	<u>40</u>	<u>2</u>	Centrifuge					
											Degasser					
											Desander				<u>12</u>	<u>12</u>
											Desitter				<u>12</u>	<u>12</u>
											Shaker (1)	<u>B4/B60</u>			<u>12</u>	<u>12</u>
											Other (2)	<u>R40/B40</u>			<u>12</u>	<u>12</u>
											DAILY COST					
											CUMULATIVE COST					
												<u>\$ 5285.45</u>			<u>\$ 10,342.45</u>	

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REPRESENTATIVE <u>M. W. ...</u>	HOME ADDRESS <u>M. ...</u>	TELEPHONE
MOBILE UNIT	WAREHOUSE LOCATION <u>...</u>	TELEPHONE



NL Baroid



DRILLING MUD REPORT NO. 2

DATE 13 June 19 71	DEPTH 1422m
SPUD DATE 6/6/71	PRESENT ACTIVITY DRILLING

OPERATOR ANGLCO-MUSKIEAN	CONTRACTOR GOSHAWK	RIG NO. 2
REPORT FOR KEN SMITH	REPORT FOR DOUGLAS	SECTION, TOWNSHIP, RANGE KOROL
WELL NAME AND NO. KILLAR No 1	FIELD OR BLOCK NO. P.F.P. 101	COUNTY, PARISH OR OFFSHORE AREA BASIN
		STATE/PROVINCE VICTORIA

DRILLING ASSEMBLY			CASING		MUD VOLUME (BBL)		CIRCULATION DATA			
BIT SIZE 2 1/2	TYPE L116	JET SIZE 3 X 2	SURFACE SET 9 1/8 @ 304 FT	HOLE 290 bbl	PITS 300 bbl	PUMP SIZE X IN. 6 X 2	ANNULAR VEL. (FT/MIN) DP 134 DC 232			
DRILL PIPE SIZE 4 1/2	TYPE 16.6/16	LENGTH	INTERMEDIATE SET @ FT	TOTAL CIRCULATING VOLUME 590 bbl		PUMP MAKE, MODEL P2 20	ASSUMED EFF 91%	CIRCULATION PRESSURE (PSI) 1100		
DRILL PIPE SIZE 4 1/2	TYPE 11.2/11	LENGTH 55.2	INTERMEDIATE SET @ FT	IN STORAGE 20 bbl	WEIGHT	BBL/STK 0.068	STK/MIN 100	BOTTOMS UP (MIN) 35		
DRILL COLLAR SIZE 6 1/2	TYPE 175.9	LENGTH	PRODUCTION OR LINER SET @ FT	MUD TYPE KCL / F. 7 mud / polymer		BBL/MIN 6.8	285 GAL/MIN	TOTAL CIRC. TIME (MIN)		

Sample From	MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS		
	<input type="checkbox"/> F.L. @ PIT	<input type="checkbox"/> F.L. @ FT	WEIGHT	VISCOSITY	FILTRATE
Time Sample Taken	12.00	24.00	BY AUTHORITY <input type="checkbox"/> OPERATOR'S WRITTEN <input type="checkbox"/> DRILLING CONTRACTOR <input type="checkbox"/> OPERATOR'S REPRESENTATIVE <input type="checkbox"/> OTHER		
Flowline Temperature °C		43°C	REMARKS RECOMMENDED TREATMENT		
Depth (ft) (m)		1422m	<p>CONTINUED DRILLING THROUGH DISPERSIVE BIRMINGHAM FORMATION, WITH LOW SAND CONTENT. RAN 12 STAND WORK T.O. AT 1357 (PULLED TOLL PIPE FROM REVOLUTION, FELL UP TO 45,000 LB O.P.). DRILLED TO 1422m, WHEN STARTED WORKING AGAIN RUNNING SURVEY. P.O.H. 7. RE-DRILL SURVEY AND CHANGE BIT RAN BACK IN AND BEGAN DRILLING AGAIN. 1MO INCREASED AMOUNT OF BLOCKS CAUSING AT THE T.O.</p> <p>MUD WEIGHT AND C.S. CONTENT CONTINUED TO BE A PROBLEM, DUE TO DRILLING RATE BEING RESTRICTED BY THE SURF. STOPPED FOR MUD ADDITIONS - VISCOSITY WILL FALL TO 45 SECONDS PRIOR TO T.O. BUT INCREASED AGAIN IMMEDIATELY AFTER T.O. DUE TO INCREASED SOLIDS - WILL RE-DRILL AGAIN.</p>		
Weight <input checked="" type="checkbox"/> (ppg) <input type="checkbox"/> (lb/cu. ft.) <input type="checkbox"/> Sp.G	9.5	9.6			
Funnel Viscosity (sec/qt) API @ °F	52	52			
Plastic Viscosity cP @ °F	20	20			
Yield Point (lb/100 ft²)	30	24			
Get Strength (lb/100 ft²) 10 sec/10 min.	15 / 26	6 / 22			
Filtrate API (cm³/30 min.)	7.6	7.6			
API HTHP Filtrate (cm³/30 min.) @ °F	-	-			
Cake Thickness (32nd in. API/HTHP)	1/32	1/32			
Solids Content (%by Vol.) <input type="checkbox"/> calculated <input type="checkbox"/> retort	7	7 1/2			
Liquid Content (%by Vol.) Oil/Water	-/93	-/92 1/2			
Sand Content (%by Vol.)	Trace	Trace			
Methylene Blue Capacity <input checked="" type="checkbox"/> (lb/bbl equiv) <input type="checkbox"/> (cm³/cm³ mud)	-	12			
pH <input checked="" type="checkbox"/> Strip <input type="checkbox"/> Meter @ °F	9.0	9.0			
Alkalinity Mud (Pm)	0.4	0.5			
Alkalinity Filtrate (P/M)	0.5 / 0.1	0.6 / 0.1			
Alternate Alkalinity Filtrate (P/M)	N/A	0.47 / 2.42			
Chloride (mg/L)	19,500	27,000			
Total Hardness as Calcium (mg/L)	280	220			
% KCL BY WT SOLN	3 3/4	4			
WATER USED bbl.	300				
Net. Vol. / IMPACT	276 / 32.6				

PRODUCT INVENTORY	EQUIPMENT										
	APAC 505	GR 754	IMPACT	BLAND	1 1/2 MIN	72	KCL 75	IMPACT	IMPACT 304	SIZE	HRS/TOUR
STARTING INVENTORY	200	120	9	2	73	52	84	80	-	Centrifuge	
RECEIVED						40	320		1	Degasser	
USE LAST 24 HR										Desander	10 5
C O S NG INVENTORY	240	180	6	2	76	82	404	80	1	Desilter	10 5
C O S LAST 2 HR										Shaker (1) 140/6100	10 5
										Other (2) 140/6100	10 5
										DAILY COST	CUMULATIVE COST
										\$ 3304.47 ✓	\$ 16,792.42 ✓

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REPRESENTATIVE MANWARD OLE J. MC COE	HOME ADDRESS MARI BOURNE	TELEPHONE
MOBILE UNIT	WAREHOUSE LOCATION ADX 1400	TELEPHONE



NL Baroid



DRILLING MUD REPORT NO. 9

DATE <u>14 June</u> 19 <u>71</u>	DEPTH <u>1574m</u>
SPUD DATE <u>6/2/71</u>	PRESENT ACTIVITY <u>DRILLING</u>

OPERATOR <u>ANGLO AUSTRALIAN</u>	CONTRACTOR <u>GEORGINA</u>	RIG NO. <u>2</u>
REPORT FOR <u>KER SMITH</u>	REPORT FOR <u>ADAM</u>	SECTION, TOWNSHIP, RANGE <u>KORCIT</u>
WELL NAME AND NO. <u>KILGARA No. 1</u>	FIELD OR BLOCK NO. <u>P.P. 131</u>	COUNTY, PARISH OR OFFSHORE AREA <u>OTWAY BASIN</u> STATE/PROVINCE <u>VICTORIA</u>

DRILLING ASSEMBLY			CASING		MUD VOLUME (BBL)		CIRCULATION DATA			
BIT SIZE <u>2 1/2</u>	TYPE <u>J22</u>	JET SIZE <u>3x12</u>	SURFACE SET <u>9 1/2 @ 304</u>	HOLE <u>320 bbl</u>	PITS <u>300 bbl</u>	PUMP SIZE X IN. <u>6x6</u>	ANNULAR VEL. (FT/MIN) DP <u>134</u> DC <u>231</u>			
DRILL PIPE SIZE <u>4 1/2</u>	TYPE <u>16.6lb</u>	LENGTH <u>55.6m</u>	INTERMEDIATE SET @ FT	TOTAL CIRCULATING VOLUME <u>620 bbl</u>		PUMP MAKE, MODEL <u>B220</u>	ASSUMED EFF% <u>77</u>	CIRCULATION PRESSURE (PSI) <u>1000</u>		
DRILL PIPE SIZE <u>4 1/2</u>	TYPE <u>16.6lb</u>	LENGTH <u>55.6m</u>	INTERMEDIATE SET @ FT	IN STORAGE <u>80 bbl</u>	WEIGHT <u>6800 lb</u>	BBL/STK <u>0.066</u>	STK/MIN <u>100</u>	BOTTOMS UP (MIN) <u>38</u>		
DRILL COLLAR SIZE <u>6 1/2 C.O.A.</u>	LENGTH <u>146m</u>	PRODUCTION OR LINER SET @ FT	MUD TYPE <u>KCL / BENTONITE / POLYMER</u>			BBL/MIN <u>6.8</u>	285 GAL/MIN	TOTAL CIRC. TIME (MIN) <u>90</u>		

		MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS		
Sample From		<input type="checkbox"/> F.L. @ PIT	<input type="checkbox"/> F.L. @ PIT	WEIGHT	VISCOSITY	FILTRATE
Time Sample Taken		<u>12.00</u>	<u>24.00</u>	BY AUTHORITY <input type="checkbox"/> OPERATOR'S WRITTEN <input type="checkbox"/> DRILLING CONTRACTOR <input type="checkbox"/> OPERATOR'S REPRESENTATIVE <input type="checkbox"/> OTHER	<u>RECOMMENDED TREATMENT</u>	
Flowline Temperature °F			<u>44°C</u>	<u>CONTINUE DRILLING. STABILISE. CIRC OUT DRILL BRACK AT 1500m. RESUMED DRILLING WITH RATE 500GPM - 4-5m/min.</u>		
Depth (ft)		<u>1507m</u>	<u>1574m</u>	<u>SUMI LX 4000 BY BULLDOG 20 DURING DAY, SO NO MORE RESTRICTION ON DUMPING.</u>		
Weight <input checked="" type="checkbox"/> (ppg) <input type="checkbox"/> (lb/cu. ft.) <input type="checkbox"/> Sp.G		<u>9.4</u>	<u>9.4</u>	<u>NO SIGNIFICANT CHANGE IN GRAVITY APPARENT WHILE DRILLING.</u>		
Funnel Viscosity (sec/qt) API @ °F		<u>40</u>	<u>36</u>			
Plastic Viscosity cP @ °F		<u>12</u>	<u>11</u>			
Yield Point (lb/100 ft²)		<u>12</u>	<u>10</u>			
Get Strength (lb/100 ft²) 10 sec/10 min.		<u>1/3</u>	<u>1/2</u>			
Filtrate API (cm³/30 min.)		<u>7.1</u>	<u>6.2</u>			
API HTHP Filtrate (cm³/30 min.) @ °F		<u>-</u>	<u>-</u>			
Cake Thickness (32nd in. API/HTHP)		<u>1/32</u>	<u>1/32</u>			
Solids Content (%by Vol.) <input type="checkbox"/> calculated <input type="checkbox"/> retort		<u>5</u>	<u>5</u>			
Liquid Content (%by Vol.) Oil/Water Soln.		<u>-/95</u>	<u>-/95</u>			
Sand Content (%by Vol.)		<u>Trace</u>	<u>Trace</u>			
Methylene Blue Capacity <input checked="" type="checkbox"/> lb/bbl equiv. <input type="checkbox"/> cm³/cm³ mud		<u>-</u>	<u>10</u>			
pH <input checked="" type="checkbox"/> Strip <input type="checkbox"/> Meter @ °F		<u>8.7</u>	<u>9.5</u>			
Alkalinity Mud (Pm)		<u>0.3</u>	<u>0.6</u>			
Alkalinity Filtrate (P/M)		<u>0.3 / 0.1</u>	<u>0.1 / 0.1</u>			
Alternate Alkalinity Filtrate (P/P)	<u>N/A.</u>	<u>0.61 / 0.4</u>	<u>-</u>			
Chloride (mg/L)		<u>24500</u>	<u>24500</u>			
Total Hardness as Calcium (mg/L)		<u>300</u>	<u>180</u>			
% KCL F: W Soln		<u>4.1%</u>	<u>4.1%</u>			
Water used (lb)		<u>320</u>	<u>-</u>			
NO. 1 (lb)		<u>270</u>	<u>322</u>			

PRODUCT INVENTORY											EQUIPMENT	
	BRIDGE	GAL	CANSTIC	BENTON	HT MIN	PAC-K	KCL 75	METHYL	BARITE	SIZE	HRS/TOUR	
STARTING INVENTORY	<u>240</u>	<u>180</u>	<u>6</u>	<u>2</u>	<u>76</u>	<u>22</u>	<u>604</u>	<u>20</u>	<u>1</u>	Centrifuge		
RECEIVED										Degasser		
USED LAST 24 HR	<u>-</u>	<u>-</u>	<u>2</u>	<u>-</u>	<u>8</u>	<u>16</u>	<u>2</u>	<u>-</u>	<u>-</u>	Desander	<u>12</u>	
ALC SING INV N° ORY	<u>240</u>	<u>180</u>	<u>4</u>	<u>2</u>	<u>68</u>	<u>66</u>	<u>352</u>	<u>20</u>	<u>1</u>	Desilter	<u>12</u>	
SO T LAST 24 HR	<u>-</u>	<u>-</u>	<u>66.7</u>	<u>-</u>	<u>271.4</u>	<u>284.2</u>	<u>62.5</u>	<u>-</u>	<u>-</u>	Shaker 6; <u>800/810</u>	<u>12</u>	
										Other <u>100/100</u>	<u>12</u>	
										DAILY COST	<u>\$ 1,259 82 ✓</u>	
										CUMULATIVE COST	<u>\$ 21,552 24 ✓</u>	

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REPRESENTATIVE <u>M. J. ...</u>	HOME ADDRESS <u>...</u>	TELEPHONE <u>...</u>
FILE UNIT <u>...</u>	WAREHOUSE LOCATION <u>...</u>	TELEPHONE <u>...</u>



NL Baroid



DRILLING MUD REPORT NO. 10

DATE <u>15 June 1971</u>	DEPTH <u>1664</u>
SPUD DATE <u>6/4/71</u>	PRESENT ACTIVITY <u>DRILLING</u>

OPERATOR <u>ANGLO-AUSTRALIAN</u>	CONTRACTOR <u>GARDINER</u>	RIG NO. <u>2</u>
REPORT FOR <u>KEN SMITH</u>	REPORT FOR <u>TED DOMERT</u>	SECTION, TOWNSHIP, RANGE <u>KORON</u>
WELL NAME AND NO. <u>KILBERR N-1</u>	FIELD OR BLOCK NO. <u>P.F.P. 101</u>	COUNTY, PARISH OR OFFSHORE AREA <u>070A1 BASIN</u>
		STATE/PROVINCE <u>VICTORIA</u>

DRILLING ASSEMBLY			CASING		MUD VOLUME (BBL)		CIRCULATION DATA				
BIT SIZE <u>2 1/2</u>	TYPE <u>J22</u>	JET SIZE <u>3X2</u>	SURFACE SET <u>9 1/2 @ 304</u>	INTERMEDIATE SET <u>@</u>	HOLE <u>34 1/2 bbl</u>	PITS <u>300 bbl</u>	PUMP SIZE X IN. <u>6 X 8</u>	ANNULAR VEL. (FT/MIN) DP <u>134</u> DC <u>232</u>			
DRILL PIPE SIZE <u>4 1/2</u>	TYPE <u>16.6/16</u>	LENGTH <u>55.6</u>	INTERMEDIATE SET <u>@</u>	FT	TOTAL CIRCULATING VOLUME <u>640 bbl</u>	IN STORAGE <u>20 bbl</u>	PUMP MAKE, MODEL <u>F280</u>	ASSUMED EFF <u>97%</u>	CIRCULATION PRESSURE (PSI) <u>1000</u>	BOTTOMS UP (MIN) <u>50</u>	
DRILL PIPE SIZE <u>4 1/2</u>	TYPE <u>HWDAP</u>	LENGTH <u>55.6</u>	INTERMEDIATE SET <u>@</u>	FT	WEIGHT <u>Premix</u>	BBL/STK <u>0.063</u>	STK/MIN <u>160</u>	BOTTOMS UP (MIN) <u>50</u>			
DRILL COLLAR SIZE <u>2 1/2</u>	LENGTH <u>176</u>	PRODUCTION OR LINER SET <u>@</u>	FT	MUD TYPE <u>KCL/F280/Polymor</u>	BBL/MIN <u>6.8</u>	GAL/MIN <u>285</u>	TOTAL CIRC. TIME (MIN) <u>94</u>				

Sample From	MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS		
	<input type="checkbox"/> F.L. EPIT	<input type="checkbox"/> F.L. BPIT	WEIGHT	VISCOSITY	FILTRATE
Time Sample Taken	12.00	24.00			
Flowline Temperature °C		41°C			
Depth (m)		1664m			
Weight (ppg) <input type="checkbox"/> (lb/cu. ft.) <input type="checkbox"/> Sp.G	9.4	9.4			
Funnel Viscosity (sec/qt) API @ °F	38	39			
Plastic Viscosity cP @ °F	11	12			
Yield Point (lb/100 ft²)	12	11			
Get Strength (lb/100 ft²) 10 sec/10 min.	1/2	1/2			
Filtrate API (cm³/30 min.)	6.5	6.2			
API HTHP Filtrate (cm³/30 min.) @ °F	7	7			
Cake Thickness (32nd in. API/HTHP)	1/32	1/32			
Solids Content (%by Vol.) <input type="checkbox"/> calculated <input type="checkbox"/> retort	5	5			
Liquid Content (%by Vol.) Oil/Water Soln.	95	95			
Sand Content (%by Vol.)	Trace	Trace			
Methylene Blue Capacity <input type="checkbox"/> lb/bbl equiv. <input type="checkbox"/> cm³/cm³ mud	10	11			
pH <input type="checkbox"/> Strip <input type="checkbox"/> Meter @ °F	9.0	9.0			
Alkalinity Mud (Pm)	0.5	0.4			
Alkalinity Filtrate (P/M)	0.05/-1	0.05/-1			
Alternate Alkalinity Filtrate (P/M) n/k					
Chloride (mg/L)	24000	24000			
Total Hardness as Calcium (mg/L)	230	400			
<u>90 KCL BY WT SOLN</u>	<u>4 1/2</u>	<u>4 1/2</u>			
<u>WATER USED (bbl)</u>	<u>160</u>				
<u>Nozels Vol / Impac</u>	<u>276</u>	<u>382</u>			

REMARKS
 CONTINUOUS DRILLING SLOWLY WITH
 DRILL RATE 100-120 FT 3-4 - 1/16
 TRAPPED FOR 500 (CHANGE AT 1662)
 HOLE SUGGESTED TRAP. WASHED AND
 REAMED BACK TO BOTTOM FROM 1655 -
 OVER 1/2 HR AND CONT. DRILLING.

PRODUCT INVENTORY	EQUIPMENT										
	FRANK	GENIE	GENIE	DIANE	FRANK	FRANK	FRANK	FRANK	FRANK	SIZE	HRS/TOUR
STARTING INVENTORY	200	180	4	2	68	66	322	20	1	Centrifuge	
RECEIVED										Degasser	
USED LAS 4 HR	-	-	2	-	4	5	24	-	-	Desander	12 6' 1/2
LOSING INVENTORY	240	120	2	2	64	61	328	20	1	Desilter	12 6'
COST LAST 4 HR	-	-	667	-	3897	2709	41179	-	-	Shaker (6)	12 6'
										Other (2)	12 6'
										DAILY COST	CUMULATIVE COST
										\$ 1232.27 ✓	\$ 23,390.51 ✓

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REPRESENTATIVE <u>MANFARO</u>	HOME ADDRESS <u>CLP N.C. AK</u>	WAREHOUSE LOCATION <u>MILBURN</u>	TELEPHONE
MOBILE UNIT			TELEPHONE

NL
NL Baroid



DRILLING MUD REPORT NO. 11

DATE 11 June 1971 DEPTH 1745

SPUD DATE 4/2/71 PRESENT ACTIVITY Drilling

OPERATOR ANGLCO MUSEUM
 REPORT FOR K-1 (Mud)

CONTRACTOR GREEN RIG NO. 2
 REPORT FOR T-100 (Mud) SECTION, TOWNSHIP, RANGE K-1-1-1

WELL NAME AND NO. K-1 (Mud) FIELD OR BLOCK NO. T-100 (Mud) COUNTY, PARISH OR OFFSHORE AREA OTWAI BASIN STATE/PROVINCE ILLINOIS

DRILLING ASSEMBLY			CASING		MUD VOLUME (BBL)		CIRCULATION DATA			
BIT SIZE <u>2 1/2</u>	TYPE <u>L114</u>	JET SIZE <u>3/16</u>	SURFACE SET <u>9 1/2</u> @ <u>306</u> FT	HOLE <u>360</u> bbl	PITS <u>300</u> bbl	PUMP SIZE X IN. <u>6 x 8</u>	ANNULAR VEL. (FT/MIN) DP <u>134</u> DC <u>232</u>			
DRILL PIPE SIZE <u>4 1/2</u>	TYPE <u>16 G.H.</u>	LENGTH <u>12</u>	INTERMEDIATE SET @ FT	TOTAL CIRCULATING VOLUME <u>660</u> bbl		PUMP MAKE, MODEL <u>F2 20</u>	ASSUMED EFF <u>97%</u>	CIRCULATION PRESSURE (PSI) <u>1100</u>		
DRILL PIPE SIZE <u>4 1/2</u>	TYPE <u>16 G.H.</u>	LENGTH <u>53.8</u>	INTERMEDIATE SET @ FT	IN STORAGE <u>20</u> bbl	WEIGHT <u>PREMIX</u>	BBL/STK <u>0.067</u>	STK/MIN <u>100</u>	BOTTOMS UP (MIN) <u>42</u>		
DRILL COLLAR SIZE <u>6 1/2</u>	TYPE <u>16 G.H.</u>	LENGTH <u>196</u>	PRODUCTION OR LINER SET @ FT	MUD TYPE <u>K-1 / 150 mg/l / 1.0</u>		BBL/MIN <u>6.8</u>	GAL/MIN <u>285</u>	TOTAL CIRC. TIME (MIN) <u>49 97</u>		

Sample From	MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS		
	<input type="checkbox"/> F.L. <input type="checkbox"/> PIT	<input type="checkbox"/> F.L. <input type="checkbox"/> PIT	WEIGHT	VISCOSITY	FILTRATE
Time Sample Taken	<u>12:00</u>	<u>24:00</u>			
Flowline Temperature °F		<u>47°C</u>			
Depth (ft)	<u>1715</u>	<u>1745</u>			
Weight <input checked="" type="checkbox"/> (ppg) <input type="checkbox"/> (lb/cu. ft.) <input type="checkbox"/> Sp.G	<u>9.4</u>	<u>9.4</u>			
Funnel Viscosity (sec/qt) API @ °F	<u>4.5</u>	<u>4.5</u>			
Plastic Viscosity cP @ °F	<u>12</u>	<u>14</u>			
Gel Point (lb/100 ft²)	<u>11</u>	<u>11</u>			
Get Strength (lb/100 ft²) 10 sec/10 min.	<u>1 1/2</u>	<u>1 1/2</u>			
Filtrate API (cm³/30 min)	<u>6.1</u>	<u>6.0</u>			
APIHTHP Filtrate (cm³/30 min.) @ °F	<u>—</u>	<u>—</u>			
Cake Thickness (32nd in. API/HTHP)	<u>1/32</u>	<u>1/32</u>			
Solids Content (%by Vol.) <input type="checkbox"/> calculated <input type="checkbox"/> retort	<u>5</u>	<u>5</u>			
Mud Content (%by Vol.) Oil/Water	<u>1/12</u>	<u>-1/12</u>			
Sand Content (%by Vol.)	<u>Trace</u>	<u>Trace</u>			
Methylene Blue Capacity <input checked="" type="checkbox"/> Strip <input type="checkbox"/> Meter @ °F	<u>9.0</u>	<u>10.0</u>			
Alkalinity Mud (P/M)	<u>0.7</u>	<u>1.0</u>			
Alkalinity Filtrate (P/M)	<u>0.1</u>	<u>0.2</u>			
Approximate Alkalinity-Filtrate (P/M)	<u>0.6</u>	<u>0.8</u>			
Chloride (mg/L)	<u>250</u>	<u>250</u>			
Total Hardness as Calcium (mg/L)	<u>250</u>	<u>160</u>			
<u>1/2 KCl</u>	<u>6.0</u>	<u>4.0</u>			
<u>6.0</u>	<u>240</u>	<u>240</u>			
<u>27.0</u>	<u>27.0</u>				

BY AUTHORITY OPERATOR'S WRITTEN DRILLING CONTRACTOR
 OPERATOR'S REPRESENTATIVE OTHER

RECOMMENDED TREATMENT

CONTINUE DRILLING AT THIS RATE
 WITH CHANGE AT STEADY DRILLING RATE
 OF 3-4 in/min THROUGH MASSIVE SECTION
 10000 ft.

RECOMMEND STEADY DRILLING AT THIS RATE
 USING 10000 RPM MAINTAINING 9-10
 KCL.

EQUIPMENT	SIZE		HRS/TOUR	
	Centrifuge	Degasser	Desander	Desilter
STARTING INVENTORY	<u>25</u>	<u>120</u>	<u>2</u>	<u>2</u>
RECEIVED				
USED LAST 24 HR	<u>—</u>	<u>—</u>	<u>2</u>	<u>7</u>
ENDING INVENTORY	<u>240</u>	<u>20</u>	<u>—</u>	<u>2</u>
COST LAST 24 HR	<u>—</u>	<u>—</u>	<u>6.74</u>	<u>632.94</u>
DAI COST	<u>2965.54</u>		<u>CUMULATIVE COST 26,356.05</u>	

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REPRESENTATIVE ANGLCO MUSEUM HOME ADDRESS M.B.L. 1002 TELEPHONE —
 PHONE UNIT — WAREHOUSE LOCATION — TELEPHONE —

17 June 1991

NL

NL Baroid



DATE 1 19 DEPTH 1200

SPUD DATE 6/1/91 PRESENT ACTIVITY

OPERATOR ANGLON INDUSTRIES CONTRACTOR GR... RIG NO. 2

REPORT FOR K... REPORT FOR T... SECTION, TOWNSHIP, RANGE

WELL NAME AND NO. K... FIELD OR BLOCK NO. COUNTY, PARISH OR OFFSHORE AREA STATE/PROVINCE

DRILLING ASSEMBLY			CASING		MUD VOLUME (BBL)		CIRCULATION DATA				
BIT SIZE 2 1/2"	TYPE API	JET SIZE 3/16"	SET 72' @ 304'	SURFACE INTERMEDIATE	HOLE 37 1/2" (11 1/2")	PITS 300 (11 1/2")	PUMP SIZE X IN. 6.25	ANNULAR VEL. (FT/MIN) DP 125 DC 200			
DRILL PIPE SIZE 4"	TYPE 114.416	LENGTH 53 3/4'	SET @ FT	INTERMEDIATE	TOTAL CIRCULATING VOLUME 670 (11 1/2")	IN STORAGE 20 (11 1/2")	PUMP MAKE, MODEL P22	ASSUMED EFF % 100	CIRCULATION PRESSURE (PSI) 1100		BOTTOMS UP (MIN) 42
DRILL PIPE SIZE 4"	TYPE 114.416	LENGTH 177'	SET @ FT	PRODUCTION OR LINER	MUD TYPE K... - 6.7% - 1.5%	WEIGHT P... x	BBL/STK 0.60	STK/MIN 100	TOTAL CIRC. TIME (MIN) 91		

Sample From	MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS		
	F.L. PIT	F.L. PIT	WEIGHT	VISCOSITY	FILTRATE
Time Sample Taken	12:00	24:00			
Flowline Temperature °F		46°C	BY AUTHORITY <input type="checkbox"/> OPERATOR'S WRITTEN <input type="checkbox"/> DRILLING CONTRACTOR <input type="checkbox"/> OPERATOR'S REPRESENTATIVE <input type="checkbox"/> OTHER		
Depth (#)	176'	1804'	RECOMMENDED TREATMENT		
Weight (ppg) (lb/cu. ft.) (Sp.G)	94	94	<p>REMARKS:</p> <p>FOU (Mudlog Rig, and 3' circulation positions) ran B.L. 75-1730m. Over 1/2 in. Consistent 5' dry mud at 1730m. Improved mud rheology at 1730m. 4' in 1/2" circ out sample at 176m.</p>		
Funnel Viscosity (sec/qt) API @ °F	41	41			
Plastic Viscosity cP @ °F	14	14			
Yield Point (lb/100 ft²)	11	11			
Get Strength (lb/100 ft²) 10 sec/10 min.	1 1/2	1 1/2			
Filtrate API (cm³/30 min.)	6.0	6.0			
API HTHP Filtrate (cm³/30 min.) @ °F	-	-			
Cake Thickness (32nd in. API/HTHP)	11	11			
Solids Content (%by Vol.) (calculated) (retort)	5	5			
Liquid Content (%by Vol.) Oil/Water	-/100	-/100			
Sand Content (%by Vol.)	Trace	Trace			
Methylene Blue Capacity (lb/bbl equiv) (cm³/cm mud)	-	2			
pH (Strip) (Meter) @ °F	4.5	10.0			
Alkalinity Mud (Pm)	0.7	0.6			
Alkalinity Filtrate (P/M)	0.12/10	0.12/10			
Alternate Alkalinity Filtrate (P.P.)	r/c	0.6/50			
Chloride (mg/L)	24,500	24,500			
Total Hardness as Calcium (mg/L)	14	100			
% All by wt Solids	4 1/2	4 1/2			
Water (lb/bbl)	11.0				
Plastic Viscosity (100 rpm)	27.6	33.2			

PRODUCT INVENTORY											EQUIPMENT		
	BK/MI	GR	KOH	P.../S	FL	PA	PA	PA	PA	PA	PA	SIZE	HRS/TOUR
STARTING INVENTORY	24	120	40	2	57	52	272	20	1				
RECEIVED													
USEC LAST 24 HR	-	-	1	-	6	5	20	-	-				
CLOSING INVENTORY	24	120	39	2	51	47	272	20	1				
COST LAST 24 HR	-	-	49	-	150	90	100	-	-				
DAILY COST											\$ 1933.20		
CUMULATIVE COST											\$ 28289.67		

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REPRESENTATIVE	MAN... / ...	HOM ADD. SS	TELEPHONE
MOBILE UNIT	...	WAF. HOUS. LOCATION	TELEPHONE



NL Baroid



DRILLING MUD REPORT NO. 12

DATE 12 June 19 61	DEPTH 1900
SPUD DATE 6/6/61	PRESENT ACTIVITY

OPERATOR ANGEL AMERICAN	CONTRACTOR GERRARD	RIG NO. 2
REPORT FOR A. S. ...	REPORT FOR 7 DOLLAR	SECTION, TOWNSHIP, RANGE K. R. ...

WELL NAME AND NO. K. R. ...	FIELD OR BLOCK NO. P.F. ...	COUNTY, PARISH OR OFFSHORE AREA C. ...	STATE/PROVINCE K. ...
--------------------------------	--------------------------------	---	--------------------------

DRILLING ASSEMBLY			CASING		MUD VOLUME (BBL)		CIRCULATION DATA			
BIT SIZE 3"	TYPE A-T-11	JET SIZE 7/32"	SURFACE SET 9 3/4 @ 30'	HOLE 395 bbl	PITS 300 bbl	PUMP SIZE X IN. 6 x 8	ANNULAR VEL. (FT/MIN) DP 135 DC 220			
DRILL PIPE SIZE 4"	TYPE 11.6/16	LENGTH 11.6/16	INTERMEDIATE SET @ FT	TOTAL CIRCULATING VOLUME 695 bbl	IN STORAGE 30 bbl	PUMP MAKE, MODEL P. 30	ASSUMED EFF 77%	CIRCULATION PRESSURE (PSI) 11.0		BOTTOMS UP (MIN) 46
DRILL PIPE SIZE 4"	TYPE 11.6/16	LENGTH 55.80	INTERMEDIATE SET @ FT	WEIGHT 30 bbl	MUD TYPE K. ...	BBL/STK 0.668	STK/MIN 100	TOTAL CIRC. TIME (MIN) 1.3		
DRILL COLLAR SIZE 6"	LENGTH 1.21	PRODUCTION OR LINER SET @ FT			BBL/MIN 68	GAL/MIN 220				

Sample From	MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS		
	F.L. PIT	F.L. PIT	WEIGHT	VISCOSITY	FILTRATE
Time Sample Taken	12:00	24:00	BY AUTHORITY <input type="checkbox"/> OPERATOR'S WRITTEN <input type="checkbox"/> DRILLING CONTRACTOR <input type="checkbox"/> OPERATOR'S REPRESENTATIVE <input type="checkbox"/> OTHER		
Flowline Temperature 25°C		42°C	RECOMMENDED TREATMENT		
Depth (ft)	1847	1907	CONTINUE STEADY DRILLING THROUGH		
Weight <input type="checkbox"/> (ppg) <input type="checkbox"/> (lb/cu. ft.) <input type="checkbox"/> Sp.G	9.4	9.4	SUMMARY WITH ONLY 10% OF MUD		
Funnel Viscosity (sec/qt) API @ °F	40	43	SAND BEANS		
Plastic Viscosity cP @ °F	13	17	CIRC. @ 124, 1870 AND 1870		
Yield Point (lb/100 ft²)	11	15			
Gel Strength (lb/100 ft²) 10 sec/10 min.	1/2	1/2			
Filtrate API (cm³/30 min.)	6.0	6.0			
APLHTHP Filtrate (cm³/30 min.) @ °F	-	-			
Cake Thickness (32nd in. API/HTHP)	1/32	1/32			
Solids Content (% by Vol.) <input type="checkbox"/> calculated <input type="checkbox"/> retort	5	5			
Liquid Content (% by Vol.) Oil/Water	-/45	-/45			
Sand Content (% by Vol.)	-	-			
Methylene Blue Capacity <input type="checkbox"/> 10.00 equiv <input type="checkbox"/> cm. cm. mud	2	8			
pH <input type="checkbox"/> Strip <input type="checkbox"/> Meter @ °F	9.5	9.2			
Alkalinity Mud (Pm)	0.5	0.6			
Alkalinity Filtrate (P/M.)	0.1/15	0.67/15			
Alternate Alkalinity Filtrate (P/M.)	n/a	0.63/0.6			
Chloride (mg/L)	25,000	25,000			
Total Hardness as Calcium (mg/L)	150	220			
...	6 1/2	4 1/2			
...	220		VERY LOW VISC. UNDESIRABLE MUD PROPERTIES		
...	276	322			

PRODUCT INVENTORY	EQUIPMENT												
	AP-11	Gal	K-11	Blaine	172	Mud	M-1	K-11	M-1	Blaine	AP-11	SIZE	HRS/TOUR
STARTING INVENTORY	26	120	39	2	5	67	278	20	1				
RECEIVED													
USED LAST 4 HR					6	8	25						
CLOSING INVENTORY	26	122	39	2	45	3	253	20	1				
COST LAST 24 HR					4.58	4.45	12.27						
											DAILY COST	CUMULATIVE COST	
											\$ 2520.91 ✓	\$ 30,810.58	

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REPRESENTATIVE MANAGER OL-JAN 2016	HOME ADDRESS ML B...	TELEPHONE
MOBILE UNIT	WAREHOUSE LOCATION AD 10 00	TELEPHONE



NL Baroid



DRILLING MUD REPORT NO. 14

DATE 10-6-79 19 DEPTH 2226

SPUD DATE 6-6-79 PRESENT ACTIVITY

OPERATOR REPORT FOR P. D. ... CONTRACTOR REPORT FOR ... RIG NO. 2

WELL NAME AND NO. KILLDEEP ... FIELD OR BLOCK NO. PAF 101 COUNTY, PARISH OR OFFSHORE AREA ... STATE/PROVINCE ...

Table with columns: DRILLING ASSEMBLY, CASING, MUD VOLUME (BBL), CIRCULATION DATA. Includes rows for BIT SIZE, DRILL PIPE SIZE, JET SIZE, SURFACE, INTERMEDIATE, HOLE, PITS, PUMP SIZE, ANNULAR VEL., etc.

MUD PROPERTIES and MUD PROPERTY SPECIFICATIONS table. Includes rows for Sample From, Time Sample Taken, Flowline Temperature, Depth, Weight, Funnel Viscosity, Plastic Viscosity, Yield Point, Get Strength, Filtrate API, etc.

RECOMMENDED TREATMENT
CONTINUED DRILLING WITH MINOR
BANKS TO 2026. CIRC OUT SAMPLE
DUE TO SLOW PROGRESS THEN PULLED
STANDS AND CONDUCTED CIRC OUT (DECISION
TO TEST).
RAN TO STAND WIPE TRIP - FIRST
6 STANDS ...

EQUIPMENT table with columns: PRODUCT INVENTORY, EQUIPMENT, SIZE, HRS/TOUR. Includes rows for Centrifuge, Degasser, Desander, Desilter, Shaker, etc.

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REPRESENTATIVE: MANFRED ... HOME ADDRESS: ... WAREHOUSE LOCATION: ... TELEPHONE: ...



NL Baroid



DRILLING MUD REPORT NO. 16

DATE 21-6-91 19 71 DEPTH 2120

SPUD DATE 6/2/91 PRESENT ACTIVITY DRILLING

OPERATOR

CONTRACTOR

RIG NO.

REPORT FOR

REPORT FOR

SECTION, TOWNSHIP, RANGE

WELL NAME AND NO.

FIELD OR BLOCK NO.

COUNTY, PARISH OR OFFSHORE AREA

STATE/PROVINCE

DRILLING ASSEMBLY

CASING

MUD VOLUME (BBL)

CIRCULATION DATA

Table with columns for Bit Size, Type, Jet Size, Surface, Hole, Pits, Pump Size, Annular Vel., etc.

MUD PROPERTIES

MUD PROPERTY SPECIFICATIONS

Sample From, Time Sample Taken, Flowline Temperature, etc.

Table with columns for Depth, Weight, Funnel Viscosity, Plastic Viscosity, Yield Point, etc.

REMARKS: RAN BACK IN 1000 T... BACK TO PUMP ROOM 10:00 PM 6/2/91... CONTINUED SLOW DRILLING... PROBLEM MONITORING SANDS... NOT LAST TIME... SANDS, MUD CONSUMPTION... 2-3 bbl/hr... NOT UNUSUAL...

Table with columns for Product Inventory, Starting Inventory, Received, Used Last 24 HR, Losing Inventory, Cost Last 24 HR, Equipment, Size, Hrs/Tour, DAILY COST, CUMULATIVE COST.

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Table with columns for Representative, Mobile Unit, Hox Address, Waf House Location, Telephone.



NL Baroid



DRILLING MUD REPORT NO. 17

DATE 2-6-1971	DEPTH 7250
SPUD DATE 6-1-1971	PRESENT ACTIVITY DRILLING

OPERATOR DNLCO - AUSTRALIAN	CONTRACTOR GEORGE	RIG NO. 2
REPORT FOR Kill 1 Sm.	REPORT FOR T&D Drilling	SECTION, TOWNSHIP, RANGE K&R 01
WELL NAME AND NO. Kill 1 Sm. 1	FIELD OR BLOCK NO. F11 121	COUNTY, PARISH OR OFFSHORE AREA ANSON
		STATE/PROVINCE VILL 60

DRILLING ASSEMBLY			CASING		MUD VOLUME (BBL)		CIRCULATION DATA			
BIT SIZE 8"	TYPE A7J11	JET SIZE 3/8"	SURFACE SET 9 3/4" @ 304 FT	HOLE 460 H11	PITS 340 H11	PUMP SIZE X IN. 6 x 2	ANNULAR VEL. (FT/MIN) DP 134 DC 232			
DRILL PIPE SIZE 4 1/2"	TYPE 16116	LENGTH	INTERMEDIATE SET @ FT	TOTAL CIRCULATING VOLUME 210 H11		PUMP MAKE, MODEL P230	ASSUMED EFF 97%	CIRCULATION PRESSURE (PSI) 1500 ?		
DRILL PIPE SIZE 4 1/2"	TYPE 11101	LENGTH 53.80	INTERMEDIATE SET @ FT	IN STORAGE 150 H11	WEIGHT 1800	BBL/STK 0.168	STK/MIN 100	BOTTOMS UP (MIN) 53		
DRILL COLLAR SIZE 6"	LENGTH 17'	PRODUCTION OR LINER SET @ FT	MUD TYPE ALL FLOWMUD - P-11		BBL/MIN 68	GAL/MIN 275	TOTAL CIRC. TIME (MIN) 120			

Sample From	MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS		
	<input type="checkbox"/> F.L. <input type="checkbox"/> PIT	<input type="checkbox"/> F.L. <input type="checkbox"/> PIT	WEIGHT	VISCOSITY	FILTRATE
Time Sample Taken	12:00	24:00	BY AUTHORITY <input type="checkbox"/> OPERATOR'S WRITTEN <input type="checkbox"/> DRILLING CONTRACTOR <input type="checkbox"/> OPERATOR'S REPRESENTATIVE <input type="checkbox"/> OTHER		
Flowline Temperature % OC	-	49°C	RECOMMENDED TREATMENT		
Depth (ft)	2171	2234	CONTINUE STEADY DRILLING ALL DAY THROUGH PREDOMINANTLY SANDSTONE SECTION		
Weight <input checked="" type="checkbox"/> (ppg) <input type="checkbox"/> (lb/cu. ft.) <input type="checkbox"/> Sp.G	9.2	9.2			
Funnel Viscosity (sec/qt) API @ °F	46	42			
Plastic Viscosity cP @ °F	13	15			
Yield Point (lb/100 ft²)	11	11			
Get Strength (lb/100 ft²) 10 sec/10 min.	1/2	1/3			
Filtrate API (cm³/30 min.)	55	62			
API HTHP Filtrate (cm³/30 min.) @ °F	-	-			
Cake Thickness (32nd in. API/HTHP)	1/32	1/32			
Solids Content (%by Vol.) <input type="checkbox"/> calculated <input type="checkbox"/> retort	4.1	4.1			
Liquid Content (%by Vol.) Oil/Water	-/42.1	-/42.1			
Sand Content (%by Vol.)	-	-			
Methylene Blue Capacity <input type="checkbox"/> (bbl equiv) <input type="checkbox"/> (cm³/cm mud)	8	8			
pH <input checked="" type="checkbox"/> Strip <input type="checkbox"/> Meter @ °F	9.2	9.2			
Alkalinity Mud (Pm)	0.5	0.5			
Alkalinity Filtrate (P/M)	0.5/1.1	0.5/1.1			
Alternate Alkalinity Filtrate (P./P.)	n/x	0.2/1.1			
Chloride (mg/L)	25,000	25,000	MUD PROPERTIES MAINTAINING MAX CLAY CONTENT OF MUD PROPERTIES SPECIFIED FOR USE IN THIS FORMATION AND CURRENT PRACTICE FOR THIS FORMATION.		
Total Hardness as Calcium (mg/L)	200	150			
Water Reduc. (ppm)	4.1	4.1			
Loss on Ign. (ppm)	300				
Clay Content (ppm)	271	372			

PRODUCT INVENTORY	EQUIPMENT										
	SIZE	HRS/TOUR		SIZE		HRS/TOUR		SIZE		HRS/TOUR	
STARTING INVENTORY	250	118	35	1	29	28	120	41	1		
RECEIVED											
USED LAST 24 HR	-	65	2	-	-	3	32	26	-		
CLC INVENTORY	240	53	33	1	22	25	142	25	1		
CORRECTIONS	-	72	38	-	(82)	(53)	(65)	(102)	-		
DAILY COST \$ 3704.66										CUMULATIVE COST \$ 42,943.87	

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RESERVATIVE	HOME ADDRESS	ELEPHONE
MANAGER OLEFINE DR	WAREHOUSE LOCATION	ELEPHONE
	MR. BOYD	
	DR. LINDS	

NL

NL Baroid



DRILLING MUD REPORT NO. 10

DATE <u>23/1/1991</u>	19 <u>91</u>	DEPTH <u>2220</u>
SPUD DATE <u>1/1/91</u>	PRESENT ACTIVITY <u>Drilling</u>	

OPERATOR <u>Anglo Australian</u>	CONTRACTOR <u>Grainman</u>	RIG NO. <u>2</u>
REPORT FOR <u>Ken Smith</u>	REPORT FOR <u>TEA DOWNEY</u>	SECTION, TOWNSHIP, RANGE <u>KR01</u>
WELL NAME AND NO. <u>...</u>	FIELD OR BLOCK NO. <u>...</u>	COUNTY, PARISH OR OFFSHORE AREA <u>OTWAY</u>
		STATE/PROVINCE <u>VIC</u>

DRILLING ASSEMBLY			CASING		MUD VOLUME (BBL)		CIRCULATION DATA				
BIT SIZE <u>3"</u>	TYPE <u>T22</u>	JET SIZE <u>3x2</u>	SURFACE SET <u>942 @ 204 FT</u>	INTERMEDIATE SET <u>@</u>	HOLE <u>475 bbl</u>	PITS <u>350 bbl</u>	PUMP SIZE X IN. <u>6x2</u>	ANNULAR VEL. (FT/MIN) DP <u>134</u> DC <u>232</u>			
DRILL PIPE SIZE <u>2 1/2"</u>	TYPE <u>11.6 lb</u>	LENGTH <u>55.8</u>	INTERMEDIATE SET <u>@</u>	FT <u>FT</u>	TOTAL CIRCULATING VOLUME <u>225 bbl</u>		PUMP MAKE, MODEL <u>P224</u>	ASSUMED EFF % <u>91</u>	CIRCULATION PRESSURE (PSI) <u>1250</u>		
DRILL PIPE SIZE <u>2 1/2"</u>	TYPE <u>11.6 lb</u>	LENGTH <u>55.8</u>	INTERMEDIATE SET <u>@</u>	FT <u>FT</u>	IN STORAGE <u>150 bbl</u>	WEIGHT <u>...</u>	BBL/STK <u>0.062</u>	STK/MIN <u>150</u>	BOTTOMS UP (MIN) <u>55</u>		
DRILL COLLAR SIZE <u>1 1/2"</u>	LENGTH <u>173</u>	PRODUCTION OR LINER SET <u>@</u>	FT <u>FT</u>	MUD TYPE <u>KCL / ...</u>			BBL/MIN <u>0.8</u>	GAL/MIN <u>234</u>	TOTAL CIRC. TIME (MIN) <u>12</u>		

Sample From	MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS		
	<input type="checkbox"/> F.L. <input type="checkbox"/> PIT	<input type="checkbox"/> F.L. <input type="checkbox"/> PIT	WEIGHT	VISCOSITY	FILTRATE
Time Sample Taken	<u>12.00</u>	<u>24.00</u>	BY AUTHORITY <input type="checkbox"/> OPERATOR'S WRITTEN <input type="checkbox"/> DRILLING CONTRACTOR <input type="checkbox"/> OPERATOR'S REPRESENTATIVE <input type="checkbox"/> OTHER		
Flowline Temperature °F °C	<u>-</u>	<u>53°C</u>	RECOMMENDED TREATMENT		
Depth (ft) v.	<u>2276</u>	<u>2285</u>	<u>CONTINUE DRILLING TO 2285</u>		
Weight <input type="checkbox"/> (ppg) <input type="checkbox"/> (lb/cu. ft.) <input type="checkbox"/> Sp.G	<u>93</u>	<u>93</u>	<u>CIRC ON, PUMP SLOW AND PULL TO BIT CHANGE</u>		
Funnel Viscosity (sec/qt) API @ °F	<u>41</u>	<u>42</u>	<u>HAD TO STOP NOW FROM 2250 TO 2000</u>		
Plastic Viscosity cP @ °F	<u>13</u>	<u>13</u>	<u>TOOK 4 HRS TO PULL OUT. DISC 1 STAND IN PARTICULAR TOOK 1/2 HR TO WORK OUT.</u>		
Yield Point (lb/100 ft²)	<u>12</u>	<u>14</u>	<u>APPEARS TO BE DOWN TO ...</u>		
Get Strength (lb/100 ft²) 10 sec/10 min.	<u>1/4</u>	<u>3/10</u>	<u>APPEARS TO BE DOWN TO ...</u>		
Filtrate API (cm³/30 min.)	<u>6.3</u>	<u>6.5</u>	<u>VERY GOOD GUMMERS</u>		
API HTHP Filtrate (cm³/30 min.) @ °F	<u>-</u>	<u>-</u>	<u>ON RUNNING (BUT ...)</u>		
Cake Thickness (32nd in. API/HTHP)	<u>1/32</u>	<u>1/32</u>	<u>APPEARS TO BE DOWN TO ...</u>		
Solids Content (% by Vol.) <input type="checkbox"/> calculated <input type="checkbox"/> retort	<u>4.12</u>	<u>4.12</u>	<u>WITHIN ...</u>		
Liquid Content (% by Vol.) Oil/Water	<u>-/15.1</u>	<u>-/15.1</u>	<u>CONTINUE DRILLING</u>		
Sand Content (% by Vol.)	<u>Trace</u>	<u>Trace</u>			
Methylene Blue Capacity <input type="checkbox"/> bbl equiv <input type="checkbox"/> cm³/cm mud	<u>-</u>	<u>2</u>			
H <input checked="" type="checkbox"/> Strip <input type="checkbox"/> Meter @ °F	<u>9.5</u>	<u>9.5</u>			
Alkalinity Mud (Pm)	<u>0.5</u>	<u>0.4</u>			
Alkalinity Filtrate (P/M)	<u>0.2/1</u>	<u>0.2/1</u>			
Alternate Alkalinity Filtrate (P/P)	<u>n/a</u>	<u>0.5/1.77</u>			
Chloride (mg/L)	<u>2300</u>	<u>2300</u>			
Total Hardness as Calcium (mg/L)	<u>140</u>	<u>130</u>			
<u>Yr. KCL Brine ...</u>	<u>4.1</u>	<u>4.1</u>			
<u>Water Added ...</u>	<u>150</u>				
<u>Net Vol ...</u>					

PRODUCT INVENTORY											EQUIPMENT			
	FRAC 1	GR	LC	ALUM	PI	PWD	PAC 12	KCL	MS	DUTRAID	BARIT	LIQ.	SIZE	HRS/TOUR
STARTING INVENTORY	20	53	33	1	22	25	142	25	1				Centrifuge	
RECEIVED													Degasser	
USED LAST 24 HR	15	3	2	2	2	-	1	-	-				Desander	
LOSING INVENTORY	225		31	1	70	25	32	25	1				Desitter	11
COST LAST 24 HR	<u>131.00</u>	<u>21.00</u>	<u>93.38</u>	<u>-</u>	<u>114.80</u>	<u>-</u>	<u>17.80</u>	<u>-</u>	<u>-</u>				Shaker	11
													Other	3
													DAI LY COST	<u>\$ 1,345.53</u>
													CUMULATIVE COST	<u>44,384.00</u>

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REPRESENTATIVE <u>...</u>	HOME ADDRESS <u>...</u>	TELEPHONE <u>...</u>
MOBILE UNIT <u>...</u>	WAREHOUSE LOCATION <u>...</u>	TELEPHONE <u>...</u>



NL Baroid



DRILLING MUD REPORT NO. 19

DATE 24-6-1971 DEPTH 2375

SPUD DATE 6-6-71 PRESENT ACTIVITY DRILLING

OPERATOR ANGLIS INDUSTRIES CONTRACTOR G... RIG NO. 2

REPORT FOR KEA... REPORT FOR T.D. DOH... SECTION, TOWNSHIP, RANGE KEA...

WELL NAME AND NO. ... FIELD OR BLOCK NO. ... COUNTY, PARISH OR OFFSHORE AREA ... STATE/PROVINCE VICTORIA

Table with columns: DRILLING ASSEMBLY, CASING, MUD VOLUME (BBL), CIRCULATION DATA. Includes sub-headers like BIT SIZE, TYPE, JET SIZE, SURFACE, HOLE, PITS, PUMP SIZE X IN., ANNULAR VEL. (FT/MIN).

MUD PROPERTIES MUD PROPERTY SPECIFICATIONS

Sample From [] F.L. [] PIT [] F.L. [] PIT WEIGHT VISCOSITY FILTRATE

Time Sample Taken 12:00 24:00 BY AUTHORITY [] OPERATOR'S WRITTEN [] DRILLING CONTRACTOR [] OPERATOR'S REPRESENTATIVE [] OTHER

Flowline Temperature 56°C

Depth 2353m 2395m RECOMMENDED TREATMENT

Weight 9.3 9.57 CONTINUED SLOW STRIKE DRILLING THROUGH PERMEABLE FINE SANDSTONE

Funnel Viscosity (sec/qt) API @ 57 44

Plastic Viscosity cP @ 14 13

Yield Point (lb/100 ft²) 12 14

Get Strength (lb/100 ft²) 10 sec/10 min. 10/17 2/10

Filtrate API (cm³/30 min.) 6.6 6.4

API HTHP Filtrate (cm³/30 min.) @ 57 44

Cake Thickness (32nd in. API/HTHP) 2/3 1/3

Solids Content (%by Vol.) 41.2 41.2

Liquid Content (%by Vol.) Oil/Water -19.5 -19.5

Sand Content (%by Vol.)

Methylene Blue Capacity 8

pH 9.0 9.0

Alkalinity Mud (Pm) 0.4 0.6

Alkalinity Filtrate (P/M.) 0.05/0.1 0.1/0.15

Alternate Alkalinity Filtrate (P/M.) 0.57/0.71

Chloride (mg/L) 24000 24000

Total Hardness as Calcium (mg/L) 150 80

WATER ADDED (bbl) 4.1 4

WATER VOLUME (bbl) 276 276

Table with columns: PRODUCT INVENTORY, EQUIPMENT, HRS/TOUR. Includes rows for Centrifuge, Degasser, Desander, Desilter, Shaker, Other.

DAILY COST \$1,379.55 CUMULATIVE COST \$45,457.95

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REPRESENTATIVE M... HOME ADDRESS M... TELEPHONE M... MOBILE UNIT M... WAREHOUSE LOCATION M... TELEPHONE M...

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NL Baroid



DRILLING MUD REPORT NO. 20

DATE <u>20-10-1991</u>	DEPTH <u>2459</u>
SPUD DATE <u>10-10-1991</u>	PRESENT ACTIVITY <u>DRILLING</u>

OPERATOR <u>ANGLO AUSTRALIAN</u>	CONTRACTOR <u>Geopac</u>	RIG NO. <u>2</u>
REPORT FOR <u>KEN SMITH</u>	REPORT FOR <u>Tom Doherty</u>	SECTION, TOWNSHIP, RANGE <u>KORRI 2</u>

WELL NAME AND NO. <u>KILL APP No 1</u>	FIELD OR BLOCK NO. <u>Block 131</u>	COUNTY, PARISH OR OFFSHORE AREA <u>FRASER</u>	STATE/PROVINCE <u>VICTORIA</u>
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DRILLING ASSEMBLY			CASING		MUD VOLUME (BBL)		CIRCULATION DATA			
BIT SIZE <u>2 1/2</u>	TYPE <u>J72</u>	JET SIZE <u>3x12</u>	SURFACE SET <u>9 1/2 @ 304 FT</u>	HOLE <u>500 bbl</u>	PITS <u>300 bbl</u>	PUMP SIZE X IN. <u>6x6</u>	ANNULAR VEL. (FT/MIN) DP <u>134</u> DC <u>232</u>			
DRILL PIPE SIZE <u>4 1/2</u>	TYPE <u>16.6 lb</u>	LENGTH	INTERMEDIATE SET @ FT	TOTAL CIRCULATING VOLUME <u>800 bbl</u>		PUMP MAKE, MODEL <u>12.60</u>	ASSUMED EFF <u>91%</u>	CIRCULATION PRESSURE (PSI) <u>1400</u>		
DRILL PIPE SIZE <u>4 1/2</u>	TYPE <u>16.6 lb</u>	LENGTH <u>55.8</u>	INTERMEDIATE SET @ FT	IN STORAGE	WEIGHT	BBL/STK	STK/MIN	BOTTOMS UP (MIN) <u>60</u>		
DRILL COLLAR SIZE <u>6 1/2</u>	TYPE <u>16.6 lb</u>	LENGTH	PRODUCTION OR LINER SET @ FT	MUD TYPE <u>KCL - POLYMER - WATER</u>		BBL/MIN <u>6.2</u>	GAL/MIN <u>235</u>	TOTAL CIRC TIME (MIN) <u>1.2</u>		

MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS		
Sample From	<input type="checkbox"/> F.L. <input type="checkbox"/> PIT	WEIGHT	VISCOSITY	FILTRATE
Time Sample Taken			BY AUTHORITY <input type="checkbox"/> OPERATOR'S WRITTEN <input type="checkbox"/> DRILLING CONTRACTOR <input type="checkbox"/> OPERATOR'S REPRESENTATIVE <input type="checkbox"/> OTHER	
Flowline Temperature °F			<u>REMARKS</u> RECOMMENDED TREATMENT	
Depth (ft) <u>2459</u>			<p>CONTINUE SLOW DRILLING TO 2459m.</p> <p>DECISION TO TO CIRC ON 1 1/2" IN. TUB</p> <p>RAN 30 STANDS WIRE TAP WITH</p> <p>PROBLEMS. CIRC HALL CLEAN 1 1/2" IN. DRILL</p> <p>THEN PULL AND BEGIN MUD CLEANING</p> <p>LOGGING LOGGING APPROX 2400m.</p> <p>LET VISCO. INCREASE TO 200 TO 2</p> <p>IMPROVE MUD CAPABILITY BEFORE TO</p> <p>PULLING LOGS.</p>	
Weight <input checked="" type="checkbox"/> (ppg) <input type="checkbox"/> (lb/cu. ft.) <input type="checkbox"/> Sp.G				
Funnel Viscosity (sec/qt) API @ °F <u>50</u>				
Plastic Viscosity cP @ °F <u>17</u>				
Yield Point (lb/100 ft²) <u>20</u>				
Set Strength (lb/100 ft²) 10 sec/10 min. <u>6/10</u>				
Filtrate API (cm³/30 min.) <u>6.4</u>				
API HTHP Filtrate (cm³/30 min.) @ °F <u>7</u>				
cake Thickness (32nd in. API/HTHP) <u>2/32</u>				
Solids Content (%by Vol.) <input type="checkbox"/> calculated <input type="checkbox"/> retort <u>4 1/2</u>				
Liquid Content (%by Vol.) Oil/Water sol. <u>-/100</u>				
Sand Content (%by Vol.) <u>Trace</u>				
Methylene Blue Capacity <input checked="" type="checkbox"/> lb/bbl equiv <input type="checkbox"/> cm³/cm mud <u>9</u>				
H <input checked="" type="checkbox"/> Strip <input type="checkbox"/> Meter @ °F <u>95</u>				
Alkalinity Mud (Pm) <u>0.6</u>				
Alkalinity Filtrate (PJM) <u>0.1/15</u>				
Alternate Alkalinity Filtrate (P.P.) <u>n/k</u>				
Chloride (mg/L) <u>26000</u>				
Total Hardness as Calcium (mg/L) <u>80</u>				
<u>40 KCL</u> <u>500</u> <u>Water</u> <u>Added</u> <u>1/bbl</u>				
<u>276</u> <u>1378</u>				

PRODUCT INVENTORY											EQUIPMENT						
	BRINE	MUD	GEL	CHEMICAL	POLYMER	LIMIT	1-2	MUD	PAC R	DANTRON	KCL	AS	WATER	CLIP	FINISH	SIZE	HRS/TOUR
STARTING INVENTORY	225	23	28	15	20	17	25	124	1	2						Centrifuge	
RECEIVED																Degasser	
USED LAST 24 HR	25	-	1	3	-	-	8	4	-	-						Desander	6
REMAINING INVENTORY	200	23	27	12	20	19	17	120	1	2						Desilter	9
ADDED LAST 24 HR	211.7	-	49.19	21.06	-	-	1368	21.96	-	-						Shaker	9
																Other	9
																DAI.Y COST	
																\$ 977.64	CUMULATIVE COST
																	\$ 46,415.59

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REPRESENTATIVE <u>M. J. WILSON</u>	HOME ADDRESS <u>1000 WILSON</u>	TELEPHONE
FILE UNIT <u>OL-11224</u>	WAREHOUSE LOCATION <u>ADRIAN</u>	TELEPHONE

NL

NL Baroid



DRILLING MUD REPORT NO. 21

DATE 2-6-91 1991 DEPTH 2500

SPUD DATE 2-6-91 PRESENT ACTIVITY RIG DOWN

OPERATOR ANGLIO AUSIELLO CONTRACTOR GEORGE

REPORT FOR KILL-SMITH REPORT FOR TEE

WELL NAME AND NO. KILL-SMITH FIELD OR BLOCK NO. B-101

DRILLING ASSEMBLY CASING MUD VOLUME (BBL) CIRCULATION DATA

Table with columns for BIT SIZE, TYPE, JET SIZE, SURFACE, HOLE, PITS, PUMP SIZE, ANNULAR VEL., etc.

MUD PROPERTIES MUD PROPERTY SPECIFICATIONS

Table with columns for Sample From, Time Sample Taken, Flowline Temperature, Depth, Weight, Funnel Viscosity, Plastic Viscosity, Yield Point, etc.

REMARKS CONTINUED RUNNING HALIBUTON WIRELINE LOGS. HAD NO HOLE PROBLEMS. MUD IN GOOD CIRCULATION. BEGAN RIGGING DOWN AFTER COMPLETION OF LOGS - PREPARING TO SET CMT PIPES

Table with columns for PRODUCT INVENTORY, EQUIPMENT, STARTING INVENTORY, RECEIVED, USED L-ST, CLOSING INVENTORY, COST LAS, etc.

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REPRESNTATIVE DANIELA WETMORE HOME ADDRESS 126 BOURNE ELEPHONE WAREHOUSE LOCATION ADDRESS ELEPHONE

NL

NL Baroid



DRILLING MUD REPORT NO. 2

DATE 28-6-1991	DEPTH 200
SPUD DATE 6-6-91	PRESENT ACTIVITY

OPERATOR	CONTRACTOR	RIG NO.
REPORT FOR ANGLU AUSTRALIAN	REPORT FOR G. ...	SECTION, TOWNSHIP, RANGE
WELL NAME AND NO. KIL ...	FIELD OR BLOCK NO. ...	COUNTY, PARISH OR OFFSHORE AREA ...
		STATE/PROVINCE ...

DRILLING ASSEMBLY			CASING		MUD VOLUME (BBL)		CIRCULATION DATA			
BIT SIZE	TYPE	JET SIZE	SURFACE SET 9 1/2 @ 304 FT	HOLE	PITS	PUMP SIZE X IN.	ANNULAR VEL. (FT/MIN) DP DC			
DRILL PIPE SIZE	TYPE	LENGTH	INTERMEDIATE SET @ FT	TOTAL CIRCULATING VOLUME		PUMP MAKE, MODEL	ASSUMED EFF %	CIRCULATION PRESSURE (PSI)		BOTTOMS UP (MIN)
DRILL PIPE SIZE	TYPE	LENGTH	INTERMEDIATE SET @ FT	IN STORAGE	WEIGHT	BBL/STK	STK/MIN	TOTAL CIRC. TIME (MIN)		
DRILL COLLAR SIZE	LENGTH	PRODUCTION OR LINER SET @ FT	MUD TYPE		BBL/MIN		GAL/MIN			

MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS	
Sample From	<input type="checkbox"/> F.L. <input type="checkbox"/> PIT	WEIGHT	VISCOSITY
Time Sample Taken			FILTRATE
Flowline Temperature °F		BY AUTHORITY <input type="checkbox"/> OPERATOR'S WRITTEN <input type="checkbox"/> DRILLING CONTRACTOR <input type="checkbox"/> OPERATOR'S REPRESENTATIVE <input type="checkbox"/> OTHER	
Depth (ft)		<u>RECOMMENDED TOUR TREATMENT</u>	
Weight <input type="checkbox"/> (ppg) <input type="checkbox"/> (lb/cu. ft.) <input type="checkbox"/> Sp.G		<p>RAN DST NO 2</p> <p>PERBLE POINT FORMATION SUCCESSFULLY</p> <p>BEGIN LINE ADJUSTMENT PROGRAMME.</p> <p>LOGS OUT ALL MUD TO BE RETURNED TO MANSFIELD WITHIN ANY CALENDAR</p>	
Funnel Viscosity (sec/qt) API @ °F			
Plastic Viscosity cP @ °F			
Yield Point (lb/100 ft ²)			
Gel Strength (lb/100 ft ²) 10 sec/10 min.			
Filtrate API (cm ³ /30 min.)			
API HTHP Filtrate (cm ³ /30 min.) @ °F			
Cake Thickness (32nd in. API/HTHP)			
Solids Content (%by Vol.) <input type="checkbox"/> calculated <input type="checkbox"/> retort			
Liquid Content (%by Vol.) Oil/Water			
Sand Content (%by Vol.)			
Methylene Blue Capacity = lb DDI equiv / cu ft. cm mud			
H <input type="checkbox"/> Strip <input type="checkbox"/> Meter @ °F			
Alkalinity Mud (P/m)			
Alkalinity Filtrate (P/M)			
Alternate Alkalinity Filtrate (P./P.)			
Chloride (mg/L)			
Total Hardness as Calcium (mg/L)			

RAN DST NO 2

PERBLE POINT FORMATION SUCCESSFULLY

BEGIN LINE ADJUSTMENT PROGRAMME.

LOGS OUT ALL MUD TO BE RETURNED TO MANSFIELD WITHIN ANY CALENDAR

EQUIPMENT	EQUIPMENT	
	SIZE	HRS/TOUR
Centrifuge		
Degasser		
Desander		
Desilter		
Shaker		
Other		
DAILY COST		CUMULATIVE COST
		\$ 47,316.94

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REPRESENTATIVE	HOME ADDRESS	TELEPHONE
MOBILE UNIT	WAREHOUSE LOCATION	TELEPHONE

End of Appendix 3

APPENDIX

IV

BIT RECORD

APPENDIX

V

CUTTINGS SAMPLE DESCRIPTION

LITHOLOGICAL CUTTINGS DESCRIPTION

Well Name:- Killara - 1 Permit No:- PEP - 101	Date:- 7/6/91	Geologist:- Ian Buckingham	SHOWS
DEPTH (m)	R.O.P. min/m	SAMPLE DESCRIPTION	GAS
0-10		<u>BASALT</u> m-gy/gn.gy. v.hd, vesicular, scoracious in part, ferruginous in part, weathered near surface.	
10-20		<u>BASALT</u> as above.	
20-30		<u>BASALT</u> as above. Fresh	
30-40		<u>BASALT</u> 50% as above. <u>CLAY</u> 30% lt. gy. gummy, thin, 20% <u>CALCARENITE</u> - crm, fine - med - grained, minor inter-granular porosity tr lithics, bio	
40-50	2	<u>MARL</u> white - off white, friable, dispersive, abundant fossils (sponge spicules) some infilled with fine grained sst. minor limestone stringers.	
50-60	1-2	<u>MARL</u> 50% as above. <u>SANDSTONE</u> 50% wh-off wh, v.f., well srt., v. cale cmt/matrix tr. min flu. abundant fossils.	
60-70	1.5-2	<u>CALCARENITE</u> 90% as above. <u>LMST</u> - buff, mottled, hd, blocky, fossiliferous.	
70-80		<u>CALCARENITE</u> 90% as above. <u>LMST</u> 10% as above.	
80-90		<u>CALCARENITE</u> 100% as above. <u>LMST</u> tr.	
90-100	1.5	<u>CALCARENITE</u> 100% as above. b/c. argillaceous matrix.	
100-110		<u>CALCARENITE</u> 100% tr. glauconite as above.	
110-120	2	<u>CALCARENITE</u> 100% as above tr. <u>CALCISILTITE</u> grey, soft, argillaceous, dispersive, calcareous.	
120-130	0.75-2	<u>CALCARENITE</u> 100% as above.	

LITHOLOGICAL CUTTINGS DESCRIPTION

Well Name:- Killara - 1 Permit No:- PEP - 101	Date:- 7-8/6/91	Geologist:- Ian Buckingham	SHOWS
DEPTH (m)	R.O.P. min/m	SAMPLE DESCRIPTION	GAS
130-140	1.7	<u>CALCARENITE</u> 100% as above.	
140-150		<u>CALCARENITE</u> 100% as above.	
150-160		<u>CALCARENITE</u> 100% as above.	
160-170		<u>CALCARENITE</u> 100% lt. gy, soft gummy, dispersive, calc., v.foss.	
170-180	1	<u>CALCARENITE</u> 100% as above.	
180-190	1.5	<u>CALCARENITE</u> 100% as above.	
190-200	1.5	<u>CALCARENITE</u> 100% as above.	
200-210	1.5	<u>CALCARENITE</u> 100% as above.	
210-220	2	<u>LIMESTONE</u> 100% lt.gy, crm, occ.foss.	
220-230		<u>LIMESTONE</u> 100% as above.	
230-240		<u>LIMESTONE</u> 100% as above.	
240-250		<u>LIMESTONE</u> 100% as above.	
250-260		<u>LIMESTONE</u> 100% as above.	
260-270	2.5	<u>LIMESTONE</u> 100% as above.	
270-280	2.5	<u>LIMESTONE</u> 100% as above.	
280-290	2.5	<u>LIMESTONE</u> 100% as above.	

LITHOLOGICAL CUTTINGS DESCRIPTION

Well Name:- Killara - 1
 Permit No:- PEP - 101

Date:- 8-10/6/91

Geologist:- Ian Buckingham

DEPTH (m)	R.O.P. min/m	SAMPLE DESCRIPTION	SHOWS
290-300	1.7	<u>CLAYSTONE</u> 100% as above tr. forams, tr. aragonite, and shell fragments, dispersive.	GAS
300-307 casing point	1.7	<u>LIMESTONE</u> 100% as above.	
309		<u>MARLSTONE</u> 100% light grey blue, abundant fossils, forams, gastropods, fenestrella, v. dispersive, calcareous.	
312		<u>MARLSTONE</u> 100% as above.	
315		<u>MARLSTONE</u> 100% as above.	
318		<u>MARLSTONE</u> 100% as above.	
321		<u>MARLSTONE</u> 100% as above.	
324		<u>MARLSTONE</u> 100% as above.	
327		<u>MARLSTONE</u> 100% as above. Blocky.	
330		<u>MARLSTONE</u> 100% as above.	
333		<u>MARLSTONE</u> 100% as above.	
336		<u>MARLSTONE</u> 100% as above.	
339		<u>MARLSTONE</u> 100% as above.	
342		<u>MARLSTONE</u> 100% as above.	
345		<u>MARLSTONE</u> 100% as above.	

LITHOLOGICAL CUTTINGS DESCRIPTION

Well Name:- Killara - 1
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Date:-10/6/91

Geologist:- Ian Buckingham

SHOWS

DEPTH (m)	R.O.P. min/m	SAMPLE DESCRIPTION	GAS
348		<u>MARLSTONE</u> 100% as above.	
351	0.5	<u>MARLSTONE</u> 100% as above.	
354	0.8	<u>MARLSTONE</u> 100% as above.	
357	0.8	<u>MARLSTONE</u> 100% as above.	
360	0.8	<u>MARLSTONE</u> 90% as above. <u>LMST</u> 10% off wh/wh in part, lt. gy, gn, often mottled, microcrystalline, hd, blocky.	
363	1.5	<u>LMST</u> 80% off wh/wh in part, lt.gy gn, often mottled, microcrystalline, hd, blocky. <u>MARLSTONE</u> 20% as above.	
366	3.0	<u>LMST</u> 100% as above dark gy-gn.	
372	1.5	<u>LMST</u> 100% dom. off wh. as above.	
375	1.5	<u>LMST</u> 100% as above.	
378	1.8	<u>LMST</u> 100% microcrystalline, off wh-cream, gy-gn mottled.	
381	1.5	<u>LMST</u> 100% as above slightly ferruginous.	
384	1.0	<u>LMST</u> 100% as above very ferruginous, siderite replacement of bryozoa, and hd ferruginous.	
387	1.0	<u>LMST</u> 100% as above extremely ferruginous, v. oxidized, trace siderised glauconite, sucrosic texture, rare oxidised, well rounded qtz grains.	
390	1.5	<u>LMST</u> 100% as above tr-common siderised glauconite.	

LITHOLOGICAL CUTTINGS DESCRIPTION

Well Name:- Killara - 1 Permit No:- PEP - 101		Date:-10/6/91	Geologist:- Ian Buckingham	SHOWS
DEPTH (m)	R.O.P. min/m	SAMPLE DESCRIPTION		
393	1.0	LMST 100% as above but less oxidized, tr-comm siderite nodules replacing glauconite approx. 30% of LMST contains siderite nodules in aggregates. (sultana cake), rare rounded qtz grains.		
396	1.2	LMST 100% multicoloured, pink, gr, gy, off white, buff, common siderite nodules - 50% of LMST contains siderite nodules in aggregates.		
399	1.5	LMST 80% as above multicoloured. MARLSTONE 20% med-dk, gy, soft, v. fossiliferous, shell fragments, v. calcareous, bivalves.		
402	4.0 - 1.2	LMST 50% as above gy, gn, white, cream, lt. bu MARLSTONE 50% as above very calc. shell fragments.		
405	3.0	MARLSTONE 80% as above very fossiliferous, shell fragments, LMST 20% as above.		
408	6.0 - 0.5	MARLSTONE 70% as above tr. aragonite replacement on shell fragment. LMST 30% as above.		
411	10.0 - 0.5	MARLSTONE 50% lt. gy. gn as above. LMST 50% highly fossiliferous, * fossils (shell frags, bivalves, bryozoa) constitute approx. 20% of sample.		
414	0.5 - 1.0	MARLSTONE 50% as above. LMST 50% as above very fossiliferous.		
417	0.5	MARLSTONE 80% as above very fossiliferous. gy. gy-gr. LMST 20% as above.		
420	1.5	MARLSTONE 100% gy-gy/gr, soft, blocky very fossiliferous, tr. lust. as above.		

LITHOLOGICAL CUTTINGS DESCRIPTION

Well Name:- Killara - 1 Permit No:- PEP - 101	Date:-10/6/91	Geologist:- Ian Buckingham	SHOWS
DEPTH (m)	ROP. min/m	SAMPLE DESCRIPTION	GAS
423	1.7/7.0/0.5	<u>MARLSTONE</u> 90% as above. <u>LMST</u> 10% very fossiliferous (shell fragments, bryozoa, small ammonites)	Cuttings from 423 m to 441m may not be true - representative samples of formation, dk. bu clays? very dispersive?
426 429	1.0/5.0/1.5 1.5/-/5/1.5	<u>MARLSTONE</u> 90% as above <u>LMST</u> 10% dk bu. <u>MARLSTONE</u> 90% as above. <u>LMST</u> 10% as above.	
432		<u>MARLSTONE</u> 90% as above. <u>LMST</u> 10% as above. trace dispersive.	
435		<u>MARLSTONE</u> 90% as above. <u>LMST</u> 10% as above trace dk bu claystone, extremely dispersive, very soft, carbonaceous in part.	
438		<u>MARLSTONE</u> 100% as above tr. <u>LMST</u> , very dispersive, very soft,	
441		<u>MARLSTONE</u> 100% as above.	
444		<u>SILTSTONE</u> 100% dk bu. blk, carbonaceous, soft dispersive, argillaceous, common accessory marcasite, common calcite (veining).	
447		<u>SILTSTONE</u> 100% as above.	
450		<u>SILTSTONE</u> 70% as above. <u>SANDSTONE</u> 30% Qtz grains loose, sub ang - sub rnd., poorly srted, f-c grn, common marcasite, (fresh). Qtz grains appear to occur in an argillaceous matrix/cmt. poor visual porosity.	
453		<u>SILTSTONE</u> as above. Qtz grains as above.	
456	0.5	<u>SANDSTONE</u> 80% as above. Free qtz as above. matrix/cmt argillaceous, dispersive, common marcasite, occ glauconite qtz grns generally clear some frosted, sub-rounded to rounded. <u>SILTSTONE</u> 20% as above.	NO FLU.

LITHOLOGICAL CUTTINGS DESCRIPTION

Well Name:- Killara - 1 Permit No:- PEP - 101		Date:-10/6/91		Geologist:- Ian Buckingham		SHOWS
DEPTH (m)	R.O.P. min/m	SAMPLE DESCRIPTION			GAS	
459	0.5/2.0/2.0	<p><u>SANDSTONE</u> 100% loose qtz grns, c-v.c.grn, sub-rounded to rounded, generally clear but some frosted, some contain inclusions of mica (biotite?), common glauconite, aggregate of fine qtz crystals commonly contain glauconite.</p>			NO	FLU.
462	2.0/2.0/0.5	<p><u>SANDSTONE</u> 100% as above.</p>			NO	FLU.
465	2.0/2.0/0.5	<p><u>SANDSTONE</u> 100% as above qtz becoming more frosted and also yellow, more glauconitic than previous sample.</p>			NO	FLU.
468		<p><u>SANDSTONE</u> 100% as above.</p>			NO	FLU.
471		<p><u>SANDSTONE</u> 80% as above. <u>SILTSTONE</u> 20% v.dk.gn., hard, blocky, carbonaceous inclusions, glauconitic.</p>			NO	FLU.
474		<p><u>SILTSTONE</u> 70% black, v.dk gn, blocky, sucrosic texture. <u>CLAYSTONE</u> 20% pale gn. gy. fossiliferous, soft, very calcareous, blocky. <u>SANDSTONE</u> 10% as above.</p>				
477		<p><u>SILTSTONE</u> 40% as above. <u>CLAYSTONE</u> 40% as above. very fossiliferous. <u>SANDSTONE</u> 20% as above.</p>				
480		<p>As above</p>				
483		<p>As above.</p>				
486		<p>As above.</p>				

LITHOLOGICAL CUTTINGS DESCRIPTION

Well Name:- Killara - 1
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Well Name:- Killara - 1 Permit No:- PEP - 101		Date:- 10/6/91		Geologist:- Ian Buckingham		SHOWS
DEPTH (m)	R.O.P. min/m	SAMPLE DESCRIPTION			GAS	
489	0.5	<p>CLAYSTONE 40% lt.gy, blocky, v.soft, dispersive. SILTSTONE 30% lt.gy brn. SANDSTONE 20% qtz loose, cmt/matrix calcareous clay, med-c grn, sub-ang/sub-rounded, no vis. porosity. COAL 10% black, bright, brittle.</p>			NO FLU.	
492	0.5	As above.				
495	1	As above.				
498	1.5	<p>CLAYSTONE 90% as above. SILTSTONE 10% as above. SANDSTONE Tr. as above.</p>			NO FLU	
501	0.5	<p>CLAYSTONE 50% as above. SILTSTONE 30% as above. SANDSTONE 20% v.f. - c. grn, fine grained occurs as aggregates with tr glauconite? chlorite? and common carbonaceous material, sub-ang./rnd, poorly srted, no vis. porosity.</p>			NO FLU.	
504	0.5	as above.				
507	1.0	as above.				
510	0.5	as above.				
513	2.5	<p>CLAYSTONE 90% lt gy-grm gy, soft, abund. fossils, bivalves, bryozoans, shell frags, iron fossil replace pyrite (marcasite) chloritic. SANDSTONE 10% loose qtz. as above. COAL common as above.</p>				

LITHOLOGICAL CUTTINGS DESCRIPTION

Well Name:- Killara - 1
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Geologist:- Ian Buckingham

SHOWS

DEPTH (m)	ROP. min/m	SAMPLE DESCRIPTION	GAS
516	1.0	<u>CLAYSTONE</u> 90% as above. <u>SANDSTONE</u> 10% as above.	
519	1.5	<u>CLAYSTONE</u> 90% as above. <u>SANDSTONE</u> 10% as above.	
522	0.5	<u>CLAYSTONE</u> 90% as above. <u>SANDSTONE</u> 10% as above.	
525	0.5	<u>CLAYSTONE</u> 90% as above. <u>SANDSTONE</u> 10% as above.	
528	0.5	<u>CLAYSTONE</u> 90% as above. <u>SANDSTONE</u> 10% as above.	
531	0.5	<u>SILTSTONE</u> 50% med.-dk gy, blocky hd, very pyritic, tr chloritic, tr. carb., non-calc, tr biotite. <u>SANDSTONE</u> 40% loose Qtz, clear, tawny gy, med-v.c.gn, sub-ang/sub rnd, poorly srted., no vis porosity. <u>CLAYSTONE</u> 10% as above.	
534	0.5	<u>CLAYSTONE</u> 60% as above. <u>SILTSTONE</u> 20% as above. <u>SANDSTONE</u> 20% as above.	
537	1.0	<u>CLAYSTONE</u> 60% as above. <u>SILTSTONE</u> 20% as above. <u>SANDSTONE</u> 20% as above.	
540	0.5	<u>CLAYSTONE</u> 60% as above. <u>SILTSTONE</u> 20% as above. <u>SANDSTONE</u> 20% as above.	
543	4.5	As above.	
546	1	<u>CLAYSTONE</u> 90% as above. <u>SILTSTONE</u> 10% as above. <u>SANDSTONE</u> tr. <u>IRONSTONE</u> tr.	
549	0.5	<u>CLAYSTONE</u> 90% as above. <u>SILTSTONE</u> 10% as above. <u>SANDSTONE</u> tr. <u>IRONSTONE</u> tr.	

LITHOLOGICAL CUTTINGS DESCRIPTION

Well Name:- Killara - 1 Permit No:- PEP - 101	Date:-10/6/91	Geologist:- Ian Buckingham	SHOWS
DEPTH (m)	R.O.P. min/m	SAMPLE DESCRIPTION	GAS
552	1.5	CLAYSTONE 80% as above. SILTSTONE 20% as above. SANDSTONE tr. IRONSTONE tr.	
555	1.5	CLAYSTONE 90% as above. SILTSTONE 10% as above. SANDSTONE tr. IRONSTONE tr.	
558	1.5	As above.	
561	0.5	CLAYSTONE 100% lt. gy./grn-gy, soft, blocky massive disp., tr carb, marcasite (pyrite).	
564	0.5	As above.	
567	1	CLAYSTONE 90% as above. SILTSTONE 10% as above.	
570	0.5	CLAYSTONE 100% as above.	
573	0.5	As above.	
576	2.0	CLAYSTONE 100% as above.	
579	1.0	CLAYSTONE 100% as above.	
582	1.0	CLAYSTONE 100% as above.	
585	2.0	CLAYSTONE 100% as above.	
588	1.5	CLAYSTONE 100% as above.	
591	0.5	CLAYSTONE 100% as above.	
594	0.5	CLAYSTONE 100% as above.	

LITHOLOGICAL CUTTINGS DESCRIPTION

Well Name:- Killara - 1
Permit No:- PEP - 101

Date:-10-11/6/91

Geologist:- Ian Buckingham

SHOWS

DEPTH (m)	R.O.P. min/m	SAMPLE DESCRIPTION	GAS
597	0.5	<u>CLAYSTONE</u> 100% as above.	
600	0.5	<u>CLAYSTONE</u> 100% as above.	
603	0.5	<u>CLAYSTONE</u> 100% as above.	
606	0.5	<u>CLAYSTONE</u> 100% as above.	
609	0.5	<u>CLAYSTONE</u> 100% as above.	
612	0.5	<u>CLAYSTONE</u> 100% as above.	
615	0.5	<u>CLAYSTONE</u> 40% as above. <u>SILTSTONE</u> 30% tr-med. gy-br. lt. bl. gy, firm, chloritic, non-calc grading to <u>SANDSTONE</u> . <u>SANDSTONE</u> 30% cl-r-frosted, transp. grns, v. f-crs predom f-med., ang/sub-rounded poorly sorted, chloritic in part, o/growths.	
618	1.0	As above.	
621	2.0	<u>CLAYSTONE</u> 40% as above. <u>SILTSTONE</u> 30% as above. <u>SANDSTONE</u> 30% as above.	
624	1.0	As above.	
627	2.5	<u>CLAYSTONE</u> 50% as above. <u>SILTSTONE</u> 30% as above. <u>SANDSTONE</u> 20% as above, predom. f.grn.	
630	5.0	<u>CLAYSTONE</u> 70% as above. <u>SILTSTONE</u> 20% as above. <u>SANDSTONE</u> 10% as above. <u>LMST</u> wh., fossils, friable.	
633	1.0	<u>CLAYSTONE</u> 80% as above. <u>SILTSTONE</u> 20% as above. <u>SANDSTONE</u> tr as above.	

LITHOLOGICAL CUTTINGS DESCRIPTION

Well Name:- Killara - 1 Permit No:- PEP - 101	Date:-11/6/91	Geologist:- Ian Buckingham	SHOWS
DEPTH (m)	R.O.P. min/m	SAMPLE DESCRIPTION	GAS
636	1.0	As above.	
639	2.0	As above. <u>SILTSTONE</u> occ. grades to <u>SANDSTONE</u> v.f.gr. calc. cmt.	
642	1.0	<u>CLAYSTONE</u> 90% as above. <u>SILTSTONE</u> 10% as above bn-gy, firm-fri, blocky tr carb.	
645	1.0	As above.	
648	1.0	As above.	
651	2.0	<u>CLAYSTONE</u> 80% as above. <u>SILTSTONE</u> 20% as above.	
654	2.0	As above.	
657	1.0	As above.	
660	1.0	As above.	
663	1.0	As above. <u>SILTSTONE</u> grades to v.f.gn. <u>SANDSTONE</u>	
666	1.0	As above.	
669	3.5	<u>CLAYSTONE</u> 90% as above. <u>SILTSTONE</u> 10% as above.	
672	1.0	As above.	
675	1.0	As above.	
678	1.0	As above. <u>SILTSTONE</u> grades to v.f.gn. <u>SANDSTONE</u> .	
681	1.5	As above but no <u>SANDSTONE</u> .	

LITHOLOGICAL CUTTINGS DESCRIPTION

Well Name:- Killara - 1 Permit No:- PEP - 101	Date:-11/6/91	Geologist:- Ian Buckingham	SHOWS
DEPTH (m)	R.O.P. min/m	SAMPLE DESCRIPTION	GAS
684	2.0	As above.	
687	1.0	<u>CLAYSTONE</u> 90% pale gn-gy-gn., massive, soft, dispersive minor fossils, tr carb, tr iron staining, tr chloritic. <u>SILTSTONE</u> wh-clr.-gy-gn specks, fri., grads to v.f. <u>SANDSTONE</u> argill., lithics, tr carb.	
690	1.0	As above.	
693	1.0	As above. tr. iron staining.	
696	2.5	<u>CLAYSTONE</u> 80% as above. <u>SILTSTONE</u> 20% as above tr. iron staining.	
699	1.0	As above.	
702	1.0	As above.	
705	2.0	<u>CLAYSTONE</u> 100% as above grades to tr. <u>SILTSTONE</u> .	
708	1.0	As above.	
711	1.0	As above.	
714	1.5	As above.	
717	2.0	As above.	
720	1.0	As above.	
723	1.5	<u>CLAYSTONE</u> 90% as above. <u>SILTSTONE</u> 10% as above tr. fossils.	
726	2.0	As above.	

LITHOLOGICAL CUTTINGS DESCRIPTION

Well Name:- Killara - 1 Permit No:- PEP - 101	Date:-11/6/91	Geologist:- Ian Buckingham	SHOWS
DEPTH (m)	R.O.P. min/m	SAMPLE DESCRIPTION	GAS
729	0.5	As above.	
732	2.5	<u>CLAYSTONE</u> 80% as above. <u>SILTSTONE</u> 20% as above.	
735	1.0	<u>CLAYSTONE</u> 90% as above. <u>SILTSTONE</u> 10% as above.	
738	1.5	As above.	
741	2.5	<u>CLAYSTONE</u> 100% as above.	
744	2.0	<u>CLAYSTONE</u> 100% as above. tr. unident. red material.	
747	2.0	<u>CLAYSTONE</u> 100% as above.	
750	2.0	<u>CLAYSTONE</u> 70% as above. <u>SILTSTONE</u> 30% as above.	
753	1.0	As above.	
756		<u>CLAYSTONE</u> 100% light gy-gn, speckled, blocky, small cloritic material dispersed throughout claystone, dispersive, tr. fine carbonaceous material.	
759		<u>CLAYSTONE</u> 100% as above grading to silt size in parts.	
762		<u>CLAYSTONE</u> 100% as above occasional red oxide staining on cuttings.	
765		As above.	
768		As above.	
771		As above.	

LITHOLOGICAL CUTTINGS DESCRIPTION

Well Name:- Killara - 1 Permit No:- PEP - 101	Date:-11/6/91	Geologist:- Ian Buckingham	SHOWS
DEPTH (m)	R.O.P. min/m	SAMPLE DESCRIPTION	GAS
774		As above.	
777		<u>CLAYSTONE</u> 100% as above tr. bn <u>SILTSTONE</u> .	
780		As above.	
783		<u>CLAYSTONE</u> 100% as above becoming browner and slighty siltier.	
786		<u>CLAYSTONE</u> 100% as above.	
789		As above.	
792		As above.	
795		As above.	
798		As above.	
801		<u>CLAYSTONE</u> 100% as above highly tuffaceous tr. carbonaceous material.	
804		As above.	
807		As above.	
810		<u>CLAYSTONE</u> 100% lt. gy-gn, bn, tuffaceous, blocky, speckled, disseminated chloritic and carbonaceous.	
813		As above.	
816		As above.	
819		As above.	

LITHOLOGICAL CUTTINGS DESCRIPTION

Well Name:- Killara - 1
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Well Name:- Killara - 1 Permit No:- PEP - 101		Date:-11/6/91		Geologist:- Ian Buckingham		SHOWS
DEPTH (m)	ROP. min/m	SAMPLE DESCRIPTION				GAS
822		As above. Increasing coals slightly				
825		As above.				
828		<u>CLAYSTONE</u> 100% lt. gy-gn, bn, blocky, speckled, disseminated chloritic and carbonaceous.				
831		As above.				
834		<u>CLAYSTONE</u> 100% as above tr. <u>SANDSTONE</u> (congeom). qtz. glauc. volcanics?, no vis. porosity, abundant marcasite.				
837		As above.				
840		As above.				
843		As above.				
846		As above. Iron stained limestone stringer.				
849		As above.				
852		As above.				
855		As above.				
858		As above, very tuffaceous <u>SANDSTONE</u> br. v.f-f gm. qtz. volcanic frags, immature, poorly srtid, calcite?				
861	1.5	<u>CLAYSTONE</u> 100% lt. gy-gn, speckled, tr. carb. tr. chloritic, soft, v. dispersive, v. tuffaceous.				
864		As above.				

LITHOLOGICAL CUTTINGS DESCRIPTION

DEPTH (m)	R.O.P. min/m	SAMPLE DESCRIPTION	SHOWS
Well Name:- Killara - 1 Permit No:- PEP - 101		Date:-11/6/91	Geologist:- Ian Buckingham
867		As above.	GAS
870		As above.	
873		<u>CLAYSTONE</u> 90% as above <u>SILTSTONE</u> 10% as above grading to v.f. gn. <u>SANDSTONE</u> in places tr. carb.	
876		As above.	
879		As above.	
882		<u>CLAYSTONE</u> 70% as above <u>SILTSTONE</u> 20% as above bn-gy <u>SANDSTONE</u> 10% bn-gry, v.f.grn. poorly srted, as above tr. <u>CLAYSTONE</u> blue-grey, firm.	
885		As above.	
888		As above.	
891		<u>CLAYSTONE</u> 80% as above v.tuff <u>SILTSTONE</u> 20% as above grades in places to <u>SANDSTONE</u> tr. v.f. grn. coarse in places, poorly srted.	
894		As above.	
897		As above.	
900		As above possibly more tuffaceous.	
903		As above.	
906		As above.	
909		As above not as tuffaceous as previous sample.	

LITHOLOGICAL CUTTINGS DESCRIPTION

Well Name:- Killara - 1		Date:-11/6/91		Geologist:- Ian Buckingham		SHOWS
Permit No:- PEP - 101						
DEPTH (m)	R.O.P. min/m	SAMPLE DESCRIPTION				GAS
912		As above.				NO
915	15.0	<p><u>CLAYSTONE</u> 40% as above. <u>SILTSTONE</u> 40% as above. <u>SANDSTONE</u> 20% as above f.grn. lithics, poorly srted., calcareous cmt, hd.</p>				FLU
918	0.5	As above.				
921	1.5	As above.				
924	3.0	As above.				
927		<p><u>CLAYSTONE</u> 60% as above very tuffaceous. <u>SILTSTONE</u> 20% as above grading to <u>SANDSTONE</u> 20% qtz, lithics, poorly srt, v.f- f gr calcareous cmt. <u>COAL</u>, tr.</p>				NO
930		As above.				FLU.
933		<p><u>CLAYSTONE</u> 40% as above very tuffaceous. <u>SANDSTONE</u> 50% as above very calc. cmt., abundant lithics, v.f-f-gn. <u>SILTSTONE</u> 10% as above grades to <u>SANDSTONE</u> i/p <u>COAL</u> tr.</p>				
936		<p><u>SANDSTONE</u> 70% qtz grns, lithics, chloritic, v.f-m grn, poorly srted, immature, aggregates, sub-ang. - sub-rounded, friable, weakly cmt, low-nil visual porosity, occasional loose qtz gns, sub-ang. to round grading to <u>SILTSTONE</u> 20% as above and <u>CLAYSTONE</u> 10% as above.</p>				NO
						FLU.

LITHOLOGICAL CUTTINGS DESCRIPTION

Well Name:- Killara - 1 Permit No:- PEP - 101	Date:-11/6/91	Geologist:- Ian Buckingham	SHOWS
DEPTH (m)	R.O.P. min/m	SAMPLE DESCRIPTION	GAS
939	1.5	<u>SANDSTONE</u> 80% dominantly loose qtz grains but some finer grains forming aggregates. Qtz med-v.c.grn, clear white, pale yellow, angular-round. Aggregates commonly contain lithics and chlorite, v.f-f. grn. hd, loose qtz gns probably occur in clay matrix/cmt. <u>SILTSTONE</u> 20% as above.	NO FLU.
942	5.0	As above.	
945	2.5	<u>CLAYSTONE</u> 70% as above. <u>SANDSTONE</u> 30% as above. <u>SILTSTONE</u> tr. brown.	
948	1.0	As above.	
951	1.0	<u>CLAYSTONE</u> 90% as above <u>SILTSTONE</u> 10% as above and brown.	
954	2.0	As above.	
957	2.5	<u>CLAYSTONE</u> 100% as above.	
960	1.5	<u>CLAYSTONE</u> 100% as above.	
963	3.0	<u>CLAYSTONE</u> 100% lt.gy/lt.gy gn, tuffaceous, dispersive, soft, disp. brown material (organic).	
966	3.5	As above.	
969	3.0	As above <u>SILTSTONE</u> tr. as above.	
972	4.0	As above.	
975	1.5	<u>SILTSTONE</u> 60% as above. <u>CLAYSTONE</u> 40% pale green, chloritic in places grades to fign. <u>SANDSTONE</u> tr loose qtz.	

LITHOLOGICAL CUTTINGS DESCRIPTION

Well Name:- Killara - 1	Date:-11/6/91	Geologist:- Ian Buckingham	SHOWS
Permit No:- PEP - 101			
DEPTH (m)	R.O.P. min/m	SAMPLE DESCRIPTION	GAS
978	1.5	As above.	C1-500
981	2.5	<u>SILTSTONE</u> 60% as above. <u>CLAYSTONE</u> 40% as above	C1-339
984	2.5	As above.	C1-1078
987	1.5	<u>CLAYSTONE</u> 60% pl. gy-gy-gy gn, soft, dispersive massive, occ loose v.crs qtz gns <u>SILTSTONE</u> 40% pl. mod occ dk gy-bn, soft, fri, blocky, argill, tr carb.	C1-523
990	2.5	As above.	C1-708
993	2.0	As above.	
996	4.0	<u>SILTSTONE</u> 70% as above. <u>CLAYSTONE</u> 30% as above.	
999	3.0	As above.	
1002	1.0	As above.	C1-554
1005	1.0	<u>SILTSTONE</u> 70% as above. <u>CLAYSTONE</u> 30% as above.	C1-708
1008	1.0	As above.	C1-210
1011	7.5	<u>SILTSTONE</u> 70% as above becoming hard, <u>CLAYSTONE</u> 20% as above <u>SANDSTONE</u> 10% cl.-frost, f-crs gn, loose gns - fine grades to <u>SILTSTONE</u> 1/p, ang-rnd v.p. srtd, low vis. porosity.	C1-277
1014	1.5	<u>SANDSTONE</u> 60% cl-frosted, vf-crs predom med-crs, v.f-med ang/sub-rnd; med crs - sub. rnd, v.p. sorted, lithics tr calc. cmt, crs grns loose grds to <u>SILTSTONE</u> 30% as above. <u>CLAYSTONE</u> 10%.	Mineral Flu only C1-2032 rig air problems

LITHOLOGICAL CUTTINGS DESCRIPTION

Well Name:- Killara - 1 Permit No:- PEP - 101		Date:- 11/6/91		Geologist:- Ian Buckingham		SHOWS
DEPTH (m)	R.O.P. min/m	SAMPLE DESCRIPTION				GAS
1017	1.5	As above.				C1-1724
1020	1.0	SANDSTONE 40% as above. SILTSTONE 40% as above. CLAYSTONE 20% as above.				C1-1139
1023	2.0	As above.				C1-646
1026	5.0	CLAYSTONE 70% as above SILTSTONE 20% as above. SANDSTONE 10% as above LIMESTONE tr. buff, hd, crystalline.				C1-893
1029	2.5	CLAYSTONE 70% pale gy-gybn - gy.gn., soft massive, disp., pyritic, tr carb, minor fossils. SILTSTONE 20% as above. SANDSTONE 10% as above				C1-985
1032	3.0	CLAYSTONE 70% as above SILTSTONE 30% as above.				C1-1108
1035	1.5	As above.				
1038	1.5	CLAYSTONE 60% as above SILTSTONE 40% dk. bu bk, sub-fissile, firm, very carb.				C1-1047
1041	2.5	SANDSTONE 60% tr. LIMESTONE wh. - lt.gy, v.f-m grn, pr srted, SILTSTONE 20% dk. bn bk, CLAYSTONE 20% as above.				C1-462
1044	5.0	CLAYSTONE 40% as above SILTSTONE 30% as above. SANDSTONE 30% as above				
1047	4.5	As above.				C1-1078 tr
1050	2.5	CLAYSTONE 50% as above SILTSTONE 50% as above.				C1-523 C2-tr.
1053	2.5	As above				C1-1047 C2-tr.

LITHOLOGICAL CUTTINGS DESCRIPTION

Well Name:- Killara - 1 Permit No:- PEP - 101		Date:-11-12/6/91	Geologist:- Ian Buckingham		SHOWS
DEPTH (m)	ROP. min/m	SAMPLE DESCRIPTION			GAS
1056	3.0	<u>CLAYSTONE</u> 70% as above <u>SILTSTONE</u> 30% as above.			C1-1050 C2-tr.
1059	1.5	As above			C1-1509 C2-tr.
1062	2.5	<u>CLAYSTONE</u> 70% as above <u>SILTSTONE</u> 20% as above. <u>COAL</u> 10% cl, bk, shiny, shaly, fissile, fri.			C1-1140 C2-tr.
1065	4.0	<u>CLAYSTONE</u> 70% as above <u>SILTSTONE</u> 30% as above. P.O.O.H. BIT CHANGE.			C1-1200 C2-tr.
1068	3.0	<u>CLAYSTONE</u> 90% dirty white-pl gy, mod gy-gy gn, blocky, soft - firm, mod. dispersive, tr. carb, minor pyrite, lse crs qtz grns, grades to <u>SILTSTONE</u> in places. <u>SILTSTONE</u> 10% dirty-mod gy-bn, firm blocky argill grades to <u>CLAYSTONE</u> tr. <u>IRON</u> staining tr. gy-bk-red-bn, hard, fissile, silty, <u>LIMESTONE</u> wh., crystalline, brittle.			C1-1355 C2-200
1071	2.0	As above.			C1-893 C2-tr.
1074	5.0	<u>SILTSTONE</u> 50% as above <u>CLAYSTONE</u> 30% as above. <u>SANDSTONE</u> 20% as above. <u>LIMESTONE</u> tr. dirty mod gy-bn, hd, blocky microcrystalline.			C1-462
1077	3.5	<u>SILTSTONE</u> 90% as above <u>SANDSTONE</u> 10% as above. <u>CLAYSTONE</u> tr. <u>COAL</u> tr bk, vit., brit frac-sub con i/p.			
1080	8.0	<u>CLAYSTONE</u> 90% as above. <u>SILTSTONE</u> 10% as above.			C1-339 C2-tr.
1083	1.8	<u>CLAYSTONE</u> 70% pl. gy-gn, by-bn. as above. <u>SILTSTONE</u> 30% <u>SANDSTONE</u> i/p, v. calc, arenaceous sub-blocky, firm-mod hard.			C1-1296 C2-tr.

LITHOLOGICAL CUTTINGS DESCRIPTION

Well Name:- Killara - 1 Date:- 12/6/91 Geologist:- Ian Buckingham
 Permit No:- PEP - 101

DEPTH (m)	R.O.P. min/m	SAMPLE DESCRIPTION	SHOWS
1086	2.5	<u>SANDSTONE</u> 90% lt. gy-pl. gn, speckled, immature lithics, blocky, chloritic, tr. carb, v.f-f.gn mod-comm cal cmt, no vis porosity <u>SILTSTONE</u> 10%	C1-1142 NO C2-tr. FLU.
1089	8.0	<u>SANDSTONE</u> 80% as above. <u>SILTSTONE</u> 10% lt. gy-gy gn, v. argil grading to <u>CLAYSTONE</u> , occ. pyrite, sticky <u>LIMESTONE</u> 10% as above.	C1-740 C2-tr.
1092	3.0	<u>CLAYSTONE</u> 60% as above. <u>SANDSTONE</u> 20% as above. <u>SILTSTONE</u> 20% as above.	C1-1296 C2-tr.
1095	3.5	<u>SILTSTONE</u> 80% as above with common shell frags. <u>CLAYSTONE</u> 20% as above - white. <u>SANDSTONE</u> tr. as above.	C1-1388 NO C2-tr. FLU.
1098	8.0	As above.	C1-694 C2-tr.
1101	6.0	<u>CLAYSTONE</u> 70% as above, and pl. gn, v. firm. <u>SILTSTONE</u> 20% as above. <u>SANDSTONE</u> 10% as above grades to <u>SILTSTONE</u> . v.f. tr. coal, tr. pyrite.	C1-1234 C2-tr.
1104	5.0	<u>SILTSTONE</u> 90% as above. <u>CLAYSTONE</u> 10% as above. <u>SANDSTONE</u> tr.	C1-1357
1107	1.0-10.0	<u>SILTSTONE</u> 90% as above. <u>COAL</u> 10% as above.	C1-1234
1110	2.5	As above.	
1113	2.5	<u>SILTSTONE</u> 100% lt. gy., speckled, tr. coal, grades to v.f. <u>SANDSTONE</u> . i/p, tr. carb, comm coal.	C1-925
1116	3.5	As above.	
1119	2.0	<u>SILTSTONE</u> 100% lt. gy-gy bn. grades to v.f. <u>SANDSTONE</u> i/p, speckled, chloritic, blocky, mod. dispersive some is dk bn with tr. carb. mod calc cmt i/p.	C1-708

LITHOLOGICAL CUTTINGS DESCRIPTION

DEPTH (m)	R.O.P. min/m	SAMPLE DESCRIPTION	SHOWS
Well Name:- Killara - 1 Permit No:- PEP - 101		Geologist:- Ian Buckingham	
Date:-12/6/91			
1122	3.5	SILTSTONE 100% as above mod tuffaceous, brown fine grained lignitic? material come across shakers with this sample. None of this material was left after washing.	C1-648
1125	9.5	SILTSTONE 100% as above tr. iron oxide plates.	C1-740
1128	4.0	As above.	C1-802
1131	10.0/3.0	As above.	
1134	1.5	SILTSTONE 80% as above grades to SANDSTONE 10% as above COAL 10% as above occ. loose qtz grn. vcrs.	
1137	3.0	SILTSTONE 80% as above but very tuffaceous. grades in places to v.f. SST. COAL 20% as above bls, vit. brittle laminated, hard.	C1-2499
1140	2.5	SILTSTONE 100% as above. COAL tr.	C1-1200
1143	2.0	SILTSTONE 100% as above minor fossil. COAL tr.	C1-2468
1146	2.0	SILTSTONE 100% as above tuffaceous.	C1-1110
1149	2.0	As above.	
1152	2.5	SILTSTONE 100% as above grades to v.f. SANDSTONE in part.	C1-3200
1155	1.8	SILTSTONE 100% as above.	C3-tr. C1-2653
1158	2.0	SILTSTONE 100% as above.	C1-1327
1161	2.0	SILTSTONE 100% lt. gy-gy gn occ lt. gy. bn., v. arenarcous grades to v.f. SST. tr. carb., soft, mod firm in places, sub-blocky, tuffaceous.	C2-28 C4-tr. C2-20

LITHOLOGICAL CUTTINGS DESCRIPTION

Well Name:- Killara - 1 Permit No:- PEP - 101	Date:-12/6/91	Geologist:- Ian Buckingham	SHOWS
DEPTH (m)	R.O.P. min/m	SAMPLE DESCRIPTION	GAS
1164	7.0	<u>SILTSTONE</u> 60% as above <u>SANDSTONE</u> 40% v.f.-f, occ crs qtz gn, immature, lithic, chloritic, poorly sr td s-ang, v. calc, no vis por,	C1-1142 NO FLU
1167	2.5	<u>SANDSTONE</u> 70% lt gy-gy gn occ. gy bn, v.f.-f gr. lithic, v. calc. cmt, tuffaceous, immature, occ. hd, tr. carb. ang/ sub ang. <u>SILTSTONE</u> 20% as above. <u>CLAYSTONE</u> 10% pale gn, blocky, firm - hd.	C1-2160 C2-14
1170	2.5	<u>SILTSTONE</u> 80% as above. <u>SANDSTONE</u> 20% as above highly tuffaceous tr. pyrite.	C1-1589
1173	4.5	<u>SILTSTONE</u> 60% as above <u>SANDSTONE</u> 40% as above tr. pyrite <u>COAL</u> tr.	C1-1203 NO FLU.
1176	2.5	<u>SANDSTONE</u> 70% v.f.-f occ med sub-ang/sub rnd, co/less-lt gy off-wh, v. poorly srted, lithic, v. abund calc cmt/matrix. fri, no vis por <u>SILTSTONE</u> 30% as above.	C1-1913 NO C2-tr. FLU.
1179	3.5	<u>SILTSTONE</u> 50% as above <u>SANDSTONE</u> 30% as above. <u>COAL</u> 20% as above.	C1-1095 NO C2-tr. FLU.
1182	3.5	<u>SILTSTONE</u> 40% as above. <u>SANDSTONE</u> 40% as above. <u>COAL</u> 20% as above.	C1-1697 NO C2-28 FLU.
1185	2.5	<u>SILTSTONE</u> 80% as above <u>SANDSTONE</u> 20% as above. <u>COAL</u> tr. as above.	C1-1850
1188	2.5	As above.	C1-2345 C2-14
1191	1.5	As above	
1194	3.0	As above.	
1197	3.5	<u>SILTSTONE</u> 70% as above. <u>CLAYSTONE</u> 20% as above. <u>SANDSTONE</u> 10% as above. <u>COAL</u> tr. as above. sample very fine. see W.O.B.	C1-2036

LITHOLOGICAL CUTTINGS DESCRIPTION

Well Name:- Killara - 1		Date:-12/6/91		Geologist:- Nev Taggart		SHOWS
Permit No:- PEP - 101						
DEPTH (m)	ROP. min/m	SAMPLE DESCRIPTION				GAS
1200	3.5	SILTSTONE 50% as above. SANDSTONE 50% v.f-f grn. as above. tr COAL as above.				C1-1540
1203	3.0	As above.				
1206	2.5	SILTSTONE 40% as above. SANDSTONE 60% as above.				C1-650
1209	2.5	As above.				
1212	2.5	SILTSTONE 40% as above. SANDSTONE 60% as above.				
1215	2.5	As above.				C1-450
1218	5.0	SILTSTONE 40% as above. SANDSTONE 60% as above tr COAL as above.				C1-895
1221	4.0	As above.				C1-770
1224	4.5	SILTSTONE 80% as above. SANDSTONE 20% v.f.gr as above.				C1-750
1227	3.0	As above.				C1-525
1230	6.5	SILTSTONE 80% as above. SANDSTONE 20% as above.				
1233	1	As above.				
1236	3.5	SILTSTONE 80% as above. SANDSTONE 20% as above.				
1239	3.5	As above.				
1242	9.0	SILTSTONE 60% as above. SANDSTONE 40% as above v. calc., firm				
1245	7.5	As above.				

LITHOLOGICAL CUTTINGS DESCRIPTION

Well Name:- Killara - 1 Permit No:- PEP - 101	Date:-12/6/91	Geologist:- Nev Taggart	SHOWS
DEPTH (m)	ROP. min/m	SAMPLE DESCRIPTION	GAS
1248	4.0	<u>SILTSTONE</u> 50% lt gy to lt gy-grn grades <u>CLAYSTONE</u> , <u>SANDSTONE</u> 50% as above tr <u>COAL</u> as above.	C1-525
1251	3.5	As above	C1-830
1254	3.5	As above.	C1-555
1257	3.5	<u>SILTSTONE</u> 60% as above. <u>SANDSTONE</u> 40% as above.	C1-645
1260	3.0	As above	C1-850
1263	2.0	<u>SILTSTONE</u> 50% as above. <u>SANDSTONE</u> 50% as above.	C1-850
1266	4.0	As above.	C1-495
1269	3.0	<u>SILTSTONE</u> 50% as above. <u>SANDSTONE</u> 30% as above. <u>CLAYSTONE</u> 20% gy to lt gy-gn.	
1272	3.5	As above.	
1275	4.0	As above.	
1278	6.0	As above.	
1281	7.0	<u>SILTSTONE</u> 40% as above. <u>SANDSTONE</u> 40% as above. <u>CLAYSTONE</u> 20 as above.	
1284	4.0	As above.	
1287	5.0	As above.	
1290	5.0	As above.	

LITHOLOGICAL CUTTINGS DESCRIPTION

Well Name:- Killara - 1
Permit No:- PEP - 101

Date:- 12-13/6/91

Geologist:- Nev Taggart

Well Name:- Killara - 1 Permit No:- PEP - 101		Date:- 12-13/6/91		Geologist:- Nev Taggart		SHOWS	
DEPTH (m)	R.O.P. min/m	SAMPLE DESCRIPTION				GAS	
1293	4.5	<u>SILTSTONE</u> 40% as above. <u>SANDSTONE</u> 40% as above. <u>CLAYSTONE</u> 20% as above. Tr coal as above.				C1-1080	C2-25
1296	5.5	As above				C1-708	C2-12
1299	5.5	<u>SILTSTONE</u> 40% as above. <u>SANDSTONE</u> 30% as above. <u>CLAYSTONE</u> 30% as above. Tr <u>COAL</u> as above.				C1-1295	C2-25
1302	4.5	As above				C1-1355	C2-20
1305	3.0	As above.				C1-677	C2-15
1308	2.5	As above				C1-1000 C3-10	C2-20
1311	5.0	<u>SILTSTONE</u> 40% as above. <u>SANDSTONE</u> 20% as above.				C1-1810 C3-15	C2-32
1341	4	<u>CLAYSTONE</u> 40% as above. Tr. <u>COAL</u> as above.				C1-1240 C3-9	C2-25
1317	4	As above.				C1-895 C3-4	C2-21
1320	3	As above				C1-1325 C3-5	C2-25
1323	3	<u>SILTSTONE</u> 40% as above. <u>SANDSTONE</u> 20% as above. <u>CLAYSTONE</u> 40% as above.				C1-430 C3-3	C2-25

LITHOLOGICAL CUTTINGS DESCRIPTION

Well Name:- Killara - 1
Permit No:- PEP - 101

Date:-13/6/91

Geologist:- Ian Buckingham

Well Name:- Killara - 1 Permit No:- PEP - 101		Date:-13/6/91		Geologist:- Ian Buckingham		SHOWS
DEPTH (m)	R.O.P. min/m	SAMPLE DESCRIPTION			GAS	
1326	4.5	As above.			C1-1080 C3-3.5	C2-28
1329	4.5	As above.			C1-2280 C3-30	C2-56
1332	4.5	As above.			C1-1570 C3-16	C2-35
1335	3.0	SILTSTONE 30% as above. SANDSTONE 30% as above. CLAYSTONE 40% as above. Tr COAL as above.			C1-1262 C3-5	C2-25
1338	5.5	As above.			C1-893 C3-10	C2-35
1341	4.0	SILTSTONE 40% as above. SANDSTONE 40% as above. CLAYSTONE 20% as above.			C1-1139 C3-9	C2-30 C4-tr
1344	4.5	As above.			C1-1203 C3-tr.	C2-30
1347	3.0	As above.			C1-739 C3-13	C2-21
1350	5.0	As above.			C1-660	C2-tr.
1353	5.0	SILTSTONE 70% as above. SANDSTONE 20% as above. CLAYSTONE 10% as above. COAL tr.			C1-925 C3-tr.	C2-15
1356	6.0	As above.			C1-802 C3-tr.	C1-12

LITHOLOGICAL CUTTINGS DESCRIPTION

Well Name:- Killara - 1 Permit No:- PEP - 101		Date:-13/6/91	Geologist:- Ian Buckingham		SHOWS
DEPTH (m)	R.O.P. min/m	SAMPLE DESCRIPTION			GAS
1359	3.0	As above.			C1-1542 C3-23
1362	3.5	As above.			C1-1419 C3-17
1365	4.5	<u>SILTSTONE</u> 60% as above. <u>SANDSTONE</u> 40% as above. <u>COAL</u> tr			C1-1727 C3-18
1368	4.5	<u>SILTSTONE</u> 70% as above. <u>SANDSTONE</u> 30% as above. <u>COAL</u> tr			C1-2098 C3-15
1371	2.8	<u>SILTSTONE</u> 80% as above. <u>SANDSTONE</u> 20% as above. <u>COAL</u> tr			C1-1959 C3-18
1374	1.8	As above.			C1-1959 C3-18
1377	5.0	As above.			C1-1234 C3-12
1380	5.0	As above.			C1-1512 C3-14
1383	3.0	<u>SILTSTONE</u> 70% as above. <u>SANDSTONE</u> 30% as above.			C1-1512 C3-14
1386	4.0	As above.			C1-1203 C3-tr.
1389	3.0	As above.			C1-1527 C3-tr.

LITHOLOGICAL CUTTINGS DESCRIPTION

Well Name:- Killara - 1 Permit No:- PEP - 101	Date:- 13/6/91	Geologist:- Ian Buckingham	SHOWS
DEPTH (m)	R.O.P. min/m	SAMPLE DESCRIPTION	GAS
1392	2.5	<u>SANDSTONE</u> 40% as Above. <u>SANDSTONE</u> 30% v.f. - f grn, arenaceous v. calc cmt, hd. no vis por. <u>SILTSTONE</u> 30% as above.	C1-741 C3-tr. C2-14
1395	4.0	<u>SANDSTONE</u> 30% as above. <u>SANDSTONE</u> 40% v.f. - f. grn., arenaceous v. calc. cmt, hd, no vis por. <u>SILTSTONE</u> 30% as above.	C1-1728 C3-15 C2-30
1398	2.0	as above.	C1-1080 C3-tr. C2-20
1401	4.0	As above.	C1-895 C3-tr. C2-18
1404	5.0	<u>SILTSTONE</u> 60% as above. <u>SANDSTONE</u> 40% as above.	C1-1203 C3-12 C2-22
1407	7.0	As above.	C1-1466 C3-18 C2-30
1410	6.0	As above.	C1-1713 C3-20 C2-35
1413	5.0	<u>SILTSTONE</u> 50% as above. <u>SANDSTONE</u> 50% as above v. calc. cmt, hd, no vis por <u>CALCITE</u> tr. 2 pieces of <u>SILTSTONE</u> appear to have slickensides.	C1-864 C3-15 NO FLU C2-20
1416	1/8	<u>SANDSTONE</u> 60% wh and lt. gy, v.f. - med grn., lithic, poorly strd chloritic, v. calc cmt., tight no porosity, tr carb also argill cmt.	C1-1975 C3-17 C2-30
1419	4.5	<u>CLAYSTONE</u> 20% light grey to gry green, tr. microfossils. <u>SANDSTONE</u> 60% as above. <u>SILTSTONE</u> 20% as above.	C1-1728 C3-12 C2-30
1422	4.0	<u>CLAYSTONE</u> 20% dark to light grey, lt. grey green. as above.	C1-1974 C3-15 C2-35

LITHOLOGICAL CUTTINGS DESCRIPTION

Well Name:- Killara - 1
Permit No:- PEP - 101

Date:-13/6/91

Geologist:- Nev McTaggart

Well Name:- Killara - 1 Permit No:- PEP - 101		Geologist:- Nev McTaggart		SHOWS
DEPTH (m)	R.O.P. min/m	SAMPLE DESCRIPTION	GAS	
1425	5.5	<u>SANDSTONE</u> 60% as above. <u>SILTSTONE</u> 20% as above. <u>CLAYSTONE</u> 20% as above.		C1-2854 C2-28
1428	5.5	<u>SANDSTONE</u> 60% as above. <u>SILTSTONE</u> 20% as above. <u>CLAYSTONE</u> 20% as above. Tr. <u>COAL</u> .		C1-985
1431	6.0	<u>SANDSTONE</u> 60% as above. <u>SILTSTONE</u> 20% as above. <u>CLAYSTONE</u> 20% as above. Tr. <u>COAL</u> .		C1-890
1434	5.0	<u>SANDSTONE</u> 60% as above. <u>SILTSTONE</u> 20% as above. <u>CLAYSTONE</u> 20% as above. Tr. <u>COAL</u> .		C1-1817 C3-6
1437	6.0	<u>SANDSTONE</u> 60% as above. <u>SILTSTONE</u> 20% as above. <u>CLAYSTONE</u> 20% as above. Tr. <u>COAL</u> . Tr. <u>GLAUCONITE</u> throughout.		C1-890 C3-5
1440	5.0	<u>SANDSTONE</u> 25% as above. <u>SILTSTONE</u> 25% as above sl. tr. coal <u>CLAYSTONE</u> 50% lt gy brn, gy, gy-gm.		C1-600
1446	7.5	<u>SANDSTONE</u> 10% as above. <u>SILTSTONE</u> 25% as above. <u>CLAYSTONE</u> 70% as above. gd tr. <u>COAL</u>		C1-1694 C3-17
1449	5.5	<u>SANDSTONE</u> , <u>SILTSTONE</u> , <u>CLAYSTONE</u> as above.		C1-831
1452	6.5	<u>SANDSTONE</u> 25% as above. <u>SILTSTONE</u> 25% as above. <u>CLAYSTONE</u> 50% as above. Tr. <u>COAL</u> .		C1-1232 C3-5
1455	8.0	<u>SANDSTONE</u> 70% as above. <u>SILTSTONE</u> 20% as above. <u>CLAYSTONE</u> 10% as above. Tr. <u>COAL</u> .		C1-2535 C3-5
1458	2.5	<u>SANDSTONE</u> 50% as above. <u>SILTSTONE</u> 25% as above. <u>CLAYSTONE</u> 25% as above.		C1-770

LITHOLOGICAL CUTTINGS DESCRIPTION

Well Name:- Killara - 1
Permit No:- PEP - 101

Date:-14/6/91

Geologist:- Ian Buckingham

Well Name:- Killara - 1 Permit No:- PEP - 101		Date:-14/6/91		Geologist:- Ian Buckingham		SHOWS
DEPTH (m)	R.O.P. min/m	SAMPLE DESCRIPTION			GAS	
1461	7.5	SANDSTONE 30% as above. <u>SILTSTONE</u> 30% as above. <u>CLAYSTONE</u> 40% as above.			C1-900	C2-14
1464	10	SANDSTONE 20% as above. <u>SILTSTONE</u> 30% as above. <u>CLAYSTONE</u> 50% as above. Sl. tr. COAL.			C1-460	
1467	7.5	SANDSTONE 20% as above. <u>SILTSTONE</u> 30% as above. <u>CLAYSTONE</u> 50% as above.			C1-990	C2-12
1470	4	SANDSTONE 50% as above. <u>SILTSTONE</u> 25% as above. <u>CLAYSTONE</u> 25% as above. Minor slicken sides on <u>SILTSTONE</u> .			C1-2433	C2-50
1473	4.5	SANDSTONE 70% as above. <u>SILTSTONE</u> 30% as above. <u>CLAYSTONE</u> tr. <u>CALCITE</u> tr.			C1739 C3-tr.	C2-15
1476	4.5	SANDSTONE 70% as above. <u>SILTSTONE</u> 30% as above.			C1-710 C3-tr.	C2-15
1479	5.0	SANDSTONE 70% as above. <u>SILTSTONE</u> 20% as above. <u>CLAYSTONE</u> tr. <u>COAL</u> tr.			C1-1110 C3-12	C2-25
1482	7.0	SANDSTONE 50% as above. <u>SILTSTONE</u> 40% as above. <u>CLAYSTONE</u> 10% as above.			C1-1388 C3-18	C2-30
1485	6.0	SANDSTONE 60% as above. <u>SILTSTONE</u> 40% as above. <u>CLAYSTONE</u> tr corals and bryozoa			C1-1358 C3-18	C2-30
1488	5.0	SANDSTONE 60% as above. <u>SILTSTONE</u> 40% as above.			NO	FLU
1491	5.0	As above.			C1-1419 C3-20	C2-30
					C1-2252 C3-22	C2-35

LITHOLOGICAL CUTTINGS DESCRIPTION

Well Name:- Killara - 1
Permit No:- PEP - 101

Date:-14/6/91

Geologist:- Ian Buckingham

Well Name:- Killara - 1 Permit No:- PEP - 101		Date:-14/6/91		Geologist:- Ian Buckingham		SHOWS
DEPTH (m)	R.O.P. min/m	SAMPLE DESCRIPTION				GAS
1494	4.0	SANDSTONE 70% as above calc cmt. SILTSTONE 30% as above.				C1-2160 C3-18
1497	64.0	SANDSTONE 70% lt. gy, v.f. - f gn, silica cmt, (weak), friable, no vis por, lithic, immature, tr. carb. SILTSTONE med-dk grey, carbonaceous, blocky.				
1500		SANDSTONE 80% as above. SILTSTONE 20%. COAL tr. pyrite.				
1503		SANDSTONE 90% as above v. calc. cmt. SILTSTONE 10%. SANDSTONE 90% as above brown stains - residual oil? SILTSTONE 10% as above.				
1506		SANDSTONE 80% as above. SILTSTONE 20%.				Tr Flu, residual oil stains no cut. Dull gold within sst aggs. Com flu, dull gold within sst aggregates mineral Comm. Flu., dull gold, no cut. contained with sst aggs.
1509		SANDSTONE 40% as above. SILTSTONE 40% as above. CLAYSTONE 20% as above.				Comm dull gold flu, no cut. sst. arggs. mineral?
1521	6/16	SANDSTONE 80% as above. SILTSTONE 10% as above CLAYSTONE 10% as above. COAL tr.				tr dull gold flu, no cut. som mineral flu.
1515	5/8	SANDSTONE 70% as above. SILTSTONE 20% as above. CLAYSTONE 10% as above.				tr dull gold flu, no cut.
1518	5.0	SANDSTONE 70% as above. SILTSTONE 20% as above. CLAYSTONE 10% as above. COAL tr.				tr. dull gold flu, no cmt.
1521	3.0	SANDSTONE 70% wh-lt gy, f-crs grn. dom. fine, crs qtz. ang- sub-ang, well cmtd, lithics, carbonaceous, c.calc. cmt, no vis por poorly srtid, SILTSTONE 30% as above.				C1-2222 C2-56

LITHOLOGICAL CUTTINGS DESCRIPTION

DEPTH (m)	R.O.P. min/m	SAMPLE DESCRIPTION	SHOWS
Well Name:- Killara - 1 Date:-14/6/91 Geologist:- Ian Buckingham Permit No:- PEP - 101 Nev McTaggart			
1524	10.0	SILTSTONE 80% as above. SANDSTONE 20% as above garnets?	C1-740 C3-tr. C2-12
1527	7.0	SILTSTONE 70% as above. CLAYSTONE 20% as above. SANDSTONE 10% as above.	C1-2067 C3-18 C2-45
1530	6.0	As above.	C1-1064 C3-12 C2-28
1533	10.0	SILTSTONE 60% as above. CLAYSTONE 30% as above. SANDSTONE 10% as above.	C1-1265 C3-14 C2-30
1536	9.0	As above.	C1-1095, C3-12 C2-28
1539	13.0	SILTSTONE 80% very carb, as above. CLAYSTONE 20% as above. SANDSTONE tr. as above.	C1-740 C3-tr C2-15
1542	15.0	SILTSTONE 80% as above. CLAYSTONE 20% as above. SANDSTONE tr. as above.	C1802 C3-tr C2-20
1545	12.5	As above.	C1-1500 C3-15 C2-42
1548	10.0	SANDSTONE 20% wh, lt gy, v.f.gr, li, carb., ark, calc. SILTSTONE 60% wh, lt. gy, li, carb. calc. CLAYSTONE 20% lt gy lt. gy-grn, tr chert.	C1-985 C3-5 C2-20
1551	9.0	SANDSTONE 30% as above. SILTSTONE 30% as above. CLAYSTONE 20% as above.	C1-1150 C2-20
1554	8.0	SANDSTONE 30% as above. SILTSTONE 40% as above. CLAYSTONE 10% as above.	C1-1663 C3-5 C2-42

LITHOLOGICAL CUTTINGS DESCRIPTION

Well Name:- Killara - 1 Permit No:- PEP - 101	Date:- 14/6/91	Geologist:- Nev McTaggart	SHOWS
DEPTH (m)	R.O.P. min/m	SAMPLE DESCRIPTION	GAS
1557	11	<u>SANDSTONE</u> 30% as above. <u>SILTSTONE</u> 30% as above. <u>CLAYSTONE</u> 20% as above.	C1-3080 C3-30
1560	9	<u>SANDSTONE</u> 30% dk. gy, gy, gy-grn, f gr, b. sort, v, li, abundant foss. frogs incl corals, crust, equis, forams, bry - may be cavings <u>SILTSTONE</u> 50% gy, gy-grn, carb, calc. <u>CLAYSTONE</u> 20% gy, gy-grn, tr <u>COAL</u> .	C1-1530 C3-10
1563	9	<u>SANDSTONE</u> 25% as above. <u>SILTSTONE</u> 50% as above. <u>CLAYSTONE</u> 25% as above. tr <u>COAL</u> foss	C1-1230 C3-10
1566	12	<u>SANDSTONE</u> 30% as above. <u>SILTSTONE</u> 50% as above. <u>CLAYSTONE</u> 20% as above. Tr <u>COAL</u> .	C1-1755 C3-20
1569	9	<u>SANDSTONE</u> 10% as above. <u>SILTSTONE</u> 50% as above. <u>CLAYSTONE</u> 40% as above. Tr <u>COAL</u> abundant foss. debris throughout.	C1-1940 C3-20
1572	9	<u>SANDSTONE</u> 20% as above. <u>SILTSTONE</u> 40% as above. <u>CLAYSTONE</u> 40% as above. tr. foss.	C1-1140 C3-10
1575	9	As above. tr. foss, tr. <u>COAL</u>	C1-1695 C3-15
1578	8.5	As above. gd tr. <u>COAL</u>	C1-1695 C3-15
1581	8.0	<u>SANDSTONE</u> 20% as above. <u>SILTSTONE</u> 30% as above. <u>CLAYSTONE</u> 40% as above. <u>COAL</u> 10%	C1-3760 C30-40
1584	12	<u>SANDSTONE</u> 60% lt. gy, lt gy-brn, v. f-m gr, sub rud, p. sort, li, calc, sil in part, brittle. <u>SILTSTONE</u> 30% lt gy to gy. <u>CLAYSTONE</u> 10% bl-gy. Traces <u>COAL</u> , foss.	C1-1170 C3-5

LITHOLOGICAL CUTTINGS DESCRIPTION

Well Name:- Killara - 1
Permit No:- PEP - 101

Date:-15/6/91

Geologist:- Nev McTaggart

SHOWS

DEPTH (m)

R.O.P.
min/m

SAMPLE DESCRIPTION

GAS

1587

6.5

SANDSTONE 50% as above but v. f-f. gr. SILTSTONE 30% as above.
CLAYSTONE 20% as above. Sl. trs COAL, foss.

1590

7

SANDSTONE 40% as above. SILTSTONE 30% as above.
CLAYSTONE 30% as above. Trs COAL, foss.

1593

7

As above large shells

1596

8

SANDSTONE 30% as above. SILTSTONE 40% as above.
CLAYSTONE 30% as above.

1599

8

SANDSTONE 20% as above. SILTSTONE 50% as above.
CLAYSTONE 30% as above. tr. COAL

1602

9.5

SANDSTONE 10% as above. SILTSTONE 40% as above.
CLAYSTONE 50% as above. Tr. COAL

1605

7

SANDSTONE 10% as above. CLAYSTONE 40% as above. Tr. COAL
SILTSTONE 50% lt gy, gy, dk gry-brn.

1608

6.5

SANDSTONE 70% as above. SILTSTONE 30% as above.

1611

4.5-9.5

As above.

1614

12.0

SANDSTONE 60% as above. SILTSTONE 40% as above. FeO flakes.

1617

6.0

SANDSTONE 70% as above. SILTSTONE 30% as above.
CLAYSTONE tr. as above.

C1-750 C2-15

C1-147 C2-30
C3-10

C1-1293 C3-10

C1-2100 C2-60
C3-35

C1-2340 C2-60
C3-30 C4-tr.

C1-1600 C2-30
C3-5

C1-1800 C2-56
C3-15

C1-1386 C2-40
C3-10

C1-1018 C2-28
C3-tr.

C1-1003 C2-25
C3-tr.

LITHOLOGICAL CUTTINGS DESCRIPTION

Well Name:- Killara - 1 Permit No:- PEP - 101		Date:-15/6/91		Geologist:- Ian Buckingham		SHOWS	
DEPTH (m)	ROP. min/m	SAMPLE DESCRIPTION				GAS	
1620	8.5	As above.				C1-987 C3-tr.	C2-25
1623	12.5	As above.				C1-710 C3-tr.	C2-20
1626	9.0	SANDSTONE 30% as above. SILTSTONE 40% as above. CLAYSTONE 30%				C1-833 C3-tr.	C2-25
1629	7.0	SANDSTONE 30% as above. SILTSTONE 40% as above. CLAYSTONE 30% as above. COAL common. CLAYSTONE 10% pale grn, gy, firm conchoic. fract. chloritic., has been seen above but was initially regarded as being cavings see 1626, 1623, 1620, 1617.				C1-987 C3-18	C2-43
1632	9.0	*NOTE:- Connection gas comprises C1-96%, C2-3%, C3-1% and appears 1623 to be increasing with each connection.				C1-1034 C3-18	C2-42
1635	10.0	SILTSTONE 70%lt. gy-dk-gy, gy bn, occ. chloritic, blocky, carbonaceous, lithic, lignitic. CLAYSTONE 20% as above, plus common pl. grn-gy, sub blocky, firm. SANDSTONE 10% as above.				10% mineral flu. no cmt. C1-1466 C3-35	C2-71 C4-tr.
1638	10.0	SILTSTONE 80% dk gy, med-lt gy, gy. bn, lignitic, occ. chloritic. CLAYSTONE 10% very dk gy, blue gry, grn-gy, as above. SANDSTONE 10% as above.				C1-895 C3-18	C2-32
1641	10.0	As above. com carb material				C1-1018 C3-18	C2-43

LITHOLOGICAL CUTTINGS DESCRIPTION

Well Name:- Killara - 1. Permit No:- PEP - 101	Date:-15/6/91	Geologist:- Nev McTaggart	SHOWS
DEPTH (m)	R.O.P. min/m	SAMPLE DESCRIPTION	GAS
1644	12.0	<u>SANDSTONE</u> 40% as above. <u>SILTSTONE</u> 60% as above small cutting varied from lt. gy <u>CLAYSTONE</u> on side thru lignitic laminations to <u>SLST/SST</u> over space of 3mm. Probably representative of rest of sequence. <u>COAL</u> tr. earthy (lignite).	C1-678 C3-tr. C2-20
1647	13.0	<u>SILTSTONE</u> 80% as above. <u>SANDSTONE</u> 10% as above. <u>CLAYSTONE</u> 10% as above.	C1-463 C3-tr. C2-15
1650	10.0	<u>SILTSTONE</u> 60% as above. <u>SANDSTONE</u> 20% as above. <u>CLAYSTONE</u> 20% as above.	C1-617 C3-tr. C2-20
1653	11	<u>SILTSTONE</u> 60% as above. <u>SANDSTONE</u> 10% as above. <u>CLAYSTONE</u> 10% as above.	C1-555 C2-19
1656	14	<u>SILTSTONE</u> 70% as above. <u>CLAYSTONE</u> 30% as above. <u>SANDSTONE</u> tr as above.	C1864 C3-12 C2-34
1659	13	<u>SANDSTONE</u> 30% as above. <u>SILTSTONE</u> 30% as above. <u>CLAYSTONE</u> 20% as above. <u>COAL</u> 20% bk, bright, brittle, conchoidal fract, bit.	C1-802 C3-12 C2-32
1662	15	<u>SANDSTONE</u> 20% as above. <u>SILTSTONE</u> 30% as above. <u>CLAYSTONE</u> 50% as above frs <u>COAL</u> foss.	C1-425 C2-10
1665	14	<u>SANDSTONE</u> 10% as above. <u>SILTSTONE</u> 30% as above. <u>CLAYSTONE</u> 60% as above tr <u>COAL</u> .	C1-450 C2-15
1668	13	<u>SANDSTONE</u> 10% as above. <u>SILTSTONE</u> 30% as above. <u>CLAYSTONE</u> 50% abnt foss. <u>COAL</u> 10%.	C1-17840 C3-175 C2-795
1671	13	As above. Abnt foss, tr <u>COAL</u> .	C1-492 C3-5 C2-28

LITHOLOGICAL CUTTINGS DESCRIPTION

Well Name:- Killara - 1 Permit No:- PEP - 101		Date:-16/6/91	Geologist:- Ian Buckingham	SHOWS
DEPTH (m)	R.O.P. min/m	SAMPLE DESCRIPTION		GAS
1674	12	SANDSTONE 10% as above. <u>CLAYSTONE</u> 20% as above. <u>COAL</u> 40% <u>SILTSTONE</u> 30% gy, lt gy, abnt foss debris		C1-1786 C3-18
1677	11	SANDSTONE 30% as above. <u>SILTSTONE</u> 30% as above. <u>CLAYSTONE</u> 40% Gd tr <u>COAL</u> .		C1-400
1680	14	As above.		C1-270
1683	20	As above.		C1-180
1686	11	SANDSTONE 30% as above. <u>SILTSTONE</u> 30% as above. <u>CLAYSTONE</u> 30% as above. <u>COAL</u> 10%.		C1-1600 C3-70
1689	12.5	SANDSTONE 20% as above. <u>SILTSTONE</u> 30% as above. <u>CLAYSTONE</u> 50% as above. Tr. <u>COAL</u> .		C1-390
1692	13	CLAYSTONE 40% as above. <u>SANDSTONE</u> 30% as above. <u>CLAYSTONE</u> 30% as above.		C1-648 C3-18
1695	20	CLAYSTONE 80% as above. <u>SANDSTONE</u> 10% as above. <u>CLAYSTONE</u> 10% as above..		C1-542 C3-17
1698	10	SILTSTONE 60% as above. <u>SANDSTONE</u> 20% as above. <u>CLAYSTONE</u> tr as above. <u>COAL</u> 20% silty, dull, earthy, vit.-sub i/p grading to carb. slst i/p.		C1-740 C3-28
1701	18	SILTSTONE 50% as above. <u>CLAYSTONE</u> 20% as above. <u>COAL</u> 20% as above. <u>SANDSTONE</u> 10% as above.		C1-555 C3-25
1704	3.0/5.5	As above.		C1-2117 C3-70 C4-16

LITHOLOGICAL CUTTINGS DESCRIPTION

Well Name:- Killara - 1 Permit No:- PEP - 101		Date:-16/6/91		Geologist:- Ian Buckingham		SHOWS
DEPTH (m)	R.O.P. min/m	SAMPLE DESCRIPTION			GAS	
1707	5.0/10.0	SILTSTONE 60% as above. <u>CLAYSTONE</u> 20% as above. <u>COAL</u> 20% as above. <u>SANDSTONE</u> tr. as above.			C1-800 C3-100	C2-340 C4-20
1710	14.0	SILTSTONE 80% as above. <u>CLAYSTONE</u> 20% as above. <u>COAL</u> tr. as above. <u>SANDSTONE</u> tr as above.			C1-879 C3-26	C2-60
1713	13.5	SILTSTONE 40% as above. <u>CLAYSTONE</u> 30% as above. <u>COAL</u> 10% as above. <u>SANDSTONE</u> 20% as above.			C1-1820 C3-61	C2-142 C4-tr.
1716	12	SILTSTONE 60% as above. <u>SANDSTONE</u> 20% <u>CLAYSTONE</u> 20% as above. <u>COAL</u> tr as above.			C1-1450 C3-52	C2-113
1719	12	SILTSTONE 50% as above. <u>SANDSTONE</u> 10% <u>COAL</u> 10% as above. <u>CLAYSTONE</u> 30% as above.			C1-3786 C3-123	C2-256 C4-20
1722	13	SILTSTONE 60% as above. <u>CLAYSTONE</u> 20% as above. <u>SANDSTONE</u> 20% as above. <u>COAL</u> tr as above.			C1-1543 C3-42	C2-114
1725	13	SILTSTONE 60% as above. <u>CLAYSTONE</u> 20% as above. <u>SANDSTONE</u> 10% as above. <u>COAL</u> 10% as above.			C1-8700 C3-281	C2-625 C4-50
1728	15	SILTSTONE 60% as above. <u>CLAYSTONE</u> 30% as above. <u>SANDSTONE</u> tr. as above. <u>COAL</u> 10% as above.			C1-972 C3-35	C2-71
1731	21	As above.			C1-875 C3-25	C2-57
1734	17/20/2.8	<u>COAL</u> 40%, black, bright, brittle, silty i/p, <u>SILTSTONE</u> 40% lt. med gy, lithic, chloritic, carb i/p. <u>CLAYSTONE</u> 20% as above.			C115400 C3-421	C2272 C4-120
1737	24	<u>SANDSTONE</u> 10% lt to dk gy, v.f.gr, calc, li, carb. grades to <u>SILTSTONE</u> 40% as above. <u>CLAYSTONE</u> 40% as above. <u>COAL</u> 10%.			C1-1265 C3-75	C2-140

LITHOLOGICAL CUTTINGS DESCRIPTION

Well Name:- Killara - 1
Permit No:- PEP - 101

Date:-16/6/91

Geologist:- Ian Buckingham

Well Name:- Killara - 1 Permit No:- PEP - 101		Date:-16/6/91		Geologist:- Ian Buckingham		SHOWS	
DEPTH (m)	R.O.P. min/m	SAMPLE DESCRIPTION				GAS	
1740	34	<u>SILTSTONE</u> 50% as above. <u>CLAYSTONE</u> 50% as above <u>Irs ss</u> , <u>COAL</u> as above.				C1-970 C3-70	C2-90
1743	27	<u>SILTSTONE</u> 50% as above. <u>CLAYSTONE</u> 40% as above. <u>SANDSTONE</u> 20% as above.				C1-930 C3-30	C2-85 C4-tr.
1746	12	<u>SILTSTONE</u> 60% as above. <u>CLAYSTONE</u> 30% as above. <u>SANDSTONE</u> 10% as above.				C1-1050 C3-52	C2-85
1749	11.0	<u>SANDSTONE</u> 30% as above. <u>SILTSTONE</u> 40% as above. <u>CLAYSTONE</u> 30% as above. <u>COAL</u> tr.				C1-524 C3-15	C2-28
1752	13.0	<u>SANDSTONE</u> 50% as above. <u>SILTSTONE</u> 30% as above. <u>CLAYSTONE</u> 20% as above. <u>COAL</u> tr				C1-2345 C3-70	C2-156 C4-tr.
1755	16	<u>SANDSTONE</u> 30% as above. <u>SILTSTONE</u> 40% as above. <u>CLAYSTONE</u> 20% as above. <u>COAL</u> 10% as above.				C1-2190 C3-61	C2-142
1758	8	<u>SANDSTONE</u> 20% as above. <u>SILTSTONE</u> 50% as above. <u>CLAYSTONE</u> 20% as above. <u>COAL</u> 10% as above.				C1-3946 C4-tr.	C2-284
1761	2.0	<u>SILTSTONE</u> 30% as above. <u>SANDSTONE</u> 10% as above. <u>CLAYSTONE</u> tr. as above. <u>COAL</u> 60% as above.				C1-15428 C3-17	C2-852
1764	1.2	<u>SILTSTONE</u> 60% as above. <u>SANDSTONE</u> 30% as above. <u>CLAYSTONE</u> tr. as above. <u>COAL</u> 10% as above.				C1-1049 C3-11	C2-57
1767	13	<u>SILTSTONE</u> 60% as above. <u>SANDSTONE</u> 30% as above. <u>COAL</u> 10% as above. <u>CLAYSTONE</u> tr. as above.				C1-1635 C3-70	C2-142 C4-17

LITHOLOGICAL CUTTINGS DESCRIPTION

Well Name:- Killara - 1
Permit No:- PEP - 101

Date:-17/6/91

Geologist:- Ian Buckingham

Well Name:- Killara - 1 Permit No:- PEP - 101		Date:-17/6/91		Geologist:- Ian Buckingham		SHOWS
DEPTH (m)	R.O.P. min/m	SAMPLE DESCRIPTION				GAS
1770	10	<p><u>SANDSTONE</u> 40% as above plus-white, lithic, v.calc. cmt, no vis por, vf.-f-gn. ang.-sub-ang., chloritic, felspathic, <u>SILTSTONE</u> 30% lt-med gy, gy bn, carb, lithic. <u>MUDSTONE</u> 30% gy to blk, mnr lt. gy, bk gy.</p>				C1-1697 C3-70
1773	11	<p><u>SANDSTONE</u> 50% as above. <u>SILTSTONE</u> 30% as above. <u>MUDSTONE</u> 20% as above. <u>COAL</u> tr as above.</p>				C1-1265
1776	14	<p><u>SANDSTONE</u> 40% as above. <u>SILTSTONE</u> 30% as above. <u>MUDSTONE</u> 30% as above. <u>COAL</u> tr. as above.</p>				C1-2314 C3-88
1779	13	<p><u>MUDSTONE</u> 20% as above. <u>SILTSTONE</u> 60% as above. <u>SANDSTONE</u> 20% as above.</p>				C1-1234
1782	15	<p><u>SANDSTONE</u> 50% as above. <u>SILTSTONE</u> 30% as above. <u>MUDSTONE</u> 20% as above.</p>				C1-926 C3-42
1785	14	<p><u>SANDSTONE</u> 50% as above. <u>SILTSTONE</u> 30% as above. <u>MUDSTONE</u> 20% as above. <u>TRCOAL</u>.</p>				C1-930 C3-35
1788	13	<p><u>SANDSTONE</u> 40% as above. <u>SILTSTONE</u> 30% as above. <u>MUDSTONE</u> 30% as above.</p>				C1-695 C3-35
1791	15	<p>As above.</p>				C1-480 C3-25
1794	11	<p><u>SANDSTONE</u> 70% wh, lt gy, bl-gy, vf-f, li fels, trs glauc, biot extr. calc, subr, m-sort. <u>SILTSTONE</u> 20% as above. <u>MUDSTONE</u> 10% as above.</p>				C1-516 C3-15
1797	10.5	<p><u>SANDSTONE</u> 50% as above. <u>SILTSTONE</u> 20% as bove. <u>MUDSTONE</u> 30% as above.</p>				C1-600 C3-10

LITHOLOGICAL CUTTINGS DESCRIPTION

Well Name:- Killara - 1 Permit No:- PEP - 101		Date:-18/6/91	Geologist:- Ian Buckingham	SHOWS
DEPTH (m)	R.O.P. min/m	SAMPLE DESCRIPTION		GAS
1800	8	SANDSTONE 40% as above, also dk gy, v.f. gr, carb. gradg to silt SILTSTONE 30% as above. MUDSTONE 30% as above. Sl tr. COAL		C1-460 C3-10
1803	10.5	SANDSTONE 30% as above. SILTSTONE 30% as above. MUDSTONE 40% as above.		C1-595 C3-5
1806	11	SANDSTONE 20% as above. SILTSTONE 40% as above. MUDSTONE 40% as above.		C1-240
1809	11.5	As above.		C1-120
1812	11	As above.		C1-365
1815	12	SANDSTONE 40% as above, also wh to pl brn, f.gr, sub-ang, p. sort. mic, arkosic, v. calc as at 1768 - 1791. SILTSTONE 40% as above. MUDSTONE 20% as above.		C1-180
1818	12	As above.		C1-240
1821	12	As above.		C1-180
1824	12	SANDSTONE 40% as above, also wh-pl. brn, f.gr, sub-ang, p. srt, mic, arkosic, v.calc cmt, also rare loose qtz gns v.crs. v. ang SILTSTONE 40% as above. CLAYSTONE 20% as above.		C1-150
1827	15	As above.		C1-262 C3-tr.
1830	15	SANDSTONE 30% as above. SILTSTONE 60% as above. CLAYSTONE 10% as above.		C1-440 C3-tr.
1833	12	SANDSTONE 50% as above. SILTSTONE 40% as above. CLAYSTONE 10% as above.		C1-648 C3-17 C4-tr.

LITHOLOGICAL CUTTINGS DESCRIPTION

Well Name:- Killara - 1
Permit No:- PEP - 101

Date:-18/6/91

Geologist:- Ian Buckingham

Well Name:- Killara - 1 Permit No:- PEP - 101		Date:-18/6/91		Geologist:- Ian Buckingham		SHOWS	
DEPTH (m)	R.O.P. min/m	SAMPLE DESCRIPTION				GAS	
1836	9	SANDSTONE 60% as above and white lithic, feldspathic cmt. SILTSTONE 30% as above. <u>CLAYSTONE</u> 10% as above.				C1-856 C3-21	C2-36 C4-tr.
1839	7.0/4.4	SANDSTONE 60% as above plus comm. loose qtz grns, v.crs - crs, angular / sub-ang, occ qtz grns in aggrags but friable. SILTSTONE 30% as above. <u>CLAYSTONE</u> 10% as above.				C1-1265 C3-26	C2-57 C4-tr.
1842	9/18	SANDSTONE 50% as above, abund. loose qtz grns, SILTSTONE 30% as above. <u>CLAYSTONE</u> 20% as above.				C1-710 C3-17	C2-28
CIR 1841	9/18	SILTSTONE 30% as above. <u>CLAYSTONE</u> 20% as above.					
1845	8	As above. poss weathered garnet grain 1 only.				C1-956 C3-19	C2-34
1848	9.5	SANDSTONE 60% Qtzose, loose, v.ang / sub-ang, w. calc. cmt, f-crs grn, clr-frosted, v.p.srted., grns appear to be often cracked with w.calc. cmt. <u>SILTSTONE</u> 20% as above. <u>CLAYSTONE</u> 20% as above.				C1-493 C3-tr.	C2-25
1851	16	SANDSTONE 20% as above. <u>SILTSTONE</u> 60% as above. <u>CLAYSTONE</u> 20% as above.				C1-1265 C3-17	C2-57
1854	10.5	SILTSTONE 80% lt-med gy, gy, brn, occ gy grn, carbonaceous carb. lams., lithic, micaceous, weak calc i/p. SANDSTONE 10% as above. <u>CLAYSTONE</u> 10% similar to <u>SILTSTONE</u> but f-gn.				C1-1110 C3-18	C2-57
1857	13	SANDSTONE 40% as above. <u>SILTSTONE</u> 40% as above. <u>CLAYSTONE</u> 20% as above.				C1-555 C3-12	C2-27
1860	11	SANDSTONE 50% as above. <u>SILTSTONE</u> 40% as above. <u>CLAYSTONE</u> 10% as above.				C1-725 C3-17	C2-52

LITHOLOGICAL CUTTINGS DESCRIPTION

Well Name:- Killara - 1 Permit No:- PEP - 101		Date:-18/6/91	Geologist:- Ian Buckingham	SHOWS
DEPTH (m)	R.O.P. min/m	SAMPLE DESCRIPTION		GAS
1863	13	SANDSTONE 40% as above. <u>SILTSTONE</u> 40% as above. <u>CLAYSTONE</u> 20% as above.		C1-648 C3-15
1866	8.5	<u>SILTSTONE</u> 60% as above. <u>CLAYSTONE</u> 20% as above. <u>SANDSTONE</u> 20% as above, white weak kaolinitic cmt i/p.		C1-864 C3-18
CIRC 1869	3/5	<u>SANDSTONE</u> 50% as above plus white kaolinitic cmt aggregates. <u>GARNET</u> trace. <u>SILTSTONE</u> 30% as above. <u>CLAYSTONE</u> 20% as above.		C1-1698 C3-18
1872	1.5	<u>SANDSTONE</u> 90% wht, lt grn, f-crs dom med, poorly sr td. sub-ang sub rud dom sub-rnd weak calc cmt i/p, lithic, no inter granular porosity observed, abnt loose grns indicate good porosity. NO FLU. <u>SILTSTONE</u> 10% as above.		C1-5677 C3-35
1875	2.0	<u>SANDSTONE</u> 100% as above. clr, translucent, f-m. dom med mod. well srt, sub-ang/rnd. abnd. garnet good inferred porosity.		C1-3600 C3-27
1878	2.0	<u>SANDSTONE</u> 100% as above.		C1-2400 C3-22
1881	4.0	<u>SANDSTONE</u> 100% as above.		C1-1759 C3-18
1884	14	<u>SANDSTONE</u> 40% as above. <u>SILTSTONE</u> 50% as above. <u>CLAYSTONE</u> 10% as above.		C1-677 C3-20
1887	11.5	<u>SILTSTONE</u> 40% as above. <u>SANDSTONE</u> 30% as above. <u>CLAYSTONE</u> 30% as above.		min. flu. C2-10 C3-tr.
1890	14	As above. rare garnets		C1510
1893	9.5	As above.		C1-677 C3-5

LITHOLOGICAL CUTTINGS DESCRIPTION

Well Name:- Killara - 1 Permit No:- PEP - 101		Date:-18-19/6/91	Geologist:- Nev McTaggart	SHOWS	
DEPTH (m)	R.O.P. min/m	SAMPLE DESCRIPTION		GAS	
CIRC 1896	8/2.5	<p><u>SANDSTONE</u> 70% as above, few loose grains indicate patchy fair porosity. <u>SILTSTONE</u> 20% as above. <u>MUDSTONE</u> 10% as above.</p> <p><u>SANDSTONE</u> 70% as above copious loose medium to very coarse loose grains suggest good por, rr garnets, pyrite. <u>SILTSTONE</u> 20% as above. <u>MUDSTONE</u> 10% as above.</p> <p><u>SANDSTONE</u> 20% off white to lt gy, calc v.f-m.gr, sub r, p. sort, li, carb, sl-gluc grds. <u>SILTSTONE</u> 40% lt gy, grn-gy, calc, li, carb. glue. <u>MUDSTONE</u> 40% dk gy to blk.</p> <p>As above.</p> <p><u>SANDSTONE</u> 20% as above. <u>SILTSTONE</u> 60% as above. <u>MUDSTONE</u> 20% as above.</p> <p><u>SANDSTONE</u> 20% as above. <u>SILTSTONE</u> 30% as above. <u>MUDSTONE</u> 50% as above.</p> <p><u>SANDSTONE</u> 10% as above. <u>SILTSTONE</u> 20% as above. <u>MUDSTONE</u> 70% as above.</p> <p>As above.</p> <p><u>SANDSTONE</u> 20% as above. <u>SILTSTONE</u> 40% as above. <u>MUDSTONE</u> 40% as above.</p> <p><u>SANDSTONE</u> 10% as above. <u>SILTSTONE</u> 50% as above. <u>MUDSTONE</u> 40% as above.</p>		C1-2310 C3-10	C2-56
1899	1			C1-2469 C3-35	C2-84
1902	9			C1-450	C2-10
1905	9			C1-800 C3-10	C2-25
1908	10			C1-523	C2-15
1911	12			C1-420	C2-20
1914	12			C1-405	C2-15
1917	12.5			C1-739 C3-5	C2-25
1920	11			C1-740 C3-5	C2-25
1923	11			C1-554	C2-20

LITHOLOGICAL CUTTINGS DESCRIPTION

Well Name:- Killara - 1 Permit No:- PEP - 101		Date:-19/6/91		Geologist:- Nev McTaggart		SHOWS	
DEPTH (m)	R.O.P. min/m	SAMPLE DESCRIPTION				GAS	
1926	11	SANDSTONE 5% as above. SILTSTONE 25% as above. MUDSTONE 70% as above.				C1-480	C2-15
1929	11	As above.				C1-465	C2-15
1932	11	As above.				C1-985 C3-10	C2-30
1935	8	SANDSTONE 60% white, minor pl gry, fi gr, sub r, med sort, calc, trs gluc and garnets. SILTSTONE 20% as above. MUDSTONE 20% as above.				C1-554 C3-5	C2-15
1938	8	SANDSTONE 50% as above. also clr, m-v.c.gr, sub r. mostly loose grns suggesting fair por. SILTSTONE 25% as above. MUDSTONE 25% as above.				C1-648	C2-21
1941	8/4.5	SANDSTONE 50% as above, decr. clear coarse. SILTSTONE 30% as above. MUDSTONE 20% as above, copious flo mud.				C1-833	C2-25
1944	4.5	SANDSTONE 50% as above, kaolinitic/weakly calc. cmt/matrix. SILTSTONE 30% as above. MUDSTONE 20% as above.				C1-1759 C3-tr.	C2-28
1947	5	SANDSTONE 40% as above white kaolinitic/weakly calc. cmt/matrix calc. cmt dissolves (HCL) to leave a fine med gn qtz and kadomite platelets. SILTSTONE 40% as above. CLAYSTONE 20% as above. garnets.				C1-2005 C3-15	C2-42
1950	7	SANDSTONE 40% as above, f-med, kaolinitic/calc cmt/matrix. Poor porosity. Garnets.				C1-1666 C3-tr.	C2-28
1953	5	SANDSTONE 100% as above. CLAYSTONE tr. SILTSTONE tr.				C1-1082 C3-tr.	C2-25
1956	4.0	SANDSTONE 90% as above v. poorly srtd., abund. white kaolinitic / calc. cmt/matrix garnetiferous, SILTSTONE 10% as above. CLAYSTONE tr.				C1-2500 C3-18	C2-42

LITHOLOGICAL CUTTINGS DESCRIPTION

Well Name:- Killara - 1
Permit No:- PEP - 101

Date:-19/6/91

Geologist:- Ian Buckingham

Well Name:- Killara - 1 Permit No:- PEP - 101		Geologist:- Ian Buckingham		SHOWS
DEPTH (m)	R.O.P. min/m	SAMPLE DESCRIPTION		GAS
1959	2.5	SANDSTONE 80% as above qtz grns aggregates cmtid/matrix kaolinitic inferred poor porosity. <u>SILTSTONE</u> 20% as above. <u>CLAYSTONE</u> tr.		C1-2129 C3-15
1962	3	As above.pyrite garnets.		C1-1173 C3-tr.
1965	6.5	SANDSTONE 60% as above angular/rnd, v.f - v.crs grn, poorly strtd, finer grns tend to aggregate. <u>SILTSTONE</u> 30% as above. <u>CLAYSTONE</u> 10% as above pyrite, garnets.		C1-1018 C3-tr.
1968	5	SANDSTONE 60% as above. <u>SILTSTONE</u> 30% as above. <u>CLAYSTONE</u> 10% as above.		C1-1018 C3-tr.
1971	4.5	SANDSTONE 60% as above. <u>SILTSTONE</u> 40% as above. <u>CLAYSTONE</u> 10% as above.		C1-1111 C3-tr.
1974	13.5	SILTSTONE 60% as above. <u>CLAYSTONE</u> 40% as above. <u>SANDSTONE</u> tr. as above.		C1-617 C3-tr.
1977	17	As above.		C1-648 C3-tr.
1980	21	SILTSTONE 70% as above. <u>CLAYSTONE</u> 30% as above. <u>SANDSTONE</u> tr.		C1-416
1983	11.5	As above.		C1-694 C3-15
1986	12	SILTSTONE 50% as above. <u>SANDSTONE</u> 30% as above. <u>CLAYSTONE</u> 20% as above.		C1-347 C3-tr.

LITHOLOGICAL CUTTINGS DESCRIPTION

Well Name:- Killara - 1 Permit No:- PEP - 101		Date:-19/6/91		Geologist:- Ian Buckingham		SHOWS
DEPTH (m)	R.O.P. min/m	SAMPLE DESCRIPTION			GAS	
1989	16	<p><u>SILTSTONE</u> 80% med-dk gy, firm, blocky, carb i/p, grades to v.f.grn sst i/p. <u>SHALE</u> 10% sub-fiss, dk gy, platy, micaceous. <u>CLAYSTONE</u> 10% as above. <u>SANDSTONE</u> tr. as above.</p>			C1-408 C3-tr.	C2-14
1992	16	<p><u>SILTSTONE</u> 80% as above. <u>SANDSTONE</u> 10% as above. <u>SHALE</u> tr. as above. <u>CLAYSTONE</u> 10% as above.</p>			C1-463 C3-tr.	C2-14
1995	15	<p><u>SANDSTONE</u> 30% wh-lt. gy. poorly srt'd, lithic, micaceous, blocky, feldspathic, kaolinitic matrix? weak calc. cmt. v.f.-f grn. plus loose qtz grns crs - v. crs. <u>SILTSTONE</u> 30% as above. <u>SHALE</u> 20% as above. <u>CLAYSTONE</u> 20% as above.</p>			C1-316 C3-tr	C2-10
1998	10	<p><u>SANDSTONE</u> 60% as above f-grs, dom f. gr. <u>SILTSTONE</u> 30% as above. <u>CLAYSTONE</u> 10% as above.</p>			C1-602 C3-tr.	C2-15
2001	7	<p><u>SANDSTONE</u> 80% as above. <u>SILTSTONE</u> 20% as above. <u>CLAYSTONE</u> tr. as above. SST grades to SLST i/p and also SST has interlams 40% v. calc cmt.</p>			C1-648 C3-tr	C2-14
2004	8.5	<p><u>SANDSTONE</u> 70% as above. approx 10% of SST is pl. gm, chloritic. no vis porosity. <u>SILTSTONE</u> 30% as above.</p>			C1-602 C3-tr.	C2-12
2007	11	<p><u>SANDSTONE</u> 80% as above v. calc. cmt. <u>SILTSTONE</u> 30% as above.</p>			C1-693 C3-tr.	C2-12
2010	11	<p><u>SANDSTONE</u> 80% approx 40% wh-lithic, kaolinitic cmt, no vis porosity, v.f - f grn, kaolin platlets, garnets 50% white lithic, f-m grn dom med. calc cmt. no vis por, abund chloritic grns., occ crs loose qtz grns. <u>SILTSTONE</u> 10% as above. <u>MUDSTONE</u> 10% as above.</p>			C1-847 C3-tr.	C2-15

LITHOLOGICAL CUTTINGS DESCRIPTION

Well Name:- Killara - 1
Permit No:- PEP - 101

Date:-19/6/91

Geologist:- Ian Buckingham

Well Name:- Killara - 1 Permit No:- PEP - 101		Date:-19/6/91		Geologist:- Ian Buckingham		SHOWS
DEPTH (m)	R.O.P. min/m	SAMPLE DESCRIPTION			GAS	
2013	12.5	<p><u>SANDSTONE</u> 90% approx 20% wh. - lithic v.f.-f grn, kaolinite cmt, garnets, kaolin platlets as above approx 30% white - lt gy, gy grn, carb., micaceous, f-crs grn, dom med sub-ang / rnd, poorly srted., nil porosity, 40% ring loose qtz grns, clear, transp. f-crs, dom crs. Bright blue flu in few grns, instant slow streaming cmt, milky blue. ring. <u>SILTSTONE</u> & <u>MUDSTONE</u> 10% as above.</p>			C1-602 C3-tr.	C2-12
2016	3.5	As above.			C1-1108 C3-tr.	C2-25
2019	5.5	<p><u>SANDSTONE</u> 70% half as above half wh to lt gy, lt. bl-gy, fi. gr, sl. calc, li, garnets <u>SILTSTONE</u> 10% as above. <u>MUDSTONE</u> 20% as above.</p>			C1-693 C3-tr.	C2-28
2022	8	As above.			C1-554	C2-5
2025	7	As above.			C1-410	C2-5
2028	4.5	<p><u>SANDSTONE</u> 30% as above many loose grns - poor por. <u>SILTSTONE</u> 45% as above. <u>MUDSTONE</u> 25% as above. Trip sample.</p>			C1-270	
2031	6.5	<p><u>SANDSTONE</u> 80% as above abundant loose grns - good por. <u>SILTSTONE</u> 10% as above. <u>MUDSTONE</u> 10% as above.</p>			C1-539	
2034	8	<p><u>SANDSTONE</u> 100% as above. <u>SILTSTONE</u> tr. <u>MUDSTONE</u> tr. GARNET tr.</p>			C1-925	C2-tr.
2037	7	<p><u>SANDSTONE</u> 100% as above. fine clay coating on all grains inferred poor porosity.</p>			C1-184	
2040	5.5	As above.			C1-308	

LITHOLOGICAL CUTTINGS DESCRIPTION

Well Name:- Killara - 1
Permit No:- PEP - 101

Date:-21/6/91

Geologist:- Ian Buckingham

Well Name:- Killara - 1 Permit No:- PEP - 101		Geologist:- Ian Buckingham		SHOWS
DEPTH (m)	R.O.P. min/m	SAMPLE DESCRIPTION		GAS
2043	11	<p>SANDSTONE 100% f.m-crs grn dom. crs, ang. - sub-ang., clear, trans loose, thin white film (clay) on qtz grns. SILTSTONE tr. dk gy, carb,mica, firm, flocky.</p>		C1-355 C3-tr. C2-7
2046	13	<p>SILTSTONE 70% as above, also dk grn - lt grn mottled MUDSTONE 10% dk-gy bn, dk gy grn, blocky, carb i/p. SANDSTONE 20% as above.</p>		C1-308 C3-tr. C2-7
2049	15	<p>SILTSTONE 80% dk gy, soft, argillaceous, micaceous, carb. SANDSTONE 10% as above. MUDSTONE 10% as above.</p>		C1-356 C3-tr. C2-14
2052	10	<p>SANDSTONE 60% as above. SILTSTONE 30% as above. CLAYSTONE 10% as above.</p>		C1-524 C3-tr. C2-14
2055	13	<p>SILTSTONE 60% as above. SANDSTONE 30% as above. CLAYSTONE 10% as above.</p>		C1-225 C2-tr.
2058	3	<p>SANDSTONE 100% calc. cmt., f-crs dom med. copious loose grains quartz</p>		C1-1200 C2-tr.
2061	6	<p>SANDSTONE 100% clear transl. sub-ang / rnd, med-v.crs grn, dom med. poorly srted, mainly loose grns. SILTSTONE tr. as above.</p>		C1-1100 C3-tr. C2-28
2064	9	<p>SILTSTONE 20% as above, also blackish bn. SANDSTONE 80% clear transp, white clay matrix lithic i/p, garnet ferous, irregular sub-rnd, v.f. - v.crs grn, two populations, dom. v.f. and med. minor mineral flu.</p>		C1-680 C2-tr
2067	19	<p>SILTSTONE 70% as above. CLAYSTONE 10% as above. SANDSTONE 20% as above.</p>		C1-278 C2-tr

LITHOLOGICAL CUTTINGS DESCRIPTION

Well Name:- Killara - 1 Permit No:- PEP - 101		Date:-21/6/91		Geologist:- Ian Buckingham		SHOWS
DEPTH (m)	R.O.P. min/m	SAMPLE DESCRIPTION			GAS	
2070	18	SILTSTONE 90% as above. CLAYSTONE 10% as above. SANDSTONE tr. as above.			C1-185	C2-tr
2073	15	SANDSTONE 70% as above but strong calc. cmt. SILTSTONE 30% as above.			C1-554	C2-tr.
2076	5	SANDSTONE 100% clr., transp, occ pink, med-crs, sub. ang sub. rnd, dom-med occ. lithics, calc cmt i/p, mainly loose grns. SILTSTONE tr. as above. NO FLU.			C1-831	C2-tr.
2079	4	SANDSTONE 90% as above. SILTSTONE 10% as above.			C1-471	
2082	4	SANDSTONE 100% as above. NO FLU.			C1-554	
2085	8	SANDSTONE 90% as above poorly sr td. NO FLU.			C1278	
2089	9	SANDSTONE 90% as above calc cmt. SILTSTONE 10% as above.			C154	
2091		SANDSTONE 90% clr, transp, med sub-rnd to rnd well srted, tr lithic, kaolin in part. Weak calc., abnt loose grn - good por. SILTSTONE 10% as above.			C1-708	
2094	5	SANDSTONE 90% as above. SILTSTONE 10% as above.			C1-210	
2097	18	SANDSTONE 60% as above inner wh. kool cmt. SILTSTONE 20% as above. MUDSTONE 20% as above.			C1-300	
2100	8	SANDSTONE 80% as above. SILTSTONE 10% as above. MUDSTONE 10% as above.			C1-390	
2103	9	SANDSTONE 70% as above. SILTSTONE 10% as above. MUDSTONE 20% as above.			C1-250	

LITHOLOGICAL CUTTINGS DESCRIPTION

DEPTH (m)	R.O.P. min/m	SAMPLE DESCRIPTION	SHOWS
Well Name:- Killara - 1 Permit No:- PEP - 101		Date:-21-22/6/91 Geologist:- Nev McTaggart	
2106	8.5	SANDSTONE 90% as above. SILTSTONE 10% as above. gd tr garnets.	C1-678
2109	10	SANDSTONE 80% as above decrease loose grns. SILTSTONE 20% as above.	C1-240
2112	12/8	As above.	C1-431
2115	8	SANDSTONE 90% as above iner loose grns - fair porosity SILTSTONE 10% as above.	C1-755
2118	7	SANDSTONE 90% as above mostly loose grns - good porosity. MUDSTONE 10% as above.	C1-270
2121	11	SANDSTONE 80% as above. SILTSTONE 10% as above. MUDSTONE 10% as above.	C1-210
2124	10	SANDSTONE 90% as above. SILTSTONE tr as above. MUDSTONE 10% as above.	C1-515
2127	9	As above.	C1-708
2130	9	SANDSTONE 80% as above. SILTSTONE tr. as above. MUDSTONE 20% as above.	C1-225
2133	17	SANDSTONE 60% crm, lt gy, lt bl-gy, calc v.fi to fi gr, sub ang, pr sort, lithic tr garnets. SILTSTONE 10% dk gy. MUDSTONE 30% dk gy to blk.	C1-300
2136	22	SANDSTONE 60% mainly lt bl-gy o/w as above. SILTSTONE 10% as above. MUDSTONE 30% as above.	C1-290

LITHOLOGICAL CUTTINGS DESCRIPTION

Well Name:- Killara - 1 Permit No:- PEP - 101		Date:-22/6/91	Geologist:- Nev McTaggart Ian Buckingham		SHOWS
DEPTH (m)	R.O.P. min/m	SAMPLE DESCRIPTION			GAS
2139	20	SANDSTONE 60% lt bl-gy, off white o/w as above. SILTSTONE 30% as above. MUDSTONE 10% as above.			C1-210
2142	15	SANDSTONE 60% as above. SILTSTONE 20% as above. MUDSTONE 20% as above.			C1-431
2145	8.5	SANDSTONE 80% wh, lt gy, f-gr, sub ang, pr sort, calc, lithic, copious msc loose grns sugg. poor porosity. SILTSTONE 20% as above tr MUDSTONE as above.			C1-350
2148	8	As above.			C1-370
2151	23	SANDSTONE 80% strong calc. cmt. as above. SILTSTONE 20% as above. MUDSTONE tr. Poor porosity.			C1-925
2154	3	SANDSTONE 100% as above. SILTSTONE tr as above. MUDSTONE tr as above. Poor porosity.			C1-1203
2157	9	SANDSTONE 80% as above. SILTSTONE 20% as above. MUDSTONE tr. as above. Poor por.			C1-260
2160	12	SANDSTONE 30% as above plus 10% gy grn, lithic, hard, micaceous, calc cmt, f-gr, immature. SILTSTONE 40% as above similar to SST (10%) but fine grained. MUDSTONE 20% dk gy bn.			
2163	4	SANDSTONE 100% clr, transp, occ. milky, med-crs dom med., sub ang - rnd, v calc cmt i/p. occ. agg of calc cmt, fri, nil to poor porosity. SILTSTONE tr. as above. COAL tr. blk, bri, brittle.			Mineral flu only C1-771
2166	8	SANDSTONE 100% as above with relatively strong calc cmt.			Mineral flu only C1-736

LITHOLOGICAL CUTTINGS DESCRIPTION

Well Name:- Killara - 1
Permit No:- PEP - 101

Date:- 22/6/91

Geologist:- Ian Buckingham

Well Name:- Killara - 1 Permit No:- PEP - 101		Date:- 22/6/91		Geologist:- Ian Buckingham		SHOWS
DEPTH (m)	R.O.P. min/m	SAMPLE DESCRIPTION				GAS
2169	8	As above.				C1-493
2172	15	SANDSTONE 90% as above also SANDSTONE 10% grn gy v.f. gn grades to slst i/p, hard, brittle.				C1-216
2175	9	SANDSTONE 100% clr, transp, occ milky, med - crs as above.				C1-4633
2178	15	SANDSTONE 50% clr, transp, occ milky, med-crs grn. occ. v.crs dom med. sub ang-rnd, occ aggregates cmt'd with white clay, SANDSTONE 30% lt grn, gy, lithic, firm, no vis porosity, feldspathic, calc cmt. SILTSTONE 20% gy as above.				C1-246 NO FLU Mineral Flu.
2181	7	SANDSTONE 80% as above clr etc. SANDSTONE 10% lt grn gy. SILTSTONE 10% as above.				C1-278
2184		SANDSTONE 100% as above clr etc				C1-278
2187	10	As above.				C1-278
2190	9	SANDSTONE 100% white, clr, transp., abundant white calc. matrix/cmt., lithic, volcanics, no vis por, aggregates tend to lump together with cmt forming soft roundish lumps. SANDSTONE v.f.gn clr, black, gy, lithic, micaceous, hard.				C1-278
2193	8	SANDSTONE 100% as above				
2196	6	SANDSTONE 100% as above med-crs, dom med, sub-ang-rnd.				
2199	8	SANDSTONE 100% as above v. calc cmt.				
2202	6	SANDSTONE 100% as above.				C1-432

LITHOLOGICAL CUTTINGS DESCRIPTION

Well Name:- Killara - 1 Permit No:- PEP - 101		Date:-22/6/91		Geologist:- Nev McTaggart		SHOWS
DEPTH (m)	R.O.P. min/m	SAMPLE DESCRIPTION				GAS
2205	30	SANDSTONE 100% as above lithic, f-med grn, dom f., sub-ang / sub rnd, very strong calc cmt, hard to MUDSTONE dk grey, greasy in pt.				C1-123
2208	31	MUDSTONE 60% as above. SANDSTONE 40% as above.				C1-210
2211	21/4.5	SANDSTONE 60% clr, mnr wh. clc matrix, rnd, f - c gr, m. sort, lithics loose grns mainly c - v.c. - fair por. MUDSTONE 40% as above. SILTSTONE tr. as above.				C1-831
2214	4.5	SANDSTONE 100% as above mainly loose grns. Suggest por - fr por.				C1-635
2217	7.5	SANDSTONE 100% as above. 50% loose grns.				C1-278
2220	11/5.5	SANDSTONE 40% as above. SILTSTONE 20% gry, carb gradg MUDSTONE 40% gy, sily, carb, waxy.				Gold flu in chart C1-340
2223	9	SANDSTONE 80% wh, f - m gr, calc cmt, sli to clr, siliceous, quartz overgrowths in - v.c. in sort, rnd, copious loose grns, tr por, tr garnets. SILTSTONE 10% as above. MUDSTONE 10% as above.				C1-640
2226	9/4	SANDSTONE 90% as above. SILTSTONE 5% as above. MUDSTONE 5% as above.				C1-993
2229	6	SANDSTONE 100% as above friable, abnt m-c loose grns quartz indicate pr por.				C1-630
2232	7	SANDSTONE 100% as above.				C1-492
2235	8	SANDSTONE 100% as above decr loose grns				C1-225

LITHOLOGICAL CUTTINGS DESCRIPTION

Well Name:- Killara - 1 Permit No:- PEP - 101		Date:-23/6/91		Geologist:- Nev McTaggart		SHOWS
DEPTH (m)	R.O.P. min/m	SAMPLE DESCRIPTION				GAS
2238	18	SANDSTONE 60% half as above. Also off wh to lt gy, lt bl gy, v.f.g. sub ang, pr sort, li, sl, calc. glg. SILTSTONE 20% gy, dk gy, carb. MUDSTONE 20% lt gy, gy, silty i/p waxy i/p.				C1-400
2241	8	SANDSTONE 80% as above. <u>SILTSTONE 10%</u> as above. <u>MUDSTONE 10%</u> as above.				C1-488
2244	7	SANDSTONE 100% clr, (tr off white, v. calc) m-vc grn, rnd m.sort mostly loose grns, pos. i/p por, tr <u>PYROBIT</u> cl gs.				C1-420
2247	7.5	SANDSTONE 50% as above. <u>SILTSTONE 25%</u> gy, gy-grn, dk gy gdg. <u>MUDSTONE 25%</u> gy, gy-grn, dk gy, blk.				C1-210
2250	23	SANDSTONE 40% gy-grn, v.f. gr, volcanolithic gdg <u>SILTSTONE 30%</u> gy-grn, gy. <u>MUDSTONE 30%</u> gy-grn mnr pple tr garnets.				C1-180
2253	20	SANDSTONE 60% as above plus mnr off wh, v. calc as before. <u>SILTSTONE 20%</u> as above. <u>MUDSTONE 20%</u> as above.				C1-160
2256	18 - 12	SANDSTONE 80% as above. <u>SILTSTONE 10%</u> as above. <u>MUDSTONE 10%</u> as above minor loose m-c grns suggest pr. por.				C1-340
2259	8	SANDSTONE 90% wh to lt gy (40% loose m-cr grns,) calc cmt, sub-ang rnd., minor lithis, fi-m grained, firm fri i/p, poor inferred por. <u>SILTSTONE 10%</u> as above.				C1-246
2262	6	SANDSTONE 50% as above. <u>SANDSTONE 40%</u> white, dom. loose qtz. m-v. crs dom crs, irregular to sub-rnd, poorly srtd, extremely calcareous cmt., carb i/p, mica i/p rare pink ptz., zeolites (?) red - pink. <u>SILTSTONE</u> tr. as above.				C1-301

LITHOLOGICAL CUTTINGS DESCRIPTION

Well Name:- Killara - 1		Date:-23/6/91		Geologist:- Ian Buckingham		SHOWS
Permit No:- PEP - 101						
DEPTH (m)	ROP. min/m	SAMPLE DESCRIPTION				GAS
2265	16	SANDSTONE 100% white, clear, transp., rare pink, med - crs grn dom. med., mnr sil cmt, copious loose grns, poor inferred porosity.				Trace mineral flu. C1-340
2268	12	SANDSTONE 30% as above. SANDSTONE 70% wh, lt gy-grn, f-m gn, dom. f, lithic, immature, v.calc cmt. nil porosity.				C1-216
2271	17	SANDSTONE 100% wh, lt gry-grn, f.m gn. dom f, lithic, poorly srt'd, immature, v. calc cmt. No vis porosity.				C1-278
2274	17	As above.				C1-300
2277	11	Bottoms Up. - Survey. SANDSTONE as above. Bit Change.				Trip gas 1100
2280	12	As above (abnt slt, mud st early from 2281)				C1-400
2283	12	SANDSTONE 50% as above. MUDSTONE 50% gy to blk waxy.				C1-492
2286	12	SANDSTONE 40% as above. MUDSTONE 30% as above.				C1-310
2289	7	SANDSTONE 90% as above. MUDSTONE 10% as above copious loose grns - pr porosity.				C1-336
2292	10	As above.				
2295	8	SANDSTONE 100% as above. Trs SILTSTONE, MUDSTONE as above.				C1-462
2298	9	SANDSTONE as above lesser gy-grn, abundant loose grns, pr-f por.				C1-930
2301	4	As above.				C1-708
2304	7	As above.				C1-470
2307	6.5	As above.				C1-720

LITHOLOGICAL CUTTINGS DESCRIPTION

Well Name:- Killara - 1 Permit No:- PEP - 101	Date:-24/6/91	Geologist:- Ian Buckingham Nev McTaggart	SHOWS
DEPTH (m)	R.O.P. min/m	SAMPLE DESCRIPTION	GAS
2310	7	As above tr. <u>SILTSTONE</u>	C1-740
2313	8	As above decreased loose grns - prob. tight.	C1-460
2316	8.5	As above.	C1-475
2319	10	As above.	C1-450
2322	8.5	As above abnt loose grns - pr porosity.	C1-375
2325	6	As above.	C1-755
2328	11	As above.	C1-375
2331	10	As above rare amethyst.	C1-463
2334	6	As above more loose gns than above, rare muscovite.	C1-493
2337	12	As above also lemon, orange, pink qtz grns. nil-poor inferred por.	C1-414
2340	7	<u>SANDSTONE</u> 100% loose qtz grns, med-crs dom. med, ang rnd fine film calc. material, weak calc. cmt. also <u>SANDSTONE</u> gy grn as above.	C1-414
2343	10	<u>SANDSTONE</u> as above gy grn, grn gas appear to be chlorite, cmtd with qtz grns. Qtz grns are clear, transp but when associated with chlorite take on a grn hue. Nil-poor inferred porosity.	C1-414
2346	20	<u>SANDSTONE</u> as above but more finer grained gy gn <u>SANDSTONE</u> <u>SILTSTONE</u> tr. bk, gy, carb, calc cmt.	C1-525

LITHOLOGICAL CUTTINGS DESCRIPTION

Well Name:- Killara - 1 Permit No:- PEP - 101		Date:-24/6/91	Geologist:- Ian Buckingham		SHOWS
DEPTH (m)	R.O.P. min/m	SAMPLE DESCRIPTION			GAS
2349	12	<p>SANDSTONE 60% loose grns, ang-rnd, f.-v - crs dom. crs, clear, transp, pale orange, pink, yellow garnets, carb i/p, weak calc cmt, poor inferred porosity. SANDSTONE 40% gy, gn, Qtzose and chloritic as above.</p>			C1-370
2352	16	<p>SANDSTONE 40% loose Qtz as above. SANDSTONE 50% gy grn, grading to SILTSTONE i/p. SILTSTONE 10% dark gy, blk, carb, micaceous, firm i/p.</p>			C1-307
2355	14	As above.			C1-370
2358 Circ Cutting 2361	14 4	<p>As above. SANDSTONE 80% loose Qtz grns weak calc cmt as above. SANDSTONE 20% clr to gy gn, lithic as above. SILTSTONE tr as above.</p>			C1-828 C1-291
2364	5	As above.			No Flu C1-679
2367	13	<p>SANDSTONE 100% loose, weak calc cmt, ang - well rnd. f - v.crs grn., two dom. populations m-c, loose grns poorly strtd. good inferred porosity. mogn, clr to gy gn as above.</p>			C1-339
2370	30	SANDSTONE 70% loose as above. SILTSTONE 30% gy. grn as above.			C1-432
2373	3	SANDSTONE 100% loose as above mostly loose grns - good por chips clr to mnr gy-gn, m - c grn.			C1-432
2376	5	SANDSTONE 100% as above decrease loose grns - fair por.			C1-278
2379	30	SANDSTONE 80% as above. Tr SILTSTONE as above loose grns SILTSTONE 30% as above lt - dk gy.			C1-254

LITHOLOGICAL CUTTINGS DESCRIPTION

Well Name:- Killara - 1 Permit No:- PEP - 101		Date:-24/6/91		Geologist:- Nev McTaggart		SHOWS
DEPTH (m)	R.O.P. min/m	SAMPLE DESCRIPTION				GAS
2385	30	SANDSTONE 60% as above. <u>SILTSTONE</u> 30% as above. <u>MUDSTONE</u> 10% as above.				C1-385
2388	10	As above.				C1-340
2391	6.5	SANDSTONE 80% as above chips clr, to gy-gn, m-c, m-vc, loose grns. <u>SILTSTONE</u> 20% as above. No vis por - pr inferred.				C1-855
2394	18	SANDSTONE 50% as above. <u>SILTSTONE</u> 30% as above. <u>MUDSTONE</u> 20% dk gy to blk, gy-brn, gy-grn.				C1-300
2397	22	SANDSTONE 20% wh to gy, calc, vf - f grd slt. <u>SILTSTONE</u> 40% gy to blk. <u>MUDSTONE</u> 40% dk gy to blk, greasy.				C1-310
2400	22	SANDSTONE 20% as above. <u>SILTSTONE</u> 20% as above. <u>MUDSTONE</u> 60% as above.				C1-354
2403	27	SANDSTONE 40% as above. <u>SILTSTONE</u> 40% as above. <u>MUDSTONE</u> 20% as above.				C1-246
2406	40	SANDSTONE 20% clr, transp, occ frosty yll, pink med. - v.crs dom med, ang-rnd, poor inferred por, calc cmt / matrix. <u>SILTSTONE</u> 40% gy gn, chloritic, carb, micaceous, calc cmt, nil porosity, grades to <u>SILTSTONE</u> i/p. v.f.-f gn. <u>SILTSTONE</u> 30% dk gy, gy bn, v. micaceous, blocky, tr pyrite <u>MUDSTONE/CLAYSTONE</u> tr 10% dk gy, blk, platy, brittle, non calc.				NO C1-250 FLU
2407	34	SANDSTONE 30% clr, transp, occ frosted, yll, pink med-v.crs grn, dom. med, ang-rnd, poor inferred por., garnets calc cmt/matrix. <u>SANDSTONE</u> 30% gy grn, chloritic carb, micaceous, v.f. - grn grades i/p to <u>SILTSTONE</u> . <u>SILTSTONE</u> 30% as above. <u>MUDSTONE</u> 10% as above.				C1-245

LITHOLOGICAL CUTTINGS DESCRIPTION

Well Name:- Killara - 1 Permit No:- PEP - 101	Date:-24-25/6/91	Geologist:- Ian Buckingham	SHOWS
DEPTH (m)	R.O.P. min/m	SAMPLE DESCRIPTION	GAS
2408	25	<p>SANDSTONE 30% clr, transp, occ frosted, yll, pink med-v.crs grn, dom. med, ang-rnd, poor inferred por., garnets calc cmt/matrix. SANDSTONE 30% gy grn, chloritic carb, micaceous, v.f. - grn grades i/p to SILTSTONE. SILTSTONE 30% as above. MUDSTONE 10% as above.</p>	GAS
2409	18	<p>As above.</p>	

End of Appendix 5

APPENDIX

VI

**SIDEWALL CORE
DESCRIPTION**

Sidewall Core Descriptions

SWC No.	Depth (m)	Recovery	Description
1	2405		Claystone (shale), light-medium grey, very finely laminated, silty.
2	2360	nil	
3	2160	nil	
4	2080		Siltstone, light grey, grey-green, clayey, muddy, blocky, poorly cemented.
5	2015		Siltstone (very fine grained sandstone), light grey, grey-green, off white, blocky, friable, no fluorescence.
6	1975		Siltstone/claystone, light-medium grey, calcareous.
7	1908		Mudstone, dark grey, grey-green, layered, soft.
8	1881		Sandstone, clear, grey, fine - medium grained, friable, white-grey weak cement, poor visual porosity.
9	1872		Sandstone, grey, grey-green, very fine to fine grained, chloritic, friable, weak cement, argillaceous.
10	1780		Claystone, medium-dark grey, blocky, lithic.
11	1753		Siltstone, light-medium grey, laminated, chloritic.

SWC No.	Depth (m)	Recovery	Description
12	1612		Siltstone, light grey-white, clayey, hard,
13	1565		Mudstone, medium grey.green, blocky, tuffaceous.
14	1535		Mudstone, medium grey.green, blocky, tuffaceous.
15	1385		Siltstone, light-medium grey, grey green, blocky, tuffaceous.
16	1121		Claystone, medium grey.green, blocky, tuffaceous.
17	900	nil	
18	691		Claystone, very silty, dark grey-black, micaceous, argillaceous, lithic.
19	631	nil	
20	582	nil	
21	458	nil	
22	453		Sandstone, quartz grains in an argillaceous matrix, black, dark brown, dark green, quartz grains fine to medium, glauconitic, ferruginous, poor visual porosity.
23	430	nil	
24	350	nil	

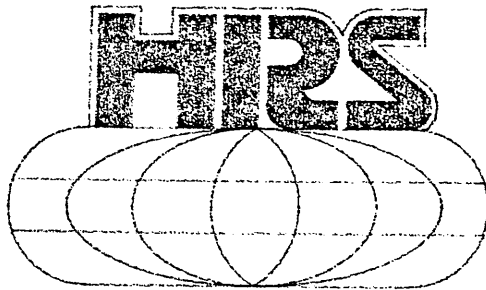
APPENDIX

VII

FORMATION

TESTING

FORMATION TEST REPORT



HALLIBURTON RESERVOIR SERVICES



A Halliburton Company

Customer: ANGLO AUSTRALIAN OIL CO NL

Well Description: KILLARA #1

Field Name: OTWAY BASIN

TEST NO: DST #2

TEST DATE: 28-JUNE-91

TICKET NO: 001104

HALLIBURTON
RESERVOIR
SERVICES

REPORT TICKET NO: 001104
BT-GAUGE TICKET NO: 001104
DATE: 28/6/91
HALLIBURTON CAMP: MOOMBA
TESTER: T.Stephens R.Dix
WITNESS: K.Smith

DRILLING CONTRACTOR: GEARHEART Rig#2
LEGAL LOCATION: see remarks

OPERATOR: ANGLO AUSTRALIA
LEASE NAME: KILLARA
WELL NO: 1
TEST NO: 2
TESTED INTERVAL: 446.92 - 492.91 m

FIELD AREA: OTWAY BASIN
COUNTY/LSD:
STATE/PROVINCE: VICTORIA
COUNTRY: AUSTRALIA

NOTICE: THIS REPORT IS BASED ON SOUND ENGINEERING PRACTICES, BUT BECAUSE OF VARIABLE WELL CONDITIONS AND OTHER INFORMATION WHICH MUST BE RELIED UPON HALLIBURTON MAKES NO WARRANTY, EXPRESS OR IMPLIED AS TO THE ACCURACY OF THE DATA OR OF ANY CALCULATIONS OR OPINIONS EXPRESSED HEREIN. YOU AGREE THAT HALLIBURTON SHALL NOT BE LIABLE FOR ANY LOSS OR DAMAGE, WHETHER DUE TO NEGLIGENCE OR OTHERWISE ARISING OUT OF OR IN CONNECTION WITH SUCH DATA, CALCULATIONS OR OPINIONS.

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Test Period Summary	1.2
Pressure vs. Time Plot	1.3
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Tool String Configuration	1.6
Operator Job Log	1.7

SECTION 2: ANALYSIS

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SECTION 3: MECHANICAL GAUGE DATA

Gauge No. 2171	3.1
Gauge No. 4992	3.2
Gauge No. 6106	3.3

Date: 28/6/91

Ticket No: 001104

Page No: 1.1

SUMMARY OF TEST

Lease Owner: ANGLO AUSTRALIA

Lease Name: KILLARA

Well No.: 1

Test No.: 2

County/LSD:

State/Province: VICTORIA

Country: AUSTRALIA

Formation Tested: PEBBLE POINT

Hole Temp: 110.00 F

Total Depth: 492.91 m

Net Pay: 46.00 m

Gross Tested Interval: 446.92 - 492.91 m

Perforated Interval (m):

RECOVERY:

RECOVERED 374mtr OF RATHOLE MUD, FORMATION WATER AND SAND

REMARKS:

ALL DOWNHOLE PRESSURES ARE IN ABSOLUTE PSIA.
TEST STRING WAS COMPLETELY PLUGGED WITH SAND UP TO 45mtr
ABOVE TEST TOOLS.

LEGAL LOCATION: - LAT - 38 07' 48.72" S
- LONG- 142 12' 39.81" E

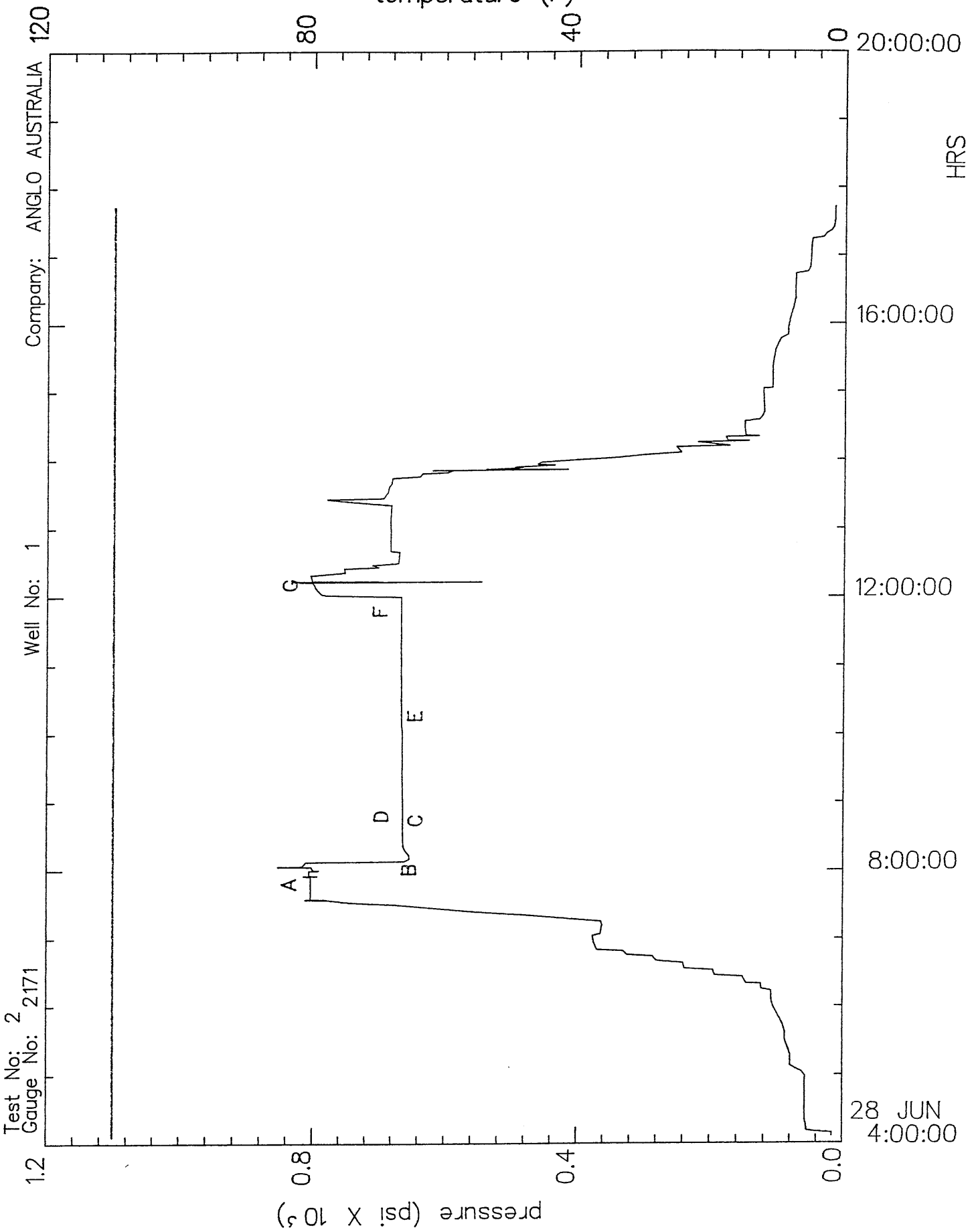
Date: 28/6/91

Ticket No: 001104

Page No: 1.3

temperature (F)

Pressure/Temperature History



28 JUN
4:00:00

Date: 28/6/91

Ticket No: 001104

Page No: 1.4

TEST AND FORMATION DATA

Formation Tested: PEBBLE POINT
 All Depths Measured From: KELLY BUSHINGS
 Elevation: 75.00 m
 Total Depth: 492.91 m
 Net Pay: 46.00 m
 Hole or Casing Size: 8.500 in
 Gross Tested Interval: 446.92 - 492.91 m
 Perforated Interval (m):

HOLE FLUID

HOLE TEMPERATURE

Type:	DRILLING FLUID	Depth:	487.00 m
Weight:	9.30 lbm/gal	Estimated:	F
Viscosity:	43.00 cp	Actual:	110.00 F

HYDROCARBON PROPERTIES

CUSHION DATA

Oil Gravity (API):	@ 60 F	TYPE	AMOUNT	WEIGHT
Gas/Oil ratio (ScF/STB):		NIL		
Gas Gravity (SG):				

FLUID PROPERTIES FOR RECOVERED MUD AND WATER

SOURCE	RESISTIVITY	CHLORIDES	SG	PH
	@ F			
	@ F			
	@ F			
	@ F			
	@ F			























SAMPLER DATA

Surface Pressure:	psi
Volume of Gas:	ft3
Volume of Oil:	cc
Volume of Water:	cc
Volume of Mud:	cc
Total Liquids:	cc

REMARKS:

ALL DOWNHOLE PRESSURES ARE IN ABSOLUTE PSIA.
 TEST STRING WAS COMPLETELY PLUGGED WITH SAND UP TO 45mtr
 ABOVE TEST TOOLS.
 LEGAL LOCATION: - LAT - 38 07' 48.72" S
 - LONG- 142 12' 39.81" E





TEST STRING CONFIGURATION

	O.D. (in)	I.D. (in)	LENGTH (m)	DEPTH (m)
 DRILL PIPE.....	4.500	3.826	275.100	
 FLEX WEIGHT	4.500	2.812	46.550	
 DRILL COLLARS	6.250	2.812	82.940	
 PUMP OUT REVERSING SUB ...	6.000	3.000	0.305	405.200
 DRILL COLLARS	6.250	2.812	18.500	
 IMPACT REVERSING SUB	6.000	3.000	0.305	423.700
 DRILL COLLARS	6.250	2.812	9.260	
 BAR CATCHER SUB	5.750	1.000	0.305	
 AP RUNNING CASE.....	5.000	2.250	1.262	433.620
 CROSSOVER.....	5.000	2.200	0.305	
 DUAL CIP VALVE	5.000	0.870	1.484	
 SAMPLE CHAMBER	5.000	2.500	1.484	
 DRAIN VALVE	5.000	2.200	0.262	
 HYDROSPRING TESTER	5.000	0.750	1.618	439.370
 AP RUNNING CASE.....	5.000	2.250	1.262	440.030
 JAR.....	5.000	1.750	1.524	
 VR SAFETY JOINT	5.000	1.000	0.847	
 OPEN HOLE PACKER.....	7.500	1.530	1.771	444.540
 DISTRIBUTOR VALVE.....	5.000	1.680	0.610	
 OPEN HOLE PACKER.....	7.500	1.530	1.771	446.920
 ANCHOR PIPE SAFETY JOINT ..	5.000	1.500	1.311	
 FLUSH JOINT ANCHOR	5.000	2.370	14.630	

CONTINUED

HRS

TEST STRING CONFIGURATION

	O.D. (in)	I.D. (in)	LENGTH (m)	DEPTH (m)
 CROSSOVER.....	6.250	2.250	0.305	
 DRILL COLLARS	6.250	2.812	27.650	
 CROSSOVER.....	6.250	2.250	0.305	
 BLANKED-OFF RUNNING CASE ..	5.000	2.440	1.237	491.990
TOTAL DEPTH				492.91

HRS

Date: 28/6/91
Test No: 2

Ticket No: 001104

Page No: 1.7.1

OPERATOR JOB LOG

Type of Flow Measuring Device: 6"CERAMIC CHOKE

TIME HH:MM:SS	CHOKE SIZE (in)	SURFACE PRESSURE (psi)	GAS RATE (Mscf/D)	LIQUID RATE (bbl/D)	REMARKS

28-Jun-91					
04:00:00					MAKE UP TEST TOOLS
06:00:00					RUN IN HOLE
06:45:00					MAKE UP TEST HEAD
07:00:00					LAY OUT TEST HEAD, RUN IN HOLE
07:45:00					PICK UP SURFACE EQUIPMENT
08:00:00					RIG UP SURFACE EQUIPMENT
08:03:00					SET WEIGHT ON TOOL
08:08:00	32/64	0.00			TOOL OPEN - MODERATE BLOW
08:14:00	32/64	0.00			WEAK BLOW
08:20:00	32/64	0.00			NO BLOW
08:27:00		0.00			ROTATE TO CLOSE TOOL
09:00:00	32/64	0.00			ROTATE TO OPEN TOOL
09:01:00	32/64	0.00			NO BLOW
10:00:00		0.00			ROTATE TO CLOSE TOOL, EXCESSIVE TORQUE
12:00:00					OPEN BYPASS, PULL PACKERS FREE
12:12:00					RIG DOWN SURFACE EQUIPMENT
12:15:00					TIGHT HOLE, WORK PIPE
12:28:00					PICK UP TEST HEAD, SUR. EQUIP.
12:45:00					DROP REVERSING BAR
12:54:00					NO SIGN OF PIN BEING SHEARED
13:00:00					RIG UP TO ACTIVATE PUMPOUT SUB
13:02:00					PUMPOUT DISK SHEARED - 1500psi
13:04:00					CIRCULATE CONVENTIONALLY, "U" TUBING
13:05:00					CLOSE HYDRIL, REVERSE CIRC.
13:23:00					MUD TO SURFACE
13:25:00					OPEN HYDRIL, RIG DOWN SURFACE
13:30:00					EQUIPMENT, PULL OUT OF HOLE
15:10:00					CLEAN COLLARS AND LAY OUT
15:30:00					BREAK OUT TOOLS
17:40:00					TOOLS LAID OUT

Date: 28/6/91

Ticket No: 001104

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8:36:00

150 FLOW

8:32:00

8:28:00

8:24:00

8:20:00

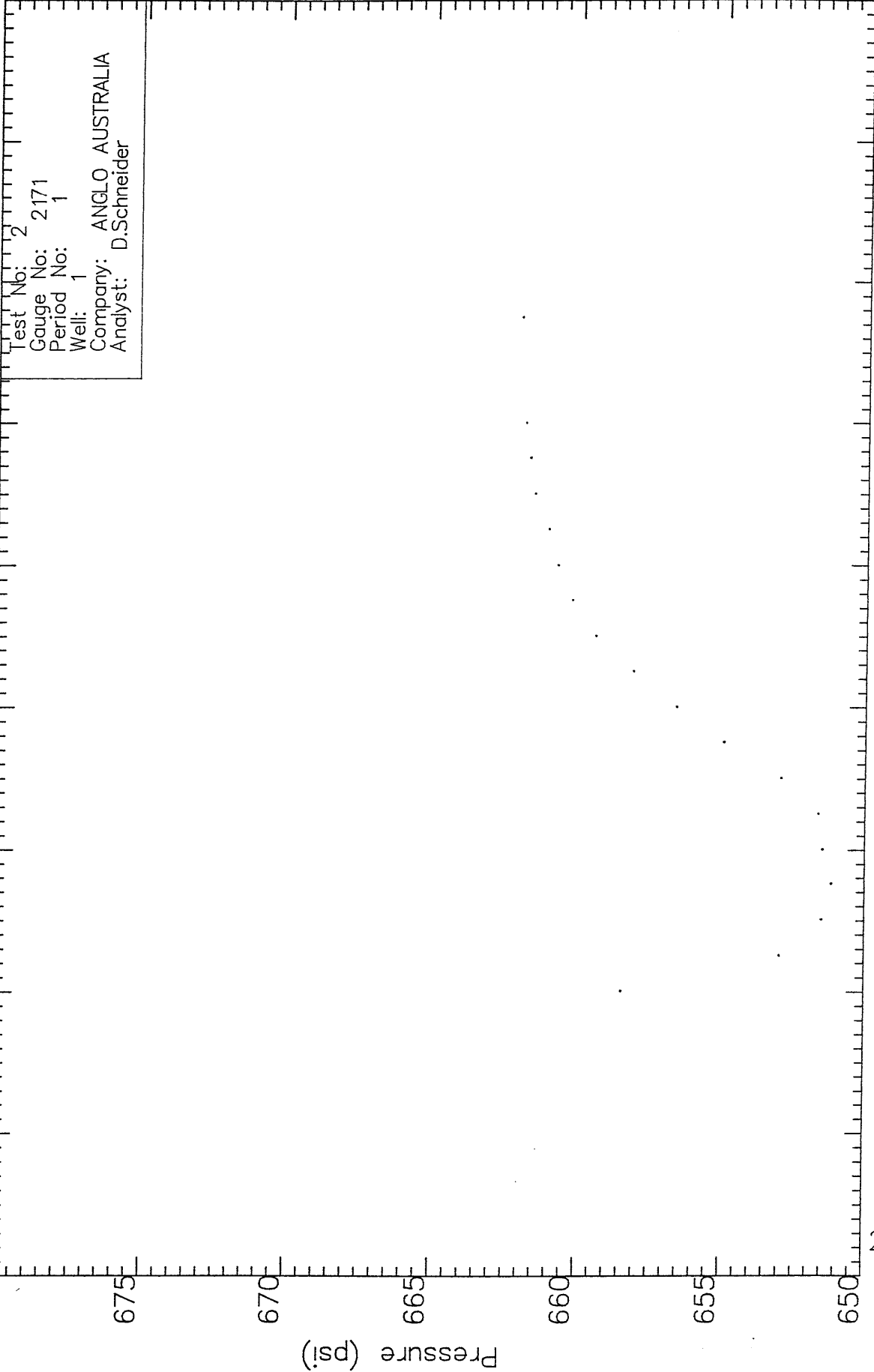
8:16:00

8:12:00

8:08:00

8:04:00

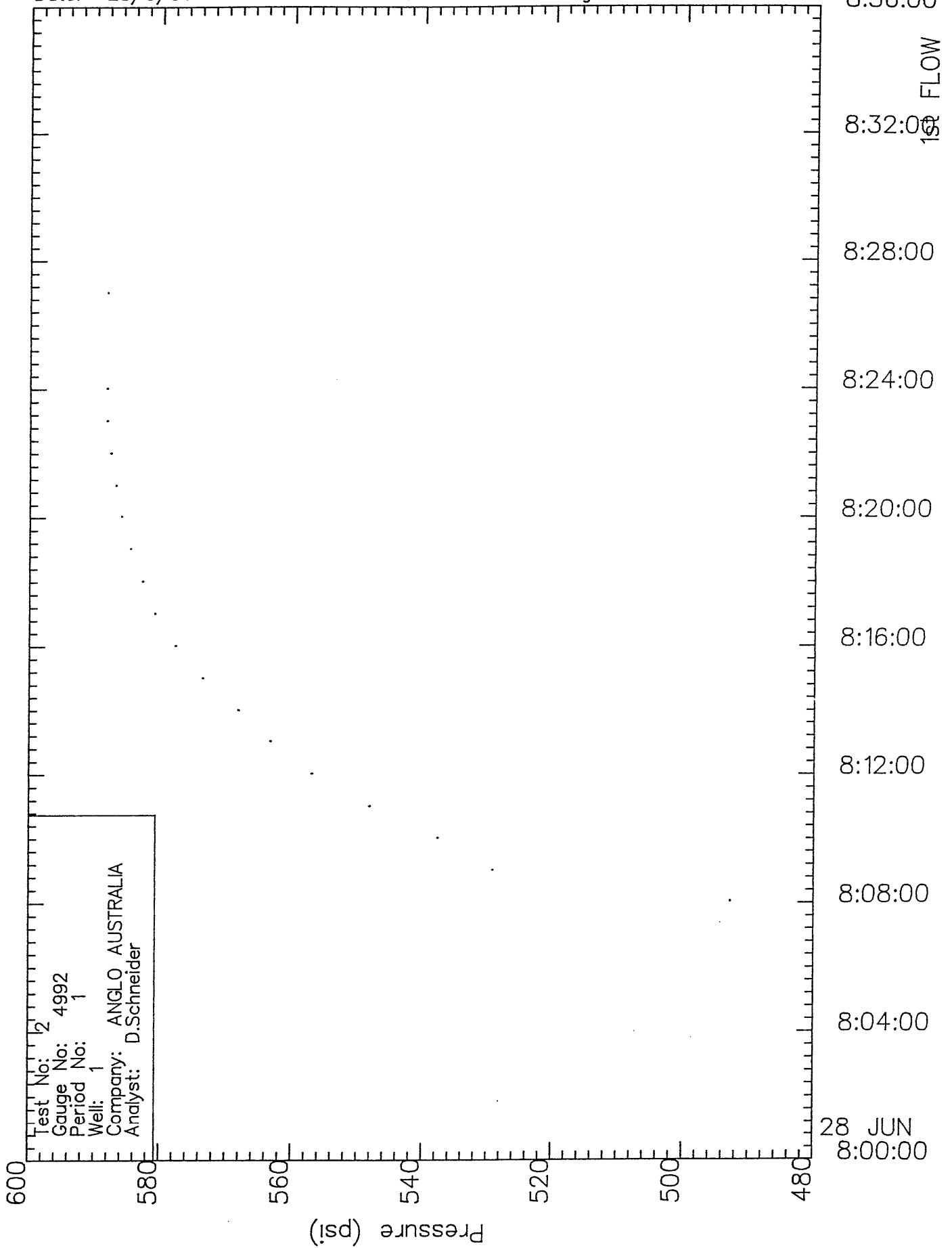
28 JUN
8:00:00



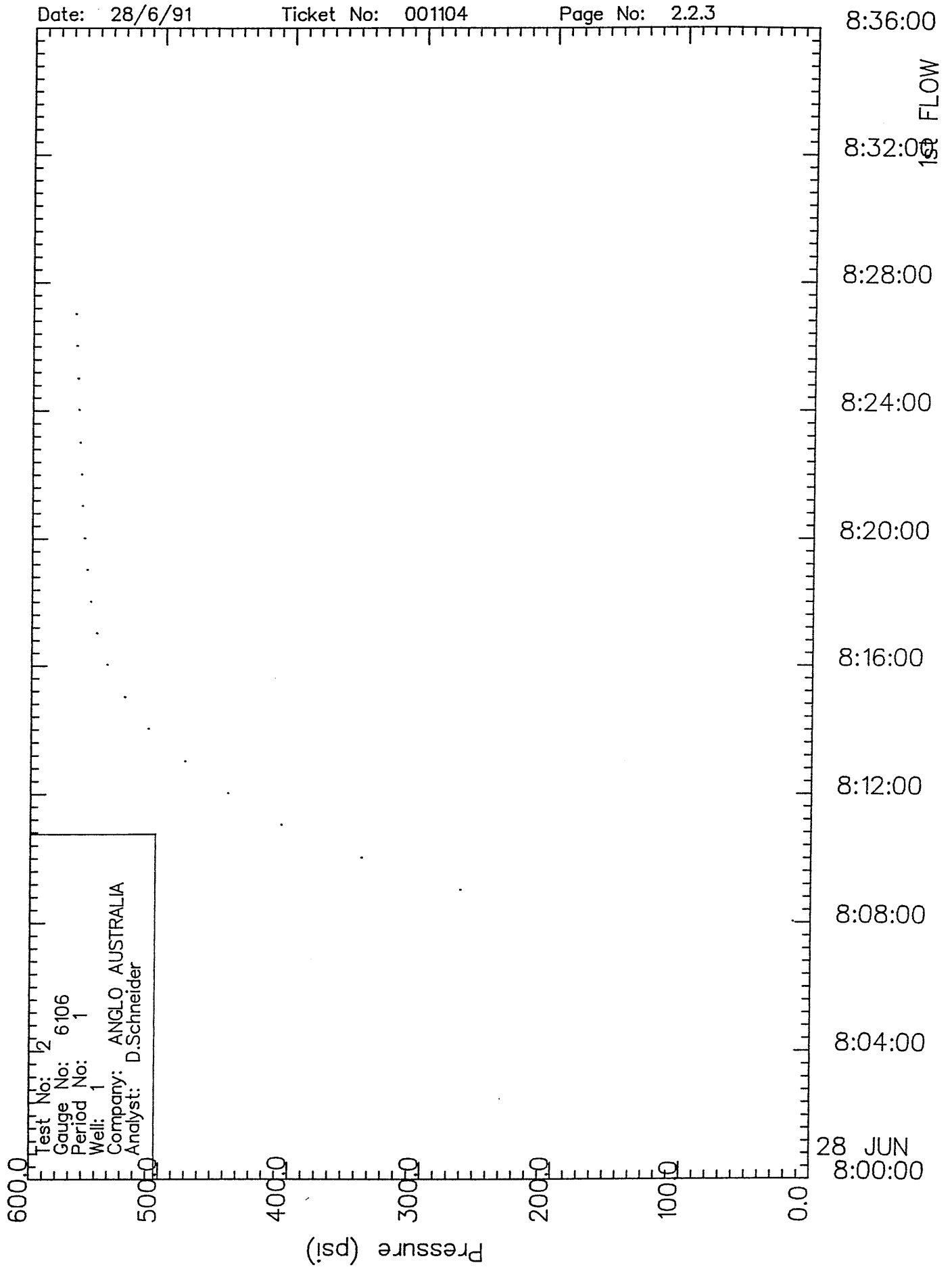
Test No: 2
Gauge No: 2171
Period No: 1
Well: 1
Company: ANGLO AUSTRALIA
Analyst: D.Schneider

Pressure Vs Time

Pressure Vs Time



Pressure Vs Time



Date: 28/6/91

Ticket No: 001104

Page No: 3.1

TEST PERIOD SUMMARY

Gauge No.: 2171 Depth: 491.99 m Blanked off : Yes
Clock no.: 16139 Hour: 24

ID	PERIOD	DESCRIPTION	PRESSURE (psi)	DURATION (min)
A		Initial Hydrostatic	802.45	
B	1	Start Draw-down	658.38	
C		End Draw-down	662.00	18.99
C	2	Start Build-up	662.00	
D		End Build-up	662.33	33.01
D	3	Start Draw-down	662.33	
E		End Draw-down	663.15	60.03
E	4	Start Build-up	663.15	
F		End Build-up	665.29	119.97
G		Final Hydrostatic	802.29	

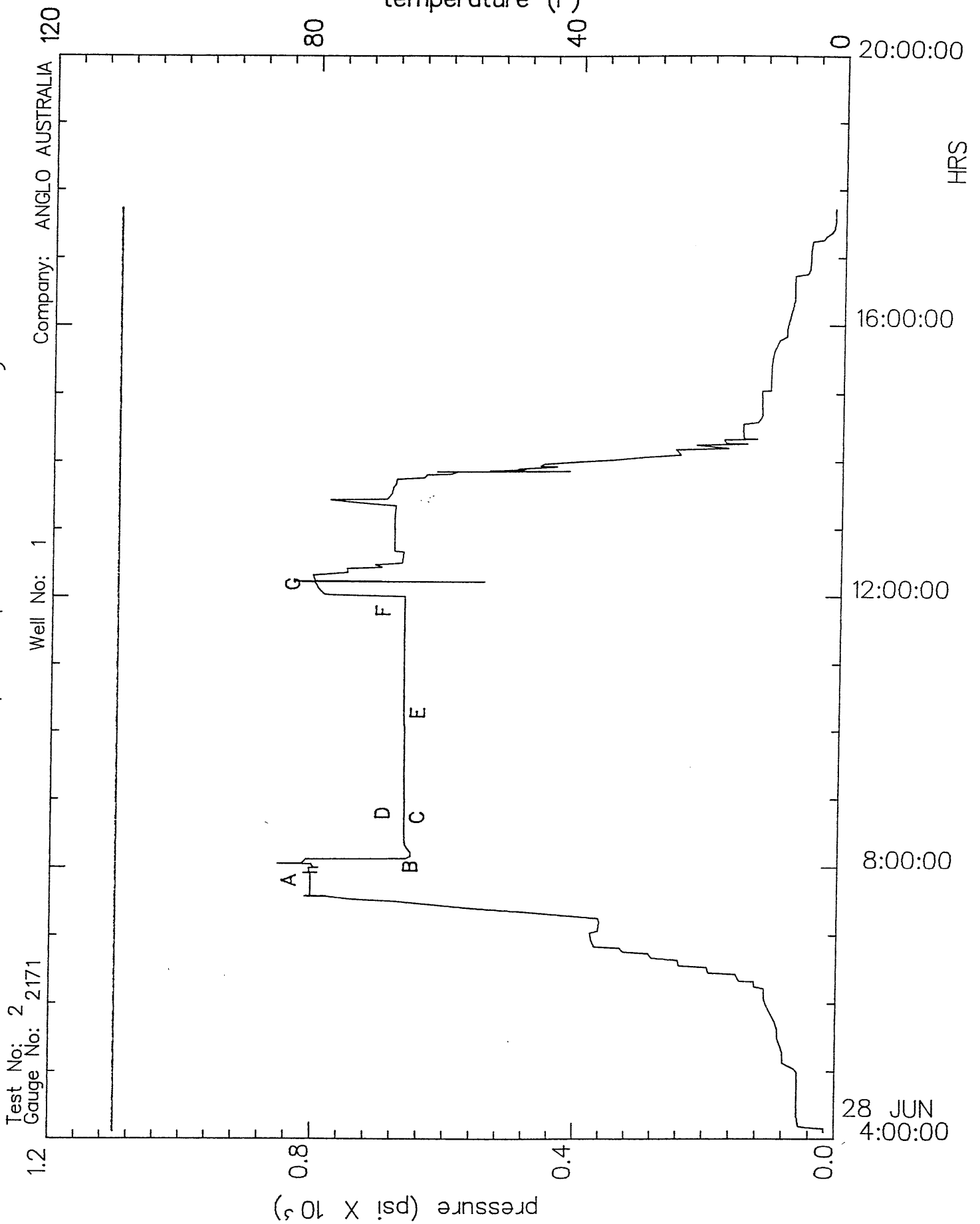
NOTE: for Pressure vs. Time Plot, see next page.

Pressure/Temperature History

Date: 28/6/91

Ticket No: 001104

Page No: 3.1.0



Date: 28/6/91

Ticket No: 001104

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PRESSURE VS TIME

MECHANICAL gauge no.: 2171
Clock no.: 16139

Gauge Depth: 491.99 m

Hour: 24

TIME HH:MM:SS	D TIME (hr)	PRESSURE (psi)	TEMP (F)	COMMENTS
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28-Jun-91

Data Print Frequency: 1

MAKE UP TEST TOOLS

04:00:00				
04:05:52		15.467	110.0	
04:09:08		15.467	110.0	
04:10:24		46.325	110.0	
04:11:09		54.079	110.0	
04:20:27		57.214	110.0	
04:35:51		57.214	110.0	
04:50:51		57.214	110.0	
04:59:03		57.214	110.0	
05:02:30		61.834	110.0	
05:05:26		72.063	110.0	
05:07:50		79.322	110.0	
05:17:08		79.487	110.0	
05:22:28		82.786	110.0	
05:29:59		87.571	110.0	
05:37:26		87.571	110.0	
05:44:06		91.365	110.0	
05:49:35		96.479	110.0	
05:57:43		104.232	110.0	
06:00:00				RUN IN HOLE
06:03:39		108.025	110.0	
06:13:19		108.850	110.0	
06:14:53		123.365	110.0	
06:19:32		124.355	110.0	
06:19:53		146.125	110.0	
06:25:47		151.897	110.0	
06:27:05		192.462	110.0	
06:31:57		195.595	110.0	
06:33:29		237.634	110.0	
06:38:19		239.942	110.0	
06:40:20		279.994	110.0	
06:44:15		285.763	110.0	
06:45:00				MAKE UP TEST HEAD
06:45:40		324.488	110.0	
06:48:55		329.925	110.0	
06:50:12		368.972	110.0	
06:56:09		373.749	110.0	
07:00:00				LAY OUT TEST HEAD, RUN IN HOLE
07:02:23		375.397	110.0	
07:03:53		363.041	110.0	
07:11:50		360.570	110.0	
07:15:05		363.536	110.0	
07:16:54		400.435	110.0	
07:20:50		478.494	110.0	
07:24:07		562.285	110.0	
07:30:03		674.340	110.0	

Date: 28/6/91

Ticket No: 001104

Page No: 3.1.2

PRESSURE VS TIME

MECHANICAL gauge no.: 2171
Clock no.: 16139

Gauge Depth: 491.99 m

Hour: 24

TIME HH:MM:SS	D TIME (hr)	PRESSURE (psi)	TEMP (F)	COMMENTS
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28-Jun-91

Data Print Frequency: 1

07:31:46		741.446	110.0	
07:33:58		774.827	110.0	
07:34:17		810.998	110.0	
07:34:28		777.787	110.0	
07:34:35		808.861	110.0	
07:34:39		801.956	110.0	
07:40:52		802.449	110.0	
07:45:00				PICK UP SURFACE EQUIPMENT
07:48:48		802.449	110.0	
07:50:51		802.449	110.0	
07:54:46		802.449	110.0	
07:54:53		813.629	110.0	
07:55:00		791.927	110.0	
07:55:16		805.080	110.0	
07:59:30		805.080	110.0	
07:59:48		810.669	110.0	
07:59:50		790.118	110.0	
08:00:00				RIG UP SURFACE EQUIPMENT
08:00:02		798.997	110.0	
08:01:29		800.476	110.0	
08:03:00				SET WEIGHT ON TOOL
08:03:02		802.449	110.0	
08:03:21		852.752	110.0	
08:03:27		815.601	110.0	
08:05:17		811.491	110.0	
08:07:16		809.025	110.0	
08:07:57		808.368	110.0	
08:08:00				TOOL OPEN - MODERATE BLOW
		*** Start of Period 1 ***		
08:08:00	0.0000	658.382	110.0	
08:09:01	0.0168	652.953	110.0	
08:10:01	0.0336	651.473	110.0	
08:11:02	0.0504	651.144	110.0	
08:12:00	0.0667	651.473	110.0	
08:13:01	0.0835	651.637	110.0	
08:14:00				WEAK BLOW
08:14:01	0.1002	652.953	110.0	
08:15:02	0.1170	654.928	110.0	
08:16:00	0.1333	656.573	110.0	
08:17:01	0.1501	658.053	110.0	
08:18:01	0.1669	659.370	110.0	
08:19:02	0.1837	660.192	110.0	
08:20:00				NO BLOW
08:20:00	0.2000	660.686	110.0	
08:21:01	0.2168	661.015	110.0	
08:22:01	0.2336	661.508	110.0	

Date: 28/6/91

Ticket No: 001104

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PRESSURE VS TIME

MECHANICAL gauge no.: 2171
Clock no.: 16139

Gauge Depth: 491.99 m

Hour: 24

TIME HH:MM:SS	D TIME (hr)	PRESSURE (psi)	TEMP (F)	COMMENTS

28-Jun-91		Data Print Frequency: 1		
08:23:02	0.2504	661.673	110.0	
08:24:00	0.2667	661.837	110.0	
08:27:00				ROTATE TO CLOSE TOOL
08:27:00	0.3165	662.002	110.0	
		*** End of Period 1 ***		
		*** Start of Period 2 ***		
08:28:00	0.0168	662.166	110.0	
08:32:00	0.0835	662.331	110.0	
08:37:01	0.1669	662.331	110.0	
08:42:01	0.2504	662.331	110.0	
08:57:01	0.5002	662.331	110.0	
09:00:00				ROTATE TO OPEN TOOL
09:00:00	0.5501	662.331	110.0	
		*** End of Period 2 ***		
		*** Start of Period 3 ***		
09:00:04	0.0000	662.331	110.0	
09:01:00				NO BLOW
09:01:04	0.0168	662.495	110.0	
09:05:04	0.0835	662.660	110.0	
09:10:05	0.1669	662.824	110.0	
09:15:05	0.2504	662.989	110.0	
09:30:05	0.5003	663.153	110.0	
09:45:04	0.7501	663.153	110.0	
10:00:00				ROTATE TO CLOSE TOOL, EXCESSIVE TORQUE
10:00:00				
10:00:06	1.0005	663.153	110.0	
		*** End of Period 3 ***		
		*** Start of Period 4 ***		
10:01:06	0.0168	663.153	110.0	
10:03:46	0.0612	663.153	110.0	
10:06:07	0.1002	663.976	110.0	
10:10:07	0.1669	664.305	110.0	
10:20:06	0.3333	664.634	110.0	
10:30:07	0.5003	664.798	110.0	
10:45:06	0.7501	664.963	110.0	
11:00:06	1.0000	665.127	110.0	
11:15:07	1.2504	665.292	110.0	
11:30:07	1.5002	665.292	110.0	
11:45:06	1.7501	665.292	110.0	
12:00:00				OPEN BYPASS, PULL PACKERS FREE
12:00:04	1.9995	665.292	110.0	
		*** End of Period 4 ***		
12:01:20		778.609	110.0	
12:01:54		786.995	110.0	
12:03:39		790.447	110.0	
12:04:32		792.420	110.0	

Date: 28/6/91

Ticket No: 001104

Page No: 3.1.4

PRESSURE VS TIME

MECHANICAL gauge no.: 2171
Clock no.: 16139

Gauge Depth: 491.99 m

Hour: 24

TIME HH:MM:SS	D TIME (hr)	PRESSURE (psi)	TEMP (F)	COMMENTS

28-Jun-91				Data Print Frequency: 1
12:05:15		794.393	110.0	
12:07:02		796.037	110.0	
12:10:19		799.161	110.0	
12:12:00				RIG DOWN SURFACE EQUIPMENT
12:12:36		802.285	110.0	
12:12:59		821.684	110.0	
12:13:06		543.851	110.0	
12:13:20		829.739	110.0	
12:13:29		700.494	110.0	
12:13:35		801.792	110.0	
12:13:56		802.285	110.0	
12:14:14		803.929	110.0	
12:15:00				TIGHT HOLE, WORK PIPE
12:18:44		804.258	110.0	
12:19:07		796.695	110.0	
12:21:22		751.149	110.0	
12:21:43		754.109	110.0	
12:24:41		752.957	110.0	
12:25:54		699.671	110.0	
12:28:00				PICK UP TEST HEAD, SUR. EQUIP.
12:28:04		710.692	110.0	
12:29:45		669.240	110.0	
12:39:32		667.595	110.0	
12:40:25		682.236	110.0	
12:45:00				DROP REVERSING BAR
12:54:00				NO SIGN OF PIN BEING SHEARED
13:00:00				RIG UP TO ACTIVATE PUMPOUT SUB
13:00:00		681.907	110.0	
13:02:00				PUMPOUT DISK SHEARED - 1500psi
13:04:00				CIRCULATE CONVENTIONALLY,
13:05:00				"U" TUBING
13:09:54		682.236	110.0	
13:20:41		680.262	110.0	
13:23:00				CLOSE HYDRIL, REVERSE CIRC.
13:24:00		750.162	110.0	
13:25:00				MUD TO SURFACE
13:25:51		779.596	110.0	
13:26:40		692.928	110.0	
13:30:00				OPEN HYDRIL, RIG DOWN SURFACE
13:30:00				EQUIPMENT, PULL OUT OF HOLE
13:31:44		686.019	110.0	
13:36:48		684.045	110.0	
13:39:12		680.591	110.0	
13:44:18		678.781	110.0	
13:45:45		636.666	110.0	
13:48:11		633.539	110.0	

Date: 28/6/91

Ticket No: 001104

Page No: 3.1.5

PRESSURE VS TIME

MECHANICAL gauge no.: 2171
Clock no.: 16139

Gauge Depth: 491.99 m

Hour: 24

TIME HH:MM:SS	D TIME (hr)	PRESSURE (psi)	TEMP (F)	COMMENTS

8-Jun-91				Data Print Frequency: 1
13:48:55		595.694	110.0	
13:50:46		587.465	110.0	
13:50:55		619.225	110.0	
13:51:12		414.435	110.0	
13:51:37		539.242	110.0	
13:52:29		499.568	110.0	
13:53:11		483.433	110.0	
13:53:35		495.288	110.0	
13:54:39		496.770	110.0	
13:55:14		434.033	110.0	
13:56:06		461.534	110.0	
13:57:52		453.795	110.0	
13:59:46		402.246	110.0	
14:01:27		346.237	110.0	
14:03:46		302.572	110.0	
14:05:51		244.722	110.0	
14:10:37		252.964	110.0	
14:11:43		173.005	110.0	
14:14:40		221.479	110.0	
14:15:44		144.311	110.0	
14:16:04		177.127	110.0	
14:19:23		179.766	110.0	
14:20:06		129.633	110.0	
14:20:23		150.083	110.0	
14:27:25		151.897	110.0	
14:33:03		150.743	110.0	
14:34:47		128.643	110.0	
14:37:56		124.520	110.0	
14:41:17		121.881	110.0	
14:50:42		123.695	110.0	
15:02:23		123.860	110.0	
15:02:40		109.840	110.0	
15:09:52		109.840	110.0	
15:10:00				CLEAN COLLARS AND LAY OUT
15:24:50		109.015	110.0	
15:30:00				BREAK OUT TOOLS
15:30:15		107.696	110.0	
15:37:20		105.221	110.0	
15:46:33		97.468	110.0	
15:49:56		86.416	110.0	
15:56:36		86.416	110.0	
16:04:36		83.116	110.0	
16:13:17		79.157	110.0	
16:21:49		75.693	110.0	
16:31:35		75.693	110.0	
16:43:34		75.198	110.0	

Date: 28/6/91

Ticket No: 001104

Page No: 3.1.6

PRESSURE VS TIME

MECHANICAL gauge no.: 2171

Gauge Depth: 491.99 m

Clock no.: 16139

Hour: 24

TIME HH:MM:SS	D TIME (hr)	PRESSURE (psi)	TEMP (F)	COMMENTS
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28-Jun-91

Data Print Frequency: 1

16:45:27		56.554	110.0	
16:49:10		53.089	110.0	
16:56:11		52.099	110.0	
17:06:14		51.769	110.0	
17:14:19		49.790	110.0	
17:15:46		33.124	110.0	
17:19:05		28.504	110.0	
17:21:40		21.573	110.0	
17:24:43		17.777	110.0	
17:31:32		15.962	110.0	
17:40:00				TOOLS LAID OUT
17:40:18		15.797	110.0	
17:42:42		15.467	110.0	

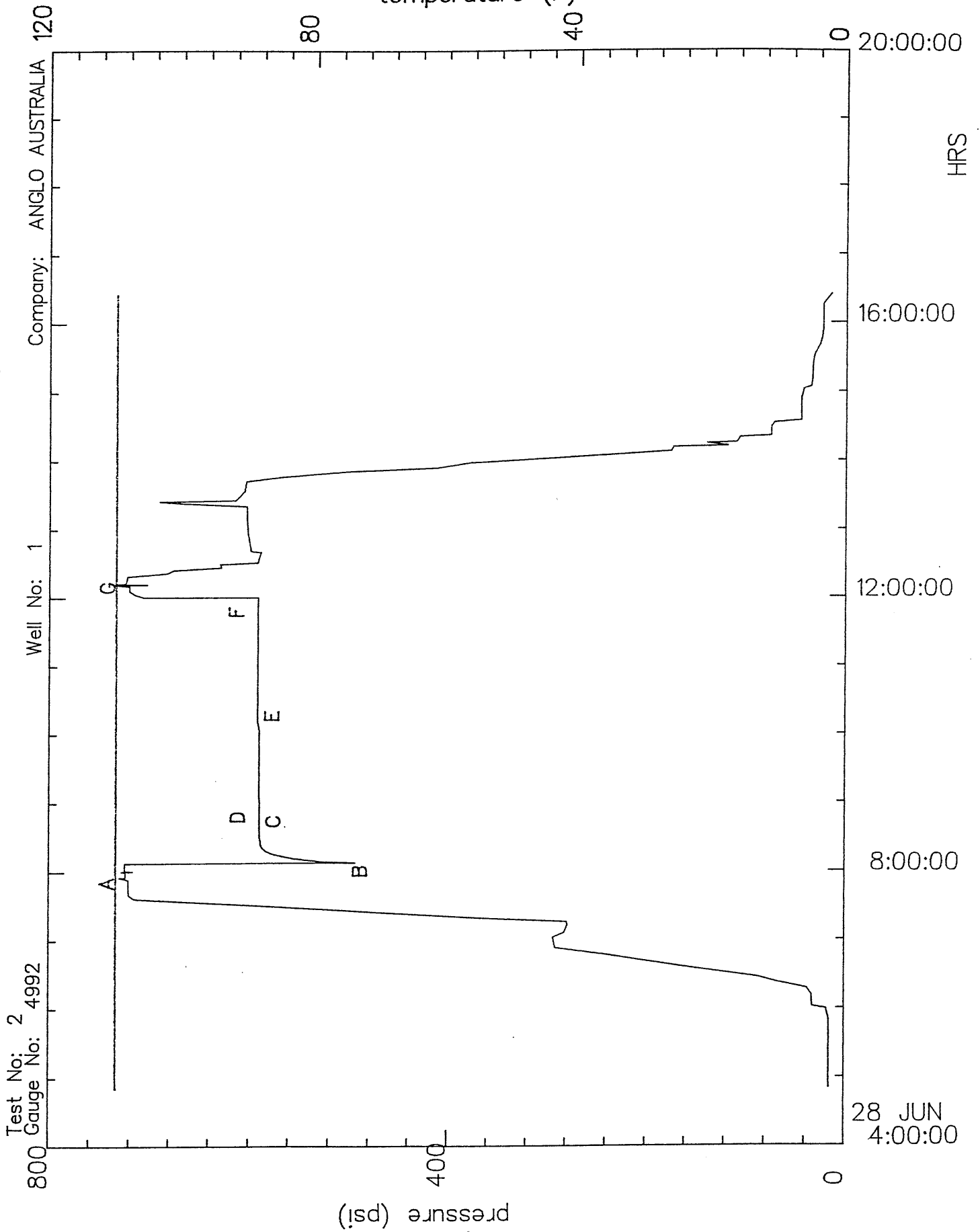
Date: 28/6/91

Ticket No: 001104

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temperature (F)

Pressure/Temperature History



Date: 28/6/91

Ticket No: 001104

Page No: 3.2.1

PRESSURE VS TIME

MECHANICAL gauge no.: 4992
Clock no.: 29475

Gauge Depth: 440.03 m

Hour: 24

TIME HH:MM:SS	D TIME (hr)	PRESSURE (psi)	TEMP (F)	COMMENTS
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28-Jun-91

Data Print Frequency: 1

MAKE UP TEST TOOLS

04:00:00

04:49:53 14.832 110.0

05:04:54 14.832 110.0

05:34:53 14.832 110.0

05:49:54 14.832 110.0

05:59:28 18.317 110.0

06:00:00

RUN IN HOLE

06:01:14 31.780 110.0

06:11:35 32.413 110.0

06:17:24 37.482 110.0

06:22:34 66.782 110.0

06:27:09 86.104 110.0

06:31:10 119.679 110.0

06:35:55 157.527 110.0

06:41:05 195.849 110.0

06:45:00

MAKE UP TEST HEAD

06:46:39 235.435 110.0

06:53:05 290.059 110.0

07:00:00

LAY OUT TEST HEAD, RUN IN HOLE

07:02:27 292.593 110.0

07:06:21 280.877 110.0

07:13:05 277.235 110.0

07:16:02 278.502 110.0

07:19:28 366.051 110.0

07:24:47 474.006 110.0

07:31:21 602.195 110.0

07:36:45 714.532 110.0

07:39:53 720.227 110.0

07:44:54 720.544 110.0

07:45:00

PICK UP SURFACE EQUIPMENT

07:53:18 720.544 110.0

07:54:53 720.544 110.0

07:55:15 718.012 110.0

07:55:23 729.719 110.0

07:55:27 723.391 110.0

08:00:00

RIG UP SURFACE EQUIPMENT

08:00:25 723.233 110.0

08:00:39 727.504 110.0

08:00:48 715.639 110.0

08:01:04 724.499 110.0

08:03:00

SET WEIGHT ON TOOL

08:07:43 724.182 110.0

08:08:00

TOOL OPEN - MODERATE BLOW

Date: 28/6/91

Ticket No: 001104

Page No: 3.2.2

PRESSURE VS TIME

MECHANICAL gauge no.: 4992

Gauge Depth: 440.03 m

Clock no.: 29475

Hour: 24

TIME HH:MM:SS	D TIME (hr)	PRESSURE (psi)	TEMP (F)	COMMENTS
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28-Jun-91

Data Print Frequency: 1

*** Start of Period 1 ***

08:08:00	0.0000	492.682	110.0
08:09:01	0.0167	529.083	110.0
08:10:01	0.0335	537.629	110.0
08:11:01	0.0502	548.074	110.0
08:12:01	0.0670	556.936	110.0
08:13:02	0.0837	563.266	110.0

WEAK BLOW

08:14:00	0.1000	568.172	110.0
08:15:00	0.1167	573.553	110.0
08:16:01	0.1334	577.667	110.0
08:17:01	0.1502	580.832	110.0
08:18:01	0.1669	582.731	110.0
08:19:01	0.1837	584.630	110.0

NO BLOW

08:20:00	0.2004	586.054	110.0
08:20:02	0.2166	586.845	110.0
08:21:00	0.2334	587.636	110.0
08:22:01	0.2501	588.269	110.0
08:23:01	0.2669	588.269	110.0

ROTATE TO CLOSE TOOL

08:27:00	0.3166	588.269	110.0
----------	--------	---------	-------

*** End of Period 1 ***

*** Start of Period 2 ***

08:28:00	0.0167	588.902	110.0
08:29:01	0.0335	589.219	110.0
08:30:01	0.0502	589.377	110.0
08:32:01	0.0837	589.535	110.0
08:37:01	0.1669	589.535	110.0
08:42:01	0.2501	589.535	110.0
08:57:01	0.5003	589.535	110.0

ROTATE TO OPEN TOOL

09:00:00	0.5500	589.535	110.0
----------	--------	---------	-------

*** End of Period 2 ***

*** Start of Period 3 ***

09:00:04	0.0000	589.535	110.0
09:01:00	0.0167	590.010	110.0
09:01:04	0.0335	590.010	110.0
09:05:05	0.0837	590.010	110.0
09:10:05	0.1669	590.010	110.0
09:15:04	0.2501	590.010	110.0
09:30:05	0.5003	590.010	110.0
09:45:05	0.7504	590.010	110.0

ROTATE TO CLOSE TOOL,
EXCESSIVE TORQUE

10:00:00	1.0000	590.010	110.0
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Date: 28/6/91

Ticket No: 001104

Page No: 3.2.3

PRESSURE VS TIME

MECHANICAL gauge no.: 4992
Clock no.: 29475

Gauge Depth: 440.03 m

Hour: 24

TIME HH:MM:SS	D TIME (hr)	PRESSURE (psi)	TEMP (F)	COMMENTS
------------------	-----------------	-------------------	-------------	----------

28-Jun-91

Data Print Frequency: 1

*** End of Period 3 ***

*** Start of Period 4 ***

10:01:04	0.0167	590.010	110.0
10:03:43	0.0610	590.010	110.0
10:05:23	0.0886	590.960	110.0
10:10:05	0.1669	591.592	110.0
10:15:04	0.2501	591.592	110.0
10:30:05	0.5003	591.592	110.0
11:00:04	1.0000	591.592	110.0
11:30:05	1.5003	591.592	110.0

OPEN BYPASS, PULL PACKERS FREE

12:00:00			
12:00:04	2.0000	591.592	110.0

*** End of Period 4 ***

12:00:32		706.463	110.0
12:02:31		714.216	110.0
12:05:41		720.227	110.0
12:10:31		720.385	110.0
12:11:25		720.385	110.0
12:11:44		720.385	110.0
12:11:55		734.782	110.0

RIG DOWN SURFACE EQUIPMENT

12:12:00		701.875	110.0
12:12:28		733.200	110.0
12:12:53		723.708	110.0
12:15:00			

TIGHT HOLE, WORK PIPE

12:15:45		722.442	110.0
12:19:20		721.809	110.0
12:22:08		681.466	110.0
12:24:40		675.296	110.0
12:26:53		627.987	110.0

PICK UP TEST HEAD, SUR. EQUIP.

12:28:00			
12:29:49		629.411	110.0
12:31:07		591.434	110.0
12:40:16		588.269	110.0
12:41:24		599.188	110.0

DROP REVERSING BAR
NO SIGN OF PIN BEING SHEARED

12:54:00			
12:56:29		602.036	110.0

RIG UP TO ACTIVATE PUMPOUT SUB
PUMPOUT DISK SHEARED - 1500psi
CIRCULATE CONVENTIONALLY,
"U" TUBING

13:00:00			
13:02:00			
13:04:00			
13:05:00			
13:08:15		603.144	110.0
13:20:25		602.986	110.0

CLOSE HYDRIL, REVERSE CIRC.

13:23:00			
13:23:30		672.606	110.0

Date: 28/6/91

Ticket No: 001104

Page No: 3.2.4

PRESSURE VS TIME

MECHANICAL gauge no.: 4992

Gauge Depth: 440.03 m

Clock no.: 29475

Hour: 24

TIME HH:MM:SS	D TIME (hr)	PRESSURE (psi)	TEMP (F)	COMMENTS

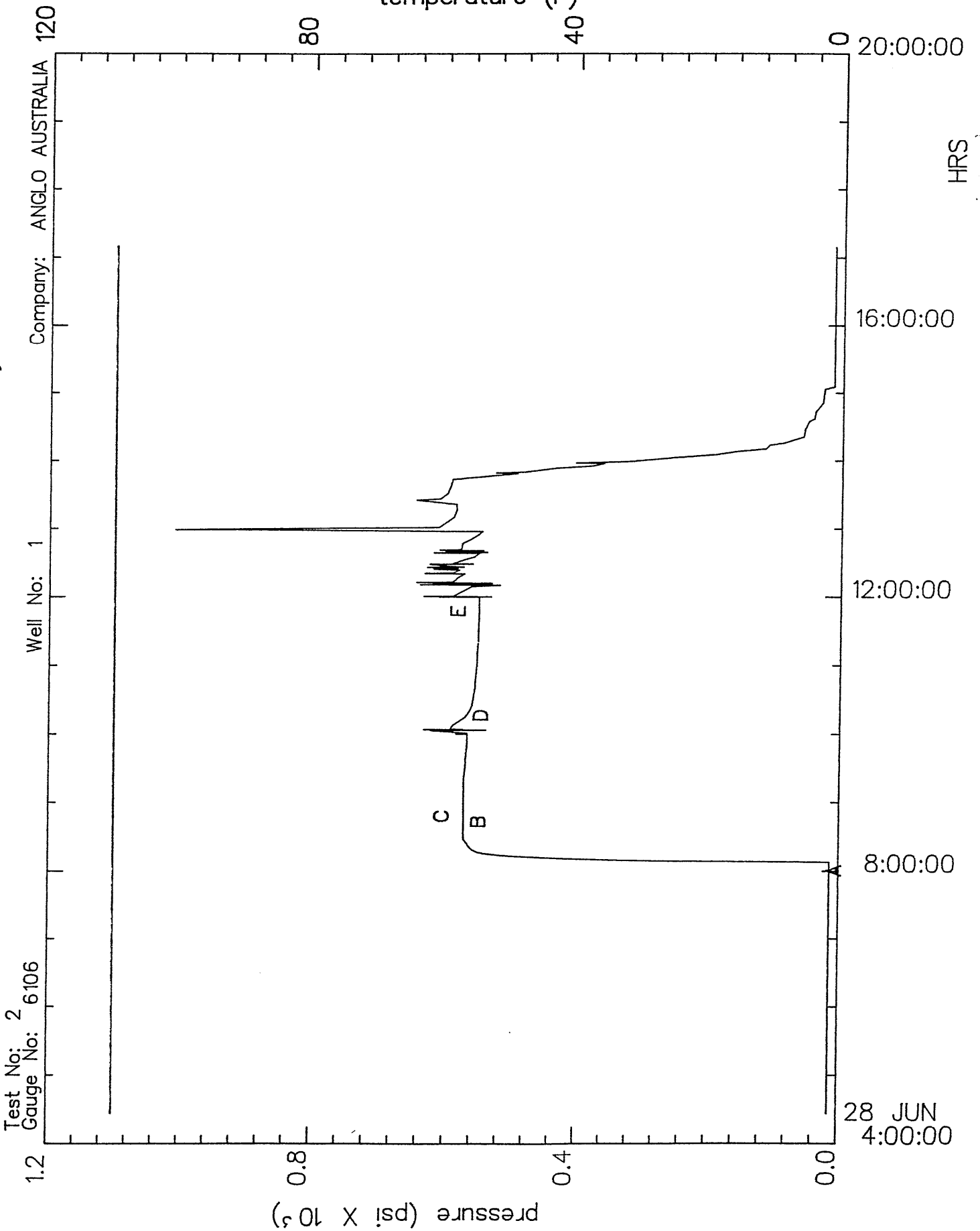
28-Jun-91				Data Print Frequency: 1
13:24:56		690.168	110.0	
13:25:00				MUD TO SURFACE
13:25:51		614.062	110.0	
13:30:00				OPEN HYDRIL, RIG DOWN SURFACE
13:30:00				EQUIPMENT, PULL OUT OF HOLE
13:33:43		605.359	110.0	
13:42:24		603.144	110.0	
13:45:55		568.647	110.0	
13:50:42		502.495	110.0	
13:53:52		409.584	110.0	
13:58:23		376.341	110.0	
14:02:40		283.410	110.0	
14:05:12		230.843	110.0	
14:08:10		174.946	110.0	
14:11:39		172.729	110.0	
14:12:25		118.253	110.0	
14:14:50		139.949	110.0	
14:15:42		109.226	110.0	
14:19:55		105.742	110.0	
14:21:17		74.859	110.0	
14:29:12		74.543	110.0	
14:32:52		71.375	110.0	
14:34:45		44.609	110.0	
14:41:06		44.767	110.0	
14:54:54		44.767	110.0	
15:02:24		42.392	110.0	
15:04:30		34.947	110.0	
15:10:00				CLEAN COLLARS AND LAY OUT
15:10:55		33.839	110.0	
15:24:12		33.364	110.0	
15:30:00				BREAK OUT TOOLS
15:31:35		31.780	110.0	
15:40:04		26.553	110.0	
15:45:55		24.652	110.0	
15:53:32		23.227	110.0	
16:02:24		23.227	110.0	
16:15:33		23.227	110.0	
16:24:48		14.991	110.0	
16:25:41		14.832	110.0	
17:40:00				TOOLS LAID OUT

Pressure/Temperature History

Date: 28/6/91

Ticket No: 001104

Page No: 3.3.0



Date: 28/6/91

Ticket No: 001104

Page No: 3.3.1

PRESSURE VS TIME

MECHANICAL gauge no.: 6106
Clock no.: 32066

Gauge Depth: 433.62 m

Hour: 24

TIME HH:MM:SS	D TIME (hr)	PRESSURE (psi)	TEMP (F)	COMMENTS
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8-Jun-91

Data Print Frequency: 1

MAKE UP TEST TOOLS

04:00:00 13.432 110.0

04:25:29 13.432 110.0

04:55:29 13.432 110.0

05:25:28 13.432 110.0

05:55:28 13.432 110.0

RUN IN HOLE

06:00:00 13.432 110.0

06:25:29 13.432 110.0

MAKE UP TEST HEAD

06:45:00 13.432 110.0

06:55:29 13.432 110.0

LAY OUT TEST HEAD, RUN IN HOLE

07:00:00 13.432 110.0

07:25:28 13.432 110.0

PICK UP SURFACE EQUIPMENT

07:45:00 13.432 110.0

07:55:29 13.432 110.0

RIG UP SURFACE EQUIPMENT

08:00:00 13.432 110.0

SET WEIGHT ON TOOL

08:03:00 13.432 110.0

TOOL OPEN - MODERATE BLOW

08:08:00 13.432 110.0

*** Start of Period 1 ***

08:08:00 0.0000 13.432 110.0

08:09:01 0.0170 269.955 110.0

08:10:00 0.0334 345.407 110.0

08:11:01 0.0504 406.193 110.0

08:12:01 0.0669 447.565 110.0

08:13:00 0.0833 480.887 110.0

WEAK BLOW

08:14:00 0.1003 509.631 110.0

08:14:01 0.1167 528.111 110.0

08:15:00 0.1337 542.011 110.0

08:16:01 0.1502 550.383 110.0

08:17:01 0.1666 555.122 110.0

08:18:00 0.1836 557.965 110.0

NO BLOW

08:19:01 0.2001 560.335 110.0

08:20:00 0.2170 562.072 110.0

08:21:01 0.2335 563.020 110.0

08:22:00 0.2499 564.126 110.0

08:23:00 0.2669 565.232 110.0

08:24:01 0.2834 566.021 110.0

08:25:00 0.3003 566.969 110.0

ROTATE TO CLOSE TOOL

08:26:01 0.3168 567.917 110.0

08:27:00 0.3168 567.917 110.0

*** End of Period 1 ***

*** Start of Period 2 ***

08:28:01 0.0170 570.761 110.0

08:29:01 0.0334 570.603 110.0

08:37:00 0.1666 571.076 110.0

08:47:02 0.3337 571.076 110.0

Date: 28/6/91

Ticket No: 001104

Page No: 3.3.2

PRESSURE VS TIME

MECHANICAL gauge no.: 6106
Clock no.: 32066

Gauge Depth: 433.62 m

Hour: 24

TIME HH:MM:SS	D TIME (hr)	PRESSURE (psi)	TEMP (F)	COMMENTS
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28-Jun-91

Data Print Frequency: 1

08:57:02	0.5004	571.076	110.0	
08:59:59	0.5498	571.076	110.0	
09:00:00				

ROTATE TO OPEN TOOL

*** End of Period 2 ***

*** Start of Period 3 ***

09:00:03	0.0000	571.076	110.0	
09:01:00				
09:01:04	0.0170	571.392	110.0	
09:05:03	0.0833	571.234	110.0	
09:10:03	0.1666	571.076	110.0	
09:20:05	0.3337	570.445	110.0	
09:30:04	0.5004	568.707	110.0	
09:40:04	0.6670	567.443	110.0	
09:50:04	0.8336	566.021	110.0	

ROTATE TO CLOSE TOOL,
EXCESSIVE TORQUE

10:00:00				
10:00:00				
10:00:02	0.9997	565.864	110.0	

*** End of Period 3 ***

*** Start of Period 4 ***

10:00:13	0.0030	583.556	110.0	
10:00:42	0.0110	573.446	110.0	
10:01:12	0.0195	566.337	110.0	
10:01:17	0.0209	572.498	110.0	
10:02:01	0.0329	568.549	110.0	
10:03:03	0.0504	567.759	110.0	
10:03:23	0.0559	621.156	110.0	
10:03:41	0.0609	537.431	110.0	
10:04:08	0.0683	631.109	110.0	
10:04:21	0.0718	572.656	110.0	
10:04:39	0.0768	591.929	110.0	
10:05:41	0.0943	597.458	110.0	
10:05:52	0.0973	587.979	110.0	
10:06:03	0.1003	591.613	110.0	
10:08:03	0.1337	587.032	110.0	
10:10:02	0.1666	581.661	110.0	
10:15:02	0.2499	569.181	110.0	
10:20:03	0.3337	562.704	110.0	
10:25:03	0.4171	558.913	110.0	
10:30:03	0.5004	557.491	110.0	
10:40:03	0.6670	554.964	110.0	
10:50:03	0.8336	553.542	110.0	
11:00:03	1.0002	552.121	110.0	
11:10:03	1.1668	551.489	110.0	
11:20:02	1.3334	550.383	110.0	
11:30:02	1.5001	549.909	110.0	
11:40:02	1.6667	549.435	110.0	

Date: 28/6/91

Ticket No: 001104

Page No: 3.3.3

PRESSURE VS TIME

MECHANICAL gauge no.: 6106
Clock no.: 32066

Gauge Depth: 433.62 m

Hour: 24

TIME HH:MM:SS	D TIME (hr)	PRESSURE (psi)	TEMP (F)	COMMENTS

28-Jun-91				Data Print Frequency: 1
11:50:02	1.8333	549.277	110.0	
12:00:00				OPEN BYPASS, PULL PACKERS FREE
12:00:04	2.0004	549.277	110.0	
				*** End of Period 4 ***
12:00:09		610.413	110.0	
12:00:18		531.112	110.0	
12:00:36		633.163	110.0	
12:00:41		588.295	110.0	
12:04:20		577.079	110.0	
12:09:20		560.493	110.0	
12:10:09		559.387	110.0	
12:10:21		517.845	110.0	
12:10:50		638.851	110.0	
12:11:15		592.561	110.0	
12:12:00				RIG DOWN SURFACE EQUIPMENT
12:12:04		530.007	110.0	
12:12:45		643.749	110.0	
12:13:05		589.243	110.0	
12:15:00				TIGHT HOLE, WORK PIPE
12:17:02		581.029	110.0	
12:20:12		571.550	110.0	
12:20:34		631.425	110.0	
12:21:03		588.611	110.0	
12:23:32		579.449	110.0	
12:24:20		618.628	110.0	
12:24:58		581.503	110.0	
12:25:26		585.294	110.0	
12:26:04		627.949	110.0	
12:26:17		572.814	110.0	
12:26:37		586.874	110.0	
12:28:00				PICK UP TEST HEAD, SUR. EQUIP.
12:28:12		585.926	110.0	
12:28:46		624.473	110.0	
12:29:00		559.545	110.0	
12:29:04		590.665	110.0	
12:32:32		572.656	110.0	
12:34:59		557.491	110.0	
12:38:15		549.593	110.0	
12:38:35		617.996	110.0	
12:38:58		537.746	110.0	
12:39:52		601.250	110.0	
12:40:30		543.433	110.0	
12:40:57		609.623	110.0	
12:41:27		576.763	110.0	
12:45:00				DROP REVERSING BAR
12:47:09		575.026	110.0	

Date: 28/6/91

Ticket No: 001104

Page No: 3.3.4

PRESSURE VS TIME

MECHANICAL gauge no.: 6106
Clock no.: 32066

Gauge Depth: 433.62 m

Hour: 24

TIME HH:MM:SS	D TIME (hr)	PRESSURE (psi)	TEMP (F)	COMMENTS
------------------	-----------------	-------------------	-------------	----------

TIME HH:MM:SS	D TIME (hr)	PRESSURE (psi)	TEMP (F)	COMMENTS

28-Jun-91				
12:50:22		563.494	110.0	
12:54:00				NO SIGN OF PIN BEING SHEARED
12:54:39		551.647	110.0	
12:57:44		545.486	110.0	
12:58:54		1008.382	110.0	
13:00:00				RIG UP TO ACTIVATE PUMPOUT SUB
13:00:33		733.026	110.0	
13:01:20		609.939	110.0	
13:02:00				PUMPOUT DISK SHEARED - 1500psi
13:04:00				CIRCULATE CONVENTIONALLY,
13:05:00				"U" TUBING
13:06:29		596.984	110.0	
13:10:10		588.453	110.0	
13:16:30		584.030	110.0	
13:21:43		585.610	110.0	
13:23:00				CLOSE HYDRIL, REVERSE CIRC.
13:25:00				MUD TO SURFACE
13:25:16		644.223	110.0	
13:26:36		608.201	110.0	
13:30:00				OPEN HYDRIL, RIG DOWN SURFACE
13:30:00				EQUIPMENT, PULL OUT OF HOLE
13:31:12		597.932	110.0	
13:37:27		593.509	110.0	
13:43:55		590.033	110.0	
13:46:32		542.011	110.0	
13:48:57		492.258	110.0	
13:49:29		526.374	110.0	
13:50:20		480.097	110.0	
13:53:41		433.352	110.0	
13:55:38		375.088	110.0	
13:57:49		358.511	110.0	
13:58:12		403.509	110.0	
13:59:22		319.518	110.0	
14:02:45		251.804	110.0	
14:05:34		186.630	110.0	
14:08:23		153.497	110.0	
14:10:28		114.688	110.0	
14:13:46		109.324	110.0	
14:15:34		87.399	110.0	
14:18:08		74.623	110.0	
14:21:04		58.693	110.0	
14:27:57		56.485	110.0	
14:34:43		50.492	110.0	
14:36:59		42.764	110.0	
14:43:40		40.714	110.0	
14:51:02		29.990	110.0	

Date: 28/6/91

Ticket No: 001104

Page No: 3.3.5

PRESSURE VS TIME

MECHANICAL gauge no.: 6106
Clock no.: 32066

Gauge Depth: 433.62 m

Hour: 24

TIME HH:MM:SS	D TIME (hr)	PRESSURE (psi)	TEMP (F)	COMMENTS
------------------	-----------------	-------------------	-------------	----------

28-Jun-91

Data Print Frequency: 1

14:59:12		28.255	110.0	
15:03:27		27.309	110.0	
15:05:13		13.432	110.0	
15:10:00				CLEAN COLLARS AND LAY OUT
15:11:00		13.432	110.0	
15:26:10		13.432	110.0	
15:30:00				BREAK OUT TOOLS
15:40:23		13.432	110.0	
16:02:00		13.432	110.0	
16:34:10		13.432	110.0	
17:09:03		13.432	110.0	
17:40:00				TOOLS LAID OUT

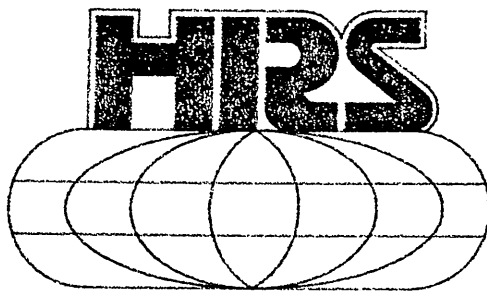
21 1111 DU 41 1111.17.
TOWAY BASIN PEBBLE POINT
HIR 01104.

1 2-51 X. 28 JUNE 91
ANGLO AUSTRALIAN OIL CO NL

BT 4992. TOP FLOW. #40 3/4. KILLARA M / DST #2.
28 JUNE 91 OTOWAY BASIN PEBBLE POINT ANGLO AUSTRALIAN
OIL CO NL
HIR 01104

BT 6106 REC. A 3362 M KILLARA M / DST #2. 28 JUNE 91
OTOWAY BASIN. PEBBLE POINT. ANGLO AUSTRALIAN OIL CO NL.
HIR 01104

FORMATION TEST REPORT



HALLIBURTON RESERVOIR SERVICES



A Halliburton Company

Customer: ANGLO AUSTRALIAN OIL CO NL

Well Description: KILLARA #1

Field Name: OTWAY BASIN

TEST NO: DST #1

TEST DATE: 20-JUNE-91

TICKET NO: 001103

HALLIBURTON
RESERVOIR
SERVICES

REPORT TICKET NO: 001103
BT-GAUGE TICKET NO: 001103
DATE: 20/6/91
HALLIBURTON CAMP: MOOMBA
TESTER: T.Stephens R.Dix
WITNESS: C.McKAY

DRILLING CONTRACTOR: GEARHEART RIG#2
LEGAL LOCATION: see remarks

OPERATOR: ANGLO AUST.OIL
LEASE NAME: KILLARA
WELL NO: 1
TEST NO: 1
TESTED INTERVAL: 2010.10 - 2026.00 m

FIELD AREA: OTWAY BASIN
COUNTY/LSD:
STATE/PROVINCE: VICTORIA
COUNTRY: AUSTRALIA

NOTICE: THIS REPORT IS BASED ON SOUND ENGINEERING PRACTICES, BUT BECAUSE OF VARIABLE WELL CONDITIONS AND OTHER INFORMATION WHICH MUST BE RELIED UPON HALLIBURTON MAKES NO WARRANTY, EXPRESS OR IMPLIED AS TO THE ACCURACY OF THE DATA OR OF ANY CALCULATIONS OR OPINIONS EXPRESSED HEREIN. YOU AGREE THAT HALLIBURTON SHALL NOT BE LIABLE FOR ANY LOSS OR DAMAGE, WHETHER DUE TO NEGLIGENCE OR OTHERWISE ARISING OUT OF OR IN CONNECTION WITH SUCH DATA, CALCULATIONS OR OPINIONS.

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Summary of Test Results	1.1
Test Period Summary	1.2
Pressure vs. Time Plot	1.3
Test and Formation Data	1.4
Rate History Table	1.5
Tool String Configuration	1.6
Operator Job Log	1.7

SECTION 2: ANALYSIS

Plots	2.1
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SECTION 3: MECHANICAL GAUGE DATA

Gauge No. 2171	3.1
Gauge No. 4992	3.2
Gauge No. 6106	3.3

Date: 20/6/91

Ticket No: 001103

Page No: 1.1

SUMMARY OF TEST

Lease Owner: ANGLO AUST.OIL

Lease Name: KILLARA

Well No.: 1

Test No.: 1

County/LSD:

State/Province: VICTORIA

Country: AUSTRALIA

Formation Tested: GELTWOOD BEACH

Hole Temp: 224.00 F

Total Depth: 2026.00 m

Net Pay: 15.90 m

Gross Tested Interval: 2010.10 - 2026.00 m

Perforated Interval (m):

RECOVERY:

REVERSED CIRCULATED: 2bbl RATHOLE MUD
68bbl FORMATION WATER

REMARKS:

ALL DOWNHOLE PRESSURES ARE IN ABSOLUTE PSIA.
PLUGGING WAS EVIDENT IN LOWER TEST STRING, BOBT GAUGE #2171
SHOWED A FALSE INITIAL HYDROSTATIC DUE TO BEING FORCED INTO
THE FILL ON BOTTOM OF HOLE.
LEGAL LOCATION: - LAT - 38 07' 48.72"S - LONG- 142 12' 39.81"E

Date: 20/6/91

Ticket No: 001103

Page No: 1.2

TEST PERIOD SUMMARY

Gauge No.: 2171 Depth: 2025.00 m Blanked off : Yes
Clock no.: 16139 Hour: 24

ID	PERIOD	DESCRIPTION	PRESSURE (psi)	DURATION (min)
A		Initial Hydrostatic	3305.58	
B	1	Start Draw-down	923.36	
C		End Draw-down	937.64	13.17
C	2	Start Build-up	937.64	
D		End Build-up	2416.93	34.88
E	3	Start Draw-down	1167.22	
F		End Draw-down	1630.80	59.27
F	4	Start Build-up	1630.80	
G		End Build-up	2445.67	124.67
H		Final Hydrostatic	3277.72	

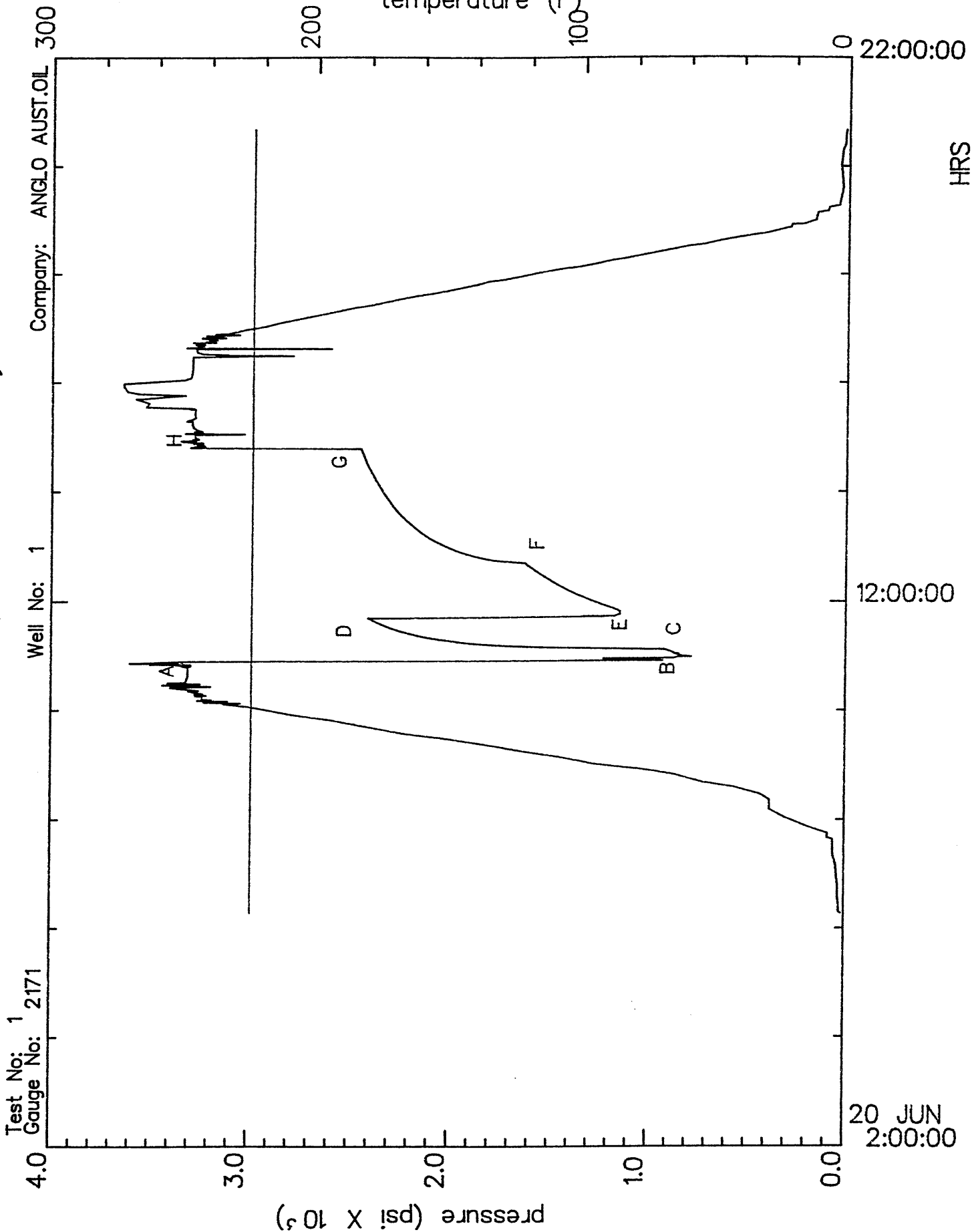
NOTE: for Pressure vs. Time Plot, see next page.

Date: 20/6/91

Ticket No: 001103

Page No: 1.3

Pressure/Temperature History



TEST AND FORMATION DATA

Formation Tested: GELTWOOD BEACH
 All Depths Measured From: KELLY BUSHINGS
 Elevation: 75.00 m
 Total Depth: 2026.00 m
 Net Pay: 15.90 m
 Hole or Casing Size: 8.500 in
 Gross Tested Interval: 2010.10 - 2026.00 m
 Perforated Interval (m):

HOLE FLUID

HOLE TEMPERATURE

Type:	DRILLING FLUID	Depth:	2022.00 m
Weight:	9.40 lbm/gal	Estimated:	F
Viscosity:	43.00 cp	Actual:	224.00 F

HYDROCARBON PROPERTIES

CUSHION DATA

Oil Gravity (API):	@ 60 F	TYPE	AMOUNT	WEIGHT
Gas/Oil ratio (ScF/STB):		NIL		
Gas Gravity (SG):	0.75			

FLUID PROPERTIES FOR RECOVERED MUD AND WATER

SOURCE	RESISTIVITY	CHLORIDES	SG	PH
	@ F			
	@ F			
	@ F			
	@ F			
	@ F			
	@ F			























SAMPLER DATA

Surface Pressure:	psi
Volume of Gas:	ft3
Volume of Oil:	cc
Volume of Water:	cc
Volume of Mud:	cc
Total Liquids:	cc

REMARKS:

ALL DOWNHOLE PRESSURES ARE IN ABSOLUTE PSIA.
 PLUGGING WAS EVIDENT IN LOWER TEST STRING, BOBT GAUGE #2171
 SHOWED A FALSE INITIAL HYDROSTATIC DUE TO BEING FORCED INTO
 THE FILL ON BOTTOM OF HOLE.
 LEGAL LOCATION: - LAT - 38 07' 48.72"S - LONG- 142 12' 39.81"E


TEST STRING CONFIGURATION

	O.D. (in)	I.D. (in)	LENGTH (m)	DEPTH (m)
 DRILL PIPE	4.500	3.826		1801.160
 FLEX WEIGHT	4.500	2.812	55.710	
 DRILL COLLARS	6.250	2.812	110.700	
 PUMP OUT REVERSING SUB ...	6.000	3.000	0.305	1967.870
 DRILL COLLARS	6.250	2.812	18.410	
 IMPACT REVERSING SUB	6.000	3.000	0.305	1986.590
 DRILL COLLARS	6.250	2.812	9.250	
 BAR CATCHER SUB	5.750	1.000	0.305	
 AP RUNNING CASE.....	5.000	2.250	1.262	1996.800
 CROSSOVER.....	5.000	2.200	0.305	
 DUAL CIP VALVE	5.000	0.870	1.484	
 SAMPLE CHAMBER	5.000	2.500	1.484	
 DRAIN VALVE	5.000	2.200	0.262	
 HYDROSPRING TESTER	5.000	0.750	1.618	2002.550
 AP RUNNING CASE.....	5.000	2.250	1.262	2003.210
 JAR.....	5.000	1.750	1.524	
 VR SAFETY JOINT	5.000	1.000	0.847	
 OPEN HOLE PACKER.....	7.500	1.530	1.771	2007.720
 DISTRIBUTOR VALVE	5.000	1.680	0.610	
 OPEN HOLE PACKER.....	7.500	1.530	1.771	2010.100
 ANCHOR PIPE SAFETY JOINT ..	5.000	1.500	1.311	
 FLUSH JOINT ANCHOR	5.000	2.370	12.800	

CONTINUED

HRS

TEST STRING CONFIGURATION

	O.D. (in)	I.D. (in)	LENGTH (m)	DEPTH (m)
 BLANKED-OFF RUNNING CASE ..	5.000	2.440	1.237	2025.000
TOTAL DEPTH				2026.00

HRS

Date: 20/6/91
Test No: 1

Ticket No: 001103

Page No: 1.7.1

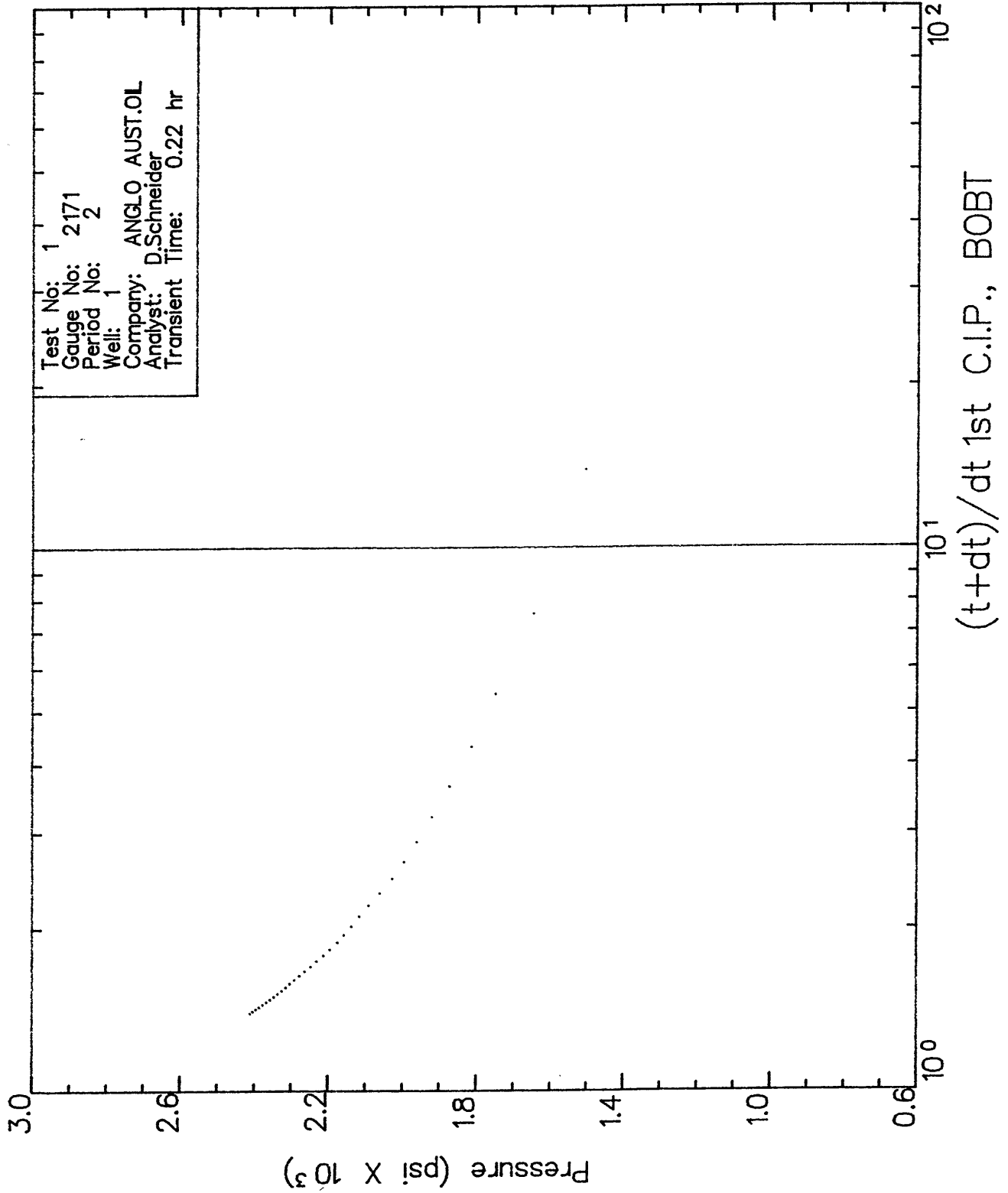
OPERATOR JOB LOG

Type of Flow Measuring Device: 6"CERAMIC CHOKE

TIME HH:MM:SS	CHOKE SIZE (in)	SURFACE PRESSURE (psi)	GAS RATE (Mscf/D)	LIQUID RATE (bbl/D)	REMARKS

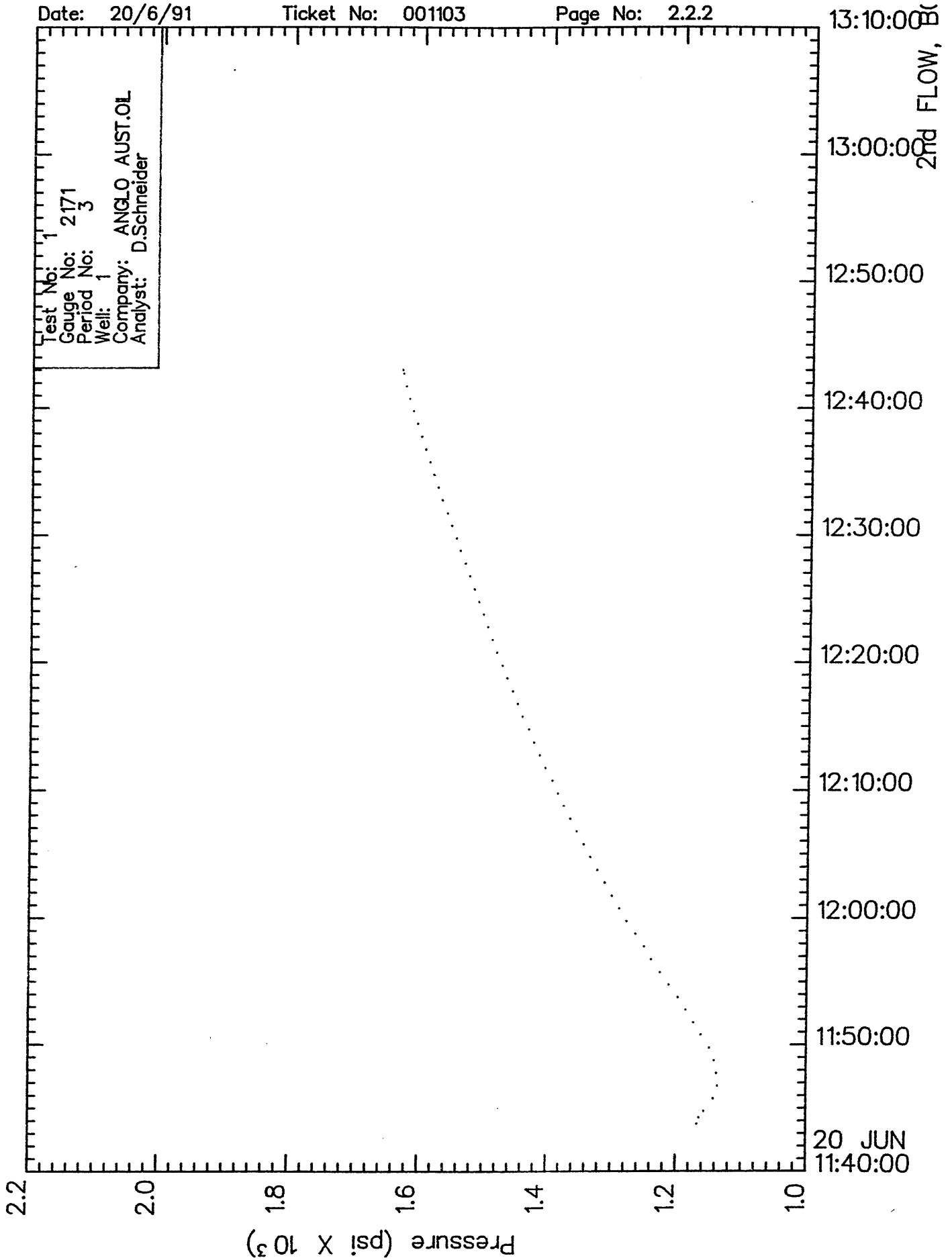
20-Jun-91					
05:00:00					MAKE UP TEST TOOLS
07:30:00					TOOLS MADE UP, RUN IN HOLE
08:15:00					PICK UP AND MAKE UP TEST HEAD
08:30:00					COMMENCE RUNNING IN HOLE
10:15:00					PICK UP 4 SINGLES AND PUPJOINT
10:30:00					RIG UP SURFACE EQUIPMENT
10:50:00					STRING WEIGHT 124K UP, 120K DN
10:52:00					SET WEIGHT ON TOOL, TIGHT HOLE
10:53:00					TRY TO WORK TOOL TO BOTTOM
10:55:00	32/64	0.00			TOOL OPEN - SKID 15ft DOWN
10:55:00					SLIGHT BLOW
11:00:00	32/64	0.00			BLOW INCREASING
11:08:10		0.00			ROTATE TOOL CLOSED
11:43:03	32/64	0.00			TOOL ROTATED OPEN
11:43:03					WEAK BLOW
11:44:00	32/64	0.00			BLOW INCREASING
12:00:00	32/64	0.00			BLOW DECREASING
12:43:00		0.00			ROTATE TOOL CLOSED
14:47:40					OPEN BYPASS, PULL PACKERS FREE
15:02:00					DROP BAR
15:03:00					PIN SHEARED
15:10:00					WATER MUD AT SURFACE
15:30:00					REVERSE CIRCULATE
15:38:00					MUD TO SURFACE
15:50:00					MUD WEIGHT 9.4+
16:05:00					HYDRIL LINE BROKE, REPAIR
16:30:00					LAY OUT TEST HEAD
16:35:00					LAY OUT SINGLES, P.O.O.H.
19:18:00					TOOLS AT FLOOR
21:30:00					TOOLS LAID OUT

Pressure Vs $\log((t+dt)/dt)$



Test No: 1
Gauge No: 2171
Period No: 3
Well: 1
Company: ANGLO AUST.OIL
Analyst: D.Schneider

Pressure Vs Time



20 JUN
11:40:00

11:50:00

12:00:00

12:10:00

12:20:00

12:30:00

12:40:00

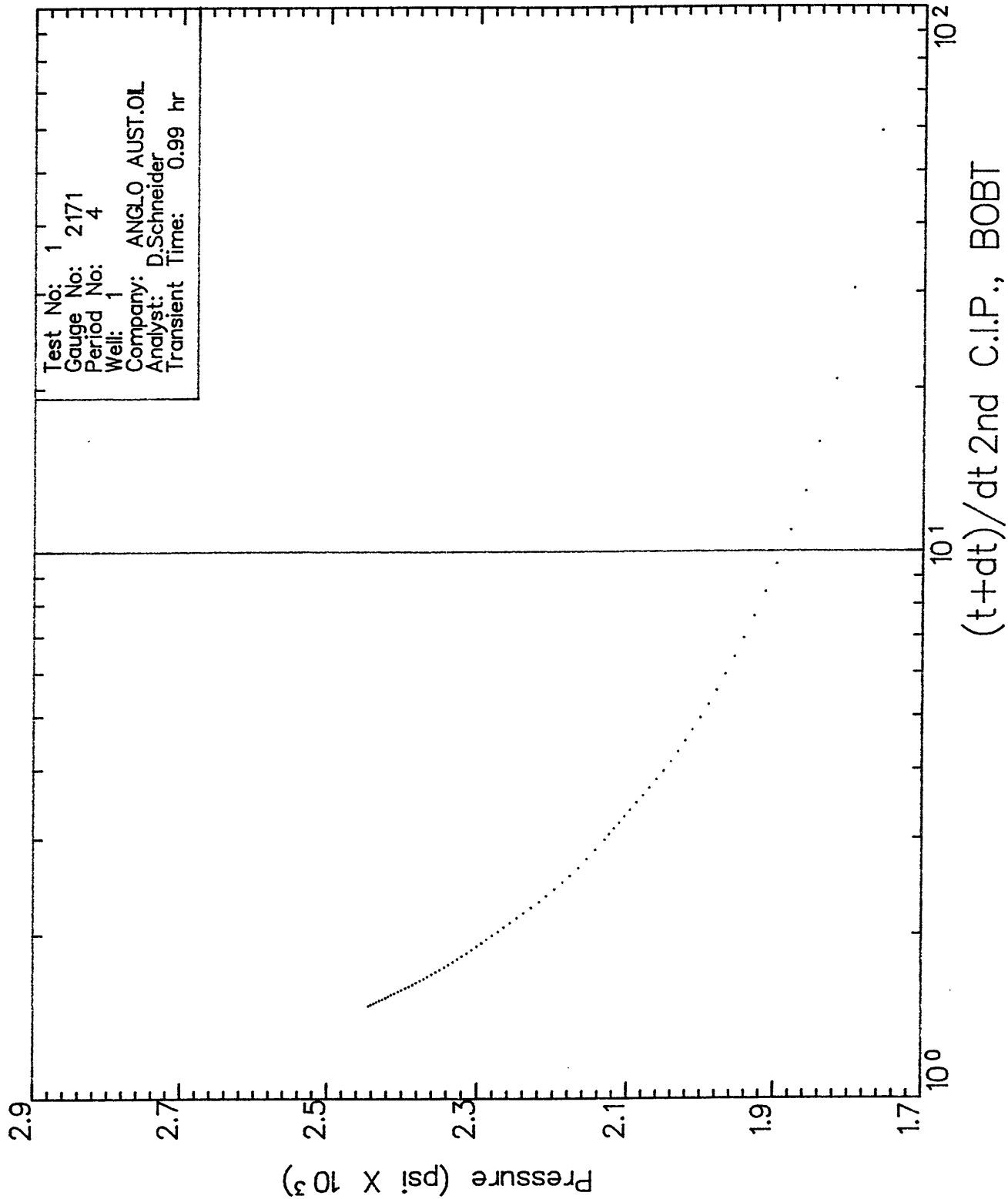
12:50:00

13:00:00

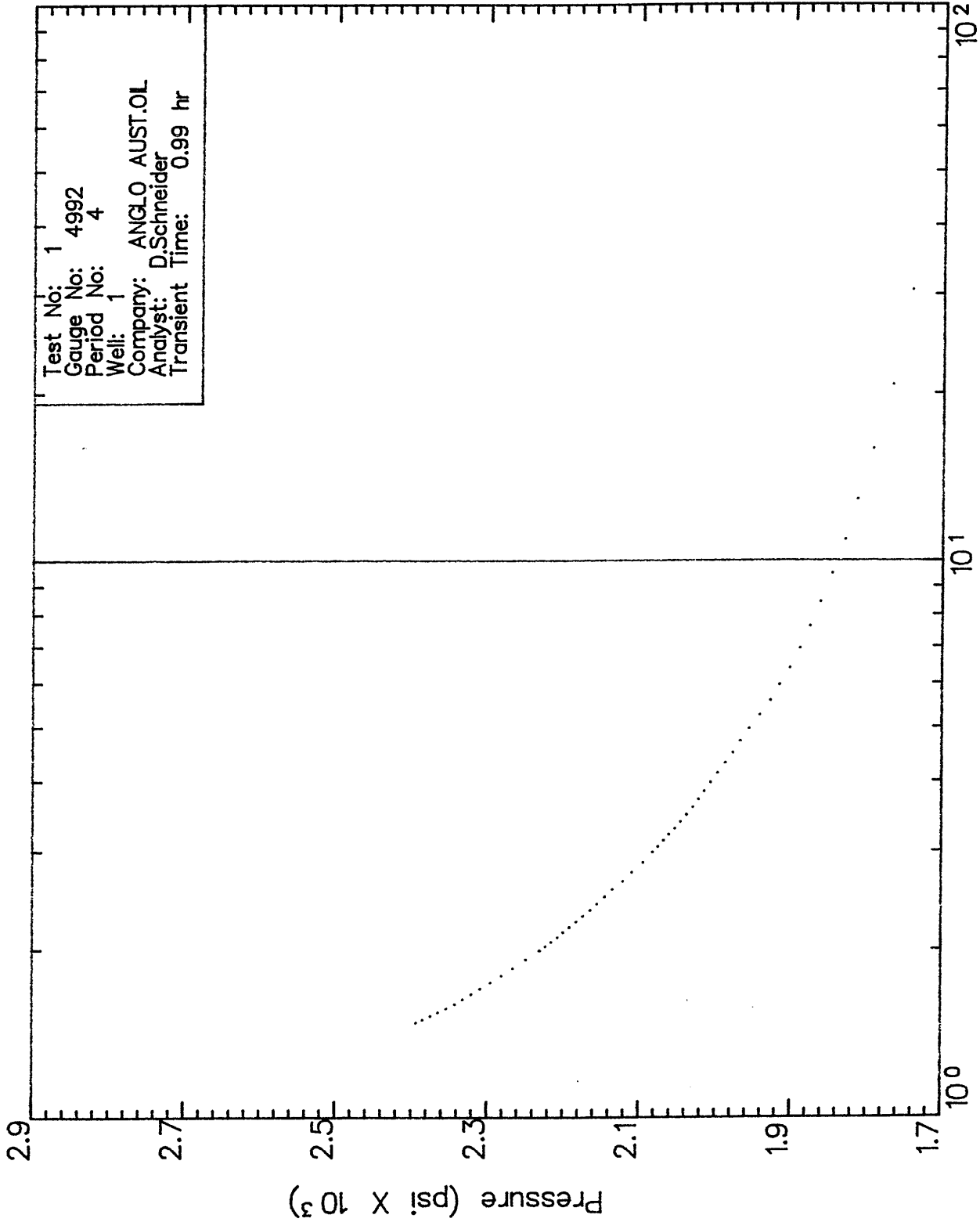
13:10:00

2nd FLOW, B

Pressure Vs $\log((t+dt)/dt)$

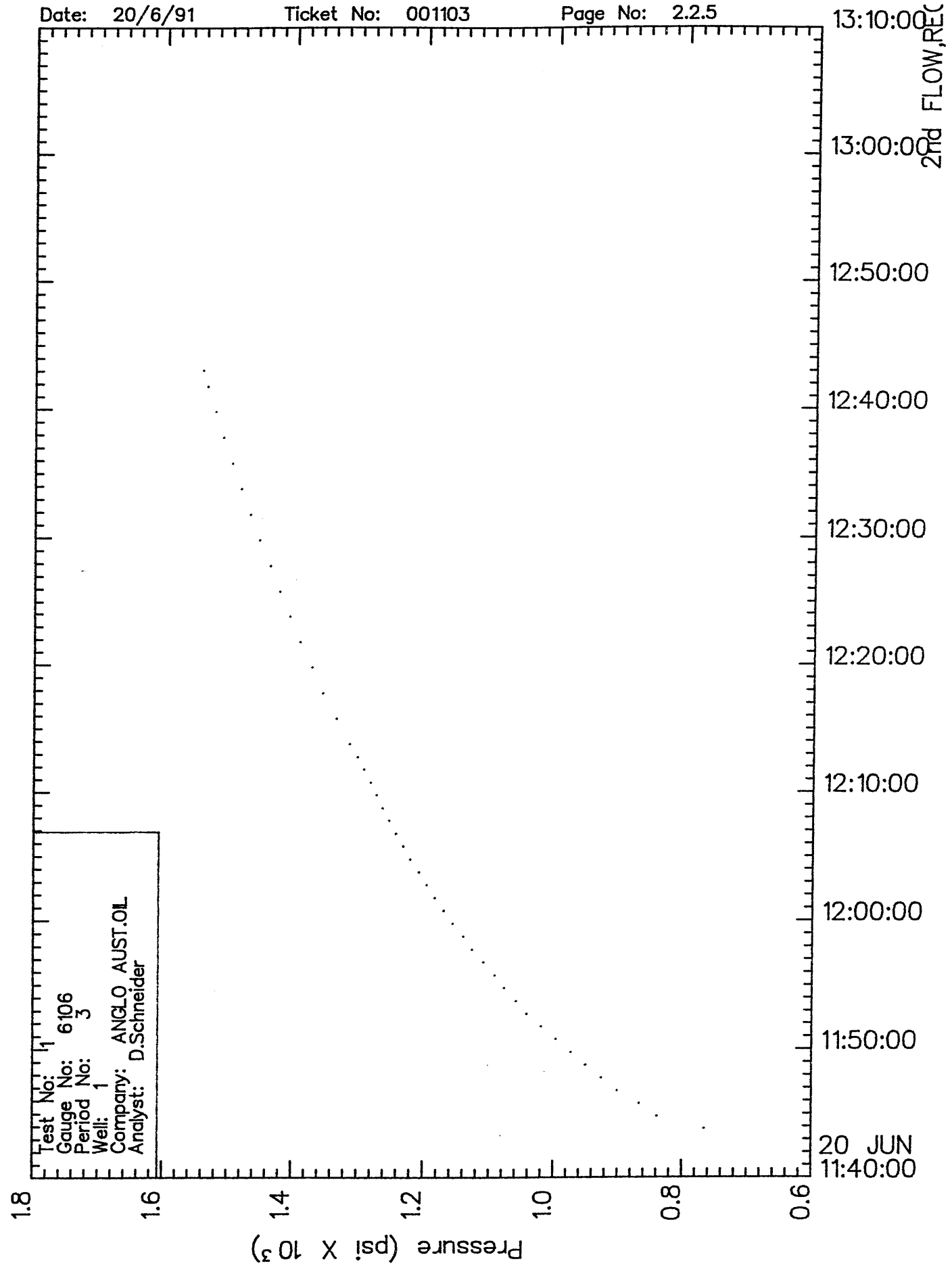


Pressure Vs $\log((t+dt)/dt)$



$(t+dt)/dt$ 2nd C.I.P.

Pressure Vs Time



20 JUN
11:40:00

2nd FLOW, REC

Date: 20/6/91

Ticket No: 001103

Page No: 3.1

TEST PERIOD SUMMARY

Gauge No.: 2171 Depth: 2025.00 m Blanked off : Yes
Clock no.: 16139 Hour: 24

ID	PERIOD	DESCRIPTION	PRESSURE (psi)	DURATION (min)
A		Initial Hydrostatic	3305.58	
B	1	Start Draw-down	923.36	
C		End Draw-down	937.64	13.17
C	2	Start Build-up	937.64	
D		End Build-up	2416.93	34.88
E	3	Start Draw-down	1167.22	
F		End Draw-down	1630.80	59.27
F	4	Start Build-up	1630.80	
G		End Build-up	2445.67	124.67
H		Final Hydrostatic	3277.72	

NOTE: for Pressure vs. Time Plot, see next page.

Date: 20/6/91

Ticket No: 001103

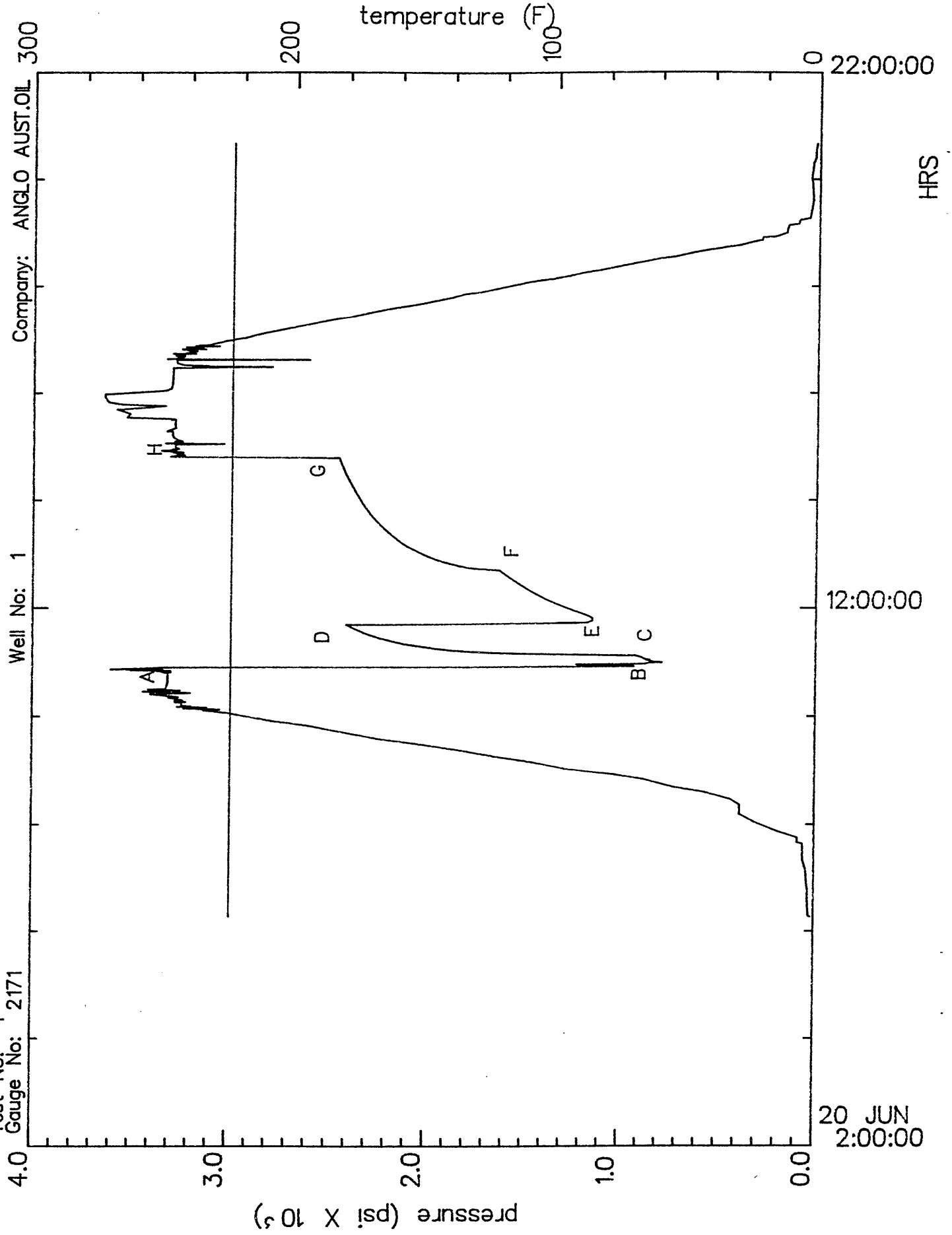
Page No: 3.1.0

Pressure/Temperature History

Test No: 1
Gauge No: 2171

Well No: 1

Company: ANGLO AUST.OIL 300



20 JUN
2:00:00

12:00:00

22:00:00

HRS

Date: 20/6/91

Ticket No: 001103

Page No: 3.1.1

PRESSURE VS TIME

MECHANICAL gauge no.: 2171
Clock no.: 16139

Gauge Depth: 2025.00 m

Hour: 24

TIME HH:MM:SS	D TIME (hr)	PRESSURE (psi)	TEMP (F)	COMMENTS
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20-Jun-91

Data Print Frequency: 1

MAKE UP TEST TOOLS

05:00:00				
06:15:43		15.465	224.0	
06:17:24		26.490	224.0	
06:19:38		32.248	224.0	
06:34:32		32.248	224.0	
06:46:55		32.248	224.0	
06:48:17		34.881	224.0	
06:53:59		36.691	224.0	
07:01:24		39.159	224.0	
07:10:52		44.752	224.0	
07:19:54		57.585	224.0	
07:30:00				TOOLS MADE UP, RUN IN HOLE
07:34:32		58.572	224.0	
07:38:00		59.888	224.0	
07:39:50		87.526	224.0	
07:44:45		83.578	224.0	
07:52:17		189.171	224.0	
08:02:16		303.111	224.0	
08:11:04		381.019	224.0	
08:15:00				PICK UP AND MAKE UP TEST HEAD
08:21:41		377.732	224.0	
08:27:36		425.224	224.0	
08:30:00				COMMENCE RUNNING IN HOLE
08:35:31		561.249	224.0	
08:40:48		718.228	224.0	
08:49:38		867.744	224.0	
08:55:52		1052.775	224.0	
09:01:34		1283.422	224.0	
09:08:43		1450.198	224.0	
09:15:21		1650.283	224.0	
09:22:04		1823.744	224.0	
09:28:39		2021.969	224.0	
09:34:28		2230.373	224.0	
09:41:49		2414.318	224.0	
09:49:00		2592.779	224.0	
09:54:29		2778.166	224.0	
10:01:34		2954.326	224.0	
10:03:50		3011.723	224.0	
10:06:40		3126.489	224.0	
10:07:20		3040.092	224.0	
10:08:28		3226.555	224.0	
10:09:26		3103.832	224.0	
10:10:21		3259.469	224.0	
10:11:02		3185.326	224.0	
10:11:42		3237.798	224.0	
10:15:00				PICK UP 4 SINGLES AND PUPJOINT

Date: 20/6/91

Ticket No: 001103

Page No: 3.1.2

PRESSURE VS TIME

MECHANICAL gauge no.: 2171
Clock no.: 16139

Gauge Depth: 2025.00 m

Hour: 24

TIME HH:MM:SS	D TIME (hr)	PRESSURE (psi)	TEMP (F)	COMMENTS

20-Jun-91		Data Print	Frequency: 1	
10:15:01		3233.561	224.0	
10:15:30		3269.734	224.0	
10:15:52		3212.215	224.0	
10:17:11		3272.015	224.0	
10:17:27		3228.836	224.0	
10:19:23		3241.709	224.0	
10:20:36		3304.274	224.0	
10:21:14		3250.508	224.0	
10:23:53		3265.009	224.0	
10:24:38		3397.777	224.0	
10:25:43		3188.911	224.0	
10:27:21		3435.562	224.0	
10:28:31		3242.035	224.0	
10:29:42		3410.481	224.0	
10:30:00				RIG UP SURFACE EQUIPMENT
10:30:11		3318.122	224.0	
10:34:35		3309.487	224.0	
10:37:36		3305.089	224.0	
10:44:32		3305.577	224.0	
10:47:24		3305.577	224.0	
10:48:00		3305.577	224.0	
10:48:23		3331.969	224.0	
10:48:40		3290.263	224.0	
10:48:52		3306.066	224.0	
10:49:16		3341.254	224.0	
10:49:39		3290.752	224.0	
10:50:00				STRING WEIGHT 124K UP, 120K DN
10:50:05		3364.874	224.0	
10:50:17		3291.403	224.0	
10:50:57		3501.190	224.0	
10:51:24		3329.525	224.0	
10:51:59		3602.621	224.0	
10:52:00				SET WEIGHT ON TOOL, TIGHT HOLE
10:52:28		3508.517	224.0	
10:53:00				TRY TO WORK TOOL TO BOTTOM
10:53:51		3338.485	224.0	
10:54:51		1362.398	224.0	
10:55:00				TOOL OPEN - SKID 15ft DOWN
10:55:00				SLIGHT BLOW
		*** Start of Period 1 ***		
10:55:00	0.0000	923.363	224.0	
10:55:38	0.0105	1150.333	224.0	
10:55:54	0.0151	1043.756	224.0	
10:56:07	0.0186	1158.202	224.0	
10:56:19	0.0221	1035.228	224.0	
10:56:41	0.0281	1213.443	224.0	

Date: 20/6/91

Ticket No: 001103

Page No: 3.1.3

PRESSURE VS TIME

MECHANICAL gauge no.: 2171
Clock no.: 16139

Gauge Depth: 2025.00 m
Hour: 24

TIME HH:MM:SS	D TIME (hr)	PRESSURE (psi)	TEMP (F)	COMMENTS
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0-Jun-91 Data Print Frequency: 1

10:56:52	0.0311	1079.504	224.0
10:57:12	0.0367	1226.719	224.0
10:57:48	0.0467	864.790	224.0
10:58:00	0.0502	863.477	224.0
10:58:11	0.0533	845.592	224.0
10:59:00	0.0668	839.848	224.0
10:59:11	0.0698	839.192	224.0
10:59:15	0.0708	778.141	224.0

BLOW INCREASING

11:00:00	0.0834	829.346	224.0
11:01:00	0.1000	839.848	224.0
11:02:01	0.1171	849.038	224.0
11:02:17	0.1216	863.806	224.0
11:02:25	0.1236	842.146	224.0
11:02:37	0.1271	865.775	224.0
11:03:01	0.1337	866.759	224.0
11:04:00	0.1502	872.338	224.0
11:05:00	0.1668	889.074	224.0
11:06:00	0.1834	906.465	224.0
11:07:00	0.2000	921.394	224.0
11:08:01	0.2171	936.651	224.0

ROTATE TOOL CLOSED

11:08:10 0.2196 937.635 224.0
 *** End of Period 1 ***
 *** Start of Period 2 ***

11:09:12	0.0171	1502.933	224.0
11:10:11	0.0337	1646.354	224.0
11:11:11	0.0502	1749.461	224.0
11:12:11	0.0668	1813.273	224.0
11:13:10	0.0834	1872.330	224.0
11:14:10	0.1000	1920.418	224.0
11:15:12	0.1171	1961.958	224.0
11:16:11	0.1337	1995.644	224.0
11:17:11	0.1502	2027.528	224.0
11:18:11	0.1668	2061.208	224.0
11:19:10	0.1834	2090.961	224.0
11:20:10	0.2000	2115.807	224.0
11:21:12	0.2171	2137.383	224.0
11:22:11	0.2337	2157.814	224.0
11:23:11	0.2502	2174.811	224.0
11:24:11	0.2668	2195.076	224.0
11:25:10	0.2834	2212.725	224.0
11:26:10	0.3000	2231.027	224.0
11:27:12	0.3171	2246.877	224.0
11:28:11	0.3337	2262.726	224.0
11:29:11	0.3502	2276.940	224.0

Date: 20/6/91

Ticket No: 001103

Page No: 3.1.4

PRESSURE VS TIME

MECHANICAL gauge no.: 2171
Clock no.: 16139

Gauge Depth: 2025.00 m

Hour: 24

TIME HH:MM:SS	D TIME (hr)	PRESSURE (psi)	TEMP (F)	COMMENTS

20-Jun-91				Data Print Frequency: 1
11:30:11	0.3668	2290.991	224.0	
11:31:10	0.3834	2303.244	224.0	
11:32:10	0.4000	2314.190	224.0	
11:33:12	0.4171	2325.952	224.0	
11:34:11	0.4336	2336.733	224.0	
11:35:11	0.4502	2346.208	224.0	
11:36:11	0.4668	2356.825	224.0	
11:37:10	0.4834	2366.952	224.0	
11:38:10	0.5000	2376.916	224.0	
11:39:12	0.5171	2387.206	224.0	
11:40:11	0.5336	2396.026	224.0	
11:41:11	0.5502	2404.682	224.0	
11:42:11	0.5668	2412.031	224.0	
11:43:03				TOOL ROTATED OPEN
11:43:03				WEAK BLOW
11:43:03	0.5814	2416.931	224.0	
		*** End of Period 2 ***		
11:43:14		1221.310	224.0	
11:43:25		1328.811	224.0	
		*** Start of Period 3 ***		
11:43:43	0.0000	1167.218	224.0	
11:44:00				BLOW INCREASING
11:44:14	0.0085	1163.776	224.0	
11:44:44	0.0171	1156.563	224.0	
11:45:44	0.0337	1142.464	224.0	
11:46:44	0.0502	1135.906	224.0	
11:47:43	0.0668	1138.037	224.0	
11:48:43	0.0834	1141.972	224.0	
11:49:43	0.1000	1149.513	224.0	
11:50:44	0.1171	1162.464	224.0	
11:51:44	0.1337	1173.939	224.0	
11:52:44	0.1502	1186.069	224.0	
11:53:43	0.1668	1198.363	224.0	
11:54:43	0.1834	1212.131	224.0	
11:55:43	0.2000	1225.735	224.0	
11:56:44	0.2171	1239.666	224.0	
11:57:44	0.2337	1250.811	224.0	
11:58:44	0.2502	1263.594	224.0	
11:59:43	0.2668	1277.523	224.0	
12:00:00				BLOW DECREASING
12:00:43	0.2834	1288.830	224.0	
12:01:43	0.3000	1300.956	224.0	
12:02:44	0.3171	1311.279	224.0	
12:03:44	0.3337	1323.240	224.0	
12:04:44	0.3502	1334.054	224.0	
12:05:43	0.3668	1344.704	224.0	

Date: 20/6/91

Ticket No: 001103

Page No: 3.1.5

PRESSURE VS TIME

MECHANICAL gauge no.: 2171
Clock no.: 16139

Gauge Depth: 2025.00 m

Hour: 24

TIME HH:MM:SS	D TIME (hr)	PRESSURE (psi)	TEMP (F)	COMMENTS

0-Jun-91		Data Print Frequency:	1	
12:06:43	0.3834	1355.353	224.0	
12:07:43	0.4000	1365.674	224.0	
12:08:44	0.4171	1375.504	224.0	
12:09:44	0.4337	1385.169	224.0	
12:10:44	0.4502	1393.851	224.0	
12:11:43	0.4668	1405.154	224.0	
12:12:43	0.4834	1413.836	224.0	
12:13:43	0.5000	1423.336	224.0	
12:14:44	0.5171	1430.707	224.0	
12:15:44	0.5337	1441.518	224.0	
12:16:44	0.5502	1449.052	224.0	
12:17:43	0.5668	1457.077	224.0	
12:18:43	0.5834	1465.758	224.0	
12:19:43	0.6000	1473.455	224.0	
12:20:44	0.6171	1481.971	224.0	
12:21:44	0.6336	1489.177	224.0	
12:22:44	0.6502	1496.382	224.0	
12:23:43	0.6668	1503.260	224.0	
12:24:43	0.6834	1510.466	224.0	
12:25:43	0.7000	1517.998	224.0	
12:26:44	0.7171	1525.040	224.0	
12:27:44	0.7336	1532.408	224.0	
12:28:44	0.7502	1540.268	224.0	
12:29:43	0.7668	1546.490	224.0	
12:30:43	0.7834	1553.530	224.0	
12:31:43	0.8000	1560.571	224.0	
12:32:44	0.8170	1568.594	224.0	
12:33:44	0.8336	1575.306	224.0	
12:34:44	0.8502	1581.528	224.0	
12:35:43	0.8668	1588.240	224.0	
12:36:43	0.8834	1594.789	224.0	
12:37:43	0.9000	1601.173	224.0	
12:38:44	0.9170	1607.722	224.0	
12:39:44	0.9336	1613.943	224.0	
12:40:44	0.9502	1620.163	224.0	
12:41:43	0.9668	1625.402	224.0	
12:42:43	0.9834	1629.821	224.0	
12:42:59	0.9879	1630.804	224.0	
12:43:00				ROTATE TOOL CLOSED
		*** End of Period 3 ***		
		*** Start of Period 4 ***		
12:44:01	0.0171	1758.461	224.0	
12:45:01	0.0337	1795.440	224.0	
12:46:00	0.0502	1819.000	224.0	
12:47:00	0.0668	1841.576	224.0	
12:48:00	0.0834	1859.734	224.0	

Date: 20/6/91

Ticket No: 001103

Page No: 3.1.6

PRESSURE VS TIME

MECHANICAL gauge no.: 2171
Clock no.: 16139

Gauge Depth: 2025.00 m

Hour: 24

TIME HH:MM:SS	D TIME (hr)	PRESSURE (psi)	TEMP (F)	COMMENTS
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20-Jun-91

Data Print Frequency: 1

12:48:59	0.1000	1879.527	224.0	
12:50:01	0.1171	1898.010	224.0	
12:51:00	0.1337	1913.221	224.0	
12:52:00	0.1502	1928.268	224.0	
12:53:00	0.1668	1942.660	224.0	
12:54:00	0.1834	1954.762	224.0	
12:54:59	0.2000	1967.681	224.0	
12:56:01	0.2171	1979.619	224.0	
12:57:00	0.2337	1990.248	224.0	
12:58:00	0.2502	2001.040	224.0	
12:59:00	0.2668	2011.832	224.0	
13:00:00	0.2834	2021.151	224.0	
13:00:59	0.3000	2031.125	224.0	
13:02:01	0.3171	2040.771	224.0	
13:03:00	0.3336	2050.418	224.0	
13:04:00	0.3502	2060.554	224.0	
13:05:00	0.3668	2070.199	224.0	
13:06:00	0.3834	2078.700	224.0	
13:06:59	0.4000	2087.364	224.0	
13:08:01	0.4171	2096.519	224.0	
13:09:00	0.4336	2103.875	224.0	
13:10:00	0.4502	2110.904	224.0	
13:11:00	0.4668	2118.096	224.0	
13:12:00	0.4834	2124.634	224.0	
13:12:59	0.5000	2131.009	224.0	
13:15:00	0.5336	2143.594	224.0	
13:17:00	0.5668	2155.035	224.0	
13:18:59	0.6000	2166.313	224.0	
13:21:00	0.6336	2177.753	224.0	
13:23:00	0.6668	2187.722	224.0	
13:24:59	0.7000	2198.508	224.0	
13:27:00	0.7336	2209.457	224.0	
13:29:00	0.7668	2219.098	224.0	
13:30:59	0.8000	2229.556	224.0	
13:33:00	0.8336	2239.524	224.0	
13:35:00	0.8668	2248.347	224.0	
13:36:59	0.9000	2257.170	224.0	
13:39:00	0.9336	2265.503	224.0	
13:41:00	0.9668	2273.182	224.0	
13:42:59	1.0000	2281.188	224.0	
13:45:00	1.0336	2288.377	224.0	
13:47:00	1.0668	2294.585	224.0	
13:48:59	1.0999	2300.957	224.0	
13:51:00	1.1336	2307.655	224.0	
13:53:00	1.1668	2313.863	224.0	
13:54:59	1.1999	2320.397	224.0	

Date: 20/6/91

Ticket No: 001103

Page No: 3.1.7

PRESSURE VS TIME

MECHANICAL gauge no.: 2171
Clock no.: 16139

Gauge Depth: 2025.00 m

Hour: 24

TIME HH:MM:SS	D TIME (hr)	PRESSURE (psi)	TEMP (F)	COMMENTS

0-Jun-91		Data Print Frequency:	1	
13:57:00	1.2336	2326.115	224.0	
13:59:00	1.2668	2332.323	224.0	
14:00:59	1.2999	2338.040	224.0	
14:03:00	1.3336	2343.431	224.0	
14:05:00	1.3668	2349.638	224.0	
14:06:59	1.3999	2354.865	224.0	
14:09:00	1.4336	2360.419	224.0	
14:11:00	1.4668	2365.972	224.0	
14:12:59	1.4999	2371.036	224.0	
14:15:00	1.5336	2376.426	224.0	
14:17:00	1.5668	2381.653	224.0	
14:18:59	1.5999	2386.226	224.0	
14:21:00	1.6336	2391.126	224.0	
14:23:00	1.6668	2395.699	224.0	
14:24:59	1.6999	2401.252	224.0	
14:27:00	1.7336	2405.499	224.0	
14:29:00	1.7668	2410.235	224.0	
14:30:59	1.7999	2414.481	224.0	
14:33:00	1.8336	2418.401	224.0	
14:35:00	1.8667	2421.994	224.0	
14:36:59	1.8999	2425.913	224.0	
14:39:00	1.9336	2429.996	224.0	
14:41:00	1.9667	2434.079	224.0	
14:43:01	2.0004	2437.672	224.0	
14:45:00	2.0336	2441.428	224.0	
14:47:00	2.0667	2444.694	224.0	
14:47:39	2.0778	2445.674	224.0	
14:47:40				OPEN BYPASS, PULL PACKERS FREE
		*** End of Period 4 ***		
14:48:01		3279.347	224.0	
14:48:17		3270.712	224.0	
14:48:39		3300.527	224.0	
14:48:54		3287.330	224.0	
14:49:01		3226.555	224.0	
14:49:15		3280.976	224.0	
14:49:35		3226.880	224.0	
14:49:55		3260.610	224.0	
14:50:15		3228.836	224.0	
14:50:29		3269.571	224.0	
14:50:57		3235.517	224.0	
14:51:33		3236.169	224.0	
14:51:49		3266.964	224.0	
14:52:07		3235.028	224.0	
14:52:27		3229.976	224.0	
14:52:36		3236.006	224.0	
14:52:54		3287.493	224.0	

Date: 20/6/91

Ticket No: 001103

Page No: 3.1.8

PRESSURE VS TIME

MECHANICAL gauge no.: 2171
Clock no.: 16139

Gauge Depth: 2025.00 m

Hour: 24

TIME HH:MM:SS	D TIME (hr)	PRESSURE (psi)	TEMP (F)	COMMENTS

0-Jun-91				Data Print Frequency: 1
14:53:14		3235.191	224.0	
14:54:16		3236.006	224.0	
14:54:57		3340.277	224.0	
14:55:10		3293.358	224.0	
14:55:22		3347.119	224.0	
14:55:32		3281.791	224.0	
14:55:42		3304.274	224.0	
14:55:57		3270.223	224.0	
14:56:11		3293.033	224.0	
14:56:28		3268.105	224.0	
14:56:49		3291.892	224.0	
14:57:16		3257.514	224.0	
14:57:35		3253.929	224.0	
14:57:44		3265.172	224.0	
14:58:00		3250.019	224.0	
14:58:20		3277.229	224.0	
14:58:58		3277.718	224.0	
14:59:23		3277.718	224.0	
15:00:37		3279.347	224.0	
15:02:00				DROP BAR
15:02:20		3278.206	224.0	
15:02:40		3278.206	224.0	
15:02:51		3025.908	224.0	
15:03:00				PIN SHEARED
15:03:09		3286.353	224.0	
15:03:18		3183.207	224.0	
15:03:40		3326.919	224.0	
15:03:49		3233.235	224.0	
15:04:13		3272.341	224.0	
15:04:23		3242.849	224.0	
15:04:43		3258.492	224.0	
15:05:07		3256.862	224.0	
15:05:34		3283.746	224.0	
15:05:45		3239.427	224.0	
15:05:48		3257.514	224.0	
15:07:06		3265.498	224.0	
15:07:17		3281.628	224.0	
15:08:51		3284.561	224.0	
15:09:56		3286.190	224.0	
15:10:00				WATER MUD AT SURFACE
15:10:31		3294.010	224.0	
15:12:01		3295.476	224.0	
15:13:30		3293.196	224.0	
15:16:54		3291.566	224.0	
15:17:05		3320.240	224.0	
15:17:34		3301.667	224.0	

Date: 20/6/91

Ticket No: 001103

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PRESSURE VS TIME

MECHANICAL gauge no.: 2171
Clock no.: 16139

Gauge Depth: 2025.00 m

Hour: 24

TIME HH:MM:SS	D TIME (hr)	PRESSURE (psi)	TEMP (F)	COMMENTS

0-Jun-91				Data Print Frequency: 1
15:18:53		3293.521	224.0	
15:20:26		3284.235	224.0	
15:20:46		3272.993	224.0	
15:21:15		3278.206	224.0	
15:24:44		3279.021	224.0	
15:27:13		3276.740	224.0	
15:29:59		3274.459	224.0	
15:30:00				REVERSE CIRCULATE
15:30:15		3303.297	224.0	
15:30:48		3281.139	224.0	
15:31:17		3303.622	224.0	
15:31:33		3305.415	224.0	
15:32:47		3525.939	224.0	
15:33:42		3516.658	224.0	
15:34:50		3509.168	224.0	
15:36:43		3508.354	224.0	
15:38:00				MUD TO SURFACE
15:39:20		3544.500	224.0	
15:41:37		3577.225	224.0	
15:43:51		3590.411	224.0	
15:45:38		3324.964	224.0	
15:47:32		3568.433	224.0	
15:49:42		3619.550	224.0	
15:50:00				MUD WEIGHT 9.4+
15:50:29		3624.434	224.0	
15:50:55		3635.665	224.0	
15:54:57		3637.781	224.0	
15:58:41		3638.270	224.0	
16:01:19		3636.317	224.0	
16:02:53		3323.009	224.0	
16:03:33		3310.139	224.0	
16:04:49		3299.061	224.0	
16:05:00				HYDRIL LINE BROKE, REPAIR
16:09:42		3292.544	224.0	
16:14:55		3290.100	224.0	
16:21:31		3288.797	224.0	
16:28:12		3287.819	224.0	
16:28:43		3061.611	224.0	
16:28:59		3102.691	224.0	
16:29:19		2781.919	224.0	
16:29:59		3140.180	224.0	
16:30:00				LAY OUT TEST HEAD
16:30:28		3111.004	224.0	
16:31:29		3243.664	224.0	
16:33:16		3270.060	224.0	
16:35:00				LAY OUT SINGLES, P.O.O.H.

Date: 20/6/91

Ticket No: 001103

Page No: 3.1.10

PRESSURE VS TIME

MECHANICAL gauge no.: 2171
Clock no.: 16139

Gauge Depth: 2025.00 m

Hour: 24

TIME HH:MM:SS	D TIME (hr)	PRESSURE (psi)	TEMP (F)	COMMENTS
------------------	-----------------	-------------------	-------------	----------

TIME	D TIME	PRESSURE	TEMP	COMMENTS
20-Jun-91				Data Print Frequency: 1
16:37:04		3274.296	224.0	
16:37:22		2593.269	224.0	
16:38:11		3323.009	224.0	
16:38:20		3277.066	224.0	
16:39:27		3276.414	224.0	
16:39:41		3261.424	224.0	
16:39:54		3266.475	224.0	
16:40:20		3259.306	224.0	
16:40:43		3233.561	224.0	
16:41:10		3242.686	224.0	
16:41:28		3220.036	224.0	
16:41:39		3278.532	224.0	
16:41:41		3229.488	224.0	
16:43:37		3229.976	224.0	
16:43:51		3290.589	224.0	
16:44:11		3173.592	224.0	
16:44:42		3229.325	224.0	
16:45:23		3226.066	224.0	
16:45:29		3192.007	224.0	
16:45:47		3197.059	224.0	
16:46:27		3175.058	224.0	
16:46:39		3204.393	224.0	
16:46:47		3166.910	224.0	
16:46:54		3208.304	224.0	
16:47:03		3182.392	224.0	
16:48:37		3183.696	224.0	
16:48:51		3245.619	224.0	
16:49:06		3123.881	224.0	
16:49:20		3182.392	224.0	
16:50:58		3181.414	224.0	
16:51:25		3225.903	224.0	
16:51:47		3134.313	224.0	
16:52:03		3156.479	224.0	
16:52:30		3054.601	224.0	
16:52:59		3178.970	224.0	
16:54:01		3102.528	224.0	
16:58:12		3021.669	224.0	
17:01:46		2919.264	224.0	
17:06:33		2833.307	224.0	
17:10:45		2733.624	224.0	
17:16:32		2602.084	224.0	
17:22:10		2479.476	224.0	
17:25:20		2391.616	224.0	
17:29:06		2313.373	224.0	
17:32:16		2245.569	224.0	
17:35:23		2170.398	224.0	

Date: 20/6/91

Ticket No: 001103

Page No: 3.1.11

PRESSURE VS TIME

MECHANICAL gauge no.: 2171
Clock no.: 16139

Gauge Depth: 2025.00 m

Hour: 24

TIME HH:MM:SS	D TIME (hr)	PRESSURE (psi)	TEMP (F)	COMMENTS

0-Jun-91				Data Print Frequency: 1
17:38:02		2094.884	224.0	
17:40:59		2017.064	224.0	
17:44:20		1944.132	224.0	
17:47:32		1872.657	224.0	
17:51:30		1804.275	224.0	
17:53:35		1727.206	224.0	
17:56:49		1650.446	224.0	
18:00:37		1569.903	224.0	
18:03:54		1492.125	224.0	
18:06:26		1420.060	224.0	
18:08:20		1345.359	224.0	
18:11:21		1271.460	224.0	
18:15:09		1193.937	224.0	
18:17:37		1119.019	224.0	
18:21:07		1039.000	224.0	
18:24:40		956.664	224.0	
18:28:03		875.784	224.0	
18:31:22		797.508	224.0	
18:33:19		722.660	224.0	
18:36:53		650.257	224.0	
18:40:07		571.925	224.0	
18:42:53		490.451	224.0	
18:45:50		404.683	224.0	
18:50:20		326.453	224.0	
18:51:59		290.946	224.0	
18:55:09		285.357	224.0	
18:56:07		218.606	224.0	
18:58:26		209.069	224.0	
19:00:06		165.654	224.0	
19:05:35		160.227	224.0	
19:08:29		154.964	224.0	
19:10:12		105.292	224.0	
19:14:27		98.877	224.0	
19:16:32		48.701	224.0	
19:18:00				TOOLS AT FLOOR
19:20:50		45.411	224.0	
19:22:53		31.097	224.0	
19:36:56		31.097	224.0	
20:01:47		44.094	224.0	
20:10:17		36.526	224.0	
20:18:40		32.906	224.0	
20:20:36		28.135	224.0	
20:24:06		21.883	224.0	
20:26:43		19.579	224.0	
20:34:06		19.579	224.0	
20:39:35		15.795	224.0	

Date: 20/6/91

Ticket No: 001103

Page No: 3.1.12

PRESSURE VS TIME

MECHANICAL gauge no.: 2171
Clock no.: 16139

Gauge Depth: 2025.00 m

Hour: 24

TIME	D TIME	PRESSURE	TEMP	COMMENTS
HH:MM:SS	(hr)	(psi)	(F)	

20-Jun-91
20:41:38
21:30:00

Data Print Frequency: 1
15.465 224.0

TOOLS LAID OUT

Date: 20/6/91

Ticket No: 001103

Page No: 3.2

TEST PERIOD SUMMARY

Gauge No.: 4992 Depth: 2003.21 m Blanked off : No
Clock no.: 32066 Hour: 24

ID	PERIOD	DESCRIPTION	PRESSURE (psi)	DURATION (min)
A		Initial Hydrostatic	3249.70	
B	1	Start Draw-down	805.33	
C		End Draw-down	832.80	13.18
C	2	Start Build-up	832.80	
D		End Build-up	2370.95	34.88
E	3	Start Draw-down	971.08	
F		End Draw-down	1577.48	59.27
F	4	Start Build-up	1577.48	
G		End Build-up	2393.76	124.67
H		Final Hydrostatic	3246.25	

NOTE: for Pressure vs. Time Plot, see next page.

Date: 20/6/91

Ticket No: 001103

Page No: 3.2.0

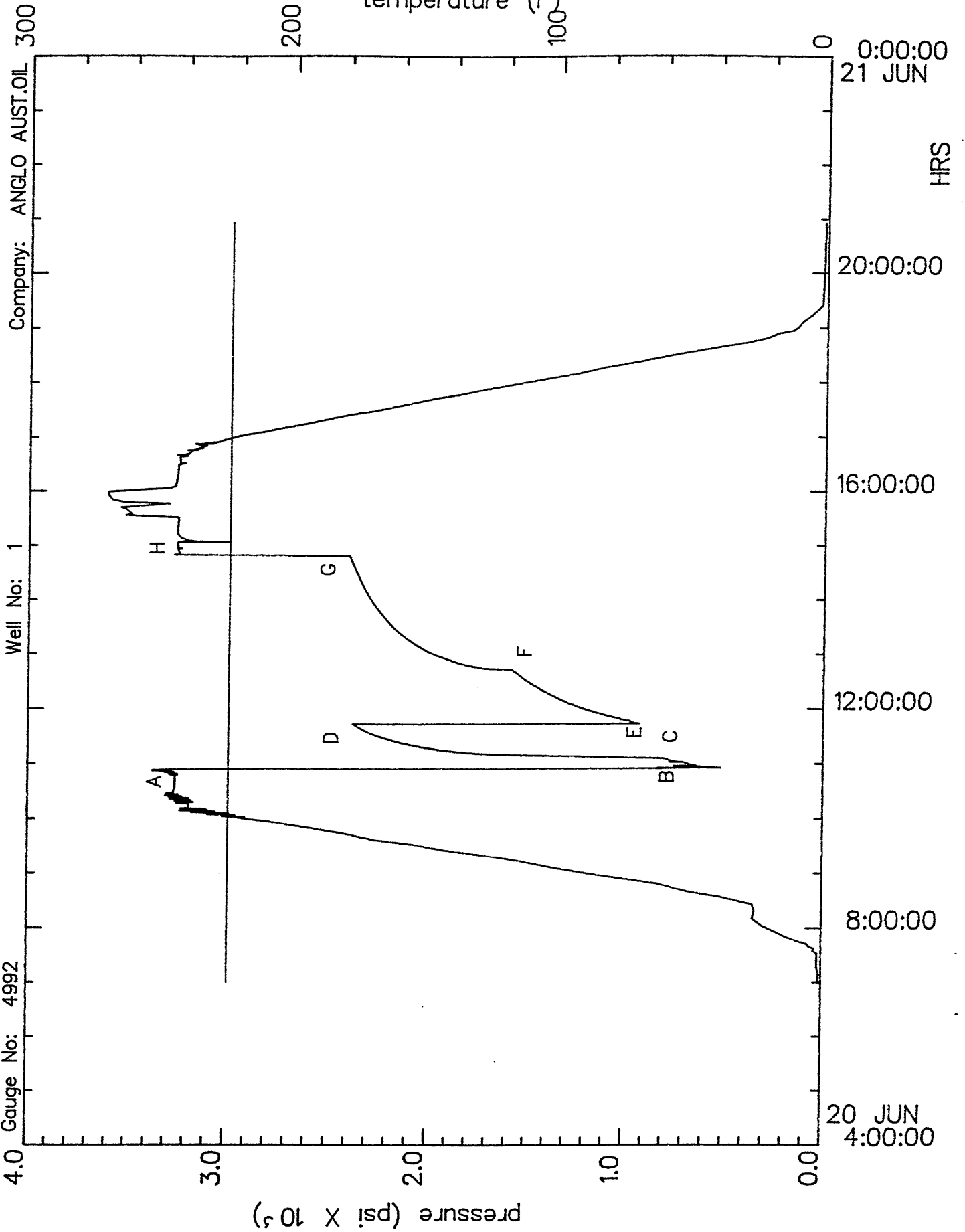
temperature (F)

Company: ANGLO AUST.OIL 300

Well No: 1

Test No: 1
Gauge No: 4992

Pressure/Temperature History



Date: 20/6/91

Ticket No: 001103

Page No: 3.2.1

PRESSURE VS TIME

MECHANICAL gauge no.: 4992
Clock no.: 32066

Gauge Depth: 2003.21 m

Hour: 24

TIME HH:MM:SS	D TIME (hr)	PRESSURE (psi)	TEMP (F)	COMMENTS

0-Jun-91				Data Print Frequency: 1
05:00:00				MAKE UP TEST TOOLS
06:58:50		14.610	224.0	
07:11:53		14.610	224.0	
07:13:06		20.771	224.0	
07:15:49		21.876	224.0	
07:25:30		21.402	224.0	
07:30:00				TOOLS MADE UP, RUN IN HOLE
07:32:02		21.402	224.0	
07:34:27		42.885	224.0	
07:37:32		37.514	224.0	
07:39:38		64.367	224.0	
07:42:25		74.318	224.0	
07:45:02		118.387	224.0	
07:50:05		180.778	224.0	
07:56:31		243.483	224.0	
08:02:06		300.658	224.0	
08:09:41		348.671	224.0	
08:15:00				PICK UP AND MAKE UP TEST HEAD
08:19:09		336.826	224.0	
08:25:43		351.198	224.0	
08:30:00				COMMENCE RUNNING IN HOLE
08:33:59		513.388	224.0	
08:39:47		674.293	224.0	
08:48:16		822.857	224.0	
08:54:03		1009.904	224.0	
08:59:47		1189.325	224.0	
09:06:23		1369.795	224.0	
09:13:39		1541.057	224.0	
09:20:11		1727.069	224.0	
09:25:15		1909.532	224.0	
09:31:56		2079.782	224.0	
09:37:02		2271.351	224.0	
09:43:45		2413.576	224.0	
09:50:28		2603.052	224.0	
09:56:55		2797.582	224.0	
09:59:38		2896.363	224.0	
10:00:35		2938.910	224.0	
10:01:08		2898.561	224.0	
10:02:17		3015.822	224.0	
10:03:09		2948.957	224.0	
10:04:16		3090.199	224.0	
10:05:15		2978.468	224.0	
10:06:34		3168.004	224.0	
10:07:20		3046.894	224.0	
10:08:33		3226.026	224.0	
06:58:50		14.610	224.0	

Date: 20/6/91

Ticket No: 001103

Page No: 3.2.2

PRESSURE VS TIME

MECHANICAL gauge no.: 4992
Clock no.: 32066

Gauge Depth: 2003.21 m

Hour: 24

TIME HH:MM:SS	D TIME (hr)	PRESSURE (psi)	TEMP (F)	COMMENTS
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20-Jun-91

Data Print Frequency: 1

07:11:53		14.610	224.0	
07:13:06		20.771	224.0	
07:15:49		21.876	224.0	
07:25:30		21.402	224.0	
07:32:02		21.402	224.0	
07:34:27		42.885	224.0	
07:37:32		37.514	224.0	
07:39:38		64.367	224.0	
07:42:25		74.318	224.0	
07:45:02		118.387	224.0	
07:50:05		180.778	224.0	
07:56:31		243.483	224.0	
08:02:06		300.658	224.0	
08:09:41		348.671	224.0	
08:19:09		336.826	224.0	
08:25:43		351.198	224.0	
08:33:59		513.388	224.0	
08:39:47		674.293	224.0	
08:48:16		822.857	224.0	
08:54:03		1009.904	224.0	
08:59:47		1189.325	224.0	
09:06:23		1369.795	224.0	
09:13:39		1541.057	224.0	
09:20:11		1727.069	224.0	
09:25:15		1909.532	224.0	
09:31:56		2079.782	224.0	
09:37:02		2271.351	224.0	
09:43:45		2413.576	224.0	
09:50:28		2603.052	224.0	
09:56:55		2797.582	224.0	
09:59:38		2896.363	224.0	
10:00:35		2938.910	224.0	
10:01:08		2898.561	224.0	
10:02:17		3015.822	224.0	
10:03:09		2948.957	224.0	
10:04:16		3090.199	224.0	
10:05:15		2978.468	224.0	
10:06:34		3168.004	224.0	
10:07:20		3046.894	224.0	
10:08:33		3226.026	224.0	
10:09:19		3086.277	224.0	
10:09:41		3204.387	224.0	
10:10:14		3096.632	224.0	
10:10:56		3221.008	224.0	
10:11:11		3179.139	224.0	
10:15:00				

PICK UP 4 SINGLES AND PUPJOINT

Date: 20/6/91

Ticket No: 001103

Page No: 3.2.3

PRESSURE VS TIME

MECHANICAL gauge no.: 4992
Clock no.: 32066

Gauge Depth: 2003.21 m

Hour: 24

TIME HH:MM:SS	D TIME (hr)	PRESSURE (psi)	TEMP (F)	COMMENTS

0-Jun-91				Data Print Frequency: 1
10:15:56		3184.471	224.0	
10:16:49		3244.527	224.0	
10:17:46		3156.868	224.0	
10:19:03		3253.464	224.0	
10:19:53		3168.317	224.0	
10:21:30		3277.136	224.0	
10:22:06		3181.021	224.0	
10:23:16		3281.368	224.0	
10:24:11		3215.834	224.0	
10:25:15		3299.708	224.0	
10:26:08		3233.238	224.0	
10:26:58		3296.260	224.0	
10:27:07		3282.622	224.0	
10:27:51		3258.951	224.0	
10:28:53		3251.112	224.0	
10:30:00				RIG UP SURFACE EQUIPMENT
10:33:50		3250.014	224.0	
10:38:50		3249.701	224.0	
10:43:49		3249.701	224.0	
10:44:59		3249.701	224.0	
10:47:07		3249.701	224.0	
10:47:27		3272.433	224.0	
10:47:45		3237.942	224.0	
10:48:18		3279.330	224.0	
10:48:44		3239.040	224.0	
10:49:04		3265.849	224.0	
10:49:37		3256.286	224.0	
10:50:00				STRING WEIGHT 124K UP, 120K DN
10:50:03		3285.287	224.0	
10:50:45		3305.821	224.0	
10:50:50		3255.502	224.0	
10:52:00				SET WEIGHT ON TOOL, TIGHT HOLE
10:52:44		3367.568	224.0	
10:53:00				TRY TO WORK TOOL TO BOTTOM
10:53:46		3272.119	224.0	
10:55:00				TOOL OPEN - SKID 15ft DOWN
10:55:00				SLIGHT BLOW
				*** Start of Period 1 ***
10:55:00	0.0000	805.333	224.0	
10:55:23	0.0065	828.856	224.0	
10:55:32	0.0090	512.598	224.0	
10:56:49	0.0304	626.766	224.0	
10:57:21	0.0393	746.920	224.0	
10:57:43	0.0453	632.292	224.0	
10:58:19	0.0553	634.345	224.0	
10:58:37	0.0603	667.030	224.0	

Date: 20/6/91

Ticket No: 001103

Page No: 3.2.4

PRESSURE VS TIME

MECHANICAL gauge no.: 4992
Clock no.: 32066

Gauge Depth: 2003.21 m

Hour: 24

TIME HH:MM:SS	D TIME (hr)	PRESSURE (psi)	TEMP (F)	COMMENTS
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20-Jun-91

Data Print Frequency: 1

10:58:56	0.0657	659.451	224.0	
10:59:00	0.0667	658.503	224.0	
11:00:00				BLOW INCREASING
11:00:01	0.0837	662.135	224.0	
11:01:00	0.1001	684.240	224.0	
11:01:47	0.1131	705.239	224.0	
11:01:56	0.1156	767.286	224.0	
11:02:17	0.1215	727.974	224.0	
11:02:30	0.1250	756.393	224.0	
11:02:44	0.1290	741.079	224.0	
11:03:00	0.1335	741.079	224.0	
11:03:59	0.1499	759.077	224.0	
11:05:00	0.1669	782.442	224.0	
11:05:49	0.1803	802.650	224.0	
11:05:54	0.1818	790.020	224.0	
11:06:12	0.1868	826.330	224.0	
11:06:21	0.1893	820.173	224.0	
11:07:00	0.2002	824.593	224.0	
11:08:00	0.2167	831.855	224.0	
11:08:10				ROTATE TOOL CLOSED
11:08:10	0.2197	832.802	224.0	
		*** End of Period 1 ***		
		*** Start of Period 2 ***		
11:09:12	0.0171	1498.011	224.0	
11:10:12	0.0337	1661.501	224.0	
11:11:11	0.0503	1751.812	224.0	
11:12:11	0.0668	1814.687	224.0	
11:13:11	0.0834	1861.797	224.0	
11:14:10	0.1000	1904.018	224.0	
11:15:10	0.1166	1949.543	224.0	
11:16:12	0.1337	1982.304	224.0	
11:17:11	0.1503	2011.282	224.0	
11:18:11	0.1669	2036.007	224.0	
11:19:11	0.1834	2061.202	224.0	
11:20:10	0.2000	2085.293	224.0	
11:21:10	0.2166	2106.391	224.0	
11:22:12	0.2337	2127.960	224.0	
11:23:11	0.2503	2147.639	224.0	
11:24:11	0.2669	2164.011	224.0	
11:25:11	0.2834	2179.437	224.0	
11:26:10	0.3000	2195.178	224.0	
11:27:10	0.3166	2209.029	224.0	
11:28:12	0.3337	2225.555	224.0	
11:29:11	0.3503	2240.191	224.0	
11:30:11	0.3669	2254.513	224.0	
11:31:11	0.3835	2266.630	224.0	

Date: 20/6/91

Ticket No: 001103

Page No: 3.2.5

PRESSURE VS TIME

MECHANICAL gauge no.: 4992
Clock no.: 32066

Gauge Depth: 2003.21 m

Hour: 24

TIME HH:MM:SS	D TIME (hr)	PRESSURE (psi)	TEMP (F)	COMMENTS

0-Jun-91		Data Print Frequency: 1		
11:32:10	0.4000	2277.488	224.0	
11:33:10	0.4166	2288.661	224.0	
11:34:12	0.4337	2300.462	224.0	
11:35:11	0.4503	2310.218	224.0	
11:36:11	0.4669	2318.400	224.0	
11:37:11	0.4835	2326.738	224.0	
11:38:10	0.5000	2334.763	224.0	
11:39:10	0.5166	2342.944	224.0	
11:40:12	0.5337	2350.495	224.0	
11:41:11	0.5503	2358.204	224.0	
11:42:11	0.5669	2364.497	224.0	
11:43:03				TOOL ROTATED OPEN
11:43:03				WEAK BLOW
11:43:03	0.5813	2370.947	224.0	
		*** End of Period 2 ***		
		*** Start of Period 3 ***		
11:43:46	0.0000	971.078	224.0	
11:44:00				BLOW INCREASING
11:44:00	0.0040	919.938	224.0	
11:44:07	0.0060	969.341	224.0	
11:44:16	0.0085	945.982	224.0	
11:44:46	0.0169	945.192	224.0	
11:45:46	0.0333	951.506	224.0	
11:46:47	0.0503	975.497	224.0	
11:47:46	0.0667	998.698	224.0	
11:48:47	0.0836	1019.215	224.0	
11:49:46	0.1001	1038.154	224.0	
11:50:47	0.1170	1057.407	224.0	
11:51:46	0.1334	1077.449	224.0	
11:52:47	0.1504	1094.492	224.0	
11:53:46	0.1668	1110.746	224.0	
11:54:47	0.1837	1126.526	224.0	
11:55:46	0.2001	1145.145	224.0	
11:56:45	0.2166	1160.609	224.0	
11:57:46	0.2335	1176.387	224.0	
11:58:45	0.2499	1191.692	224.0	
11:59:46	0.2669	1205.576	224.0	
12:00:00				BLOW DECREASING
12:00:45	0.2833	1217.567	224.0	
12:01:46	0.3002	1229.715	224.0	
12:02:45	0.3167	1242.652	224.0	
12:03:46	0.3336	1253.222	224.0	
12:04:46	0.3500	1265.370	224.0	
12:05:47	0.3669	1279.094	224.0	
12:06:46	0.3834	1289.033	224.0	
12:07:47	0.4003	1301.179	224.0	

Date: 20/6/91

Ticket No: 001103

Page No: 3.2.6

PRESSURE VS TIME

MECHANICAL gauge no.: 4992
Clock no.: 32066

Gauge Depth: 2003.21 m

Hour: 24

TIME HH:MM:SS	D TIME (hr)	PRESSURE (psi)	TEMP (F)	COMMENTS

0-Jun-91				Data Print Frequency: 1
12:08:46	0.4167	1310.960	224.0	
12:09:47	0.4337	1321.844	224.0	
12:10:46	0.4501	1332.413	224.0	
12:11:47	0.4670	1342.035	224.0	
12:12:46	0.4835	1350.079	224.0	
12:13:47	0.5004	1360.805	224.0	
12:15:45	0.5332	1379.101	224.0	
12:17:45	0.5666	1397.081	224.0	
12:19:45	0.6000	1414.588	224.0	
12:21:45	0.6333	1430.989	224.0	
12:23:46	0.6667	1445.656	224.0	
12:25:46	0.7000	1461.741	224.0	
12:27:46	0.7334	1477.669	224.0	
12:29:46	0.7668	1493.122	224.0	
12:31:46	0.8001	1507.472	224.0	
12:33:46	0.8335	1520.244	224.0	
12:35:46	0.8668	1531.123	224.0	
12:37:46	0.9002	1543.422	224.0	
12:39:46	0.9336	1555.247	224.0	
12:41:46	0.9669	1567.229	224.0	
12:43:00				ROTATE TOOL CLOSED
12:43:02	0.9878	1577.477	224.0	
				*** End of Period 3 ***
				*** Start of Period 4 ***
12:44:02	0.0168	1704.374	224.0	
12:45:03	0.0336	1742.514	224.0	
12:46:03	0.0503	1767.886	224.0	
12:47:02	0.0666	1793.887	224.0	
12:48:02	0.0834	1814.687	224.0	
12:49:02	0.1002	1830.601	224.0	
12:50:03	0.1170	1847.775	224.0	
12:51:03	0.1337	1863.058	224.0	
12:52:02	0.1500	1876.292	224.0	
12:53:02	0.1668	1890.155	224.0	
12:54:03	0.1836	1903.231	224.0	
12:55:03	0.2004	1916.778	224.0	
12:56:02	0.2166	1928.908	224.0	
12:57:02	0.2334	1942.769	224.0	
12:58:02	0.2502	1956.788	224.0	
12:59:03	0.2670	1968.129	224.0	
13:00:03	0.2838	1977.894	224.0	
13:01:02	0.3000	1988.131	224.0	
13:02:02	0.3168	1998.053	224.0	
13:03:03	0.3336	2007.345	224.0	
13:04:03	0.3504	2015.849	224.0	
13:05:02	0.3666	2023.251	224.0	

Date: 20/6/91

Ticket No: 001103

Page No: 3.2.7

PRESSURE VS TIME

MECHANICAL gauge no.: 4992
Clock no.: 32066

Gauge Depth: 2003.21 m

Hour: 24

TIME HH:MM:SS	D TIME (hr)	PRESSURE (psi)	TEMP (F)	COMMENTS

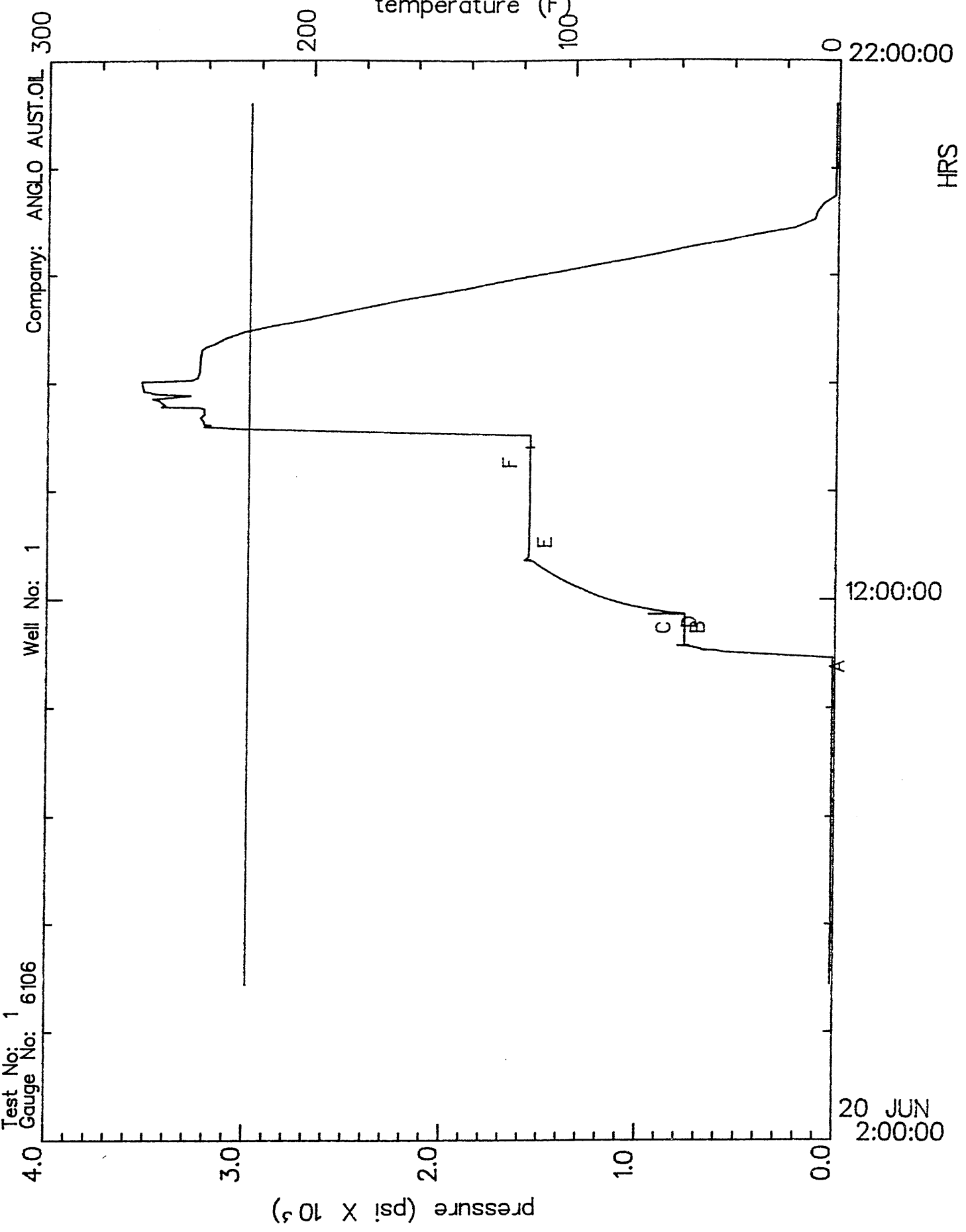
0-Jun-91		Data Print Frequency:	1	
13:06:02	0.3834	2030.338	224.0	
13:07:02	0.4002	2038.526	224.0	
13:08:03	0.4170	2046.873	224.0	
13:09:01	0.4333	2054.116	224.0	
13:10:02	0.4500	2061.674	224.0	
		*** End of Period 4 ***		
14:47:40				OPEN BYPASS, PULL PACKERS FREE
15:02:00				DROP BAR
15:03:00				PIN SHEARED
15:10:00				WATER MUD AT SURFACE
15:30:00				REVERSE CIRCULATE
15:38:00				MUD TO SURFACE
15:50:00				MUD WEIGHT 9.4+
16:05:00				HYDRIL LINE BROKE, REPAIR
16:30:00				LAY OUT TEST HEAD
16:35:00				LAY OUT SINGLES, P.O.O.H.
19:18:00				TOOLS AT FLOOR
21:30:00				TOOLS LAID OUT

Pressure/Temperature History

Date: 20/6/91

Ticket No: 001103

Page No: 3.3.0



Date: 20/6/91

Ticket No: 001103

Page No: 3.3.1

PRESSURE VS TIME

MECHANICAL gauge no.: 6106
Clock no.: 32070

Gauge Depth: 1996.80 m

Hour: 24

TIME HH:MM:SS	D TIME (hr)	PRESSURE (psi)	TEMP (F)	COMMENTS
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0-Jun-91

Data Print Frequency: 1

04:52:10		12.737	224.0	
05:00:00				MAKE UP TEST TOOLS
05:07:10		12.737	224.0	
05:37:11		12.737	224.0	
06:37:11		12.737	224.0	
07:30:00				TOOLS MADE UP, RUN IN HOLE
07:37:10		12.737	224.0	
08:15:00				PICK UP AND MAKE UP TEST HEAD
08:30:00				COMMENCE RUNNING IN HOLE
08:37:10		12.737	224.0	
09:37:11		12.737	224.0	
10:15:00				PICK UP 4 SINGLES AND PUPJOINT
10:30:00				RIG UP SURFACE EQUIPMENT
10:37:11		12.737	224.0	
10:50:00				STRING WEIGHT 124K UP, 120K DN
10:52:00				SET WEIGHT ON TOOL, TIGHT HOLE
10:53:00				TRY TO WORK TOOL TO BOTTOM
10:55:00				TOOL OPEN - SKID 15ft DOWN
10:55:00				SLIGHT BLOW
		*** Start of Period 1 ***		
10:55:00	0.0000	12.737	224.0	
11:00:00				BLOW INCREASING
11:01:00	0.1001	550.250	224.0	
11:01:59	0.1166	585.765	224.0	
11:03:01	0.1336	618.282	224.0	
11:03:19	0.1386	672.270	224.0	
11:03:35	0.1431	650.801	224.0	
11:03:51	0.1476	676.848	224.0	
11:04:00	0.1501	672.901	224.0	
11:05:00	0.1666	678.742	224.0	
11:06:01	0.1836	709.842	224.0	
11:07:00	0.2002	735.101	224.0	
11:08:00	0.2167	762.572	224.0	
11:08:10				ROTATE TOOL CLOSED
11:08:11	0.2197	764.940	224.0	
		*** End of Period 1 ***		
		*** Start of Period 2 ***		
11:08:24	0.0037	801.568	224.0	
11:08:33	0.0063	739.206	224.0	
11:08:41	0.0084	766.045	224.0	
11:09:11	0.0167	766.361	224.0	
11:10:11	0.0335	765.887	224.0	
11:11:11	0.0502	765.414	224.0	
11:12:11	0.0669	765.098	224.0	
11:13:12	0.0836	764.940	224.0	
11:18:11	0.1668	764.940	224.0	

Date: 20/6/91

Ticket No: 001103

Page No: 3.3.2

PRESSURE VS TIME

MECHANICAL gauge no.: 6106
Clock no.: 32070

Gauge Depth: 1996.80 m

Hour: 24

TIME HH:MM:SS	D TIME (hr)	PRESSURE (psi)	TEMP (F)	COMMENTS

20-Jun-91		Data Print Frequency: 1		
11:28:11	0.3335	764.940	224.0	
11:38:12	0.5003	764.940	224.0	
11:43:03				TOOL ROTATED OPEN
11:43:03				WEAK BLOW
11:43:03	0.5813	764.940	224.0	
		*** End of Period 2 ***		
11:43:09		753.573	224.0	
11:43:18		948.092	224.0	
		*** Start of Period 3 ***		
11:43:45	0.0000	765.256	224.0	
11:44:00				BLOW INCREASING
11:44:46	0.0169	839.145	224.0	
11:45:45	0.0333	866.618	224.0	
11:46:46	0.0502	900.881	224.0	
11:47:45	0.0666	925.355	224.0	
11:48:46	0.0836	950.145	224.0	
11:49:45	0.1000	972.725	224.0	
11:50:46	0.1169	996.726	224.0	
11:51:45	0.1333	1019.464	224.0	
11:52:46	0.1502	1042.361	224.0	
11:53:45	0.1666	1058.309	224.0	
11:54:46	0.1835	1077.574	224.0	
11:55:45	0.2000	1091.944	224.0	
11:56:45	0.2169	1109.156	224.0	
11:57:45	0.2333	1126.684	224.0	
11:58:45	0.2502	1140.423	224.0	
11:59:45	0.2666	1156.372	224.0	
12:00:00				BLOW DECREASING
12:00:45	0.2835	1170.110	224.0	
12:01:45	0.2999	1183.375	224.0	
12:02:45	0.3168	1195.850	224.0	
12:03:45	0.3333	1207.377	224.0	
12:04:45	0.3502	1220.642	224.0	
12:05:46	0.3671	1231.538	224.0	
12:06:45	0.3835	1242.118	224.0	
12:07:46	0.4004	1252.856	224.0	
12:08:45	0.4168	1263.121	224.0	
12:09:46	0.4337	1272.438	224.0	
12:10:45	0.4501	1281.755	224.0	
12:11:46	0.4671	1291.387	224.0	
12:12:45	0.4835	1301.494	224.0	
12:13:46	0.5004	1313.653	224.0	
12:15:46	0.5337	1333.550	224.0	
12:17:46	0.5670	1354.710	224.0	
12:19:46	0.6004	1371.606	224.0	
12:21:46	0.6337	1390.556	224.0	

Date: 20/6/91

Ticket No: 001103

Page No: 3.3.3

PRESSURE VS TIME

MECHANICAL gauge no.: 6106
Clock no.: 32070

Gauge Depth: 1996.80 m

Hour: 24

TIME HH:MM:SS	D TIME (hr)	PRESSURE (psi)	TEMP (F)	COMMENTS
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20-Jun-91

Data Print Frequency: 1

12:23:46	0.6670	1406.662	224.0
12:25:46	0.7003	1422.611	224.0
12:27:46	0.7337	1437.297	224.0
12:29:46	0.7670	1454.035	224.0
12:31:46	0.8003	1468.720	224.0
12:33:46	0.8336	1483.089	224.0
12:35:46	0.8670	1497.301	224.0
12:37:46	0.9003	1511.038	224.0
12:39:46	0.9336	1523.670	224.0
12:41:46	0.9669	1536.144	224.0

ROTATE TOOL CLOSED

12:43:00			
12:43:01	0.9878	1542.934	224.0

*** End of Period 3 ***

*** Start of Period 4 ***

12:43:12	0.0030	1580.987	224.0
12:43:30	0.0081	1545.303	224.0
12:43:37	0.0101	1574.672	224.0
12:43:45	0.0121	1559.198	224.0
12:45:01	0.0333	1558.250	224.0
12:46:01	0.0499	1557.777	224.0
12:47:02	0.0671	1557.145	224.0
12:48:02	0.0837	1556.513	224.0
12:53:02	0.1669	1555.724	224.0
13:03:01	0.3334	1554.619	224.0
13:13:02	0.5003	1554.303	224.0
13:23:01	0.6667	1553.671	224.0
13:33:02	0.8337	1553.198	224.0
13:43:01	1.0001	1552.882	224.0
14:03:01	1.3334	1552.882	224.0
14:23:01	1.6668	1552.882	224.0
14:43:02	2.0002	1552.882	224.0

OPEN BYPASS, PULL PACKERS FREE

14:47:40			
14:47:41	2.0778	1552.882	224.0

*** End of Period 4 ***

14:47:55		1575.303	224.0
14:48:04		1532.671	224.0
14:48:15		1552.882	224.0
15:01:42		1552.882	224.0

DROP BAR
PIN SHEARED

15:02:00			
15:03:00			
15:09:02		3002.651	224.0

WATER MUD AT SURFACE

15:10:00			
15:11:31		3212.118	224.0
15:12:53		3225.018	224.0
15:13:16		3178.136	224.0
15:14:02		3212.905	224.0

Date: 20/6/91

Ticket No: 001103

Page No: 3.3.4

PRESSURE VS TIME

MECHANICAL gauge no.: 6106
Clock no.: 32070

Gauge Depth: 1996.80 m

Hour: 24

TIME HH:MM:SS	D TIME (hr)	PRESSURE (psi)	TEMP (F)	COMMENTS

0-Jun-91		Data Print Frequency:	1	
15:17:34		3217.939	224.0	
15:18:40		3231.782	224.0	
15:21:27		3230.995	224.0	
15:22:07		3214.006	224.0	
15:25:40		3207.713	224.0	
15:30:00				REVERSE CIRCULATE
15:31:07		3209.758	224.0	
15:32:58		3248.141	224.0	
15:33:43		3428.803	224.0	
15:34:47		3406.169	224.0	
15:35:20		3409.155	224.0	
15:37:20		3410.413	224.0	
15:38:00				MUD TO SURFACE
15:40:34		3442.477	224.0	
15:42:43		3472.651	224.0	
15:44:47		3482.708	224.0	
15:46:21		3281.327	224.0	
15:48:09		3460.550	224.0	
15:50:00				MUD WEIGHT 9.4+
15:50:58		3517.118	224.0	
15:57:29		3526.074	224.0	
16:01:52		3525.916	224.0	
16:03:25		3274.250	224.0	
16:05:00				HYDRIL LINE BROKE, REPAIR
16:06:08		3244.995	224.0	
16:12:37		3234.928	224.0	
16:21:41		3231.939	224.0	
16:29:45		3228.793	224.0	
16:29:59		3224.388	224.0	
16:30:00				LAY OUT TEST HEAD
16:35:00				LAY OUT SINGLES, P.O.O.H.
16:37:14		3223.130	224.0	
16:38:28		3221.714	224.0	
16:40:14		3205.668	224.0	
16:43:54		3161.458	224.0	
16:50:15		3106.224	224.0	
16:57:06		3016.820	224.0	
17:03:48		2873.841	224.0	
17:10:24		2703.221	224.0	
17:17:41		2544.341	224.0	
17:25:10		2371.045	224.0	
17:32:26		2210.936	224.0	
17:38:39		2045.570	224.0	
17:44:44		1883.792	224.0	
17:51:22		1730.822	224.0	
17:57:46		1572.777	224.0	

Date: 20/6/91

Ticket No: 001103

Page No: 3.3.5

PRESSURE VS TIME

MECHANICAL gauge no.: 6106
Clock no.: 32070

Gauge Depth: 1996.80 m

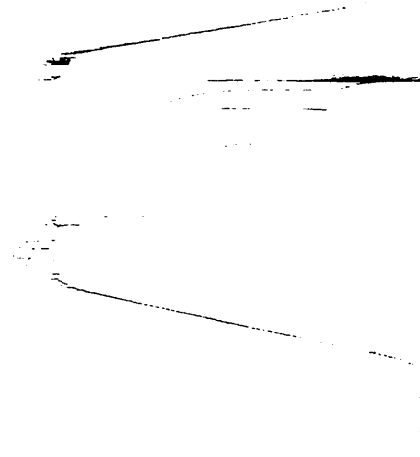
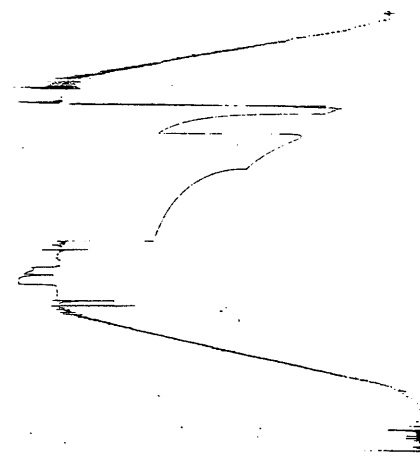
Hour: 24

TIME HH:MM:SS	D TIME (hr)	PRESSURE (psi)	TEMP (F)	COMMENTS

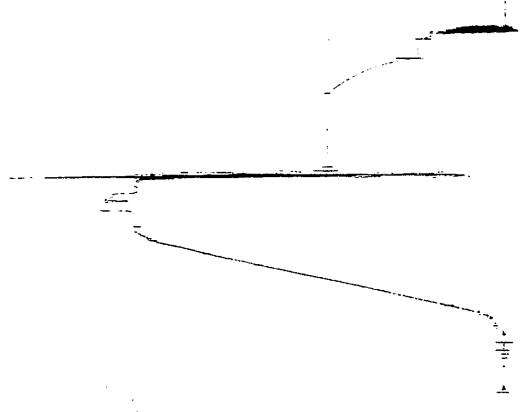
20-Jun-91				
		Data Print Frequency:	1	
18:03:49		1402.557	224.0	
18:10:49		1238.328	224.0	
18:17:33		1060.994	224.0	
18:23:35		913.513	224.0	
18:32:09		739.838	224.0	
18:38:40		565.561	224.0	
18:46:05		409.156	224.0	
18:53:14		222.817	224.0	
19:02:58		120.446	224.0	
19:11:52		105.147	224.0	
19:18:00				TOOLS AT FLOOR
19:20:45		74.552	224.0	
19:29:16		16.206	224.0	
19:43:49		14.629	224.0	
19:59:47		12.894	224.0	
20:19:14		12.894	224.0	
20:49:41		12.894	224.0	
21:11:33		12.737	224.0	
21:30:00				TOOLS LAID OUT

DEPTH 2025m ANGLO AUST. HY # 01103

DEPTH 2003.21m ANGLO AUST. HY # 01103



BT 6106 DST #1 KILLARA #1 OTTOWAY BASIN
DEPTH 1996.80 ANGLO AUST HY # 01103



End of Appendix 7.

APPENDIX

VIII

**VELOCITY
SURVEY**

Velocity Data



WELL VELOCITY SURVEY

KILLARA #1

PEP 101

Victoria

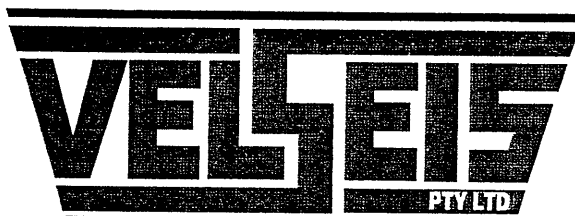
for

Anglo Australian Oil Company

recorded by

VELOCITY DATA PTY. LTD.

processed by



Integrated Seismic Technologies

Brisbane, Australia

May 7, 1992

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1.		Calculation Sheets		
2.		Trace Display and First Arrival Plots		

142°

143°

BALLARAT •

VICTORIA

KILLARA No. 1



• FORT FAIRY

• WARRNAMBOOL

• COLAC

SOUTHERN
OCEAN

KILLARA No. 1

Anglo Australain Oil Company

WELL LOCATION MAP

Scale 1:1000000

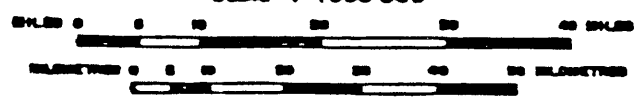
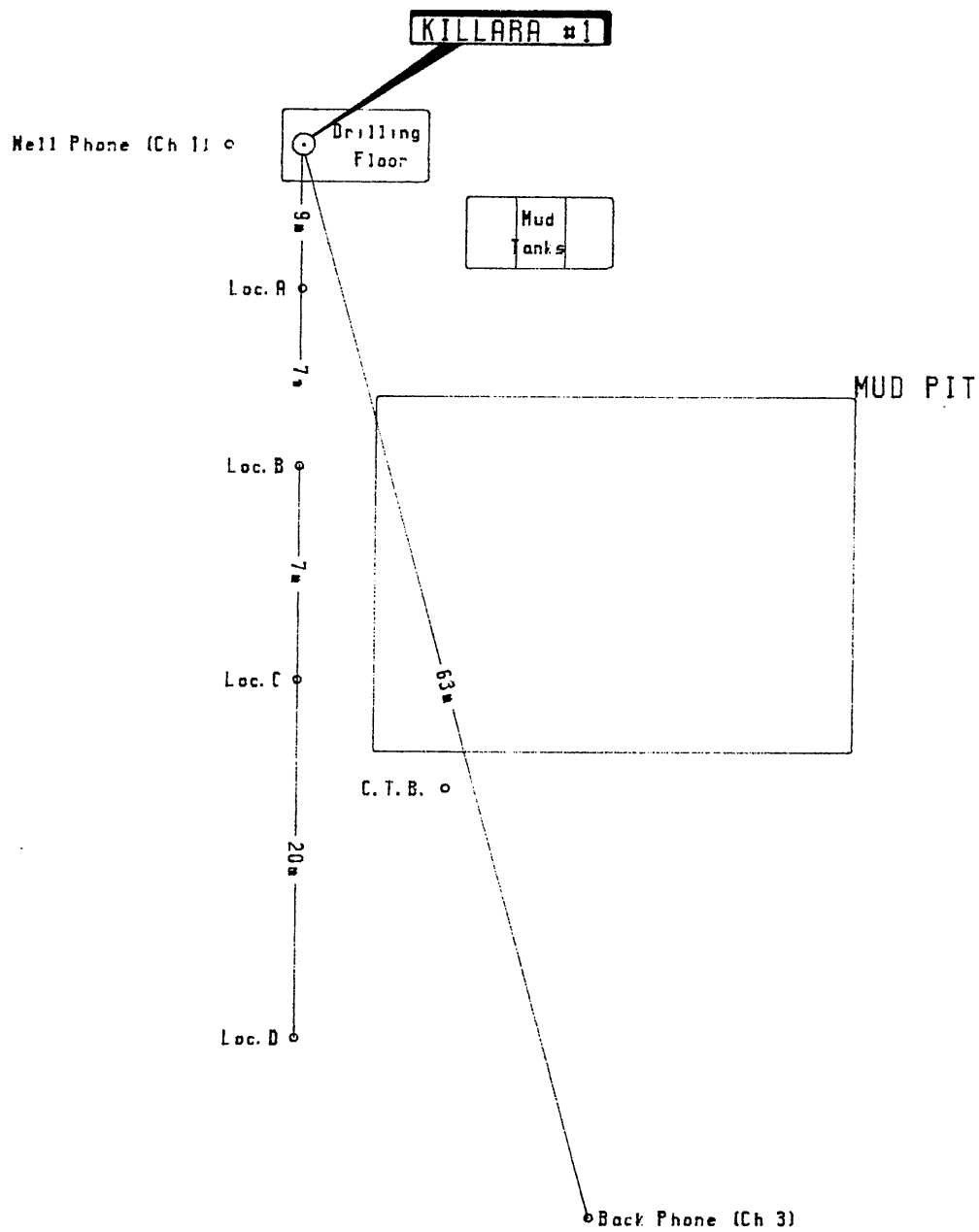


Figure 1



KILLARA #1

ANGLO AUSTRALIAN OIL
SHOT POINT LOCATION SKETCH



Figure 2

SUMMARY

Velocity Data Pty Ltd conducted a velocity survey for Anglo Australian Oil Company in the Killara No. 1 well, PEP 101, Otway Basin, Victoria, Australia. The date of the survey was the 26th June 1991.

The results of the survey, which are considered to be reliable, have been used to calibrate the sonic log.

Explosives were used as an energy source with shots being fired in the flare pit in the majority of instances.

GENERAL INFORMATION

Name of Well	:	Killara #1
Location (Figure 1)	:	PEP 101
Coordinates	:	Latitude 038 11 24.2 Longitude 142 13 19.1
Date of Survey	:	June 26th, 1991.
Wireline Logging	:	Haliburton
Weather	:	Fine
Operational Base	:	Brisbane
Operator	:	N. Delfos
Shooter	:	J. Brown
Client Representative	:	Mr. I. Buckingham

EQUIPMENT

Downhole Tool

FM Monoline (48 mm)

Sensors:

4 SM6 4.5 Hz - 375 ohm connected in series
parallel.

Preamplifier:

-48 dB fixed gain

Time Delay:

4 milliseconds

Reference Geophone

Mark Products L1 (4.5 Hz)

Recording Instrument

VDLS 11/10 software controlled digital recording system utilising SIE OPA-10 floating point amplifiers for digital recording and SIE OPA-4 amplifiers for analog presentation. The system includes a DEC LSI-11 CPU, twin cassette tape unit and printer.

RECORDING

Energy Source : Explosive, AN60
Shot Location : Flare pit
Charge Size : 1 / 3 (125grm) sticks
Average Shot Depth : 1.2 metres
Average Shot Offset : 43.0 metres
Recording Geometry : Figure 2

Shots were recorded on digital cassette tape. Printouts of the shots used are included with this report. (Enclosure 2)

The sample rate was 1 ms with 0.5 ms sampling over a 200ms window encompassing the first arrivals. The scale of the graphic display varies with signal strength and is noted on each playout.

The times were picked from the printouts using the numerical value of the signal strength. (Enclosure 2)

PROCESSING**Elevation Data**

Elevation of KB : 76.0m above sea level
Elevation of Ground : 70.7m above sea level
Elevation of Seismic Datum : 0.0m above sea level
Depth Surveyed : 2414.0m below KB
Total Depth : 2414.0m below KB
Depth of Casing : 305.0m below KB
Sonic Log Interval : 1.0 to 2417.0m below KB

PROCESSING**Recorded Data**

Number of Shots Used : 27
Number of Levels Recorded : 23
Data Quality : Good
Noise Level : Low

Correction for Instrument Delay and Shot Offset

The 'corrected' times shown on the calculation sheet have been obtained by:

- (i) Subtraction of the instrument delay (8msec) from the recorded arrival times
- (ii) geometric correction for non-verticality of ray paths resulting from shot offset.
- (iii) shot static correction to correct for the depth of shot below ground level at the well head using a correction velocity of 2700 metres/sec
- (iv) readdition of the instrument delay (8msec).

Correction to Datum

The datum chosen was 0.0 metres ASL that is 76.0 metres below KB. Given that this level was not shot during the survey an average effective datum correction time of 29.8msecs was determined by an interpolation with the adjacent level.

While this value is equivalent to the value of the adjacent shot this is purely a function of their close proximity.

Please note that this value includes a 8msec instrumentation delay.

PROCESSING

Calibration of Sonic Log - Method

Sonic times were adjusted to checkshot times using a polynomial derived least squares fit correction of the sonic transient times. The sonic log that lay within the casing was deleted from the calibration, and extended to encompass the last level recorded.

These differences arise as the sonic tool measures the local velocity characteristics of the formation with a high frequency signal, whereas the downhole geophone records the bulk velocity character using a signal of significantly lower frequency.

Calibration of Sonic Log - Results (Enclosure 1)

The discrepancies between shot and sonic interval velocities were generally small over the logged portion of the well, the largest value being 67.06 μ sec/m over the interval 310.0 to 395.0 m.

In aggregate, the shot and sonic interval times differed by 11.4 msec.

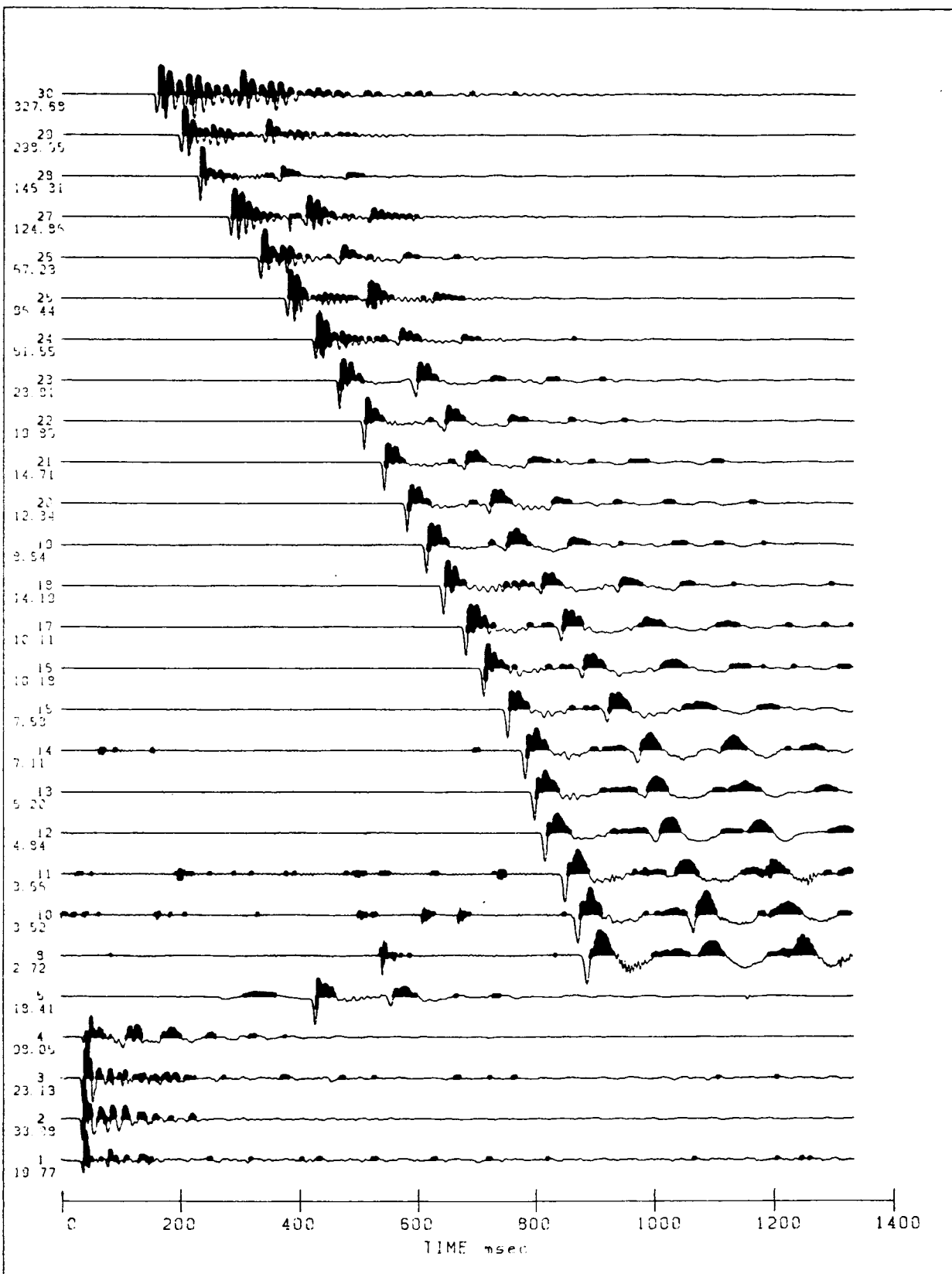
PE906681

This is an enclosure indicator page.
The enclosure PE906681 is enclosed within the
container PE902052 at this location in this
document.

The enclosure PE906681 has the following characteristics:

ITEM_BARCODE = PE906681
CONTAINER_BARCODE = PE902052
 NAME = Time-Depth and Velocity Curves
 BASIN = OTWAY
 PERMIT = PEP101
 TYPE = WELL
 SUBTYPE = VELOCITY_CHART
DESCRIPTION = Time-Depth and Velocity Curves,
 Appendix 8, Killara-1
REMARKS =
DATE_CREATED = 25/06/91
DATE_RECEIVED = 3/08/92
 W_NO = W1048
 WELL_NAME = KILLARA-1
CONTRACTOR =
CLIENT_OP_CO = ANGLO AUSTRALIAN OIL NL

(Inserted by DNRE - Vic Govt Mines Dept)



KILLARA #1

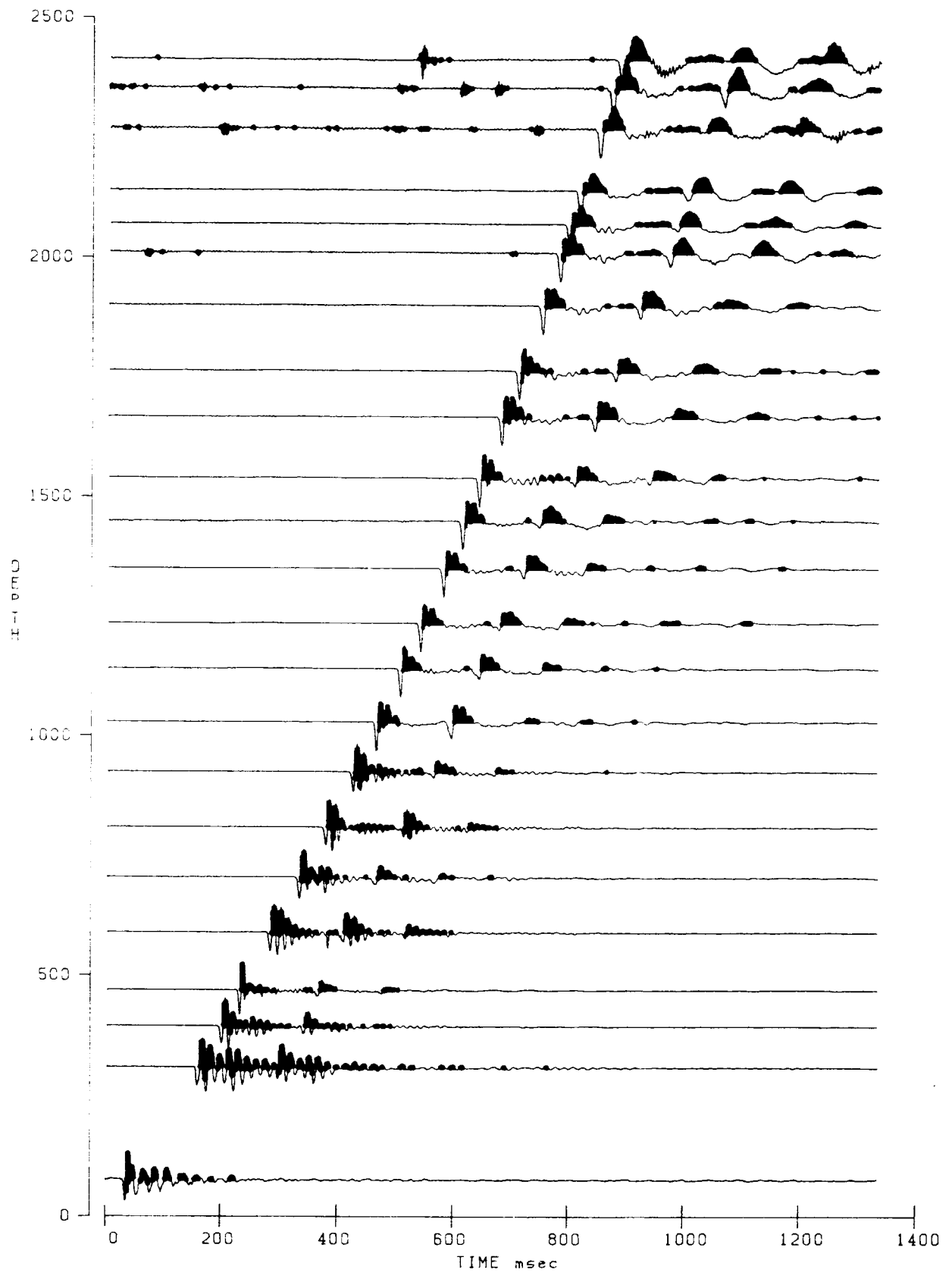
VELOCITY SURVEY TRACE DISPLAY

Filter: OUT-OUT

No gain recovery



Figure 4A

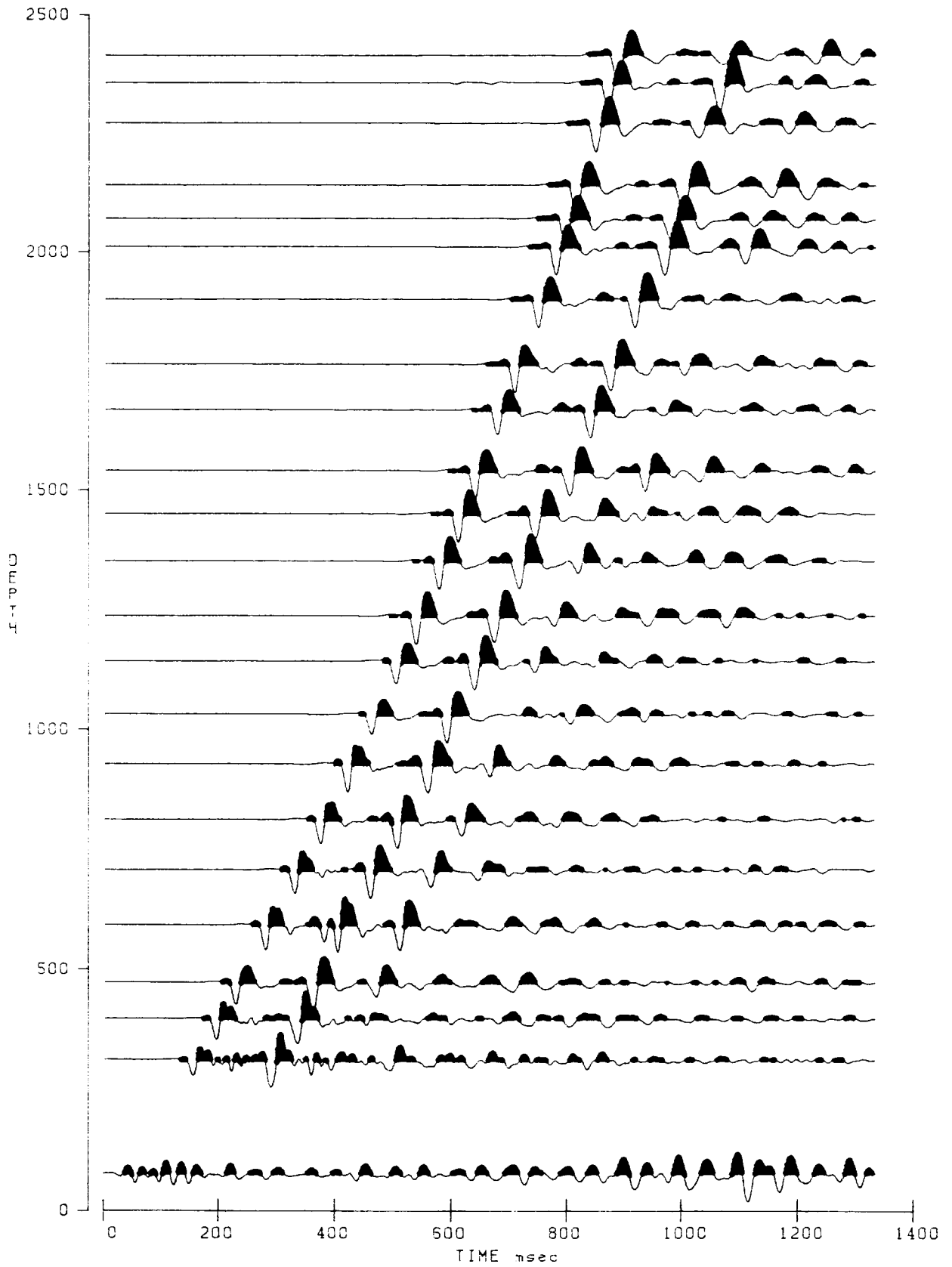


KILLARA #1

VELOCITY SURVEY TRACE DISPLAY
 Filter OUT-OUT
 No gain recovery



Figure 4B



KILLARA #1

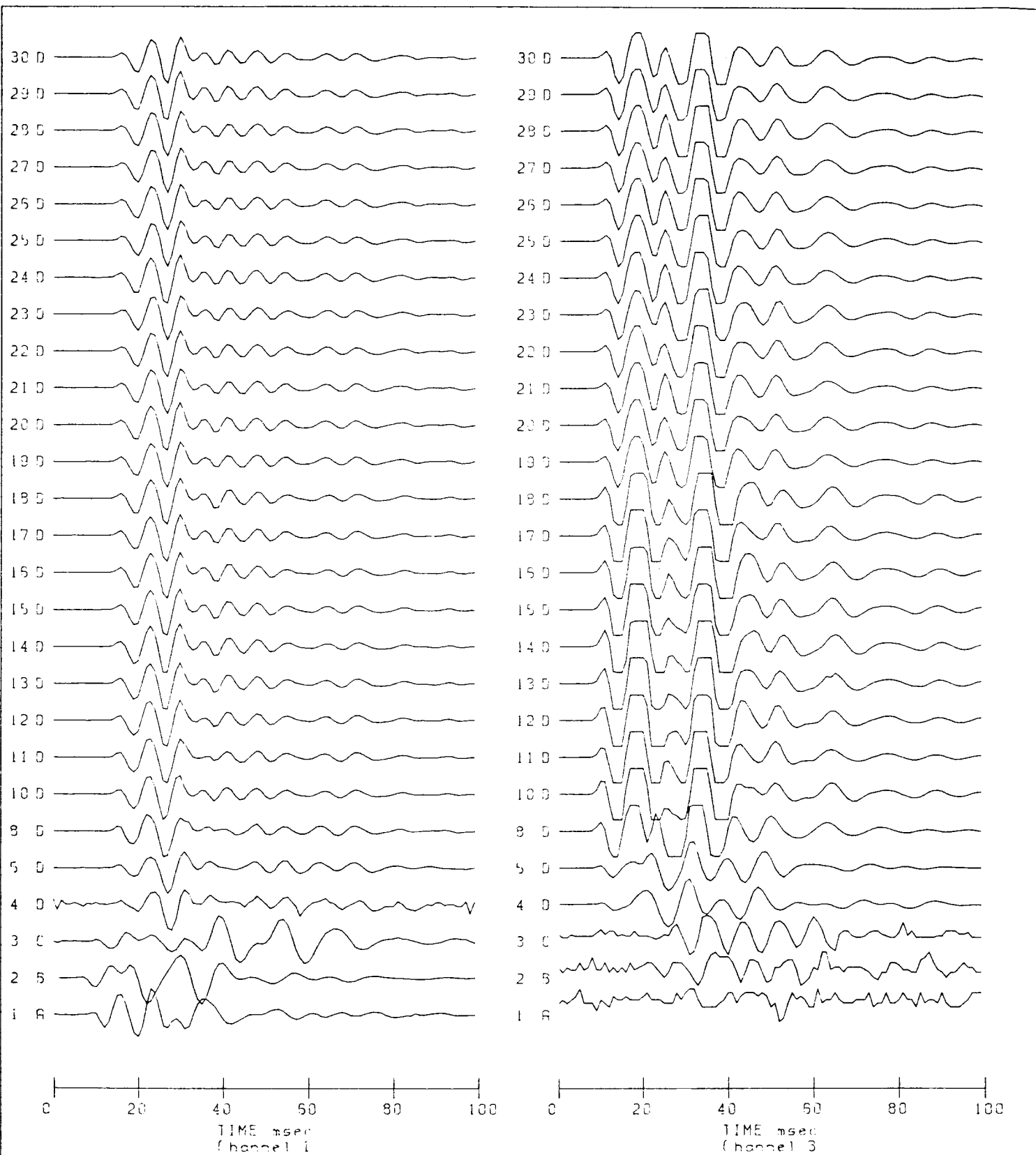
VELOCITY SURVEY TRACE DISPLAY

Filter 10-40

Gain $T^{2.0}$



Figure 4C



KILLARA #1

VELOCITY SURVEY TRACE DISPLAY

Auxiliary channels

Filter: OUT-OUT



Figure 4D

TABLE 1.

Time-Depth curve values

Page 1.

Well : KILLARA #1

Client : ANGLO AUSTRALIAN OIL

Survey units : METRES

Datum : 0.0

Calibrated sonic interval velocities used from 235.0 to 2337.5

Datum Depth	One-way time(ms)	-----VELOCITIES----- Average RMS Interval			Datum Depth	One-way time(ms)	-----VELOCITIES----- Average RMS Interva		
2.5	1.5	1718	1718	1718	102.5	55.1	1859	1859	1872
5.0	2.9	1739	1739	1761	105.0	56.5	1859	1859	1872
7.5	4.3	1757	1757	1793	107.5	57.8	1859	1860	1872
10.0	5.6	1771	1771	1816	110.0	59.2	1860	1860	1872
12.5	7.0	1783	1783	1832	112.5	60.5	1860	1860	1872
15.0	8.4	1793	1793	1844	115.0	61.8	1860	1860	1872
17.5	9.7	1801	1802	1852	117.5	63.2	1860	1861	1872
20.0	11.1	1808	1809	1858	120.0	64.5	1861	1861	1872
22.5	12.4	1814	1815	1862	122.5	65.8	1861	1861	1872
25.0	13.7	1819	1820	1865	125.0	67.2	1861	1861	1872
27.5	15.1	1823	1824	1867	127.5	68.5	1861	1862	1872
30.0	16.4	1827	1828	1869	130.0	69.8	1861	1862	1872
32.5	17.8	1830	1831	1870	132.5	71.2	1862	1862	1872
35.0	19.1	1833	1834	1871	135.0	72.5	1862	1862	1872
37.5	20.4	1836	1836	1871	137.5	73.8	1862	1862	1872
40.0	21.8	1838	1838	1871	140.0	75.2	1862	1862	1872
42.5	23.1	1840	1840	1872	142.5	76.5	1862	1863	1872
45.0	24.4	1841	1842	1872	145.0	77.8	1863	1863	1872
47.5	25.8	1843	1844	1872	147.5	79.2	1863	1863	1872
50.0	27.1	1844	1845	1872	150.0	80.5	1863	1863	1872
52.5	28.4	1846	1846	1872	152.5	81.9	1863	1863	1872
55.0	29.8	1847	1847	1872	155.0	83.2	1863	1863	1872
57.5	31.1	1848	1848	1872	157.5	84.5	1863	1864	1872
60.0	32.4	1849	1849	1872	160.0	85.9	1864	1864	1872
62.5	33.8	1850	1850	1872	162.5	87.2	1864	1864	1872
65.0	35.1	1851	1851	1872	165.0	88.5	1864	1864	1872
67.5	36.5	1852	1852	1872	167.5	89.9	1864	1864	1872
70.0	37.8	1852	1853	1872	170.0	91.2	1864	1864	1872
72.5	39.1	1853	1853	1872	172.5	92.5	1864	1864	1872
75.0	40.5	1854	1854	1872	175.0	93.9	1864	1864	1872
77.5	41.8	1854	1855	1872	177.5	95.2	1864	1865	1872
80.0	43.1	1855	1855	1872	180.0	96.5	1864	1865	1872
82.5	44.5	1855	1856	1872	182.5	97.9	1865	1865	1872
85.0	45.8	1856	1856	1872	185.0	99.2	1865	1865	1872
87.5	47.1	1856	1857	1872	187.5	100.5	1865	1865	1872
90.0	48.5	1857	1857	1872	190.0	101.9	1865	1865	1873
92.5	49.8	1857	1857	1872	192.5	103.2	1865	1865	1873
95.0	51.1	1858	1858	1872	195.0	104.6	1865	1865	1873
97.5	52.5	1858	1858	1872	197.5	105.9	1865	1865	1873
100.0	53.8	1858	1859	1872	200.0	107.2	1865	1865	1873

TABLE 1.

Time-Depth curve values

Page 2.

Well : KILLARA #1

Client : ANGLO AUSTRALIAN OIL

Survey units : METRES

Datum : 0.0

Calibrated sonic interval velocities used from 235.0 to 2337.5

Datum Depth	One-way time(ms)	-----VELOCITIES-----			Datum Depth	One-way time(ms)	-----VELOCITIES-----		
		Average	RMS	Interval			Average	RMS	Interva
202.5	108.6	1865	1866	1874	302.5	160.0	1890	1865	2021
205.0	109.9	1866	1866	1874	305.0	161.4	1890	1865	1859
207.5	111.2	1866	1866	1875	307.5	162.4	1893	1868	2338
210.0	112.6	1866	1866	1876	310.0	163.3	1898	1874	2778
212.5	113.9	1866	1866	1878	312.5	164.2	1904	1882	3052
215.0	115.2	1866	1866	1880	315.0	164.9	1910	1891	3303
217.5	116.5	1866	1866	1884	317.5	165.8	1915	1898	2968
220.0	117.9	1867	1867	1889	320.0	166.7	1920	1904	2775
222.5	119.2	1867	1867	1896	322.5	167.6	1924	1909	2702
225.0	120.5	1867	1867	1906	325.0	168.4	1930	1916	3018
227.5	121.8	1868	1868	1921	327.5	169.4	1933	1921	2587
230.0	123.1	1869	1869	1942	330.0	170.2	1939	1929	3226
232.5	124.4	1870	1870	1973	332.5	171.2	1942	1932	2390
235.0	123.0	1911	1868	2018	335.0	172.2	1945	1936	2509
237.5	124.2	1912	1869	1967	337.5	173.3	1948	1938	2315
240.0	125.6	1910	1868	1792	340.0	174.3	1950	1941	2348
242.5	127.1	1908	1867	1713	342.5	175.4	1952	1943	2291
245.0	128.5	1906	1865	1727	345.0	176.5	1954	1946	2314
247.5	130.0	1904	1863	1682	347.5	177.5	1958	1949	2490
250.0	131.5	1901	1861	1686	350.0	178.6	1960	1952	2408
252.5	133.0	1899	1859	1681	352.5	179.7	1962	1954	2202
255.0	134.6	1895	1856	1551	355.0	180.8	1964	1957	2359
257.5	136.2	1891	1853	1577	357.5	181.9	1965	1958	2148
260.0	137.8	1887	1850	1565	360.0	183.2	1965	1957	1904
262.5	139.3	1884	1848	1644	362.5	184.3	1967	1960	2376
265.0	140.9	1881	1845	1585	365.0	185.2	1971	1964	2677
267.5	142.4	1879	1843	1659	367.5	186.1	1974	1969	2749
270.0	143.9	1877	1841	1672	370.0	187.2	1977	1971	2335
272.5	145.3	1875	1840	1732	372.5	188.4	1978	1972	2143
275.0	146.8	1873	1838	1645	375.0	189.6	1978	1973	2031
277.5	148.3	1871	1837	1685	377.5	190.7	1979	1974	2231
280.0	149.8	1869	1835	1677	380.0	191.8	1981	1976	2290
282.5	151.3	1867	1834	1677	382.5	192.9	1983	1978	2270
285.0	152.7	1867	1834	1810	385.0	194.1	1984	1979	2118
287.5	154.0	1867	1834	1917	387.5	195.2	1985	1980	2201
290.0	155.1	1869	1837	2183	390.0	196.3	1986	1982	2268
292.5	156.0	1875	1845	2899	392.5	197.4	1989	1985	2409
295.0	156.8	1881	1854	3151	395.0	198.3	1992	1988	2621
297.5	157.8	1885	1858	2394	397.5	199.1	1996	1994	3066
300.0	158.8	1889	1863	2619	400.0	200.0	2000	1998	2774

TABLE 1.

Time-Depth curve values

Page 3.

Well : KILLARA #1

Client : ANGLO AUSTRALIAN OIL

Survey units : METRES

Datum : 0.0

Calibrated sonic interval velocities used from 235.0 to 2337.5

Datum Depth	One-way time(ms)	-----VELOCITIES-----			Datum Depth	One-way time(ms)	-----VELOCITIES-----		
		Average	RMS	Interval			Average	RMS	Interval
402.5	201.0	2003	2002	2682	502.5	244.8	2052	2056	1917
405.0	201.9	2006	2006	2800	505.0	246.0	2053	2057	2173
407.5	203.0	2007	2007	2148	507.5	247.1	2054	2058	2260
410.0	204.1	2008	2008	2232	510.0	248.2	2055	2059	2258
412.5	205.2	2010	2010	2297	512.5	249.4	2055	2059	2061
415.0	206.4	2011	2011	2225	515.0	250.5	2056	2061	2430
417.5	207.4	2013	2013	2353	517.5	251.5	2058	2062	2404
420.0	208.5	2015	2015	2346	520.0	252.5	2059	2064	2475
422.5	209.5	2016	2017	2396	522.5	253.5	2061	2066	2461
425.0	210.5	2019	2020	2664	525.0	254.5	2063	2067	2470
427.5	211.5	2021	2022	2340	527.5	255.6	2064	2069	2438
430.0	212.6	2023	2024	2446	530.0	256.6	2065	2070	2390
432.5	213.6	2025	2026	2336	532.5	257.6	2067	2072	2425
435.0	214.7	2026	2028	2375	535.0	258.7	2068	2073	2366
437.5	215.5	2030	2032	2965	537.5	259.8	2069	2074	2350
440.0	216.5	2032	2034	2454	540.0	260.8	2070	2076	2314
442.5	217.8	2032	2034	1961	542.5	261.9	2072	2077	2377
445.0	219.0	2032	2035	2155	545.0	262.9	2073	2078	2391
447.5	220.1	2033	2036	2277	547.5	264.0	2074	2079	2326
450.0	221.2	2035	2037	2252	550.0	265.1	2075	2080	2309
452.5	222.2	2036	2039	2366	552.5	266.2	2075	2081	2222
455.0	223.1	2040	2043	2942	555.0	267.3	2076	2082	2293
457.5	224.2	2041	2044	2303	557.5	268.4	2077	2083	2294
460.0	225.4	2041	2045	2121	560.0	269.5	2078	2084	2297
462.5	226.4	2043	2046	2343	562.5	270.6	2079	2085	2320
465.0	227.3	2046	2050	2809	565.0	271.7	2080	2085	2268
467.5	228.4	2047	2051	2347	567.5	272.7	2081	2086	2318
470.0	229.6	2047	2051	2034	570.0	273.8	2082	2087	2328
472.5	230.8	2047	2052	2142	572.5	274.9	2083	2089	2393
475.0	231.9	2048	2052	2144	575.0	275.9	2084	2090	2355
477.5	233.2	2048	2052	2032	577.5	277.0	2085	2091	2356
480.0	234.4	2047	2051	1971	580.0	278.1	2086	2091	2263
482.5	235.7	2047	2051	2054	582.5	279.2	2087	2092	2330
485.0	236.8	2049	2053	2277	585.0	280.2	2088	2094	2451
487.5	237.8	2050	2054	2285	587.5	281.1	2090	2096	2739
490.0	239.0	2051	2055	2240	590.0	282.1	2091	2098	2452
492.5	240.1	2051	2055	2131	592.5	283.2	2092	2099	2339
495.0	241.2	2052	2056	2264	595.0	284.2	2093	2100	2404
497.5	242.4	2053	2057	2225	597.5	285.3	2094	2101	2312
500.0	243.5	2053	2057	2124	600.0	286.4	2095	2101	2272

TABLE 1.

Time-Depth curve values

Page 4.

Well : KILLARA #1

Client : ANGLO AUSTRALIAN OIL

Survey units : METRES

Datum : 0.0

Calibrated sonic interval velocities used from 235.0 to 2337.5

Datum Depth	One-way time(ms)	-----VELOCITIES-----			Datum Depth	One-way time(ms)	-----VELOCITIES-----		
		Average	RMS	Interval			Average	RMS	Interva
602.5	287.5	2096	2102	2307	702.5	330.8	2124	2131	2313
605.0	288.5	2097	2103	2358	705.0	331.8	2125	2132	2363
607.5	289.7	2097	2104	2238	707.5	332.9	2125	2132	2364
610.0	290.8	2098	2104	2213	710.0	333.9	2127	2134	2473
612.5	291.9	2098	2105	2272	712.5	334.9	2127	2135	2440
615.0	292.9	2100	2106	2420	715.0	335.9	2128	2136	2417
617.5	293.9	2101	2108	2520	717.5	337.0	2129	2136	2344
620.0	294.9	2102	2109	2464	720.0	338.1	2130	2137	2327
622.5	295.9	2104	2110	2514	722.5	339.1	2130	2138	2379
625.0	297.0	2104	2111	2265	725.0	340.2	2131	2138	2387
627.5	298.1	2105	2112	2303	727.5	341.2	2132	2140	2514
630.0	299.2	2106	2113	2339	730.0	342.2	2133	2141	2414
632.5	300.3	2106	2113	2253	732.5	343.3	2134	2141	2367
635.0	301.4	2107	2114	2266	735.0	344.3	2135	2142	2385
637.5	302.5	2107	2114	2279	737.5	345.4	2135	2143	2376
640.0	303.6	2108	2115	2280	740.0	346.4	2136	2144	2409
642.5	304.7	2108	2115	2207	742.5	347.3	2138	2146	2823
645.0	305.8	2109	2116	2349	745.0	348.3	2139	2146	2365
647.5	306.9	2110	2116	2221	747.5	349.4	2139	2147	2369
650.0	308.0	2110	2117	2306	750.0	350.5	2140	2148	2344
652.5	309.1	2111	2118	2214	752.5	351.5	2141	2148	2324
655.0	310.2	2111	2118	2294	755.0	352.6	2141	2149	2412
657.5	311.4	2112	2118	2158	757.5	353.6	2142	2150	2361
660.0	312.4	2112	2119	2331	760.0	354.7	2143	2150	2383
662.5	313.5	2113	2120	2299	762.5	355.7	2143	2151	2386
665.0	314.6	2114	2120	2298	765.0	356.8	2144	2152	2345
667.5	315.7	2115	2121	2418	767.5	357.8	2145	2153	2388
670.0	316.7	2115	2122	2328	770.0	358.8	2146	2154	2620
672.5	317.8	2116	2123	2330	772.5	359.8	2147	2155	2388
675.0	318.9	2117	2124	2319	775.0	360.9	2147	2155	2349
677.5	319.9	2118	2124	2384	777.5	361.9	2148	2156	2423
680.0	321.0	2119	2125	2397	780.0	362.8	2150	2158	2840
682.5	322.2	2118	2125	2091	782.5	363.9	2151	2159	2428
685.0	323.2	2119	2126	2340	785.0	364.9	2151	2159	2299
687.5	324.3	2120	2127	2270	787.5	366.1	2151	2159	2198
690.0	325.4	2120	2127	2344	790.0	367.2	2152	2160	2265
692.5	326.4	2121	2128	2427	792.5	368.2	2152	2160	2433
695.0	327.5	2122	2129	2380	795.0	369.2	2153	2161	2482
697.5	328.6	2123	2130	2332	797.5	370.2	2154	2162	2431
700.0	329.7	2123	2130	2247	800.0	371.3	2155	2163	2384

TABLE 1.

Time-Depth curve values

Page 5.

Well : KILLARA #1

Client : ANGLO AUSTRALIAN OIL

Survey units : METRES

Datum : 0.0

Calibrated sonic interval velocities used from 235.0 to 2337.5

Datum Depth	One-way time(ms)	-----VELOCITIES-----			Datum Depth	One-way time(ms)	-----VELOCITIES-----		
		Average	RMS	Interval			Average	RMS	Interva
802.5	372.3	2155	2164	2418	902.5	412.1	2190	2200	2536
805.0	373.3	2156	2165	2525	905.0	413.1	2191	2201	2524
807.5	374.3	2157	2166	2551	907.5	414.1	2191	2202	2415
810.0	375.3	2158	2167	2469	910.0	415.2	2192	2202	2297
812.5	376.3	2159	2167	2433	912.5	416.2	2192	2203	2466
815.0	377.4	2160	2168	2447	915.0	417.3	2193	2203	2367
817.5	378.3	2161	2170	2759	917.5	418.3	2193	2204	2385
820.0	379.3	2162	2171	2440	920.0	419.3	2194	2204	2541
822.5	380.3	2163	2171	2406	922.5	420.3	2195	2205	2540
825.0	381.4	2163	2172	2417	925.0	421.3	2196	2206	2515
827.5	382.4	2164	2173	2401	927.5	422.3	2196	2207	2554
830.0	383.5	2165	2173	2365	930.0	423.3	2197	2208	2567
832.5	384.4	2166	2174	2560	932.5	424.2	2198	2209	2635
835.0	385.4	2166	2175	2494	935.0	425.1	2199	2210	2708
837.5	386.4	2167	2176	2538	937.5	425.9	2201	2213	3364
840.0	387.2	2169	2179	3194	940.0	426.8	2202	2213	2574
842.5	388.1	2171	2180	2682	942.5	427.7	2203	2215	2747
845.0	389.1	2172	2181	2637	945.0	428.7	2205	2216	2720
847.5	390.1	2172	2182	2439	947.5	429.6	2206	2217	2712
850.0	391.1	2173	2183	2490	950.0	430.5	2207	2218	2680
852.5	392.1	2174	2184	2506	952.5	431.5	2207	2219	2576
855.0	393.1	2175	2184	2463	955.0	432.4	2209	2220	2699
857.5	394.1	2176	2185	2471	957.5	433.4	2209	2221	2639
860.0	395.1	2176	2186	2519	960.0	434.3	2210	2222	2694
862.5	396.0	2178	2188	2904	962.5	435.2	2212	2224	2857
865.0	397.0	2179	2189	2577	965.0	436.0	2213	2225	2945
867.5	398.0	2180	2190	2511	967.5	436.9	2214	2227	2689
870.0	399.0	2180	2190	2394	970.0	437.8	2215	2228	2816
872.5	400.1	2181	2191	2383	972.5	438.7	2217	2229	2800
875.0	401.0	2182	2192	2646	975.0	439.7	2218	2230	2694
877.5	402.0	2183	2193	2586	977.5	440.6	2219	2231	2715
880.0	403.0	2184	2194	2422	980.0	441.4	2220	2233	3177
882.5	404.0	2184	2194	2436	982.5	442.3	2221	2235	2723
885.0	405.0	2185	2195	2464	985.0	443.2	2223	2236	2765
887.5	406.0	2186	2196	2477	987.5	444.1	2223	2237	2601
890.0	407.1	2186	2197	2473	990.0	445.1	2224	2237	2566
892.5	408.1	2187	2197	2463	992.5	446.1	2225	2238	2656
895.0	409.1	2188	2198	2482	995.0	447.0	2226	2239	2632
897.5	410.1	2189	2199	2456	997.5	448.0	2227	2240	2656
900.0	411.1	2189	2199	2449	1000.0	448.8	2228	2242	2831

TABLE 1.

Time-Depth curve values

Page 6.

Well : KILLARA #1

Client : ANGLD AUSTRALIAN OIL

Survey units : METRES

Datum : 0.0

Calibrated sonic interval velocities used from 235.0 to 2337.5

Datum Depth	One-way time(ms)	-----VELOCITIES-----			Datum Depth	One-way time(ms)	-----VELOCITIES-----		
		Average	RMS	Interval			Average	RMS	Interval
1002.5	449.8	2229	2242	2596	1102.5	486.6	2266	2282	3108
1005.0	450.7	2230	2244	2896	1105.0	487.5	2267	2283	2752
1007.5	451.6	2231	2245	2708	1107.5	488.4	2267	2284	2687
1010.0	452.4	2233	2247	3240	1110.0	489.4	2268	2285	2675
1012.5	453.3	2234	2248	2687	1112.5	490.3	2269	2286	2774
1015.0	454.2	2235	2249	2827	1115.0	491.2	2270	2287	2802
1017.5	455.1	2236	2250	2658	1117.5	492.1	2271	2288	2737
1020.0	456.1	2237	2251	2641	1120.0	493.0	2272	2289	2777
1022.5	457.0	2237	2252	2612	1122.5	493.9	2273	2290	2807
1025.0	458.0	2238	2253	2618	1125.0	494.7	2274	2291	2958
1027.5	458.9	2239	2254	2659	1127.5	495.6	2275	2292	2791
1030.0	459.9	2240	2254	2665	1130.0	496.5	2276	2293	2762
1032.5	460.8	2241	2255	2700	1132.5	497.4	2277	2294	2784
1035.0	461.7	2242	2256	2731	1135.0	498.3	2278	2295	2781
1037.5	462.6	2243	2257	2675	1137.5	499.2	2279	2296	3005
1040.0	463.6	2244	2258	2682	1140.0	500.0	2280	2297	2817
1042.5	464.5	2244	2259	2738	1142.5	500.8	2281	2299	3148
1045.0	465.4	2245	2260	2617	1145.0	501.7	2282	2300	2794
1047.5	466.4	2246	2261	2554	1147.5	502.6	2283	2301	2826
1050.0	467.3	2247	2262	2682	1150.0	503.4	2285	2303	3221
1052.5	468.3	2248	2263	2704	1152.5	504.2	2286	2304	2924
1055.0	469.2	2249	2264	2682	1155.0	505.1	2287	2305	2875
1057.5	470.1	2249	2265	2713	1157.5	506.0	2287	2306	2767
1060.0	471.1	2250	2265	2642	1160.0	506.9	2288	2307	2835
1062.5	472.0	2251	2266	2665	1162.5	507.8	2289	2308	2750
1065.0	472.9	2252	2267	2690	1165.0	508.7	2290	2309	2916
1067.5	473.9	2253	2268	2659	1167.5	509.4	2292	2310	3236
1070.0	474.8	2253	2269	2630	1170.0	510.3	2293	2311	2741
1072.5	475.7	2254	2270	2757	1172.5	511.2	2293	2312	2810
1075.0	476.6	2256	2271	2841	1175.0	512.1	2294	2313	2854
1077.5	477.6	2256	2272	2645	1177.5	513.0	2295	2314	2868
1080.0	478.5	2257	2273	2616	1180.0	513.9	2296	2315	2762
1082.5	479.5	2258	2273	2640	1182.5	514.8	2297	2316	2817
1085.0	480.4	2259	2274	2666	1185.0	515.7	2298	2317	2680
1087.5	481.3	2259	2275	2713	1187.5	516.6	2299	2318	2799
1090.0	482.1	2261	2277	3123	1190.0	517.5	2300	2319	2881
1092.5	483.1	2262	2278	2643	1192.5	518.3	2301	2320	2874
1095.0	484.0	2262	2278	2691	1195.0	519.2	2301	2321	2792
1097.5	484.9	2263	2279	2685	1197.5	520.1	2302	2322	2827
1100.0	485.8	2264	2280	2635	1200.0	521.0	2303	2323	2859

TABLE 1.

Time-Depth curve values

Page 7.

Well : KILLARA #1

Client : ANGLO AUSTRALIAN OIL

Survey units : METRES

Datum : 0.0

Calibrated sonic interval velocities used from 235.0 to 2337.5

Datum Depth	One-way time(ms)	-----VELOCITIES-----			Datum Depth	One-way time(ms)	-----VELOCITIES-----		
		Average	RMS	Interval			Average	RMS	Interval
1202.5	521.7	2305	2325	3630	1302.5	555.4	2345	2369	3303
1205.0	522.4	2307	2327	3544	1305.0	556.2	2346	2370	3183
1207.5	523.2	2308	2328	2952	1307.5	557.0	2347	2372	3032
1210.0	524.1	2309	2329	2883	1310.0	557.8	2348	2373	3021
1212.5	525.0	2310	2330	2881	1312.5	558.7	2349	2374	2974
1215.0	525.6	2311	2331	2890	1315.0	559.5	2350	2375	3002
1217.5	526.7	2312	2332	2884	1317.5	560.3	2352	2376	3344
1220.0	527.6	2312	2333	2842	1320.0	560.9	2353	2379	3826
1222.5	528.5	2313	2334	2764	1322.5	561.7	2354	2380	3012
1225.0	529.4	2314	2335	2798	1325.0	562.6	2355	2381	3076
1227.5	530.2	2315	2336	2942	1327.5	563.3	2356	2382	3195
1230.0	531.1	2316	2337	2882	1330.0	564.1	2358	2383	3275
1232.5	531.9	2317	2338	2951	1332.5	564.9	2359	2385	3288
1235.0	532.8	2318	2339	2936	1335.0	565.7	2360	2386	3117
1237.5	533.7	2319	2340	2897	1337.5	566.5	2361	2387	2992
1240.0	534.5	2320	2341	2900	1340.0	567.2	2363	2389	3762
1242.5	535.3	2321	2343	3069	1342.5	568.0	2364	2390	2983
1245.0	536.2	2322	2344	2987	1345.0	568.9	2364	2391	2949
1247.5	537.1	2323	2344	2787	1347.5	569.7	2365	2392	3005
1250.0	537.9	2324	2345	2891	1350.0	570.5	2366	2393	3160
1252.5	538.8	2325	2346	2832	1352.5	571.3	2367	2394	3030
1255.0	539.7	2325	2347	2858	1355.0	572.1	2369	2396	3190
1257.5	540.5	2326	2348	2974	1357.5	572.8	2370	2397	3278
1260.0	541.4	2327	2349	2997	1360.0	573.7	2371	2398	2979
1262.5	542.2	2328	2351	2947	1362.5	574.5	2372	2399	2971
1265.0	543.1	2329	2352	2932	1365.0	575.4	2372	2400	2999
1267.5	544.0	2330	2352	2806	1367.5	576.2	2373	2401	3058
1270.0	544.8	2331	2353	2968	1370.0	577.0	2374	2402	2985
1272.5	545.6	2332	2355	2995	1372.5	577.9	2375	2403	2905
1275.0	546.4	2334	2356	3344	1375.0	578.7	2376	2404	2941
1277.5	547.2	2335	2357	3027	1377.5	579.6	2377	2405	2987
1280.0	548.0	2336	2358	3009	1380.0	580.3	2378	2406	3521
1282.5	548.9	2337	2360	2997	1382.5	581.1	2379	2407	3011
1285.0	549.7	2338	2361	3062	1385.0	581.9	2380	2408	3040
1287.5	550.5	2339	2362	2967	1387.5	582.7	2381	2409	3070
1290.0	551.4	2340	2363	2891	1390.0	583.6	2382	2410	3058
1292.5	552.2	2341	2364	3145	1392.5	584.4	2383	2411	3080
1295.0	553.0	2342	2365	3136	1395.0	585.2	2384	2412	3035
1297.5	553.8	2343	2366	3022	1397.5	585.9	2385	2414	3436
1300.0	554.6	2344	2368	3019	1400.0	586.7	2386	2415	3244

TABLE 1.

Time-Depth curve values

Page 8.

Well : KILLARA #1

Client : ANGLD AUSTRALIAN OIL

Survey units : METRES

Datum : 0.0

Calibrated sonic interval velocities used from 235.0 to 2337.5

Datum Depth	One-way time(ms)	-----VELOCITIES-----			Datum Depth	One-way time(ms)	-----VELOCITIES-----		
		Average	RMS	Interval			Average	RMS	Interva
1402.5	587.5	2387	2416	3026	1502.5	619.1	2427	2460	3253
1405.0	588.3	2388	2417	3012	1505.0	619.9	2428	2461	3200
1407.5	589.2	2389	2418	3102	1507.5	620.6	2429	2462	3360
1410.0	590.0	2390	2419	3042	1510.0	621.3	2430	2464	3627
1412.5	590.8	2391	2420	2926	1512.5	622.1	2431	2465	3318
1415.0	591.7	2392	2421	2968	1515.0	622.8	2432	2467	3370
1417.5	592.5	2392	2422	3070	1517.5	623.6	2433	2468	3229
1420.0	593.2	2394	2423	3345	1520.0	624.4	2434	2469	3292
1422.5	594.0	2395	2424	3173	1522.5	625.1	2436	2470	3336
1425.0	594.8	2396	2425	3108	1525.0	625.9	2437	2471	3230
1427.5	595.6	2397	2426	3096	1527.5	626.6	2438	2472	3360
1430.0	596.4	2398	2428	3170	1530.0	627.4	2439	2473	3194
1432.5	597.2	2399	2429	3111	1532.5	628.2	2440	2474	3189
1435.0	598.0	2400	2430	3119	1535.0	629.0	2441	2476	3311
1437.5	598.8	2401	2431	3240	1537.5	629.6	2442	2478	4011
1440.0	599.6	2402	2432	3259	1540.0	630.3	2443	2479	3336
1442.5	600.4	2403	2433	3162	1542.5	631.1	2444	2480	3351
1445.0	601.2	2404	2434	3138	1545.0	631.9	2445	2481	3191
1447.5	601.9	2405	2435	3184	1547.5	632.6	2446	2482	3203
1450.0	602.7	2406	2437	3158	1550.0	633.4	2447	2483	3466
1452.5	603.5	2407	2438	3122	1552.5	634.1	2448	2484	3255
1455.0	604.4	2408	2439	3020	1555.0	634.9	2449	2486	3335
1457.5	605.2	2408	2439	3004	1557.5	635.6	2450	2487	3269
1460.0	606.0	2409	2440	3091	1560.0	636.4	2451	2488	3211
1462.5	606.8	2410	2441	3084	1562.5	637.2	2452	2489	3169
1465.0	607.6	2411	2442	3022	1565.0	638.0	2453	2490	3334
1467.5	608.5	2412	2443	3011	1567.5	638.7	2454	2491	3307
1470.0	609.3	2413	2444	3088	1570.0	639.5	2455	2492	3313
1472.5	610.1	2414	2445	3204	1572.5	640.2	2456	2493	3309
1475.0	610.8	2415	2447	3447	1575.0	641.0	2457	2494	3376
1477.5	611.5	2416	2448	3480	1577.5	641.7	2458	2495	3294
1480.0	612.2	2417	2450	3461	1580.0	642.5	2459	2497	3360
1482.5	612.9	2419	2451	3488	1582.5	643.2	2460	2498	3409
1485.0	613.7	2420	2452	3175	1585.0	644.0	2461	2499	3232
1487.5	614.5	2421	2453	3171	1587.5	644.7	2462	2500	3385
1490.0	615.3	2422	2454	3277	1590.0	645.5	2463	2501	3318
1492.5	616.1	2423	2455	3216	1592.5	646.3	2464	2502	2930
1495.0	616.9	2424	2456	3134	1595.0	647.0	2465	2503	3456
1497.5	617.6	2425	2458	3366	1597.5	647.8	2466	2504	3270
1500.0	618.4	2426	2459	3323	1600.0	648.5	2467	2505	3382

TABLE 1.

Time-Depth curve values

Page 9.

Well : KILLARA #1

Client : ANGLO AUSTRALIAN OIL

Survey units : METRES

Datum : 0.0

Calibrated sonic interval velocities used from 235.0 to 2337.5

Datum Depth	One-way time(ms)	-----VELOCITIES-----			Datum Depth	One-way time(ms)	-----VELOCITIES-----		
		Average	RMS	Interval			Average	RMS	Interva
1602.5	649.3	2468	2506	3383	1702.5	679.4	2506	2549	3268
1605.0	649.9	2470	2508	3888	1705.0	680.1	2507	2550	3437
1607.5	650.6	2471	2510	3544	1707.5	680.8	2508	2551	3521
1610.0	651.4	2472	2511	3254	1710.0	681.5	2509	2552	3571
1612.5	652.3	2472	2511	2821	1712.5	682.2	2510	2554	3697
1615.0	653.0	2473	2512	3325	1715.0	682.9	2511	2555	3506
1617.5	653.8	2474	2513	3394	1717.5	683.6	2512	2556	3631
1620.0	654.5	2475	2515	3463	1720.0	684.2	2514	2558	3990
1622.5	655.3	2476	2516	3304	1722.5	685.0	2515	2559	3179
1625.0	656.0	2477	2516	3165	1725.0	685.8	2515	2559	3268
1627.5	656.8	2478	2518	3497	1727.5	686.5	2516	2561	3434
1630.0	657.5	2479	2519	3190	1730.0	687.3	2517	2562	3329
1632.5	658.4	2480	2519	3073	1732.5	688.0	2518	2562	3241
1635.0	659.1	2481	2520	3199	1735.0	688.7	2519	2564	3483
1637.5	659.9	2482	2521	3392	1737.5	689.5	2520	2564	3289
1640.0	660.6	2482	2522	3275	1740.0	690.2	2521	2566	3494
1642.5	661.4	2483	2524	3306	1742.5	691.0	2522	2567	3400
1645.0	662.2	2484	2524	3207	1745.0	691.7	2523	2568	3550
1647.5	662.9	2485	2526	3350	1747.5	692.4	2524	2569	3511
1650.0	663.7	2486	2526	3271	1750.0	693.1	2525	2570	3480
1652.5	664.4	2487	2528	3390	1752.5	693.8	2526	2571	3429
1655.0	665.2	2488	2528	3090	1755.0	694.5	2527	2572	3483
1657.5	666.0	2489	2529	3384	1757.5	695.3	2528	2573	3479
1660.0	666.9	2489	2530	2817	1760.0	696.0	2529	2574	3396
1662.5	667.6	2490	2531	3516	1762.5	696.7	2530	2575	3434
1665.0	668.3	2491	2532	3471	1765.0	697.5	2531	2576	3370
1667.5	669.0	2493	2534	3561	1767.5	698.2	2532	2577	3426
1670.0	669.7	2494	2535	3641	1770.0	698.9	2532	2578	3443
1672.5	670.4	2495	2536	3525	1772.5	699.6	2533	2579	3454
1675.0	671.2	2496	2537	3131	1775.0	700.4	2534	2580	3363
1677.5	671.9	2497	2538	3533	1777.5	701.1	2535	2581	3333
1680.0	672.6	2498	2540	3506	1780.0	701.9	2536	2582	3209
1682.5	673.4	2499	2540	3182	1782.5	702.6	2537	2583	3437
1685.0	674.2	2499	2541	3010	1785.0	703.4	2538	2584	3253
1687.5	675.1	2500	2542	2985	1787.5	704.2	2538	2585	3324
1690.0	675.8	2501	2543	3321	1790.0	704.9	2539	2586	3475
1692.5	676.5	2502	2544	3501	1792.5	705.6	2540	2587	3439
1695.0	677.2	2503	2545	3840	1795.0	706.4	2541	2588	3338
1697.5	677.9	2504	2547	3437	1797.5	707.1	2542	2589	3299
1700.0	678.6	2505	2548	3503	1800.0	707.9	2543	2590	3311

TABLE 1.

Time-Depth curve values

Page10.

Well : KILLARA #1

Client : ANGL0 AUSTRALIAN OIL

Survey units : METRES

Datum : 0.0

Calibrated sonic interval velocities used from 235.0 to 2337.5

Datum Depth	One-way time(ms)	-----VELOCITIES-----			Datum Depth	One-way time(ms)	-----VELOCITIES-----		
		Average	RMS	Interval			Average	RMS	Interva
1802.5	708.6	2544	2590	3269	1902.5	737.6	2579	2630	3408
1805.0	709.4	2544	2591	3132	1905.0	738.3	2580	2631	3483
1807.5	710.2	2545	2592	3256	1907.5	739.0	2581	2632	3727
1810.0	711.0	2546	2593	3263	1910.0	739.6	2582	2633	3828
1812.5	711.7	2547	2594	3194	1912.5	740.4	2583	2634	3195
1815.0	712.5	2547	2594	3355	1915.0	741.1	2584	2635	3424
1817.5	713.2	2548	2595	3333	1917.5	741.9	2585	2636	3456
1820.0	714.0	2549	2596	3324	1920.0	742.5	2586	2637	3652
1822.5	714.8	2550	2597	3304	1922.5	743.2	2587	2638	3794
1825.0	715.5	2551	2598	3233	1925.0	743.8	2588	2640	3845
1827.5	716.3	2551	2599	3281	1927.5	744.5	2589	2641	3772
1830.0	717.0	2552	2600	3420	1930.0	745.1	2590	2642	3985
1832.5	717.8	2553	2601	3386	1932.5	745.8	2591	2643	3714
1835.0	718.5	2554	2601	3399	1935.0	746.5	2592	2645	3806
1837.5	719.2	2555	2602	3317	1937.5	747.1	2593	2646	3926
1840.0	720.0	2556	2603	3446	1940.0	747.8	2594	2647	3689
1842.5	720.7	2557	2604	3512	1942.5	748.5	2595	2648	3589
1845.0	721.4	2558	2606	3644	1945.0	749.1	2596	2649	3824
1847.5	722.1	2559	2607	3435	1947.5	749.8	2597	2651	3680
1850.0	722.8	2559	2607	3363	1950.0	750.5	2598	2652	3681
1852.5	723.6	2560	2608	3248	1952.5	751.2	2599	2653	3747
1855.0	724.3	2561	2609	3407	1955.0	751.8	2600	2654	3729
1857.5	725.1	2562	2610	3435	1957.5	752.5	2601	2655	3835
1860.0	725.8	2563	2611	3541	1960.0	753.2	2602	2656	3652
1862.5	726.5	2564	2612	3548	1962.5	753.9	2603	2657	3533
1865.0	727.2	2565	2613	3604	1965.0	754.6	2604	2658	3490
1867.5	727.9	2566	2614	3574	1967.5	755.3	2605	2659	3687
1870.0	728.6	2567	2616	3574	1970.0	756.0	2606	2660	3394
1872.5	729.3	2568	2617	3648	1972.5	756.7	2607	2661	3650
1875.0	729.9	2569	2618	3698	1975.0	757.3	2608	2662	3882
1877.5	730.6	2570	2619	3662	1977.5	758.0	2609	2664	3790
1880.0	731.3	2571	2620	3797	1980.0	758.6	2610	2665	3946
1882.5	732.0	2572	2622	3673	1982.5	759.3	2611	2666	3789
1885.0	732.6	2573	2623	3758	1985.0	760.0	2612	2667	3761
1887.5	733.3	2574	2624	3635	1987.5	760.7	2613	2668	3523
1890.0	734.0	2575	2625	3695	1990.0	761.4	2614	2669	3598
1892.5	734.7	2576	2626	3572	1992.5	762.1	2615	2670	3492
1895.0	735.4	2577	2627	3561	1995.0	762.8	2615	2671	3498
1897.5	736.1	2578	2628	3457	1997.5	763.4	2617	2673	4326
1900.0	736.8	2579	2629	3420	2000.0	764.0	2618	2674	3832

TABLE 1.

Time-Depth curve values

Page 11.

Well : KILLARA #1

Client : ANGLO AUSTRALIAN OIL

Survey units : METRES

Datum : 0.0

Calibrated sonic interval velocities used from 235.0 to 2337.5

Datum Depth	One-way time(ms)	-----VELOCITIES-----			Datum Depth	One-way time(ms)	-----VELOCITIES-----		
		Average	RMS	Interval			Average	RMS	Interval
2002.5	764.7	2619	2675	3485	2102.5	791.3	2657	2718	4239
2005.0	765.4	2620	2676	3795	2105.0	792.0	2658	2720	3786
2007.5	766.1	2620	2677	3402	2107.5	792.6	2659	2721	3976
2010.0	766.8	2621	2678	3630	2110.0	793.3	2660	2722	3701
2012.5	767.5	2622	2678	3423	2112.5	794.0	2661	2723	3699
2015.0	768.2	2623	2679	3610	2115.0	794.6	2662	2724	3919
2017.5	768.9	2624	2680	3563	2117.5	795.3	2663	2725	3678
2020.0	769.7	2625	2681	3429	2120.0	796.0	2663	2726	3735
2022.5	770.4	2625	2682	3671	2122.5	796.6	2664	2727	4019
2025.0	771.0	2626	2683	3802	2125.0	797.2	2666	2728	3991
2027.5	771.6	2628	2685	4116	2127.5	797.9	2666	2729	3822
2030.0	772.3	2629	2686	3908	2130.0	798.4	2668	2731	4729
2032.5	772.9	2630	2687	3840	2132.5	799.0	2669	2733	4498
2035.0	773.5	2631	2688	3904	2135.0	799.6	2670	2734	3701
2037.5	774.2	2632	2690	3825	2137.5	800.3	2671	2735	3846
2040.0	774.9	2633	2691	3797	2140.0	800.9	2672	2736	3910
2042.5	775.5	2634	2692	3806	2142.5	801.6	2673	2737	3952
2045.0	776.3	2634	2693	3397	2145.0	802.2	2674	2738	3726
2047.5	776.9	2635	2694	3684	2147.5	802.9	2675	2739	3652
2050.0	777.6	2636	2695	4018	2150.0	803.6	2676	2740	3762
2052.5	778.2	2638	2696	3891	2152.5	804.2	2676	2741	3769
2055.0	778.8	2639	2698	4218	2155.0	804.9	2677	2742	3830
2057.5	779.5	2640	2699	3680	2157.5	805.6	2678	2743	3761
2060.0	780.2	2641	2700	3656	2160.0	806.2	2679	2744	3998
2062.5	780.8	2641	2701	3724	2162.5	806.9	2680	2745	3740
2065.0	781.5	2642	2702	3819	2165.0	807.5	2681	2746	3869
2067.5	782.1	2643	2703	3862	2167.5	808.2	2682	2747	3731
2070.0	782.8	2644	2704	3861	2170.0	808.8	2683	2749	3971
2072.5	783.4	2645	2705	3907	2172.5	809.5	2684	2749	3684
2075.0	784.0	2647	2707	4377	2175.0	810.1	2685	2751	3961
2077.5	784.6	2648	2708	3831	2177.5	810.7	2686	2752	3991
2080.0	785.3	2649	2709	3621	2180.0	811.4	2687	2753	3816
2082.5	786.0	2650	2710	3827	2182.5	812.0	2688	2754	3813
2085.0	786.6	2651	2711	3928	2185.0	812.7	2689	2755	4006
2087.5	787.3	2652	2712	3732	2187.5	813.3	2690	2756	3934
2090.0	787.9	2653	2714	3847	2190.0	813.9	2691	2757	3880
2092.5	788.6	2653	2714	3495	2192.5	814.6	2692	2758	3941
2095.0	789.4	2654	2715	3386	2195.0	815.2	2693	2760	4063
2097.5	790.1	2655	2716	3455	2197.5	815.8	2694	2761	3985
2100.0	790.8	2656	2717	3886	2200.0	816.5	2695	2762	3884

Well : KILLARA #1

Client : ANGLD AUSTRALIAN OIL

Survey units : METRES

Datum : 0.0

Calibrated sonic interval velocities used from 235.0 to 2337.5

Datum Depth	One-way time(ms)	-----VELOCITIES-----			Datum Depth	One-way time(ms)	-----VELOCITIES-----		
		Average	RMS	Interval			Average	RMS	Interva
2202.5	817.1	2695	2763	3887	2270.0	834.4	2720	2791	4124
2205.0	817.7	2696	2764	3990	2272.5	835.0	2721	2792	4049
2207.5	818.4	2697	2765	3724	2275.0	835.6	2722	2794	4107
2210.0	819.1	2698	2766	3868	2277.5	836.2	2723	2795	4137
2212.5	819.7	2699	2767	3865	2280.0	836.8	2725	2796	4151
2215.0	820.3	2700	2768	3975	2282.5	837.4	2726	2797	4241
2217.5	821.0	2701	2769	3982	2285.0	838.1	2726	2798	3691
2220.0	821.6	2702	2770	3927	2287.5	838.8	2727	2799	3679
2222.5	822.2	2703	2771	3875	2290.0	839.4	2728	2800	4149
2225.0	822.9	2704	2772	3823	2292.5	840.0	2729	2801	4151
2227.5	823.5	2705	2773	3851	2295.0	840.6	2730	2803	4348
2230.0	824.2	2706	2774	3929	2297.5	841.2	2731	2803	3681
2232.5	824.8	2707	2775	3818	2300.0	841.9	2732	2804	3697
2235.0	825.4	2708	2777	4091	2302.5	842.6	2733	2805	3744
2237.5	826.1	2709	2778	3917	2305.0	843.2	2733	2806	3824
2240.0	826.7	2710	2779	3928	2307.5	843.9	2734	2807	3918
2242.5	827.4	2710	2780	3928	2310.0	844.5	2735	2808	3975
2245.0	828.0	2711	2781	3882	2312.5	845.2	2736	2809	3817
2247.5	828.7	2712	2782	3827	2315.0	845.8	2737	2810	3786
2250.0	829.3	2713	2783	3656	2317.5	846.5	2738	2811	3584
2252.5	830.0	2714	2784	3989	2320.0	847.2	2738	2811	3642
2255.0	830.6	2715	2785	3952	2322.5	847.9	2739	2812	3435
2257.5	831.2	2716	2786	3885	2325.0	848.7	2740	2813	3395
2260.0	831.9	2717	2787	3806	2327.5	849.4	2740	2813	3390
2262.5	832.6	2718	2788	3796	2330.0	850.2	2741	2814	3395
2265.0	833.2	2718	2789	3922	2332.5	850.9	2741	2814	3395
2267.5	833.8	2719	2790	4102	2335.0	851.6	2742	2815	3394

Company : ANGLD AUSTRALIAN OIL
 Well : KILLARA #1
 Elevations : Datum : 0.0 Ground : 70.7 Kelly : 76.0
 Shot data : Location : Elevation Offset : 70.7
 A 70.7 9.0
 B 70.7 16.0
 C 70.7 23.0
 D 69.5 43.0

Latitude : 038 11 24.2
 Longitude : 142 13 19.1

Rig identification : DDL 07
 Energy source : AN60
 Logger :
 Near surface velocity
 for shot statistics: 2700
 Instrument delay: 8.0 ms

SHOT CALCULATIONS

Shot No	Geophone depth Kelly	Shot Datum	Shot Lochn	Shot Depth	Record	Corr.	TIME	Avg.	Below datum	Check shot Distance	Interval Time	Average	Velocities RMS	Interval
17	1667.0	1591.0	D	1.2	674.5	675.2	675.2	645.4	96.0	29.5	2465.1	2503.1	3254.2	
16	1763.0	1687.0	D	1.2	704.0	704.7	704.7	674.9	136.8	41.0	2499.6	2540.6	3336.6	
15	1899.8	1823.8	D	1.2	745.0	745.7	745.7	715.9	110.1	30.5	2547.6	2592.8	3609.8	
14	2009.9	1933.9	D	1.2	775.5	776.2	776.2	746.4	60.0	16.0	2591.0	2642.0	3750.0	
13	2069.9	1993.9	D	1.2	791.5	792.2	792.2	762.4	70.1	18.5	2615.3	2670.0	3789.2	
12	2140.0	2064.0	D	1.2	810.0	810.7	810.7	780.9	129.8	33.5	2643.1	2701.9	3874.6	
11	2269.8	2193.8	D	1.2	843.5	844.2	844.2	814.4	85.1	24.0	2693.8	2760.0	3545.8	
10	2354.9	2278.9	D	1.2	867.5	868.2	868.2	838.4	59.1	13.0	2718.2	2785.6	4546.2	
8	2414.0	2338.0	D	1.2	880.5	881.2	881.2	851.4			2746.1	2820.7		

Company : ANGLD AUSTRALIAN OIL
 Well : KILLARA #1
 Elevations : Datum : 0.0 Ground : 70.7 Kelly : 76.0

Latitude : 038 11 24.2
 Longitude : 142 13 19.1

Survey date : 26-JUN-91
 Survey units : METRES
 Times in milliseconds.

SONIC DRIFT

Geophone depth Kelly --- Datum	Check shot times Average - Below datum	Check shot interval Distance -- Time	Sonic Int. time	Interval sonic usec/m --- msec	Sonic drift --- msec	Cumulative drift msec			
2269.8	2193.8	844.2	814.4	85.1	24.0	21.0	35.25	3.0	13.8
2354.9	2278.9	868.2	838.4	59.1	13.0	15.4	-40.61	-2.4	11.4
2414.0	2338.0	881.2	851.4						

Company : ANGLD AUSTRALIAN OIL
 Well : KILLARA #1
 Elevations : Datum : 0.0 Ground : 70.7 Kelly : 76.0

Latitude : 038 11 24.2
 Longitude : 142 13 19.1

Survey date : 26-JUN-91
 Survey units : METRES
 Times in milliseconds.

SONIC CALIBRATION

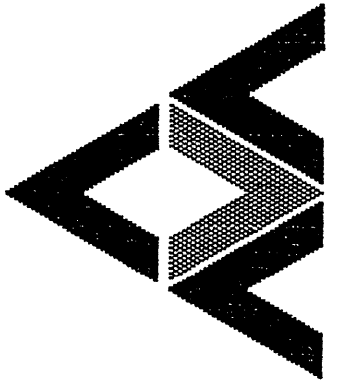
Geophone depth Kelly ----- Datum	Interval Distance	Original sonic times		Adjusted sonic times		Velocities	
		Interval --	Cumulative	Interval --	Calibrated	Average --	RMS -- Interval
DATUM 75.9 -0.1							
DATUM 76.0 0.0							
GELLIBRAND MARL 307.0 231.0	231.0	1.9	1.9	1.9	1888.8	1693.7	1888.8
310.0 234.0	3.0	1.9	1.9	125.1	1870.5	1692.3	1578.9
CLIFTON 363.0 287.0	53.0	31.8	28.2	153.3	1871.6	1722.1	1876.4
395.0 319.0	32.0	12.8	46.5	164.0	1945.1	1816.6	3003.5
PEMBER M'ST 423.0 347.0	28.0	11.2	57.7	175.9	1972.2	1851.5	2343.7
452.0 376.0	29.0	12.9	70.6	189.6	1982.9	1869.5	2120.9
470.0 394.0	18.0	8.0	78.6	198.1	1988.9	1879.6	2122.6
PAARATTE 478.0 402.0	8.0	2.8	81.4	200.9	2000.9	1894.4	2850.4
502.0	100.0	43.9	125.3	244.9	2049.9	1960.3	2273.6
BELFAST M'ST 578.0	11.0	5.0	130.3	249.9	2052.8	1964.8	2196.0
FLAXMANS 589.0 513.0	1.1	0.5	130.8	250.4	2053.1	1965.2	2195.9
590.1 514.1	19.9	8.1	138.9	258.7	2064.5	1979.4	2410.4
UPPER EUMERALLA 610.0 534.0	95.0	40.1	179.0	299.5	2100.2	2025.7	2325.9
705.0 629.0	104.9	44.4	223.4	343.6	2135.9	2070.7	2378.7
809.9 733.9	115.2	45.8	269.2	391.1	2171.1	2113.7	2425.3
925.1 849.1	85.9	33.5	302.7	424.9	2200.4	2148.4	2539.3
HEATHFIELD SAND 1011.0 935.0							

Company : ANGL0 AUSTRALIAN OIL
 Well : KILLARA #1
 Elevations : Datum : 0.0 Ground : 70.7 Kelly : 76.0
 Latitude : 038 11 24.2
 Longitude : 142 13 19.1

Survey date : 26-JUN-91
 Survey units : METRES
 Times in milliseconds.

SONIC CALIBRATION

Geophone depth Kelly ----- Datum	Interval Distance	Original sonic times		Adjusted sonic times		Velocities	
		Interval -- Cumulative	Interval -- Calibrated	Interval -- Cumulative	Interval -- Calibrated	Average -- RMS	Interval
HEATHFIELD SAND							
1011.0	935.0	18.9	6.7	302.7	6.8	424.9	2200.4 2148.4 2790.8
1029.9	953.9	110.1	39.2	309.4	41.0	431.7	2209.6 2159.2 2685.4
1140.0	1064.0	95.0	32.9	348.6	34.6	472.7	2250.9 2206.9 2745.7
1235.0	1159.0	115.0	38.2	381.5	38.0	507.3	2284.6 2245.6 3026.3
1350.0	1274.0	99.9	31.1	419.7	32.5	545.3	2336.3 2305.4 3073.8
1449.9	1373.9	89.9	28.0	450.8	30.0	577.8	2377.8 2353.0 2996.7
1539.8	1463.8	97.2	28.5	478.8	28.7	607.8	2408.4 2387.2 3383.3
KILLARA COALS							
1637.0	1561.0	30.0	8.8	507.3	8.9	636.5	2452.4 2438.6 3381.9
1667.0	1591.0	96.0	28.2	516.1	29.5	645.4	2465.1 2453.4 3254.2
1763.0	1687.0	136.8	39.1	544.3	41.0	674.9	2499.6 2492.1 3336.6
1899.8	1823.8	110.1	30.2	583.4	30.5	715.9	2547.6 2545.9 3609.8
2009.9	1933.9	60.0	15.9	613.6	16.0	746.4	2591.0 2596.0 3750.0
2069.9	1993.9	3.1	0.7	629.5	0.7	762.4	2615.3 2624.4 4346.3
PRETTY HILL							
2073.0	1997.0	67.0	17.5	630.2	17.8	763.1	2616.9 2626.4 3766.9
2140.0	2064.0	129.8	32.7	647.7	33.5	780.9	2643.1 2656.8 3874.6
2269.8	2193.8	85.1	21.0	680.4	24.0	814.4	2693.8 2715.6 3545.8
2354.9	2278.9	59.1	15.4	701.4	13.0	838.4	2718.2 2741.9 4546.2
2414.0	2338.0			716.8		851.4	2746.1 2777.1



Velocity Data Pty Ltd

WELL VELOCITY SURVEY

CLIENT : ANGL0 AUSTRALIAN OIL
WELL IDENTIFICATION : KILLARA #1
SURVEY DATE : 26-JUN-91
SURVEY TIME :
SURVEY UNITS : METRES
AUTHORITY TO PROSPECT : PEP 101

WELL LATITUDE : 038 11 24.2
WELL LONGITUDE : 142 13 19.1

KELLY ELEVATION : 76.0
GROUND ELEVATION : 70.7

WEATHER : FINE

ENERGY SOURCE : AN60

CLIENT REP : MR. I BUCKINGHAM
OBSERVER : N. DELFOS
SHOOTER : BROWN

RIG IDENTIFICATION : DDL 07
CASING DEPTH : 305.
LOGGING UNIT :

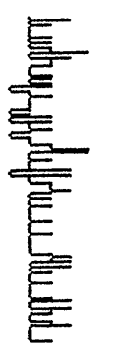
RECORDING INSTRUMENTS : VDLS11/10
SYSTEM DELAY TIME 8 MSEC.

SHOT 1 Time 00:03:16 Level 1 DET Shot Location : A
Shot depth : 0.1 Charge size : 128
No. surface samples : 128 Down hole sample nos : 0 400 1008
Sample rates : 500 1000 usec Delay : 0

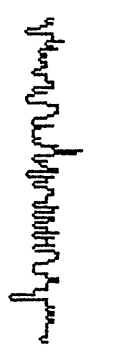
AUX. CHANNEL 1 Max. 546mV



AUX. CHANNEL 2 Max. 14mV



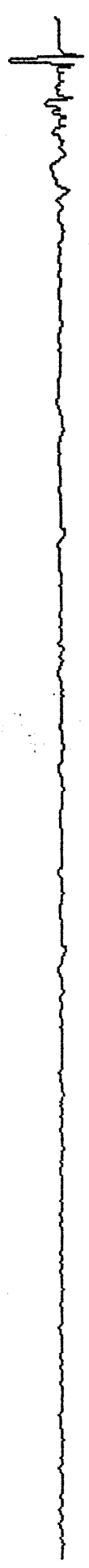
AUX. CHANNEL 3 Max. 48mV



AUX. CHANNEL 4 Max. 4209mV



WELL PHONE CHANNEL - floating point amplifier



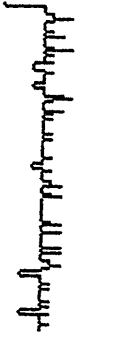
Data maximum (mV) : down hole channel - 18.169

SHOT 2 Time 00:06:39 Level : 75.9 Shot location : B
Shot depth : 0.1 Charge size : G,DET
No. surface samples : 128 Down hole sample nos : 0 400 1008
Sample rates : 500 1000 Usec Delay : 0

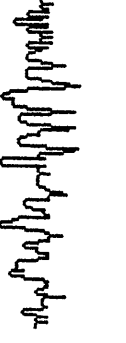
AUX. CHANNEL 1 Max. 4131mV



AUX. CHANNEL 2 Max. 29mV



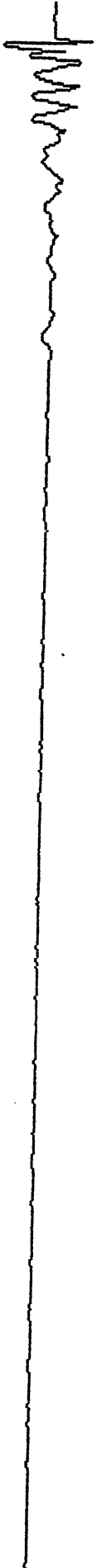
AUX. CHANNEL 3 Max. 48mV



AUX. CHANNEL 4 Max. 4482mV



WELL PHONE CHANNEL - floating point amplifier



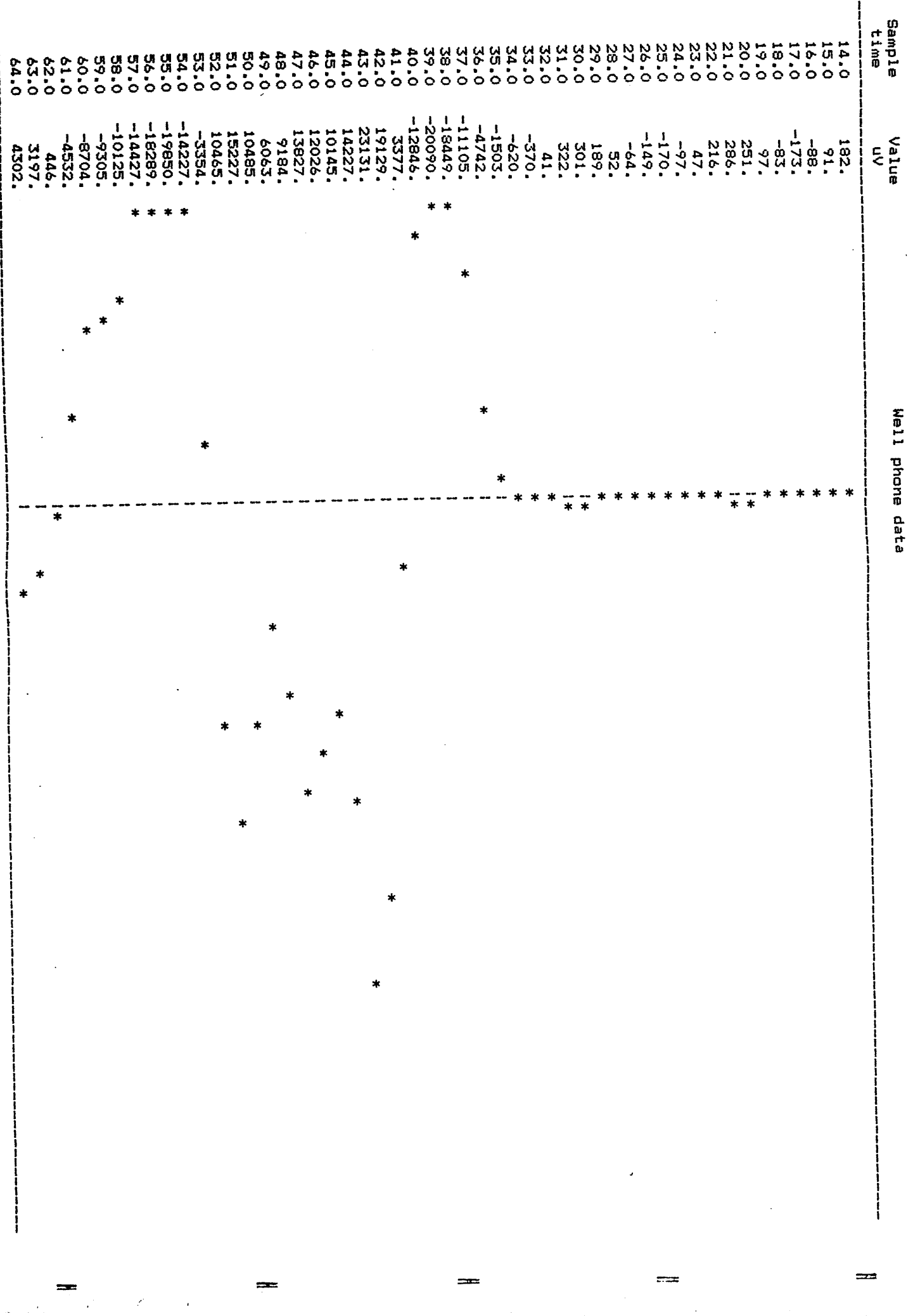
Data maximum (mV) : down hole channel - 33.977

FIRST ARRIVAL PLOT - Shot 2 Level 75.9

Well phone data

Sample time	Value uv	
12.0	574.	|*
13.0	685.	|*
14.0	764.	|*
15.0	809.	|*
16.0	775.	|*
17.0	650.	|*
18.0	472.	|*
19.0	323.	|*
20.0	258.	|*
21.0	270.	|*
22.0	304.	|*
23.0	301.	|*
24.0	240.	|*
25.0	136.	|*
26.0	41.	|*
27.0	-30.	|*
28.0	5.	|*
29.0	42.	|*
30.0	-149.	|*
31.0	-443.	|*
32.0	-684.	|*
33.0	-1128.	|*
34.0	-3567.	|*
35.0	-9365.	|*
36.0	-19450.	|*
37.0	-25212.	|*
38.0	-25332.	|*
39.0	-14897.	|*
40.0	10555.	|*
41.0	33977.	|*
42.0	33216.	|*
43.0	24812.	|*
44.0	17368.	|*
45.0	9595.	|*
46.0	-3144.	|*
47.0	-6863.	|*
48.0	1044.	|*
49.0	9465.	|*
50.0	16448.	|*
51.0	16328.	|*
52.0	10685.	|*
53.0	-80.	|*
54.0	-11586.	|*
55.0	-17209.	|*
56.0	-18689.	|*
57.0	-18489.	|*
58.0	-17809.	|*
59.0	-16608.	|*
60.0	-13667.	|*
61.0	-7964.	|*
62.0	-3572.	|*

FIRST ARRIVAL PLOT - Shot 3 Level 100



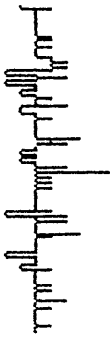
TRACE DISPLAY -

SHOT 3 Time 00:09:14 Level : 75.9 Shot location : C
Shot depth : 0.1 Charge size : G,DET
No. surface samples : 128 Down hole sample nos : 0 400 1008
Sample rates : 500 1000 usac Delay : 0

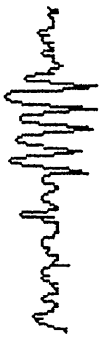
AUX. CHANNEL 1 Max. 439mV



AUX. CHANNEL 2 Max. 19mV



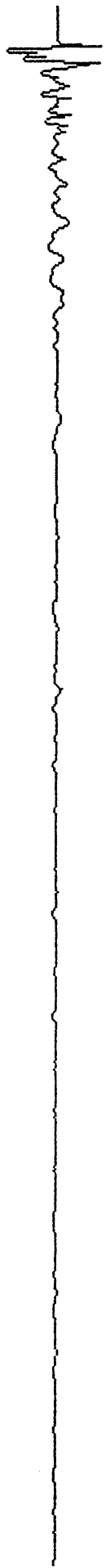
AUX. CHANNEL 3 Max. 73mV



AUX. CHANNEL 4 Max. 8056mV



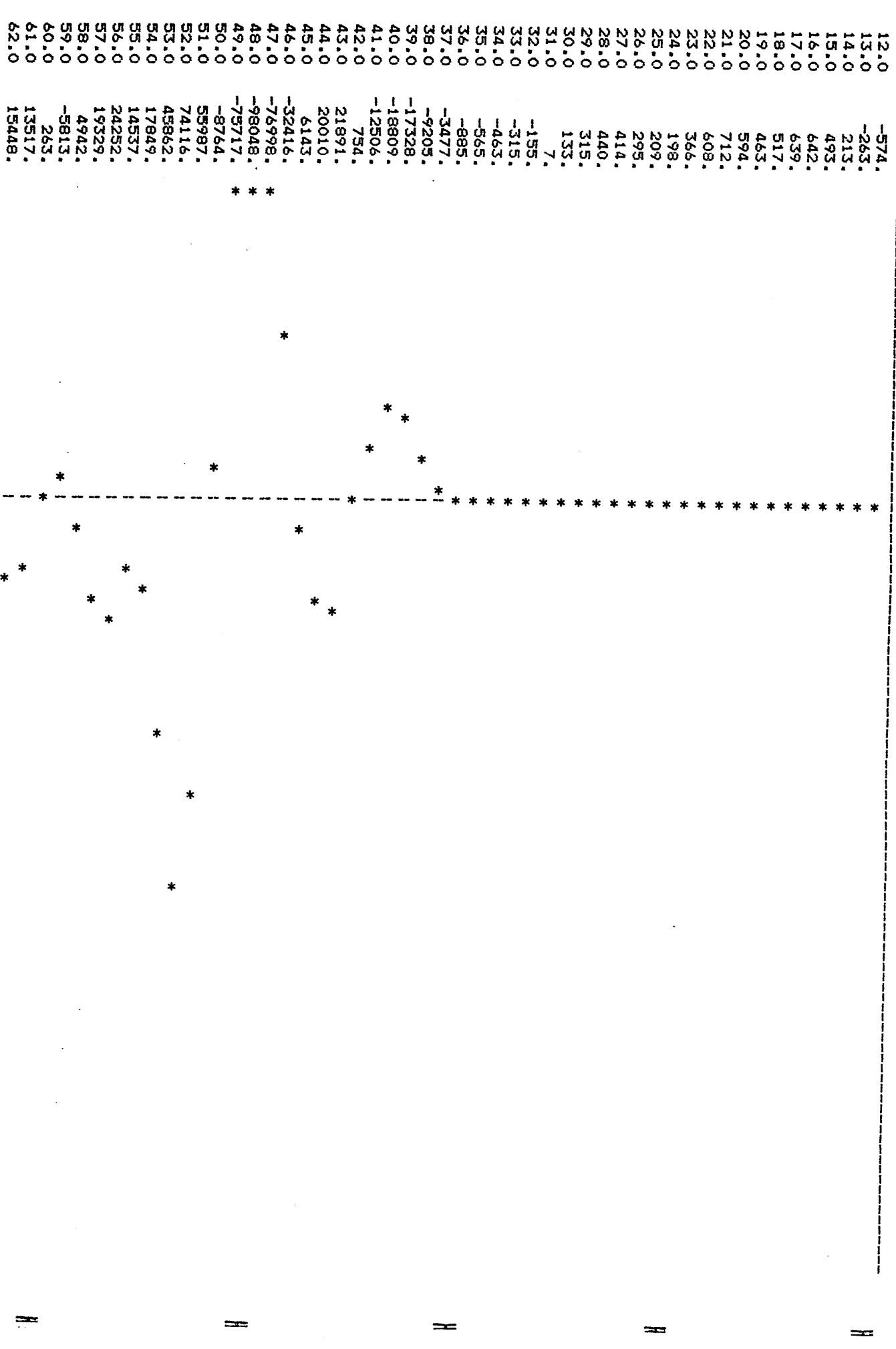
WELL PHONE CHANNEL - floating point amplifier



Data maximum (mV) : down hole channel - 23.131

FIRST ARRIVAL PLOT - Shot 4 Level 75.9

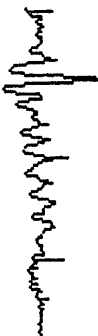
Well phone data



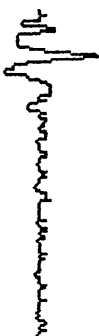
TRACE DISPLAY.

SHOT 4 Time 00:14:20 Level : 75.9 Shot location : D
Shot depth : 1.2 Charge size : G,DET
No. surface samples : 128 Down hole sample nos : 0 400 1008
Sample rates : 500 1000 usec Delay : 0

AUX. CHANNEL 1 Max. 117mV



AUX. CHANNEL 2 Max. 102mV



AUX. CHANNEL 3 Max. 1401mV



AUX. CHANNEL 4 Max. 5761mV



WELL PHONE CHANNEL - floating point amplifier



Data maximum (mV) : down hole channel - 76.998

FIRST ARRIVAL PLOT - Shot 5 Level 925.1

Well phone data

Sample time	Value UV	
404.0	-1356.	*
404.5	-1368.	*
405.0	-1393.	*
405.5	-1416.	*
406.0	-1441.	*
406.5	-1466.	*
407.0	-1485.	*
407.5	-1496.	*
408.0	-1508.	*
408.5	-1513.	*
409.0	-1506.	*
409.5	-1503.	*
410.0	-1496.	*
410.5	-1491.	*
411.0	-1483.	*
411.5	-1491.	*
412.0	-1496.	*
412.5	-1513.	*
413.0	-1536.	*
413.5	-1548.	*
414.0	-1566.	*
414.5	-1588.	*
415.0	-1606.	*
415.5	-1636.	*
416.0	-1616.	*
416.5	-1613.	*
417.0	-1601.	*
417.5	-1585.	*
418.0	-1561.	*
418.5	-1551.	*
419.0	-1543.	*
419.5	-1543.	*
420.0	-1561.	*
420.5	-1586.	*
421.0	-1641.	*
421.5	-1746.	*
422.0	-1943.	*
422.5	-2251.	*
423.0	-2756.	*
423.5	-3492.	*
424.0	-4392.	*
424.5	-5693.	*
425.0	-7364.	*
425.5	-9265.	*
426.0	-11366.	*
426.5	-13567.	*
427.0	-16248.	*
427.5	-17529.	*
428	-1	*

TRACE DISPLAY -

SHOT 5 Time 00:33:56 Level : 925.1 Shot location : D
Shot depth : 1.2 Charge size : 1.0
No. surface samples : 128 Down hole sample nos : 155 400 853
Sample rates : 500 1000 usec Delay : 0

AUX. CHANNEL 1 Max. 712mV



AUX. CHANNEL 2 Max. 771mV



AUX. CHANNEL 3 Max. 7065mV



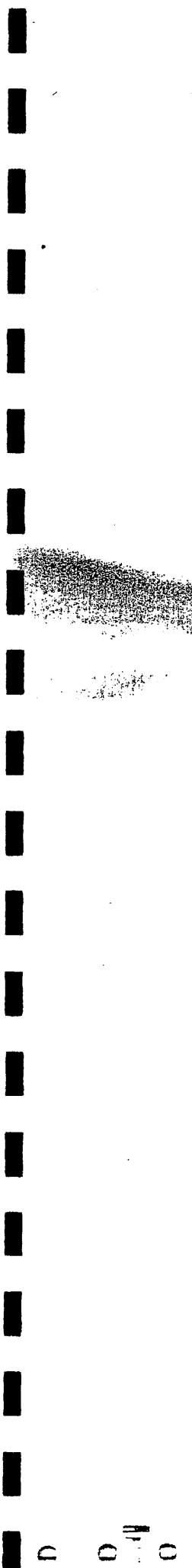
AUX. CHANNEL 4 Max. 5683mV



WELL PHONE CHANNEL - floating point amplifier



Data maximum (mV) : down hole channel - 18.409



FIRST ARRIVAL PLOT - SHOT 8 Level 2414.0

Sample time Value UV Well phone data

Sample time	Value UV	Well phone data
864.0	98.	*
864.5	93.	*
865.0	54.	*
865.5	25.	*
866.0	-9.	*
866.5	-14.	*
867.0	6.	*
867.5	32.	*
868.0	73.	*
868.5	100.	*
869.0	111.	*
869.5	102.	*
870.0	77.	*
870.5	51.	*
871.0	21.	*
871.5	-1.	*
872.0	2.	*
872.5	14.	*
873.0	37.	*
873.5	72.	*
874.0	94.	*
874.5	103.	*
875.0	95.	*
875.5	76.	*
876.0	55.	*
876.5	28.	*
877.0	-2.	*
877.5	-15.	*
878.0	-27.	*
878.5	-32.	*
879.0	-31.	*
879.5	-30.	*
880.0	-34.	*
880.5	-47.	*
881.0	-85.	*
881.5	-133.	*
882.0	-199.	*
882.5	-262.	*
883.0	-368.	*
883.5	-498.	*
884.0	-656.	*
884.5	-837.	*
885.0	-1083.	*
885.5	-1311.	*
886.0	-1543.	*
886.5	-1793.	*
887.0	-2041.	*
887.5	-2261.	*
888		*

FIRST ARRIVAL PLOT -- Shot 10 Level 2354.9

Well phone data

Sample time	Value UV	
850.0	105.	|*
850.5	160.	|*
851.0	181.	|*
851.5	161.	|*
852.0	109.	|*
852.5	58.	|*
853.0	-6.	|*
853.5	-36.	|*
854.0	-64.	|*
854.5	-65.	|*
855.0	-51.	|*
855.5	-31.	|*
856.0	-6.	|*
856.5	20.	|*
857.0	35.	|*
857.5	48.	|*
858.0	53.	|*
858.5	52.	|*
859.0	39.	|*
859.5	17.	|*
860.0	-4.	|*
860.5	-2.	|*
861.0	13.	|*
861.5	28.	|*
862.0	34.	|*
862.5	25.	|*
863.0	-11.	|*
863.5	-75.	|*
864.0	-157.	|*
864.5	-260.	|*
865.0	-310.	|*
865.5	-374.	|*
866.0	-400.	|*
866.5	-387.	|*
867.0	-365.	|*
867.5	-377.	|*
868.0	-459.	|*
868.5	-623.	|*
869.0	4865.	|*
869.5	-1263.	|*
870.0	-1611.	|*
870.5	-1958.	|*
871.0	-2261.	|*
871.5	-2526.	|*
872.0	-2774.	|*

TRACE DISPLAY.

SHOT 10 Time 01:41:41 Level : 2354.9 Shot location : D

Shot depth : 1.2 Charge size : 3.0

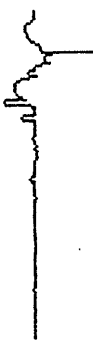
No. surface samples : 128 Down hole sample nos : 570 400 438

Sample rates : 500 1000 usec Delay : 0

AUX. CHANNEL 1 Max. 4087mV



AUX. CHANNEL 2 Max. 1474mV



AUX. CHANNEL 3 Max. 10000mV



AUX. CHANNEL 4 Max. 5063mV



WELL PHONE CHANNEL - floating point amplifier



Data maximum (mV) : down hole channel - 3.502

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FIRST ARRIVAL PLOT - Shot 11 Level 2269.8

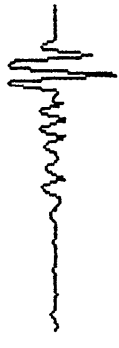
Well phone data

Sample time	Value UV	
826.0	71.	||
826.5	52.	||
827.0	30.	*
827.5	9.	*
828.0	5.	*
828.5	24.	*
829.0	58.	||
829.5	95.	||
830.0	89.	||
830.5	47.	||
831.0	-15.	*
831.5	-93.	*
832.0	-138.	*|
832.5	-150.	*|
833.0	-132.	*|
833.5	-91.	*
834.0	-54.	*
834.5	7.	*
835.0	38.	||
835.5	80.	||
836.0	94.	||
836.5	82.	||
837.0	45.	||
837.5	-30.	*
838.0	-80.	*
838.5	-121.	*|
839.0	-132.	*|
839.5	-110.	*|
840.0	-63.	*
840.5	-20.	*
841.0	36.	||
841.5	85.	||
842.0	94.	||
842.5	74.	||
843.0	31.	*
843.5	-37.	*
844.0	-142.	*|
844.5	-232.	*
845.0	-286.	*
845.5	-334.	*
846.0	-360.	*
846.5	-397.	*
847.0	-487.	*
847.5	-660.	*
848.0	-927.	*
848.5	-1383.	*
849.0	-1811.	*
849.5	-2251.	*
850.0	-2251.	*

TRACE DISPLAY .

SHOT 11 Time 01:51:35 Level : 2269.8 Shot location : D
Shot depth : 1.2 Charge size : 3.0
No. surface samples : 128 Down hole sample nos : 547 400 461
Sample rates : 500 1000 usec Delay : 0

AUX. CHANNEL 1 Max. 3256mV



AUX. CHANNEL 2 Max. 3764mV



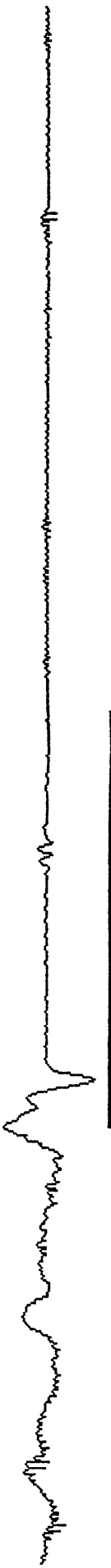
AUX. CHANNEL 3 Max. 10000mV



AUX. CHANNEL 4 Max. 3042mV



WELL PHONE CHANNEL - floating point amplifier



Data maximum (mV) : down hole channel - 3.662

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FIRST ARRIVAL PLOT - SHOT 12 Level 2140.0

Well phone data

Sample time	Value UV	*
794.0	42.	*
794.5	36.	*
795.0	25.	*
795.5	10.	*
796.0	-4.	*
796.5	-10.	*
797.0	-11.	*
797.5	-9.	*
798.0	-5.	*
798.5	2.	*
799.0	4.	*
799.5	8.	*
800.0	17.	*
800.5	25.	*
801.0	38.	*
801.5	48.	*
802.0	51.	*
802.5	45.	*
803.0	29.	*
803.5	7.	*
804.0	-8.	*
804.5	-10.	*
805.0	5.	*
805.5	29.	*
806.0	54.	*
806.5	58.	*
807.0	58.	*
807.5	42.	*
808.0	11.	*
808.5	-21.	*
809.0	-41.	*
809.5	-36.	*
810.0	-84.	*
810.5	-168.	*
811.0	-261.	*
811.5	-429.	*
812.0	-647.	*
812.5	-917.	*
813.0	-1433.	*
813.5	-1791.	*
814.0	-2204.	*
814.5	-2656.	*
815.0	-3137.	*
815.5	-3624.	*
816.0	-4022.	*
816.5	-4402.	*
817.0	-4692.	*
817.5	-4842.	*
818.0	-4902.	*
818.5		*

TRACE DISPLAY.

SHOT 12 Time 02:05:13 Level 1 : 2140.0 Shot location : D
Shot depth : 1.2 Charge size : 3.0
No. surface samples : 128 Down hole sample nos : 513 400 495
Sample rates : 500 1000 usec Delay : 0

AUX. CHANNEL 1 Max. 4052mV



AUX. CHANNEL 2 Max. 3481mV



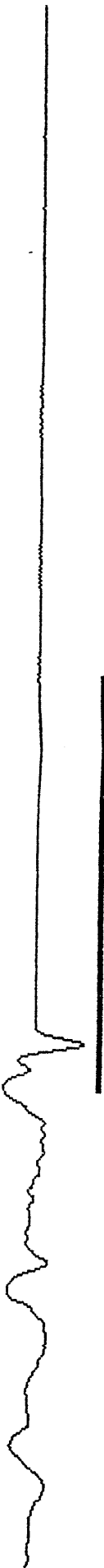
AUX. CHANNEL 3 Max. 10000mV



AUX. CHANNEL 4 Max. 6933mV



WELL PHONE CHANNEL - floating point amplifier



Data maximum (mV) : down hole channel - 4.842

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FIRST ARRIVAL PLOT - Shot 13 Level 2069.9

Well phone data

Sample time	Value UV	
774.0	40.	*
774.5	32.	*
775.0	28.	*
775.5	26.	*
776.0	26.	*
776.5	24.	*
777.0	21.	*
777.5	13.	*
778.0	6.	*
778.5	-0.	*
779.0	3.	*
779.5	9.	*
780.0	19.	*
780.5	27.	*
781.0	29.	*
781.5	21.	*
782.0	-2.	*
782.5	-14.	*
783.0	-21.	*
783.5	-19.	*
784.0	-5.	*
784.5	12.	*
785.0	29.	*
785.5	47.	*
786.0	59.	*
786.5	63.	*
787.0	58.	*
787.5	43.	*
788.0	22.	*
788.5	-4.	*
789.0	-16.	*
789.5	-25.	*
790.0	-25.	*
790.5	-24.	*
791.0	-28.	*
791.5	-43.	*
792.0	-84.	*
792.5	-143.	*
793.0	-239.	*
793.5	-333.	*
794.0	-511.	*
794.5	-752.	*
795.0	-1161.	*
795.5	-1573.	*
796.0	-2059.	*
796.5	-2629.	*
797.0	-3237.	*
797.5	-3992.	*
798.0	-4462.	*

TRACE DISPLAY.

SHOT 13 Time 02:12:34 Level : 2069.9 Shot location : D
Shot depth : 1.2 Charge size : 3.0
No. surface samples : 128 Down hole sample nos : 493 400 515
Sample rates : 500 1000 usec Delay : 0

AUX. CHANNEL 1 Max. 3784mV



AUX. CHANNEL 2 Max. 9995mV



AUX. CHANNEL 3 Max. 10000mV



AUX. CHANNEL 4 Max. 6714mV



WELL PHONE CHANNEL - floating point amplifier



Data maximum (mV) : down hole channel - 6.203

FIRST ARRIVAL PLOT - Shot 15 Level 1899.8

Well phone data

Sample time	Value UV	*
728.0	59.	*
728.5	60.	*
729.0	49.	*
729.5	28.	*
730.0	-6.	*
730.5	-28.	*
731.0	-52.	*
731.5	-71.	*
732.0	-71.	*
732.5	-57.	*
733.0	-34.	*
733.5	-5.	*
734.0	16.	*
734.5	36.	*
735.0	48.	*
735.5	51.	*
736.0	44.	*
736.5	30.	*
737.0	10.	*
737.5	-8.	*
738.0	-20.	*
738.5	-29.	*
739.0	-32.	*
739.5	-33.	*
740.0	-32.	*
740.5	-26.	*
741.0	-17.	*
741.5	-4.	*
742.0	8.	*
742.5	16.	*
743.0	14.	*
743.5	-2.	*
744.0	-15.	*
744.5	-40.	*
745.0	-77.	*
745.5	-112.	*
746.0	-158.	*
746.5	-227.	*
747.0	-299.	*
747.5	-440.	*
748.0	-650.	*
748.5	-949.	*
749.0	-1476.	*
749.5	-2021.	*
750.0	-2674.	*
750.5	-3404.	*
751.0	-4112.	*
751.5	-4922.	*
752	-	*

TRACE DISPLAY.

SHOT 15 Time 02:31:20 Level : 1899.8 Shot location : D
Shot depth : 1.2 Charge size : 2.0
No. surface samples : 128 Down hole sample nos : 442 400 566
Sample rates : 500 1000 usec Delay : 0

AUX. CHANNEL 1 Max. 3300mV



AUX. CHANNEL 2 Max. 5835mV



AUX. CHANNEL 3 Max. 10000mV



AUX. CHANNEL 4 Max. 3520mV



WELL PHONE CHANNEL - floating point amplifier



Data maximum (mV) : down hole channel - 7.464

FIRST ARRIVAL PLOT - SHOT 16 Level 1763.0

Sample time Value UV Well phone data

Sample time	Value	UV	Well phone data
688.0	-32.		*
688.5	-49.		*
689.0	-53.		*
689.5	-41.		*
690.0	-9.		*
690.5	25.		*
691.0	54.		*
691.5	74.		*
692.0	51.		*
692.5	22.		*
693.0	-15.		*
693.5	-36.		*
694.0	-46.		*
694.5	-46.		*
695.0	-36.		*
695.5	-20.		*
696.0	2.		*
696.5	12.		*
697.0	20.		*
697.5	20.		*
698.0	8.		*
698.5	-9.		*
699.0	-22.		*
699.5	-31.		*
700.0	-33.		*
700.5	-31.		*
701.0	-29.		*
701.5	-31.		*
702.0	-34.		*
702.5	-38.		*
703.0	-41.		*
703.5	-44.		*
704.0	-52.		*
704.5	-65.		*
705.0	-104.		*
705.5	-169.		*
706.0	-244.		*
706.5	-391.		*
707.0	-610.		*
707.5	-928.		*
708.0	-1498.		*
708.5	-2124.		*
709.0	-2879.		*
709.5	-3802.		*
710.0	-4712.		*
710.5	-5855.		*
711.0	-7003.		*

TRACE DISPLAY .

SHOT 16 Time 02:42:39 Level : 1763.0 Shot location : D
Shot depth : 1.2 Charge size : 2.0
No. surface samples : 128 Down hole sample nos : 404 400 604
Sample rates : 500 1000 usec Delay : 0

AUX. CHANNEL 1 Max. 3432mV



AUX. CHANNEL 2 Max. 9995mV



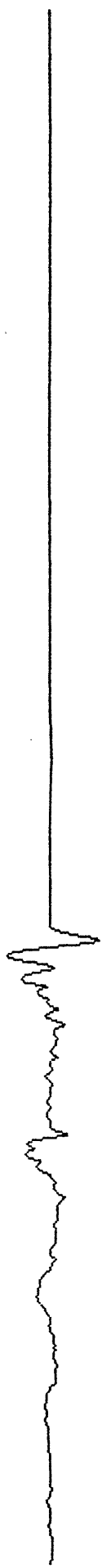
AUX. CHANNEL 3 Max. 10000mV



AUX. CHANNEL 4 Max. 3398mV



WELL PHONE CHANNEL - floating point amplifier



Data maximum (mV) : down hole channel - 10.155

FIRST ARRIVAL PLOT - Shot 17 Level 1667.0

Well phone data

Sample time	Value UV	*
658.0	14.	*
658.5	22.	*
659.0	26.	*
659.5	26.	*
660.0	22.	*
660.5	18.	*
661.0	10.	*
661.5	-2.	*
662.0	-20.	*
662.5	-33.	*
663.0	-48.	*
663.5	-55.	*
664.0	-50.	*
664.5	-36.	*
665.0	-12.	*
665.5	11.	*
666.0	28.	*
666.5	41.	*
667.0	45.	*
667.5	41.	*
668.0	29.	*
668.5	11.	*
669.0	-4.	*
669.5	-15.	*
670.0	-19.	*
670.5	-19.	*
671.0	-13.	*
671.5	-6.	*
672.0	2.	*
672.5	9.	*
673.0	14.	*
673.5	13.	*
674.0	5.	*
674.5	-24.	*
675.0	-57.	*
675.5	-146.	*
676.0	-311.	*
676.5	-416.	*
677.0	-679.	*
677.5	-1171.	*
678.0	-1706.	*
678.5	-2426.	*
679.0	-3302.	*
679.5	-4242.	*
680.0	-5383.	*
680.5	-6623.	*
681.0	-7824.	*
681.5	-8954.	*

TRACE DISPLAY -

SHOT 17 Time 02:51:47 Level : 1667.0 Shot location : D
Shot depth : 1.2 Charge size : 2.0
No. surface samples : 128 Down hole sample nos : 379 400 629
Sample rates : 500 1000 usec Delay : 0

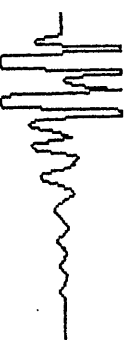
AUX. CHANNEL 1 Max. 3281mV



AUX. CHANNEL 2 Max. 3471mV



AUX. CHANNEL 3 Max. 10000mV



AUX. CHANNEL 4 Max. 3003mV



WELL PHONE CHANNEL - floating point amplifier



Data maximum (mV) : down hole channel - 10.115

FIRST ARRIVAL PLOT - SHOT 18 Level 1539.8

Well phone data

Sample time	Value uv	
620.0	-101.	*
620.5	-116.	*
621.0	-124.	*
621.5	-118.	*
622.0	-107.	*
622.5	-88.	*
623.0	-70.	*
623.5	-53.	*
624.0	-43.	*
624.5	-43.	*
625.0	-50.	*
625.5	-66.	*
626.0	-76.	*
626.5	-80.	*
627.0	-76.	*
627.5	-65.	*
628.0	-49.	*
628.5	-33.	*
629.0	-20.	*
629.5	-8.	*
630.0	4.	*
630.5	18.	*
631.0	24.	*
631.5	24.	*
632.0	6.	*
632.5	-20.	*
633.0	-59.	*
633.5	-115.	*
634.0	-152.	*
634.5	-171.	*
635.0	-169.	*
635.5	-149.	*
636.0	-120.	*
636.5	-98.	*
637.0	-106.	*
637.5	-168.	*
638.0	-268.	*
638.5	-502.	*
639.0	-882.	*
639.5	-1618.	*
640.0	-2426.	*
640.5	-3494.	*
641.0	-4652.	*
641.5	-6123.	*
642.0	-7774.	*
642.5	-9525.	*
643.0	-11195.	*
643.5	-12646.	*
644.0	-13747.	*
644.5	-15177.	*

TRACE DISPLAY.

SHOT 18 Time 03:01:52 Level : 1539.8 Shot location : D
Shot depth : 1.2 Charge size : 2.0
No. surface samples : 128 Down hole sample nos : 346 400 662
Sample rates : 500 1000 usec Delay : 0
AUX. CHANNEL 1 Max. 3247mV



AUX. CHANNEL 2 Max. 8349mV



AUX. CHANNEL 3 Max. 10000mV



AUX. CHANNEL 4 Max. 5893mV



WELL PHONE CHANNEL - floating point amplifier



Data maximum (mV) : down hole channel - 14.287

H.

H

H

H

H

FIRST ARRIVAL PLOT - SHOT 19 Level 1449.9

Sample time Value UV Wall phone data

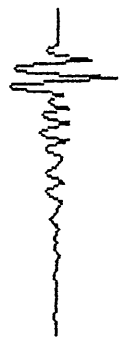
Sample time	Value	UV	Wall phone data
590.0	-4.		*
590.5	10.		*
591.0	5.		*
591.5	-11.		*
592.0	-11.		*
592.5	-11.		*
593.0	-11.		*
593.5	-11.		*
594.0	-11.		*
594.5	-11.		*
595.0	-6.		*
595.5	-2.		*
596.0	-7.		*
596.5	-11.		*
597.0	-11.		*
597.5	-11.		*
598.0	-11.		*
598.5	-11.		*
599.0	-11.		*
599.5	-11.		*
600.0	-11.		*
600.5	-11.		*
601.0	-11.		*
601.5	-11.		*
602.0	-11.		*
602.5	-11.		*
603.0	-11.		*
603.5	-11.		*
604.0	-11.		*
604.5	-11.		*
605.0	-11.		*
605.5	-11.		*
606.0	-11.		*
606.5	-11.		*
607.0	-11.		*
607.5	-258.		*!
608.0	-285.		*!
608.5	-314.		*!
609.0	-360.		*!
609.5	-450.		*!
610.0	-616.		*!
610.5	-887.		*!
611.0	-1076.		*!
611.5	-1683.		*!
612.0	-2446.		*!
612.5	-3369.		*!
613.0	-4362.		*!
613.5	-5413.		*!

414

TRACE DISPLAY.

SHOT 19 Time 05:13:11 Level : 1449.9 Shot location : D
Shot depth : 1.2 Charge size : 1.0
No. surface samples : 128 Down hole sample nos : 320 400 688
Sample rates : 500 1000 usec Delay : 0

AUX. CHANNEL 1 Max. 1943mV



AUX. CHANNEL 2 Max. 2973mV



AUX. CHANNEL 3 Max. 10000mV



AUX. CHANNEL 4 Max. 3027mV



WELL PHONE CHANNEL - floating point amplifier

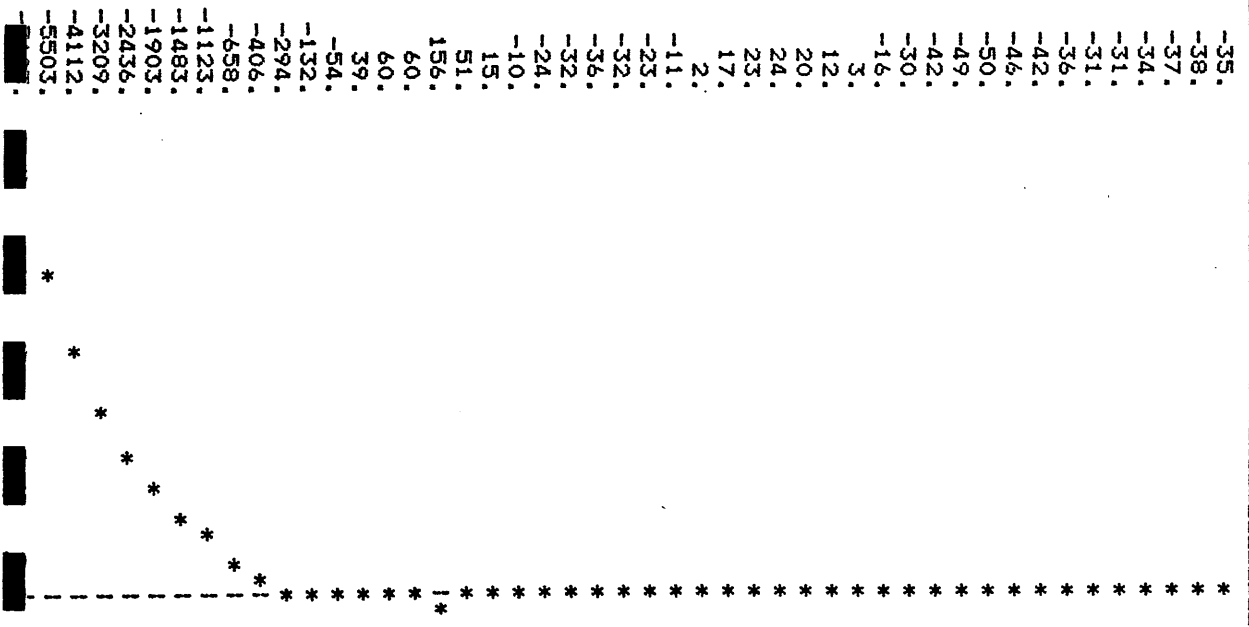


Data maximum (mV) : down hole channel - 8.784

FIRST ARRIVAL PLOT - Shot 20 Level 1350.0

Sample time Value UV Well phone data

Sample time	Value	UV	Well phone data
558.0	-35.		*
558.5	-38.		*
559.0	-37.		*
559.5	-34.		*
560.0	-31.		*
560.5	-31.		*
561.0	-36.		*
561.5	-42.		*
562.0	-46.		*
562.5	-50.		*
563.0	-49.		*
563.5	-42.		*
564.0	-30.		*
564.5	-16.		*
565.0	3.		*
565.5	12.		*
566.0	20.		*
566.5	24.		*
567.0	23.		*
567.5	17.		*
568.0	2.		*
568.5	-11.		*
569.0	-23.		*
569.5	-32.		*
570.0	-36.		*
570.5	-32.		*
571.0	-24.		*
571.5	-10.		*
572.0	15.		*
572.5	51.		*
573.0	156.		1*
573.5	60.		*
574.0	60.		*
574.5	39.		*
575.0	-54.		*
575.5	-132.		*
576.0	-294.		*
576.5	-406.		*!
577.0	-658.		*
577.5	-1123.		*
578.0	-1483.		*
578.5	-1903.		*
579.0	-2436.		*
579.5	-3209.		*
580.0	-4112.		*
580.5	-5503.		*
581	-8447.		*



TRACE DISPLAY.

SHOT 20 Time 03:25:00 Level : 1350.0 Shot location : D
Shot depth : 1.2 Charge size : 1.0
No. surface samples : 128 Down hole sample nos : 290 400 718
Sample rates : 500 1000 usec Delay : 0

AUX. CHANNEL 1 Max. 1943mV



AUX. CHANNEL 2 Max. 2275mV



AUX. CHANNEL 3 Max. 10000mV



AUX. CHANNEL 4 Max. 7529mV



WELL PHONE CHANNEL - floating point amplifier



Data maximum (mV) : down hole channel - 12.266

FIRST ARRIVAL PLOT - SHOT 21 Level 1235.0

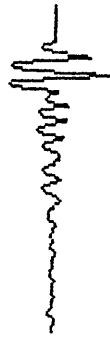
Well phone data

Sample time	Value UV	
520.0	110.	*
520.5	114.	*
521.0	115.	*
521.5	111.	*
522.0	100.	*
522.5	84.	*
523.0	62.	*
523.5	39.	*
524.0	11.	*
524.5	-10.	*
525.0	-22.	*
525.5	-25.	*
526.0	-16.	*
526.5	5.	*
527.0	26.	*
527.5	49.	*
528.0	70.	*
528.5	74.	*
529.0	67.	*
529.5	55.	*
530.0	39.	*
530.5	23.	*
531.0	12.	*
531.5	10.	*
532.0	17.	*
532.5	24.	*
533.0	36.	*
533.5	47.	*
534.0	57.	*
534.5	66.	*
535.0	64.	*
535.5	55.	*
536.0	34.	*
536.5	-11.	*
537.0	-85.	*
537.5	-197.	*
538.0	-325.	*
538.5	-584.	*
539.0	-1096.	*
539.5	-1758.	*
540.0	-2691.	*
540.5	-4132.	*
541.0	-5265.	*
541.5	-6983.	*
542.0	-8894.	*
542.5	-10815.	*
543.0	-12606.	*
543.5	-13957.	*
544	-1	*

TRACE DISPLAY.

SHOT 21 Time 03:54:25 Level : 1235.0 Shot location : D
Shot depth : 1.2 Charge size : 1.0
No. surface samples : 128 Down hole sample nos : 256 400 752
Sample rates : 500 1000 usec Delay : 0

AUX. CHANNEL 1 Max. 1835mV



AUX. CHANNEL 2 Max. 2724mV



AUX. CHANNEL 3 Max. 10000mV



AUX. CHANNEL 4 Max. 3296mV



WELL PHONE CHANNEL - floating point amplifier



Data maximum (mV) : down hole channel - 14.647

FIRST ARRIVAL PLOT - SHOT 22 Level 1140.0

Well phone data

Sample time	Value uv	*
486.0	-16.	*
486.5	-13.	*
487.0	-11.	*
487.5	-9.	*
488.0	-6.	*
488.5	-4.	*
489.0	-4.	*
489.5	-4.	*
490.0	-3.	*
490.5	-4.	*
491.0	-7.	*
491.5	-10.	*
492.0	-14.	*
492.5	-14.	*
493.0	-12.	*
493.5	-8.	*
494.0	-4.	*
494.5	-5.	*
495.0	-9.	*
495.5	-15.	*
496.0	-21.	*
496.5	-28.	*
497.0	-31.	*
497.5	-32.	*
498.0	-31.	*
498.5	-30.	*
499.0	-26.	*
499.5	-22.	*
500.0	-20.	*
500.5	-18.	*
501.0	-16.	*
501.5	-19.	*
502.0	-34.	*
502.5	-82.	*
503.0	-167.	*
503.5	-273.	*
504.0	-503.	*
504.5	-877.	*
505.0	-1653.	*1
505.5	-2596.	*
506.0	-4087.	*
506.5	-5323.	*
507.0	-7314.	*
507.5	-9685.	*
508.0	-12186.	*
508.5	-14767.	*
509.0	-17929.	*
509.5	-19289.	*
510.0	-19850.	*

TRACE DISPLAY -

SHOT 22 Time 03:43:49 Level : 1140.0 Shot location : D
Shot depth : 1.2 Charge size : 1.0
No. surface samples : 128 Down hole sample nos : 226 400 782
Sample rates : 500 1000 usec Delay : 0

AUX. CHANNEL 1 Max. 1865mV



AUX. CHANNEL 2 Max. 1293mV



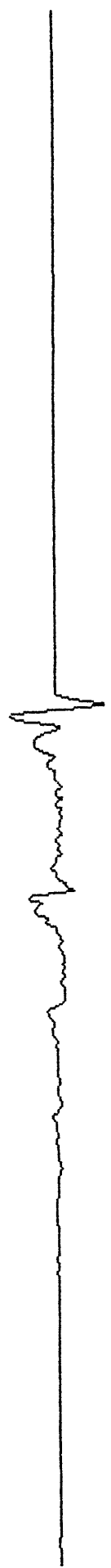
AUX. CHANNEL 3 Max. 10000mV



AUX. CHANNEL 4 Max. 4707mV



WELL PHONE CHANNEL - floating point amplifier



Data maximum (mV) : down hole channel - 19.289

FIRST ARRIVAL PLOT - SHOT 23 Level 1029.9

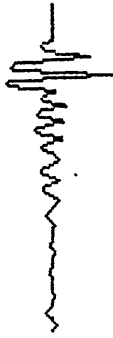
Sample time Value uv Well phone data

Sample time	Value	uv	Well phone data
444.0	14.		*
444.5	10.		*
445.0	-2.		*
445.5	-11.		*
446.0	-17.		*
446.5	-20.		*
447.0	-18.		*
447.5	-12.		*
448.0	-6.		*
448.5	-1.		*
449.0	1.		*
449.5	2.		*
450.0	-1.		*
450.5	-4.		*
451.0	-11.		*
451.5	-18.		*
452.0	-24.		*
452.5	-29.		*
453.0	-31.		*
453.5	-30.		*
454.0	-24.		*
454.5	-16.		*
455.0	-7.		*
455.5	2.		*
456.0	5.		*
456.5	6.		*
457.0	2.		*
457.5	-5.		*
458.0	-14.		*
458.5	-19.		*
459.0	-21.		*
459.5	-18.		*
460.0	-12.		*
460.5	-9.		*
461.0	-18.		*
461.5	-39.		*
462.0	-142.		*
462.5	-244.		*
463.0	-493.		*
463.5	-945.		*
464.0	-1951.		*
464.5	-3319.		*
465.0	-4872.		*
465.5	-7264.		*
466.0	-10315.		*
466.5	-13727.		*
467.0	-18889.		*
467.5	-21771.		*
468.0	-23812.		*
468.5	-24492.		*

TRACE DISPLAY.

SHOT 23 Time 03:52:01 Level : 1029.9 Shot location : D
Shot depth : 1.2 Charge size : 1.0
No. surface samples : 128 Down hole sample nos : 189 400 819
Sample rates : 500 1000 usec Delay : 0

AUX. CHANNEL 1 Max. 1831mV



AUX. CHANNEL 2 Max. 2299mV



AUX. CHANNEL 3 Max. 10000mV



AUX. CHANNEL 4 Max. 5947mV



WELL PHONE CHANNEL - floating point amplifier



Data maximum (mV) : down hole channel - 23.812

FIRST ARRIVAL PLOT - Shot 24 Level 925.1

Well phone data

Sample time	Value uv	*
404.0	-20.	*
404.5	-26.	*
405.0	-30.	*
405.5	-33.	*
406.0	-36.	*
406.5	-37.	*
407.0	-36.	*
407.5	-35.	*
408.0	-27.	*
408.5	-17.	*
409.0	1.	*
409.5	11.	*
410.0	19.	*
410.5	25.	*
411.0	26.	*
411.5	25.	*
412.0	22.	*
412.5	19.	*
413.0	14.	*
413.5	9.	*
414.0	4.	*
414.5	-3.	*
415.0	-6.	*
415.5	-8.	*
416.0	-8.	*
416.5	-7.	*
417.0	-5.	*
417.5	-3.	*
418.0	-1.	*
418.5	-2.	*
419.0	-5.	*
419.5	-19.	*
420.0	-37.	*
420.5	-86.	*
421.0	-162.	*
421.5	-259.	*
422.0	-486.	*
422.5	-891.	*
423.0	-1801.	*
423.5	-2946.	*
424.0	-4422.	*
424.5	-6633.	*
425.0	-9585.	*
425.5	-13126.	*
426.0	-18969.	*
426.5	-23612.	*
427.0	-27894.	*
427.5	-31655.	*
428.0	-34457.	*
428.5	-3717.	*

TRACE DISPLAY -

SHOT 24 Time 04:05:25 Level : 925.1 Shot location : D
Shot depth : 1.2 Charge size : 1.0
No. surface samples : 128 Down hole sample nos : 155 400 853
Sample rates : 500 1000 usec Delay : 0

AUX. CHANNEL 1 Max. 1777mV



AUX. CHANNEL 2 Max. 1972mV



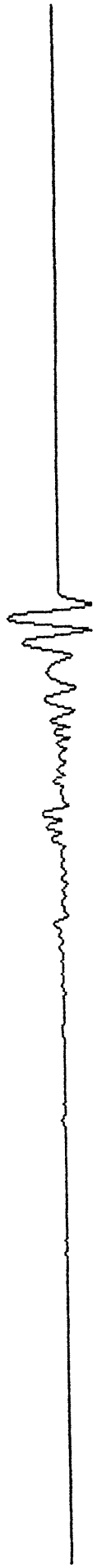
AUX. CHANNEL 3 Max. 10000mV



AUX. CHANNEL 4 Max. 4282mV



WELL PHONE CHANNEL - floating point amplifier



Data maximum (mV) : down hole channel - 51.545

FIRST ARRIVAL PLOT - Shot 25 Level 809.9

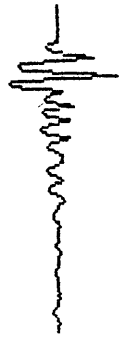
Well phone data

Sample time	Value uv	*
356.0	85.	*
356.5	83.	*
357.0	79.	*
357.5	73.	*
358.0	65.	*
358.5	58.	*
359.0	56.	*
359.5	56.	*
360.0	59.	*
360.5	64.	*
361.0	65.	*
361.5	58.	*
362.0	53.	*
362.5	49.	*
363.0	48.	*
363.5	51.	*
364.0	59.	*
364.5	75.	*
365.0	82.	*
365.5	87.	*
366.0	88.	*
366.5	85.	*
367.0	77.	*
367.5	68.	*
368.0	58.	*
368.5	56.	*
369.0	58.	*
369.5	71.	*
370.0	80.	*
370.5	87.	*
371.0	91.	*
371.5	93.	*
372.0	93.	*
372.5	88.	*
373.0	76.	*
373.5	53.	*
374.0	4.	*
374.5	-97.	*
375.0	-336.	*
375.5	-531.	*
376.0	-1376.	*
376.5	-2539.	*
377.0	-4052.	*
377.5	-6543.	*
378.0	-10065.	*
378.5	-14567.	*
379.0	-22571.	*
379.5	-29214.	*

TRACE DISPLAY.

SHOT 25 Time 04:15:42 Level : 809.9 Shot location : D
Shot depth : 1.2 Charge size : 1.0
No. surface samples : 128 Down hole sample nos : 112 400 896
Sample rates : 500 1000 usec Delay : 0

AUX. CHANNEL 1 Max. 1860mV



AUX. CHANNEL 2 Max. 2451mV



AUX. CHANNEL 3 Max. 100000mV



AUX. CHANNEL 4 Max. 3076mV



WELL PHONE CHANNEL - floating point amplifier



Data maximum (mV) : down hole channel - 87.243

FIRST ARRIVAL PLOT - SHOT 26 Level 705.0

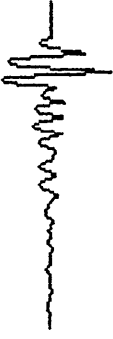
Well phone data

Sample time	Value uv	*
312.0	-8.	*
312.5	2.	*
313.0	9.	*
313.5	16.	*
314.0	21.	*
314.5	20.	*
315.0	11.	*
315.5	-3.	*
316.0	-12.	*
316.5	-19.	*
317.0	-25.	*
317.5	-30.	*
318.0	-36.	*
318.5	-41.	*
319.0	-45.	*
319.5	-46.	*
320.0	-39.	*
320.5	-31.	*
321.0	-23.	*
321.5	-17.	*
322.0	-12.	*
322.5	-8.	*
323.0	-6.	*
323.5	-3.	*
324.0	0.	*
324.5	3.	*
325.0	5.	*
325.5	7.	*
326.0	10.	*
326.5	13.	*
327.0	18.	*
327.5	22.	*
328.0	24.	*
328.5	17.	*
329.0	-13.	*
329.5	-88.	*
330.0	-315.	*
330.5	-515.	*
331.0	-1353.	*
331.5	-2524.	*
332.0	-4142.	*
332.5	-6723.	*
333.0	-10275.	*
333.5	-14907.	*
334.0	-22651.	*
334.5	-28894.	*
335.0	-35177.	*
335.5	-42510.	*

TRACE DISPLAY .

SHOT 26 Time 04:26:48 Level : 705.0 Shot location : D
Shot depth : 1.2 Charge size : 1.0
No. surface samples : 128 Down hole sample nos : 72 400 936
Sample rates : 500 1000 usec Delay : 0

AUX. CHANNEL 1 Max. 1899mV



AUX. CHANNEL 2 Max. 1826mV



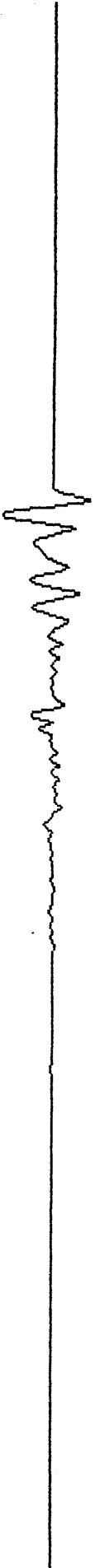
AUX. CHANNEL 3 Max. 10000mV



AUX. CHANNEL 4 Max. 4345mV



WELL PHONE CHANNEL - floating point amplifier



Data maximum (mV) : down hole channel - 66.513

FIRST ARRIVAL PLOT - SHOT 27 Level 590.1

Well phone data

Sample time	Value uv	*
264.0	37.	*
264.5	51.	*
265.0	70.	*
265.5	80.	*
266.0	40.	*
266.5	47.	*
267.0	45.	*
267.5	35.	*
268.0	69.	*
268.5	57.	*
269.0	40.	*
269.5	27.	*
270.0	20.	*
270.5	15.	*
271.0	11.	*
271.5	1.	*
272.0	-9.	*
272.5	-23.	*
273.0	-34.	*
273.5	-38.	*
274.0	-33.	*
274.5	-21.	*
275.0	1.	*
275.5	12.	*
276.0	24.	*
276.5	35.	*
277.0	45.	*
277.5	56.	*
278.0	73.	*
278.5	80.	*
279.0	80.	*
279.5	61.	*
280.0	31.	*
280.5	-54.	*
281.0	-343.	*
281.5	-855.	*
282.0	-2221.	*
282.5	-4092.	*
283.0	-7454.	*
283.5	-12726.	*
284.0	-23331.	*
284.5	-33456.	*
285.0	-44782.	*
285.5	-56828.	*
286.0	-69474.	*
286.5	-77958.	*
287.0	-82130.	*

TRACE DISPLAY.

SHOT 27 Time 04:36:26 Level : 590.1 Shot location : D
Shot depth : 1.2 Charge size : 1.0
No. surface samples : 128 Down hole sample nos : 29 400 979
Sample rates : 500 1000 usec Delay : 0

AUX. CHANNEL 1 Max. 1752mV



AUX. CHANNEL 2 Max. 1123mV



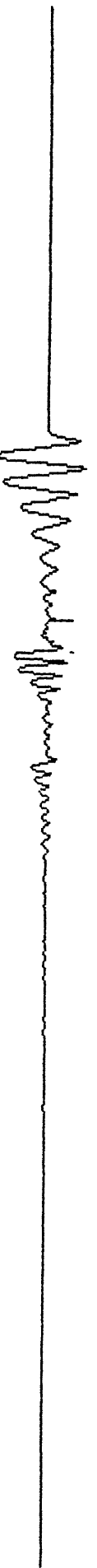
AUX. CHANNEL 3 Max. 10000mV



AUX. CHANNEL 4 Max. 3369mV



WELL PHONE CHANNEL - floating point amplifier



Data maximum (mV) : down hole channel - 124.861

FIRST ARRIVAL PLOT - Shot 28 Level 470.0

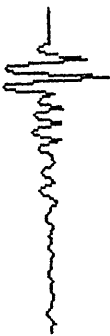
Well phone data

Sample time	Value UV			
212.0	99.			*
212.5	87.			*
213.0	83.			*
213.5	93.			*
214.0	113.			*
214.5	134.			*
215.0	145.			*
215.5	141.			*
216.0	122.			*
216.5	96.			*
217.0	75.			*
217.5	65.			*
218.0	66.			*
218.5	73.			*
219.0	84.			*
219.5	94.			*
220.0	107.			*
220.5	117.			*
221.0	123.			*
221.5	123.			*
222.0	114.			*
222.5	100.			*
223.0	82.			*
223.5	64.			*
224.0	47.			*
224.5	53.			*
225.0	47.			*
225.5	48.			*
226.0	59.			*
226.5	63.			*
227.0	75.			*
227.5	63.			*
228.0	17.			*
228.5	-345.			*
229.0	-710.			*
229.5	-2399.			*
230.0	-4842.			*
230.5	-9735.			*
231.0	-22091.			*
231.5	-35777.			*
232.0	-52746.			*
232.5	-76918.			*
233.0	-97968.			*
233.5	-115577.			*
234.0	-126782.			*
234.5	-125181.			*
235.0	-113255.			*
235.5	-87723.			*
236.0	-55867.			*
236.5	-8974.			*

TRACE DISPLAY.

SHOT 28 Time 04:43:59 Level : 470.0 Shot location : D
Shot depth : 1.2 Charge size : 1.0
No. surface samples : 128 Down hole sample nos : 0 400 1008
Sample rates : 500 1000 usec Delay : 0

AUX. CHANNEL 1 Max. 1796mV



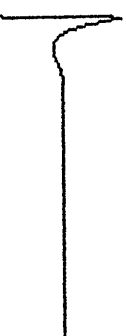
AUX. CHANNEL 2 Max. 5302mV



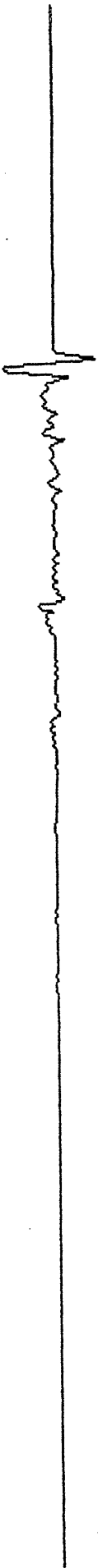
AUX. CHANNEL 3 Max. 10000mV



AUX. CHANNEL 4 Max. 2729mV



WELL PHONE CHANNEL - floating point amplifier



Data maximum (mV) : down hole channel - 145.031

FIRST ARRIVAL PLOT - Shot 29 Level 395.0

Sample time Value UV Well phone data

Sample time	Value	UV	Well phone data
178.0	-7.		*
178.5	-21.		*
179.0	-37.		*
179.5	-50.		*
180.0	-58.		*
180.5	-59.		*
181.0	-54.		*
181.5	-44.		*
182.0	-30.		*
182.5	-17.		*
183.0	-6.		*
183.5	4.		*
184.0	10.		*
184.5	15.		*
185.0	21.		*
185.5	25.		*
186.0	30.		*
186.5	35.		*
187.0	41.		*
187.5	47.		*
188.0	47.		*
188.5	43.		*
189.0	37.		*
189.5	33.		*
190.0	30.		*
190.5	30.		*
191.0	28.		*
191.5	23.		*
192.0	12.		*
192.5	-5.		*
193.0	-18.		*
193.5	-33.		*
194.0	-52.		*
194.5	-86.		*
195.0	-169.		*
195.5	-319.		*
196.0	-805.		*
196.5	-2476.		*
197.0	-4892.		*
197.5	-9905.		*
198.0	-21851.		*
198.5	-35057.		*
199.0	-52306.		*
199.5	-75717.		*
200.0	-99088.		*
200.5	-126462.		*
201.0	-149673.		*
201.5	-167442.		*
202.0	-177527.		*
202.5	-177527.		*

TRACE DISPLAY.

SHOT 29 Time 04:48:58 Level : 395.0 Shot location : D
Shot depth : 0.1 Charge size : 1.0
No. surface samples : 128 Down hole sample nos : 0 400 1008
Sample rates : 500 1000 usec Delay : 0

AUX. CHANNEL 1 Max. 1796mV



AUX. CHANNEL 2 Max. 2138mV



AUX. CHANNEL 3 Max. 10000mV



AUX. CHANNEL 4 Max. 2846mV



WELL PHONE CHANNEL - floating point amplifier



Data maximum (mV) : down hole channel - 295.825

FIRST ARRIVAL PLOT - SHOT 30 Level 310.0

Sample time	Value UV	Well phone data
138.0	-213.	*
138.5	-249.	*
139.0	-264.	*
139.5	-283.	*
140.0	-296.	*
140.5	-300.	*
141.0	-298.	*
141.5	-289.	*
142.0	-274.	*
142.5	-252.	*
143.0	-210.	*
143.5	-172.	*
144.0	-131.	*
144.5	-90.	*
145.0	-56.	*
145.5	-22.	*
146.0	8.	*
146.5	29.	*
147.0	51.	*
147.5	77.	*
148.0	97.	*
148.5	111.	*
149.0	118.	*
149.5	116.	*
150.0	109.	*
150.5	96.	*
151.0	79.	*
151.5	57.	*
152.0	42.	*
152.5	21.	*
153.0	-4.	*
153.5	-28.	*
154.0	-58.	*
154.5	-105.	*
155.0	-165.	*
155.5	-245.	*
156.0	-525.	*
156.5	-1858.	*
157.0	-4662.	*
157.5	-11906.	*
158.0	-35297.	*
158.5	-70595.	*
159.0	-112535.	*
159.5	-163280.	*
160.0	-197697.	*
160.5	-215145.	*
161.0	-213544.	*
161.5	-198817.	*
162.0	-179448.	*

TRACE DISPLAY .

SHOT 30 Time 05:04:24 Level : 310.0 Shot location : D
Shot depth : 1.2 Charge size : 1.0
No. surface samples : 128 Down hole sample nos : 0 400 1008
Sample rates : 500 1000 usec Delay : 0

AUX. CHANNEL 1 Max. 1997mV



AUX. CHANNEL 2 Max. 1875mV



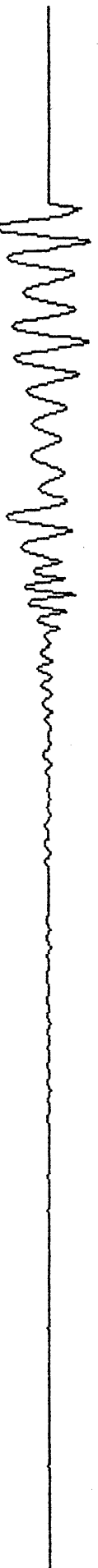
AUX. CHANNEL 3 Max. 10000mV



AUX. CHANNEL 4 Max. 4209mV



WELL PHONE CHANNEL - floating point amplifier



Data maximum (mV) : down hole channel - 327.680

End of Appendix 8

APPENDIX

IX

PALYNOLOGY

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Phone (088) 32 2795 Fax (088) 32 2798

PALYNOLOGY OF ANGLO-AUSTRALIAN OIL KILLARA-1

OTWAY BASIN, AUSTRALIA

BY

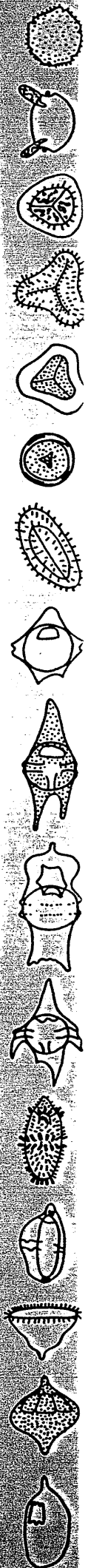
ROGER MORGAN

NIGEL HOOKER

for CULTUS PETROLEUM
(AUSTRALIA) N.L.

MAY 1992

REF:OTW.KILLARA



PALYNOLOGY OF ANGLO-AUSTRALIAN OIL KILLARA-1

OTWAY BASIN, AUSTRALIA

BY

ROGER MORGAN

NIGEL HOOKER

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APPENDIX 1 PALYNOLOGICAL DATA CHART	

I SUMMARY

Results of palynological analyses of six sidewall core samples from Killara-1 are summarised below.

1535.0m(swc) : hughesii : Aptian : non-marine : usually Eumerella Formation : immature/marginal mature

1565.0m(swc) : lower hughesii?/upper wonthaggiensis : Aptian?/Barremian : lower Eumerella?-upper Laira Formation : immature/marginal mature

1908.0m(swc) : upper wonthaggiensis : Barremian/Hauterivian : non-marine : usually upper Laira Formation or equivalents : marginal mature

2015.0m(swc) : indeterminate (very sparse)

2080.0m(swc) : lower wonthaggiensis : Hauterivian/Valanginian : non-marine : usually lower Laira Formation or equivalents : marginal mature

2405.0m(swc) : ?australiensis?/?watherooensis : ?Berriasian/?Tithonian : non-marine : ?Pretty Hill Sandstone : marginal/early mature

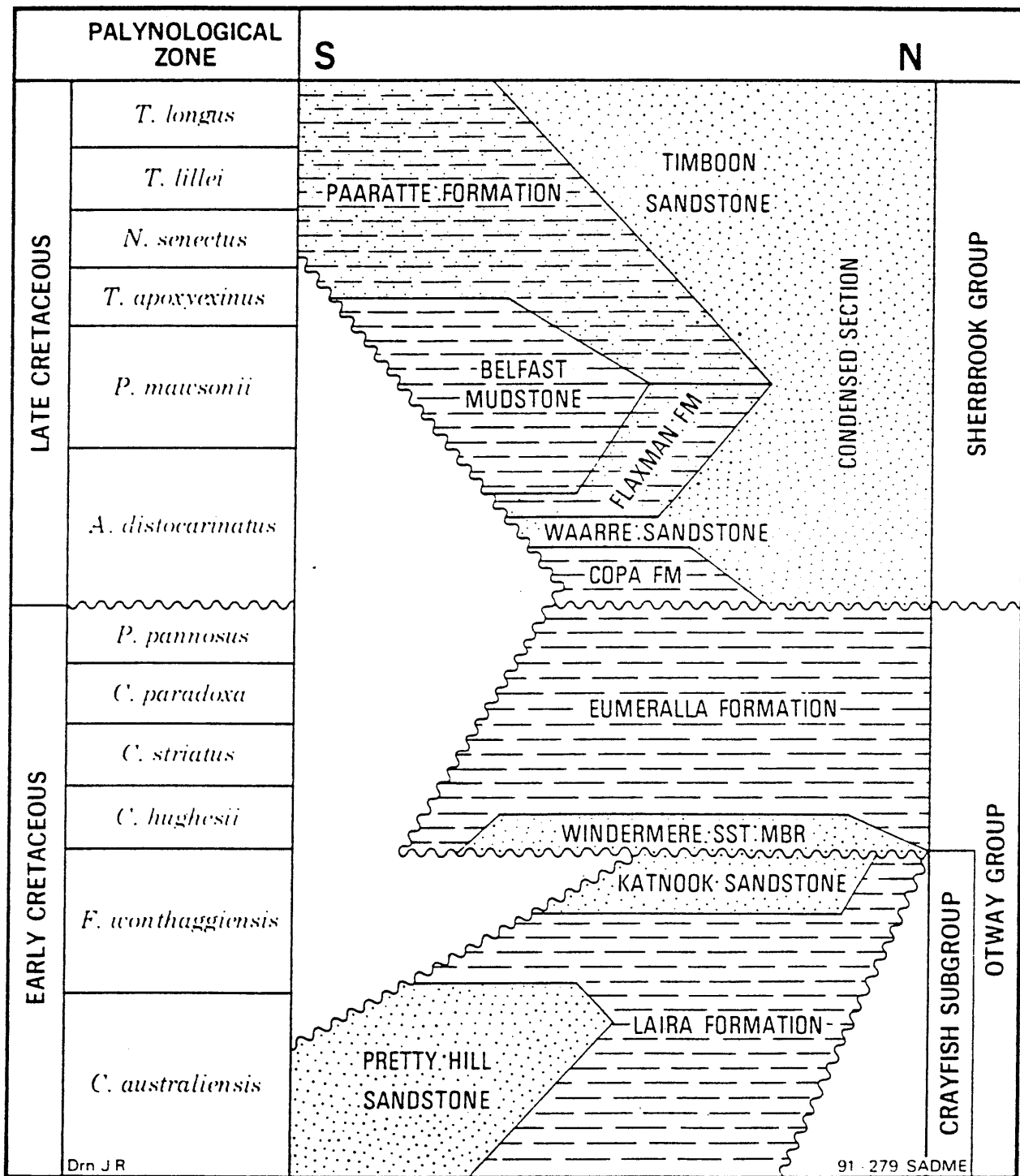


FIGURE 1 STRATIGRAPHIC NOMENCLATURE OF THE OTWAY BASIN.

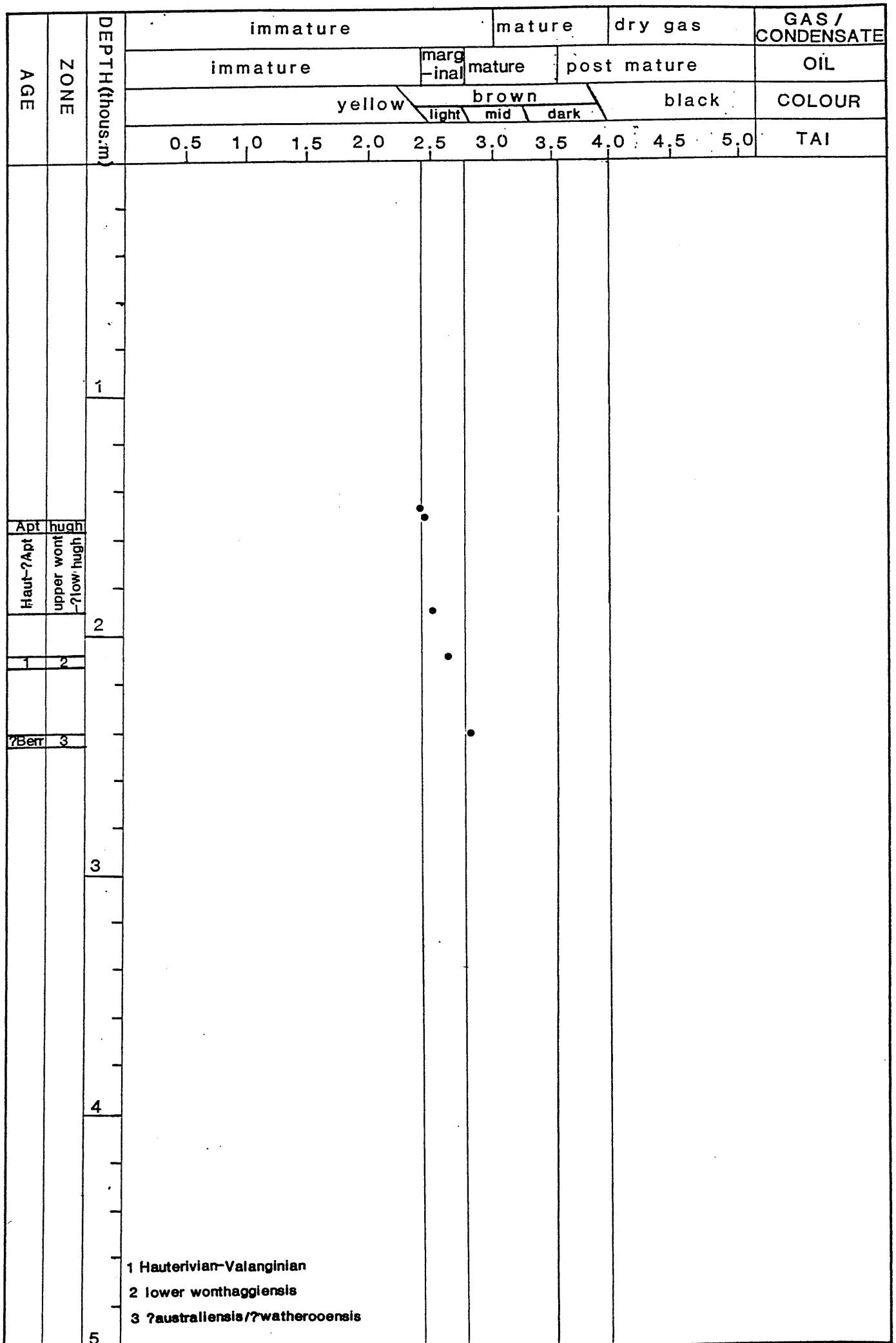


FIGURE 2. MATURITY PROFILE - KILLARA #1

II INTRODUCTION

Palynological results on Killara-1 contained in this report are based on analyses of six sidewall cores, some of which are quite broadly spaced. Palynological recovery is variable but only one sample remains zonally indeterminate.

The zonation used is that of Helby, Morgan and Partridge (1987), which draws on all previous work and is designed for pan-Australian use. Minor modification for Otway Basin use has been necessary. The zones of Dettmann and Douglas (1976) have proved very difficult to use due to extreme scarcity of some fossils.

Lithostratigraphic nomenclature is taken from Morton J.G.G. (1990) and is summarised in Figure 1.

Maturity data was generated in the form of Thermal Alteration Index, of Staplin (using spore colour) and is plotted on Figure 2 - Maturity Profile of Killara-1. The oil and gas windows follow the general consensus of geochemical literature. The oil window corresponds to spore colours of light-mid brown (2.7) to dark brown (3.6). This would correspond approximately to Vitrinite Reflectances of 0.6% to 1.3%. Geochemists, however, have not reached universal agreement on these values, and argue variations based on kerogen type, basin type and basin history. The maturity interpretation is thus open to reinterpretation using the basic colour observations as raw data. However, the range of interpretation philosophies is not great, and would probably not move the oil window by more than two hundred metres.

III PALYNOSTRATIGRAPHY

A 1535.0m(swc) : C. hughesii Zone

Assignment to the Cyclosporites hughesii Zone of Aptian age is indicated by the youngest occurrence of Cyclosporites hughesii and the oldest occurrence of Pilosporites notensis.

Assemblage is dominated by Cyathidites australis with frequent to common P. notensis, Cicatricosisporites australiensis and Aequitriradites spinulosus. Dictyosporites speciosus is present.

Environment is non-marine as indicated by abundant diverse miospores and absence of marine indicators. Rare occurrence of Schizosporis reticulatus and Botryococcus sp indicates freshwater influences.

The zone is usually associated with the lower Eumerella Formation.

Spore colour is yellow/light brown suggesting immaturity/marginal maturity for oil and immaturity for gas.

B 1565.0m(swc) : lower C. hughesii?-upper F. wonthaggiensis Zone

Definitive zonal assignment of this sample is precluded by relatively poor palynological recovery. A range of lower Cyclosporites hughesii-upper Foraminisporis wonthaggiensis is indicated by the youngest occurrence of Cooksonites variabilis and the oldest frequent occurrence of Cicatricosisporites australiensis. The absence of Pilosporites notensis and Foraminisporis asymmetricus

suggest that an upper F. wonthaggiensis Zone assignment is more appropriate but a C. hughesii Zone assignment cannot be ruled out.

Environment is non-marine as indicated by abundant spore/pollen in the absence of marine indicators.

The lower hughesii is usually associated with the basal Eumerella Formation whilst upper wonthaggiensis is usually encountered in the upper Laira Formation and sandy equivalents.

Spore colour is yellow/light brown suggesting immaturity/marginal maturity for oil and immaturity for gas.

C 1908.0m(swc) : upper wonthaggiensis Zone

Assignment to the upper Foraminisporis wonthaggiensis Zone of Barremian-Hauterivian age is indicated by rare Cicatricosisporites australiensis together with a minor influx of Contignisporites cooksoniae and youngest Murospora florida. Cyclosporites hughesii and Dictyosporites speciosus are both present.

Assemblage is dominated by Cyathidites australis and Baculatisporites spp with common Falcisporites australis.

Environment is non-marine as indicated by abundant and diverse spore/pollen in the absence of marine indicators.

The zone is usually associated with the upper Laira Formation and sandy equivalents.

Spore colour is light brown suggesting marginal maturity for oil and immaturity for gas.

D 2015.0m(swc) indeterminate (very sparse)

Zonal assignment and age determination are precluded by very poor palynological recovery. Rare Ceratosporites equalis and Baculatisporites spp occur with frequent Falcisporites similis and Cyathidites australis, all of which are longranging forms.

E 2080.0m(swc) : lower wonthaggiensis Zone

Assignment to the lower Foraminisporis wonthaggiensis Zone of Hauterivian-Valanginian age is indicated by the occurrence of Dictyosporites speciosus in the absence of younger markers such as Cicatricosporites australiensis.

Assemblage is dominated by Cyathidites australis and Baculatisporites spp with common Falcisporites similis and Retitriletes austroclavatidites.

Environment is non-marine as indicated by abundant spore/pollen in the absence of marine indicators.

The zone is usually associated with the Laira Formation and sandy equivalents.

Spore colour is light brown suggesting marginal maturity for oil and immaturity for gas.

F 2405.0m(swc) : ?australiensis-?watheroensis

A more definitive zonal assignment is precluded by the relatively sparse and low-moderate diversity assemblage. Possible assignment to Cicatricosisporites australiensis-Retitriletes watherooensis of Berriasian age is suggested by the frequent occurrence of Ceratorsporites equalis and the absence of younger indicators.

Assemblage is dominated by Baculatisporites spp and Cyathidites australis with common Falcisporites australis and Retitriletes austroclavatidites.

Environment is non-marine as indicated by abundant, low-moderate diversity spore/pollen in the absence of marine indicators.

The zones are usually associated with the Pretty Hill Sandstone.

Spore colour is mid/light brown suggesting marginal/early maturity for oil and immaturity for gas.

IV CONCLUSIONS

A Samples were variable in yield but do allow tentative identification of a Pretty Hill Sandstone section possibly in the australiensis-watherooensis Zone, a Laira Formation (and equivalents) in the wonthaggiensis Zone and a lower Eumerella Formation in the hughesii Zone. The boundary between Eumerella and Laira is not confidently picked on palynology but available evidence from this study suggests that the boundary might fall between 1535.0m (swc) (hughesii) and 1565.0m (swc) (lower hughesii?-upper wonthaggiensis).

This would place the Killara coals within the upper Laira Formation rather than the lower Eumerella Formation which is more regionally typical. However, a lower hughesii assignment (and therefore lower Eumerella) for 1565.0m cannot be totally ruled out. Further analyses over the interval 1565.0m-1908.0m is recommended in order to resolve this stratigraphic problem.

B Environments are non-marine throughout. Extensive fluvial influence is likely in the Pretty Hill Sandstone and Laira Formation which is apparently suppressing a lacustrine influence usually seen in the upper Laira Formation.

C Spore colours suggest marginal/early maturity for oil and immaturity for gas in the Pretty Hill at the base of the section. The Laira and Eumerella shows immaturity/marginal maturity for oil and immaturity for gas.

V RECOMMENDATIONS

A Further analyses over the interval 1565.0m-1908.0m is recommended to more definitively place the base of the Eumerella Formation.

VI REFERENCES

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Morton JGG (1990) Revision to Stratigraphic Nomenclature of the Otway Basin, South Australia.
Geological Survey of South Australia
Qt Geol. Notes No. 116

KILLARA #1 PALYNOLOGICAL DATA

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C L I E N T: CULTUS PETROLEUM (AUSTRALIA) NL
W E L L: KILLARA #1
F I E L D / A R E A: OTWAY BASIN

A N A L Y S T: N. HOOKER D A T E : MAY 1992
N O T E S: All figures are percentages

RANGE CHART OF OCCURRENCES BY LOWEST APPEARANCE WITHIN GROUP

RETICULATUS
ITES
ITES DAMPIERI
ES EQUALIS
TES SP.
AUSTRALIS
ITES COMPLEX
S SIMILIS
DITES ANTARCTICUS
AUSTROCLAVATIDITES
TES TABULATUS
ITES SPECIOSUS
S GRANDIS
ES CRATERIS
IA
TES ENEABBAENSIS
PORITES AUSTRALIENSIS
ITES COOKSONIAE
ROSUS
S HUGHESI

23	MUROSPORA FLORIDA
24	PROTEACIDITES SP
25	RETRILETES WATHARDOENSIS
26	TRILOBOSPORITES TRIRETICULOSUS
27	AEQUITRIRADITES SPINULOSUS
28	COOKSONITES VARIABILIS
29	DICTOPHYLLIDITES SPP
30	TRIPOROLETES RADIATUS
31	AEQUITRIRADITES VERRUCOSUS
32	FORAMINISPORIS DAILYI
33	FORAMINISPORITES MONTHAGGIENSIS
34	PILOSISPORITES NOTENSIS

1535.0	SWC	.	.	.	.	X	U	.	.	.	U	X	X	9	1535.0	SWC
1565.0	SWC	.	.	.	2	X	U	1	1	1	.	.	.	.	1565.0	SWC

Index numbers are the columns in which species appear.

INDEX NUMBER	SPECIES
27	AEQUITRIRADITES SPINULOSUS
31	AEQUITRIRADITES VERRUCOSUS
3	BACULATISPORITES
18	BIRETRISPORITES ENEABBAENSIS
1	BOTRYOCOCCUS
4	CALLIALASPORITES DAMPIERI
5	CERATOSPORITES EQUALIS
19	CICATRICOSISPORITES AUSTRALIENSIS
20	CONTIGNISPORITES COOKSONIAE
28	COOKSONITES VARIABILIS
21	COROLLINA TOROSUS
6	COUPERISPORITES SP.
13	COUPERISPORITES TABULATUS
7	CYATHIDITES AUSTRALIS
22	CYCLOSPORITES HUGHESI
29	DICTOPHYLLIDITES SPP
8	DICTYOTOSPORITES COMPLEX
14	DICTYOTOSPORITES SPECIOSUS
15	FALCISPORITES GRANDIS
9	FALCISPORITES SIMILIS
32	FORAMINISPORIS DAILYI
33	FORAMINISPORITES WONTHAGGIENSIS
16	ISCHYOSPORITES CRATERIS
10	MICROCACHRYIDITES ANTARCTICUS
23	MUROSPORA FLORIDA
17	NEORAISTRICKIA
34	PILOSISPORITES NOTENSIS
24	PROTEACIDITES SP
11	RETITRILETES AUSTROCLAVATIDITES
25	RETITRILETES WATHAROOENSIS
2	SCHIZOSPORIS RETICULATUS
26	TRILOBOSPORITES TRIORETICULOSUS
30	TRIPOROLETES RADIATUS
12	UVAESPORITES

PALYNOLOGY REPORT

BIOSTRATIGRAPHY OF SELECTED SAMPLES IN KILLARA NO. 1, 984M - 2405M, OTWAY BASIN

by

Mary E Dettmann

(Department of Botany, University of Queensland, St Lucia, Q 4072)

Prepared for:

October, 1991

PHOENIX OIL & GAS N.L.

SUMMARY

The following are biostratigraphic results of a palynological investigation of four samples from Killara No.1, Otway Basin:

Depth (m)	Biostratigraphic Allocation		Age
	Dettmann & Douglas (1988)	Helby <i>et al.</i> (1987)	
984	<i>C. paradoxa</i>	<i>C. paradoxa</i>	m-1 Albian
1753	<i>C. hughesii</i> (upper)	<i>C. hughesii</i>	1 Barrem.-Aptian
2049	<i>C. hughesii</i> (lower)	<i>F. wonthaggiensis</i>	Valang.-Barrem.
2405	<i>C. stylosus</i>	<i>C. australiensis</i>	Tithon.-Valang.

The palynological evidence confirms that the sample at 984m is from sediments in the upper part of the Eumeralla Formation, and that from 1753 from the lower part of the same formation. The sample at 2049m is a correlative of the Geltwood Beach Formation, and the lowermost sample (2405m) is a correlative of the 'Basal Unit' or the overlying Pretty Hill Sandstone.

INTRODUCTION

Two sidewall cores (1753m, 2405m) and two cuttings samples (984m, 2049m) from Killara No.1 have been palynologically analysed to ascertain the age and biostratigraphic relationships of the sediments.

Preparation of the samples was by standard techniques (Phipps & Playford, 1984), and three strew slides of each residue were scanned. Species distributions are documented in Table 1.

BIOSTRATIGRAPHY AND AGE

Biostratigraphic syntheses is in terms of the scheme developed for the Otway Basin (Dettmann & Douglas, 1976; Dettmann, 1986) and the more generalized Australia-wide one (Helby *et al.*, 1987). Although several of the zonal indices are known to have different stratigraphic ranges in disparate sedimentary basins within Australia (Table 2, from Dettmann, 1986), relationships between the Otway Basin and the Australia-wide schemes have been adduced.

1. 984m; *C. paradoxa* Zone, mid-late Albian

The sample is assigned to the *C. paradoxa* Zone on the basis of *Coptospora paradoxa* and in the absence of *Dictyotosporites speciosus* and other species known to be restricted to zones older than the *C. paradoxa* Zone. Although down-hole contamination is likely in cuttings, the extracted palynoflora is entirely consistent with those occurring in the *C. paradoxa* Zone.

Palynomorphs identified are all of land plant origin.

2. 1753m; *C. hughesii* (upper) Zone, late Barremian-Aptian

A moderately diverse assemblage containing *Dictyotosporites speciosus*, *Cyclosporites hughesii* and *Foraminisporis asymmetricus* was obtained from

the sample. The occurrence of these species indicate assignment to the upper *C. hughesii* Zone (Otway Basin scheme) and *C. hughesii* Zone (pan-Australian scheme). Occasional non marine algal cysts were encountered in the assemblage which is predominantly of land plant palynomorphs.

3. 2049m; *C. hughesii* (lower) Zone, Valanginian-Barremian

The assemblage obtained from the cuttings sample contains *Dictyotosporites speciosus* associated with *Crybelosporites stylosus* and *Foraminisporis wonthaggiensis*. Accordingly the sample is believed to be at or near the base of the lower *C. hughesii* Zone (Otway Basin) and equivalent *F. wonthaggiensis* Zone (pan-Australia). The assemblage is entirely of land plant palynomorphs.

4. 2405m; *C. stylosus* Zone, Tithonian-Valanginian

A restricted palynoflora was extracted from the sample. The presence of *Dictyotosporites speciosus* and *Cyclosporites hughesii* indicates that the sample is younger than the *R. watherooensis* Zone and is assigned to the *C. stylosus* Zone (Otway Basin) and equivalent *C. australiensis* Zone (pan-Australia). Deposition in a lacustrine situation is indicated by the presence of fresh water algal cysts.

REFERENCES

- Dettmann, M. E. 1986. Early Cretaceous palynoflora of subsurface strata correlative with the Koonwarra Fossil Bed, Victoria. *Mem. Assoc. Australas. Palaeontols.* 3, 79-110.
- Dettmann, M. E. & Douglas, J. D. 1976. Mesozoic palaeontology. *Spec. Publ. geol. Soc. Aust.* 5, 164-169.
- Helby, R. J., Morgan, R. & Partridge, A. D. 1987. A palynological

zonation for the Australian Mesozoic. *Mem. Ass. Australas.*

Palaeontols. 4, 1-94.

Phipps, D. & Playford, G. 1984. Laboratory techniques for extraction of palynomorphs from sediments. *Pap. Dept. Geol. Univ. Qd* 11(1), 1-23.

TABLE 1

PALYNOMORPH DISTRIBUTION

COMPANY: PHOENIX OIL & GAS N.L.						Sheet 1 of 2														
WELL: KILLARA No. 1						BASIN: OTWAY														
Sample type		S	D	S	D															
Palynomorph	Depth (m)	2405	2049	1753	984															
	CRYPTOGAM SPORES:																			
Aequitriradites spinulosus		+			+															
Baculatisporites comaumensis		+	+	+	+															
Contignisporites cooksoniae		+																		
Couperisporites tabulatus		+	+																	
Cyclosporites hughesii		+	+	+																
Ceratosporites equalis		+	+	+	+															
Cyathidites australis/minor		+	+	+	+															
Dictyotosporites speciosus		+	+	+																
Dictyophyllidites crenatus		+	+	+																
Laevigatosporites belfordii		+																		
Leptolepidites verrucatus		+	+	+																
Leptolepidites major		+	+	+	+															
Neoraistrickia truncata		+	+	+	+															
Retitriletes austroclavatidites		+	+	+																
R. douglasii		+	+	+																
R. eminulus		+	+	+	+															
R. circolumenus		+	+																	
Stereisporites antiquasporites		+	+	+	+															
Biretisporites spectabilis			+																	
Cicatricosisporites australiensis			+	+	+															
C. ludbrookiae			+																	
Crybelosporites stylosus			+																	
Cyathidites asper			+		+															
Foraminisporis dailyi			+		+															
F. wonthaggiensis			+	+	+															
Klukisporites scaberis			+	+																
Osmundacidites wellmanii			+																	
Retitriletes facetus			+		+															
R. nodosus			+	+																
Sestrosporites pseudoalveolatus			+																	
Biretisporites potoniae				+																
Cyathidites punctatus				+	+															
Foraminisporis asymmetricus				+	+															
Perinomonoletes sp.				+																

TABLE 1

PALYNOMORPH DISTRIBUTION

COMPANY: Phoenix OIL & GAS N.L.

Sheet 2 of 2

WELL: KILLARA No. 1

BASIN: OTWAY

Sample type	S	D	S	D														
Depth (m)	2405	2049	1753	984														
Palynomorph																		
<i>Perotriletes linearis</i>			+															
<i>Retitriletes reticulumsporites</i>			+															
<i>R. watherooensis</i>			+															
<i>Aequitriradites verrucosus</i>				+														
<i>Cicatricosisporites hughesii</i>				+														
<i>Coptospora paradoxa</i>				+														
<i>Crybelosporites striatus</i>				+														
<i>Gleicheniidites circinidites</i>				+														
<i>Laevigatosporites ovatus</i>				+														
<i>Stereisporites pocockii</i>				+														
<i>Trilobosporites trioreticulosus</i>				+														
<i>Triporoletes reticulatus</i>				+														
<i>T. simplex</i>				+														
<i>Velosporites triquetrus</i>				+														
GYMNOSPERMOUS POLLEN:																		
<i>Alisporites grandis</i>	+	+	+	+														
<i>A. similis</i>	+	+	+	+														
<i>Araucariacites australis</i>	+	+	+	+														
<i>Callialasporites dampieri</i>	+		+															
<i>Classopollis chataeunovii</i>	+	+	+	+														
<i>Cycadopites nitidus</i>	+	+	+	+														
<i>Microcachryidites antarcticus</i>	+	+	+	+														
<i>Podocarpidites ellipticus</i>	+	+	+	+														
<i>Trichotomosulcites subgranulatus</i>			+															
ANGIOSPERMOUS POLLEN:																		
<i>Clavatipollenites hughesii</i>				+														
ALGAL PALYNOMORPHS:																		
<i>Sigmopollis</i> sp.	+		+															
<i>Veryhachium</i> sp.	+																	

Sample type: S = Sidewall core; C = Conventional core;

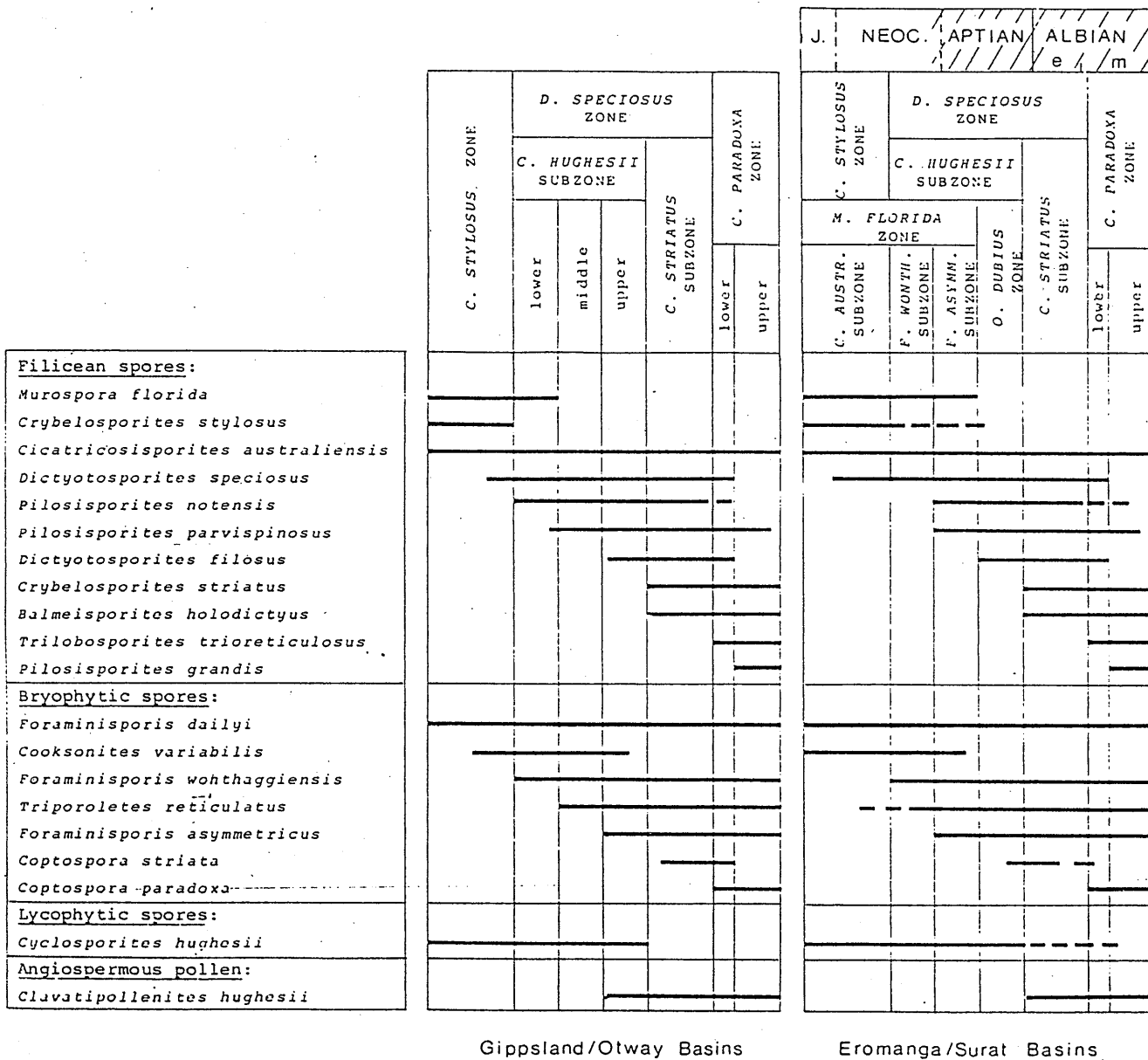


Table 2. Comparison of Early Cretaceous palynostratigraphic sequences in southern margin (Gippsland/Otway) and intracratonic (Eromanga/Surat) Basins (from Dettmann, 1986).

End of Appendix 9

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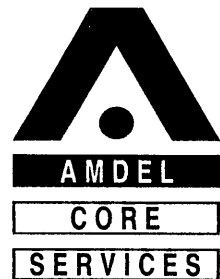
APPENDIX

X

SOURCE ROCK

&

MATURATION



6 July 1992

Cultus Petroleum (Australia) NL
Level 1, 25 Merriwa Street
GORDON NSW 2072

Attention: Dr V Dauzacker, Exploration Manager

REPORT: HH/1704

CLIENT REFERENCE: PEP-101/AFE 92-101-22:KILLARA-1 WCR

MATERIAL: Rock Samples

LOCALITY: Killara-1

WORK REQUIRED: Source Rock Analysis

Please direct technical enquiries regarding this work to the signatory below under whose supervision the work was carried out.

BRIAN L WATSON
Laboratory Supervisor
on behalf of Amdel Core Services Pty Ltd

Amdel Core Services Pty Limited shall not be liable or responsible for any loss, cost, damages or expenses incurred by the client, or any other person or company, resulting from any information or interpretation given in this report. In no case shall Amdel Core Services Pty Ltd be responsible for consequential damages including, but not limited to, lost profits, damages for failure to meet deadlines and lost production arising from this report.

Adelaide Office:

P.O. Box 109, Eastwood, SA 5063 Australia.
~~X 379 9888 X 379 9888 X 379 9888 X 379 9888 X 379 9888~~
Telephone: (08) 379 9888 Facsimile: (08) 379 9288

Amdel Core Services Pty Limited
(Incorporated in South Australia)
ACN: 008 273 005

1. INTRODUCTION

Five (5) samples were received for TOC analysis, Rock-Eval pyrolysis and vitrinite reflectance analysis. This report is a formal presentation of results which were forwarded by facsimile as they became available.

2. ANALYTICAL PROCEDURES

2.1 Sample Preparation

Samples (as received) were ground in a Siebtechnik mill for 20-30 seconds.

2.2 Total Organic Carbon (TOC)

Total organic carbon was determined by digestion of a known weight (approximately 0.2 g) of powdered rock in HCl to remove carbonates, followed by combustion in oxygen in the induction furnace of a Leco IR-12 Carbon Determinator and measurement of the resultant CO₂ by infra-red detection.

2.3 Rock-Eval Pyrolysis

A 100 mg portion of powdered rock was analysed by the Rock-Eval pyrolysis technique (Girdel IFP-Fina Mark 2 instrument; operating mode, Cycle 1).

2.4 Organic Petrology

Representative portions of each sample (crushed to -14+35 BSS mesh) were obtained with a sample splitter and then mounted in cold setting Glasscraft resin using a 2.5 cm diameter mould. Each block was ground flat using diamond impregnated laps and carborundum paper. The surface was then polished with aluminium oxide and finally magnesium oxide.

Reflectance measurements were made with a Leitz MPV1.1 microphotometer fitted to a Leitz Ortholux microscope and calibrated against synthetic standards. All measurements were taken using oil immersion ($n = 1.518$) and incident monochromatic light (wavelength 546 nm) at a temperature of $23 \pm 1^\circ\text{C}$.

3. RESULTS

TOC and Rock-Eval data are listed in Table 1. Figure 1 is a plot of T_{max} versus Hydrogen Index illustrating kerogen Type and maturity. Table 2 is a summary of the vitrinite reflectance measurements which are presented along with histograms in Appendix 1, while Figure 2 is a plot of measured vitrinite reflectance versus depth.

4. INTERPRETATION

4.1 Maturity

Reliable measured vitrinite reflectance values (Table 2, Figure 2) are similar over the whole section studied, ranging from 0.46 to 0.50 and suggest that these sediments are marginally mature for the generation of liquid hydrocarbons. Oil generation from thermally labile exinites

(resinite, bituminite and suberinite) commences at VR = 0.45%. Rock-Eval T_{max} values are mostly unreliable due to small and ill-defined S₂ peaks.

A high production index (P.I. >2.0) suggests the presence of migrated hydrocarbons in the sample at 1121 metres depth.

4.2 Source Richness

Both organic richness and source richness are consistently poor in the samples studied (TOC <1%, S₁ + S₂ <2 kg of hydrocarbons/tonne; Table 1).

4.3 Kerogen Type and Source Quality

Hydrogen Index and T_{max} values (Table 1, Figure 1) indicate that these sediments contain organic matter which have a bulk composition of Type IV kerogen.

TABLE 1

AMDEL CORE SERVICES

Rock-Eval Pyrolysis

01/06/92

Client: Lisacorp Pty. Ltd

Well: Killara-1

Depth	T Max	S1	S2	S3	S1+S2	PI	S2/S3	PC	TOC	HI	OI
1121	219	0.14	0.11	0.36	0.25	0.58	0.30	0.02	0.69	15	52
1385									0.24		
1753	355	0.08	0.45	0.66	0.53	0.15	0.68	0.04	0.73	61	90
1780	425	0.03	0.14	0.47	0.17	0.19	0.29	0.01	0.67	20	70
1975									0.29		

TABLE 2
 SUMMARY OF VITRINITE REFLECTANCE MEASUREMENTS
 KILLARA-1

Depth (m)	Mean Maximum Reflectance (%)	Standard Deviation	Range	Number of Determinations
* 1121	0.52	0.04	0.47 - 0.56	2
1385	0.46	0.05	0.37 - 0.55	22
1753	0.47	0.07	0.38 - 0.58	8
1780	0.50	0.02	0.47 - 0.53	6
1975	0.48	-	-	2

* Influenced by re-worked vitrinite

FIGURE 1

HYDROGEN INDEX vs T max

Client : LISACORP PTY. LTD.
Location : KILLARA-1

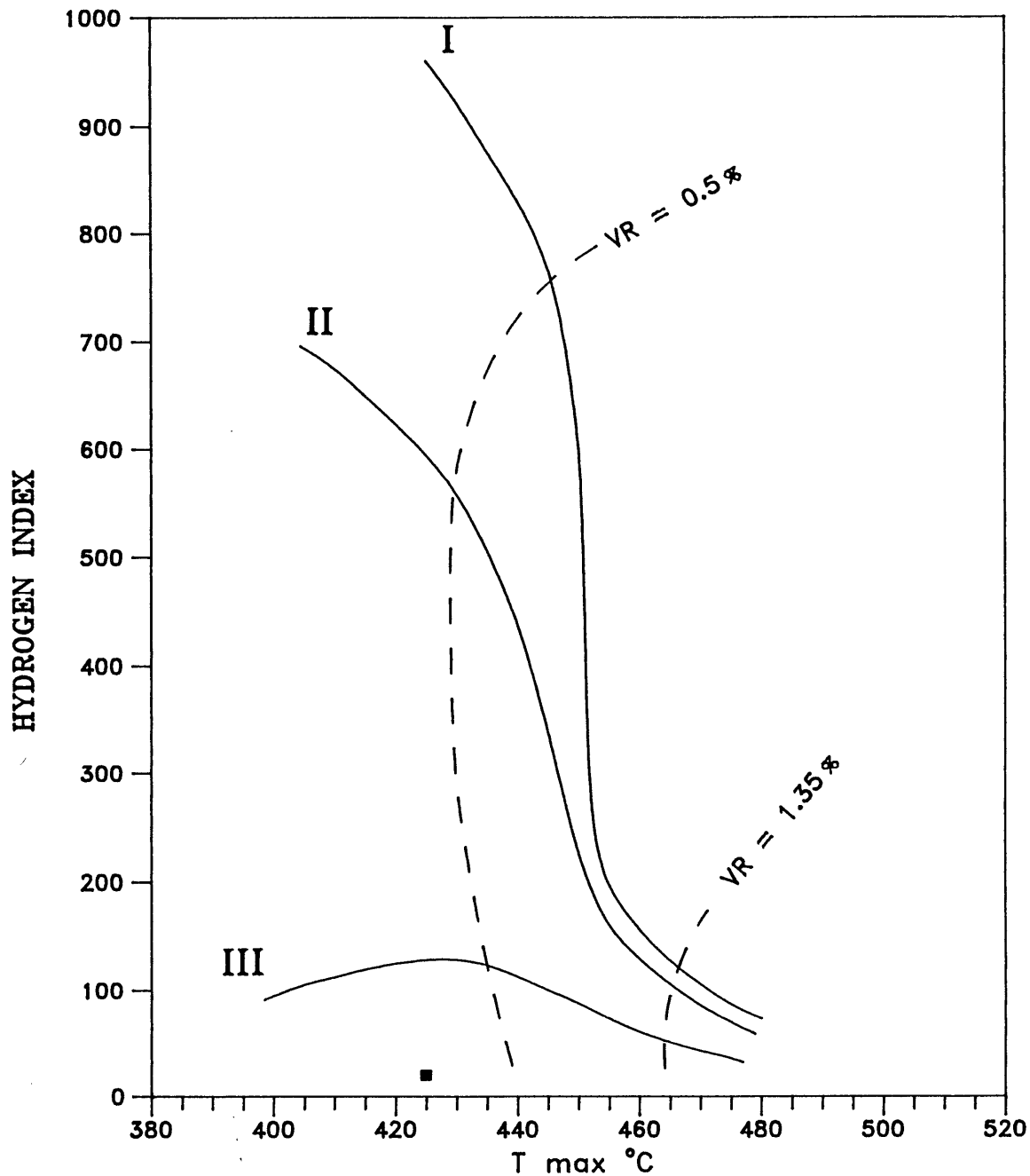
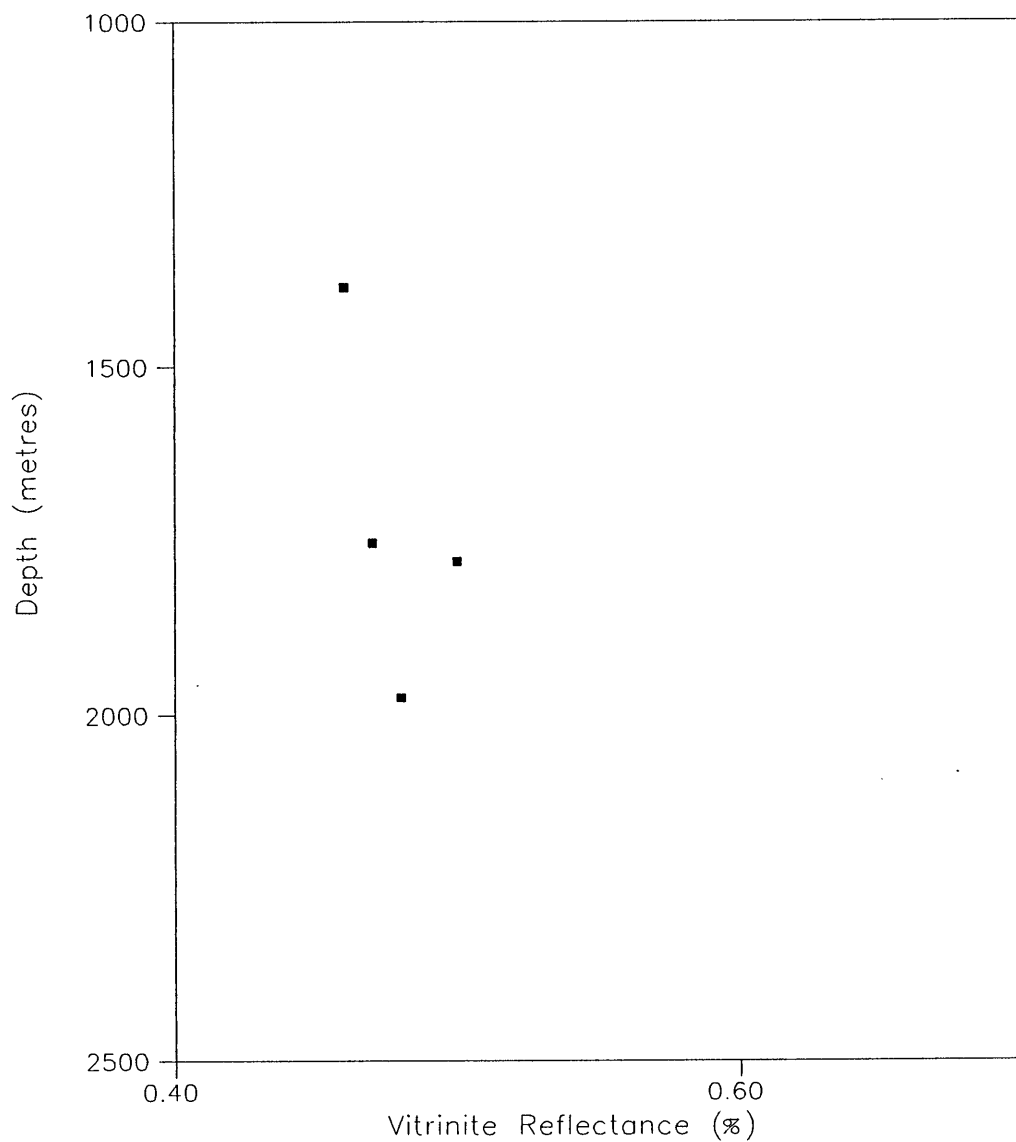


FIGURE 2

VITRINITE REFLECTANCE VERSUS DEPTH
KILLARA-1



APPENDIX 1

HISTOGRAM PLOTS OF VITRINITE REFLECTANCE DATA

KILLARA-1

VITRINITE REFLECTANCE VALUES

Well Name: KILLARA-1
Depth: 1121 m reworked

Sorted List

0.47
0.56

Number of values= 2

Mean of values 0.52
Standard Deviation 0.04

HISTOGRAM OF VALUES

Reflectance values multiplied by 100

47-49 *
50-52
53-55
56-58 *

VITRINITE REFLECTANCE VALUES

Well Name: KILLARA-1
Depth: 1385 m

Sorted List

0.37	0.45	0.52
0.38	0.45	0.55
0.40	0.47	
0.40	0.47	
0.41	0.48	
0.42	0.49	
0.44	0.50	
0.44	0.51	
0.44	0.51	
0.44	0.51	

Number of values= 22

Mean of values 0.46
Standard Deviation 0.05

HISTOGRAM OF VALUES

Reflectance values multiplied by 100

37-39	**
40-42	****
43-45	*****
46-48	***
49-51	*****
52-54	*
55-57	*

VITRINITE REFLECTANCE VALUES

Well Name: KILLARA-1
Depth: 1753 m

Sorted List

0.38
0.39
0.40
0.45
0.47
0.52
0.53
0.58

Number of values= 8

Mean of values 0.47
Standard Deviation 0.07

HISTOGRAM OF VALUES

Reflectance values multiplied by 100

38-40 ***
41-43
44-46 *
47-49 *
50-52 *
53-55 *
56-58 *

VITRINITE REFLECTANCE VALUES

Well Name: KILLARA-1
Depth: 1780 m

Sorted List

0.47
0.48
0.49
0.49
0.52
0.53

Number of values= 6

Mean of values 0.50
Standard Deviation 0.02

HISTOGRAM OF VALUES
Reflectance values multiplied by 100

47-49 ****
50-52 *
53-55 *

VITRINITE REFLECTANCE VALUES

Well Name: KILLARA-1
Depth: 1975 m

Sorted List

0.48
0.48

Number of values= 2

Mean of values 0.48
Standard Deviation 0.00

HISTOGRAM OF VALUES

Reflectance values multiplied by 100

48-50 **

End of Appendix 10

APPENDIX

XI

WATER ANALYSES

STATE WATER LABORATORY

Page 1

a Branch of the Rural Water Commission of Victoria

ANALYSIS REPORT

Lab No 3312
Received 04/06/92

AUTHORITY: 'ONEOFF' - from Private Individuals
PROJECT : Water Analysis for Nominated Use to be Charged.

SAMPLER: I. Buckingham

SITE-DESCRIPTION	Site-No	Date Sampled	Time Sampled
1 Pore Fluid Sample, Killara #1, 2020-2026, 5 of 6. (The bottles were heavily stained with deep purple colour, (continue to 2))	S76314061	Unknown	
2 Killara # 1 - D.S.T. 2 (presumably due to high Iron & manganese.)	S76314124	Unknown	

DETERMINATION	1	2
pH, units	7.3	7.0
EC 25C, microS/cm	40000	38000
Hardness, as CaCO ₃ (calc.)	2400	2300
Total Alkalinity, as CaCO ₃	330	160
Bicarbonate Alkalinity, CaCO ₃	320	160
Carbonate Alkalinity, as CaCO ₃	<1	<1
Chloride, as Cl	15000	14000
Sulphate, as SO ₄	13	6.2
Calcium, as Ca	910	860
Magnesium, as Mg	39	36
Sodium, as Na	7700	7600
Potassium, as K	1300	550
Nitrate & Nitrite, as N	<0.05	<0.05

CONSUMER: I. Buckingham
Buckingham - Williams & Associates
405 Mont Albert Road
Mont Albert 3127

Results in MILLIGRAM per LITRE (mg/L) unless otherwise stated.
The above analyses were performed on the samples as received.
Where applicable, comments on the analyses are attached.

DISTRIBUTION
Client, Admin, File(2).

P. Chua
Reported 02/07/92

ADDITIONAL PARAMETERS

	1	2
Bicarbonate, as HCO_3^-	400	195
Total Dissolved Solids		
A. based on EC (0.6 factor)	24000	22800
B. summation of major ions	25400	23200
Total Hardness, as CaCO_3	2400	2300
Carbonate Hardness, as CaCO_3	330	160
Non-Carbonate Hardness, as CaCO_3	2070	2140

End of Appendix II

APPENDIX

XII

LOG ANALYSES

KILLARA#1/LOGANAL

DEPTH (metres)	GR	t	Øs%	LLd	LLs	Rxo	RLLd/Rxo/RLLd/RLLs	Rt/Rxo	Rt/RLLd	d (in)	Temp °F	Rw	Sw %	Remarks
PEBBLE POINT FORMATION														
453	66	135	35	4.0	3.0	1.1	3.6	1.3	1.24	26	60	0.38	70	v. high por.
454	65	133	35	4.3	3.2	0.9	5.1	1.3	1.24	23	60	0.38	60	v. high por.
455	70	138	35	4.2	3.2	1.0	4.2	1.3	1.24	22	60	0.38	67	v. high por.
456	78	130	35	4.9	3.8	1.2	4.1	1.3	1.24	22	60	0.38	67	v. high por.
457	57	129	35	6.0	4.2	1.3	4.6	1.4	1.26	28	60	0.38	61	v. high por.
458	51	136	35	7.0	5.0	1.3	5.4	1.4	1.26	26	60	0.38	58	v. high por.
459	50	148	35	4.1	3.1	1.0	4.1	1.3	1.24	22	60	0.38	67	v. high por.
465	49	147	35	3.7	2.8	1.7	2.2	1.3	1.27	38	60	0.38	100	
466	41	123	35	2.4	1.8	1.2	2.0	1.3	1.26	38	60	0.38	100	
467	42	131	35	2.3	1.8	0.9	2.6	1.3	1.25	30	60	0.38	85	v. high por.
468	44	124	35	3.3	2.5	0.9	3.7	1.3	1.24	26	60	0.38	70	v. high por.
PAARATTE FORMATION														
481	99	120	35	5.0	4.5	2.5	2.0	1.1	1.20	20	60	0.38	100	
482	98	135	35	2.9	2.5	1.4	2.1	1.2	1.20	28	60	0.38	98	
484	105	142	35	2.1	1.6	0.5	4.2	1.3	1.24	22	60	0.38	67	v. high por.
485	99	134	35	2.6	1.8	0.9	2.9	1.4	1.29	34	60	0.38	87	v. high por.
486	105	138	35	2.6	1.8	1.0	2.6	1.4	1.30	36	60	0.38	85	v. high por.
HEATHFIELD SAND														
1011	82	108	35	2.0	1.8	1.8	1.1	1.1	1.10	30	100	0.24	100	
1012	69	68	9	13.0	9.0	9.0	1.4	1.4			100	0.24		tight
1013	77	93	28	2.5	2.5	2.5	1.0	1.0	1.00		100	0.24	100	
1014	75	102	35	1.7	1.7	1.6	1.1	1.0	1.10		100	0.24	100	
1015	91	118	35	1.6	1.6	1.5	1.1	1.0	1.10		100	0.24	100	
1016	85	115	35	1.6	1.5	1.5	1.1	1.1	1.10		100	0.24	100	
1017	81	110	35	1.8	1.6	1.9	0.9	1.1	1.10		100	0.24	85	v. high por.
1018	78	107	35	1.9	1.8	1.7	1.1	1.1	1.10		100	0.24	85	tight
1019	79	105	35	1.8	1.7	1.5	1.2	1.1	1.10		100	0.24	100	v. high por.
1020	82	109	35	1.8	1.7	1.5	1.2	1.1	1.10		100	0.24	100	

KILLARA#1/LOGANAL

DEPTH	GR	t	Øs%	LLd	LLs	Rxo	RLLd/Rxo	RLLd/RLLs	Rt/Rxo	Rt/RLLd	d (in)	Temp °F	Rw	Sw %	Remarks
UPPER PRETTY HILL FORMATION															
1870	110	87	24	3.1	3.0	2.9	1.1	1.0	1.10	1.10		160	0.14	100	
1872	96	89	25	1.9	1.6	1.5	1.3	1.2	1.55	1.20	80	160	0.14	100	
1874	103	90	26	2.0	1.8	1.8	1.1	1.1	1.20	1.10		160	0.14	100	
1876	80	90	26	1.6	1.4	1.1	1.5	1.1	1.65	1.10		160	0.14	100	
1878	76	90	26	1.6	1.2	1.1	1.5	1.3	1.90	1.30	60	160	0.14	100	
1880	67	94	29	1.5	1.1	0.9	1.7	1.4	2.30	1.40	60	160	0.14	75	v. high por.
1945	78	85	22	3.6	3.6	3.0	1.2	1.0	1.20	1.00	15	160	0.14	100	
1949	72	87	24	2.7	2.6	2.0	1.4	1.0	1.40	1.00	15	160	0.14	100	
1955	81	81	19	4.5	4.5	3.5	1.3	1.0	1.30	1.00	15	160	0.14	100	
1956	84	77	16	6.1	6.0	8.0	0.8	1.0	0.80	1.00		160	0.14	100	
1957	85	81	19	5.5	5.0	4.2	1.3	1.1	1.40	1.10	35	160	0.14	100	
2013	87	77	16	7.0	6.5	5.5	1.3	1.1	1.40	1.10	35	170	0.13	100	
2014	90	78	17	5.0	4.8	3.0	1.7	1.0	1.70	1.00	15	170	0.13	100	
2015	87	79	17.5	4.9	4.2	3.3	1.5	1.2	1.70	1.20	40	170	0.13	100	
2016	82	83	20.5	4.0	3.5	1.6	2.5	1.1	2.80	1.13	20	170	0.13	100	
2017	70	83	20.5	3.0	2.8	1.8	1.7	1.1	1.80	1.10	20	170	0.13	100	
2018	82	82	20	4.0	3.6	3.1	1.3	1.1	1.40	1.10	20	170	0.13	100	
2072	94	63	5.5	20.0	20.0	10.0	2.0	1.0	2.00	1.00	10	170	0.13	100	
2075	95	67	8.5	5.5	5.0	4.0	1.4	1.1	1.50	1.15	25	170	0.13	100	
2077	91	84	21	2.4	2.1	1.6	1.5	1.1	1.60	1.10	20	170	0.13	100	
2079	87	87	24	2.3	2.0	1.5	1.5	1.2	1.80	1.20	40	170	0.13	98	

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DEPTH	GR	t	Øs%	LLd	LLs	Rxo	RLld/Rxo	RLld/RLls	Rt/Rxo	Rt/RLld	d (in)	Temp °F	Rw	Sw %	Remarks
LOWER PRETTY HILL FORMATION															
2212	55	76	15	5.5	5.5	5.0	1.1	1.0	1.10	1.00		180	0.12	100	
2213	55	78	17	5.0	5.0	4.3	1.2	1.0	1.20	1.00		180	0.12	100	
2214	61	77	16	5.5	5.5	5.0	1.1	1.0	1.10	1.00		180	0.12	100	
2215	59	83	20.5	4.6	4.6	3.8	1.2	1.0	1.20	1.00		180	0.12	100	
2260	75	74	13.5	7.0	7.0	6.8	1.0	1.0	1.00	1.00		180	0.12	100	
2261	47	72	12	6.3	6.3	3.8	1.7	1.0	1.70	1.00		180	0.12	100	
2262	61	76	15	5.0	4.8	3.0	1.7	1.0	1.70	1.00		180	0.12	100	
2324	75	78	17	5.2	5.0	4.8	1.1	1.0	1.10	1.00		190	0.12	100	
2325	51	83	20.5	3.2	3.2	2.0	1.6	1.0	1.60	1.00		190	0.12	100	
2326	51	80	23	3.3	3.3	2.2	1.5	1.0	1.50	1.00		190	0.12	100	
2358	47	63	5.5	30.0	30.0	30.0	1.0	1.0	1.00	1.00		190	0.12	100	
2359	37	77	16	4.0	4.0	3.0	1.3	1.0	1.30	1.00		190	0.12	100	
2360	44	82	20	3.1	3.1	2.0	1.6	1.0	1.60	1.00		190	0.12	100	
2370	75	64	6	11.0	11.0	20.0	0.6	1.0	0.60	1.00		190	0.12	100	
2372	37	77	16	3.2	2.8	1.0	3.2	1.1	3.60	1.13	15	190	0.12	100	
2374	41	83	20.5	3.1	2.6	1.8	1.7	1.2	2.00	1.20	30	190	0.12	100	
2376	46	77	16	5.5	4.6	3.0	1.8	1.2	2.10	1.20	30	190	0.12	100	