E.7 S22/2

BIG LAKE #55
COMPLETION PROGRAMME

Cost Code: 880/W064/810/XXX

Purpose of Programme: To complete the well as a triple selective tandem McKinlay/Namur, Upper Birkhead and Lower Birkhead oil well configured for jet pump.

Primary Contact Personnel:

Project Leader:	**Mark Zyweck**	**☎(W) 7126**	**(H) 353 2573**
	Fayaz Jamal	**☎(W) 7324**	**(H) 31 4005**
	Jim Carr	**☎(W) 7655**	**(H) 289 1538**

Current Status of Well: Cased and suspended.

Brief Well History: Big Lake #55 was spudded on August 24, 1995 as an oil appraisal well in the Moomba Block of SA, approximately 700m southeast of Big Lake #22 and 1200m northwest of Big Lake #31.

The well intersected oil pay in the McKinlay, Namur and Birkhead formations. Three DST's were conducted with results as follows:

DST #1 — Namur (5570' - 5630'L)
GTS @ RTSTM. NFTS.
Recovered 49 Bbls oil (36.2° API)

DST #2 — Birkhead (6422' - 6460'L)
GTS @ RTSTM. NFTS.
Recovered 23 Bbls oil (46.8° API) and 20 Bbls water.

DST #3 — Birkhead (6340' - 6364'L)
OTS @ 350 BOPD.
Recovered 20 Bbls oil (46.6° API) and 65 Bbls water.

The well was cased and suspended as a future block oil producer.

Location:

Latitude	28° 13' 39.943" S
Longitude:	140° 17' 37.169" E

Elevation:

Ground Level:	105' ASL (prelim)
Kelly Bushing:	122' ASL (prelim)

Casing Details:

Surface
0 to 1335.28'KB
Ran 34 jts 9-5/8" 36# K55 LT&C.
Cemented with 500sx Class 'A' cement with 10.4% Spherelite, 1.5% Bentonite and 1% Calcium Chloride.
Performed 60 sx Class'A' cement top up job.

Production:
0 to 6607.07'KB as follows:

Description	Length (ft)	From (ft)	To (ft)
KB to top of Tubing Spool	15.10	0.00	15.10
Tubing Spool CIW	1.75	15.10	16.85
1 cut off joint 7" 26# K55 LT&C	20.48	16.85	37.33
142 jts 7" 23# K55 LT&C	5496.97	37.33	5534.30
1 marker jt 7" 26# N80 LT&C	9.88	5534.30	5544.18
13 jts 7" 23# K55 LT&C	504.24	5544.18	6048.42
6 jts 7" 26# K55 LT&C	232.69	6048.42	6281.11
1 marker jt 7" 26# N80 LT&C	9.80	6281.11	6290.91
7 jts 7" 26# K55 LT&C	274.42	6290.91	6565.33
Float Collar	0.96	6565.33	6566.29
1 jt 7" 26# K55 LT&C	39.53	6566.29	6605.82
Float Shoe	1.25	6605.82	6607.07

Cemented with: 330 sx HTB cement with 0.3% HR-12 and 0.4% CFR-3.

PBTD: 6565' KB (float collar).

Reservoir Pressure:

McKinlay/Namur:	2471 psig @ 5577'KB (DST #1)
Birkhead:	2757 psig @ 6345'KB (DST #3)

Reservoir Temperature:

McKinlay/Namur	247°F (DST #1)
Birkhead:	265°F (DST #3)

Perforations: Not perforated yet (see proposed schematic)

Downhole Equipment: See proposed schematic

CONTENTS

ATTACHMENTS

A.

KILL FLUID CALCULATION SHEET

McKinlay/Namur

Reservoir Pressure:	=	2471 psi at 5577'KB
Reservoir Temperature:	=	247°F
Kill Fluid Weight:	=	$\frac{2471 + 50}{5577 \times 0.052}$
	=	8.69 ppg

Temperature Correction

Average Downhole Temperature:	=	$\frac{247 + 70}{2}$
	=	159°F
Density Correction:	=	0.003 (159 - 70)
	=	0.27 ppg
Kill Fluid Weight at 70° F:	=	8.96 ppg

Use 9.0 ppg (1080kg/m^3) clean filtered 2% KCl brine.

Birkhead Overbalance	=	(9.0 x 0.052 x 6345) - 2757.
	=	212 psi

B. PROCEDURE

1. Move in service rig and equipment.

2. Mix 40 m^3 (250 bbls) of 1080 kg/m^3 (9.0 ppg) 2% KCl brine.

3. Remove tubing spool and check 7" casing stub is cut and trimmed to 4-1/2" $\pm$ 1/8" (for RX ring gasket).

4. Re-install a 7-1/16" x 11", 3000# Type 'F' tubing spool c/w 7" X-bushing. Energise and pressure test X-bushing to 21 MPa (3000psi).

5. Nipple up BOP's with 2-7/8" pipe rams installed. Install a blanked off FBB-EN tubing hanger in the tubing spool and run in lock down screws. Pressure test pipe and blind rams to 10 MPa (1500 psi) and hydril to 7 MPa (1000 psi). Remove tubing hanger.

6. RIH with 6-1/8" bit and 7" casing scraper on 2-7/8" J55 6.5#/ft EUE tubing to PBTD (6565' KB). Scrape thoroughly the casing at the proposed packer set depths (approximately 6370', 6210' and 5540' KB).

7. Rig to circulate and circulate well to clean 1080 kg/ m^3 (9.0 ppg) filtered 2% KCl brine. POH tubing and lay down bit and scraper.

8. Rig up wireline and RIH with CBL-VDL-GR-CCL. Log from PBTD (6565'KB) to 100' above the top of cement (approximately 5000'KB). If cement bond appears poor over the proposed perforation intervals, pressure up production casing to 3.5 MPa and re-run the CBL. If cement bond remains poor, contact Adelaide.

9. Rig to perforate the following intervals with 4½" HSD casing guns with 34B Hyperjet II RDX charges @ 12 spf and 45° phasing.

Formation	Interval (ft-KB)	Length (ft)
McKinlay	5590 - 5600	10
Namur	5614 - 5630	16
Upper Birkhead	6348 - 6360	12
Lower Birkhead	6424 - 6454	30

Note: Correlate on depth with SDT-MSFL-DLL-GR log of 4 Sept, 1995 using the CBL-VDL to locate collars.

10. Rig to run the following BHA and set DB packer at 6370'KB.

Description	Vocab No.
a) 2-7/8" EUE x 2-3/8" EUE re-entry swage	81-85-122
b) 1 pup joint 2-3/8" 4.7# J55 EUE 10' long	81-87-150
c) 1 x 2-3/8' EUE 'X' Landing Nipple (ID = 1.875")	81-48-463
d) 1pup joint 2-3/8" 4.7# J55 EUE 10' long	81-87-150
e) 1 x 2-3/8" EUE pin x 4-1/2" LT&C box J55 X-over	81-85-822
f) 1 x 4-1/2" LT&C pin x pin millout extension	81-72-022
g) Baker 7" size 84-32 Model 'DB' packer	81-87-026

Note: 1. Correlate as before.

11. POH. Rig down wireline company.

12. Make up the following and RIH on 2-7/8" 6.5#/ft J55 EUE tubing:

Description	Vocab No.
a) Baker G22 locator seal assembly 2-7/8" EUE	81-72-070
complete with additional V-Ryte seal unit	81-72-258
b) 4 jts 2-7/8" 6.5# EUE J55 tubing	
c) Swage 2-3/8" EUE box x 2-7/8" EUE pin	81-85-131
d) 1 jt 2-3/8" EUE 4.7# J55 tubing	
e) Otis sliding sleeve 2-3/8" 121X01	81-48-741
f) 1 jt 2-3/8" EUE 4.7# J55 tubing	
g) X-over swage 4-1/2" LT&C box x 2-3/8" EUE pin	81-85-822
h) 4-1/2" LT&C Millout Extension	81-72-022
i) Baker 7" SB-3 Packer Size 84-32	81-72-030
j) Baker E22 anchor seal assembly	81-72-112

Note: (a) Ensure sliding sleeve is run in the closed position.
(b) Apply Baker seal grease to seal assembly.
(c) Strap all BHA components.

13. Tag DB packer at 6370'KB and sting in with G22. Firmly locate G22 into "DB" packer with 5000lbs compression then pick up tubing to neutral plus an additional 9" and hang in slips.

14. Rig up circulating equipment and pump down annulus at 1 BPM, checking for returns up tubing.

15. Rig in Expertest. RIH with 1.75" blind box and drift 'X' profiles to approximately 6400'KB. POH. RIH and set PX plug in X-profile of sliding sleeve at approximately 6250'KB. POH.

16. Pressure up tubing to 17.2 MPa (2500 psi) slowly in 2.1 MPa (300 psi) stages. Allow 2 minute intervals per stage to set SB-3 packer.

17. Pick up string weight and pull 10,000 lbs to check that packer is set.

18. RIH with GS pulling tool and retrieve PX plug in SSDV at 6250'KB. POH and rig down Expertest.

19. Release E22 and POH standing back 2-7/8" EUE tubing.

20. Make the following and RIH on 2-7/8" 6.5#/ft J55 EUE tubing.

Description		Vocab
a)	Baker G22 locator seal assembly	81-72-070
	complete with additional V-Ryte seal unit	81-72-258
b)	18 jts 2-7/8" 6.5# J55 EUE tubing	
c)	Swage 2-3/8" x 2-7/8" EUE box x pin	81-85-131
d)	1 jt 2-3/8" 4.7# J55 EUE tubing	
e)	Otis 2-3/8" EUE 121X0 sliding sleeve	81-48-741
f)	1 jt 2-3/8" 4.7# J55 EUE tubing	
g)	Swage 2-7/8" x 2-3/8" EUE box x pin	81-85-122
h)	2 jts 2-7/8" 6.5# J55 EUE tubing	
i)	Baker A3 7" Lok-set packer size 47-B4	81-72-048
j)	Pup joint 6' x 2-7/8" 6.5# J55 EUE	81-87-246
k)	Baker L-X on/off connector 2-7/8" EUE	81-72-105
l)	1 jt 2-7/8" 6.5# J55 EUE tubing	
m)	2-7/8" jet pump mandrel	83-19-020
n)	2-7/8" 6.5# J55 NK3SB tubing to surface	
o)	2-7/8" x 7" NK3SB CIW FBB-EN tubing hanger	81-94-066

Note: (a) Ensure annulus ports on mandrel are on bottom.
(b) Sliding Sleeve to be in the closed position.
(c) Drift tubing to 2.347" before RIH.

21. Land G22 locator seal assembly in SB-3 packer at approximately 6210' KB. Space out to set 'A3' packer in 10,000 lbs slack off with 'G22' located in 'SB-3' packer.

22. Set A-3 packer by rotating to the right and setting down 10,000 lbs. At this point, the hanger should be landed and G22 should be in the SB-3 seal bore. Pick up 10,000 lbs to set upper slips and confirm A-3 is set. Repeat upstrain and set down 3 times. Land tubing hanger in spool with 10,000# ± 2,000# slack off.

23. Rig up circulating equipment and with tubing shut in, pressure test annulus to 7.0 MPa (1000 psi) for 10 minutes. Bleed off pressure.

24. Rig in Expertest. RIH with PX plug and set in 'X' nipple at approximately 6390'KB. POH.

25. RIH with shifting tool and open top sliding sleeve at approximately 5605'KB. POH. Rig down Expertest.

26. Pump jet pump standing valve (Vocab No. 83-19-080) down tubing to jet pump mandrel at approximately 5500' KB.

27. Install BPV and nipple down BOP's.

28. Install seal adaptor flange 7-1/16" x 2-9/16" x 3000# (Vocab No. 81-94-261). Pressure test hanger seals to 21.0 MPa (3000 psi).

29. Nipple up wellhead consisting of 2-9/16" x 5000# trim 4 master valve (Vocab No. 81-97-223). Install 2 x 2-1/16" 3000# trim 4 gate valves (Vocab No. 81-97-115) complete with companion flanges (Vocab No. 81-95-370) on the tubing spool outlets. Remove BPV.

30. Pump down dummy jet pump to mandrel. Pressure test tubing and wellhead to 27.5 MPa (4000 psi) for 10 minutes. Bleed off pressure.

31. Install jet pumping equipment to wellhead including 2-9/16" x 2-7/8" EUE 5000# companion flange (Vocab No. 83-10-611), pup joint 2-7/8" 6.5# J55 EUE x 2' long (Vocab No. 81-87-242) and flowcross (if available) as per the attached proposed wellhead diagram.

32. Reverse circulate well to crude oil and retrieve dummy jet pump.
Note: Standing valve may remain downhole.

33. Flow well through a 3/8" choke on cleanup for a minimum of 2 hours. Record oil and water rates and FTHP every half hour. If the well shows signs of loading water and dying, choke may be opened further.

34. Rig down and release rig.

Note: Ensure wellhead and downhole drawings are prepared and sent to Adelaide for filing.

orighal → file

PRA:040/95

PERFORATION RECOMMENDATION APPROVAL

WELL: BIG LAKE 55 **DATE:** 19/09/95

FORMATION: McKINLAY-NAMUR-BIRKHEAD **AUTHORS:** C.GRASSO
M. ZYWECK

DEPTH REFERENCE LOG: SDT-MSFL-DLL-GR-SP **LOG DATE:** 4th SEP 1995

KB: 122' (prelim.)

RECOMMENDED PERFORATIONS:

FORMATION	SAND	RECOMMENDED PERFORATION INTERVAL (ft.KB)	GROSS INTVL (ft)	NET PAY (ft)	Ø Avg (%)	Sw Avg (%)	FIELD LIMIT (SS)
McKINLAY	--	5590'-5600'	10'	8'	)------	)------	- 5514' LKO (BL 16)
					)15.1	)54.6	
NAMUR	--	5614'-5630'	16'	26'	)------	)-------	- 5530' OWC (BL 16)
BIRKHEAD	UPPER	6348'-6360'	12'	16'	17.0	49.1	- 6248' OWC (BL 55)
BIRKHEAD	MID	6424'-6454'	30'	12'	15.6	55.0	- 6330' LKO (BL 55)

REASONS FOR PERFORATION:

Big Lake 55 was cased and suspended in September 1995 as a potential McKinlay/Namur/Birkhead oil producer. The well intersected oil pay updip of Big Lake 36 in the McKinlay, Namur and Birkhead formations (Figures 1 and 2). DST 1, conducted across the McKinlay- upper Namur section was opened/shut-in for 5/32/300/60 mins recovering 49 Bbls of 36.2° API Oil (Figure 3). The base of DST 1's interval is 22' above the field-wide OWC @ -5530' established in Big Lake 16 for the Namur Sandstone. DST 2, conducted over the mid-Birkhead sand was opened/shut-in for 10/65/180/120 mins recovering 23 Bbls of 46.8° API Oil (Figure 4). Currently this oil sand appears to be stratigraphically trapped and is mapped accordingly. DST 3, conducted over the upper-Birkhead sand was opened/shut-in for 5/38/250/180 mins flowing to surface @ an average rate of 350 BOPD, recovering 20 Bbls of 46.6° API Oil and 65 Bbls of water (Figure 4). Similarly, this upper Birkhead oil sand also appears to be stratigraphically trapped but further production data and geological analysis is required to establish this fact. The OOIP estimates have been included as figures 5 to 8.

It is proposed to complete this well as a triple tandem and produce from all three zones utilising a jet pump. This well design will maximise Jurassic oil recovery from this well which allows for maximum flexibility to evaluate oil production from the various pay zones. This information is vital

in evaluating the future exploration and development strategies for the large oil resource identified by Big Lake 55

CURRENT WELL STATUS:

Big Lake 55 was cased and suspended on the 10/09/95 awaiting completion as a Jurassic oil producer.

RECOMMENDATION:

It is recommended that the above intervals are perforated as per the table on the previous page. It is also recommended that at minimal cost an oil rate be determined for the McKinlay zone. The information regarding the productivity of the McKinlay will assist in any future exploration and or development issues regarding this oil pool.

WELL: BIG LAKE 55

FORMATION: McKINLAY/NAMUR/BIRKHEAD

SANDS TO BE PERFORATED:

McKinlay	un-named	5590'-5600'KB
Namur	upper	5614'-5630'KB
Birkhead	upper	6348'-6360'KB
Birhkead	mid	6424'-6454'KB

SUBMITTED BY: _____ Geologist DATE: 22/9/95

_____ Petroleum Engineer DATE: 25/9/95

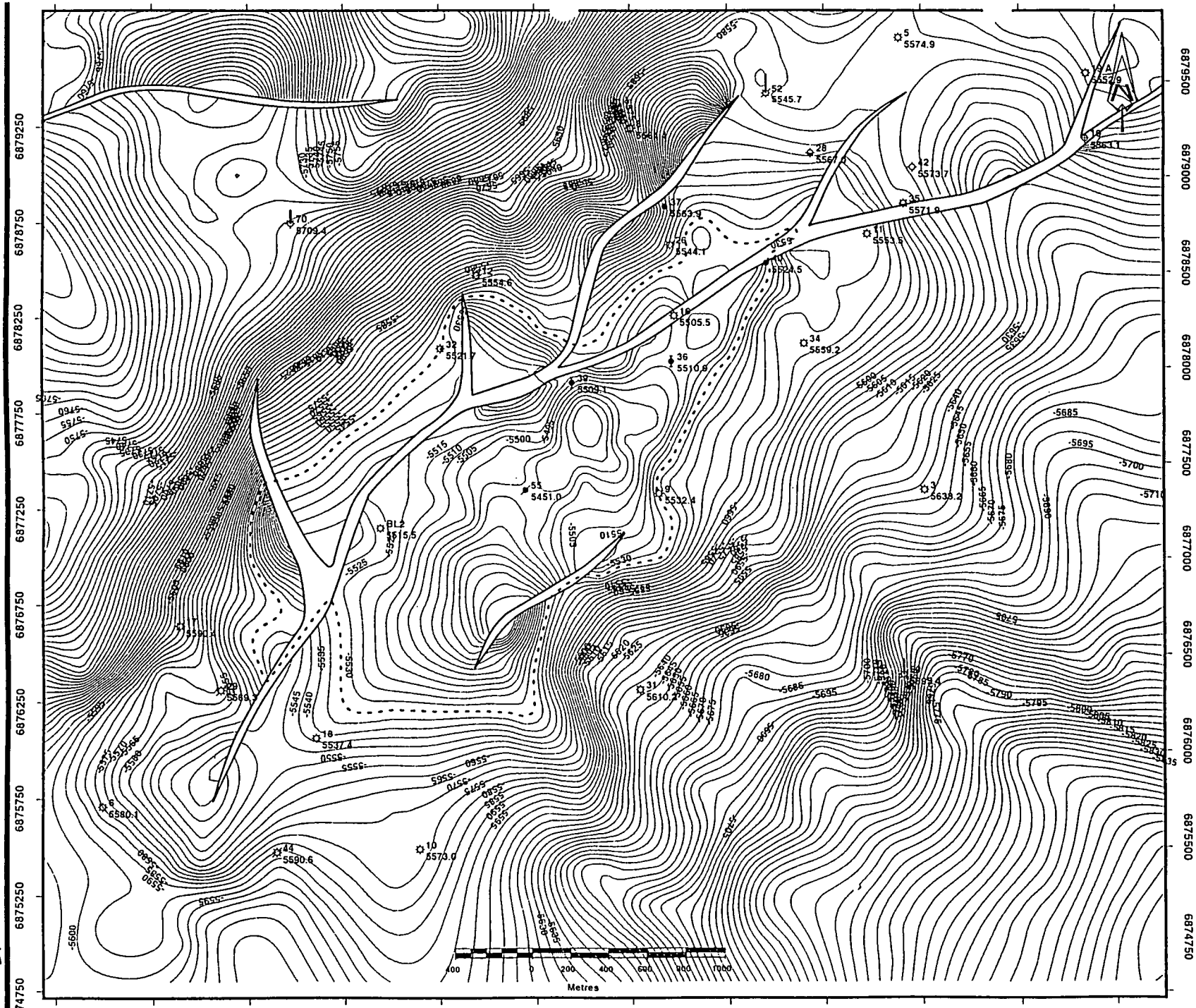
RECOMMENDED BY: _____ Team Leader, Exploration/Development - SA DATE: 22/9/95

_____ Team Leader, Petroleum Engineering - SA DATE: 26/9/95

APPROVED BY: _____ Manager, Exploration/Development - SA DATE: 26/9/95

_____ Manager, Petroleum Engineering - SA DATE: 26/9/95

WHEN SIGNED: ONE COPY TO PETROLEUM ENGINEERING DRILLING & COMPLETIONS GROUP AND THEN RETURN TO EXPLORATION/DEVELOPMENT.


LEGEND
LO
ABDH
ABJ
ABGS
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ABG
ABGC
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ABGO
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SUOG
SUGC
SCO
SCG
SCGC
SCW
MCOG
MCOO
MCGG
SCGI
SUGI
SCWI
SUWI
STGI
STR
OB
6/6 NET SAND / NET PAY
5 ft CONTOUR INTERVAL
LOCATION MAP
South Australia
Queensland
Santos
S.A. Exploration/Development
Team 3
MOOMBA BLOCK
BIG LAKE FIELD
DEPTH STRUCTURE MAP
NAMUR SANDSTONE
1:20000
15-Sep-95
LAYER: DN_DEPTH
DGD FILE: BMJGOIL
PROJ: BMJG
DRAFTED: C. GRASSO
AUTHOR: C. GRASSo
signed:
APPROVED:
signed:
Metres
428250
428750
429250
429750
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430750
431250
431750
432250
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433250
433750
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Fig. 1

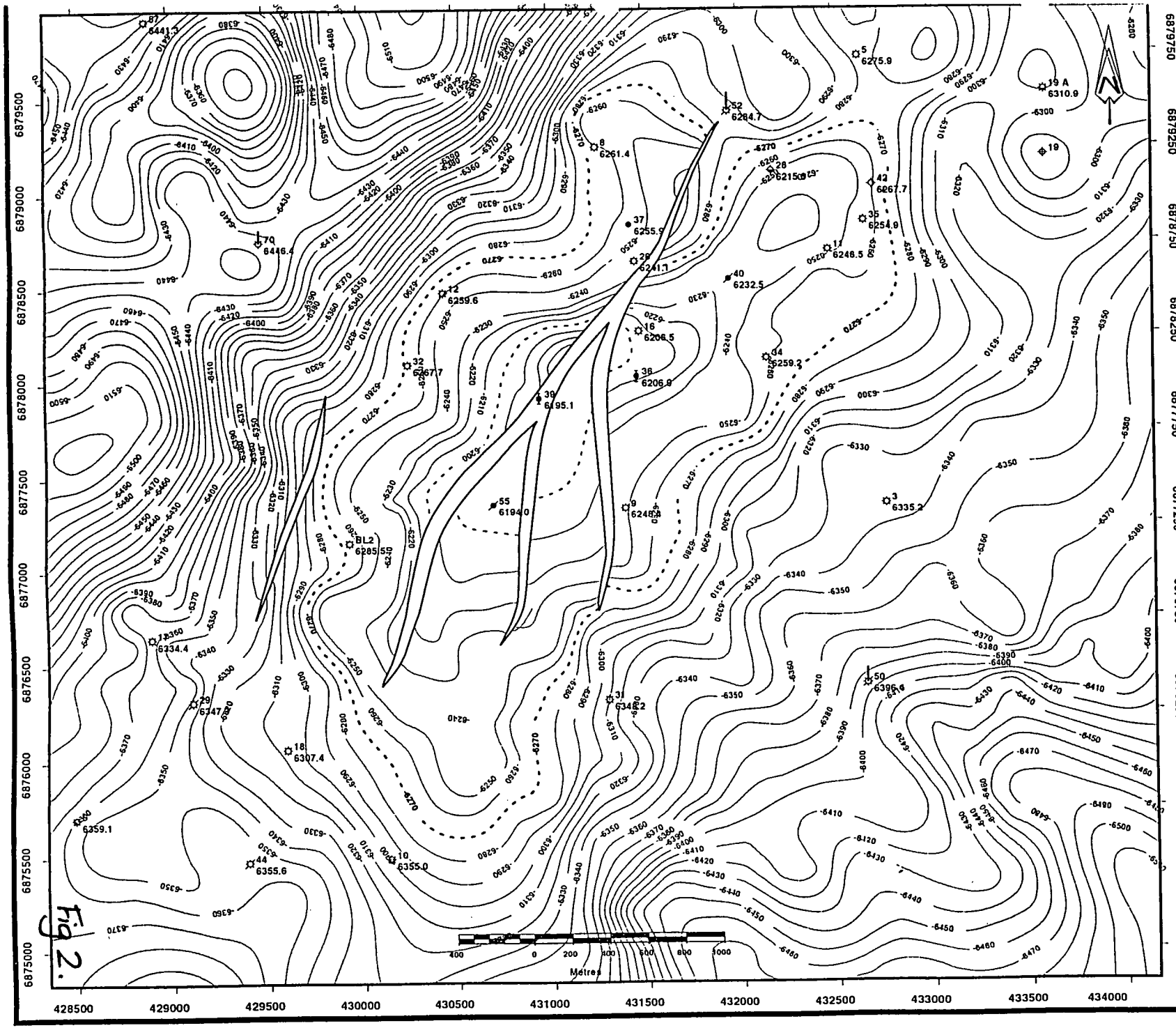


Fig 2.

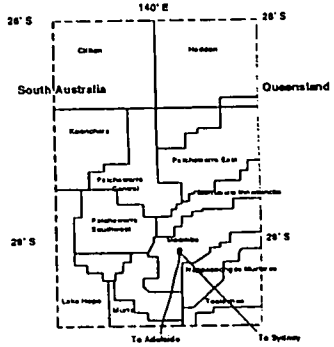
LEGEND

LO	ABGO	MCOG
ABDH	SUG	MCOO
ABJ	SUGO	MCGG
ABGS	SUO	SCGI
ABOS	SUOG	SUGI
ABS	SUGC	SCWI
ABO	SCO	SUWI
ABG	SCG	STGI
ABGC	SCGC	STR
ABOG	SCW	OB

6/6 NET SAND / NET PAY

10ft CONTOUR INTERVAL

LOCATION MAP



Santos

S.A. Exploration/Development

Team 3

MOOMBA BLOCK

BIG LAKE FIELD

DEPTH STRUCTURE MAP

BIRKHEAD FORMATION

1:20000 15-Sep-95

LAYER:	E_DEPTH	DGD FILE:	BMJGOIL
PROJ: BMJG	DRAFTED: C. GRASSO		
AUTHOR: C. GRASSo		signed:	
APPROVED:		signed:	

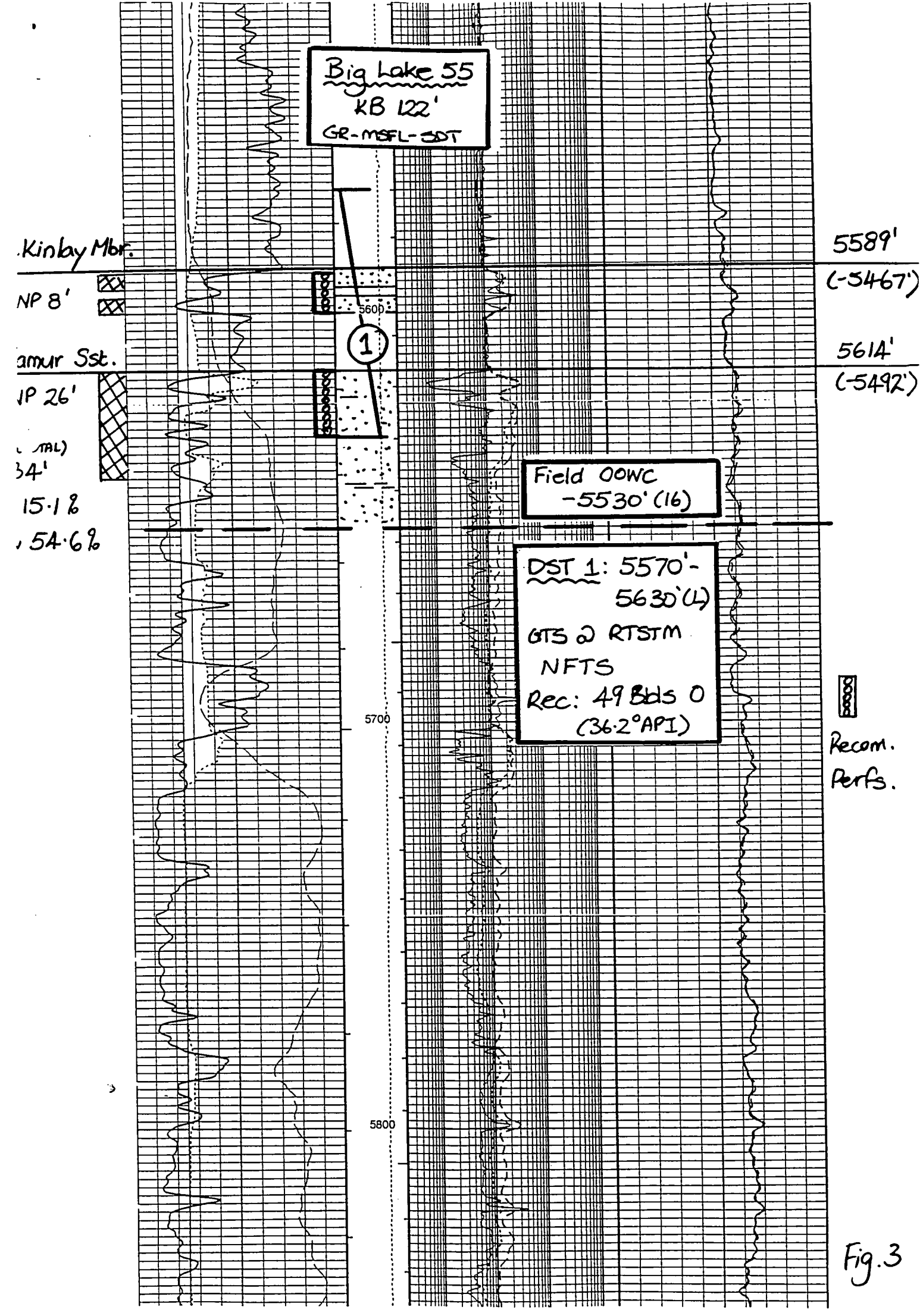

Big Lake 55
KB 122'
GR-MSFL-SDT
Kinlay Mbr.
5589'
(-5467')
NP 8'
5600
1
amur Sst.
5614'
(-5492')
IP 26'
34'
15.1%
54.6%
Field OOWC
-5530' (16)
DST 1: 5570'-
5630' (L)
GTS @ RTSTM
NFTS
Rec: 49 Bbls O
(36.2°API)
5700
Recom.
Perfs.
5800

Fig. 3

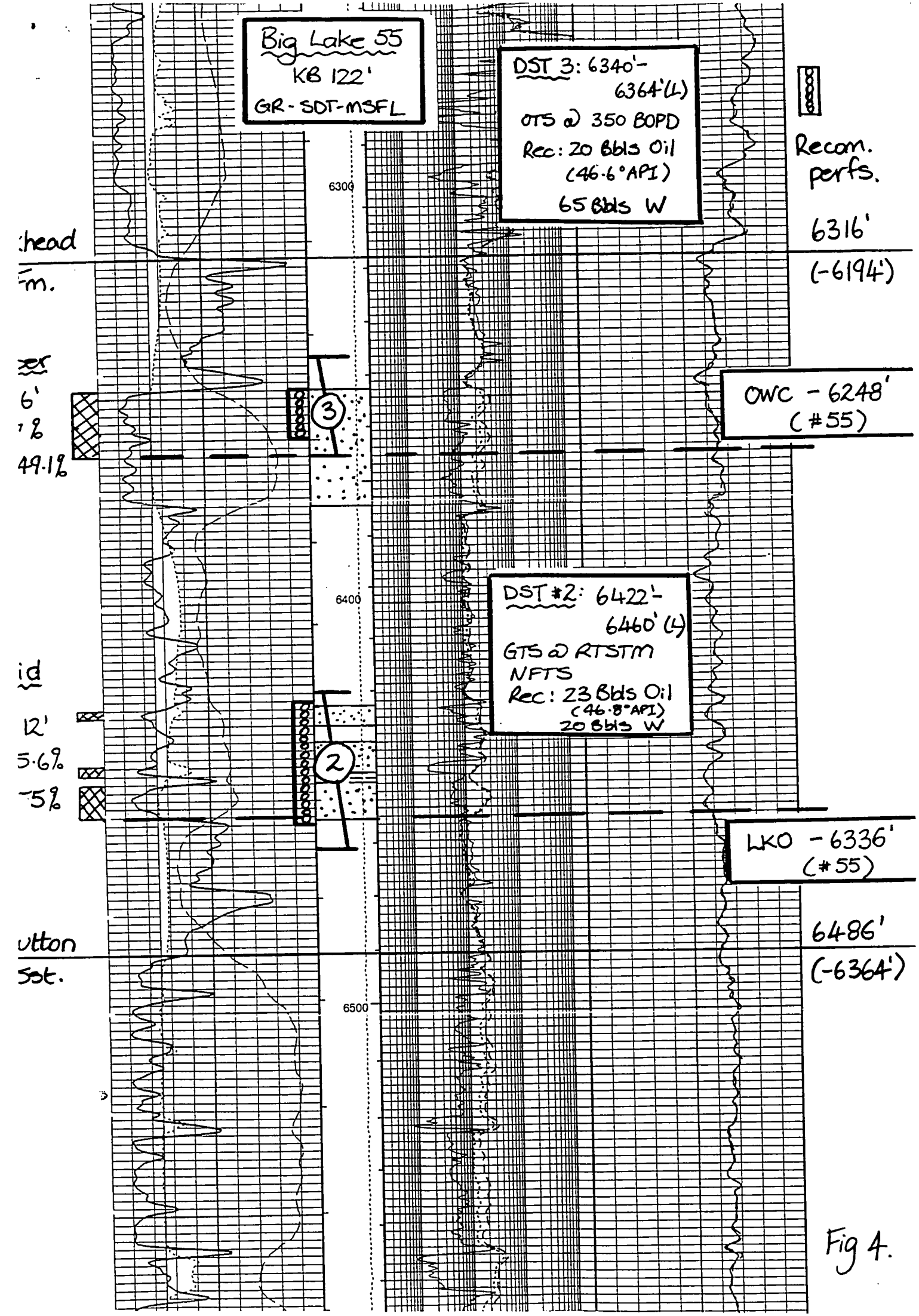

Big Lake 55
KB 122'
GR - SDT - MSFL
DST 3: 6340'-6364' (L)
OTS @ 350 BOPD
Rec: 20 Bbls Oil (46.6° API)
65 Bbls W
Recom. perfs.
6316'
(-6194')
OWC - 6248' (#55)
DST #2: 6422'-6460' (L)
GTS @ RTSTM
NFTS
Rec: 23 Bbls Oil (46.8° API)
20 Bbls W
LKO - 6336' (#55)
6486'
(-6364')
6300
6400
6500
3
2
head
m.
er
6'
%
49.1%
id
12'
5.6%
-5%
utton
sst.

Fig 4.

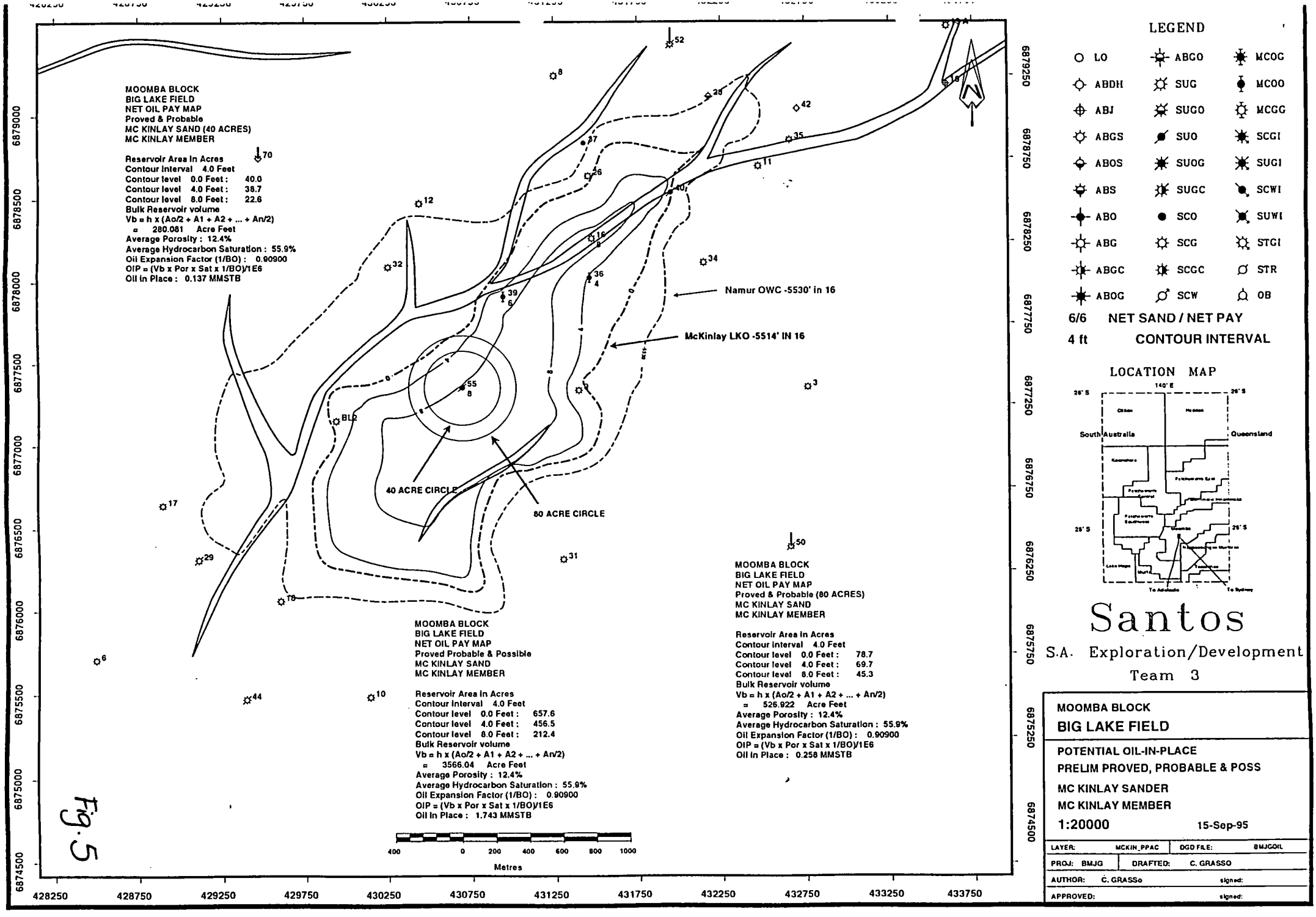


Fig. 5

LEGEND

LO	ABGO	MCOG
ABDH	SUG	MCOO
ABJ	SUGO	MCGG
ABGS	SUO	SCGI
ABOS	SUOG	SUGI
ABS	SUGC	SCWI
ABO	SCO	SUWI
ABG	SCG	STGI
ABGC	SCGC	STR
ABOG	SCW	OB

6/6 NET SAND / NET PAY

4 ft CONTOUR INTERVAL

LOCATION MAP

Santos

S.A. Exploration/Development

Team 3

MOOMBA BLOCK

BIG LAKE FIELD

POTENTIAL OIL-IN-PLACE

PRELIM PROVED, PROBABLE & POSS

MC KINLAY SANDER

MC KINLAY MEMBER

1:20000 15-Sep-95

LAYER:	MCKIN_PPAC	DGD FILE:	BMJGOIL
PROJ: BMJG	DRAFTED:	C. GRASSO	
AUTHOR:	C. GRASSo	signed:	
APPROVED:		signed:	

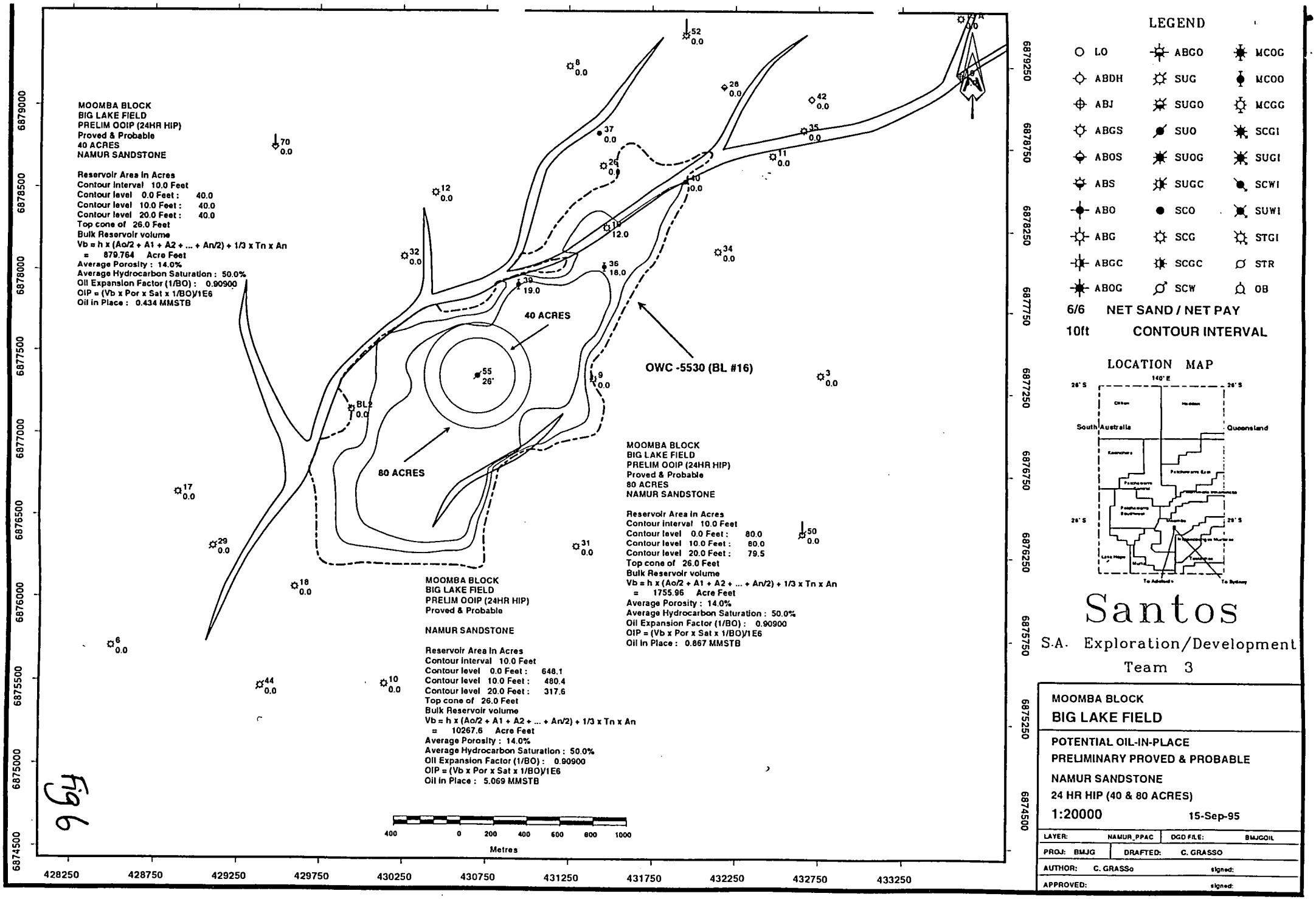


Fig 6

LEGEND

LO	ABGO	MCOG
ABDH	SUG	MCOO
ABJ	SUGO	MCGG
ABGS	SUO	SCGI
ABOS	SUOG	SUGI
ABS	SUGC	SCWI
ABO	SCO	SUWI
ABG	SCG	STGI
ABGC	SCGC	STR
ABOG	SCW	OB

6/6 NET SAND / NET PAY

10ft CONTOUR INTERVAL

LOCATION MAP

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MOOMBA BLOCK

BIG LAKE FIELD

POTENTIAL OIL-IN-PLACE

PRELIMINARY PROVED & PROBABLE

NAMUR SANDSTONE

24 HR HIP (40 & 80 ACRES)

1:20000 15-Sep-95

LAYER:	NAMUR_PPAC	DGD FILE:	BMJGOIL
PROJ: BMJG	DRAFTED:	C. GRASSO	
AUTHOR: C. GRASSo		signed:	
APPROVED:		signed:	

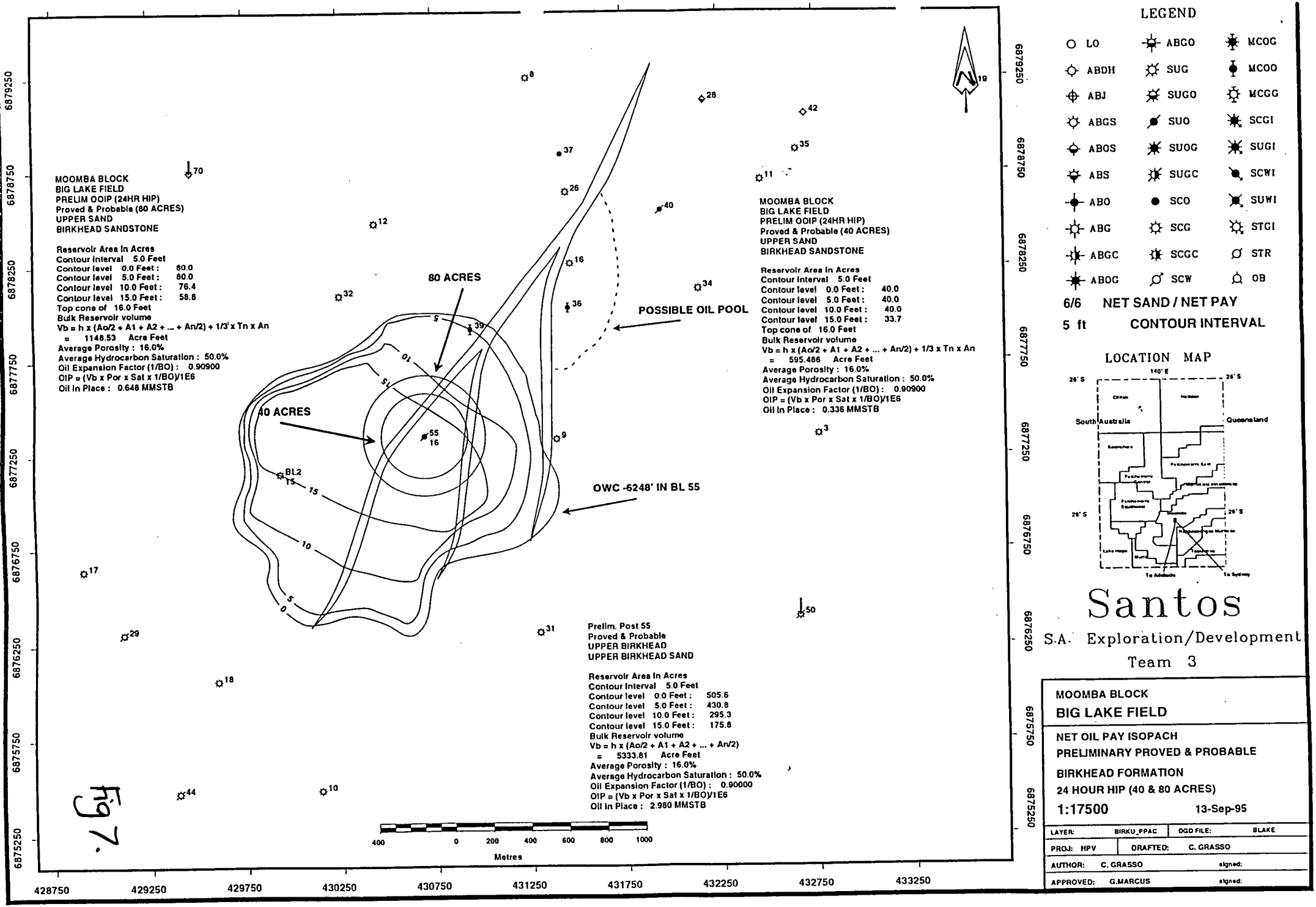

Fig. 7

LEGEND

LO	ABGO	MCOG
ABDH	SUG	MCOO
ABJ	SUGO	MCGG
ABGS	SUO	SCGI
ABOS	SUOG	SUGI
ABS	SUGC	SCWI
ABO	SCO	SUWI
ABG	SCG	STGI
ABGC	SCGC	STR
ABOG	SCW	OB

6/6 NET SAND / NET PAY

5 ft CONTOUR INTERVAL

LOCATION MAP

Santos

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Team 3

MOOMBA BLOCK

BIG LAKE FIELD

NET OIL PAY ISOPACH

PRELIMINARY PROVED & PROBABLE

BIRKHEAD FORMATION

24 HOUR HIP (40 & 80 ACRES)

1:17500 13-Sep-95

LAYER:	BIRKU_PPAC	DGD FILE:	BLAKE
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AUTHOR:	C. GRASSO	signed:	
APPROVED:	G.MARCUS	signed:	

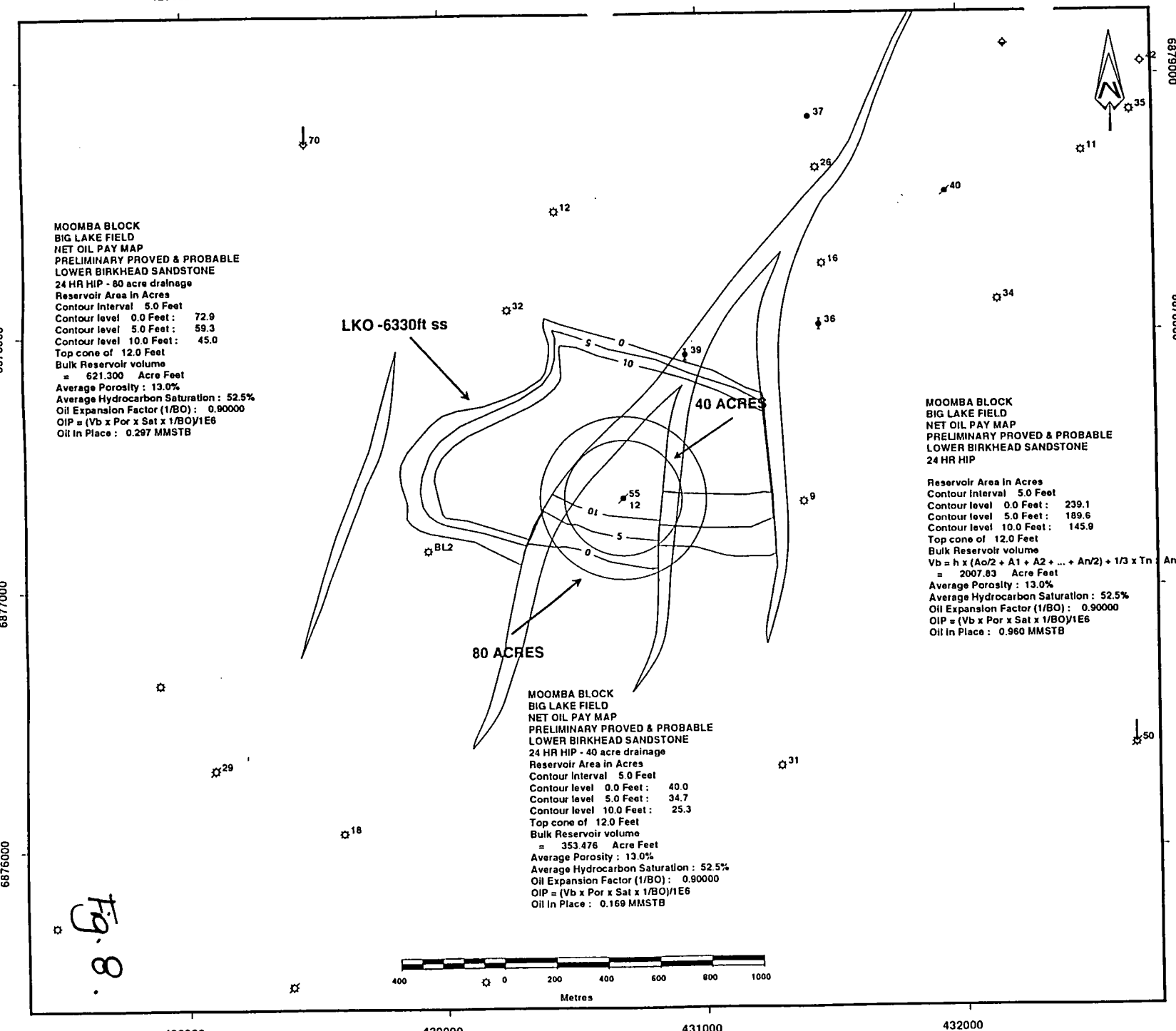


Fig. 8.

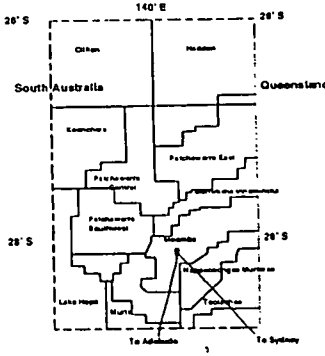
LEGEND

LO	ABGO	MCOG
ABDH	SUG	MCOO
ABJ	SUGO	MCGG
ABGS	SUO	SCGI
ABOS	SUOG	SUGI
ABS	SUGC	SCWI
ABO	SCO	SUWI
ABG	SCG	STGI
ABGC	SCGC	STR
ABOG	SCW	OB

6/6 NET SAND / NET PAY

5 ft CONTOUR INTERVAL

LOCATION MAP



Santos

S.A. Exploration/Development

Team 3

MOOMBA BLOCK

BIG LAKE FIELD

NET OIL PAY ISOPACH

PRELIMINARY PROVED & PROBABLE

LOWER BIRKHEAD SAND

BIRKHEAD FORMATION

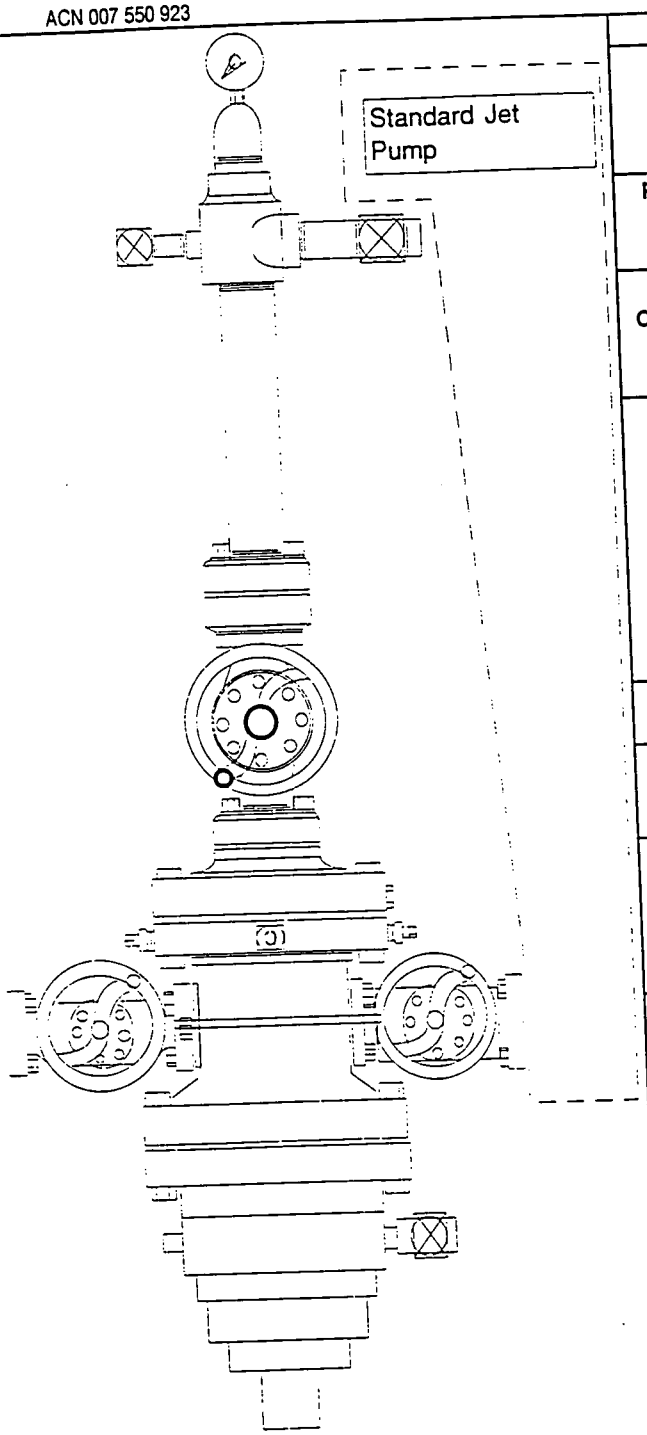
1:15000 22-Sep-95

LAYER:	BIRKL_PP	DGD FILE:	BMJGOIL
PROJ: BMJG	DRAFTED:	EXPSJR	
AUTHOR: S.RIORDAN		signed:	
APPROVED: G.MARCUS		signed:	

PETROLEUM ENGINEERING DEPARTMENT
JET PUMP WELLHEAD AS PROPOSED

SANTOS
ACN 007 550 923

WELL: DATE:



DESCRIPTION			
FLOW CROSS	MAKE RATING OUTLETS FITTINGS		National Oilwell 5000# (If available)
PUP JOINT RISER	SIZE/LENGTH GRADE/WEIGHT PER FT.		2-7/8" x 2' J55 6.5# EUE
COMPANION FLANGE	SIZE RATING		2-9/16" x 2-7/8" EUE 5000#
MASTER VALVE	MAKE TYPE SIZE RATING TRIM		CIW F 2-9/16" 5000# 4
ADAPTOR FLANGE	MAKE/TYPE SIZE/RATING		CIW Seal pocket 2-9/16"x7-1/16"
TUBING HANGER	MAKE/TYPE LIFT THD./BPV PREP.		CIW FBB-EN 2-7/8" EUE
TUBING SPOOL	MAKE/TYPE SIZE/RATING		CIW / F 7-1/16" x 11" / 3000#
	OUTLET 1	VALVE/ FITTINGS	2-1/16" Gate valve 3000# 2-1/16"x2"NPT Comp Flg
	OUTLET 2	FITTINGS	As above
*CASING SPOOL	MAKE/TYPE SIZE/RATING		N/A
	OUTLET 1	VALVE/ FITTINGS	
	OUTLET 2	FITTINGS	
BRADEN-HEAD	MAKE/TYPE SIZE/RATING		CIW F 9-5/8"x 11"/ 3000#
	OUTLET 1	VALVE/ FITTINGS	
	OUTLET 2	FITTINGS	

COMPLETION DETAILS		
SURF. CSG.	SIZE,WT./GR./THD./DEPTH	
*INT. CSG.	SIZE,WT./GR./THD./DEPTH	
PROD. CSG.	SIZE,WT./GR./THD./DEPTH	
TUBING	SIZE,WT./GR./THD./# JTS.	
REMARKS	STRING WT. INDICATED CALCULATED SLACKOFF WT./TENSION OTHER	

* INTERMEDIATE CASING INSTALLED?	GINPOLE INSTALLED?
YES/NO	YES/NO

AUTHOR: DRAFTED: DATE DRAWN:

PET ENG

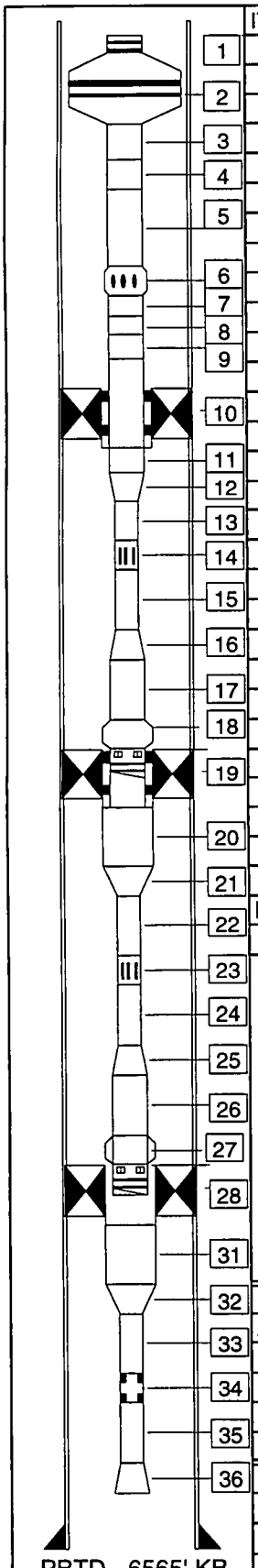
PETROLEUM ENGINEERING DEPARTMENT

DOWNHOLE COMPLETION

Santos

Santos Ltd A.C.N 007 550 923

WELL: Big Lake #55 **DATE: 23/10/95**



ITEM No.	DESCRIPTION	LENGTH (ft)	DEPTH KB (ft)	MIN. ID (in)
1	K.B. to top of tubinghead spool			
2	CIW FBB-EN tubing hanger 6" x 2-7/8" NK3SB			
3	1 x 2-7/8" 6.5# J55 EUE tubing			
4	2-7/8" 6.5# J55 EUE pup joints			
5	2-7/8" 6.5# J55EUE tubing			
6	National Oilwell Jet Pump Mandrel 2-7/8" EUE BxP			
7	1 x 2-7/8" 6.5# J55 EUE tubing			
8	Baker LX on/off connector 2-7/8" EUE			
9	Pup joint 6' x 2-7/8" 6.5# J55 EUE			
10	Baker A-3 Lok-Set packer 7" x 2-7/8" EUE Size 47-B4	approx	5540.00	
11	1x 2-7/8" 6.5# J55 EUE tubing			
12	Swage 2-7/8" x 2-3/8" EUE BxP			
13	1 x 2-3/8" 4.7# J55 EUE tubing			
14	OTIS SSD 121XO 2-3/8" EUE			
15	1 x 2-3/8" 4.7# J55 EUE tubing			
16	Swage 2-3/8" x 2-7/8" EUE BxP			
17	18 x 2-7/8" 6.5# J55 EUE tubing			
18	Baker G22 Locator Seal Assy, 80-32 2-7/8" EUE c/w 3 seals			
19	Baker SB-3 packer 84-32 7" x 4-1/2" LTC	approx	6210.00	
20	Millout Extension 4-1/2" LTC PxP			
21	X-Over 4-1/2" LTC x 2-3/8" EUE			
22	1 x 2-3/8" 4.7# J55 EUE tubing			
23	OTIS SSD 121XO 2-3/8" EUE			
24	1 x 2-3/8" 4.7# J55 EUE tubing			
25	Swage 2-3/8" x 2-7/8" EUE BxP			
26	4 x 2-7/8" 6.5# J55 EUE tubing			
27	Baker G22 Locator Seal Assy, 80-32 2-7/8" EUE c/w 3 seals			

PERFORATION INTERVALS:		GUN:				CHARGES:	
FORMATION	INTERVAL (FT / KB)	SIZE	TYPE	PHASE	SPF	TYPE	WT(g)
MCKINLAY	5590'- 5600'	4.5"	HSD	45	12	RDX	20.5
NAMUR	5614'- 5630'	4.5"	HSD	45	12	RDX	20.5
UPPER BIRKHEAD	6348' - 6360'	4.5"	HSD	45	12	RDX	20.5
LOWER BIRKHEAD	6424' - 6454'	4.5"	HSD	45	12	RDX	20.5

REMARKS:

ANNULUS FLUID:

INDICATED STRING WEIGHT:

CALCULATED STRING WEIGHT:

SLACK-OFF WEIGHT:

TENSION:

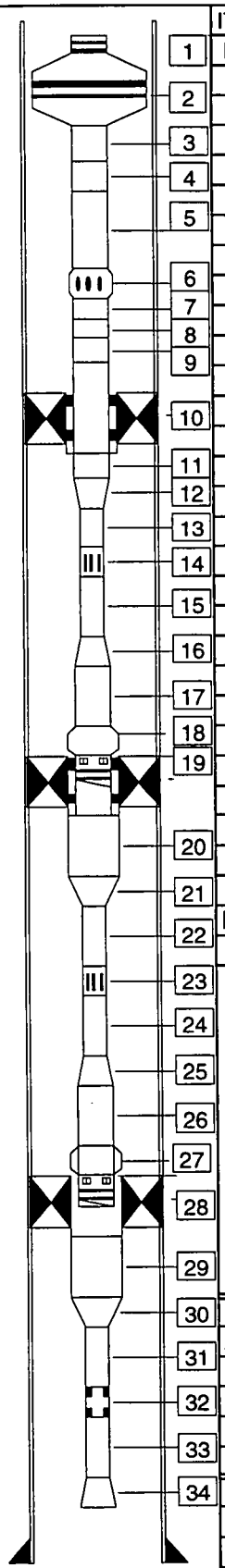
NOT TO SCALE	WELLSITE SUPERVISOR	
PROPOSED: X	DATE OF INSTALLATION	
RE-COMPLETION:	DRAFTED:	DATE:
COMPLETION:		DATE:
OTHER:		

PETROLEUM ENGINEERING DEPARTMENT
DOWNHOLE COMPLETION

Santos

Santos Ltd A.C.N 007 550 923

WELL: BIG LAKE #55 **DATE: 23/10/95**



PBTD - 6565' KB

ITEM No.	DESCRIPTION	LENGTH (ft)	DEPTH KB (ft)	MIN. ID (in)
	Permanent BHA			
28	Baker DB Packer Size 84-32, 7" x 4-1/2" LTC	approx	6370.00	
29	Millout Extension 4-1/2" LTC PxP			
30	X-Over 4-1/2" LTC x 2-3/8" EUE			
31	Pup joint 2-3/8" 4.7# J55 EUE 10'long			
32	OTIS 'X' Landing Nipple 2-3/8" EUE			
33	Pup joint 2-3/8" 4.7# J55 EUE 10'long			
34	Swage 2-3/8" x 2-7/8" EUE BxB			

PERFORATION INTERVALS:		GUN:				CHARGES:	
FORMATION	INTERVAL (FT / KB)	SIZE	TYPE	PHASE	SPF	TYPE	WT(g)
MCKINLAY	5590'- 5600'	4.5"	HSD	45	12	RDX	20.5
NAMUR	5614'- 5630'	4.5"	HSD	45	12	RDX	20.5
UPPER BIRKHEAD	6348' - 6360'	4.5"	HSD	45	12	RDX	20.5
LOWER BIRKHEAD	6424' - 6454'	4.5"	HSD	45	12	RDX	20.5

REMARKS:

ANNULUS FLUID:

INDICATED STRING WEIGHT:

CALCULATED STRING WEIGHT:

SLACK-OFF WEIGHT:

TENSION:

NOT TO SCALE	WELLSITE SUPERVISOR	
PROPOSED: X	DATE OF INSTALLATION	
RE-COMPLETION:	DRAFTED:	DATE:
COMPLETION:		DATE:
OTHER:		

NOPE COST ESTIMATE

PROJECT NAME: Big Lake #55 Tandem Jet Pump Completion
PROJECT NO :
DATE : 22-Sep-95

EXPENSE CODE	DESCRIPTION	TOTAL COSTS $(000's)
001-009	Salaries & Wages - Office	9.0
302	Workover Rig - Operations	22.4
302	Workover Rig - Standby	0.0
304	Workover Rig - Moving	3.7
302	Workover Rig - Camp	6.4
434	Rig Moving, Third Party Trucking	8.8
349	Bits	0.0
349	Chemicals	3.0
349	Cement	0.0
349	Downhole Expendable Equipment	0.0
349	Filters	3.0
349	Tubing	37.4
349	Downhole Production Equipment	78.0
349	Wellheads	12.0
325	Cementing Services	0.0
325	In Pipe Testing	0.0
325	Acidizing Services	0.0
325	Acidizing Materials	0.0
325	Pumping Services	2.8
314	Completion Logging	10.5
314	Perforating	22.0
314	Wireline Services	9.1
321	Frac Services	0.0
322	Frac Chemicals	0.0
327	Well Evaluation	3.3
434	Water Hauling	3.6
331	Access & Lease Preparation	2.0
332	Lease Cleanup	1.0
360	Direct Project Materials	0.0
365	Construction Contractors	0.0
366	Flowlines - Materials	0.0
367	Flowlines - Installation Costs	0.0
368	Facilities - Excluding Flowlines	0.0
429	Rig Supervision	3.2
429	Tubular Services and Equipment	0.0
429	Fishing Services and Equipment	0.0
429	Filtration Services and Equipment	1.0
Sub Total		**242.3**
951	Contingency	0.0
898	Supply Support Allocation	10.7
Total		**253.0**

Prepared by : _____ Reviewed by : Michael McGowan

ENGINEERING ESTIMATE : 0.0

SUB-TOTAL : 0.0

GRAND TOTAL : 253.0

Prepared by: James McCarr. **Date:** 23/10/95
Drilling & Completions Engineer

Reviewed by: Michael McGowan. **Date:** 24/10/95.
Team Leader - Drlg & Completions

Date: 24/10/95
Project Leader

SC. **Date:** 24/10/95
Team Leader - Team 3

Approved by: **Date:** 26/10/95
Manager, Petroleum Engineering SA

Distribution:

Well File	Original
PE Dept - Adel	(1) KB.
PE Dept - Mba	(7)
PE Supt - Mba	(1)
Production Supt - Mba	(1)
MESA	(1)
Contact Personnel	(3) MZ, FGJ, JNC.