BASIC WELL COMPLETION REPORT

NT EP-167 – Wyworrie-1

Prepared For:	**NT Department of Mines & Energy**
Date:	**6 May 2016**
Revision No:	**A**

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Operator:	Pangaea (NT) Pty Ltd	**Representative:**	Tim Radburn
Title:	Basic Well Completion Report_EP-167_Wyworrie-1		

REVISIONS				
Revision A		Initial Document	G&G and Engineering	G&G/Ops.
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Geology By:		**Engineering By:**	
Name	**Initial/Date**	**Name**	**Initial/Date**
D Levy	DL	CGC/SM	CGC/17-Sep-15
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APPROVALS			
Name	**Position**	**Signature**	**Date**
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1 WELL CARD (DATA SUMMARY SHEET)

GENERAL WELL INFORMATION	
Well Name and Number:	Wyworrie-1
Designation:	Petroleum Appraisal core well
Permit:	EP-167
Basin:	Roper Basin
Mapsheet (1:100K):	Elsey
Graticular Block No:	[2889] (5 minute blocks)
Surveyed Location: (MGA94, Zone 53)	Latitude 15° 22' 10.5395" S (GDA94) Longitude 132° 44' 46.1429" E (GDA94) Easting 258061.59 m E (MGA94,Z53) Northing 8,299,532.86 m N (MGA94,Z53)
Pastoral lease holder:	Wyworrie Station Pty Ltd Lionel Johnson, Jeffrey Johnson & Peter Johnson
Property Description:	Parcel 2729 "Wyworrie"
Seismic Reference:	Top Hole: Hidden Valley 2013 2D, Line PB13-02, SP 6075
Nearest Well:	Tarlee- S3 (2014), TD 1650.6 mKB (30 km S-SE)
Surveyed Elevation:	178.49 m AMSL
Well True Measured Depth (TD):	1385.0 mRT (Driller) 1385.7 mRT (Logger)
Spud Date:	26-Jul-2015
Reach TD Date:	13-Aug-2015
Rig Release Date:	28-Aug-2015
Well Status/Result:	Cased and suspended/Oil and Gas Shows
OPERATOR AND DRILLING CONTRACTOR	
Operator and Titleholder:	Pangaea (NT) Pty Ltd – (Operator) EMG Northern Territory Holdings Pty Ltd
Operator Postal Address:	Locked Bag 1, 1 Farrer Place Sydney, NSW, 2000
Drilling Contractor:	Saxon Energy Services Australia Pty Ltd
Rig Name and Type:	Rig-187 (ATS-320)
Height of RT above GL:	5.34 m
RT Elevation:	183.83 m AMSL

CORED INTERVAL			
From	To	Total Interval	Core Recovery
[mRT]	[mRT]	[m]	[%]
970.0	1202.3	232.3	100
1202.3	1359.0	101.9	98.2

FINAL WELL CONSTRUCTION									
Interval	Hole Specifications			Casing Specifications					
	Hole Size	From	To	OD	Weight	Grade	Thread	Casing Top	Shoe Depth
	[in]	[mRT]	[mRT]	[in]	[lb/ft]			[mRT]	[mRT]
Conductor 1	24	7.0	25.0	20	94.00		Welded	7.0	24.7
Conductor 2	17-1/2	6.3	108.5	13-3/8	68.00	K-55	BTC	6.3	96.0
Surface	12-1/4	5.8	500.0	9-5/8	36.00	K-55	BTC	5.8	497.1
Production	8-1/2	5.0	1385.0	7	35.00	P-110	JFE FOX	5.0	1382.0

DRILLING MEDIUM				
Interval	Hole Size	From	To	Fluid System
	[in]	[mRT]	[mRT]	
Conductor 1	24	7.0	25.0	Water
Conductor 2	17-1/2	6.3	108.5	Dry Air, Mist & Stiff Foam
Surface	12-1/4	108.5	500.0	WBM – KCl & Polymer
Production	8-1/2	500.0	1385.0	WBM – KCl & Polymer

LOGS FOR 12-1/4" OPEN HOLE SECTION	
Logging Run	Service
Run #1	Gamma Ray (GR) Spontaneous Potential (SP) Laterologs, Micro-resistivity Photo electric / Density / Caliper (Pe-Den-Cal) Neutron Sonic Maximum temperature
LOGS FOR 8-1/2" OPEN HOLE SECTION	
Logging Run	Service
Run #2	Gamma Ray (GR) Spectral Gamma Ray Spontaneous Potential (SP) Laterologs, Micro-resistivity Photo electric / Density / Caliper (Pe-Den-Cal) Neutron Maximum temperature Dielectric
Run #3	Gamma Ray (GR) Deviation Survey Resistivity Imager (FMI) Dipole Sonic (SonicScanner)
Run #4	Gamma Ray (GR) Nuclear Magnetic Resonance (NMR) Spectral Lithology
Run #5	Checkshot Survey
Run #6	Gamma Ray (GR) Standard rotary sidewall core
Run #7	Gamma Ray (GR) Pressure rotary sidewall core

FORMATION TOPS						
Formation	Predicted Depth	Depth	Depth	Depth	Depth	Thickness
	(mRT)	(mRT)	(mGL)	(mTVD)	(mSS)	(m)
Surficial Sediments	-	No samples taken during drilling of conductor hole				
Undifferentiated Cretaceous	-					
Antrim Plateau Volcanics	26.3	50.58	45.24	39.9	-138.59	135.48
Base Cambrian Unconformity	168.3	186.06	180.72	175.38	-3.11	-
Jamison Sandstone	-	186.06	180.72	175.38	-3.11	57.28
McMinn Formation	168.3	243.34	238	232.66	54.17	203.33
Kyalla Sill	446.3	446.67	441.33	435.99	257.5	49.94
Kyalla Shale	486.3	496.61	491.27	485.93	307.44	123.88
Moroak Sandstone	586.3	620.49	615.15	609.81	431.32	167.88
Upper Velkerri	695.3	788.37	783.03	777.69	599.2	178.35
Middle Velkerri	974.3	966.72	961.38	956.04	777.55	228.66
Derim Derim Sill	1242.3	1195.38	1190.04	1184.7	1006.21	76.59
Middle Velkerri Continued	-	1271.97	1266.63	1261.29	1082.8	63.73
Lower Velkerri	1361.3	1335.7	1330.36	1325.02	1146.53	49.3
TD	1411.3	1385.0	1379.66	1374.32	1195.83	-

2 WELL SCHEMATIC

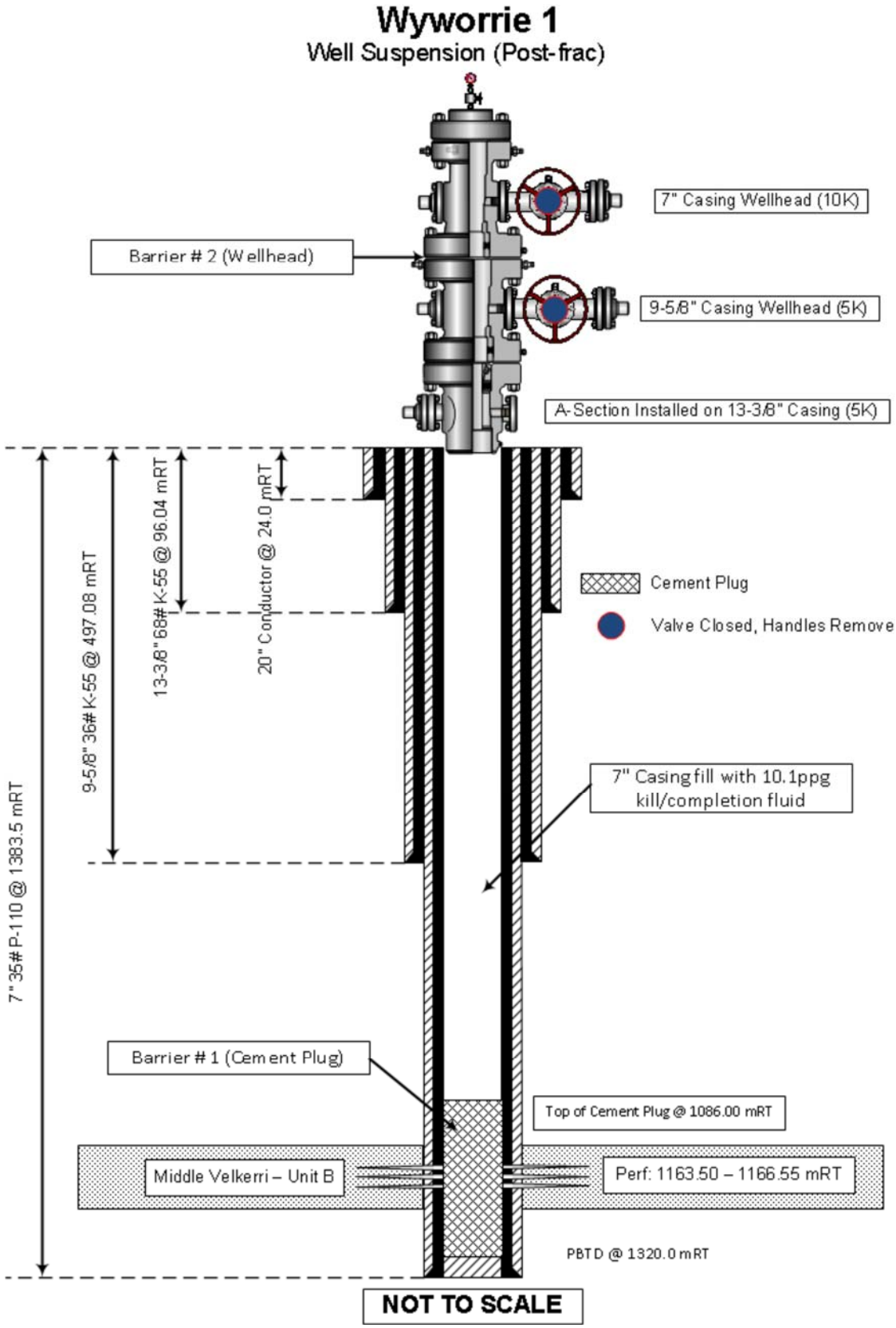


Figure 1: Current Wyworrie-1 Well Schematic

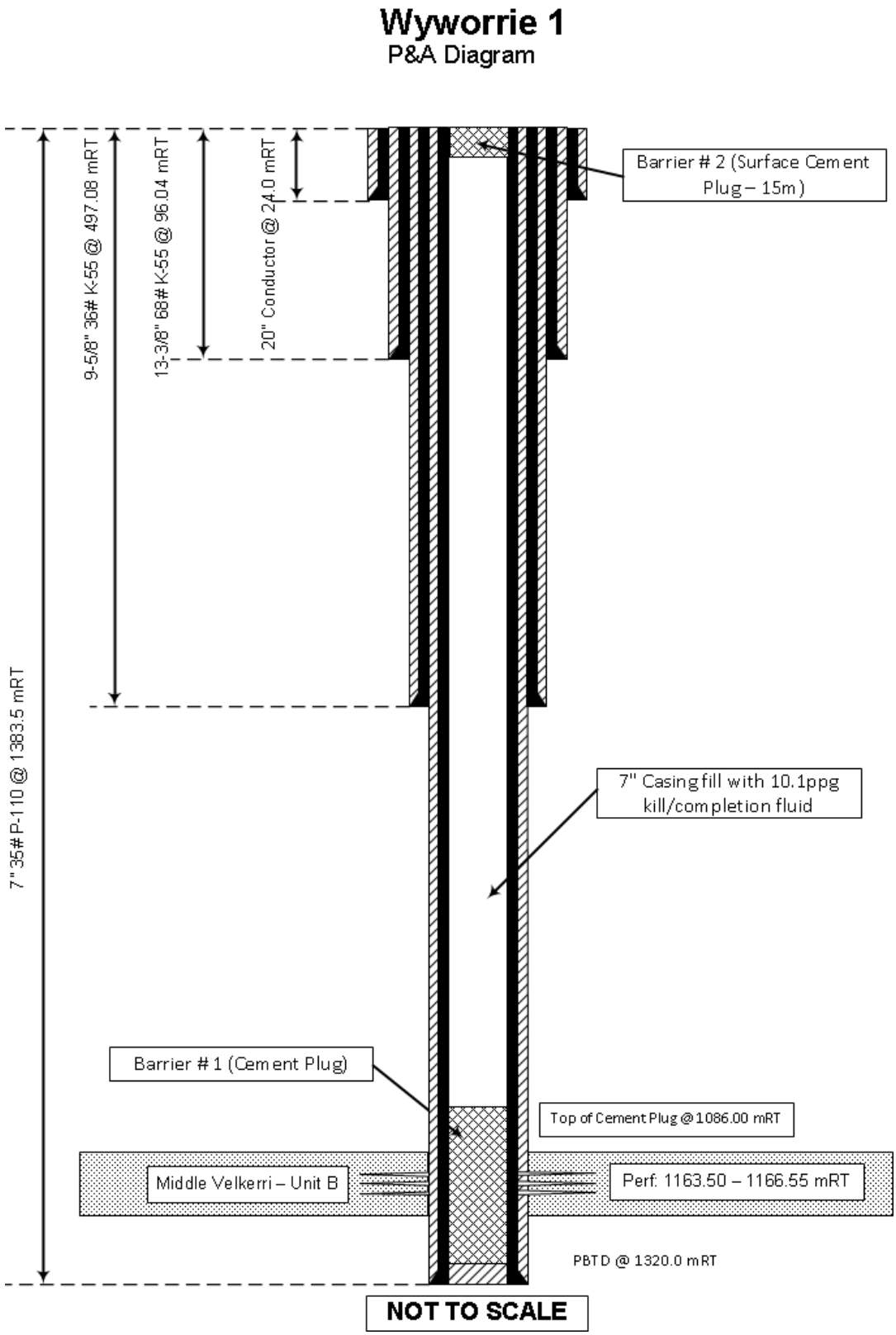


Figure 2: Proposed Wyworrie-1 P&A Schematic*

** P&A operations planned for May 2016, per Figure 2.*

3 CEMENTING

3.1 Conductors Cement

The top hole section of Wyworrie-1 was drilled and cemented using the mineral rig DDH-1 Foremost Rig-32. Before rigging up DDH1 Rig-32, the 24" conductor hole was drilled with an Auger from 7.1 mRT (depth referenced to Saxon Rig-187 rotary table) to 25.0 mRT through the sandy formation of the surface sediments. The hole was filled with water and the rig was then moved forward to run the 20" Conductor-1 casing with welded connections to a depth of 24.7 mRT. Mixed 136 sacks of 20 kg Class A cement and pumped 11 bbl of 15.3 ppg cement slurry. The diverter was installed on top of the Conductor-1 and lined up to the flare pit. A 17-1/2" hole was drilled using an air hammer bit to a depth of 108.5 mRT, which is 57.9 m into the basalt rock of the Antrim Volcanic Plateau. Set up to run 13-3/8" casing, run casing and observed tight hole from 39.4 to 44.7 mRT. Worked the casing but unable to continue RIH; POOH. Made up air hammer BHA and reamed/drilled hole to 81.9 mRT. Made up casing string, RIH and worked string through tight hole until depth of 50.2 mRT. Secured casing at this depth and made up 12-1/4" BHA to condition hole. Ream hole with 12-1/4" BHA. POOH drilling BHA and continue to work and run casing Repeated process until the casing reached 96.0 mRT and circulation was possible for cement job. The hole was filled with water and a cementing job was performed, mixing 270 sacks of 20 kg Class A cement and pumped 30 bbl of 14.8 ppg cement slurry, dropped cement plug and displaced with 37.7 bbl of fluid. No returns were observed at surface, top up cement job was performed.

3.2 Surface Casing Cement

The 9-5/8" surface casing was cemented on 30 July 2015, with 20 bbl of SAPP spacer at 9.2 ppg, followed by 10 bbls of freshwater, 87 bbls of 12.5 ppg lead slurry and 42 bbls of 15.8 ppg tail slurry.

WELL PROFILE											
NEW CASING				OPEN HOLE + EXCESS OR CALIPER DATA				PREVIOUS CASINGS			
9.625in 36ppf K55 Butt : 0m to 497.08m MD, 497.08m TVD				12.9in, 10 percent excess, 96m to 500m				13.375in, 68ppf, 0m to 96m			
CEMENT DESIGN											
Lead		SLURRY ID	2255085/1	Tail		SLURRY ID	2255085/2	Spacer		SLURRY ID	0
DENSITY	12.5 ppg	WATER	11.8 gal/sk	DENSITY	15.8 ppg	WATER	5.09 gal/sk	DENSITY	9 ppg	WATER	gal/sk
YIELD	2.145 cuft/sk	MIX FLUID	65.3 bbl	YIELD	1.16 cuft/sk	MIX FLUID	24.7 bbl	YIELD	cuft/sk	MIX FLUID	18 bbl
WATER SOURCE	Day Tank			WATER SOURCE	Day Tank			WATER SOURCE	Day Tank		
CEMENT TYPE	Class G Cement at 94lb/sk			CEMENT TYPE	Class G Cement at 94lb/sk			CEMENT TYPE	at lb/sk		
Total Cement Used	227 sks			Total Cement Used	204 sks			Total Cement Used	sks		
Estimated TOC	Surface m			Estimated TOC	347 m			Estimated TOC	m		
Additive	Concentration	Total Used		Additive	Concentration	Total Used		Additive	Concentration	Total Used	
Econolite Liquid	0.7 gal/sk	178		CFR-3	0.15 %BWOC	40		KCL	Lbs	1123	
Dair 3000L	0.01 gal/sk	3		Dair 3000L	0.01 gal/sk	3		SAPP	Lbs	160	
JOB LOG											
VOLUME LEAD CEMENT	87	bbls		VOLUME SPACER TO SURFACE	15	bbls		LOST RETURN	0		
VOLUME TAIL CEMENT	42	bbls		VOLUME CEMENT TO SURFACE	5	bbls					

3.3 Production Casing Cement

The 7" production casing was cemented on 27 August 2015, with 20 bbls of Mud Flush III spacer at 9.2 ppg followed by 5 bbls of freshwater, 83 bbls of 12.5 ppg lead slurry and 65 bbls of 15.8 ppg tail slurry.

WELL PROFILE		
NEW CASING Non Tapered Casing , Conventional, 11.53m shoe track	OPEN HOLE + EXCESS OR CALIPER DATA	PREVIOUS CASINGS
7in 35ppf P-110 BTC : 0m to 1382m MD, 1382m TVD	9.15in, 10 percent excess, 497m to 780m 9.25in, 10 percent excess, 780m to 1385m	13.375in, 68ppf, 0m to 70m 9.625in, ppf, 0m to 497m

CEMENT DESIGN											
Spacer		SLURRY ID	0	Lead		SLURRY ID	2258136/7	Tail		SLURRY ID	2258142/2
DENSITY	9.2 ppg	WATER	gal/sk	DENSITY	12.5 ppg	WATER	12.46 gal/sk	DENSITY	15.8 ppg	WATER	5.15 gal/sk
YIELD	cuft/sk	MIX FLUID	20 bbl	YIELD	2.14 cuft/sk	MIX FLUID	73 bbl	YIELD	1.16 cuft/sk	MIX FLUID	47.3 bbl
WATER SOURCE	Day Tank			WATER SOURCE	Day Tank			WATER SOURCE	Day Tank		
CEMENT TYPE	at lb/sk			CEMENT TYPE	Class G Cement at lb/sk			CEMENT TYPE	Class G Cement at lb/sk		
Total Cement Used	sks			Total Cement Used	217 sks			Total Cement Used	311 sks		
Estimated TOC	0 m			Estimated TOC	0 m			Estimated TOC	780 m		
Additive	Concentration	Total Used		Additive	Concentration	Total Used		Additive	Concentration	Total Used	
NaCl		1437lbs		D-Air 3000l		3gals		D-Air 3000l		4gals	
Mud Flush III		80lbs		Bentonite		766lbs		Halad 413		314lbs	
				Halad 344		177lbs		CFR-3		37lbs	
				HR-5		12lbs					

JOB LOG								
VOLUME LEAD CEMENT	83	bbls	VOLUME SPACER TO SURFACE	30	bbls	LOST RETURN	8	
VOLUME TAIL CEMENT	65	bbls	VOLUME CEMENT TO SURFACE	2	bbls			

4 CORES AND SAMPLING

The sampling program for Wyworrie-1 comprised the following:

- Conventional coring
- Pressure sidewall coring
- Cuttings collection
- Desorption
- Wax preservation of whole core
- Isotube sampling

Please see **Appendix 1** for details of cores and samples taken.

5 EVALUATION LOGS

Please see **Enclosure 1** for digital wireline log data.

Please see **Enclosure 2** for graphical mud log.

No measurement, logging or pressure while drilling logs were performed in.

6 CORE PHOTOGRAPHY

n/a

7 WELL TRAJECTORY

Please see **Appendix 2** for deviation survey results.

8 BIT RECORD

Please see **Appendix 3** for bit record.

9 MUD RECORD

Please see **Appendix 4** for mud record.

APPENDIX 1. CORES / SAMPLES DETAILS

CORE RUN DETAILS

Client: Pangaea Resources
Well: Wyworrie-1
Job Number: AB-78201
Rig: Saxon 187
Permit: NT EP-167

Run No.	Start Drilling/Coring	Stop Drilling/Coring	At Surface	Top Depth	Bottom Depth	Drilled/Cored	Recovery	Loss/Gain	Recovery	Comments
	dd/mm/yyyy hh:mm	dd/mm/yyyy hh:mm	dd/mm/yyyy hh:mm	m	m	m	m	m	%	
1	05/08/2015 14:45	05/08/2015 18:15	06/08/2015 00:44	970.00	1002.53	32.53	32.63	0.10	100.31	**Barrel jammed off**
2	06/08/2015 10:25	06/08/2015 17:00	06/08/2015 22:51	1002.53	1056.53	54.00	54.67	0.67	101.24	D#1, D#2
3	07/08/2015 08:25	07/08/2015 15:10	07/08/2015 21:15	1056.53	1116.53	60.00	59.61	-0.39	99.35	D#3, D#4
4	08/08/2015 09:15	08/08/2015 23:43	09/08/2015 05:00	1116.53	1171.12	54.59	54.95	0.36	100.66	D#5, D#6
5	09/08/2015 16:25	09/08/2015 20:50	10/08/2015 02:28	1171.12	1191.17	20.05	19.77	-0.28	98.60	**Barrel jammed off, D#7**
6	10/08/2015 13:33	10/08/2015 16:15	10/08/2015 22:45	1191.17	1202.32	11.15	11.20	0.05	100.45	**Barrel jammed off, drill ahead**
7	12/08/2015 19:00	13/08/2015 18:00	14/08/2015 00:15	1252.00	1262.38	10.38	9.64	-0.74	92.87	
8	15/08/2015 05:05	15/08/2015 17:50	16/08/2015 02:20	1262.38	1266.97	4.59	4.38	-0.21	95.42	Drill ahead to 1,272m
10	20/08/2015 02:20	20/08/2015 07:30	20/08/2015 14:15	1272.00	1286.93	14.93	13.80	-1.13	92.43	Barrel jammed off, D#8, D#9
11	21/08/2015 02:05	21/08/2015 07:06	21/08/2015 13:10	1286.93	1322.93	36.00	36.16	0.16	100.44	D#10, D#11
12	21/08/2015 23:45	22/08/2015 06:45	22/08/2015 13:34	1322.93	1358.93	36.00	36.15	0.15	100.42	D#12, End of Coring

PRESSURE SIDEWALL CORE DETAILS

Wyworrie-1 Pressure Sidewall Core Details			
Run No	**Tube Number**	**Sample depth (mRT)**	**Comments**
1	Tube1 - 12659833	1159.5	Capped ok. Sample from bottom up
1	Tube1 - 12659833	1161	Capped ok. Sample from bottom up
1	Tube1 - 12659833	1162.5	Capped ok. Sample from bottom up
1	Tube1 - 12659833	1164	Capped ok. Sample from bottom up
1	Tube1 - 12659833	1165.5	Capped ok. Sample from bottom up
1	Tube1 - 12659833	1167	Capped ok. Sample from bottom up
2	Tube2 - 12659836	1096	Capped ok. Sample from top to bottom
2	Tube2 - 12659836	1097.5	Capped ok. Sample from top to bottom
2	Tube2 - 12659836	1099	Capped ok. Sample from top to bottom
2	Tube2 - 12659836	1100.5	Capped ok. Sample from top to bottom
2	Tube2 - 12659836	1102	Capped ok. Sample from top to bottom
3	Tube 3 - 12659836	584	Capped ok. Sample from top to bottom
3	Tube 3 - 12659836	585.5	Capped ok. Sample from top to bottom
3	Tube 3 - 12659836	587	Capped ok. Sample from top to bottom
3	Tube 3 - 12659836	588.5	Capped ok. Sample from top to bottom
3	Tube 3 - 12659836	590	Capped ok. Sample from top to bottom
3	Tube 3 - 12659836	591.5	Capped ok. Sample from top to bottom
3	Tube 3 - 12659836	593	Capped ok. Sample from top to bottom
3	Tube 3 - 12659836	594.5	Capped ok. Sample from top to bottom
3	Tube 3 - 12659836	596	Capped ok. Sample from top to bottom
4a	Tube 4 - 12712841	1272.7	Capped ok. Sample from top to bottom
4a	Tube 4 - 12712841	1274.2	Capped ok. Sample from top to bottom
4a	Tube 4 - 12712841	1275.7	Capped ok. Sample from top to bottom
4a	Tube 4 - 12712841	1277.2	Capped ok. Sample from top to bottom
4a	Tube 4 - 12712841	1278.5	Capped ok. Sample from top to bottom
4a	Tube 4 - 12712841	1280	Capped ok. Sample from top to bottom

CUTTINGS SAMPLE DETAILS

Washed and Dried Cuttings Set A (for Pangaea Records)			
Sample Bag	**Depth (mRT)**	**No of Sample**	**Remarks**
Cotton / Calico bag	110 – 150	9	Sample collected at every 5 m interval
Cotton / Calico bag	150 - 190	8	Sample collected at every 5 m interval
Cotton / Calico bag	190 – 230	8	Sample collected at every 5 m interval
Cotton / Calico bag	230 – 270	8	Sample collected at every 5 m interval
Cotton / Calico bag	270 – 310	8	Sample collected at every 5 m interval
Cotton / Calico bag	310 – 350	8	Sample collected at every 5 m interval
Cotton / Calico bag	350 – 390	8	Sample collected at every 5 m interval
Cotton / Calico bag	390 – 430	8	Sample collected at every 5 m interval
Cotton / Calico bag	430 – 470	8	Sample collected at every 5 m interval
Cotton / Calico bag	470 – 510	8	Sample collected at every 5 m interval
Cotton / Calico bag	510 – 550	8	Sample collected at every 5 m interval
Cotton / Calico bag	550 – 590	8	Sample collected at every 5 m interval
Cotton / Calico bag	590 – 630	8	Sample collected at every 5 m interval
Cotton / Calico bag	630 – 670	8	Sample collected at every 5 m interval
Cotton / Calico bag	670 – 710	8	Sample collected at every 5 m interval
Cotton / Calico bag	710 – 750	8	Sample collected at every 5 m interval
Cotton / Calico bag	750 – 790	8	Sample collected at every 5 m interval
Cotton / Calico bag	790 – 830	8	Sample collected at every 5 m interval
Cotton / Calico bag	830 – 870	8	Sample collected at every 5 m interval
Cotton / Calico bag	870 – 910	8	Sample collected at every 5 m interval
Cotton / Calico bag	910 – 950	8	Sample collected at every 5 m interval
Cotton / Calico bag	950 – 990	8	Sample collected at every 5 m interval

Cotton / Calico bag	990 – 1030	8	Sample collected at every 5 m interval
Cotton / Calico bag	1030 – 1070	8	Sample collected at every 5 m interval
Cotton / Calico bag	1070 – 1110	8	Sample collected at every 5 m interval
Cotton / Calico bag	1110 – 1150	8	Sample collected at every 5 m interval
Cotton / Calico bag	1150 – 1190	8	Sample collected at every 5 m interval
Cotton / Calico bag	1190 – 1230	8	Sample collected at every 5 m interval
Cotton / Calico bag	1230 – 1270	8	Sample collected at every 5 m interval
Cotton / Calico bag	1270 – 1310	8	Sample collected at every 5 m interval
Cotton / Calico bag	1310 – 1350	8	Sample collected at every 5 m interval
Cotton / Calico bag	1350 – 1385	7	Sample collected at every 5 m interval

Washed and Dried Cuttings Set B (for NTGS Records)			
Sample Bag	**Depth mRT**	**No of Sample**	**Remarks**
Cotton / Calico bag	110 – 150	9	Sample collected at every 5 m interval
Cotton / Calico bag	150 - 190	8	Sample collected at every 5 m interval
Cotton / Calico bag	190 – 230	8	Sample collected at every 5 m interval
Cotton / Calico bag	230 – 270	8	Sample collected at every 5 m interval
Cotton / Calico bag	270 – 310	8	Sample collected at every 5 m interval
Cotton / Calico bag	310 – 350	8	Sample collected at every 5 m interval
Cotton / Calico bag	350 – 390	8	Sample collected at every 5 m interval
Cotton / Calico bag	390 – 430	8	Sample collected at every 5 m interval
Cotton / Calico bag	430 – 470	8	Sample collected at every 5 m interval
Cotton / Calico bag	470 – 510	8	Sample collected at every 5 m interval
Cotton / Calico bag	510 – 550	8	Sample collected at every 5 m interval
Cotton / Calico bag	550 – 590	8	Sample collected at every 5 m interval
Cotton / Calico bag	590 – 630	8	Sample collected at every 5 m interval
Cotton / Calico bag	630 – 670	8	Sample collected at every 5 m interval
Cotton / Calico bag	670 – 710	8	Sample collected at every 5 m interval
Cotton / Calico bag	710 – 740	8	Sample collected at every 5 m interval
Cotton / Calico bag	740 – 790	8	Sample collected at every 5 m interval
Cotton / Calico bag	790 – 830	8	Sample collected at every 5 m interval
Cotton / Calico bag	830 – 870	8	Sample collected at every 5 m interval
Cotton / Calico bag	870 – 910	8	Sample collected at every 5 m interval
Cotton / Calico bag	910 – 950	8	Sample collected at every 5 m interval
Cotton / Calico bag	950 – 970 1200 - 1220	8	Sample collected at every 5 m interval
Cotton / Calico bag	1220 – 1250 1265 – 1270 1270 - 1272	6 1 1	Sample collected at every 5 m interval
Cotton / Calico bag	1359 - 1385	5	Sample collected at every 5 m interval

Washed and Dried Cuttings Set C (for Pangaea Records)			
Sample Bag	**Depth mRT**	**No of Sample**	**Remarks**
Samplex Tray	110 – 130.0	5	5m interval
Samplex Tray	130.0 – 155.3	5	5m interval
Samplex Tray	155.0 – 180.5	5	5m interval
Samplex Tray	180.0 – 205.0	5	5m interval
Samplex Tray	205.0 – 230.0	5	5m interval
Samplex Tray	230.0 – 255.0	5	5m interval
Samplex Tray	255.0 – 280.0	5	5m interval
Samplex Tray	280.0 – 305.0	5	5m interval
Samplex Tray	305.0 – 330.0	5	5m interval
Samplex Tray	330.0 – 355.0	5	5m interval
Samplex Tray	355.0 – 380.0	5	5m interval
Samplex Tray	380.0 – 405.0	5	5m interval
Samplex Tray	405.0 – 430.0	5	5m interval

Samplex Tray	430.0 – 455.0	5	5m interval
Samplex Tray	455.0 – 480.0	5	5m interval
Samplex Tray	480.0 – 505.0	5	5m interval
Samplex Tray	505.0 – 530.0	5	5m interval
Samplex Tray	530.0 – 555.0	5	5m interval
Samplex Tray	555.0 – 580.0	5	5m interval
Samplex Tray	580.0 – 605.0	5	5m interval
Samplex Tray	605.0 – 630.0	5	5m interval
Samplex Tray	630.0 – 655.0	5	5m interval
Samplex Tray	655.0 – 680.0	5	5m interval
Samplex Tray	680.0 – 705.0	5	5m interval
Samplex Tray	705.0 – 730.0	5	5m interval
Samplex Tray	730.0 – 755.0	5	5m interval
Samplex Tray	755.0 – 780.0	5	5m interval
Samplex Tray	780.0 – 805.0	5	5m interval
Samplex Tray	805.0 – 830.0	5	5m interval
Samplex Tray	830.0 – 855.0	5	5m interval
Samplex Tray	855.0 – 880.0	5	5m interval
Samplex Tray	880.0 – 905.0	5	5m interval
Samplex Tray	905.0 – 930.0	5	5m interval
Samplex Tray	930.0 – 955.0	5	5m interval
Samplex Tray	955.0 – 980.0	5	5m interval
Samplex Tray	980.0 – 1005.0	5	5m interval
Samplex Tray	1005.0 – 1030.0	5	5m interval
Samplex Tray	1030.0 – 1055.0	5	5m interval
Samplex Tray	1055.0 – 1080.0	5	5m interval
Samplex Tray	1080.0 – 1105.0	5	5m interval
Samplex Tray	1105.0 – 1030.0	5	5m interval
Samplex Tray	1030.0 – 1055.0	5	5m interval
Samplex Tray	1055.0 – 1080.0	5	5m interval
Samplex Tray	1080.0 – 1105.0	5	5m interval
Samplex Tray	1105.0 – 1030.0	5	5m interval
Samplex Tray	1030.0 – 1055.0	5	5m interval
Samplex Tray	1055.0 – 1080.0	5	5m interval
Samplex Tray	1080.0 – 1105.0	5	5m interval
Samplex Tray	1105.0 – 1130.0	5	5m interval
Samplex Tray	1130.0 – 1155.0	5	5m interval
Samplex Tray	1155.0 – 1180.0	5	5m interval
Samplex Tray	1180.0 – 1205.0	5	5m interval
Samplex Tray	1205.0 – 1230.0	5	5m interval
Samplex Tray	1230.0 – 1255.0	5	5m interval
Samplex Tray	1255.0 – 1280.0	5	5m interval
Samplex Tray	1267.0 – 1270.0	5	1m interval
Samplex Tray	1280.0 – 1305.0	5	5m interval
Samplex Tray	1305.0 – 1330.0	5	5m interval
Samplex Tray	1330.0 – 1355.0	5	5m interval
Samplex Tray	1355.0 – 1380.0	5	5m interval
Samplex Tray	1380.0 – 1385.0	1	5m interval

DESORPTION SAMPLE DETAILS

Wyworrie-1 Desorption Samples				
Core Run	**Sample Number**	**Depth From (mRT)**	**Depth To (mRT)**	**Sample Length (m)**
2	DS #1	1009.80	1010.10	0.30
2	DS #2	1051.05	1051.35	0.30
3	DS #3	1075.30	1075.60	0.30
3	DS #4	1099.00	1099.30	0.30
4	DS #5	1149.80	1150.10	0.30
4	DS #6	1165.82	1166.12	0.30

5	DS #7	1183.80	1184.10	0.30
10	DS-#8	1273.80	1274.10	0.30
10	DS-#9	1283.80	1284.10	0.30
11	DS-#10	1302.30	1302.60	0.30
11	DS-#11	1320.30	1320.60	0.30
12	DS-#12	1332.30	1332.60	0.30

PRESERVED CORE SAMPLES

Wyworrie-1 Preserved Core Samples			
Sample	**Top depth (m)**	**Bottom Depth (m)**	**Length (m)**
PS #2	1010.10	1010.50	0.40
PS #3	1050.75	1051.05	0.30
PS #4	1051.35	1051.75	0.40
PS #5	1075.00	1075.30	0.30
PS #6	1075.60	1076.00	0.40
PS #7	1099.30	1099.70	0.40
PS #8	1099.70	1100.00	0.30
PS #9	1149.50	1149.80	0.30
PS #10	1150.10	1150.50	0.40
PS #11	1165.50	1165.82	0.32
PS #12	1166.12	1166.50	0.38
PS #13	1183.50	1183.80	0.30
PS #14	1184.10	1184.50	0.40
PS #15	1273.50	1273.80	0.30
PS #16	1274.10	1274.50	0.40
PS #17	1283.50	1283.80	0.30
PS #18	1284.10	1284.50	0.40
PS #19	1302.00	1302.30	0.30
PS #20	1302.60	1303.00	0.40
PS #21	1320.00	1320.30	0.30
PS #22	1320.60	1321.00	0.40
PS #23	1332.00	1332.30	0.30
PS #24	1332.60	1333.00	0.40
PS #2	1010.10	1010.50	0.40
PS #3	1050.75	1051.05	0.30
PS #4	1051.35	1051.75	0.40
PS #5	1075.00	1075.30	0.30
PS #6	1075.60	1076.00	0.40
PS #7	1099.30	1099.70	0.40
PS #8	1099.70	1100.00	0.30
PS #9	1149.50	1149.80	0.30
PS #10	1150.10	1150.50	0.40
PS #11	1165.50	1165.82	0.32
PS #12	1166.12	1166.50	0.38
PS #13	1183.50	1183.80	0.30
PS #14	1184.10	1184.50	0.40
PS #15	1273.50	1273.80	0.30
PS #16	1274.10	1274.50	0.40
PS #17	1283.50	1283.80	0.30
PS #18	1284.10	1284.50	0.40
PS #19	1302.00	1302.30	0.30
PS #20	1302.60	1303.00	0.40
PS #21	1320.00	1320.30	0.30
PS #22	1320.60	1321.00	0.40
PS #23	1332.00	1332.30	0.30
PS #24	1332.60	1333.00	0.40

ISOTUBE SAMPLE DETAILS

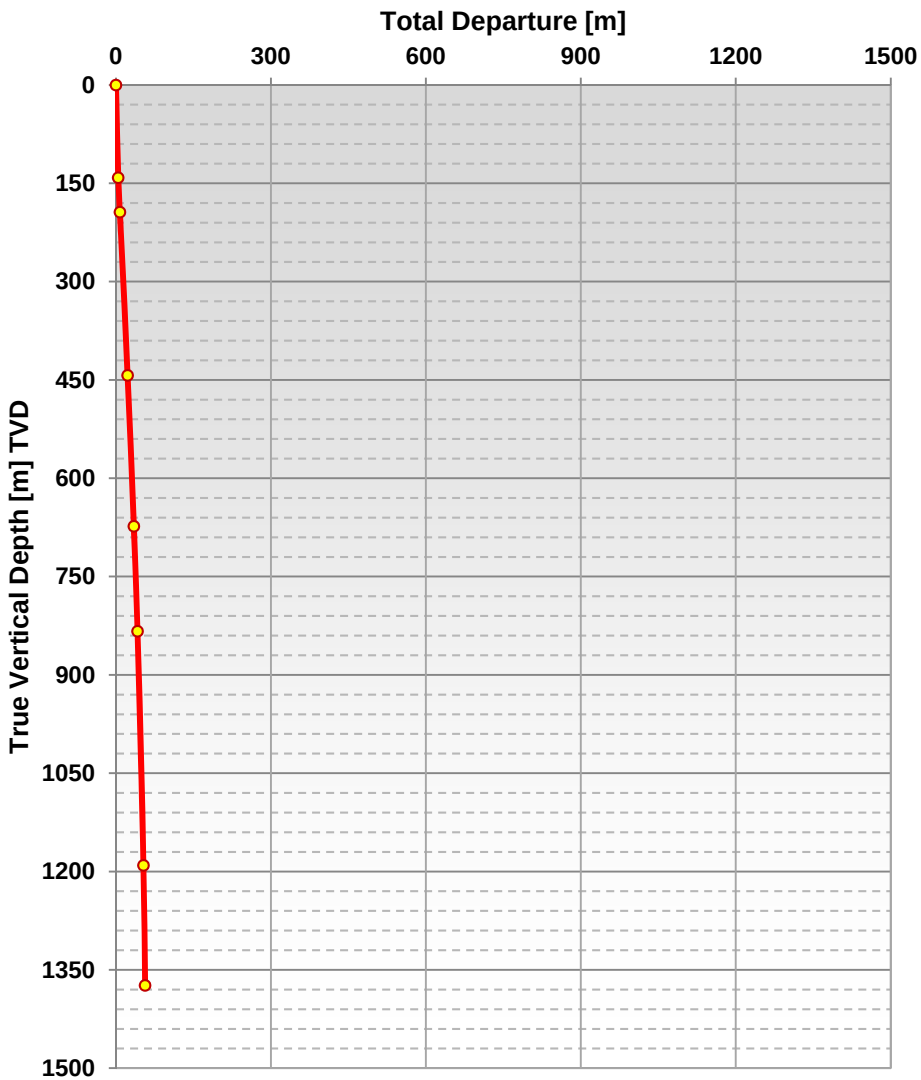
Wyworrie-1 Isotube Samples			
Sample Number	**Depth (mMDRT)**	**Total Gas Unit**	**Date & Time**
1	407	149.00	28th July 2015 & 20:25
2	496	404.00	29th July 2015 & 17:20
3	521	78.30	1st August 2015 & 07:10
4	538	164.00	1st August 2015 & 20:15
5	544	259.00	1st August 2015 & 07:10
6	558	477.00	1st August 2015 & 22:15
7	565	467.00	1st August 2015 & 22:35
8	602	300.00	2nd August 2015 & 01:28
9	627	426.00	2nd August 2015 & 03:00
10	762	207.00	03rd August 2015 & 23:30
11	957	232.00	04th August 20015 & 18 : 40
12	967	241.00	04th August 2015 & 19 : 44
13	989	217.00	05th August 2015 & 17 : 27
14	1050	176.00	06th August 2015 & 14 : 53
15	1070	178.00	7th August 2015 & 10 : 50
16	1075.5	230.00	7th August 2015 & 11 : 24
17	1092	327.00	7th August 2015 & 13 : 08
18	1100	715.00	7th August 2015 & 13 : 40
19	1153.5 A	172.00	8th August 2015 & 20 : 24
20	1153.5 B	172.00	8th August 2015 & 20 : 24
21	1166 A	476.00	8th August 2015 & 22 : 32
22	1166 B	476.00	8th August 2015 & 22 : 32
23	1190.5 A	15.00	9th August 2015 & 20 : 43
24	1190.5 B	15.00	9th August 2015 & 20 : 43
25	1272 A	277	16th August 2015 & 16 : 30
26	1272 B	277	16th August 2015 & 16 : 30
27	1295	136	21th August 2015 & 04 : 23
28	1320	160	21th August 2015 & 07 : 25
29	1345	9	22nd August 2015 & 05:05
30	1370	11	23rd August 2015 & 03:40

APPENDIX 2. DEVIATION SURVEY

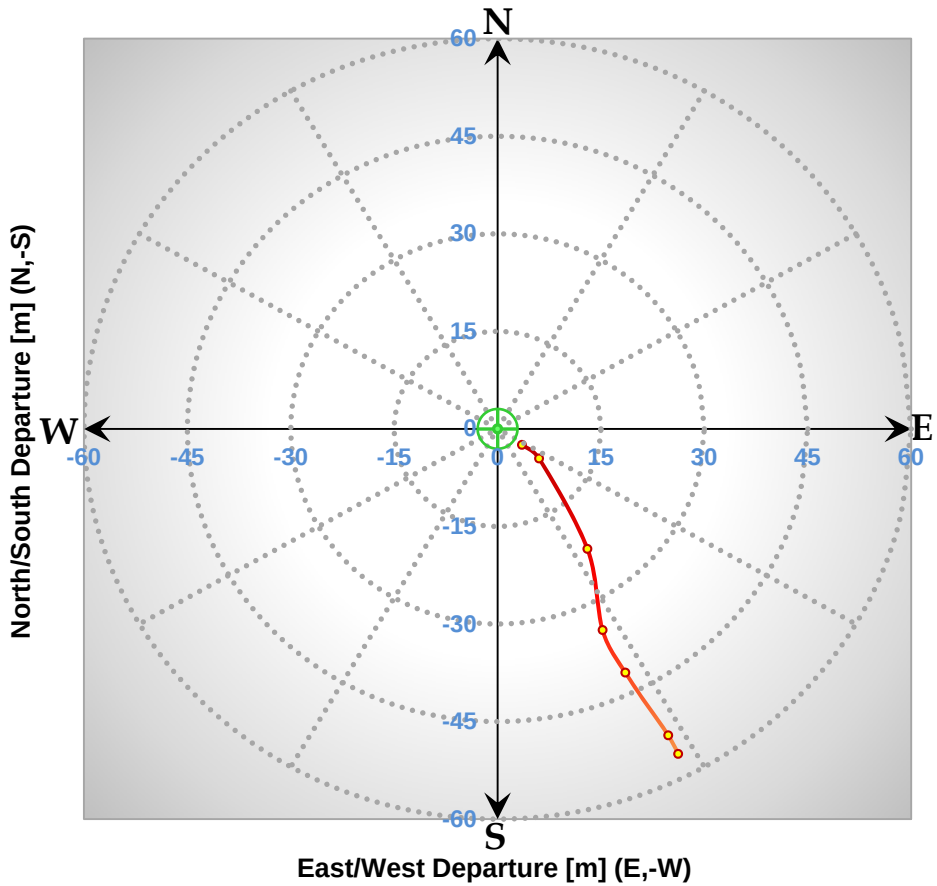
Wyworrie-1 Deviation Surveys (Projection - Minimum Curvature Method)													
Survey Data				Vertical Depth Calculations			Departure Calculations						
Measured Depth	Inclination	Azimuth	Direction	Course M. Length	Course V. Depth	True Vertical Depth	Course Coordinates		Total Coordinates		Total Departure	Departure Azimuth	Departure Direction
[m] MD	[deg]	[deg]		[m]	[m]	[m] TVD	[m] (N,-S)	[m] (E,-W)	[m] (N,-S)	[m] (E,-W)	[m]	[deg]	
0.0	0.0	0.0	0	0.0	0.0	0.0	0	0	0	0	0	0.0	0
141.3	3.5	125.0	S55E	141.3	141.2	141.2	-2.5	3.5	-2.5	3.5	4.3	125.0	S55E
194.0	3.6	135.0	S45E	52.7	52.6	193.8	-2.1	2.5	-4.6	6.0	7.6	127.2	S53E
443.6	3.9	170.0	S10E	249.6	249.1	442.9	-13.9	7.0	-18.5	13.0	22.6	144.8	S35E
674.1	2.4	170.0	S10E	230.5	230.1	673.0	-12.5	2.2	-30.9	15.2	34.5	153.8	S26E
834.6	3.0	140.0	S40E	160.5	160.4	833.4	-6.5	3.3	-37.5	18.5	41.8	153.7	S26E
1192.0	0.8	175.0	S5E	357.4	357.2	1190.6	-9.7	6.2	-47.1	24.8	53.2	152.3	S28E
1375.0	1.3	140.0	S40E	183.0	183.0	1373.5	-2.9	1.4	-50.0	26.2	56.4	152.3	S28E

Data obtained from the single shot deviation surveys is shown on the table, also a Wireline Logging Deviation Survey using the Borehole Navigator Tool was performed. Data can be found in **Enclosure 1**.

Well Deviation



Well Departure



APPENDIX 3. BIT RECORD

WYWORRIE-1 BIT RECORD									
Bit Number	Size (in)	Make	Type	IADC Code or Spec	Serial Number	Nozzles	Depth In (m)	Depth Out (m)	Total Meters
1	12-1/4	Smith	Tri-cone TCI	617X	PY5053	3 x 18/32”, 1 x 14/32”	108.6	500.0	391.4
2	8-1/2	Smith	MSi813	M433	JH2005	8 x 12/32”	500.0	970.0	470.0
3	8-1/2	Corpro	MCP572	S233	UD224001	7 x 18/32”, 1 x 4/32”	970.0	1171.1	201.1
4	8-1/2	Corpro	MCP572	S233	UD294001	7 x 18/32”, 1 x 4/32”	1171.1	1191.2	20.1
5	8-1/2	Corpro	MCP580	M343	6013224	8 x 17/32”, 1 x 14/32”	1191.2	1202.3	11.1
6	8-1/2	Smith	GF45YOD1	627	RA7292	3 x 18/32”	1202.3	1252.0	49.7
7	8-1/2	Corpro	MCI 692	M343	SOF 2675	4 x 25/32”	1252.0	1262.4	10.4
8	8-1/2	Corpro	MCI 685	M343	6013106	4 x 19/32”	1262.4	1267.0	4.6
9 (RR)	8-1/2	Smith	GF45Y0D	627	RA7292	3 x 18/32”	1267.0	1272.0	5.0
10	8-1/2	Corpro	MCP572	S233	UD109001	3 x 27/32”, 1 x 10/32”	1272.0	1272.0	0.0
11 (RR)	8-1/2	Corpro	MCP572	S233	UD294001	3 x 26/32”, 1 x 16/32”	1272.0	1359.0	87.0
12 (RR)	8-1/2	MSi813	Diamond	M433	JH2005	8 x 12/32”	1359.0	1385.0	26.0

APPENDIX 4. FLUID RECORD

MD/TVD	FL Temp	Density	Funn Visc	Rheology 50 °C					Filtration					Filtrate Analysis						MBT	Sand	Retort Analysis				Rheometer Dial Readings					
				PV	lbfs^n/100ft2				API	HTHP	Cake API	Cake HTHP	Temp	pH	Pm	Pf	Mf	Cl	Total Hardness			% by vol				600	300	200	100	6	3
m	°C	ppg	sec/qt	cp	YP	10S	10M	30M	mL/30min	mL/30min	32nd in		°C		mL	mL	mL	mg/l	mg/l	ppb eq.	% by vol	Corr Solid	LGS	NAP Base	Water						
0/0		8.50	31	1	2	1	1		25.0		1			10	0.35	0.30	0.70	14,500	40	1.25	0.10	0.0	0.0		98.7	4.0	3.0	2.0	2.0	1.0	1.0
110.00/110.00	33	8.45	31	2	1	1	1	1	12.5		1			10	0.55	0.12	0.45	10,000	80	1.25	0.10	0.0	0.0	0.0	99.0	5.0	3.0	2.0	2.0	1.0	1.0
129.00/129.00	38	8.50	32	2	2	1	1	1	13.2		1			10	0.48	0.17	0.48	12,000	80	5.00	0.15	0.2	0.2		98.7	6.0	4.0	3.0	2.0	1.0	1.0
165.00/165.00	51	8.50	32	4	4	1	2	2	11.6		1			9.5	0.45	0.10	0.40	13,000	200	6.25	0.25	0.2	0.2		98.7	12.0	8.0	7.0	5.0	2.0	1.0
276.00/276.00	59	8.55	34	5	10	2	3	3	10.8		1			8.5	0.17	0.05	0.45	13,000	360	8.75	0.25	0.5	0.5		98.3	20.0	15.0	12.0	9.0	3.0	2.0
342.00/342.00	59	8.75	34	6	10	2	3	3	10.6		1			8.5	0.25	0.05	0.55	14,000	240	10.00	0.25	2.0	2.0		96.8	22.0	16.0	13.0	10.0	3.0	2.0
380.00/380.00	64	8.80	34	5	10	2	3	3	11.6		1			8.5	0.30	0.05	0.53	14,000	200	13.75	0.20	2.4	2.4		96.4	20.0	15.0	12.0	9.0	2.0	1.0
460.00/460.00	66	8.75	33	6	8	2	2	3	11.8		1			9	0.41	0.10	0.50	14,000	120	13.75	0.10	2.0	2.0		96.8	20.0	14.0	11.0	8.0	2.0	1.0
473.00/473.00	69	8.80	34	6	8	1	3	4	13.0		1			9	0.35	0.05	0.50	16,000	80	13.75	0.10	2.2	2.2		96.4	20.0	14.0	12.0	8.0	2.0	1.0
490.00/490.00	71	8.80	34	7	9	2	4	5	14.0		1			9	0.60	0.05	0.60	16,000	120	15.00	0.10	2.2	2.2		96.4	23.0	16.0	13.0	9.0	2.0	1.0
500.00/500.00	32	8.90	39	7	8	2	4	5	14.0		1			9.5	0.55	0.15	0.60	17,000	40	15.00	0.10	2.9	2.9		95.7	22.0	15.0	13.0	9.0	2.0	1.0
500.00/500.00	42	8.80	38	7	9	2	4	5	12.8		1			9.5	0.45	0.08	0.60	16,000	40	15.00	0.10	2.2	2.2		96.4	23.0	16.0	14.0	10.0	2.0	1.0
500.00/500.00		8.90	41	7	12	2	3	4	8.0		1			9	0.10	0.10	0.90	19,000	80	15.00	0.10	2.7	2.7		95.7	26.0	19.0	14.0	10.0	2.0	1.0
500.00/500.00		8.50	49	6	3	2	2	2	15.0		1			8.5	0.10	0.05	1.00	14,000	80	2.50	0.10	0.1	0.1	0.0	98.7	15.0	9.0	6.0	4.0	2.0	1.0
500.00/500.00		8.85	39	7	10	2	2	3	8.0		1			9	0.10	0.08	0.70	19,000	100	15.00	0.10	2.3	2.3		96.1	24.0	17.0	13.0	9.0	2.0	1.0
506.00/506.00	43	8.80	37	7	8	2	2	2	10.8		1			10	0.60	0.15	1.20	18,000	440	15.00	0.10	2.0	2.0		96.4	22.0	15.0	12.0	8.0	2.0	1.0
665.00/665.00	57	8.95	35	7	7	2	3	3	9.8		1			9.5	0.35	0.10	1.20	18,000	400	16.25	0.10	3.2	3.2		95.3	21.0	14.0	11.0	7.0	2.0	1.0
712.00/712.00	60	9.00	37	8	7	2	3	3	11.0		1			9.5	0.30	0.12	1.20	19,000	320	17.50	0.10	3.5	3.5		94.9	23.0	15.0	12.0	7.0	2.0	1.0
730.06/730.06	61	9.05	36	8	8	2	3	4	10.8		1			9.5	0.25	0.13	1.00	19,000	320	17.50	0.10	3.9	3.9		94.6	24.0	16.0	12.0	8.0	2.0	1.0
730.06/730.06		9.00	37	7	7	2	3	4	10.8		1			9	0.15	0.13	1.25	19,000	400	17.50	0.10	3.5	3.5		94.9	21.0	14.0	10.0	7.0	2.0	1.0
730.06/730.06	37	8.95	39	8	8	2	4	6	11.6		1			9	0.10	0.08	1.30	19,000	360	17.50	0.10	3.1	3.1		95.3	24.0	16.0	12.0	8.0	2.0	1.0
858.00/858.00	57	9.05	35	8	5	2	2	2	9.4		1			9	0.15	0.10	1.00	19,000	360	17.50	0.10	3.9	3.9		94.6	21.0	13.0	9.0	5.0	2.0	1.0
904.00/904.00	57	9.00	35	7	5	1	2	2	9.2		1			9	0.15	0.10	1.00	19,000	320	18.75	0.10	3.5	3.5		94.9	19.0	12.0	9.0	5.0	2.0	1.0
945.00/945.00	60	8.95	36	9	5	1	2	2	8.0		1			9	0.25	0.10	0.90	20,000	240	18.75	0.10	3.0	3.0		95.3	23.0	14.0	11.0	6.0	2.0	1.0

MD/TVD	FL Temp	Density	Funn Visc	Rheology °C					Filtration					Filtrate Analysis						MBT	Sand	Retort Analysis				Rheometer Dial Readings					
				PV	lbfs^n/100ft2				API	HTHP	Cake API	Cake HTHP	Temp	pH	Pm	Pf	Mf	Cl	Total Hardness			% by vol				600	300	200	100	6	3
m	°C	ppg	sec/qt	cp	YP	10S	10M	30M	mL/30min	mL/30min	32nd in		°C		mL	mL	mL	mg/l	mg/l	ppb eq.	% by vol	Corr Solid	LGS	NAP Base	Water						
970.00/970.00		9.05	42	11	7	1	2	3	6.4		1			9	0.30	0.10	0.90	21,000	200	18.75	0.10	3.7	3.6		94.6	29.0	18.0	14.0	8.0	2.0	1.0
971.50/971.50	40	8.95	38	9	5	1	2	3	7.0		1			9	0.30	0.08	0.85	22,000	200	18.75	0.10	2.8	2.8	0.0	95.4	23.0	14.0	10.0	6.0	2.0	1.0
002.53/1,002.53		8.95	42	9	4	1	2	3	6.6		1			9	0.25	0.10	0.65	21,000	240	18.75	0.10	2.9	2.9		95.4	22.0	13.0	9.0	5.0	2.0	1.0
010.00/1,010.00	38	8.90	40	8	3	1	2	3	7.0		1			9	0.25	0.08	0.65	20,000	280	17.50	0.10	2.6	2.6	0.0	95.7	19.0	11.0	8.0	5.0	2.0	1.0
042.75/1,035.00	40	8.90	40	10	4	1	2	3	6.4		1			9	0.25	0.08	0.70	20,000	280	17.50	0.10	2.6	2.6	0.0	95.7	24.0	14.0	10.0	6.0	2.0	1.0
056.92/1,056.92		8.95	42	8	6	1	2	3	6.8		1			9	0.20	0.08	0.60	20,000	320	17.50	0.10	3.0	2.9		95.4	22.0	14.0	10.0	6.0	2.0	1.0
077.00/1,077.00	40	8.95	40	9	4	1	2	3	7.0		1			9	0.20	0.10	0.75	20,000	280	18.75	0.10	3.0	2.9	0.0	95.4	22.0	13.0	9.0	5.0	2.0	1.0
116.92/1,116.92	40	8.90	40	9	4	1	2	3	6.8		1			9	0.20	0.10	0.80	20,000	240	18.75	0.10	2.6	2.6	0.0	95.7	22.0	13.0	9.0	6.0	2.0	1.0
116.92/1,116.92		9.00	42	9	4	1	2	3	6.2		1			9	0.20	0.08	0.60	21,000	280	18.75	0.10	3.3	3.3		95.0	22.0	13.0	9.0	5.0	2.0	1.0
124.00/1,124.00	38	8.95	40	9	4	1	2	3	6.4		1			9	0.20	0.08	0.60	20,000	320	18.75	0.10	3.0	2.9	0.0	95.4	22.0	13.0	9.0	5.0	2.0	1.0
171.12/1,171.12		9.00	43	9	4	1	2	2	5.6		1			9	0.20	0.08	0.65	21,000	320	18.75	0.10	3.3	3.3		95.0	22.0	13.0	9.0	5.0	2.0	1.0
171.12/1,171.12	35	8.95	42	9	3	1	2	2	6.4		1			9	0.20	0.08	0.70	21,000	320	18.75	0.10	2.9	2.9	0.0	95.4	21.0	12.0	9.0	4.0	2.0	1.0
191.18/1,191.18		8.90	43	6	3	1	2	2	6.6		1			9	0.20	0.05	0.70	21,000	320	16.25	0.10	2.5	2.5		95.7	15.0	9.0	6.0	4.0	2.0	1.0
201.00/1,201.00	38	8.90	41	6	3	1	2	2	7.0		1			9	0.20	0.08	0.70	21,000	320	15.00	0.10	2.5	2.5	0.0	95.7	15.0	9.0	6.0	4.0	2.0	1.0
202.32/1,202.32		8.85	38	5	3	1	2	2	7.0		1			9	0.15	0.05	0.75	20,000	320	15.00	0.10	2.2	2.2		96.1	13.0	8.0	6.0	4.0	2.0	1.0
207.00/1,207.00	42	8.85	35	5	4	1	2	3	7.0		1			9	0.15	0.05	0.70	20,000	360	15.00	0.10	2.2	2.2	0.0	96.1	14.0	9.0	7.0	5.0	2.0	1.0
219.00/1,219.00	48	8.85	37	5	5	1	2	3	7.2		1			9	0.20	0.10	0.75	20,000	320	13.75	0.10	2.2	2.2	0.0	96.1	15.0	10.0	8.0	5.0	2.0	1.0
252.00/1,252.00		8.95	37	8	6	2	3	4	7.4		1			9	0.20	0.08	0.80	21,000	360	13.75	0.10	2.9	2.9	0.0	95.4	22.0	14.0	11.0	7.0	2.0	1.0
252.00/1,252.00		8.95	37	7	6	2	3	4	7.4		1			9	0.20	0.08	0.80	21,000	360	13.75	0.10	2.9	2.9	0.0	95.4	20.0	13.0	10.0	7.0	2.0	1.0
255.00/1,255.00		8.90	39	7	7	2	3	5	5.0		1			9	0.20	0.05	0.80	20,000	280	13.75	0.10	2.6	2.6	0.0	95.7	21.0	14.0	11.0	7.0	2.0	1.0
261.30/1,261.30		8.95	38	8	6	2	3	5	5.0		1			9	0.20	0.08	0.80	21,000	280	13.75	0.10	2.9	2.9	0.0	95.4	22.0	14.0	11.0	7.0	2.0	1.0
262.38/1,262.38		8.95	38	8	6	2	3	5	5.0		1			9	0.20	0.08	0.80	21,000	280	13.75	0.10	2.9	2.9	0.0	95.4	22.0	14.0	11.0	7.0	2.0	1.0
262.38/1,262.38		8.90	40	8	6	2	3	5	5.0		1			9	0.20	0.08	0.80	21,000	280	13.75	0.10	2.5	2.5	0.0	95.7	22.0	14.0	11.0	7.0	2.0	1.0
262.38/1,262.38	38	8.90	38	5	6	2	3	4	6.4		1			8.5	0.10	0.05	0.70	20,000	320	13.75	0.10	2.6	2.6	0.0	95.7	16.0	11.0	8.0	5.0	2.0	1.0

MD/TVD	FL Temp	Density	Funn Visc	Rheology °C					Filtration					Filtrate Analysis						MBT	Sand	Retort Analysis				Rheometer Dial Readings					
				PV	lbfs^n/100ft2				API	HTHP	Cake API	Cake HTHP	Temp	pH	Pm	Pf	Mf	Cl	Total Hardness			% by vol				600	300	200	100	6	3
m	°C	ppg	sec/qt	cp	YP	10S	10M	30M	mL/30min	mL/30min	32nd In		°C		mL	mL	mL	mg/l	mg/l	ppb eq.	% by vol	Corr Solid	LGS	NAP Base	Water						
263.69/1,263.69	39	8.90	39	6	5	2	3	5	6.8		1			9	0.20	0.08	0.90	20,000	320	13.75	0.10	2.6	2.6	0.0	95.7	17.0	11.0	8.0	5.0	2.0	1.0
266.10/1,266.10	40	8.90	37	5	6	2	3	4	7.0		1			9	0.20	0.10	1.00	20,000	320	13.75	0.10	2.6	2.6	0.0	95.7	16.0	11.0	8.0	5.0	2.0	1.0
266.97/1,266.97		8.85	38	7	6	2	3	4	7.0		1			9	0.20	0.08	0.90	20,000	320	13.75	0.10	2.2	2.2	0.0	96.1	20.0	13.0	10.0	7.0	2.0	1.0
268.42/1,268.42	42	8.85	37	6	7	2	3	4	6.8		1			9	0.20	0.08	0.85	20,000	320	13.75	0.10	2.2	2.2	0.0	96.1	19.0	13.0	10.0	7.0	2.0	1.0
272.00/1,272.00		8.85	40	6	10	2	4	5	7.0		1			9	0.15	0.05	0.90	19,000	320	13.75	0.10	2.3	2.2	0.0	96.1	22.0	16.0	13.0	9.0	3.0	2.0
272.00/1,272.00		8.85	39	6	10	2	4	5	7.2		1			9	0.15	0.05	0.85	19,000	320	13.75	0.10	2.3	2.2	0.0	96.1	22.0	16.0	13.0	9.0	3.0	2.0
272.00/1,272.00		8.85	40	6	10	2	4	5	7.4		1			9	0.15	0.05	0.85	19,000	320	13.75	0.10	2.3	2.2	0.0	96.1	22.0	16.0	13.0	9.0	3.0	2.0
272.00/1,272.00		8.85	40	6	10	2	4	5	7.4		1			9	0.15	0.05	0.85	19,000	320	13.75	0.10	2.3	2.2	0.0	96.1	22.0	16.0	13.0	9.0	3.0	2.0
272.00/1,272.00		8.85	40	6	7	2	3	4	8.0		1			8.5	0.10	0.05	0.90	20,000	320	13.75	0.10	2.2	2.2	0.0	96.1	19.0	13.0	10.0	7.0	2.0	1.0
272.00/1,272.00		8.85	40	6	7	2	3	4	8.0		1			8.5	0.10	0.05	0.95	20,000	320	13.75	0.10	2.2	2.2	0.0	96.1	19.0	13.0	10.0	7.0	2.0	1.0
284.90/1,284.90	42	8.80	36	5	5	2	3	3	7.4		1			9	0.10	0.05	0.80	19,000	360	13.75	0.10	1.9	1.9	0.0	96.5	15.0	10.0	8.0	5.0	2.0	1.0
286.93/1,286.93		8.80	37	5	5	2	3	4	7.2		1			9	0.10	0.05	0.80	18,000	320	13.75	0.10	2.0	2.0	0.0	96.5	15.0	10.0	8.0	5.0	2.0	1.0
311.49/1,311.49	41	8.90	36	3	6	2	3	4	8.0		1			8.5	0.10	0.05	0.90	19,000	360	13.75	0.10	2.7	2.7	0.0	95.7	12.0	9.0	7.0	5.0	2.0	1.0
322.96/1,322.96		8.90	37	5	5	2	3	4	7.4		1			8.5	0.10	0.05	0.90	19,000	360	13.75	0.10	2.7	2.7	0.0	95.7	15.0	10.0	7.0	5.0	2.0	1.0
354.05/1,354.05	42	8.85	37	5	6	2	3	4	7.6		1			9.5	0.20	0.15	1.20	19,000	240	12.50	0.10	2.3	2.2	0.0	96.1	16.0	11.0	8.0	5.0	2.0	1.0
359.00/1,359.00		8.90	37	5	5	2	3	4	7.4		1			9.5	0.20	0.15	1.10	19,000	200	12.50	0.10	2.7	2.7	0.0	95.7	15.0	10.0	7.0	5.0	2.0	1.0
385.00/1,385.00		8.85	37	7	6	2	3	4	8.0		1			9.5	0.20	0.15	1.50	23,000	240	12.50	0.10	2.0	2.0	0.0	96.1	20.0	13.0	10.0	7.0	2.0	1.0
385.00/1,385.00		8.85	37	7	6	2	3	4	8.0		1			9.5	0.20	0.15	1.50	23,000	240	12.50	0.10	2.0	2.0	0.0	96.1	20.0	13.0	10.0	7.0	2.0	1.0
385.00/1,385.00		8.85	38	7	6	2	3	4	8.0		1			9.5	0.15	0.10	1.40	23,000	240	12.50	0.10	2.0	2.0	0.0	96.1	20.0	13.0	10.0	7.0	2.0	1.0
385.00/1,385.00		8.85	38	7	6	2	3	4	8.0		1			9.5	0.15	0.10	1.40	23,000	240	12.50	0.10	2.0	2.0	0.0	96.1	20.0	13.0	10.0	7.0	2.0	1.0
385.00/1,385.00		8.85	38	7	5	2	3	4	8.0		1			9	0.15	0.10	1.30	23,000	240	12.50	0.10	2.0	2.0	0.0	96.1	19.0	12.0	9.0	6.0	2.0	1.0
385.00/1,385.00		8.85	38	7	5	2	3	4	8.0		1			9	0.15	0.10	1.30	23,000	240	12.50	0.10	2.0	2.0	0.0	96.1	19.0	12.0	9.0	6.0	2.0	1.0
385.00/1,385.00		9.00	37	5	5	2	3	3	9.0		1			9	0.15	0.10	1.00	27,000	200	12.50	0.10	2.8	2.8	0.0	95.0	15.0	10.0	7.0	5.0	2.0	1.0
385.00/1,385.00		9.00	37	5	5	2	3	3	9.0		1			9	0.15	0.10	0.90	28,000	200	12.50	0.10	2.7	2.7	0.0	95.0	15.0	10.0	7.0	4.0	2.0	1.0