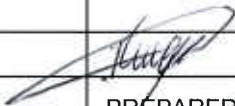





**WELL PROPOSAL**

**Poppy #7**

**ATP 648P**

0	23/03/09	Issued For Approval				
REV	DATE	DESCRIPTION	PREPARED	CHECKED DRILLING	CHECKED GEOLOGY	APPROVED
<b>QGC Pty. Ltd.</b> GPO Box 3107 Brisbane QLD 4001 Tel: +61 (0)7 3024 9000 Fax: +61 (0)7 3024 8999 ABN 11 089 642 553			Document No		Rev.	
			ETS-WPR-PPY-007-01		0	

## Table of Contents

<b>1 GENERAL WELL DATA</b> .....	<b>1</b>
1.1 Well Location Data .....	2
1.2 Stratigraphic Prognosis .....	3
<b>2 WELL PLAN</b> .....	<b>3</b>
2.1 Drilling Contractor.....	3
2.2 Cementing Contractor .....	3
2.3 Geological Contractor.....	3
2.4 Wire Line Logging Contractor .....	3
<b>3 GEOLOGY</b> .....	<b>4</b>
3.1 Springbok Sandstone .....	4
3.2 Walloon Subgroup .....	4
3.2.1 Juandah Coal Measures .....	4
<i>Kogan Seam</i> .....	5
3.2.2 Tangalooma Sandstone.....	5
3.2.3 Taroom Coal Measures .....	5
3.2.4 Durabilla Formation .....	6
<b>4 DRILLING PROGRAM</b> .....	<b>7</b>
4.1 Drilling .....	7
4.1.1 Additional Rig and Contractor Requirements .....	8
4.1.2 QGC Requirements.....	9
4.2 QGC Requirements for Drilling Mud.....	9
4.3 Testing Program .....	9
4.3.1 Drill Stem Tests (DSTs) .....	9
4.4 Casing Program.....	10
4.4.1 Surface Casing.....	10
4.4.2 Production Casing .....	10
4.4.3 Guide for landing and back off landing joint .....	11
4.5 Cementing Program .....	11
4.5.1 Surface Casing.....	11
4.5.2 Production Casing .....	12
4.6 Wireline Logging.....	13

4.6.1	Logging Suite .....	13
4.6.2	Field Paper Copies.....	13
4.6.3	Digital Data Supply.....	13
<b>5</b>	<b>CONTACT DETAILS .....</b>	<b>14</b>
5.1	QGC Pty. Ltd. ....	14
5.2	Field Contacts.....	14
5.3	Emergency Contacts .....	14
5.4	Queensland Department of Natural Resources and Mines .....	14
	<b>FIGURES .....</b>	<b>15</b>

## EXECUTIVE SUMMARY

Poppy #7 is a part of the Poppy field appraisal in ATP 648P

ATP 648P is in the southern area of QGCs land holdings, near the township of Tara.

The well will be drilled down to an estimated TD of 663 mMDKB (659 mMDGL), at which point two wireline logging runs will be performed by Weatherford:

- "Supercombo" (MAI-MSS-MPD-MDN-GR-CAL)
- GR-CMI.

**\*\* Note:** MDN, MND, GR and MSS tools to be run up to surface. Only the MAI and CMI to stop at SC shoe.

Up to four DSTs will then be run over selected intervals within the Juandah and Tarooms coal measures. Priority coals to have tests run on will be the Wambo and Iona/Argyle of the Juandah, the best coal seam in the Tarooms, with a contingent to run in the Tangalooma if there is sufficient coal development.

Significant coals within the WSG will then be reamed using the 16", Klondike, hydraulic reaming tool.

Pre-perforated liner will then be run with an ACP being set within a competent lithology at an operationally practical point below the casing shoe. This will most likely be immediately above the Macalister Upper coals: a definite point will be determined upon completion of wireline logs, but will likely be in the order of +/- 50 to 60 mMDKB.

GENERAL WELL DATA

1.1 Well Location Data

<b>WELL NAME:</b>	Poppy #7	<b>WELL TYPE:</b>	CSG Appraisal
<b>TITLE:</b>	ATP 852P		
<b>WELL DETAILS</b>			
<b>Proposed Total Depth (m GL):</b>	659 m		
<b>Proposed Plug Back Total Depth (m GL):</b>	N/A		
<b>Proposed Total Depth (m KB):</b>	663 m		
<b>Rig:</b>	Des Caling #4		
<b>CASING DETAILS (KB)</b>			
<b>Surface Conductor:</b>	14" (OD)	10 mMDKB	
<b>Surface Casing:</b>	9 5/8" (OD)	60 mMDKB	
<b>Production Casing:</b>	7" (OD)	660 mMDKB (Full Walloon Completion)	
<b>LOCATION</b>			
<b>Latitude:</b>	-27° 11' 11" S	<b>Longitude:</b>	150° 48' 41" E
<b>Latitude:</b>	-27.186432 S	<b>Longitude:</b>	150.811471 E
<b>Northing:</b>	699 1023 m N	<b>Easting:</b>	283 193 m E
<b>Ground Level (m GL):</b>	380 m	<b>Kelly Bushing (m KB):</b>	384 m
<b>Map Zone:</b>	55 (GDA-94)	<b>Map Sheet:</b> (1:100,000)	Kogan (9043)
<b>Operator:</b>	QGC Pty. Limited 275 George St, Brisbane	<b>Other Participants:</b>	Origin Energy CGS Ltd BG International Ltd
<b>Landholder:</b>	RG Adams & TL Adams-Munn "Kingswood" MS 490 Taroom, QLD, 4420		
<b>Nearest Towns:</b>	Kogan Tara	16.6km NNW 36.2km WSW	
<b>Nearest Pipeline:</b>	Roma to Brisbane Pipeline Condamine – Wambo Pipeline	12.8km N 5.2km N	

1.2 Stratigraphic Prognosis

<b>STRATIGRAPHY</b>				
<b>Formation</b>	<b>Depth</b>			
	<b>(m GL)</b>	<b>(m KB)</b>		
Westbourne Formation	120	124		
Springbok Sandstone	205	209		
Juandah Coal Measures	295	299		
Tangalooma Sandstone	467	471		
Taroom Coal Measures	508	512		
Durabilla Formation	624	628		
<b>TARGETS</b>				
<b>Seam</b>	<b>Depth</b>		<b>Interval Thickness</b>	<b>Net Pay</b>
	<b>(m GL)</b>	<b>(m RKB)</b>	<b>(m)</b>	<b>(m)</b>
Kogan	296	300	11	<0.5
Macalister Upper	315	319	16	11
Macalister Lower	343	347	5	2
Nangram	354	359	18	3
Wambo	380	384	9	1.5
Iona	398	402	10	3
Argyle	325	329	35	7.5
Auburn	508	512	11	1
Bulwer	545	549	25	2.5
Condamine	593	597	26	4

## 2 WELL PLAN

### 2.1 Drilling Contractor

Des Caling Pty Ltd  
PO Box 906  
Archerfield QLD 4108

### 2.2 Cementing Contractor

Halliburton Australia  
Mitchell Road  
Roma QLD 4455  
Tel: 07 4622 4588  
Fax: 07 4622 3674

### 2.3 Geological Contractor

QGC Pty. Ltd.  
275 George Street  
BRISBANE QLD 4000  
Tel: 07 3024 9000  
Fax: 07 3024 8999

### 2.4 Wire Line Logging Contractor

Precision Energy Services  
(Australia)  
Unit 11, 27-29 South Pine Road  
Strathpine  
PO Box 5465, Brendale  
BRISBANE QLD 4500  
Tel: 07 3482 9900  
Fax: 07 3881 0005

### 3 GEOLOGY

Poppy #7 is proposed as part of the Charlie coal appraisal project. Geological control for the drilling of the Cameron appraisal is based on previous CSG exploration and appraisal wells. Combined with the geological and geophysical appraisal of the regional geology, based on other QGC coal seam gas appraisal drilling, and analysis of widely spaced petroleum wells, coal appraisal boreholes, and the re-interpretation of available petroleum appraisal 2D seismic reflection lines in the region.

The wells will intersect the Late Jurassic Springbok Sandstone and the Middle Jurassic Walloon Subgroup.

#### 3.1 Springbok Sandstone

The Springbok Sandstone comprises fine to medium grained, medium grey to light, whitish grey, quartzose and quartz lithic sandstone with grey brown siltstone and mudstone interbeds. Coal bands become common towards the base of the formation, up to the basal sandy unit of the formation, (referred to as the "Proud sandstone", equivalent to a unit defined by work in the north west of the Basin). The "Proud sandstone" generally comprises a well developed fining upward sandstone unit, potentially porous/permeable, and eroding downwards into the top of the Walloon Subgroup, often with a coarse lag deposit in contact with a coal seam, either Kogan (if present) or Macalister Upper

#### 3.2 Walloon Subgroup

Results from nearby coal appraisal holes indicate the potentially permeable basal sand of the Springbok Sandstone overlies the Walloon Subgroup, with an erosional base, on the top of the Kogan Seam.

Expanding on correlations and stratigraphic nomenclature developed by previous workers, QGC has adopted a subdivision of the Walloon Subgroup into four correlatable intervals. The two coal prone intervals are the Juandah and Taroom Coal Measures, which are separated by the Tangalooma Sandstone, and underlain by the Durabilla Formation. Within the coal intervals, coal occurrence is subdivided for practical reasons into correlatable packages of coal prone fine grained sediment, regionally recognisable as the culmination of fining upward sedimentary cycles, and containing coal plies of correlatable character and petrology. For simplicity, these packages are referred to as seams, although they can be up to 50m thick in some cases, and contain numerous plies of coal.

##### 3.2.1 Juandah Coal Measures

Based on recent drilling, and several petroleum appraisal wells in the area, the "Proud sandstone" is expected to be well developed, and sit with possibly an erosional base on the sediments of the Juandah Coal Measures, either above the Kogan Seam, or within the seam interval. The Macalister Upper and Lower, Nangram, Wambo, Iona and Argyle Seams are all expected to be present.

Interseam sediments should comprise grey-brown mudstone, light coloured tuffaceous claystone, medium grey siltstone and fine to medium grained, feldspathic-labile and lithic-labile sandstones, as well as occasional limestone and sideritic layers and thin uncorrelated coals.



### ***Kogan Seam***

The presence of the Kogan Seam can be difficult to prognose in the region, due to the erosional nature of the base of the Springbok Sandstone. From the results of drilling in the immediate area, the seam is not expected to be preserved.

### ***Macalister Seam***

The Macalister Seam regionally is comprised of two intervals, the upper and lower. The Macalister Upper is expected to comprise one significant occurrence of coal, underlain by thinner plies of coal.

The Macalister Lower Seam is expected to represent a significant occurrence of coal, similar to the Macalister Upper, while being more banded and with a thicker overall interval.

### ***Nangram Seam***

The Nangram Seam, and all the stratigraphically lower coals of the Juandah Coal Measures are expected to be of a more banded character than the Macalister coals, containing significant net coal thicknesses, however as smaller plies of coal spread over relatively wider seam intervals. The Nangram Seam is expected to occur as a number of separate banded groups of coal plies.

### ***Wambo Seam***

The Wambo Seam is also expected to be banded in nature. The QGC informally named "Wambo Sandstone" a fairly laterally consistent sandstone unit above the Wambo Seam and is expected to be well developed, and although not expected, results of wireline logging should be inspected for signs of significant porosity/permeability development.

### ***Iona Seam***

The Iona Seam is expected to be banded in nature. A potentially laterally consistent sandstone unit above the Iona Seam should be inspected for signs of significant porosity/permeability development.

### ***Argyle Seam***

The Argyle Seam is not expected to be well separated from the base of the Iona Seam. This interburden in the region however is prone to development of cleaner sands, possibly prone to water filled porosity with permeability.

## 3.2.2 Tangalooma Sandstone

The unit has been described in nearby wells as a light grey, fine to medium grained sandstone, with coal bands.

## 3.2.3 Taroom Coal Measures

The intervals between the coal seams of the Taroom Coal Measures are expected to comprise grey-brown mudstone, medium grey siltstone and fine to medium grained, feldspathic-labile and lithic-labile sandstone.

### ***Auburn Seam***

The Auburn Seam is poorly developed and discontinuous in surrounding areas, with the interval often absent. It is expected to comprise a number of thin plies.

### ***Bulwer Seam***

The Bulwer Seam is prognosed to consist of two separate coal developments with the majority of the coal developed in the lower section.

***Condamine Seam***

Coal occurrence is expected concentrated toward the top of the seam interval, due to thicker and closer spaced plies of coal.

3.2.4 Durabilla Formation

The sedimentology and petrology of the interval is considered to be similar to the above lying coal measures, although more sandstone, and not subject to significant or correlatable coal occurrence. From evidence derived during drilling in the area, sandstones within the Durabilla Formation appear much harder than the sandstones within the overlying units, and a considerable drop in ROP is expected upon intersection of this unit.

## 4 DRILLING PROGRAM

The following sections outline the drilling program to be followed for the Exploration and Appraisal Wells. Minor changes to the drilling program by on-site personnel may not be made without consultation with QGC Brisbane Well Engineer.

### 4.1 Drilling

- The drill site and access roadways will be prepared by QGC. A temporary cellar and 14" conductor have been pre-set by QGC.
- Move in and rig up on location.
- Measure and record OD and ID of drill collars. Strap drill pipe, collars, subs and other drilling equipment on location. Record in Tour Report. Confirm all lengths with QGC supervisor. Accurate depths at all phases of the program are critical. Ensure correct fishing equipment is on location for all drilling tubulars.
- Connect mud manifold, kill and choke lines along with further auxiliary equipment needed to drill with a 12 1/4" bit.
- RIH with a 12 1/4" bit and drill to a depth confirmed by a QGC Geologist (approx 60m).
- Circulate and clean out the wellbore. Continue hole cleaning until satisfied condition is suitable for running casing, and is verified by QGC representative. POOH.
- Rig up and run 9 5/8" K-55 BTC 36lb/ft Range 3 casing string to the depth confirmed by the QGC representative.
- Install cementing head, and cement surface casing with contractor as per the cementing program confirmed by a QGC Well Engineer / QGC Superintendent. Ensure cement samples are taken.
- Once cement samples have set, slack off and remove landing joint.
- Install 11" 3k Braden Head.
- Install drilling spool, BOP, flow tee and kill and choke line connections and valves. Connect kill line, choke line, mud return and flare line.
- Pressure test surface casing, BOP, choke manifold and kill line to 500psi. Hold for 10 minutes. Record the results in Daily Tour Report and proceed, after satisfactory test, with drilling.
- Run in hole with 8-1/2" PDC bit and BHA: Bit-NB Stab-1xDC-Stab-9xDC. Ensure stabbing valve is readily available for drill pipe connection during all drilling operations.
- Tag bottom, drill out cement and 2m of new hole. Circulate to clean cement contamination from mud system.
- Condition water/mud system to drill formation. – Refer to Section 4.2 "QGC Requirements for Drilling Mud".
- Drill 8-1/2" hole through Walloon Subgroup to a total depth to be confirmed by a QGC Geologist. TD should be approximately 50m below last significant Condamine coal.
- Clean hole and condition mud for wireline logging: Circulate bottoms up and make wiper trip to surface casing, wait in casing shoe for one hour and RIH back to total depth.

Circulate on bottom to clean hole for a minimum of 1 hour if fill is more than 10m. Ensure mud weight is below 9ppg and viscosity is below 40 seconds. POOH.

- Run wireline logs as per logging program detailed in Section 4.6.
- Run in with inflate straddle DST tools and perform three DSTs as per program outlined in Section 4.3. Wiper trip as required.
- Make up under-reaming BHA: UR-1xDC-Stab-6xDC. Change out mud tanks to clean, clear water.
- RIH to first under-reaming interval as advised by QGC rig-site supervisor. Displace mud from hole, dumping to pit, and circulate with clean, clear water. Under-ream major coal sequences in the Juandah and Taroom coal measures as instructed by QGC.
- POOH and pick up wiper assembly. RIH, tag fill from under-reaming, wash to bottom and circulate hole clean.
- Continue hole cleaning until satisfied conditions suitable for running casing, and is verified by QGC representative. POOH.
- Rig up and run 7" K-55 BTC 23lb/ft Range 3 casing string as per the casing program detailed in Section 4.4.2. A full casing tally will be provided by the QGC rig-site supervisor. Note: a casing packer will be set in the upper most competent lithology within the upper Juandah Coal Measures of the Walloon Subgroup - Refer to Section 1.2, Stratigraphic Prognosis, depth to be confirmed by QGC Operations Geologist. Two cement baskets will be installed below the ECP (1 metal, 1 canvas). 1 centralizer/ 3 joints to surface shoe.
- The top casing collar is to be installed approximately 300mm (1 ft) above ground level. QGC will provide the correct stick-up for the landing joint above KB.
- Install 7" cementing head, and cement casing with Halliburton as per the cementing program detailed in Section 4.5.2. Ensure cement samples are taken.
- Once cement samples have set, slack off and remove landing joint.
- Nipple down BOP, remove 11" Braden head.
- Install 7-1/16" well head and valves.
- Land tubing hanger screw in tie down bolts and close valve.
- Rig down and move off location.

#### 4.1.1 Additional Rig and Contractor Requirements

- 9 5/8" circulating head. 9 5/8" x 2" swedge
- Adequate mud pump capacity for efficient drilling and displacement of cement.
- Casing handling equipment including power tongs.
- Rig capacity to run Range 3 casing (13m).
- Daily rig reports from well faxed/emailed to QGC office by 8.00am daily. Afternoon communication to QGC representatives on day's progress and planned operations overnight.
- Site clean up at completion of each well.

#### 4.1.2 QGC Requirements

- Access roadways and lease preparation.
- Water supply.
- Drill bits as required (12 ¼", 8 ½", 6 ⅞").
- 9 ⅝" casing and 9 ⅝" casing accessories.
- 7" casing and casing accessories.
- 7" casing cementing contract services.
- Under-reamer.
- Geological services.
- Logging contract services.
- Drill Stem testing services if required.

#### 4.2 QGC Requirements for Drilling Mud

Only bentonite gel is used to add viscosity to the native mud that occurs while drilling with water. No polymer, LCM or other additives are to be used. Water is used to dilute the mud to maintain a weight below 9 ppg. The properties of the native clays allow the mud to build sufficient viscosity and weight to clean the hole and maintain safe conditions during the drilling. The mud weight and viscosity will be regularly checked and adjusted to the drilling conditions.

When the TD of the well is reached, a complete wiper trip is required to ensure that no bridges will be encountered by the wireline logging tools. The mud weight and viscosity are to be adjusted to ensure that they are not greater than 9.0 ppg and 40 sec respectively.

The QGC site representative will agree with the Drilling Contractor that both the mud and the hole condition are satisfactory before running casing.

The addition of water will be used for reducing the mud weight and viscosity. Mud additives may be considered to improve mud properties including reducing water loss. These additives are to be approved by QGC Brisbane Office before use.

Note: while adjusting the mud conditions, it is recommended to proceed gradually, avoiding massive changes in one step only. With shallow wells, having sufficient water stored on site is important to achieve a successful job.

#### 4.3 Testing Program

##### 4.3.1 Drill Stem Tests (DSTs)

Three inflate straddle DSTs are proposed. The proposed test intervals are:

Test #1: Upper Juandah Coal Measures

Test #2: Lower Juandah Coal Measures

Test #3: Taroom Coal Measures

Note: Proposed test intervals are determined from the stratigraphic prognosis for the well. Final intervals will be determined from mudlogs and gas sampling, and are contingent on net coal.

A 3000 psi rated gauge with a sampling frequency of 10 seconds will be required. The total test duration, including running in and out (assuming 3 hours each) will take in the order of 18 to 24 hours to perform. Three electronic gauges are to be run including a fluid recorder, inside gauge and outside gauge.

Only 7" OD elements will be run and on deflation of packers allow a minimum of 20 minutes prior to pulling free.

A water cushion will be used to control the flow of water into the test string.

- **Tests shallower than 500m will use a 50m water cushion.**
- **Tests deeper than 500m will use a 75m water cushion.**
- **Tests deeper than 800m will use a 100m water cushion.**

All three tests will use the same time periods which are:

Preflow: 10 minutes

Initial shut in: 3 hours

Final flow: 30 minutes

Final shut in: 5 hours

These DST parameters will be confirmed on location and may be altered by a QGC representative with respect to surface observations.

The QGC representative will ensure formation fluid and/or gas samples are captured from the sample chamber.

#### 4.4 Casing Program

##### 4.4.1 Surface Casing

9 5/8" K55 36 lb/ft Surface Casing will be run and cemented as close to the depth drilled by a 12 1/4" bit (approximately 60m).

##### 4.4.2 Production Casing

7" production casing will be run as close as practical to total depth, and will be cemented from above the external casing packer placed at the top of the Macalister Coal Measures to surface. A casing guide shoe or notched collar is to be run on the bottom of the casing.

Pre-Perforated casing is to be run across the major seams of the Juandah and Taroom Coal Measures and the Tangalooma Sandstone. All depths are to be supplied by QGC.

A Packer Cementing Collar (PCC), consisting of an External Casing Packer (ECP) below a stage cementing tool, will be placed above the Macalister Seam to ensure isolation from the Springbok Sandstone and prevent cement across the Macalister Seam.

Joints immediately above the guide shoe, landing collar and packer are to be threaded.

The QGC representative on site will indicate the positioning of centralisers, which will be approximately one per every two casing joints over the target coal seams, and one, every three joints back to surface.

The top of the 7" casing collar is to be set 300mm above ground level.

#### 4.4.3 Guide for landing and back off landing joint

- After casing collar has been removed from last joint of casing dope the pin up of last joint and box down of the landing joint. This will aid in backing out landing joint later.
- Make up landing joint to **NO MORE** than  $\frac{1}{3}$  of make up torque of the rest of the casing.
- Head up to circulate and cement.
- Land casing at the final depth and chain the brake down, **LEAVE THE SLIPS OUT.**
- Cement casing.
- After plug is bumped and pressure is bled off put slips in to keep casing center.
- **DO NOT SLACK OFF ON CASING.**
- W.O.C.
- Pull slips **WITHOUT PICKING UP ON CASING.** They should be loose.
- Slack off on casing.
- Put slips back in.
- Back out landing joint **USING CASING TONGS OR CHAIN TONGS ONLY.**

#### 4.5 Cementing Program

##### 4.5.1 Surface Casing

- Install 9 5/8" cementing head, rig up cementing contractor and pressure test all surface pumping lines with water to 2000 psig.
- Hold Safety Meeting
- Follow the 9 5/8" Surface Casing program prepared by the contractor after consultation with QGC's Well Engineer / Rig Site Supervisor.

#### 4.5.2 Production Casing

**Refer to the Pre Job Cement Report prepared by Halliburton. Consult with a QGC Well Engineer on how much excess is needed for the job.**

The production casing is to be cemented by the cementing contractor using the following procedure:

- Install 7" cementing head, rig up contractor and pressure test all surface pumping lines with water to 2000 psig.
- Circulate with rig pump until mud meets QGC requirements. (Section 4.2).
- Break circulation and drop dart. Pump dart to landing collar. Wait 5 minutes.
- Install stage tool closing plug in cementing head.
- **Pressure up to 600 psi and then slowly in 100 psi increments, waiting 2 minutes at each step, to 1100 psi to inflate external casing packer, hold for 5 minutes. Take up to ~1300 psi and make sure internal locking pin has sheared.**
- **Refer to Manufacturers Operating Instructions and consult with QGC rig-site supervisor.**
- **Bleed off pressure, and then pressure up to approximately 2200 psi to open stage tool hydraulically and establish circulation.**
- Circulate well with mud.
- Pump a 5 barrel water spacer.
- Mix and pump approximately 200 sacks Class 'A' cement (6% dry blend bentonite) and 0.50% CaCl<sub>2</sub>. Use at least 50% excess volume based on calliper log. Tail in with 50 sacks of Class 'A' cement mixed at 15.6 ppg, yielding 1.18 cuft/sack. **Take a minimum of 2 samples of each batch.** (Actual volumes to be checked with QGC prior to mobilising contractor. FLA may be added to tail)
- Drop stage tool closing plug and displace to stage tool. Bump plug to 2000 psi and hold for 5 minutes.
- Bleed off pressure and check tool has closed. Shut in. WOC.
- Rig down cementing equipment.
- Flush BOP.
- When cement samples have set, release weight and remove landing joint.
- Nipple down BOP and casing head. Ensure that nothing falls down casing.
- Install cap on casing.



## 4.6 Wireline Logging

### 4.6.1 Logging Suite

Poppy #7 well will have the following logging suite:

Suite - Wireline	Run	Measurement	Interval	Display Scale
1	1	GR - Gamma / BHT	TD to Surface	0 – 150 API units
		MAI – Induction Resistivity	TD to 9 5/8" Casing	0.2 – 200 ohm-m
		MSS - Sonic	TD to Surface	180 – 60 ms/ft
		MDN - Neutron	TD to Surface	-15 – 45%
		MPD – Density, (HiRes)	TD to Surface	1.00 - 3.00 g/cc
1	2	CMI - Micro Resistivity Imager	TD to SC	

- Other logs can be received in a scale to suit the range of values recorded

### 4.6.2 Field Paper Copies

One copy each of 1:200 and 1:500 field prints are to be supplied to the wellsite geologist immediately upon the completion of logging. One 1:500 volume log is to be supplied to the QGC drilling supervisor. It is at the wellsite geologists discretion to request additional field copies.

### 4.6.3 Digital Data Supply

Data will be supplied as LAS and LIS format digital copies. Two files are required:

- A general file containing all appropriate log data, measured and calculated, at 0.10m sample interval.
- If obtained, a detailed file containing all log data, measured and calculated, at 0.025m sample interval.

Data files will be required immediately after completion of logging for email to Brisbane by the well site geologist.

## 5 CONTACT DETAILS

### 5.1 QGC Pty. Limited

	Telephone (Work)	Facsimile (Work)	Mobile
John Renton (Team Leader Drilling Operations)	07 3024 7473	07 3024 8999	0488 271 950
Steve McCalmont (Manager Geological Operations)	07 3024 7320	07 3024 8999	0488 272 731
Richard Eva (HSE Manager)	07 3024 7350	07 3024 8999	0488 270 503
Heath Carney (Environmental Manager)	07 3024 7348	07 3024 8999	0409 636 681

### 5.2 Field Contacts

	Telephone (Work)	Facsimile (Work)	Mobile
QGC Field Office	07 4627 7228	07 4627 7226	
Barry Dean – Drilling Superintendent	07 4627 7228	07 4627 7226	0488 274 417
QGC Camp Berwyndale South	0427 004 749	0427 015 158	

### 5.3 Emergency Contacts

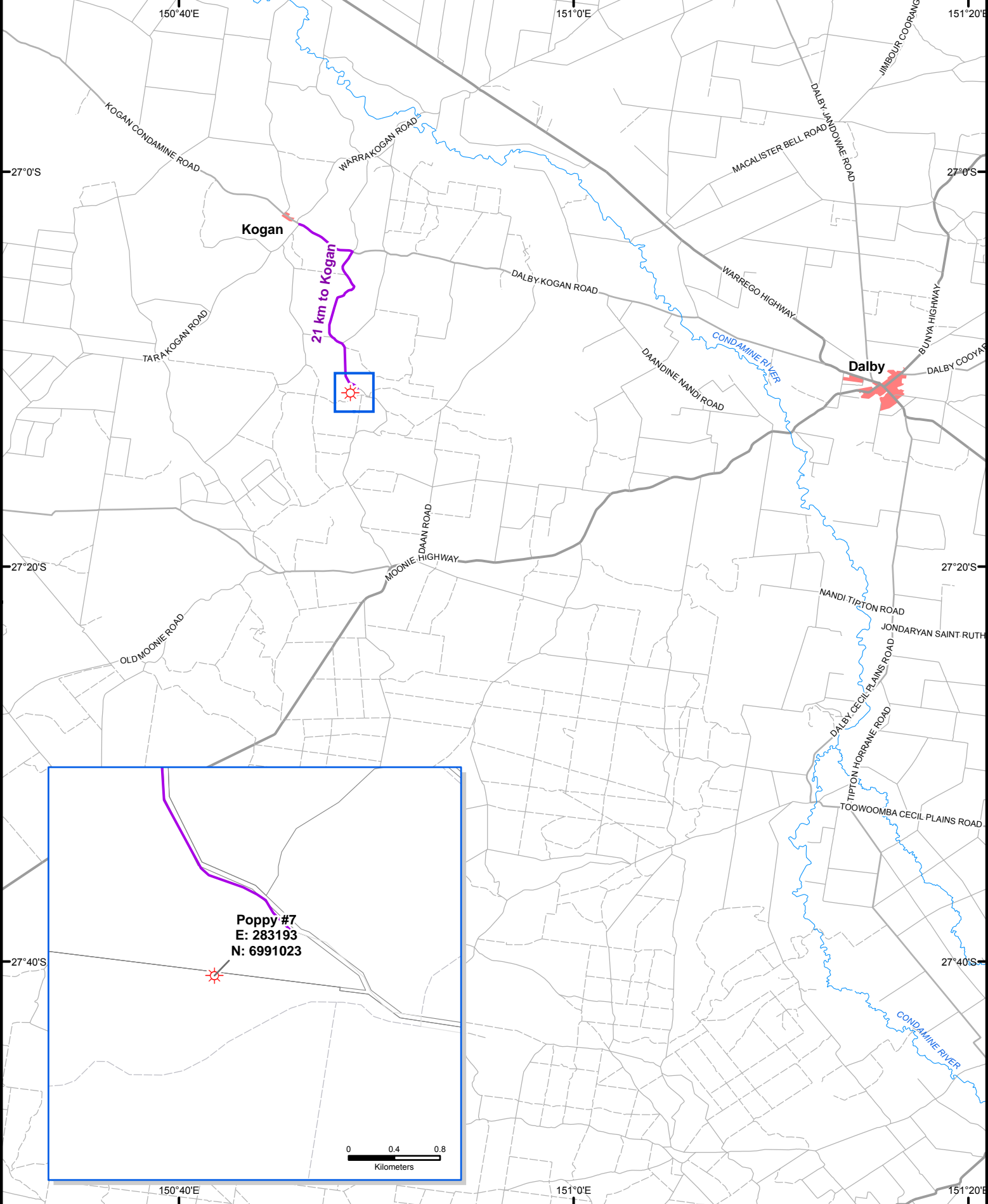
**In CASE of EMERGENCY CALL 000 for all emergency services.** General business numbers

	Telephone	Mobile
Chinchilla Health Services (Slessar Street)	07 4662 8888	
Chinchilla Ambulance (68 Heeney Street)	07 4662 7000	
Chinchilla Police (Heeney Street)	07 4662 7200	
Chinchilla Fire Brigade (Villers Street)	000	
Miles General Hospital (Marian Street)	07 4628 5600	
Miles Ambulance (Murilla Street)	07 4627 1037	
Miles Police (32 Constance Street)	07 4627 1222	
Miles Fire Brigade (46 Marian Street)	000	
Rural Fire Services Inspector Mike Smith (46 Marian Street Miles)	07 4627 1658	0427 149 247

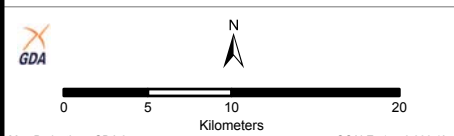
### 5.4 Queensland Department of Natural Resources and Mines

	Telephone (Work)	Facsimile (Work)	Mobile
Gas Emergency and Accidents			0419 888 575
John Fleming (Chief Inspector Gas and Petroleum)	07 3237 1415	07 3237 1242	0417 729 512
John Fleming (Chief Inspector Gas and Petroleum) - Accident Reports	07 3237 1415	07 3237 1242	0419 888 575 0417 729 512
Fiona Marks EPA	07 3225 1050		

## FIGURES



## Mud Map from Kogan to Poppy #7



- Well Location
- Route (town to well)
- Major Road
- Minor Road
- Track
- Railway
- Condamine River
- Built Up Area

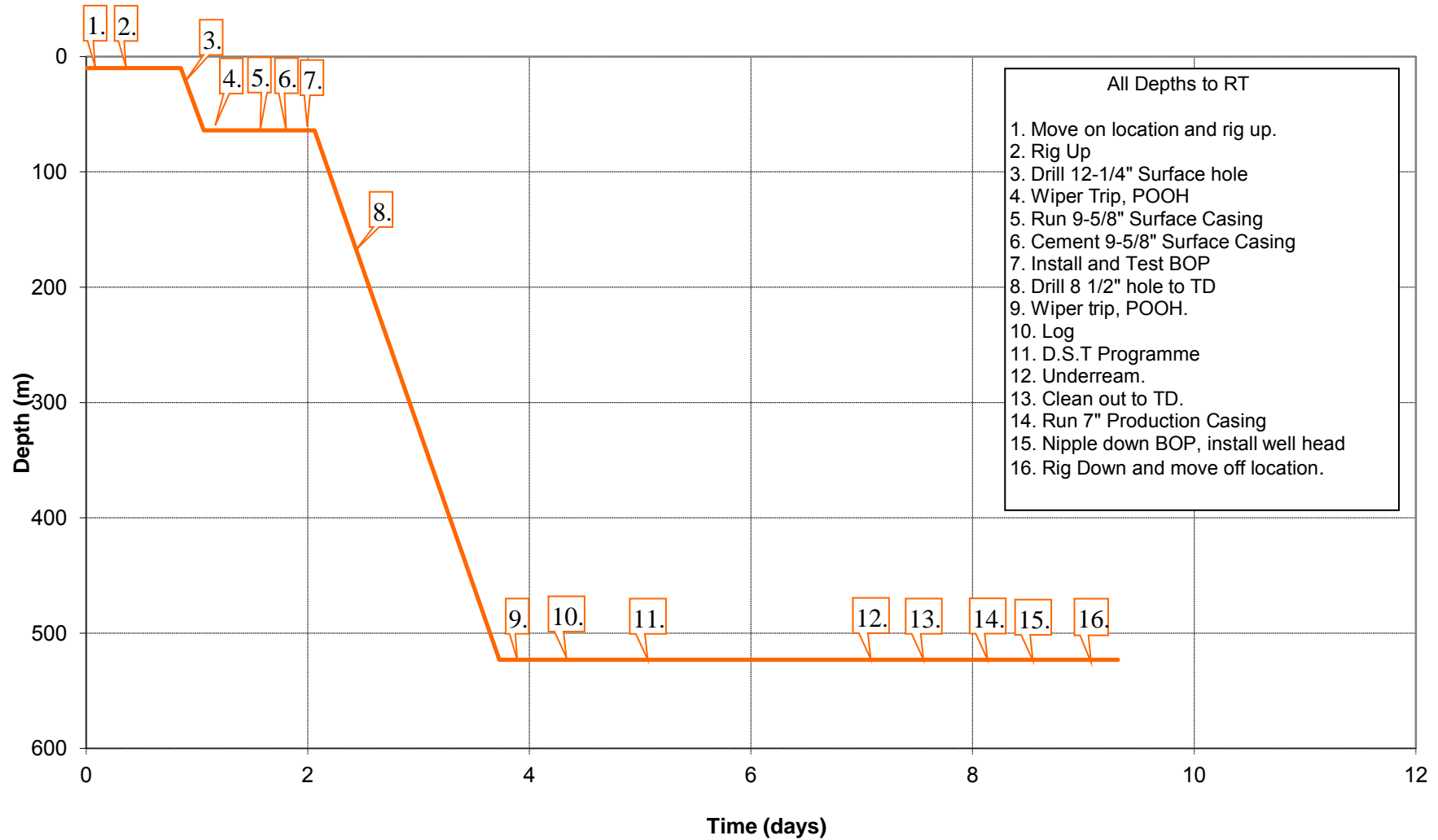


**DISCLAIMER:**  
 Location to this site has been determined via a basic desktop survey using Government data.  
 This route shown on the map is indicative only and not necessarily the best option for access to the site.

Note: Every effort has been made to ensure this information is spatially accurate.  
 The location of this information should not be relied on as the exact field location.  
 \*Based on or contains data provided by the State of Queensland (Department of Natural Resources and Water) 2008. In consideration of the State permitting use of this data you acknowledge and agree that the State gives no warranty in relation to the data (including accuracy, reliability, completeness, currency or suitability) and accepts no liability (including without limitation, liability in negligence) for any loss, damage or costs (including consequential damage) relating to any use of the data. Data must not be used for direct marketing or be used in breach of the privacy laws.

<b>DATE:</b>	24/03/10	<b>MAP NO:</b>	M_02347_01
<b>CREATED BY:</b>	CR	<b>REV NO:</b>	A

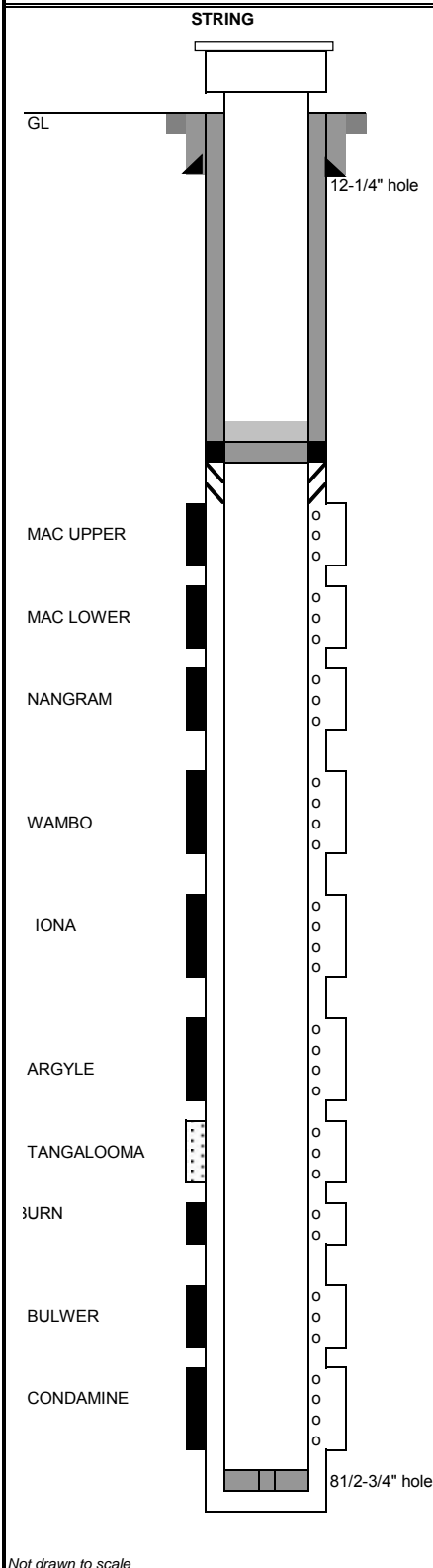
# Poppy #7 Time - Depth Curve (24 Hour Rig Day)





### COMPLETION SCHEMATIC (SUSPENDED)

<b>Well:</b> Poppy #7	<b>Completion Type:</b> Suspended
<b>Field:</b> Poppy	<b>Completion Date:</b> TBA
<b>Location:</b> ATP 648P	<b>Completion Activity:</b> Case and Cement
<b>Rev:</b>	<b>Activity Date:</b> TBA
<b>Date:</b>	



EQUIPMENT	OD (in)	ID (in)	LENGTH (m)	Depth Bottom (m)
7" BTC box wellhead with 3-1/2" tbg hangar				
9-5/8" surface casing, 36#, K55, LTC, Range 3				
Jts 7" casing, 23#, K55, range 3, BTC.				
All cement equipment threads to be thread locked				
7" TOP-CO type 242 Pkr Cementing collar w/ 3ft element, BTC connections w/ 2 cement baskets 1x xmetal, 1 x canvas below				
7" casing, 23#, K55 range 3, BTC				
w/ 2 cement baskets 1 x metal, 1 x canvas above Float Collar with baffle Perforated sub-section w/ 2 cement baskets 1 x metal, 1 x canvas below				
Pre-perforated w/ 1/2" holes @ 18 holes/ft - w/ centralizers				
All cement equipment threads to be thread locked				
7" Casing guide shoe				

*Not drawn to scale*

**ADDITIONAL INFORMATION:**

Notes:



# WELLHEAD SCHEMATIC (SUSPENDED)

Well: Poppy #7

Wellhead: Woods: 7-1/16" 3000#, 7" BTC box

Field: Poppy

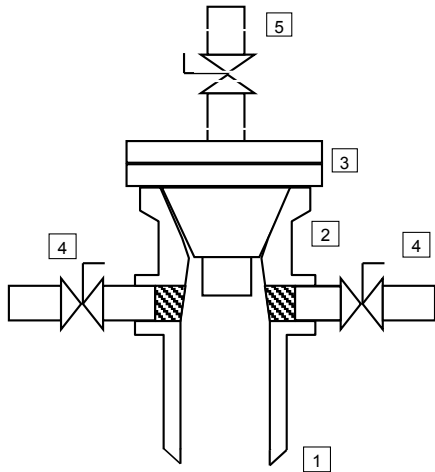
Completion type: PCP Production (pre-perf csg)

Rev:

Location: ATP 648P

Installation date:

Date:



Not drawn to scale

### ITEM

### DESCRIPTION

- | ITEM | DESCRIPTION                             |
|------|---|
| 1    | 7" BTC casing string                    |
| 2    | Wellhead screw onto BTC 7" casing       |
| 3    | 7-1/16" 3000 psi R45 flange connection  |
| 4    | 2" ball valve, NPT                      |
| 5    | 2" ball valve, NPT, with pressure gauge |

### ADDITIONAL INFORMATION:

Notes: