

4.0

Surat QCLNG bore baseline
program status



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4.1 SUMMARY OF PLAN SUBMITTED AND APPROVED BY DEHP

In accordance with the Water Act 2000 requirements (Section 397), QGC submitted and DEHP approved the Bore Baseline Assessment Plan for QGC's gas fields (QGC, 2011). The document was prepared using DEHP's Baseline Assessment Guidelines (DEHP, May 2011).

The bore baseline program's purpose is to collect baseline data on all groundwater bores within QGC's Surat Basin tenements. Details of water bore construction, condition, capacity and use, groundwater level and basic water quality will assist in determining regional groundwater quality and levels. It is a key aspect of managing potential underground water impacts resulting from QGC activities.

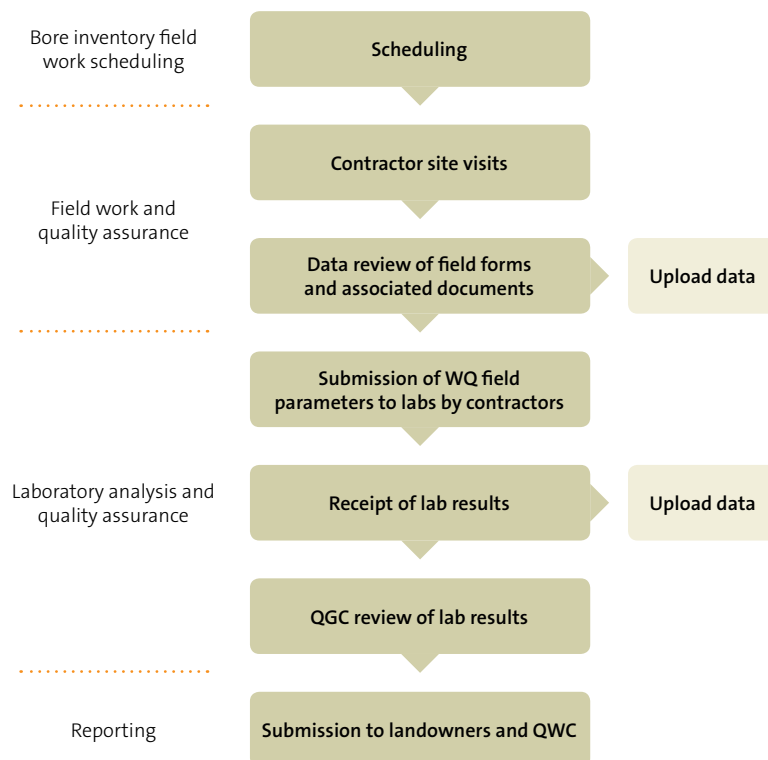


Figure 19 – Bore baseline program process diagram

Figure 19 outlines the process for bore baseline assessment. The schedule was developed for priority groupings of QGC tenement blocks (about 8 km by 8 km). Bore assessment visits were scheduled systematically with each landholder and a communication database is maintained by QGC.

Independent hydrogeologists collect details of each bore from a property representative (i.e. a landowner, tenant or property manager), using documents (i.e. drill logs, water licences, former water quality results) and on-site observation. The site hydrogeologist records this information electronically with a digital interviewee signature to verify accuracy.

Where pumping infrastructure is in operating condition, a water sample is collected. Field parameters are recorded during bore purging. Following review of laboratory results, QGC collates the bore information (including field forms, documents provided by interviewee, photographs collected by site hydrogeologists and any laboratory certificates) and mails a copy to the landowner. Digital copies are also retained. Please note, QGC does not execute pump tests as part of the baseline assessment. QGC samples only wells which are directly accessible.

4.2 STATUS OF PROGRESS OF THE SURAT QCLNG BORE BASELINE PLAN

QGC's Surat QCLNG Bore Baseline Program commenced in May 2011 and covers QGC's QCLNG project. It has been widely accepted by landholders as a benchmark of water quality and depth prior to CSG activity. DEHP's groundwater database provides an initial reference for existing bores and shows 365 registered bores located on the 2,631 properties within QGC's Surat Basin area. Through extensive communication efforts, QGC has identified 494 bores on 2,636 properties, on or near QGC tenements. Table 6 indicates landowner communication results as at February 2012 and Figure 20 provides a map of each property's assessment status.

Assessments have been completed and results sent to landholders on 168 bores (115 properties) and another 140 bore assessments (105 properties) are currently in progress – representing 62% completion. Close-out letters have been forwarded to all landholders whom QGC has been unable to contact via telephone or who did not respond to earlier correspondence asking if they had any water bores on their property. The last of the Surat QCLNG Bore Baseline program completion is scheduled for late 2012.

	Priority 1		Priority 2		Priority 3		Priority 4		Priority 5		Priority 6		Project total	
	P = Properties / B = Bores – Source: QGC Program. (Figures in brackets denote bores from the DEHP ² database)													
	P	B	P	B	P	B	P	B	P	B	P	B	P	B
Completed	67	94 (61)	103	153 (130)	6	10 (12)	18	30 (25)	2	3 (3)	9	9 (9)	205	299 (240)
In Progress	1	1 (0)	6	9 (5)	4	6 (5)	10	29 (19)	2	4 (2)	5	6 (4)	28	55 (35)
No Contact Details	4	(0)	43	(0)	0	(0)	37	(2)	0	(0)	0	(0)	84	(2)
No Response – Closed	292	(4)	502	(16)	19	(3)	227	(7)	6	(0)	4	(0)	1050	(30)
Access Denied ¹	1	(1)	7	(7)	1	(2)	2	(3)	0	(0)	0	(0)	11	(13)
To Be Scheduled	2	(2)	33	40 (35)	6	5 (15)	14	16 (21)	2	(4)	6	7 (16)	63 ³	68 (93)
Total	367	95 (68)	694	202 (193)	36	21 (37)	308	75 (78)	12	7 (9)	24	22 (29)	1441	422 (414)
No Bores	239	(13)	695	(25)	24	(6)	229	(14)	1	(1)	9	(5)	1197	(64)

1 Data from DEHP groundwater database, extracted April 2011

2 QGC's contact status database does not include abandoned bores from DEHP's groundwater database

3 18 of these properties are either owned by other CSG companies or overlap on other CSG company tenement and landholder has indicated that baseline assessments have been completed by these companies and they want QGC to get results from that company

Complete = Site visits have been completed and results have been provided to the landowner

In Progress = Property is within communications phase, scheduling phase or awaiting results

No Bores = No groundwater bores exist on the property according to communications with landowner

No Contact Details = No contact details could be found for the owner of the property. Any letters that were sent were returned to sender and no phone number could be found through Queensland Cadastral Database (QCDB), Pricerfinder and RP Data. Purchase of title information for these properties is currently in progress.

No Response – Closed = When multiple attempts to contact landowner yields no response, QGC sends out a final letter indicating attempts and requests the landowner contact QGC if they do have a bore

Access Denied = The landowner has denied QGC and its contractor access to the property to conduct a baseline assessment

To Be Scheduled = A bore is on the property and an assessment will be scheduled during our last assessment round in August 2012.

Bore Not on QGC Block = Part of the property is on a QGC tenement and part of it on another CSG company's tenements. The landholder has advised that the bore actually sits on the other CSG company's tenement rather than QGC's.

Table 6 – Status for Surat bore baseline program, as of February 2012

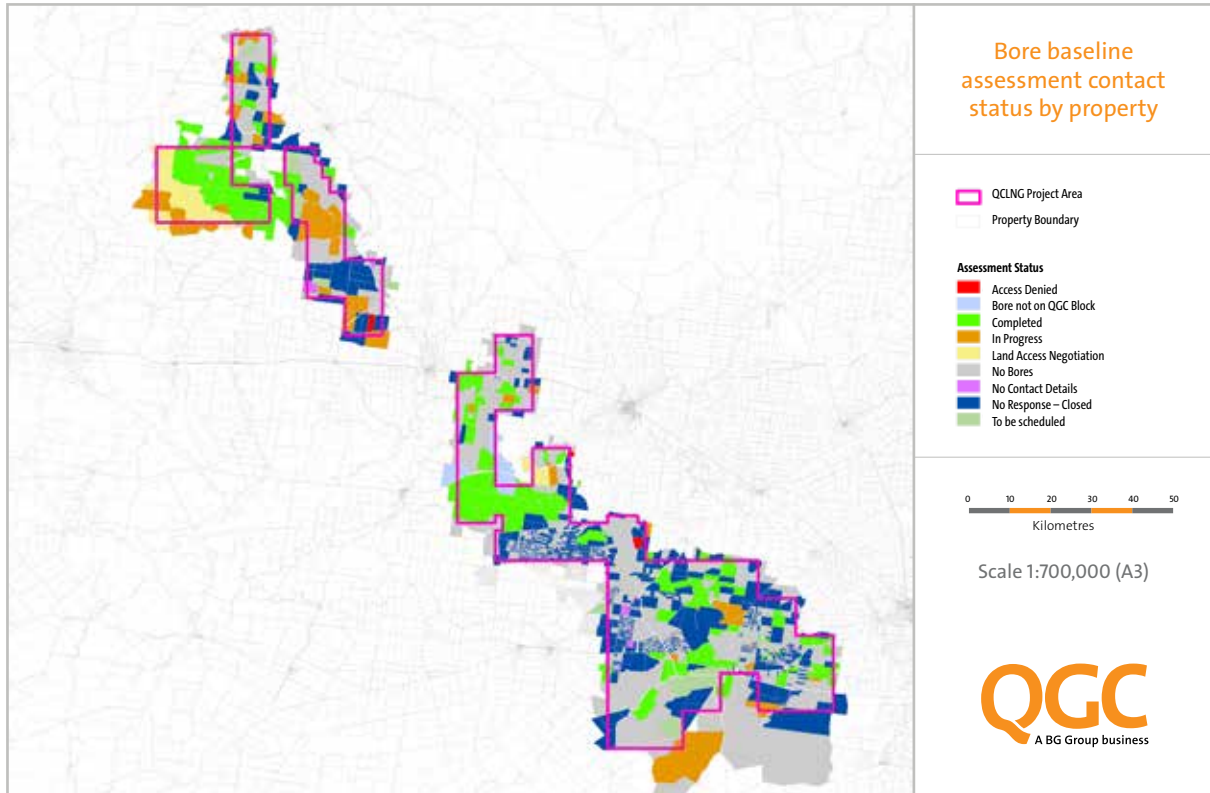


Figure 20 – Status of bore baseline assessments



QGC recognises the significance of the Great Artesian Basin and Murray-Darling Basins to the people of Queensland and Australia.



Figure 21 – Typical farm bore installation

4.3 KNOWLEDGE BUILDING

Data collected from bore baseline survey will be assessed and interpreted during 2012. Key objectives will be:

- To map the distribution of bores reportedly drawing from various aquifer units
- To map the distribution of bores drawing from the WCM
- To develop potentiometric maps in various formations from available standing water level data
- To develop water chemistry distribution maps of various formations and support hydrochemistry model development using available water chemistry data
- To identify bores with highly reliable data to add to the groundwater monitoring network.

4.4 OTHER MONITORING ACTIVITIES

In addition to the private bore baseline, QGC undertakes hydraulic well stimulation and bore monitoring activities (Refer Section 13.0).



QGC is using proven Reverse Osmosis technology to treat produced CSG water for **beneficial use by irrigators, industry and municipalities.**

POINT