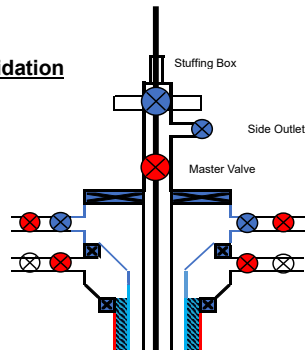


Carpentaria 1

Well Barrier Integrity Validation



Geological Formation (Aquifer)	TOC @ base of cellar (surface)	Stovepipe	Conductor Casing	Surface Casing	Production Tubing	Production Casing
Alluvium		20' 31mRT	13-3/8" K55 61ppf BTC 137mRT	9-5/8" K55 36ppf BTC 848.13mRT	2-7/8" J55 6.5ppf EUE 1599.03mRT	7" P110 29ppf JFE Bear 1909mRT
Gum Ridge Formation (Aquifer) 50 to 115mRT						
Bukalara Sandstone 115 to 244mRT						
Kyalla Shale (Shallowest Hydrocarbon Bearing) 244 to 307mRT						
Moroak Sandstone 307 - 589mRT						
Velkerri - Wyworrie Member 589 - 1024mRT						
Velkerri Amungee Member 1024 - 1095mRT						
Velkerri - Amungee - C Shale 1095 - 1159mRT						
Velkerri - Amungee - Intra B / C 1155 - 1323mRT						
Velkerri - Amungee - B Shale 1323 - 1379mRT						
Velkerri - Amungee - Intra A / B 1379 - 1493mRT						
Velkerri - Amungee - A Shale 1493 - 1551mRT						
Velkerri - Amungee - Kalala Member 1551 - 1832mRT						
Bessie Creek Sandstone 1832mRT						

Well Information	
Well Name:	Carpentaria 1
Well Type:	Gas Exploration
Well Design Pressure:	10000psi
Well Status:	SUSPENDED
Revision no. / Date:	Revision 9 16/05/2022
Prepared:	Jordan Bunning
Verified/Approved/Date:	

PRIMARY WELL BARRIER ELEMENTS - INTERNAL		
ELEMENT	VERIFICATION	MONITORING
7" Shoe Track	Successful cement job execution (plug bumped / casing tested / floats holding) Plug bumped with shoe track not over-displaced by more than 50% of shoe track volume prior to bump (3 x casing joint / 34m shoe track run) Green cement pressure test performed to 4590 psi on 9.4ppg suspension fluid on 22/10/2020 Casing float valves holding differential pressure on bleed-off following green cement pressure test (estimated 1650 psi differential pressure)	Wellhead pressure monitoring
7" Production Casing	Green cement pressure test performed to 4590 psi on 22/10/2020 Pre-frac casing test to 7,770psi conducted successfully on 24/05/2021 2-9/16" 5M Lower Master Valve (LMV) and 2-9/16" LM valve x 2-9/16" x 11" 5M companion flange connection tested offline to 5000 psi on 8/4/2020 2-9/16" x 11" 5M Xmas Tree companion flange to 11" 5M wellhead flange connection tested to 5000 psi on 26/10/2020 2-1/16" 5M wellhead SOV (B-section valve) and wellhead companion flanges tested to 5000 psi during BOP test on 5/10/2020 2-1/16" Flange connection tested to 10000 psi on 20 Jun 2021 Tubing hanger 5-seals tested to 10000 psi on 21 Jun 2021 Production tree tested to 3000 psi on 21 Jun 2021 Stuffing box tested to 500 psi on 21 Jun 2021	Wellhead pressure monitoring External observation of flange connections during monthly wellhead inspection External observation of stuffing box during monthly wellhead inspection
6-3/4" x 2-7/8" EUE tubing hanger installed	Tubing hanger seal void tested to 10000 psi x 10 mins and lockdown ring engaged on 20/06/2021 Tubing tested to 2000psi on 20/06/2021	Wellhead pressure monitoring
UNTESTED INTERNAL PRIMARY BARRIER		
PRIMARY WELL BARRIER ELEMENTS - EXTERNAL		
7" Casing Hanger / Pack-Off Seal Assembly (External)	Upper and lower pack-off seal voids tested to 5000 psi x 15 mins and pull tested to 40 klbs on 22/10/2020	Wellhead pressure monitoring
7" Production Casing Cement (External)	Job executed as per program with consistent density control, no losses recorded / fluid returns to surface on schedule (12 bbbls 14.5 ppg cement returned to surface). Final displacement pressure approximated pre-job calculations. CBI-VDL-CCL-GR log conducted inside 7" casing on 23/10/2020. Top of cement at surface.	9-5/8" x 7" annulus pressure monitoring

SECONDARY WELL BARRIER ELEMENTS - INTERNAL		
ELEMENT	VERIFICATION	MONITORING
2-9/16" 5M Upper Master Valve	2-9/16" 5M Upper Master Valve (LMV) and 2-9/16" LM valve x 2-9/16" x 11" 5M companion flange connection tested offline to 5000 psi on 8/4/2020	Wellhead Pressure (WHP) monitoring External observation during weekly wellhead inspection
2-9/16" 5M Xmas Tree assembly (flow & wing valve / Bowen cap / Row tee / 2-1/16" 5M companion flange)	Xmas Tree assembly tested offline to 5000 psi on 8/4/2020	Wellhead Pressure (WHP) monitoring External observation during monthly wellhead inspection
SECONDARY WELL BARRIER ELEMENTS - External		
Wellhead / A-section annulus valve	Wellhead - 9-5/8" casing connection tested to 2800 psi x 5 mins on 9-5/8" casing green cement test on 5/10/2020 2" LP 5M A-section annulus SOV and 2" LP bull plug tested to 5000 psi x 15 mins against VR plug during BOP test on 5/10/2020	9-5/8" x 7" annulus pressure monitoring
9-5/8" surface casing	9-5/8" casing tested to 2800 psi x 5 mins on 9-5/8" casing green cement test on 5/10/2020	External observation during Monthly wellhead inspection (wellhead sits on 9-5/8" casing cemented to surface)
9-5/8" surface casing cement	9-5/8" surface casing successfully cemented on 5/10/2020 with 65 bbbls cement to surface. Job executed as per program (densities / volumes / displacement pressure as per pre-job calculations)	External observation during monthly wellhead inspection
Formation integrity at 9-5/8" shoe	Formation strength verified by LOT at 9-5/8" casing shoe at 848.1m to 23.8ppg EMM on 6/10/2020 (2150 psi on 8.9 ppg drilling fluid)	N/A

HEALTHY WELL, NO OR MINOR ISSUE		
13-3/8" casing x 17-1/2" annulus cemented to surface with 15 ppg tail cement after total of 110 bbbls top-up cement pumped following primary cement job on 28/9/2020		
9-5/8" casing successfully cemented to surface with 13.5 ppg lead / 15.8 ppg tail cement with 65 bbbls 13.5 ppg lead cement returned to surface on 5/10/2020 LOT performed at 9-5/8" casing shoe to 23.8 ppg EMM on 6/10/2020		
7" casing successfully cemented to surface with 14.5 ppg single stage cement slurry with 12 bbbls cement returned to surface on 22/10/2020		
Integrity of 7" production casing verified by green cement pressure test to 4590 psi x 10 mins on 22/10/2020. Casing tested successfully to 7,770psi one the 24/05/2021 prior to fracture stimulation activities		
Shoe track float valves verified by no flowback under 1650 psi static differential pressure inflow test following green cement test on 22/10/2020		
Monthly wellhead inspections will be undertaken during well suspension period comprising monitoring of wellhead pressures (A and B annuli), external inspection of wellhead flanges and valves for leaks and functioning / greasing of valves as required		
Needle valve with pressure gauge installed on Xmas Tree Bowen cap and Wing Valve side outlet		
Needle valve with pressure gauge installed on A- and B-section side outlet valves		
Needle valve with pressure gauge installed on B-section side outlet valve will read WHP (pressure inside 7" casing)		

Nomenclature:
A-annulus = 9-5/8" x 7", B-annulus = 7" x 2-7/8"
RT height = 5.2m
TVD = 1911mRT
PBTD = 1875mMD
TD = 1915 mMD

