



Field : Beetaloo
 Well : Velkerri 76S2-1
 Schematic : OE.D 5.5-a2 rev. 6
 Date : 19-Sep-2022

Well design pressure 10000 psi
 Reservoir pressure 3880 psi
 Prepared by : Adam Pedler
 Verified by : David MacDougal

NOTE: Due to limitations to software, UMW is only depicted as a common barrier element. The LMV and UMW have been pressure tested independently and make up the primary and secondary barrier elements.

Suspension

Suspension - 5-1/2" Casing Installed (Post DFIT)

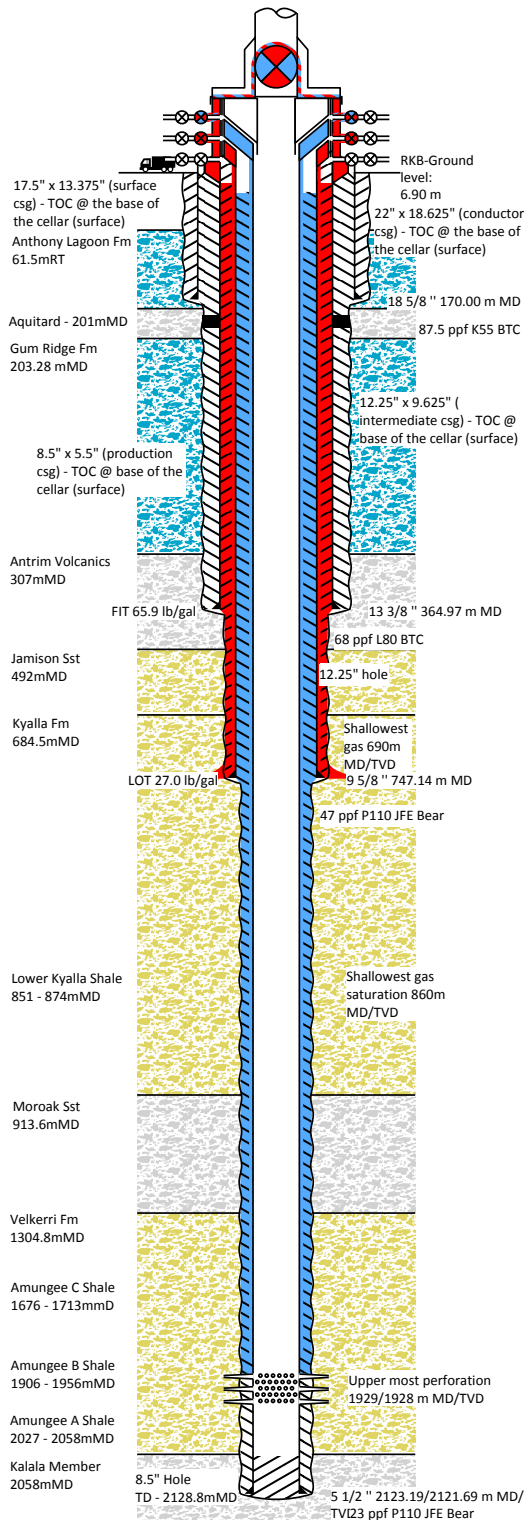
As built

Primary barrier elements

Element	Qualification	Monitoring	
7-1/16" Upper/Lower Master Valve / Tubing Head	Pressure test companion flange/LMV to 10,001/17mins 15/10/2021. Flange connection between 7-1/16" LMV and TH pressure tested to 10,114 psi / 17mins 08/10/2021. Grey Cement pressure test conducted against closed UMW to 9,500psi testing UMW and connection between UMW & LMV on 18/10/2021	A-annulus pressure.	●
2-1/16" SOV (B-section)	2-1/16" SOV PT to 15000 psi 26/09/2019.	A-annulus pressure.	●
Casing hanger	Between 5-1/2" Pack off seals pressure tested to 10,030 psi / 22mins. 13/10/2021	A-annulus pressure	●
Production 5-1/2" casing (I)	Green cement casing pressure test conducted to 3550 psi / 10min on 13/10/2021. Grey cement pressure test conducted to 9500 psi on 18/10/2021	A-annulus pressure	●
Production casing cement 5-1/2" (E)	Job executed as per program (returns to surface, densities, volumes, lifting pressures) on 13/10/2021. Cement quality verified by RBT log on 18/10/2021.	B-annulus pressure	●

Secondary barrier elements

Element	Qualification	Monitoring	
7-1/16" Upper/Lower Master Valve / Tubing Head	Pressure test companion flange/LMV to 10,001/17mins 15/10/2021. Flange connection between 7-1/16" LMV and TH pressure tested to 10,114 psi / 17mins 08/10/2021. Grey Cement pressure test conducted against closed UMW to 9,500psi testing UMW and connection between UMW & LMV on 18/10/2021	A-annulus pressure.	●
2-1/16" SOV (B-section)	2-1/16" SOV PT to 15000 psi 26/09/2019.	A-annulus pressure.	●
Tubing Head (B-Section) / Casing Head (A-Section) Wellhead (I)	Tubing Head pack-off seals pressure tested to 10,020 psi / 23mins on 14/10/2021. Flanged connection between Tubing Head & Casing Head pressure tested to 5,025psi / 17min on 14/10/2021.	A-annulus pressure. External observation during regular wellhead inspection.	●
Casing hanger 9-5/8" (E)	Lower pack-off seals pressure tested to 5,046 psi / 18mins on 17/09/2021. Upper pack-off seals pressure tested to 10,011psi / 16.5mins on 17/09/2021.	C-annulus pressure	●
Intermediate casing 9-5/8" (E)	Pressure tested to 3582 psi / 20 mins on 18/09/2021.	C-annulus pressure	●



Prepared by Origin Energy

Depth reference: RKB, Silvercity Rig #40



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Intermediate 9-5/8" casing cement (E)	Successful cement job performed with cement returns to surface. Job executed as per program (densities, volumes, lifting pressures) on 16/09/2021.	C-annulus pressure	●
Formation integrity at 9-5/8" shoe (E)	LOT conducted at the shoe to 27 ppg EMW on 18/09/2021.	Not accessible	●

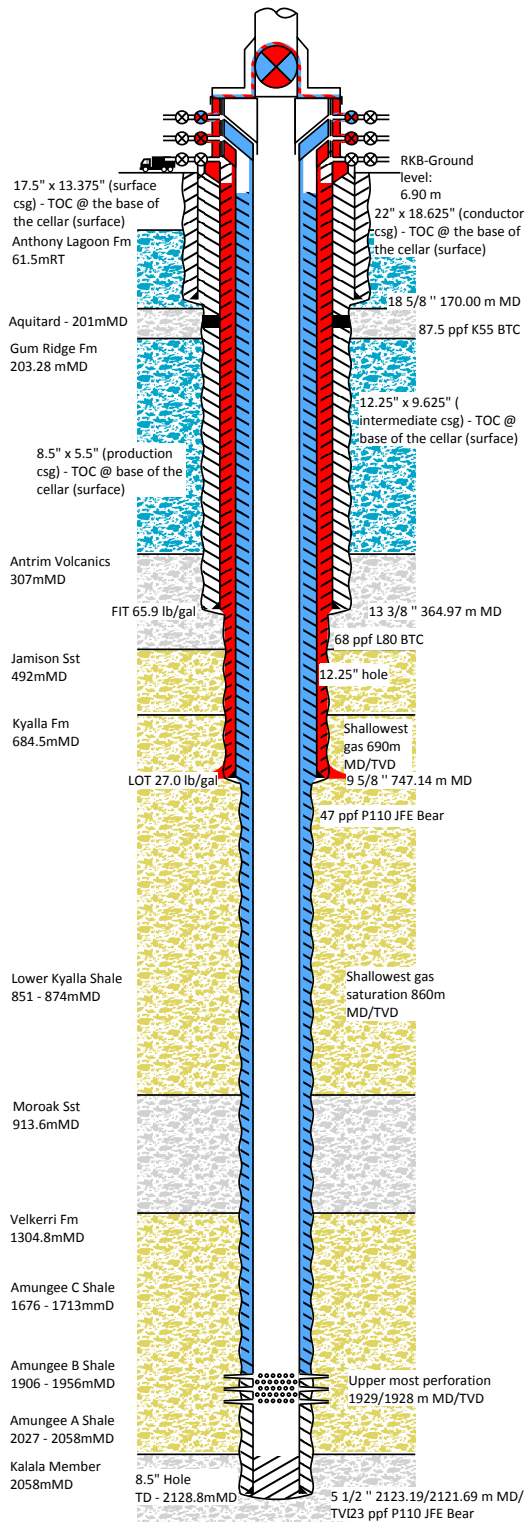
One barrier degraded

Note:
 Surface Hole Section:
 - Surface hole caliper run indicated thief zone at 174m. Unable to cure thief zone with 40 bbl and 35 bbl LCM pill. Attempted to cure thief zone with 3x 15.8 ppg LC plugs of 60 bbl, 40 bbl and 80 bbl unsuccessfully.
 - Poor cement above the ACP ~2m of good bond. Avg to poor bond interval of 22m. Below packer cement up to the packer from the base of the surface casing with 35m of good bond.
 - Top up cement job performed on 13-3/8" x 18-5/8" annulus with 13bbl of 13.5ppg cement (equal to 30m of height in annulus). No slumping observed.
 - Annulus Casing Packer set at 200.71-202.96mMDRT.

Intermediate Hole Section:
 - 13.5 ppg lead slurry, 15.8ppg tail slurry returns observed.
 - LOT 27 ppg equivalent

Production Hole Section:
 - 13.5ppg CemFIT Heal / 14.5 ppg Evercrete / 15.8ppg & 16 ppg tail cement, returns to surface.
 - Cement displaced with 8.4ppg brine
 - Shoe track verified as per Origin Standards.
 - 150m of good cement above perforations at 1929m
 - 0-613m Poor to very poor
 - 613 – 745 Poor to average
 - 745 – 790 Average
 - 790 – 863 Poor
 - 862 – 944 Average
 - 944 – 965 Good
 - 965 – 1298 Average with patchy sections
 - 1298 – 1584 Average to good
 - 1594 to 1760 Patchy
 - 1760 – 1768 Poor
 - 1768 – 1929 Good
 - Intermediate Casing Pressure - 685 psi (18/9/22). Pressure 1st observed 17/3/22. Routine monitoring on 5/12/2021 ICP = 0 psig. Source undergoing investigation.

(I) = Internal, (E) = External
 A-annulus = 5-1/2", B-annulus = 9-5/8" x 5-1/2", C-annulus = 13-3/8" x 9-5/8"



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Signature: 

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