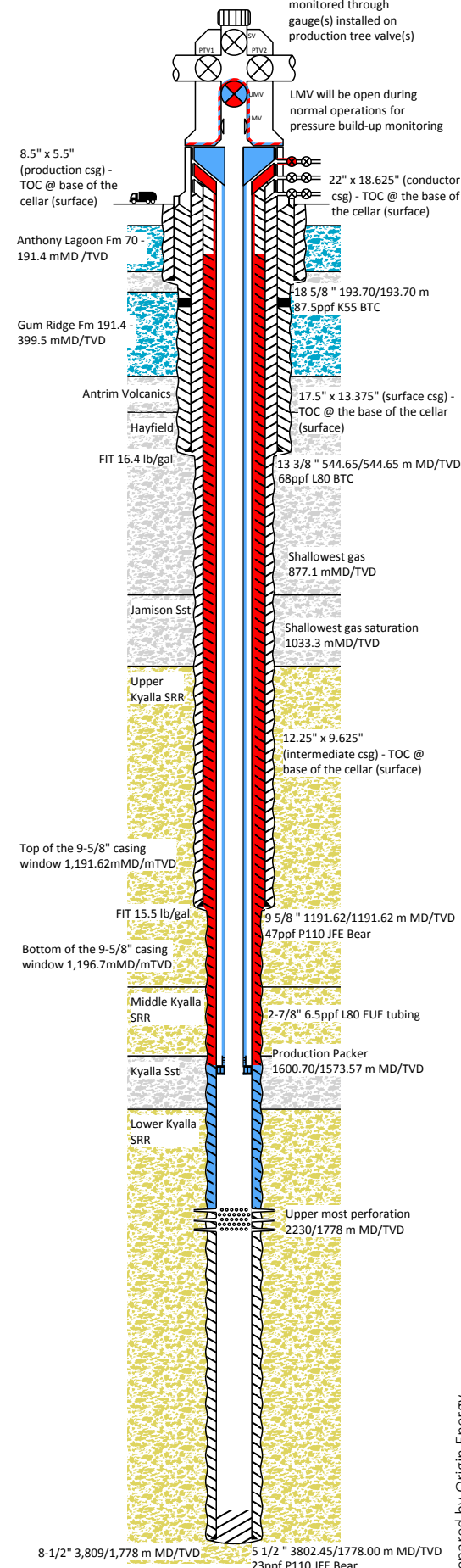




Field : Beetaloo
 Well : Kyalla 117 N2-1(H) ST2
 Schematic : OE.D 2.4-a1 rev. 2
 Date : 24-Feb-2021

Well design pressure 10000 psi
 Reservoir pressure 2760 psi
 Prepared by : Daniel Davis
 Verified by : DM / PG

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



Well testing Kyalla 117 N2-1H Shut-in

As built

Primary barrier elements

Element	Qualification	Monitoring
Upper/Lower Master Valve	LMV and UMV pressure tested independently to 250 / 4,100 Psi 10 mins each on 23/10/2020 and 23/01/2021.	External observation during regular wellhead inspection, LELs
Tubing hanger (I)	Pressure tested tubing hanger seals to 250 / 4,100 Psi / 10 mins each on 23/10/2020	A-annulus pressure
Production Tubing (I)	Pressure test production tubing to 250 / 3,550 Psi / 20 mins each on 23/10/2020	A-annulus pressure
Production packer (I)	Pressure test production packer to 250 Psi / 5 mins and 4,100 psi / 20 mins on 14/10/2020	B-annulus pressure
Production casing	Pressure tested production casing and lower completion production packer (tubing plug installed in tailpipe) to 250 Psi / 5 mins and 4,100 psi / 20 mins on 14/10/2020	B-annulus pressure
Production casing cement	Cement quality verified by CBL-VDL-MAP log on 26/02/2020. Good/average cement bond verified from upper most perforation (2270 mMD) to production packer (1600.70 mMD)	C-annulus pressure

Secondary barrier elements

Element	Qualification	Monitoring
Upper/Lower Master Valve	LMV and UMV pressure tested independently to 250 / 4,100 Psi 10 mins each on 23/10/2020 and 23/01/2021.	External observation during regular wellhead inspection, LELs
Wellhead annulus access valve (I)	A Annulus access valves tested to 10,000 Psi / 15 mins on 21/02/2020 during drilling operations	External observation, regular function test during wellhead inspection, LELs
Production casing hanger (E)	Between 5-1/2" pack off seals pressure tested to 10,060 Psi / 15 mins on 20/02/2020	C-annulus pressure
Production casing	Pressure tested production casing and lower completion production packer (tubing plug installed in tailpipe) to 250 Psi / 5 mins and 4,100 psi / 20 mins on 14/10/2020	B-annulus pressure
Production casing cement	Cement quality verified by CBL-VDL-MAP log on 26/02/2020. Good/average cement bond verified to 195 mMD.	B-annulus pressure

Note:

(I) = Internal, (E) = External

A-annulus = 2-7/8", B-annulus = 5.5" x 2-7/8", C-annulus = 9-5/8" x 5.5", D-annulus = 13-3/8" x 9-5/8"

Note:

- Poor cement above 120mMD in 13-3/8" x 18-5/8" annulus. Potential debonding / microannuli, or patchy cement with weighted spacer present.

- Top up cement job performed on 13-3/8" x 18-5/8" annulus. 5bbl of 15.8ppg top up cement (equal to 11m of height in annulus) injected. No slumping observed.

Prepared by Origin Energy



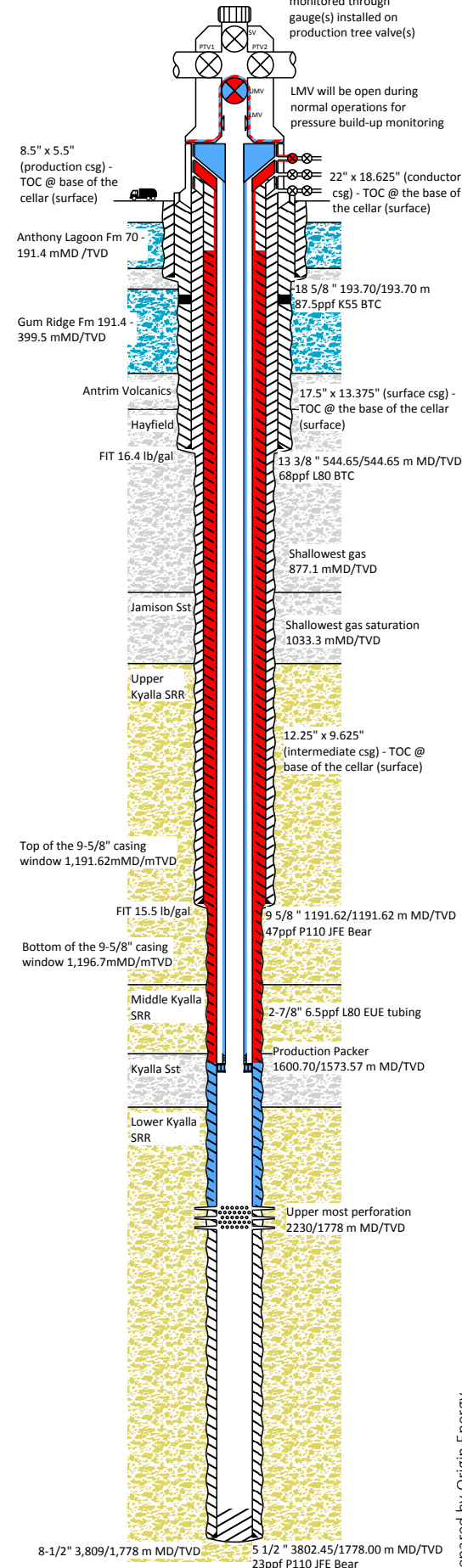
Field : Beetaloo
 Well : Kyalla 117 N2-1(H) ST2
 Schematic : OE.D 2.4-a1 rev. 2
 Date : 13-Dec-2021

Well design pressure 10000 psi
 Reservoir pressure 2760 psi
 Prepared by : Dan Davis
 Verified by : DM / PG

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

Wellbore pressure monitored through gauge(s) installed on production tree valve(s)

LMV will be open during normal operations for pressure build-up monitoring



- Annulus Casing Packer set at 208.39-211.44mMD.
- FIT performed on 13-3/8" casing shoe to 16.4ppg EMW.
- 9-5/8" casing successfully cemented with 13.5ppg lead /15.8ppg tail cement, with 13.5ppg cement returned to surface.
- Poor cement above 320mMD in 9-5/8" x 13-3/8" annulus. Potential debonding / microannuli, or patchy cement with weighted spacer present.
- 5-1/2" casing successfully cemented with 14.0ppg lead /15.6ppg tail cement, with 25bbbls of cement returned to surface. Poor cement above 195mMD in 9-5/8" x 5-1/2" annulus.
- Integrity of 5-1/2" production casing successfully verified by pressure test to 9,926psi / 20mins (grey cement pressure test).
- Shoe track verification carried out in accordance with Origin standards

- As approved with the regulator EUE tubing is considered acceptable for well testing as long as the secondary barrier element (production casing) has a metal to metal connection. Upper completion (production tubing) would need to be replaced with a metal to metal seal connection if well is converted into a producer.

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