

Pressure Blanket Procedure

Frac Blanket Wells - See Fig. 1 for Wellbore Layout

Pioneer Y18-744 (05-123-48782)

Wells Fracing

Pioneer Y18-756 (05-123-48785)

Pioneer Y18-766 (05-123-48768)

Pioneer Y18-775 (05-123-48775)

Pioneer Y18-785 (05-123-48783)

Equipment on Location - See Fig 2. for Layout

8 frac tanks

Piping manifold for frac tanks (water storage)

1 chemical trailer treating freshwater w/ biocide to prevent bacterial fouling

1 Booster truck

2 Pump trucks (1 for backup)

Piping on discharge side of the pump truck

1 Frac tank for flow back

Volume, Pressure and Rate Consideration

Total freshwater volume 48,000-67,000 bbls target; 100,000 bbls permitted

Pumping rate 0.5-5 bbls/min

Max pressure at surface 3,000 psi (safety kill switch setup on pump and PSV do not allow pressure to exceed 3000 psi)

Frac gradient in the area is around 1.00 psi/ft

Maximum bottomhole pressure = 6,024 psi. ~3,000 psi at surface and 3,024 psi hydrostatic assuming no friction. Maximum gradient is 0.86 psi/ft which is below frac gradient.

Initial pressure on Wellhead

Tubing = 471 psi and Casing = 800 psi

Timing

Pumping operation will continue no longer than 4 weeks (but approximate dates are 4/21/24-5/8/24).
Frac will start on approximately 4/25/24.

Procedure:

1. Rig up equipment on location (frac tank, flowback tank, biocide, pumps, piping)
2. Shut-in casing and open tubing.
3. Start pumping at 1 bbl/min through tubing (recording pressure, rate and volume)
4. If the pressure stays below 3000 psi after an hour, bump rate to 2-5 bbls/min (MAX RATE 5 BBLS/MIN AND PRESSURE 3000PSI)
5. Pump all water away (24 hour operation). Monitor Pressure on offset wells.
6. Shut well in after all volume pumped.
7. RDMO
8. Once offset well is finished fracing, bring well back online normally or by using green flowback

Fig. 1

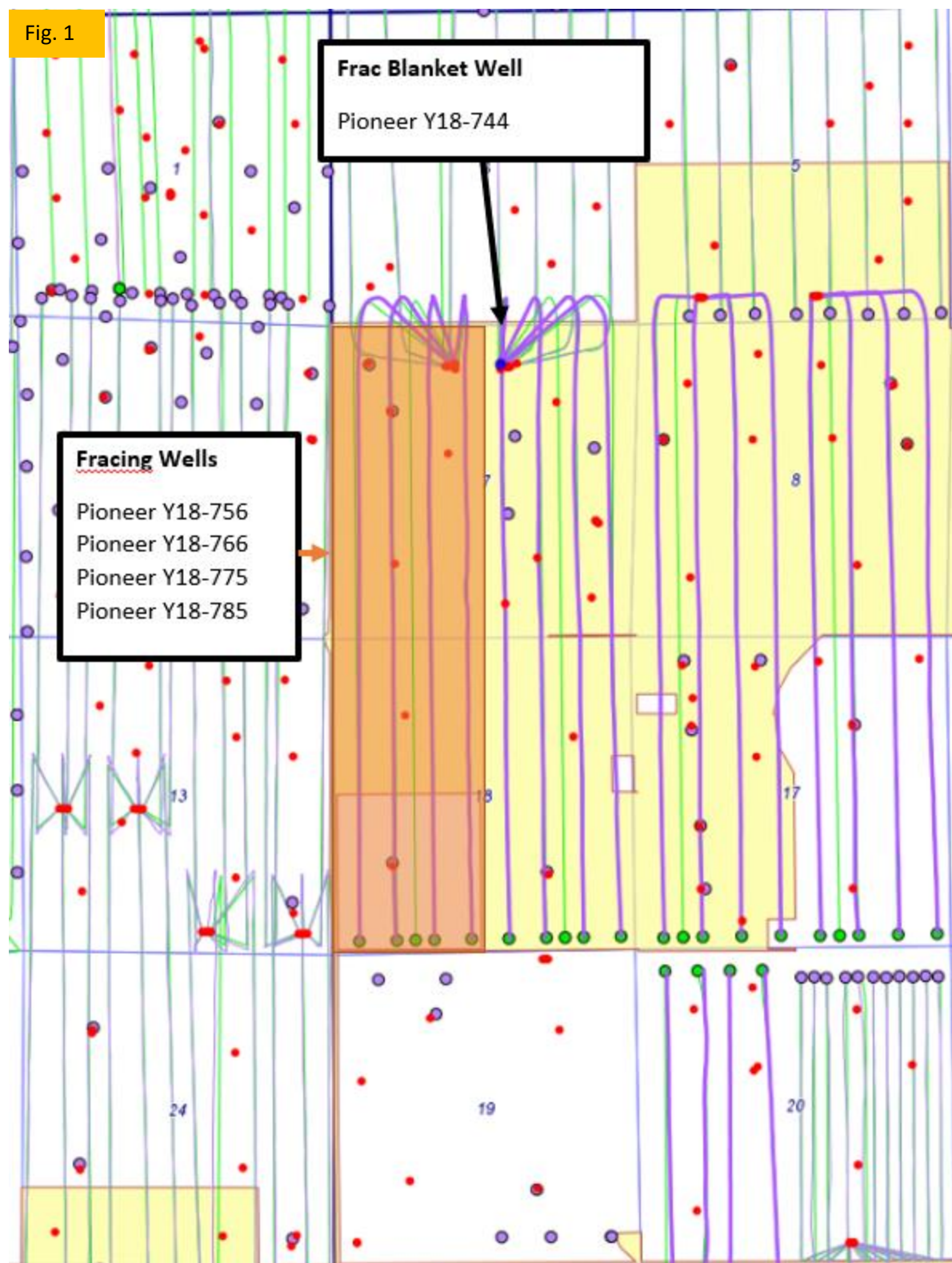
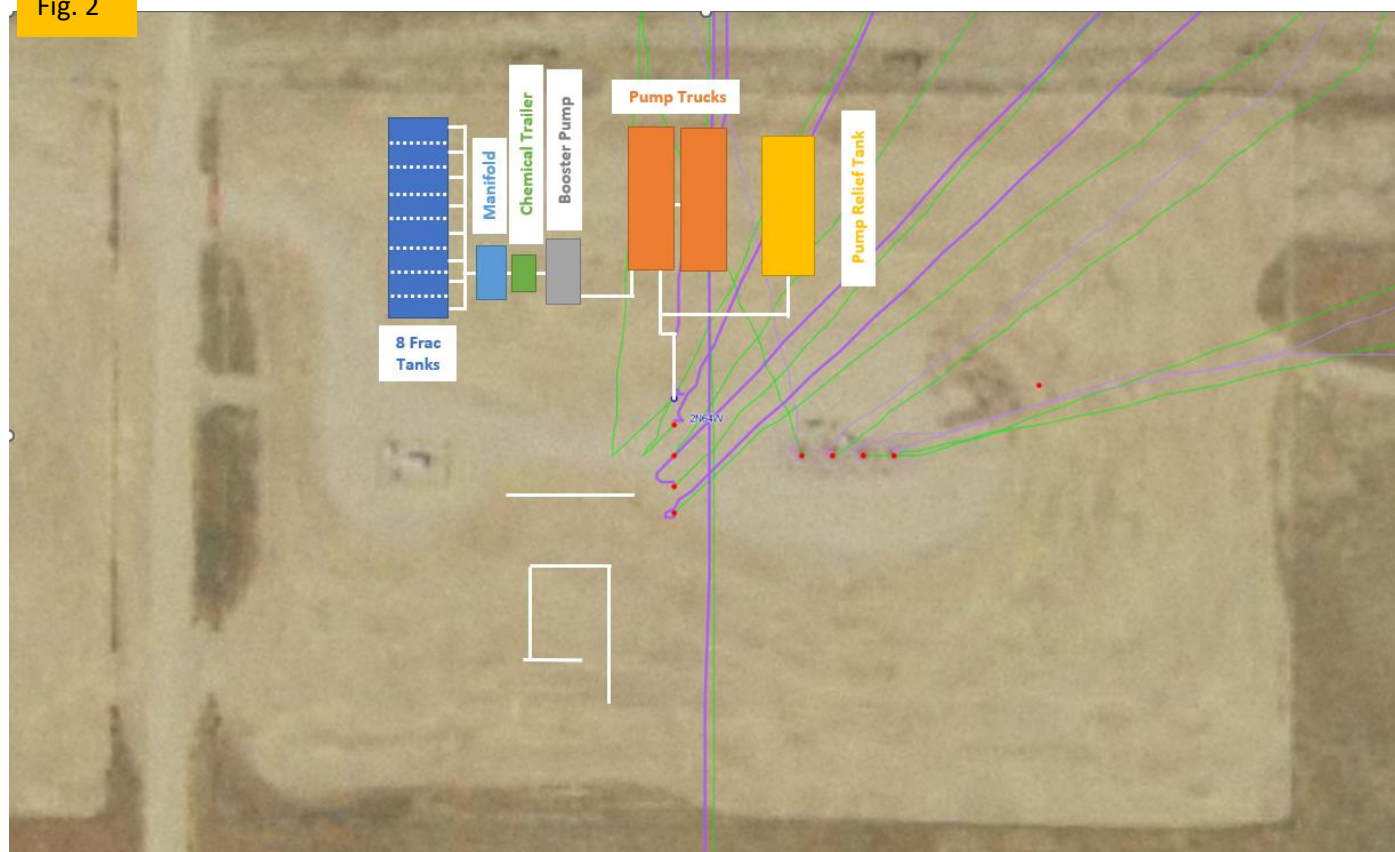



Fig. 2



Well Name: PIONEER Y18-744

Original Hole [Land]		Well Header					
MD (ftKB)	Vertical schematic (actual)	Surface UWI 0512348782		Asset Team		Production Tree Location Land	
2000.1		Original RKB Elevation (ft) 4,914.00		Original KB to Ground (ft) 30.00		Original Spud Date 1/6/2023	
2000.4		Range		Well Sub-Status PR		Abandon Date	
7.002.7		Directions To Well CR22 & 49 north 0.72 of mile, east 0.46 of mile, north 0.1 of mile, east into		Latitude (") 40.158178328		Longitude (") -104.592720497	
7.002.8		Comment SHL CHANGED, see Sundry Doc Number: 403055776 details.					
7.002.9		THERE IS AN EXCEPTION TO THE COGCC LOGGING REQUIREMENTS RULE 317.p. One of the first wells drilled on the pad will be logged with Cased hole Pulsed Neutron Log with Gamma Ray Log from kick-off point into the surface casing. See Sundry Doc Number: 402977394 or BMP details.					
7.002.9		APPROVED SUNDRIES IN DRILL PROGNOSIS PACKET.					
7.002.9		Congressional Location					
7.002.9		Quarter 3 NW	Quarter 4 NE	Section 7	Township 2	Twnshp N/S Dir N	Range E/W Dir W
7.002.9		Rig Operator					
7.002.9		Rig/Unit Supervisor Drew Greedes					
7.002.9		Daily Cost Summary					
7.002.9		Sum of Field Est (Cost) 0					
7.002.9		Wellbore Plug Back Total Depths					
7.002.9		Date 1/12/2023	PSTD (ftKB) 17,591	Method CSG TALLY		Com BALL & SEAT SUB	
7.002.9		Wellbore Sections					
7.002.9		Section Des		Hole Size (in)	Top Depth (ftKB)	Btm Depth (ftKB)	
7.002.9		CONDUCTOR		16	30.0	110.0	
7.002.9		Surface		13 1/2	110.0	2,200.0	
7.002.9		Production		8 1/2	2,200.0	17,618.0	
7.002.9		Zone Statuses					
7.002.9		Zone Name		Status Date		Status	
7.002.9		NIOBRARA		5/15/2023		Open	
7.002.9		Casing Strings					
7.002.9		Conductor, Actual, 110ftKB					
7.002.9		Casing Description Conductor	Run Date 6/6/2022	OD (in) 16	Wt/Len (lb/ft) 36.94	Grade A-52A	Top Depth... Set Depth... 30 110
7.002.9		Surface, Actual, 2189.8ftKB					
7.002.9		Casing Description Surface	Run Date 1/6/2023	OD (in) 9 5/8	Wt/Len (lb/ft) 36.00	Grade J-55	Top Depth... Set Depth... 30 2189.8
7.002.9		Production Casing, Actual, 17610.3ftKB					
7.002.9		Casing Description Production Casing	Run Date 1/12/2023	OD (in) 5 1/2	Wt/Len (lb/ft) 17.00	Grade P-110	Top Depth... Set Depth... 30 17610.3
7.002.9		Cement					
7.002.9		Des		Start Date		Top (ftKB)	Btm (ftKB)
7.002.9		Conductor Cement		6/6/2022		30.0	110.0
7.002.9		Surface Casing Cement		1/6/2023		30.0	2,189.8
7.002.9		Production Casing Cement		1/12/2023		1,480.0	17,610.3
7.002.9		Proposed Cement					
7.002.9		Des				Top (ftKB)	Btm (ftKB)
7.002.9							
7.002.9		Tubing Strings					
7.002.9		Tubing Description	Run Date	String ...	ID (in)	Wt (lb/ft)	Grade Len (ft) Set De...
7.002.9		Tubing - Production	5/4/2023	2 3/8	2.000	4.70	L-80 7,144. 6,904. 8
7.002.9		Tubing Components					
7.002.9		Item Des	OD (in)	Wt (lb/ft)	Grade	Jts	Len (ft) Btm (ftKB) Btm (TVD) (ftKB)
7.002.9		Mandrel	7	4.70	N-80	1	0.70 30.7 30.7
7.002.9		Tubing Pup Joint	2 3/8	4.70	N-80	3	17.30 48.0 48.0
7.002.9		Tubing	2 3/8	4.70	L-80	62	2,049.13 2,097.1 2,097.1

Well Name: PIONEER Y18-744

Original Hole [Land]		Tubing Components								
MD (ftKB)	Vertical schematic (actual)	Item Des	OD (in)	Wt (lb/ft)	Grade	Jts	Len (ft)	Btm (ftKB)	Btm (TVD) (ftKB)	
2000.1		Ceramic Rupture Disc Sub	3.06	4.70	N-80	1	0.80	2,097.9	2,097.9	
2060.9		Tubing	2 3/8	4.70	L-80	1	33.01	2,130.9	2,130.9	
7022.7		Gas Lift Mandrel	3.783	4.70	N-80	1	4.10	2,135.0	2,135.0	
7882.9		Tubing	2 3/8	4.70	L-80	30	958.31	3,093.3	3,081.9	
7883.0		Ceramic Rupture Disc Sub	3.06	4.70	N-80	1	0.80	3,094.1	3,082.7	
7883.0		Tubing	2 3/8	4.70	L-80	1	32.80	3,126.9	3,114.1	
8191.9		Gas Lift Mandrel	3.783	4.70	N-80	1	4.10	3,131.0	3,118.0	
8272.1		Tubing	2 3/8	4.70	L-80	20	628.07	3,759.1	3,718.7	
8622.9		Ceramic Rupture Disc Sub	3.06	4.70	N-80	1	0.80	3,759.9	3,719.5	
8669.1		Tubing	2 3/8	4.70	L-80	1	32.96	3,792.9	3,751.0	
9227.1		Gas Lift Mandrel	3.783	4.70	N-80	1	4.10	3,797.0	3,754.9	
9267.9		Tubing	2 3/8	4.70	L-80	19	595.10	4,392.1	4,323.2	
9267.1		Ceramic Rupture Disc Sub	3.06	4.70	N-80	1	0.80	4,392.9	4,324.0	
9776.9		Tubing	2 3/8	4.70	L-80	1	33.10	4,426.0	4,355.6	
10219.1		Gas Lift Mandrel	3.783	4.70	N-80	1	4.10	4,430.1	4,359.5	
10222.9		Tubing	2 3/8	4.70	L-80	20	626.73	5,056.8	4,958.0	
10689.1		Ceramic Rupture Disc Sub	3.06	4.70	N-80	1	0.80	5,057.6	4,958.7	
10731.2		Tubing	2 3/8	4.70	L-80	1	33.05	5,090.7	4,990.3	
10841.9		Gas Lift Mandrel	3.783	4.70	N-80	1	4.10	5,094.8	4,994.2	
11158.1		Tubing	2 3/8	4.70	L-80	20	628.26	5,723.0	5,594.6	
11619.9		Ceramic Rupture Disc Sub	3.06	4.70	N-80	1	0.80	5,723.8	5,595.4	
11667.2		Tubing	2 3/8	4.70	L-80	1	33.04	5,756.9	5,626.9	
11689.0		Gas Lift Mandrel	3.783	4.70	N-80	1	4.10	5,761.0	5,630.8	
12197.1		Tubing	2 3/8	4.70	L-80	19	595.28	6,356.2	6,200.3	
12277.2		Ceramic Rupture Disc Sub	3.06	4.70	N-80	1	0.80	6,357.0	6,201.1	
12612.2		Tubing	2 3/8	4.70	L-80	1	33.06	6,390.1	6,233.5	
12622.0		Gas Lift Mandrel	3.783	4.70	N-80	1	4.10	6,394.2	6,237.5	
13081.2		Tubing	2 3/8	4.70	L-80	15	495.63	6,889.8	6,713.0	
13229.1		X-Nipple	3.04	4.70	N-80	1	0.93	6,890.8	6,713.8	
13271.9		Tubing	2 3/8	4.70	L-80	7	231.25	7,122.0	6,877.1	
13271.9		Ceramic Rupture Disc Sub	3.06	4.70	N-80	1	0.80	7,122.8	6,877.6	
13811.2		Tubing	2 3/8	4.70	L-80	1	33.08	7,155.9	6,895.4	
14022.9		Gas Lift Mandrel	3.783	4.70	N-80	1	4.10	7,160.0	6,897.5	
14089.1		X/N Profile Nipple	3.06	4.70	N-80	1	1.00	7,161.0	6,898.0	
14689.0		Tubing Pup Joint	2 3/8	4.70	N-80	1	4.10	7,165.1	6,900.1	
14799.9		On-Off Tool	4 1/2	4.70	N-80	1	1.42	7,166.5	6,900.8	
14877.2		DHT-AS-1X DOUBLE J-SLOT PKR	4 5/8	4.70	N-80	1	7.25	7,173.8	6,904.4	
15212.9		Ceramic Rupture Disc Sub	3.06	4.70	N-80	1	0.75	7,174.5	6,904.8	
15652.1		Other In Hole								
15922.1		Run Date	Des			Make		OD (in)	Top (ftKB)	Btm (ftKB)
16171.9										
16611.1		Proposed Other In Hole								
16947.2		Des			Make		OD (in)	Top (ftKB)	Btm (ftKB)	
16947.2										
16989.1		Logs								
17109.9		Date	Type					Depth Top (MD) (ftKB)	Btm (ftKB)	
17247.1		1/6/2023	Logging While Drilling (LWD)					2,187	17,605.0	
17603.2		2/4/2023	CBL/CCL/GR					100	7,323.0	