



Weber PMK16-06

P&A Procedure

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Well Info:

Qtr/Qtr:	<u>SENW</u>	Section:	<u>16</u>	Township:	<u>4N</u>	Range:	<u>66W</u>
Footages:	<u>1820 FNL</u>		<u>&</u>		<u>1980 FWL</u>		
COUNTY:	<u>WELD</u>	STATE:	<u>CO</u>	API #:	<u>05-123-14046</u>		

Surface Csg:	<u>8.625" 24# @ 313' KB</u>	KB Elevation:	<u>4746'</u>
Surface Cmt:	<u>165 sx</u>	GL Elevation:	<u>4733'</u>
Long St Csg:	<u>4.5" 15.1# @ 7414' KB</u>	TD:	<u>7422' KB</u>
Long St Cmt:	<u>245 sx</u>	PBTD:	<u>7344' KB</u>
Long St Date:	<u>11/25/1988</u>		

Plug Back (Sand or CIBP):	<u>FILL</u>		
Perforation Interval (1):	<u>Niobrara Perforations: 6944-7269' KB</u>		
Perforation Interval (2):	<u>Codell Perforations: 7254-7269' KB</u>		
Perforation Interval (3):			
Tubing:	<u>2.375" 4.7# J-55 @ 7236' KB</u>	Rods:	<u></u>
Pump:			
Misc.:	<u>Sussex (4151' to 4460')</u>		

Procedure:

- 1) MIRU workover rig, pump, and tank.
- 2) Blow down well and roll hole with fresh water, if possible.
- 3) ND WH, NU BOP.
- 4) POOH and LD tbg.
- 5) RIH w/ CIBP on wireline and set @ 6,894'
- 6) Dump bail 2 sx of Class G Neat cement on top of CIBP.
- 7) Load hole with fluid and pressure test CIBP to 1000 psi with rig pumps. Hold for 15 minutes.
Test considered successful if <100 psi drop observed. If test is unsuccessful, contact engineer.
- 8) RIH w/ 1' perforating gun and shoot 4-6 spf @ 4560' (100' below Sussex base @ 4460')
- 9) RIH w/ CICR on workstring and set @ 4460' (100' above perforations).
- 10) Load annulus between production casing and workstring. Test to 500 psi for 15 minutes. Test considered successful if <50 psi drop observed. If pressure test fails, contact engineer.
- 11) Establish injection rate.

12) Pump 10 bbls Mud Flush (or similar spacer) followed by 195 sx of cement (15.8ppg Enhanced PlugCem) – calculated TOC @ 4051’ (100’ above top of Sussex)

Length (ft)	OD (in)	ID (in)	ft ³ /ft	Volume (ft ³)	Yield (ft ³ /sk)	Cement (sk)	Nearest 5sk
510	10	4.50	0.435	222	1.209	183	185
100	3.826	0.00	0.080	8	1.209	7	10
						TOTAL:	195

13) Displace cement with 15 bbls fresh water.

Tubing ID	Length (ft)	Disp. Factor (BBL/ft)	Disp (BBL)	Disp -2BBL
1.995	4460	0.00387	17	15

14) Unsting from CICR.

15) Place remaining 2 bbls of cement on top of CICR. Allow to fall on CICR as pulling out.

16) POOH w/ workstring.

17) RIH w/ 1’ perforating gun and shoot 4-6 spf @ 2500’.

18) RIH w/ CICR on workstring and set @ 2,400’ (100’ above perforations).

19) Load annulus between production casing and workstring. Test to 500 psi for 15 minutes. Test considered successful if <50 psi drop observed. If pressure test fails, contact engineer.

20) Establish injection rate.

21) Pump 10 bbls Mud Flush (or similar spacer) followed by 200 sx of cement (15.8ppg G Neat)

Length (ft)	OD (in)	ID (in)	ft ³ /ft	Volume (ft ³)	Yield (ft ³ /sk)	Cement (sk)	Nearest 5sk
500	10	4.50	0.435	217	1.150	189	190
100	3.826	0.00	0.080	8	1.150	7	10
						TOTAL:	200

22) Displace cement with 7 bbls fresh water.

Tubing ID	Length (ft)	Disp. Factor (BBL/ft)	Disp (BBL)	Disp -2BBL
1.995	2400	0.00387	9	7

23) Unsting from CICR.

24) Place remaining 2 bbls of cement on top of CICR. Allow to fall on CICR as pulling out.

25) POOH w/ workstring.

26) RIH w/ WL and cut production casing at 542’. (200’ below surface shoe)

27) Circulate a MINIMUM of 2 bottoms up volumes from surface casing cut (64 bbls) or until well is free of oil, gas, or any large cuttings.

Length (ft)	OD (in)	ID (in)	BBL/ft	Disp (BBL)	2x Disp (BBL)
313	8.097	4.50	0.0440	14	28
7	12.25	4.50	0.1261	1	2
222	10.00	4.50	0.0775	17	34
				TOTAL:	64

- 28) Perform flow check for 5 min to ensure well is static. Record current fluid weight in WellView.
- 29) Unland production casing.
- 30) POOH and LD production casing filling pipe every 6 joints.
- 31) RIH w/ workstring to 542' (top of casing).
- 32) Establish circulation.
- 33) Pump 10 bbls Mud Flush (or similar spacer) followed by 205sx 15.8ppg Enhanced PlugCem cement as a balanced plug. TOC @ surface.

Length (ft)	OD (in)	ID (in)	ft ³ /ft	Vol (ft ³)	Yield (ft ³ /sk)	Cmt (sk)	Nearest 5sk
313	8.097	0.00	0.358	112	1.209	93	95
7	12.25	0.00	0.818	6	1.209	5	5
222	10.00	0.00	0.545	121	1.209	100	105
						TOTAL:	205

- 34) POOH w/ workstring. Top off cement if needed. Cement needs to be ~10' from surface.
- 35) ND BOP. Top off cement as needed.
- 36) RDMO.

Cut surface casing off 6'-8' below surface.

TOC @ Surface

Pump 205sx (15.8 Enhanced PlugCem)

Cut Casing @ 542ft

Perf @ 2500'

CICR @ 2400'

Pump 200sx (15.8 G Neat)

Cement coverage in annulus: 2500' to 2000'

Perf @ 4560'

CICR @ 4460'

Pump 195sx (15.8 Enhanced PlugCem)

Cement coverage in annulus: 4560' to 4051'

Set CIBP @ 6894' w/ 2 sx cement on top

Niobrara Perforations: 6944-7269' KB

Codell Perforations: 7254-7269' KB

TD: 7422' KB

