

**WELL NAME:** Waag 8 **OPERATOR:** Extraction Oil and Gas  
**FIELD:** 7N - Wattenberg **FORMATION:** Niobrara  
**SHL:** qtr-qtr SENW Section 19 Township 7N Range 65W  
**BHL:** qtr-qtr SWNE Section 24 Township 7N Range 66W  
**COUNTY:** Weld **STATE:** CO **API:** 05-123-40357



**SURFACE CASING**  
 SIZE: 9 5/8"  
 WEIGHT: 36#  
 GRADE: J-55  
 CONNECTION: LTC  
 HOLE DEPTH: 910  
 CSG DEPTH: 910  
 INCL @ SHOE: 1.3°  
 CEMENT: 390 sx  
 TOC: Surface  
 HOLE SIZE: 13 1/2"

GROUND LEVEL: 4886  
 KELLY BUSHING: 24.0'  
 SPUD DATE: 5/30/2015  
 COMP DATE: 11/4/2015

**PRODUCTION LINER**  
 SIZE: 4 1/2"  
 WEIGHT: 13.5#  
 GRADE: P-110  
 CONNECTION: TXP/BTC  
 HOLE DEPTH: 12,090  
 LINER TOP: 7,540  
 INCL @ LT: 85°  
 LINER SHOE: 12,036  
 CEMENT: Open hole  
 TOC: -  
 HOLE SIZE: 6 1/8"

**INTERMEDIATE CASING**  
 SIZE: 7"  
 WEIGHT: 26#  
 GRADE: P-110  
 CONNECTION: LTC  
 HOLE DEPTH: 7,705  
 CSG DEPTH: 7,690  
 INCL @ SHOE: 94°  
 CEMENT: 478 sx 12.7#  
 349 sx 13.8#  
 TOC: Surface  
 HOLE SIZE: 8 3/4"

**PRODUCTION TUBING**  
 SIZE: 2 3/8"  
 WEIGHT: 4.7#  
 GRADE: L-80  
 DEPTH: 7,256  
 INCL @ EOT: 49°

9 5/8" csg @ 910' (1.3° incl)

Stage	Packer Depth	Sleeve Depth	Sleeve ID	Stage Length	Stage	Packer Depth	Sleeve Depth	Sleeve ID	Stage Length
1	11,940	12,036	1.480	150	25	8,245	8,343	3.280	184
2	11,797	11,896	1.535	143	26	8,103	8,201	3.405	142
3	11,615	11,709	1.590	182	27	7,921	8,016	3.530	182
4	11,474	11,570	1.645	141	28	7,735	7,831	3.655	186
5	11,337	11,429	1.700	137	29				
6	11,151	11,250	1.755	186	30				
7	11,011	11,109	1.830	140	31				
8	10,866	10,965	1.905	145	32				
9	10,725	10,821	1.980	141	33				
10	10,539	10,636	2.055	186	34				
11	10,400	10,496	2.130	139	35				
12	10,257	10,353	2.205	143	36				
13	10,115	10,212	2.280	142	37				
14	9,935	10,030	2.355	180	38				
15	9,797	9,888	2.430	137	39				
16	9,655	9,753	2.505	142	40				
17	9,468	9,565	2.580	187	41				
18	9,328	9,424	2.655	141	42				
19	9,182	9,281	2.730	145	43				
20	9,043	9,138	2.805	139	44				
21	8,857	8,954	2.880	186	45				
22	8,718	8,812	2.955	140	46				
23	8,574	8,671	3.030	143	47				
24	8,430	8,528	3.155	145	48				

**Frac Stimulation**  
 Total Fluid: 54,072 bbls  
 Total Sand: 5,604,164 lbs 40/70  
 lbs 20/40 white  
 lbs 20/40 resin  
**5,604,164 lbs**  
**1274 lbs/ft**

**Completion Notes**  
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KOP - 6700'

EOT @ 7256' (49° incl)

Liner Top @ 7540' (85° incl)

8 3/4" hole @ 7705'  
7" csg @ 7690' (94° incl)

156' Avg Stage Length

Liner Shoe @ 12036'

MD 12,090  
 TVD 7191'

28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1