



WR 35 FORM COMPLETIONS INFORMATION

Well Header

Well Name J Osborn HSOP16 203	API/UWI 4703305941	Lease	Pad Name J Osborn HSOP16	Operator Arsenal Resources	Well Type Development	Well Subtype Multi
Original KB Elevation (ft) 1,191.00	Water Depth (ft)	Well License Date 5/9/2019	Spud Date 11/5/2021	Rig Release Date 11/22/2021		
County Harrison	District Simpson	Division Development	Division Code			
Lat/Long Datum	Latitude (°) 39° 15' 57.269" N	Longitude (°) 80° 13' 4.441" W	UTM Easting (m)	UTM Northing (m)		

Jobs

Job Category Completion/Workover	Primary Job Type Initial Completion	Start Date 1/10/2022	End Date
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Perforations

Date	Top (ftKB)	Btm (ftKB)	Entered Shot Total	Zone
3/21/2022	7,514.0	7,676.0	40	Marcellus, Original Hole
3/21/2022	7,714.0	7,876.0	40	Marcellus, Original Hole
3/20/2022	8,114.0	8,276.0	40	Marcellus, Original Hole
3/20/2022	8,314.0	8,476.0	40	Marcellus, Original Hole
3/20/2022	8,514.0	8,676.0	40	Marcellus, Original Hole
3/19/2022	8,714.0	8,876.0	40	Marcellus, Original Hole
3/19/2022	8,914.0	9,076.0	40	Marcellus, Original Hole
3/19/2022	9,114.0	9,276.0	40	Marcellus, Original Hole
3/19/2022	9,314.0	9,476.0	40	Marcellus, Original Hole
3/19/2022	9,514.0	9,676.0	40	Marcellus, Original Hole
3/18/2022	9,714.0	9,876.0	40	Marcellus, Original Hole
3/18/2022	9,914.0	10,076.0	40	Marcellus, Original Hole
3/18/2022	10,114.0	10,276.0	40	Marcellus, Original Hole
3/17/2022	10,314.0	10,476.0	40	Marcellus, Original Hole
3/17/2022	10,514.0	10,676.0	40	Marcellus, Original Hole
3/17/2022	10,714.0	10,876.0	40	Marcellus, Original Hole
3/17/2022	10,914.0	11,076.0	40	Marcellus, Original Hole
3/17/2022	11,114.0	11,276.0	40	Marcellus, Original Hole
3/16/2022	11,314.0	11,476.0	40	Marcellus, Original Hole
3/16/2022	11,514.0	11,676.0	40	Marcellus, Original Hole
3/16/2022	11,714.0	11,874.0	40	Marcellus, Original Hole
3/16/2022	11,914.0	12,076.0	40	Marcellus, Original Hole
3/15/2022	12,114.0	12,276.0	40	Marcellus, Original Hole
3/15/2022	12,314.0	12,476.0	40	Marcellus, Original Hole
3/15/2022	12,514.0	12,676.0	40	Marcellus, Original Hole
3/15/2022	12,714.0	12,876.0	40	Marcellus, Original Hole
3/15/2022	12,914.0	13,076.0	40	Marcellus, Original Hole
3/14/2022	13,114.0	13,276.0	40	Marcellus, Original Hole
3/14/2022	13,314.0	13,476.0	40	Marcellus, Original Hole
3/14/2022	13,514.0	13,676.0	40	Marcellus, Original Hole
3/14/2022	13,714.0	13,876.0	40	Marcellus, Original Hole
3/12/2022	13,914.0	14,076.0	40	Marcellus, Original Hole
3/12/2022	14,114.0	14,276.0	40	Marcellus, Original Hole
3/11/2022	14,314.0	14,476.0	40	Marcellus, Original Hole
3/11/2022	14,514.0	14,676.0	40	Marcellus, Original Hole
3/11/2022	14,714.0	14,876.0	40	Marcellus, Original Hole
3/11/2022	14,914.0	15,076.0	40	Marcellus, Original Hole
3/11/2022	15,114.0	15,276.0	40	Marcellus, Original Hole
3/11/2022	15,314.0	15,476.0	40	Marcellus, Original Hole
3/10/2022	15,514.0	15,676.0	40	Marcellus, Original Hole
3/10/2022	15,714.0	15,876.0	40	Marcellus, Original Hole
3/10/2022	15,914.0	16,076.0	40	Marcellus, Original Hole
3/9/2022	16,114.0	16,276.0	40	Marcellus, Original Hole
3/9/2022	16,314.0	16,476.0	40	Marcellus, Original Hole
3/9/2022	16,514.0	16,676.0	40	Marcellus, Original Hole



WR 35 FORM COMPLETIONS INFORMATION

Perforations

Date	Top (ftKB)	Btm (ftKB)	Entered Shot Total	Zone
3/9/2022	16,714.0	16,876.0	40	Marcellus, Original Hole
3/8/2022	16,914.0	17,076.0	40	Marcellus, Original Hole
3/8/2022	17,114.0	17,276.0	40	Marcellus, Original Hole
3/8/2022	17,314.0	17,476.0	40	Marcellus, Original Hole
3/8/2022	17,514.0	17,676.0	40	Marcellus, Original Hole
3/7/2022	17,714.0	17,876.0	40	Marcellus, Original Hole
3/7/2022	17,914.0	18,076.0	40	Marcellus, Original Hole
3/7/2022	18,114.0	18,276.0	40	Marcellus, Original Hole
3/6/2022	18,314.0	18,476.0	40	Marcellus, Original Hole
3/6/2022	18,514.0	18,676.0	40	Marcellus, Original Hole
3/6/2022	18,714.0	18,876.0	40	Marcellus, Original Hole
3/6/2022	18,914.0	19,076.0	40	Marcellus, Original Hole
3/5/2022	19,114.0	19,276.0	40	Marcellus, Original Hole
3/5/2022	19,314.0	19,476.0	40	Marcellus, Original Hole
3/5/2022	19,514.0	19,676.0	40	Marcellus, Original Hole
3/5/2022	19,714.0	19,876.0	40	Marcellus, Original Hole
3/4/2022	19,914.0	20,076.0	40	Marcellus, Original Hole
3/4/2022	20,114.0	20,276.0	40	Marcellus, Original Hole
3/4/2022	20,314.0	20,476.0	40	Marcellus, Original Hole
3/4/2022	20,514.0	20,676.0	40	Marcellus, Original Hole
3/3/2022	20,714.0	20,876.0	40	Marcellus, Original Hole
3/3/2022	20,914.0	21,076.0	40	Marcellus, Original Hole
3/3/2022	21,114.0	21,276.0	40	Marcellus, Original Hole
3/2/2022	21,314.0	21,476.0	40	Marcellus, Original Hole
3/2/2022	21,514.0	21,676.0	40	Marcellus, Original Hole
3/2/2022	21,714.0	21,876.0	40	Marcellus, Original Hole
3/2/2022	21,914.0	22,076.0	40	Marcellus, Original Hole
3/1/2022	22,114.0	22,276.0	40	Marcellus, Original Hole
3/1/2022	22,314.0	22,473.0	40	Marcellus, Original Hole
3/1/2022	22,514.0	22,676.0	40	Marcellus, Original Hole
2/28/2022	22,714.0	22,876.0	40	Marcellus, Original Hole
2/25/2022	22,914.0	23,076.0	40	Marcellus, Original Hole
2/25/2022	23,114.0	23,276.0	40	Marcellus, Original Hole
2/25/2022	23,314.0	23,476.0	40	Marcellus, Original Hole
2/24/2022	23,514.0	23,676.0	40	Marcellus, Original Hole
2/24/2022	23,714.0	23,876.0	40	Marcellus, Original Hole
2/23/2022	23,914.0	24,076.0	40	Marcellus, Original Hole
2/23/2022	24,114.0	24,276.0	40	Marcellus, Original Hole
2/23/2022	24,314.0	24,476.0	40	Marcellus, Original Hole
2/23/2022	24,514.0	24,676.0	40	Marcellus, Original Hole
1/18/2022	24,800.0	24,717.0	4	Marcellus, Original Hole

Stimulations Summary

Start Date	Treat Rate Avg (bbl/min)	Treat Pressure Avg (psi)	Proppant Total (lb) 43,229,110.0	Volume Clean Total (bbl) 758,475.00	Frac Gradient Average (psi/ft) 1.24
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Stimulation Intervals

Interval Number	Start Date	Slurry Rate Avg (bbl/min)	P Treat Avg (psi)	P Breakdown (psi)	ISIP (psi)	Proppant Total OR (lb)	Vol Clean Total (bbl)
1	2/22/2022	80.1	9,002.0		4,920.0	251,560.0	5,741.00
2	2/23/2022	79.6	8,947.0	5,523.0	4,500.0	500,100.0	9,656.00
3	2/23/2022	80.3	9,369.0	6,385.0	4,630.0	500,180.0	9,602.00
4	2/23/2022	80	9,297.0	7,259.0	5,512.0	501,000.0	9,325.00
5	2/24/2022	79.9	9,299.0	7,064.0	5,013.0	502,400.0	9,338.00
6	2/24/2022	80.1	9,088.0	6,361.0	4,567.0	499,420.0	9,336.00
7	2/24/2022	84.7	8,986.0	6,532.0	5,564.0	499,660.0	9,297.00
8	2/25/2022	83	9,171.0	6,752.0	4,930.0	500,000.0	9,295.00



WR 35 FORM COMPLETIONS INFORMATION

Stimulation Intervals

Interval Number	Start Date	Slurry Rate Avg (bbl/min)	P Treat Avg (psi)	P Breakdown (psi)	ISIP (psi)	Proppant Total OR (lb)	Vol Clean Total (bbl)
9	2/25/2022	80	8,625.0	6,094.0	5,560.0	499,980.0	9,233.00
10	2/28/2022	83.5	8,960.0	6,389.0	6,019.0	500,220.0	9,326.00
11	3/1/2022	83.4	9,340.0	7,141.0	5,070.0	501,920.0	9,153.00
12	3/1/2022	80	8,950.0	6,985.0	6,240.0	500,380.0	9,254.00
13	3/1/2022	80.3	8,973.0	6,658.0	6,400.0	500,590.0	9,279.00
14	3/2/2022	83.6	9,084.0	6,347.0	6,441.0	498,980.0	9,288.00
15	3/2/2022	79.8	8,811.0	6,609.0	5,780.0	501,780.0	9,304.00
16	3/2/2022	79.5	9,074.0	6,651.0	6,029.0	439,380.0	8,623.00
17	3/2/2022	79.6	9,385.0	6,607.0	5,206.0	503,980.0	9,200.00
18	3/3/2022	84.9	9,449.0	6,331.0	5,886.0	498,280.0	9,230.00
19	3/3/2022	77.7	9,308.0	6,898.0	5,438.0	484,480.0	10,738.00
20	3/3/2022	79.6	8,904.0	6,626.0	5,295.0	501,730.0	9,205.00
21	3/3/2022	79.4	9,172.0	6,752.0	6,219.0	502,540.0	9,128.00
22	3/4/2022	80.2	9,112.0	8,076.0	6,689.0	508,910.0	8,810.00
23	3/4/2022	79.4	8,743.0	7,577.0	6,426.0	499,900.0	8,834.00
24	3/4/2022	85.1	8,962.0	7,333.0	5,804.0	503,900.0	8,910.00
25	3/5/2022	83.2	9,025.0	6,470.0	5,694.0	499,460.0	9,090.00
26	3/5/2022	88.2	8,981.0	4,399.0	6,320.0	501,890.0	8,882.00
27	3/5/2022	88.6	8,945.0	5,653.0	6,310.0	499,480.0	9,012.00
28	3/5/2022	87.1	8,933.0	6,404.0	5,617.0	504,760.0	9,111.00
29	3/5/2022	87.1	8,825.0	10,491.0	6,504.0	499,980.0	8,704.00
30	3/6/2022	88	9,029.0	7,362.0	5,760.0	502,170.0	8,811.00
31	3/6/2022	89.1	9,055.0	6,445.0	6,520.0	498,140.0	8,772.00
32	3/6/2022	88.2	9,038.0	6,039.0	6,219.0	500,180.0	8,721.00
33	3/7/2022	87.5	9,192.0	7,004.0	6,658.0	498,920.0	8,699.00
34	3/7/2022	89.4	9,165.0	6,552.0	6,256.0	500,410.0	8,807.00
35	3/7/2022	88.6	8,881.0	5,938.0	6,402.0	498,060.0	8,854.00
36	3/7/2022	88.8	8,871.0	10,678.0	6,304.0	499,440.0	8,678.00
37	3/8/2022	89.4	9,010.0	7,000.0	5,813.0	500,250.0	8,763.00
38	3/8/2022	89.4	9,074.0	6,513.0	6,220.0	500,410.0	8,740.00
39	3/8/2022	89.3	9,274.0	10,707.0	5,960.0	498,860.0	8,495.00
40	3/9/2022	88.9	9,374.0	7,444.0	5,815.0	506,460.0	8,498.00
41	3/9/2022	89.3	8,896.0	6,839.0	5,504.0	503,320.0	8,604.00
42	3/9/2022	88.3	8,800.0	7,308.0	6,461.0	503,150.0	8,577.00
43	3/9/2022	88.2	8,939.0	6,358.0	6,100.0	500,340.0	8,779.00
44	3/9/2022	88.5	8,831.0	7,058.0	6,020.0	500,120.0	8,556.00
45	3/10/2022	88	8,746.0	6,057.0	5,850.0	500,200.0	8,560.00
46	3/10/2022	89.6	8,625.0	6,246.0	6,110.0	499,860.0	8,523.00
47	3/10/2022	89.7	8,535.0	6,193.0	6,059.0	502,310.0	8,705.00
48	3/10/2022	88.5	8,593.0	5,654.0	6,190.0	500,060.0	8,503.00
49	3/11/2022	88.8	8,587.0	7,497.0	6,095.0	500,400.0	8,498.00
50	3/11/2022	89.4	8,912.0	6,507.0	6,205.0	502,050.0	8,809.00
51	3/11/2022	89.4	8,854.0	6,367.0	6,495.0	502,960.0	8,493.00
52	3/11/2022	89.1	8,719.0	7,166.0	6,055.0	500,470.0	8,635.00
53	3/11/2022	88.3	8,628.0	7,208.0	6,090.0	500,600.0	8,547.00
54	3/12/2022	87.8	8,700.0	7,177.0	6,124.0	503,340.0	8,560.00
55	3/12/2022	88.9	8,637.0	5,853.0	5,850.0	500,120.0	8,546.00
56	3/14/2022	89.4	8,736.0	5,978.0	6,065.0	499,510.0	8,482.00
57	3/14/2022	89.5	8,722.0	6,987.0	6,146.0	497,990.0	8,482.00
58	3/14/2022	88.9	8,740.0	7,877.0	6,280.0	501,110.0	8,490.00
59	3/14/2022	89.8	9,051.0	6,934.0	6,500.0	500,180.0	8,467.00
60	3/15/2022	89.5	8,945.0	7,365.0	6,500.0	501,260.0	8,498.00
61	3/15/2022	88.5	9,074.0	6,794.0	6,525.0	501,280.0	8,501.00
62	3/15/2022	88.8	8,919.0	7,383.0	6,724.0	503,080.0	8,518.00
63	3/15/2022	87.5	9,199.0	6,756.0	7,000.0	491,140.0	8,484.00



WR 35 FORM COMPLETIONS INFORMATION

Stimulation Intervals

Interval Number	Start Date	Slurry Rate Avg (bbl/min)	P Treat Avg (psi)	P Breakdown (psi)	ISIP (psi)	Proppant Total OR (lb)	Vol Clean Total (bbl)
64	3/16/2022	89	8,498.0	6,110.0	5,600.0	500,220.0	8,474.00
65	3/16/2022	88.9	8,285.0	6,822.0	6,563.0	501,060.0	8,408.00
66	3/16/2022	88.2	9,033.0	7,456.0	5,890.0	502,260.0	8,469.00
67	3/16/2022	89.3	8,612.0	7,424.0	6,025.0	500,180.0	8,474.00
68	3/16/2022	89.5	8,450.0	7,829.0	6,025.0	500,200.0	8,437.00
69	3/17/2022	88.3	8,343.0	7,071.0	5,360.0	500,020.0	8,504.00
70	3/17/2022	88.8	8,194.0	6,879.0	5,692.0	502,170.0	8,388.00
71	3/17/2022	88.6	8,434.0	6,693.0	5,990.0	500,240.0	8,556.00
72	3/17/2022	88.8	8,317.0	6,845.0	6,180.0	500,380.0	8,520.00
73	3/18/2022	88.9	8,345.0	6,124.0	6,280.0	500,340.0	8,468.00
74	3/18/2022	88.6	8,617.0	6,927.0	5,625.0	500,760.0	8,357.00
75	3/18/2022	89.2	8,377.0	7,551.0	6,250.0	499,940.0	8,425.00
76	3/18/2022	89.1	8,171.0	7,185.0	6,540.0	500,080.0	8,474.00
77	3/19/2022	89.4	8,125.0	8,514.0	5,560.0	500,100.0	8,463.00
78	3/19/2022	89.8	7,870.0	6,266.0	6,364.0	501,280.0	8,318.00
79	3/19/2022	89.9	8,002.0	6,622.0	6,112.0	500,020.0	8,381.00
80	3/19/2022	88.2	8,072.0	7,268.0	6,050.0	500,180.0	8,420.00
81	3/19/2022	87.9	7,886.0	6,466.0	6,370.0	500,560.0	8,407.00
82	3/20/2022	88.3	8,770.0	6,244.0	6,244.0	502,140.0	8,333.00
83	3/20/2022	89	8,271.0	5,946.0	6,219.0	497,760.0	8,328.00
84	3/20/2022	89.4	8,240.0	7,243.0	5,350.0	500,240.0	8,395.00
85	3/21/2022	88.9	7,842.0	7,347.0	5,680.0	500,670.0	8,418.00
86	3/21/2022	89.4	7,677.0	7,240.0	5,618.0	500,780.0	8,319.00
87	3/21/2022	89	7,601.0	7,098.0	5,550.0	492,540.0	8,180.00