

Interval #	Displacement to Top Perf (ft)	Displacement to Top Perf (ft)	Top Perf Measured Depth (ft)	Bottom Perf Measured Depth (ft)	Displacement to Bottom Perf (ft)	Displacement to Bottom Perf (ft)	Total Vertical Depth (ft)	Isolation Type	Isolation Tool Provider	Isolation Tool Name	Number of Clusters (ft)	Total Perforations (ft)	EHD (in)	Shots Per Foot (ft)	Perforation Phasing (ft)	Cluster Spacing (ft)	Interval Technology	Plug Depth MD (ft)	Interval Latitude (ft)	Interval Longitude (ft)
1	16,774	399	18,009	18,163	16,917	403	7275.3	No Isolation	N/A	N/A	9	34	0.35	3.4,6	360.00	19.00	iflow, HHP Opti	N/A	40.545256	-104.792450
2	16,606	395	17,829	17,983	16,749	399	7275.3	Plug	Innovex	Swage	9	34	0.35	3.4,6	360.00	19.00	iflow, HHP Opti	17,996	40.545259	-104.791770
3	16,438	391	17,649	17,803	16,582	395	7275.4	Plug	Innovex	Swage	9	34	0.35	3.4,6	360.00	19.00	iflow, HHP Opti	17,816	40.545297	-104.791008
4	16,271	387	17,469	17,623	16,414	391	7275.2	Plug	Innovex	Swage	9	34	0.35	3.4,6	360.00	19.00	iflow, HHP Opti	17,636	40.545324	-104.790422
5	16,103	383	17,289	17,443	16,246	387	7275.1	Plug	Innovex	Swage	9	34	0.35	3.4,6	360.00	19.00	iflow, HHP Opti	17,456	40.545317	-104.790745
6	15,935	379	17,109	17,263	16,079	383	7274.6	Plug	Innovex	Swage	9	34	0.35	3.4,6	360.00	19.00	iflow, HHP Opti	17,276	40.545305	-104.789064
7	15,768	375	16,929	17,083	15,911	379	7274.2	Plug	Geodynamics	Evolv	9	34	0.35	3.4,6	360.00	19.00	CM Dashboard, H	17,096	40.545309	-104.788387
8	15,600	371	16,749	16,903	15,743	375	7274.2	Plug	Geodynamics	Evolv	9	34	0.35	3.4,6	360.00	19.00	CM Dashboard, H	16,916	40.545328	-104.787714
9	15,432	367	16,569	16,723	15,576	371	7274.5	Plug	Geodynamics	Evolv	9	34	0.35	3.4,6	360.00	19.00	CM Dashboard, H	16,736	40.545330	-104.787037
10	15,265	363	16,389	16,543	15,408	367	7274.4	Plug	Geodynamics	Evolv	9	34	0.35	3.4,6	360.00	19.00	CM Dashboard, H	16,556	40.545326	-104.786697
11	15,097	359	16,209	16,363	15,240	363	7274.4	Plug	Geodynamics	Evolv	9	34	0.35	3.4,6	360.00	19.00	CM Dashboard, H	16,376	40.545308	-104.786020
12	14,929	355	16,029	16,183	15,073	359	7274.7	Plug	Geodynamics	Evolv	9	34	0.35	3.4,6	360.00	19.00	CM Dashboard, H	16,196	40.545280	-104.785340
13	14,762	351	15,849	16,003	14,905	355	7274.8	Plug	Geodynamics	Evolv	9	34	0.35	3.4,6	360.00	19.00	CM Dashboard, H	16,016	40.545252	-104.784664
14	14,594	347	15,669	15,823	14,738	351	7274.5	Plug	Geodynamics	Evolv	9	34	0.35	3.4,6	360.00	19.00	CM Dashboard, H	15,836	40.545239	-104.783987
15	14,426	343	15,489	15,643	14,570	347	7274.5	Plug	Geodynamics	Evolv	9	34	0.35	3.4,6	360.00	19.00	CM Dashboard, H	15,656	40.545235	-104.783310
16	14,259	339	15,309	15,463	14,402	343	7274.2	Plug	Geodynamics	Evolv	9	34	0.35	3.4,6	360.00	19.00	CM Dashboard, H	15,476	40.545265	-104.782635
17	14,091	335	15,129	15,283	14,235	339	7273.8	Plug	Geodynamics	Evolv	9	34	0.35	3.4,6	360.00	19.00	CM Dashboard, H	15,296	40.545277	-104.781954
18	13,923	332	14,949	15,103	14,067	335	7273.6	Plug	Geodynamics	Evolv	9	34	0.35	3.4,6	360.00	19.00	CM Dashboard, H	15,116	40.545269	-104.781277
19	13,756	328	14,769	14,923	13,899	331	7273.5	Plug	Geodynamics	Evolv	9	34	0.35	3.4,6	360.00	19.00	CM Dashboard, H	14,936	40.545256	-104.780600
20	13,588	324	14,589	14,743	13,732	327	7273.4	Plug	Geodynamics	Evolv	9	34	0.35	3.4,6	360.00	19.00	CM Dashboard, H	14,756	40.545248	-104.780260
21	13,421	320	14,409	14,563	13,564	323	7273.4	Plug	Geodynamics	Evolv	9	34	0.35	3.4,6	360.00	19.00	CM Dashboard, H	14,576	40.545260	-104.779583
22	13,253	316	14,229	14,383	13,396	319	7272.6	Plug	Geodynamics	Evolv	9	34	0.35	3.4,6	360.00	19.00	CM Dashboard, H	14,396	40.545321	-104.778907
23	13,085	312	14,049	14,203	13,229	315	7271.6	Plug	Geodynamics	Evolv	9	34	0.35	3.4,6	360.00	19.00	CM Dashboard, H	14,216	40.545361	-104.778236
24	12,918	308	13,869	14,023	13,061	311	7272.1	Plug	Geodynamics	Evolv	9	34	0.35	3.4,6	360.00	19.00	CM Dashboard, H	14,036	40.545388	-104.777560
25	12,750	304	13,689	13,843	12,893	307	7272.4	Plug	Geodynamics	Evolv	9	34	0.35	3.4,6	360.00	19.00	CM Dashboard, H	13,856	40.545403	-104.776883
26	12,582	300	13,509	13,663	12,726	303	7274.2	Plug	Geodynamics	Evolv	9	34	0.35	3.4,6	360.00	19.00	CM Dashboard, H	13,676	40.545382	-104.776207
27	12,415	296	13,329	13,483	12,558	299	7276.6	Plug	Geodynamics	Evolv	9	34	0.35	3.4,6	360.00	19.00	CM Dashboard, H	13,496	40.545297	-104.775539
28	12,247	292	13,149	13,303	12,390	295	7279.8	Plug	Geodynamics	Evolv	9	34	0.35	3.4,6	360.00	19.00	CM Dashboard, H	13,316	40.545260	-104.774865
29	12,079	288	12,969	13,123	12,223	291	7278.7	Plug	Geodynamics	Evolv	9	34	0.35	3.4,6	360.00	19.00	CM Dashboard, H	13,136	40.545258	-104.774184
30	11,912	284	12,789	12,943	12,055	287	7275.8	Plug	Geodynamics	Evolv	9	34	0.35	3.4,6	360.00	19.00	CM Dashboard, H	12,956	40.545298	-104.773514
31	11,744	280	12,609	12,763	11,887	283	7275.1	Plug	Geodynamics	Evolv	9	34	0.35	3.4,6	360.00	19.00	CM Dashboard, H	12,776	40.545331	-104.773180
32	11,576	276	12,429	12,583	11,720	279	7274.6	Plug	Geodynamics	Evolv	9	34	0.35	3.4,6	360.00	19.00	CM Dashboard, H	12,596	40.545367	-104.772501
33	11,409	272	12,249	12,403	11,552	275	7274.1	Plug	Geodynamics	Evolv	9	34	0.35	3.4,6	360.00	19.00	CM Dashboard, H	12,416	40.545407	-104.771822
34	11,241	268	12,069	12,223	11,385	271	7272.8	Plug	Geodynamics	Evolv	9	34	0.35	3.4,6	360.00	19.00	CM Dashboard, H	12,236	40.545442	-104.771148
35	11,073	264	11,889	12,043	11,217	267	7272.4	Plug	Geodynamics	Evolv	9	34	0.35	3.4,6	360.00	19.00	CM Dashboard, H	12,056	40.545415	-104.770468
36	10,906	260	11,709	11,863	11,049	263	7272.9	Plug	Geodynamics	Evolv	9	34	0.35	3.4,6	360.00	19.00	CM Dashboard, H	11,876	40.545386	-104.769792
37	10,738	256	11,529	11,683	10,882	259	7273.2	Plug	Geodynamics	Evolv	9	34	0.35	3.4,6	360.00	19.00	CM Dashboard, H	11,696	40.545351	-104.769113
38	10,570	252	11,349	11,503	10,714	255	7273.8	Plug	Geodynamics	Evolv	9	34	0.35	3.4,6	360.00	19.00	CM Dashboard, H	11,516	40.545354	-104.768436
39	10,403	248	11,169	11,323	10,546	251	7273.8	Plug	Geodynamics	Evolv	9	34	0.35	3.4,6	360.00	19.00	CM Dashboard, H	11,336	40.545365	-104.767759
40	10,235	244	10,989	11,143	10,379	247	7273.6	Plug	Geodynamics	Evolv	9	34	0.35	3.4,6	360.00	19.00	CM Dashboard, H	11,156	40.545399	-104.767084
41	10,068	240	10,809	10,963	10,211	243	7273.9	Plug	Geodynamics	Evolv	9	34	0.35	3.4,6	360.00	19.00	CM Dashboard, H	10,976	40.545415	-104.766744
42	9,900	236	10,629	10,783	10,043	239	7274.1	Plug	Geodynamics	Evolv	9	34	0.35	3.4,6	360.00	19.00	CM Dashboard, H	10,796	40.545454	-104.766073
43	9,732	232	10,449	10,603	9,876	235	7274.2	Plug	Geodynamics	Evolv	9	34	0.35	3.4,6	360.00	19.00	CM Dashboard, H	10,616	40.545454	-104.765402
44	9,565	228	10,269	10,423	9,708	231	7274.5	Plug	Geodynamics	Evolv	9	34	0.35	3.4,6	360.00	19.00	CM Dashboard, H	10,436	40.545555	-104.764726
45	9,397	224	10,089	10,243	9,540	227	7274.7	Plug	Geodynamics	Evolv	9	34	0.35	3.4,6	360.00	19.00	CM Dashboard, H	10,256	40.545537	-104.764051
46	9,229	220	9,909	10,063	9,373	223	7275.5	Plug	Geodynamics	Evolv	9	34	0.35	3.4,6	360.00	19.00	CM Dashboard, H	10,076	40.545459	-104.763374
47	9,062	216	9,729	9,883	9,205	219	7278.5	Plug	Geodynamics	Evolv	9	34	0.35	3.4,6	360.00	19.00	CM Dashboard, H	9,896	40.545434	-104.762699
48	8,894	212	9,549	9,703	9,037	215	7281.2	Plug	Geodynamics	Evolv	9	34	0.35	3.4,6	360.00	19.00	CM Dashboard, H	9,716	40.545435	-104.762022
49	8,726	208	9,369	9,523	8,870	211	7284.0	Plug	Geodynamics	Evolv	9	34	0.35	3.4,6	360.00	19.00	CM Dashboard, H	9,536	40.545430	-104.761345
50	8,559	204	9,189	9,343	8,702	207	7287.5	Plug	Geodynamics	Evolv	9	34	0.35	3.4,6	360.00	19.00	CM Dashboard, H	9,356	40.545442	-104.760668
51	8,391	200	9,009	9,163	8,534	203	7289.3	Plug	Geodynamics	Evolv	9	34	0.35	3.4,6	360.00	19.00	CM Dashboard, H	9,176	40.545441	-104.760328
52	8,223	196	8,829	8,983	8,367	199	7292.3	Plug	Geodynamics	Evolv	9	34	0.35	3.4,6	360.00	19.00	CM Dashboard, H	8,996	40.545496	-104.759655
53	8,056	192	8,649	8,803	8,199	195	7294.6	Plug	Geodynamics	Evolv	9	34	0.35	3.4,6	360.00	19.00	CM Dashboard, H	8,816	40.545480	-104.758976
54	7,888	188	8,469	8,623	8,031	191	7298.0	Plug	Geodynamics	Evolv	9	34	0.35	3.4,6	360.00	19.00	CM Dashboard, H	8,636	40.545466	-104.758299
55	7,720	184	8,289	8,443	7,864	187	7301.5	Plug	Geodynamics	Evolv	9	34	0.35	3.4,6	360.00	19.00	CM Dashboard, H	8,456	40.545460	-104.757626
56	7,553	180	8,109	8,263	7,696	183	7304.3	Plug	Geodynamics	Evolv	9	34	0.35	3.4,6	360.00	19.00	CM Dashboard, H	8,276	40.545471	-104.756953

Treatment	Fluids									
	FR Water		Treated Water		PD Treated Water		15% HCl		Total Fluid	
	gal	bbl	gal	bbl	gal	bbl	gal	bbl	gal	bbl
1	382,225	9,101	3,933	94	85,936	2,046	1,500	36	473,594	11,276
2	229,312	5,460	5,062	121	19,782	471	1,000	24	255,156	6,075
3	399,098	9,502	3,691	88	18,900	450	250	6	421,939	10,046
4	216,284	5,150	3,199	76	19,572	466	0	0	239,055	5,692
5	388,671	9,254	3,387	81	18,480	440	0	0	410,538	9,775
6	215,736	5,137	3,043	72	16,002	381	0	0	234,781	5,590
7	382,960	9,118	3,012	72	17,598	419	0	0	403,569	9,609
8	216,038	5,144	2,394	57	18,564	442	0	0	236,996	5,643
9	382,672	9,111	3,079	73	17,094	407	0	0	402,845	9,592
10	226,255	5,387	22,076	526	18,606	443	0	0	266,936	6,356
11	388,331	9,246	4,118	98	15,876	378	0	0	408,325	9,722
12	211,402	5,033	3,341	80	17,766	423	0	0	232,509	5,536
13	383,268	9,125	2,826	67	16,548	394	0	0	402,642	9,587
14	210,823	5,020	3,301	79	15,456	368	0	0	229,580	5,466
15	381,465	9,082	3,390	81	14,490	345	0	0	399,345	9,508
16	210,016	5,000	3,143	75	17,724	422	0	0	230,883	5,497
17	381,734	9,089	3,718	89	17,724	422	0	0	403,176	9,599
18	209,431	4,986	3,404	81	19,194	457	0	0	232,029	5,525
19	406,812	9,686	3,490	83	15,540	370	0	0	425,842	10,139
20	206,830	4,925	3,773	90	14,490	345	0	0	225,093	5,359
21	379,724	9,041	3,493	83	14,952	356	0	0	398,169	9,480
22	207,349	4,937	3,879	92	11,634	277	0	0	222,862	5,306
23	381,725	9,089	3,330	79	15,918	379	0	0	400,973	9,547
24	208,628	4,967	3,276	78	12,138	289	0	0	224,042	5,334
25	380,002	9,048	4,029	96	14,616	348	0	0	398,646	9,492
26	209,041	4,977	2,871	68	14,826	353	0	0	226,738	5,399
27	383,132	9,122	3,258	78	16,338	389	0	0	402,727	9,589
28	207,242	4,934	3,328	79	14,826	353	0	0	225,396	5,367
29	369,533	8,798	3,100	74	14,616	348	0	0	387,249	9,220
30	211,017	5,024	3,657	87	9,912	236	0	0	224,586	5,347
31	383,784	9,138	3,589	85	27,762	661	0	0	415,135	9,884
32	209,857	4,997	895	21	14,028	334	0	0	224,779	5,352
33	381,050	9,073	3,100	74	11,760	280	0	0	395,910	9,426
34	209,863	4,997	3,377	80	9,030	215	0	0	222,270	5,292
35	383,572	9,133	3,297	79	11,340	270	0	0	398,209	9,481
36	207,423	4,939	2,992	71	11,340	270	0	0	221,755	5,280
37	397,912	9,474	3,462	82	9,828	234	0	0	411,203	9,791
38	209,039	4,977	3,758	89	7,266	173	0	0	220,063	5,240
39	377,104	8,979	3,747	89	10,290	245	0	0	391,141	9,313
40	204,888	4,878	2,934	70	12,768	304	0	0	220,590	5,252
41	379,569	9,037	2,976	71	9,618	229	0	0	392,163	9,337
42	204,215	4,862	3,744	89	5,376	128	0	0	213,335	5,079
43	373,812	8,900	3,191	76	10,248	244	0	0	387,251	9,220
44	205,944	4,903	2,918	69	5,712	136	0	0	214,574	5,109
45	375,573	8,942	5,494	131	10,080	240	0	0	391,147	9,313
46	206,071	4,906	3,751	89	5,376	128	0	0	215,198	5,124
47	382,408	9,105	3,484	83	7,896	188	0	0	393,788	9,376
48	205,128	4,884	3,525	84	5,082	121	0	0	213,735	5,089
49	376,914	8,974	3,870	92	5,082	121	0	0	385,866	9,187
50	204,386	4,866	3,535	84	6,552	156	0	0	214,474	5,107
51	380,681	9,064	3,808	91	3,696	88	0	0	388,185	9,242
52	203,637	4,849	3,029	72	3,066	73	0	0	209,732	4,994
53	378,018	9,000	3,233	77	2,646	63	0	0	383,897	9,140
54	203,663	4,849	2,919	69	2,352	56	0	0	208,934	4,975
55	370,431	8,820	2,873	68	2,310	55	0	0	375,614	8,943
56	255,888	6,093	35,488	845	9,240	220	0	0	300,616	7,158

Fluids									
FR Water		Treated Water		PD Treated Water		15% HCl		Total Fluid	
gal	bbl	gal	bbl	gal	bbl	gal	bbl	gal	bbl
16,637,586	396,133	240,588	5,728	774,862	18,449	2,750	65	17,655,785	420,376

Treatment	Proppants - Tickets			
	100 Mesh	40/70	30/50	Total Proppant
	lbs	lbs	lbs	lbs
1	22,960	73,740	0	96,700
2	23,400	129,700	84,600	237,700
3	24,040	84,380	127,720	236,140
4	23,420	127,060	82,800	233,280
5	23,400	86,800	125,980	236,180
6	23,440	125,940	84,560	233,940
7	23,100	84,600	126,000	233,700
8	22,960	125,980	84,590	233,530
9	23,860	84,600	125,980	234,440
10	23,400	125,980	84,560	233,940
11	23,400	85,140	125,980	234,520
12	23,400	125,980	84,590	233,970
13	23,400	84,600	125,980	233,980
14	23,400	125,980	83,460	232,840
15	23,400	84,620	126,000	234,020
16	23,400	125,970	84,590	233,960
17	23,240	84,140	124,030	231,410
18	25,940	126,240	82,360	234,540
19	22,900	91,100	117,880	231,880
20	23,400	125,820	85,940	235,160
21	21,880	86,260	141,480	249,620
22	23,400	124,740	84,400	232,540
23	23,100	84,920	124,620	232,640
24	23,400	125,600	83,000	232,000
25	23,400	83,520	125,860	232,780
26	23,400	125,980	86,000	235,380
27	23,700	85,500	121,380	230,580
28	23,400	129,340	84,880	237,620
29	23,720	84,540	125,480	233,740
30	23,400	127,820	84,860	236,080
31	24,000	84,240	124,580	232,820
32	23,400	125,540	85,660	234,600
33	22,400	83,620	127,100	233,120
34	22,900	125,960	87,760	236,620
35	23,960	83,560	125,020	232,540
36	23,040	126,000	84,620	233,660
37	23,400	86,200	114,160	223,760
38	24,700	124,380	82,360	231,440
39	23,120	84,580	129,360	237,060
40	23,400	125,940	87,120	236,460
41	24,100	84,200	127,020	235,320
42	22,420	124,940	85,280	232,640
43	23,140	84,260	127,520	234,920
44	22,800	124,000	86,420	233,220
45	23,400	82,220	128,010	233,630
46	24,300	126,020	86,180	236,500
47	23,380	85,000	125,950	234,330
48	22,500	126,000	83,740	232,240
49	23,280	83,640	125,940	232,860
50	23,520	124,940	86,020	234,480
51	23,160	84,040	124,620	231,820
52	23,620	125,340	84,620	233,580
53	23,400	84,600	125,840	233,840
54	23,400	125,960	84,720	234,080
55	23,400	84,620	125,860	233,880
56	23,740	130,300	81,870	235,910

Proppants			
100 Mesh	40/70	30/50	Total Proppant
lbs	lbs	lbs	Total
1,310,540	5,896,690	5,766,910	12,974,140

