



COMPLETION REPORT

GMT Exploration

MARBLE 6-65 24-12 2HN

Niobrara - 60 Intervals (1 - 60)

LOS Ticket #142310





CUSTOMER INFORMATION

CUSTOMER: GMT Exploration
CUSTOMER CONTACT:

LIBERTY INFORMATION

LIBERTY SALES CONTACT: Matt Schneider
LIBERTY OPERATIONS CONTACT: Jeff Brady
LIBERTY ENGINEERING CONTACT: Matthew Pullos
LIBERTY DISTRICT: *
LIBERTY CREW: Republic
REPORT PREPARED BY: Tyler Starn
Bryce Hardwick

WELL INFORMATION

WELL NAME: MARBLE 6-65 24-12 2HN
COMPLETION DATE: June 30, 2022
PAD NAME: MARBLE/REDSTONE
FORMATION: Niobrara
API: 05-039-06693
AFE: 0
BASIN: Denver-Julesburg
FIELD/PROSPECT: Wildcat
STATE: Colorado
COUNTY: Elbert
WELL LOCATION: 06S 65W 24 NESW
BHST (°F): 215 F
LATITUDE: 39.510866
LONGITUDE: -104.617927

COMPLETION INFORMATION

WELL TYPE: Horizontal
COMPLETION TYPE: Cemented, Plug & Perf
NUMBER OF INTERVALS: 60
MAX PRESSURE: 9,500 psi
MAIN FLUID TYPE: LibertyFR
PROPPANT TYPES: 40/70 White 100 Mesh



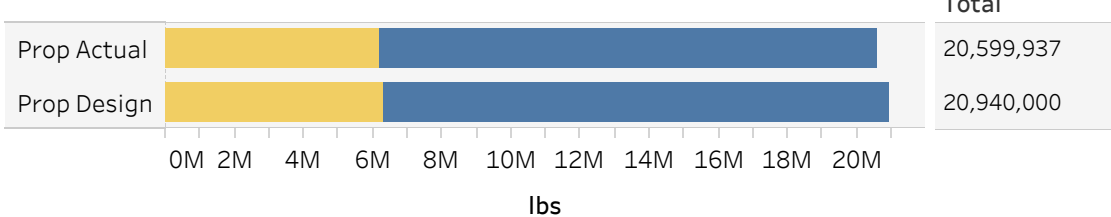
WELL COMPLETION SUMMARY

Operator Name	Customer Contact	Well Name	API	AFE	Bhst	Formation	Completion Type
GMT Exploration		MARBLE 6-65 24-12 2HN	05-039-06693	0	215 F	Niobrara	Cemented, Plug & Perf

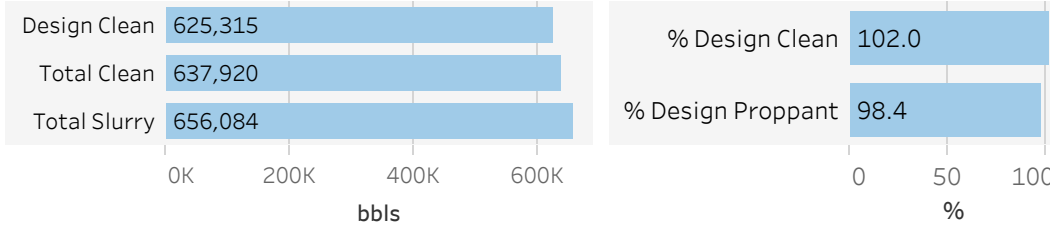
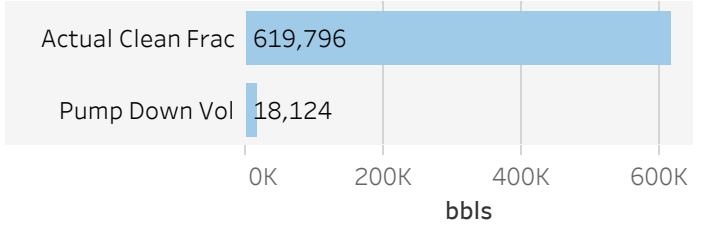
TIME SUMMARY

Start of Frac Time	End of Frac Time	Frac Pump Time	WL Pump Time (min)	MHHP	Customer/3rd Party NPT/DT	Crew LOS NPT/DT
6/17/2022 12:56:00 PM	6/30/2022 8:46:00 AM	6,333 min	1,296 min	1,982.06 MHHP*hr	1,291	588

DESIGN TOTALS



Proppant Name
■ 40/70 White
■ 100 Mesh



MAXIMA & AVERAGES



FLUID VOLUMES BY TYPE

Fluid Name	Fluid Vol
LibertyFR	618,296 bbls
Treated Water	18,124 bbls
HCL-7.5	1,500 bbls

CHEMICAL VOLUMES

Chemical Name	LBS or GALS	Total	Frac	Pump Down	Chem NC
ACI-97	gals	126	126	0	0
ASF-67	gals	126	126	0	0
BIOSUITE GQ510X	gals	6,644	6,644	0	0
FRP-1S	gals	27,159	27,159	0	0
HCL-28	gals	15,876	15,876	0	0



CUSTOMER SURVEY
MARBLE/REDSTONE PAD
Republic Crew

OVERALL AVG: 98.8

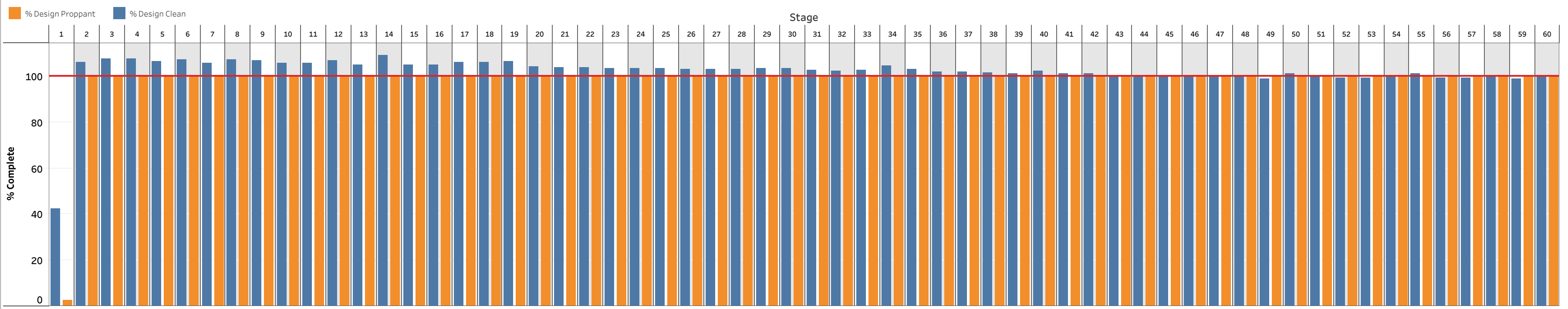
Customer Rep	Appearance	Correct Services	Crew Performance	Crew Preparedness	Equipment	Job Performance	Job Site	Materials	Professionalism	Promptness	Recommendations Provided	Safety Functions	Service Performance
Average Score	100	100	100	100	100	100	85	100	100	100	100	100	100
Sven Anderson	100	100	100	100	100	100	85	100	100	100	100	100	100

COMMENTS

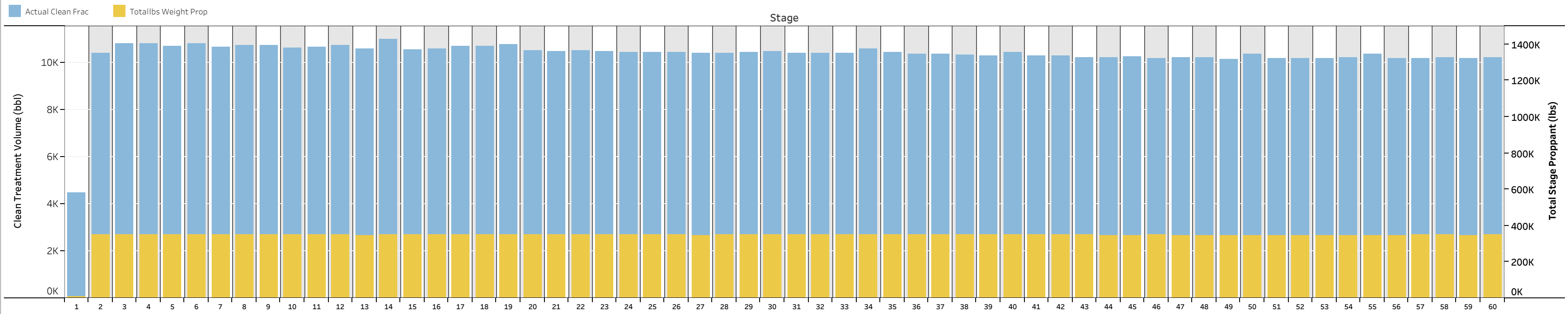
Customer Rep	Comments
Sven Anderson	All frac performed well. NPT waiting on sand was an issue



JOB COMPLETION PERCENTAGE

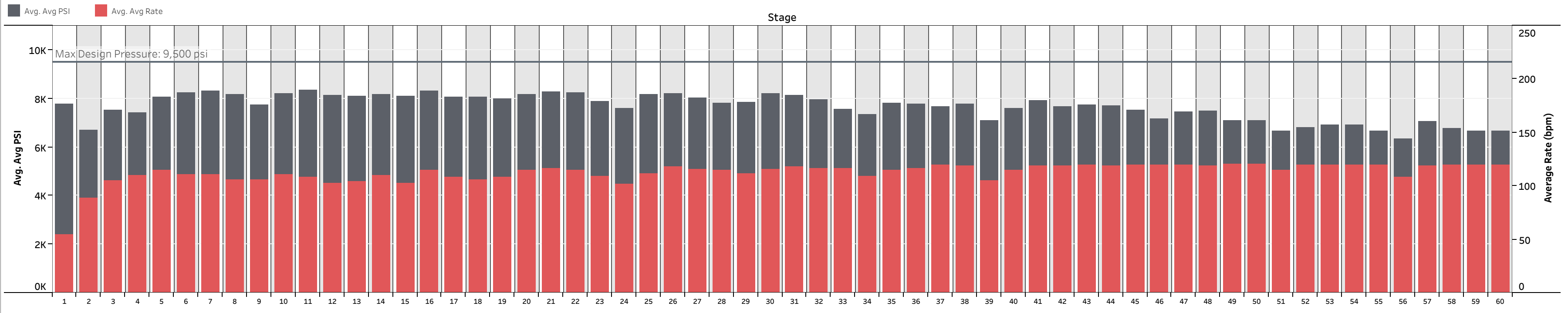


CLEAN TREATMENT VOLUME & PROPPANT MASS

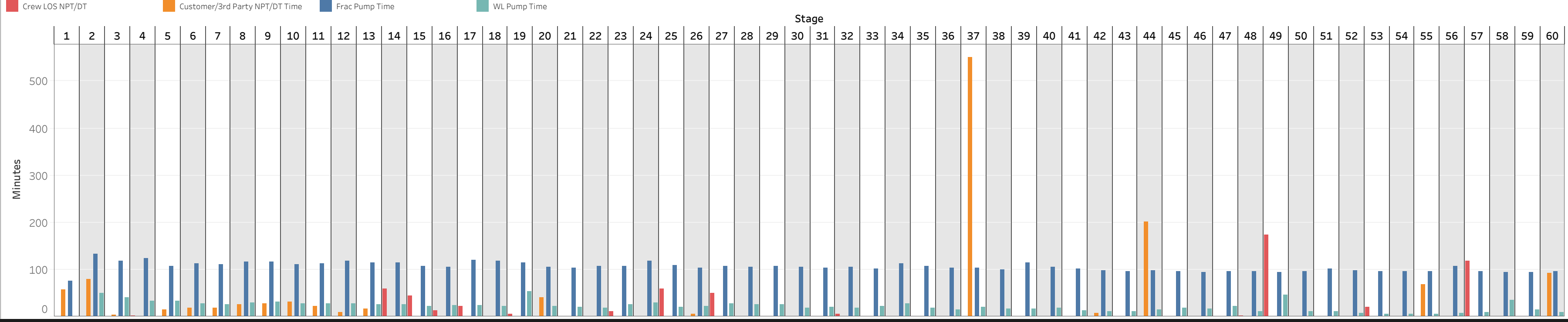




AVERAGE TREATING PRESSURE AND SLURRY RATE

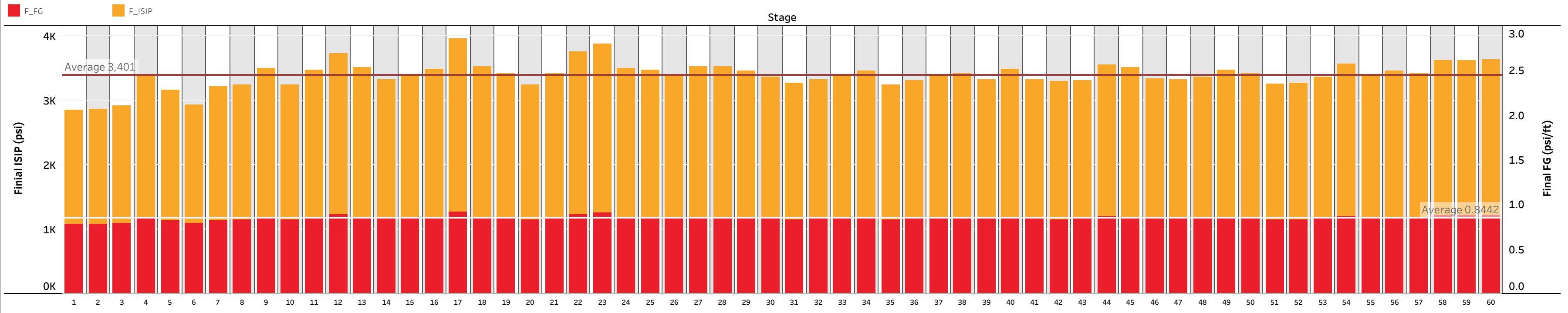


PUMP TIME SUMMARY PER STAGE

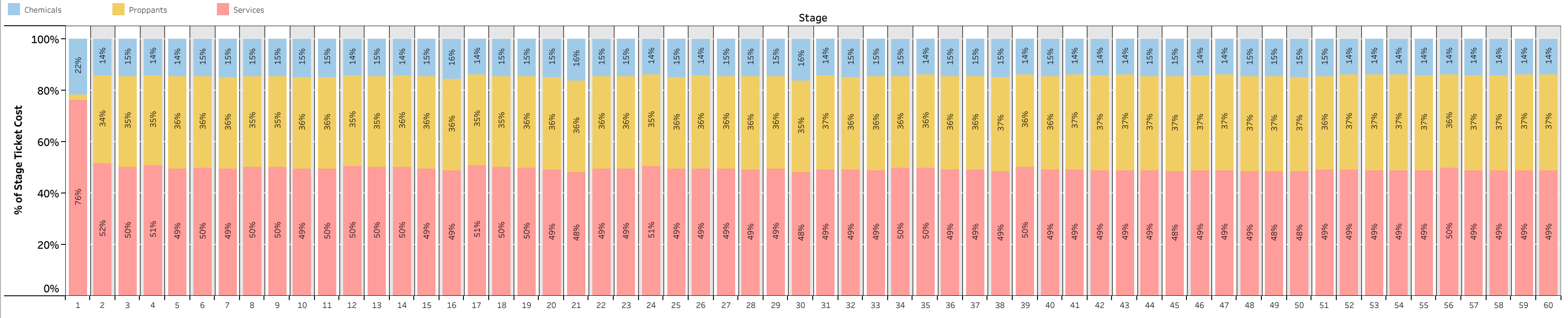




FINAL ISIP AND FRAC GRADIENT



STAGE TICKET BREAKDOWN



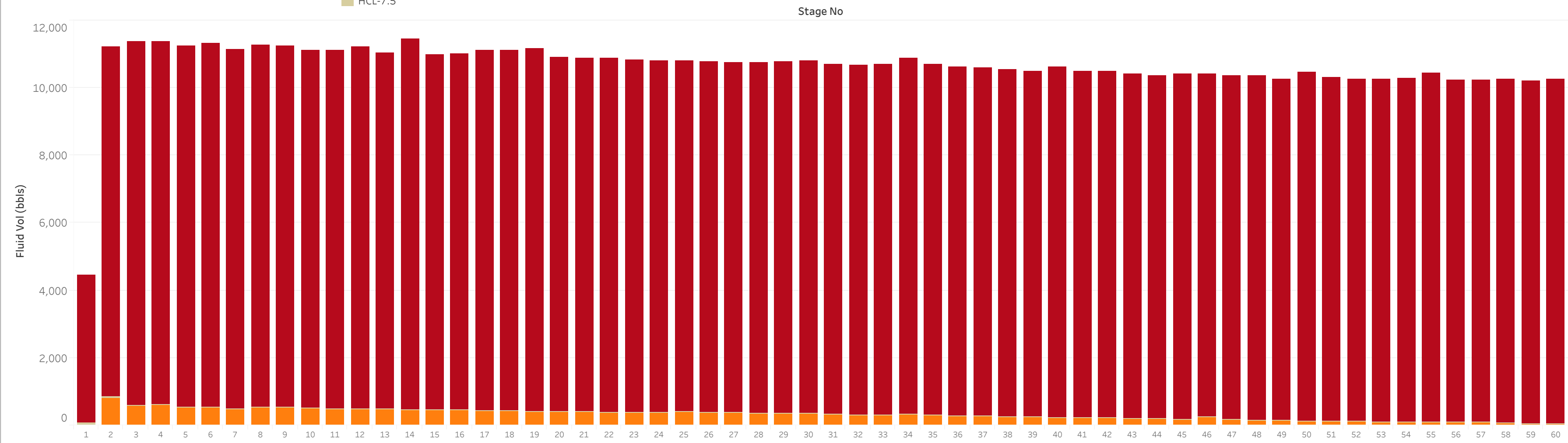


TREATMENT FLUID VOLUMES SUMMARY

Well Aggregates	Total Well Fluid	Avg Stage Fluid	Max Stage Fluid	Min Stage Fluid	Fluids Pumped (bbls)		
					HCL-7.5	LibertyFR	Treated Water
	637,920	10,632	11,400	4,464	Total: 1,500 Average: 25 Min: 24 Max: 71	Total: 618,296 Average: 10,305 Min: 4,393 Max: 10,963	Total: 18,124 Average: 307 Min: 39 Max: 813

TREATMENT FLUID VOLUME BY STAGE

■ LibertyFR
■ Treated Water
■ HCL-7.5





FLUID SUMMARY

Stage No	Treated Water	LibertyFR	HCL-7.5
	bbls	bbls	bbls
1		4,393	71
2	813	10,348	48
3	567	10,765	24
4	585	10,757	24
5	532	10,675	24
6	525	10,761	24
7	481	10,620	24
8	524	10,716	24
9	515	10,693	24
10	488	10,600	24
11	474	10,622	24
12	481	10,716	24
13	469	10,537	24
14	455	10,963	24
15	444	10,521	24
16	441	10,536	24
17	426	10,665	24
18	411	10,667	24
19	384	10,741	24
20	402	10,470	24
21	387	10,455	24
22	367	10,471	24
23	373	10,425	24
24	372	10,410	24
25	382	10,395	24
26	359	10,388	24
27	354	10,378	24
28	335	10,384	24
29	336	10,419	24
30	329	10,451	24
31	315	10,361	24
32	298	10,352	24
33	298	10,377	24
34	305	10,543	24
35	288	10,391	24
36	269	10,312	24
37	253	10,323	24
38	228	10,289	24
39	228	10,246	24
40	209	10,386	24
41	201	10,249	24
42	197	10,264	24
43	187	10,199	24
44	176	10,169	24
45	167	10,216	24
46	225	10,154	24
47	149	10,177	24
48	144	10,186	24
49	129	10,097	24
50	115	10,313	24
51	112	10,159	24
52	98	10,138	24
53	91	10,148	24
54	84	10,180	24
55	73	10,343	24
56	78	10,131	24
57	69	10,134	24
58	48	10,190	24
59	39	10,127	24
60	40	10,189	24



PROPPANT SUMMARY

■ 40/70 White
 ■ 100 Mesh

Stage No	Proppant Name																																																	
	40/70 White					100 Mesh																																												
1																-91.64%					-0.04%																													
2					244,315					244,300					0.01%					104,660					104,700																									
3										244,300															104,700																									
4					244,415										0.05%					104,850																														
5										244,300															104,700																									
6					244,390										0.04%					105,430																														
7										244,300															104,700																									
8					244,330										0.01%					104,880																														
9										244,300															104,700																									
10					244,680										0.16%					105,490																														
11										244,300															104,700																									
12					244,350										0.02%					104,750																														
13										244,300															104,700																									
14					244,375										0.03%					105,080																														
15										244,300															104,700																									
16					244,690										0.16%					105,060																														
17										244,300															104,700																									
18					244,360																				104,890																									
19										244,300					0.24%										104,700																									
20					244,420																				105,020																									
21										244,300					0.10%										104,700																									
22					244,500																				104,530																									
23										244,300					-0.01%										104,700																									
24					244,310																				104,730																									
25										244,300					0.05%										104,700																									
26					244,440																				104,780																									
27										244,300															104,700																									
28					244,280										-0.01%										104,920																									
29										244,300					0.00%										104,700																									
30					244,370																				104,880																									
31										244,300					0.08%										104,700																									
32					244,230										-0.03%										104,400																									
33										244,300															104,700																									
34					244,130										-0.07%										104,705																									
35										244,300					0.05%										104,700																									
36					244,350																				104,970																									
37										244,300					0.05%										104,700																									
38					244,130										-0.07%										104,840																									
39										244,300					0.03%										104,700																									
40					244,495																				104,800																									
41										244,300					0.02%										104,700																									
42					244,350																				104,740																									
43										244,300															104,700																									
44					243,615										-0.28%										104,220																									
45										244,300															104,700																									
46					244,860										0.23%										104,125																									
47										244,300					-0.10%										104,700																									
48					244,080																				104,290																									
49										244,300					-0.24%										104,700																									
50					243,590																				103,810																									



PROPPANT SUMMARY

Stage No	Proppant Name											
	40/70 White				100 Mesh				Grand Total			
	Prop Actual	Prop Screw	Prop Design	Proppant Actual-Desi..	Prop Actual	Prop Screw	Prop Design	Proppant Actual-Desi..	Prop Actual	Prop Screw	Prop Design	Proppant Actual-Desi..
1			244,300		8,755	8,714	104,700	-95,945	8,755	8,714	349,000	-95,945
2	244,315	243,087	244,300	15	104,660	105,842	104,700	-40	348,975	348,930	349,000	-25
3	244,560	243,341	244,300	260	104,850	105,718	104,700	150	349,410	349,059	349,000	410
4	244,415	243,887	244,300	115	104,850	105,293	104,700	150	349,265	349,180	349,000	265
5	244,886	244,000	244,300	586	104,930	105,183	104,700	230	349,816	349,182	349,000	816
6	244,390	258,744	244,300	90	105,430	103,338	104,700	730	349,820	362,081	349,000	820
7	244,575	243,106	244,300	275	104,980	106,459	104,700	280	349,555	349,565	349,000	555
8	244,330	243,613	244,300	30	104,880	105,552	104,700	180	349,210	349,166	349,000	210
9	244,375	245,501	244,300	75	104,755	105,269	104,700	55	349,130	350,770	349,000	130
10	244,680	242,078	244,300	380	105,490	107,095	104,700	790	350,170	349,172	349,000	1,170
11	244,740	243,492	244,300	440	104,960	105,617	104,700	260	349,700	349,109	349,000	700
12	244,350	243,540	244,300	50	104,750	105,495	104,700	50	349,100	349,035	349,000	100
13	244,300	243,662	244,300	0	104,215	105,329	104,700	-485	348,515	348,992	349,000	-485
14	244,375	241,965	244,300	75	105,080	107,010	104,700	380	349,455	348,975	349,000	455
15	244,980	240,637	244,300	680	104,860	108,390	104,700	160	349,840	349,027	349,000	840
16	244,690	243,307	244,300	390	105,060	105,849	104,700	360	349,750	349,156	349,000	750
17	244,445	243,828	244,300	145	104,800	105,369	104,700	100	349,245	349,196	349,000	245
18	244,360	243,863	244,300	60	104,890	105,287	104,700	190	349,250	349,150	349,000	250
19	244,890	255,923	244,300	590	104,680	103,620	104,700	-20	349,570	359,543	349,000	570
20	244,420	249,823	244,300	120	105,020	104,390	104,700	320	349,440	354,213	349,000	440
21	244,550	242,382	244,300	250	105,950	106,739	104,700	1,250	350,500	349,121	349,000	1,500
22	244,500	243,513	244,300	200	104,530	105,565	104,700	-170	349,030	349,078	349,000	30
23	244,270	243,681	244,300	-30	104,720	105,374	104,700	20	348,990	349,054	349,000	-10
24	244,310	244,149	244,300	10	104,730	105,211	104,700	30	349,040	349,360	349,000	40
25	244,410	244,142	244,300	110	104,740	105,454	104,700	40	349,150	349,596	349,000	150
26	244,440	243,745	244,300	140	104,780	105,409	104,700	80	349,220	349,153	349,000	220
27	244,035	243,495	244,300	-265	104,510	105,582	104,700	-190	348,545	349,078	349,000	-455
28	244,280	243,039	244,300	-20	104,920	106,103	104,700	220	349,200	349,142	349,000	200
29	244,300	243,722	244,300	0	104,800	105,336	104,700	100	349,100	349,058	349,000	100
30	244,370	252,408	244,300	70	104,880	105,394	104,700	180	349,250	357,802	349,000	250
31	244,500	243,856	244,300	200	104,980	105,545	104,700	280	349,480	349,401	349,000	480
32	244,230	243,798	244,300	-70	104,400	105,549	104,700	-300	348,630	349,347	349,000	-370
33	244,270	243,647	244,300	-30	104,760	105,485	104,700	60	349,030	349,133	349,000	30
34	244,130	241,603	244,300	-170	104,705	107,275	104,700	5	348,835	348,879	349,000	-165
35	244,420	244,274	244,300	120	104,840	105,157	104,700	140	349,260	349,431	349,000	260
36	244,350	243,803	244,300	50	104,970	105,497	104,700	270	349,320	349,300	349,000	320
37	244,410	244,775	244,300	110	104,420	104,335	104,700	-280	348,830	349,111	349,000	-170
38	244,130	244,852	244,300	-170	104,840	104,101	104,700	140	348,970	348,953	349,000	-30
39	244,380	244,296	244,300	80	104,636	104,692	104,700	-64	349,016	348,988	349,000	16
40	244,495	243,266	244,300	195	104,800	105,660	104,700	100	349,295	348,926	349,000	295
41	244,340	244,379	244,300	40	104,660	105,133	104,700	-40	349,000	349,512	349,000	0
42	244,350	244,478	244,300	50	104,740	104,985	104,700	40	349,090	349,463	349,000	90
43	244,290	244,292	244,300	-10	104,680	105,056	104,700	-20	348,970	349,347	349,000	-30
44	243,615	243,864	244,300	-685	104,220	105,207	104,700	-480	347,835	349,071	349,000	-1,165
45	243,910	244,527	244,300	-390	104,355	104,605	104,700	-345	348,265	349,132	349,000	-735
46	244,860	244,368	244,300	560	104,125	104,957	104,700	-575	348,985	349,325	349,000	-15
47	244,050	244,028	244,300	-250	104,205	104,986	104,700	-495	348,255	349,014	349,000	-745
48	244,080	244,116	244,300	-220	104,290	105,029	104,700	-410	348,370	349,145	349,000	-630
49	243,720	244,455	244,300	-580	103,965	104,755	104,700	-735	347,685	349,210	349,000	-1,315
50	243,590	242,875	244,300	-710	103,810	106,159	104,700	-890	347,400	349,034	349,000	-1,600
51	244,080	244,804	244,300	-220	104,020	105,411	104,700	-680	348,100	350,216	349,000	-900
52	244,060	245,017	244,300	-240	104,300	104,122	104,700	-400	348,360	349,139	349,000	-640
53	243,600	244,635	244,300	-700	104,370	104,535	104,700	-330	347,970	349,170	349,000	-1,030
54	243,600	244,314	244,300	-700	104,410	104,745	104,700	-290	348,010	349,059	349,000	-990
55	243,520	244,366	244,300	-780	104,910	104,713	104,700	210	348,430	349,079	349,000	-570
56	244,260	244,071	244,300	-40	104,285	105,237	104,700	-415	348,545	349,308	349,000	-455
57	245,160	245,080	244,300	860	104,685	104,149	104,700	-15	349,845	349,229	349,000	845
58	243,795	245,005	244,300	-505	104,765	105,251	104,700	65	348,560	350,256	349,000	-440
59	243,560	244,709	244,300	-740	104,770	104,180	104,700	70	348,330	348,889	349,000	-670
60	244,460	247,168	244,300	160	104,810	105,581	104,700	110	349,270	352,749	349,000	270
Grand Total	14,413,756	14,430,392	14,658,000	56	6,186,181	6,223,081	6,282,000	-95,819	20,599,937	20,653,473	20,940,000	-95,763



PRESSURE SUMMARY

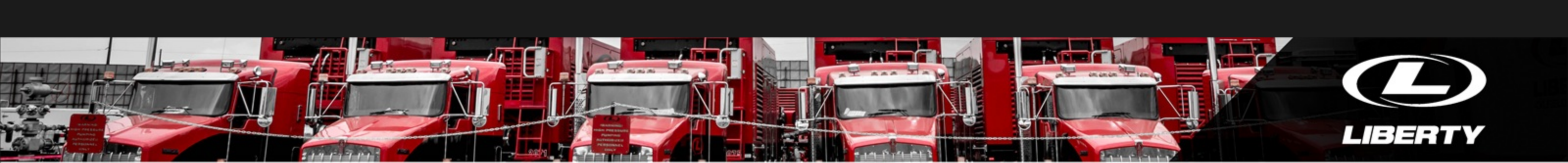
Stage	Operational Pressures				Maxima & Averages				Final Shut In Pressures		
	Max Working PSI	Global Trips	PopOffSet L	PopOffSet H	Ave PSI	Max PSI	Ave Rate	Max Rate	F_ISIP	F_BHISIP	F_FG
1	9,500	9,300	9,500	9,700	7,787	9,023	89	90	2,853	6,446	0.78
2	9,500	9,300	9,500	9,700	7,514	7,883	105	106	2,921	6,513	0.79
3	9,500	9,300	9,500	9,700	8,055	8,499	115	120	3,167	6,758	0.81
4	9,500	9,300	9,500	9,700	8,315	8,613	111	114	3,217	6,807	0.82
5	9,500	9,300	9,500	9,700	7,746	8,319	106	115	3,509	7,098	0.86
6	9,500	9,300	9,500	9,700	8,338	8,570	109	107	3,473	7,061	0.85
7	9,500	9,300	9,500	9,700	8,082	8,497	104	114	3,513	7,100	0.86
8	9,500	9,300	9,500	9,700	8,097	8,540	115	115	3,405	6,991	0.84
9	9,500	9,300	9,500	9,700	8,075	8,318	106	109	3,969	7,554	0.91
10	9,500	9,300	9,500	9,700	7,978	8,377	115	116	3,424	7,008	0.85
11	9,500	9,300	9,500	9,700	8,269	8,531	115	121	3,424	7,009	0.85
12	9,500	9,300	9,500	9,700	7,896	8,302	102	111	3,879	7,465	0.90
13	9,500	9,300	9,500	9,700	8,155	8,440	118	117	3,483	7,066	0.85
14	9,500	9,300	9,500	9,700	8,041	8,450	115	122	3,535	7,117	0.86
15	9,500	9,300	9,500	9,700	7,839	8,471	116	114	3,470	7,052	0.85
16	9,500	9,300	9,500	9,700	8,134	8,436	116	121	3,278	6,859	0.83
17	9,500	9,300	9,500	9,700	7,550	8,246	116	118	3,378	6,958	0.84
18	9,500	9,300	9,500	9,700	7,825	8,454	120	121	3,250	6,828	0.83
19	9,500	9,300	9,500	9,700	7,664	8,452	105	121	3,398	6,976	0.84
20	9,500	9,300	9,500	9,700	7,100	8,432	120	112	3,328	6,906	0.84
21	9,500	9,300	9,500	9,700	7,925	8,498	119	121	3,329	6,907	0.84
22	9,500	9,300	9,500	9,700	7,724	8,538	120	121	3,564	6,895	0.83
23	9,500	9,300	9,500	9,700	7,507	8,444	120	121	3,341	7,091	0.86
24	9,500	9,300	9,500	9,700	7,442	8,431	120	121	3,365	6,898	0.84
25	9,500	9,300	9,500	9,700	7,110	8,477	120	122	3,418	7,049	0.85
26	9,500	9,300	9,500	9,700	6,665	8,289	115	117	3,279	6,832	0.83
27	9,500	9,300	9,500	9,700	6,913	8,203	120	120	3,566	6,940	0.84
28	9,500	9,300	9,500	9,700	6,648	7,740	120	124	3,465	6,984	0.85
29	9,500	9,300	9,500	9,700	7,044	8,159	119	120	3,629	6,993	0.85
30	9,500	9,300	9,500	9,700	6,659	7,840	120	121	3,635	7,194	0.87





PRESSURE SUMMARY

Stage	Max Working PSI	Global Trips	PopOffSet L	PopOffSet H	Ave Rate	Ave PSI	Max Rate	Max PSI	F_ISIP	F_BHISIP	F_FG	F 5Min	F 10Min	F 15Min
1	9,500	9,300	9,500	9,700	54	7,787	82	9,023	2,853	6,446	0.78			
2	9,500	9,300	9,500	9,700	89	6,703	90	7,938	2,873	6,465	0.78			
3	9,500	9,300	9,500	9,700	105	7,514	106	7,883	2,921	6,513	0.79			
4	9,500	9,300	9,500	9,700	110	7,409	114	8,971	3,386	6,977	0.84			
5	9,500	9,300	9,500	9,700	115	8,055	120	8,499	3,167	6,758	0.81			
6	9,500	9,300	9,500	9,700	111	8,242	114	8,450	2,934	6,524	0.79			
7	9,500	9,300	9,500	9,700	111	8,315	114	8,613	3,217	6,807	0.82			
8	9,500	9,300	9,500	9,700	106	8,172	112	8,723	3,246	6,835	0.82			
9	9,500	9,300	9,500	9,700	106	7,746	111	8,319	3,509	7,098	0.86			
10	9,500	9,300	9,500	9,700	111	8,188	115	8,559	3,242	6,831	0.82			
11	9,500	9,300	9,500	9,700	109	8,338	112	8,570	3,473	7,061	0.85			
12	9,500	9,300	9,500	9,700	103	8,138	107	8,694	3,736	7,323	0.88			
13	9,500	9,300	9,500	9,700	104	8,082	111	8,497	3,513	7,100	0.86			
14	9,500	9,300	9,500	9,700	110	8,185	114	8,481	3,325	6,912	0.83			
15	9,500	9,300	9,500	9,700	103	8,097	115	8,540	3,405	6,991	0.84			
16	9,500	9,300	9,500	9,700	115	8,329	120	8,517	3,487	7,073	0.85			
17	9,500	9,300	9,500	9,700	108	8,075	109	8,318	3,969	7,554	0.91			
18	9,500	9,300	9,500	9,700	106	8,050	113	8,355	3,529	7,113	0.86			
19	9,500	9,300	9,500	9,700	108	7,978	116	8,377	3,424	7,008	0.85			
20	9,500	9,300	9,500	9,700	115	8,183	121	8,671	3,246	6,830	0.83			
21	9,500	9,300	9,500	9,700	116	8,269	121	8,531	3,424	7,009	0.85			
22	9,500	9,300	9,500	9,700	115	8,226	118	8,471	3,759	7,344	0.89			
23	9,500	9,300	9,500	9,700	109	7,896	111	8,302	3,879	7,465	0.90			
24	9,500	9,300	9,500	9,700	102	7,608	108	8,383	3,500	7,085	0.86			
25	9,500	9,300	9,500	9,700	112	8,155	117	8,440	3,483	7,066	0.85			
26	9,500	9,300	9,500	9,700	118	8,208	121	8,458	3,390	6,972	0.84			
27	9,500	9,300	9,500	9,700	115	8,041	122	8,450	3,535	7,117	0.86			
28	9,500	9,300	9,500	9,700	115	7,826	117	8,259	3,530	7,112	0.86			
29	9,500	9,300	9,500	9,700	111	7,839	114	8,471	3,470	7,052	0.85			
30	9,500	9,300	9,500	9,700	116	8,210	121	8,474	3,372	6,954	0.84			
31	9,500	9,300	9,500	9,700	118	8,134	121	8,436	3,278	6,859	0.83			
32	9,500	9,300	9,500	9,700	116	7,946	121	8,622	3,328	6,909	0.84			
33	9,500	9,300	9,500	9,700	117	7,550	118	8,246	3,378	6,958	0.84			
34	9,500	9,300	9,500	9,700	109	7,342	110	8,444	3,463	7,042	0.85			
35	9,500	9,300	9,500	9,700	115	7,825	121	8,454	3,250	6,828	0.83			
36	9,500	9,300	9,500	9,700	116	7,792	120	8,392	3,317	6,895	0.83			
37	9,500	9,300	9,500	9,700	120	7,664	121	8,452	3,398	6,976	0.84			
38	9,500	9,300	9,500	9,700	119	7,777	121	8,523	3,418	6,996	0.85			
39	9,500	9,300	9,500	9,700	105	7,100	112	8,432	3,328	6,906	0.84			
40	9,500	9,300	9,500	9,700	115	7,585	121	8,621	3,496	7,073	0.86			
41	9,500	9,300	9,500	9,700	119	7,925	121	8,498	3,329	6,907	0.84			
42	9,500	9,300	9,500	9,700	119	7,660	121	8,542	3,298	6,875	0.83			
43	9,500	9,300	9,500	9,700	120	7,724	121	8,538	3,319	6,895	0.83			
44	9,500	9,300	9,500	9,700	119	7,717	121	8,531	3,564	7,139	0.86			
45	9,500	9,300	9,500	9,700	120	7,507	121	8,444	3,516	7,091	0.86			
46	9,500	9,300	9,500	9,700	120	7,169	121	8,212	3,341	6,916	0.84			
47	9,500	9,300	9,500	9,700	119	7,442	121	8,431	3,323	6,898	0.84			
48	9,500	9,300	9,500	9,700	119	7,487	121	8,506	3,365	6,939	0.84			
49	9,500	9,300	9,500	9,700	120	7,110	122	7,849	3,475	7,049	0.85			
50	9,500	9,300	9,500	9,700	120	7,103	122	8,477	3,418	6,992	0.85			
51	9,500	9,300	9,500	9,700	115	6,665	117	8,207	3,258	6,832	0.83			
52	9,500	9,300	9,500	9,700	120	6,815	121	8,289	3,279	6,853	0.83			
53	9,500	9,300	9,500	9,700	120	6,913	120	8,056	3,366	6,940	0.84			
54	9,500	9,300	9,500	9,700	120	6,918	121	8,203	3,566	7,140	0.86			
55	9,500	9,300	9,500	9,700	120	6,648	124	7,251	3,410	6,984	0.85			
56	9,500	9,300	9,500	9,700	108	6,348	112	7,740	3,465	7,039	0.85			
57	9,500	9,300	9,500	9,700	119	7,044	120	8,145	3,420	6,993	0.85			
58	9,500	9,300	9,500	9,700	119	6,769	121	8,159	3,629	7,200	0.87			
59	9,500	9,300	9,500	9,700	120	6,659	121	7,812	3,624	7,194	0.87			
60	9,500	9,300	9,500	9,700	120	6,679	121	7,840	3,635	7,203	0.87			
Min	9,500	9,300	9,500	9,700	54	6,348	82	7,251	2,853	6,446	0.78			
Max	9,500	9,300	9,500	9,700	120	8,338	124	9,023	3,969	7,554	0.91			
Average	9,500	9,300	9,500	9,700	113	7,648	116	8,376	3,401	6,982	0.84			



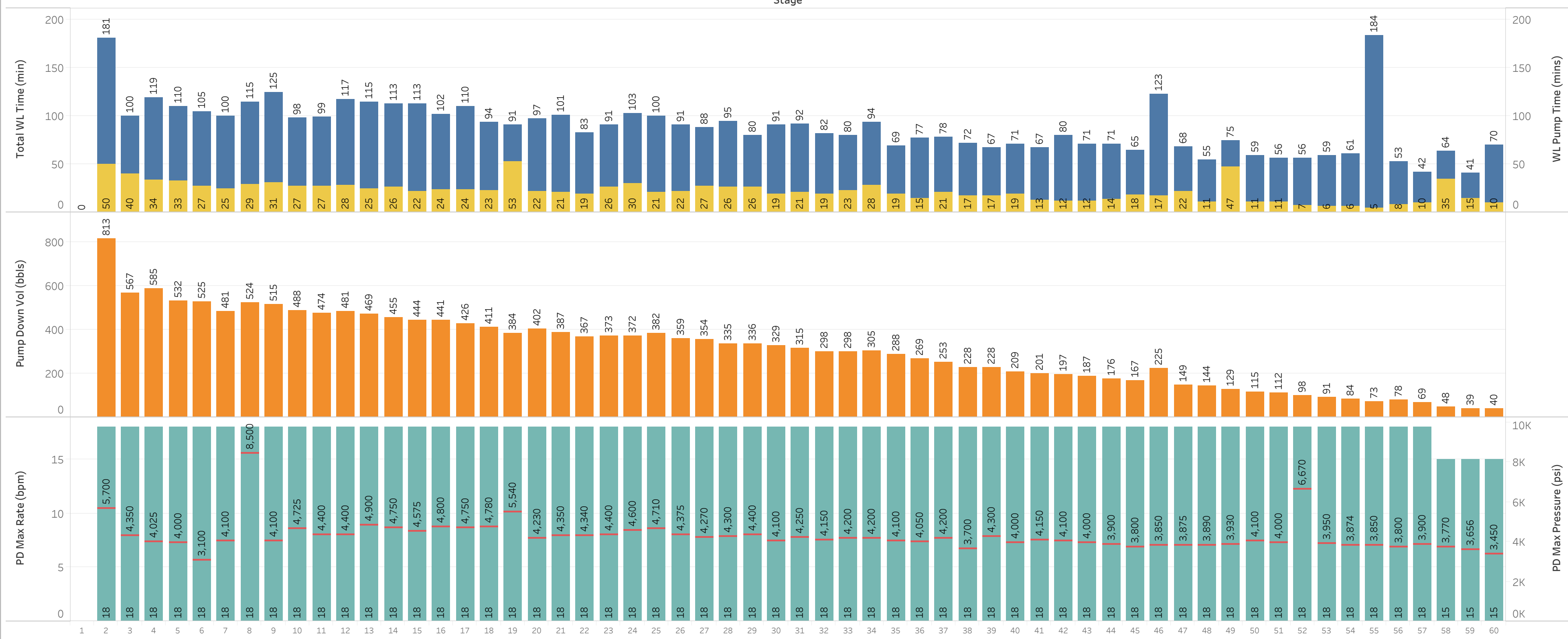
WELLBORE SUMMARY

Stage No	Top Shot Flush Vol bbl	Bottom Shot Flush Vol bbl	PERF TopShot	PERF BottomShot	Sum of PERF PlugDepth	PERF TotalNumShots	PERF ClusterLength	PERF NumPerfClusters	PERF PerfDiam
1	457		20,613	20,788	20,800	36	1	8	0.40
2	453	457	20,413	20,588	20,600	36	1	8	0.40
3	448	452	20,213	20,388	20,400	36	1	8	0.40
4	444	448	20,013	20,188	20,200	36	1	8	0.40
5	439	443	19,813	19,988	20,000	36	1	8	0.40
6	435	439	19,613	19,788	19,800	36	1	8	0.40
7	431	434	19,413	19,588	19,600	36	1	8	0.40
8	426	430	19,213	19,388	19,400	36	1	8	0.40
9	422	426	19,013	19,188	19,200	36	1	8	0.40
10	417	421	18,813	18,988	19,000	36	1	8	0.40
11	413	417	18,613	18,788	18,800	36	1	8	0.40
12	408	412	18,413	18,588	18,600	36	1	8	0.40
13	404	408	18,213	18,388	18,400	36	1	8	0.40
14	399	403	18,013	18,188	18,200	36	1	8	0.40
15	395	399	17,813	17,988	18,000	36	1	8	0.40
16	391	394	17,613	17,788	17,800	36	1	8	0.40
17	386	390	17,413	17,588	17,600	36	1	8	0.40
18	382	386	17,213	17,388	17,400	36	1	8	0.40
19	377	381	17,013	17,188	17,200	36	1	8	0.40
20	373	377	16,813	16,988	17,000	36	1	8	0.40
21	368	372	16,613	16,788	16,800	36	1	8	0.40
22	364	368	16,413	16,588	16,600	36	1	8	0.40
23	360	363	16,213	16,388	16,400	36	1	8	0.40
24	355	359	16,013	16,188	16,200	36	1	8	0.40
25	351	355	15,813	15,988	16,000	36	1	8	0.40
26	346	350	15,613	15,788	15,800	36	1	8	0.40
27	342	346	15,413	15,588	15,600	36	1	8	0.40
28	337	341	15,213	15,388	15,400	36	1	8	0.40
29	333	337	15,013	15,188	15,200	36	1	8	0.40
30	328	332	14,813	14,988	15,000	36	1	8	0.40
31	324	328	14,613	14,788	14,800	36	1	8	0.40
32	320	324	14,413	14,588	14,600	36	1	8	0.40
33	315	319	14,213	14,388	14,400	36	1	8	0.40
34	311	315	14,013	14,188	14,200	36	1	8	0.40
35	306	310	13,813	13,988	14,000	36	1	8	0.40
36	302	306	13,613	13,788	13,800	36	1	8	0.40
37	297	301	13,413	13,588	13,600	36	1	8	0.40
38	293	297	13,213	13,388	13,400	36	1	8	0.40
39	289	292	13,013	13,188	13,200	36	1	8	0.40
40	284	288	12,813	12,988	13,000	36	1	8	0.40
41	280	284	12,613	12,788	12,800	36	1	8	0.40
42	275	279	12,413	12,588	12,600	36	1	8	0.40
43	271	275	12,213	12,388	12,400	36	1	8	0.40
44	266	270	12,013	12,188	12,200	36	1	8	0.40
45	262	266	11,813	11,988	12,000	36	1	8	0.40
46	258	261	11,613	11,788	11,800	36	1	8	0.40
47	253	257	11,413	11,588	11,600	36	1	8	0.40
48	249	253	11,220	11,388	11,400	36	1	8	0.40
49	244	248	11,013	11,188	11,200	36	1	8	0.40
50	240	244	10,813	10,988	11,000	36	1	8	0.40
51	235	239	10,613	10,788	10,800	36	1	8	0.40
52	231	235	10,413	10,588	10,600	36	1	8	0.40
53	226	230	10,213	10,388	10,400	36	1	8	0.40
54	222	226	10,013	10,188	10,200	36	1	8	0.40
55	218	221	9,813	9,988	10,000	36	1	8	0.40
56	213	217	9,613	9,788	9,800	36	1	8	0.40
57	209	213	9,413	9,588	9,600	36	1	8	0.40
58	204	208	9,213	9,388	9,400	36	1	8	0.40
59	200	204	9,013	9,188	9,200	36	1	8	0.40
60	195	199	8,813	8,988	9,000	36	1	8	0.40



PUMPDOWN SUMMARY

■ PD PressureMax
 ■ PD RateMax
 ■ Pump Down Vol
 ■ Total WL Time (min)
 ■ WL Pump Time





PUMPDOWN SUMMARY

Stage	PERF Company	PD Company	PD OpenWHTime	PD OpenWHPSI	PD StartTime	PD EndTime	PD CloseWHTime	WL Pump Time (min)	Total WL Time (min)	PD CloseW HPSI	PD PressureMax	PD RateMax	PD Freshbbbls	PD Brinebbbls	PD Total Vol (bbbls)
1	LBRT	LBRT	Null	Null	Null	Null	Null	0	Null	Null	Null	Null	Null	Null	
2	LBRT	LBRT	6/17/2022 8:35:00 PM	2,380	6/17/2022 9:14:00 PM	6/17/2022 10:04:00 PM	6/17/2022 11:36:00 PM	50	181	2,500	5,700	18	813	Null	813
3	LBRT	LBRT	6/18/2022 2:35:00 AM	2,350	6/18/2022 3:05:00 AM	6/18/2022 3:45:00 AM	6/18/2022 4:15:00 AM	40	100	2,550	4,350	18	567	Null	567
4	LBRT	LBRT	6/18/2022 7:34:00 AM	2,720	6/18/2022 8:01:00 AM	6/18/2022 8:35:00 AM	6/18/2022 9:33:00 AM	34	119	2,650	4,025	18	585	Null	585
5	LBRT	LBRT	6/18/2022 3:37:00 PM	2,800	6/18/2022 4:07:00 PM	6/18/2022 4:40:00 PM	6/18/2022 5:27:00 PM	33	110	2,700	4,000	18	532	Null	532
6	LBRT	LBRT	6/18/2022 8:02:00 PM	2,920	6/18/2022 8:30:00 PM	6/18/2022 8:57:00 PM	6/18/2022 9:47:00 PM	27	105	2,820	3,100	18	525	Null	525
7	LBRT	LBRT	6/19/2022 12:30:00 AM	2,930	6/19/2022 12:55:00 AM	6/19/2022 1:20:00 AM	6/19/2022 2:10:00 AM	25	100	2,800	4,100	18	481	Null	481
8	LBRT	LBRT	6/19/2022 5:00:00 AM	2,950	6/19/2022 5:23:00 AM	6/19/2022 5:52:00 AM	6/19/2022 6:55:00 AM	29	115	2,900	8,500	18	524	Null	524
9	LBRT	LBRT	6/19/2022 9:53:00 AM	2,955	6/19/2022 10:29:00 AM	6/19/2022 11:00:00 AM	6/19/2022 11:58:00 AM	31	125	2,930	4,100	18	515	Null	515
10	LBRT	LBRT	6/19/2022 6:15:00 PM	2,900	6/19/2022 6:46:00 PM	6/19/2022 7:13:00 PM	6/19/2022 7:53:00 PM	27	98	2,900	4,725	18	488	Null	488
11	LBRT	LBRT	6/19/2022 11:34:00 PM	3,050	6/20/2022 12:00:00 AM	6/20/2022 12:27:00 AM	6/20/2022 1:13:00 AM	27	99	3,020	4,400	18	474	Null	474
12	LBRT	LBRT	6/20/2022 3:28:00 AM	3,230	6/20/2022 3:57:00 AM	6/20/2022 4:25:00 AM	6/20/2022 5:25:00 AM	28	117	2,950	4,400	18	481	Null	481
13	LBRT	LBRT	6/20/2022 7:42:00 AM	3,080	6/20/2022 8:19:00 AM	6/20/2022 8:44:00 AM	6/20/2022 9:37:00 AM	25	115	2,970	4,900	18	469	Null	469
14	LBRT	LBRT	6/20/2022 12:22:00 PM	3,085	6/20/2022 1:03:00 PM	6/20/2022 1:29:00 PM	6/20/2022 2:15:00 PM	26	113	3,005	4,750	18	455	Null	455
15	LBRT	LBRT	6/20/2022 6:27:00 PM	3,190	6/20/2022 7:11:00 PM	6/20/2022 7:33:00 PM	6/20/2022 8:20:00 PM	22	113	3,120	4,575	18	444	Null	444
16	LBRT	LBRT	6/20/2022 11:21:00 PM	3,250	6/20/2022 11:50:00 PM	6/21/2022 12:14:00 AM	6/21/2022 1:03:00 AM	24	102	3,080	4,800	18	441	Null	441
17	LBRT	LBRT	6/21/2022 3:47:00 AM	3,240	6/21/2022 4:17:00 AM	6/21/2022 4:41:00 AM	6/21/2022 5:37:00 AM	24	110	3,100	4,750	18	426	Null	426
18	LBRT	LBRT	6/21/2022 8:20:00 AM	3,250	6/21/2022 8:43:00 AM	6/21/2022 9:06:00 AM	6/21/2022 9:54:00 AM	23	94	3,150	4,780	18	411	Null	411
19	LBRT	LBRT	6/21/2022 12:51:00 PM	3,300	6/21/2022 1:18:00 PM	6/21/2022 2:11:00 PM	6/21/2022 2:22:00 PM	53	91	3,058	5,540	18	384	Null	384
20	LBRT	LBRT	6/21/2022 5:10:00 PM	3,300	6/21/2022 5:38:00 PM	6/21/2022 6:00:00 PM	6/21/2022 6:47:00 PM	22	97	3,160	4,230	18	402	Null	402
21	LBRT	LBRT	6/21/2022 10:21:00 PM	3,230	6/21/2022 10:54:00 PM	6/21/2022 11:15:00 PM	6/22/2022 12:02:00 AM	21	101	3,090	4,350	18	387	Null	387
22	LBRT	LBRT	6/22/2022 2:20:00 AM	3,280	6/22/2022 2:41:00 AM	6/22/2022 3:00:00 AM	6/22/2022 3:43:00 AM	19	83	3,120	4,340	18	367	Null	367
23	LBRT	LBRT	6/22/2022 6:10:00 AM	3,200	6/22/2022 6:35:00 AM	6/22/2022 7:01:00 AM	6/22/2022 7:41:00 AM	26	91	3,100	4,400	18	373	Null	373
24	LBRT	LBRT	6/22/2022 12:40:00 PM	3,230	6/22/2022 1:10:00 PM	6/22/2022 1:40:00 PM	6/22/2022 2:23:00 PM	30	103	3,150	4,600	18	372	Null	372
25	LBRT	LBRT	6/22/2022 5:55:00 PM	3,260	6/22/2022 6:26:00 PM	6/22/2022 6:47:00 PM	6/22/2022 7:35:00 PM	21	100	3,060	4,710	18	382	Null	382
26	LBRT	LBRT	6/22/2022 11:45:00 PM	3,250	6/23/2022 12:13:00 AM	6/23/2022 12:35:00 AM	6/23/2022 1:16:00 AM	22	91	3,100	4,375	18	359	Null	359
27	LBRT	LBRT	6/23/2022 3:41:00 AM	3,230	6/23/2022 4:08:00 AM	6/23/2022 4:35:00 AM	6/23/2022 5:09:00 AM	27	88	3,170	4,270	18	354	Null	354
28	LBRT	LBRT	6/23/2022 9:03:00 AM	3,200	6/23/2022 9:37:00 AM	6/23/2022 10:03:00 AM	6/23/2022 10:38:00 AM	26	95	3,160	4,300	18	335	Null	335
29	LBRT	LBRT	6/23/2022 1:00:00 PM	3,220	6/23/2022 1:24:00 PM	6/23/2022 1:50:00 PM	6/23/2022 2:20:00 PM	26	80	3,150	4,400	18	336	Null	336
30	LBRT	LBRT	6/23/2022 5:06:00 PM	3,190	6/23/2022 5:37:00 PM	6/23/2022 5:56:00 PM	6/23/2022 6:37:00 PM	19	91	3,100	4,100	18	329	Null	329
31	LBRT	LBRT	6/23/2022 8:44:00 PM	3,044	6/23/2022 9:14:00 PM	6/23/2022 9:35:00 PM	6/23/2022 10:16:00 PM	21	92	3,000	4,250	18	315	Null	315
32	LBRT	LBRT	6/24/2022 12:25:00 AM	3,180	6/24/2022 12:52:00 AM	6/24/2022 1:11:00 AM	6/24/2022 1:47:00 AM	19	82	2,990	4,150	18	298	Null	298
33	LBRT	LBRT	6/24/2022 4:30:00 AM	3,200	6/24/2022 4:57:00 AM	6/24/2022 5:20:00 AM	6/24/2022 5:50:00 AM	23	80	3,120	4,200	18	298	Null	298
34	LBRT	LBRT	6/24/2022 9:50:00 AM	3,220	6/24/2022 10:22:00 AM	6/24/2022 10:50:00 AM	6/24/2022 11:24:00 AM	28	94	3,150	4,200	18	305	Null	305
35	LBRT	LBRT	6/24/2022 1:54:00 PM	3,250	6/24/2022 2:19:00 PM	6/24/2022 2:38:00 PM	6/24/2022 3:03:00 PM	19	69	3,100	4,100	18	288	Null	288
36	LBRT	LBRT	6/24/2022 5:53:00 PM	3,160	6/24/2022 6:21:00 PM	6/24/2022 6:36:00 PM	6/24/2022 7:10:00 PM	15	77	3,050	4,050	18	269	Null	269
37	LBRT	LBRT	6/24/2022 9:33:00 PM	3,190	6/24/2022 9:57:00 PM	6/24/2022 10:18:00 PM	6/24/2022 10:51:00 PM	21	78	3,050	4,200	18	253	Null	253
38	LBRT	LBRT	6/26/2022 5:19:00 AM	3,160	6/26/2022 5:45:00 AM	6/26/2022 6:02:00 AM	6/26/2022 6:31:00 AM	17	72	3,030	3,700	18	228	Null	228
39	LBRT	LBRT	6/26/2022 8:38:00 AM	3,200	6/26/2022 8:58:00 AM	6/26/2022 9:15:00 AM	6/26/2022 9:45:00 AM	17	67	3,050	4,300	18	228	Null	228
40	LBRT	LBRT	6/26/2022 12:15:00 PM	3,200	6/26/2022 12:36:00 PM	6/26/2022 12:55:00 PM	6/26/2022 1:26:00 PM	19	71	3,100	4,000	18	209	Null	209
41	LBRT	LBRT	6/26/2022 4:31:00 PM	3,150	6/26/2022 4:52:00 PM	6/26/2022 5:05:00 PM	6/26/2022 5:38:00 PM	13	67	3,050	4,150	18	201	Null	201
42	LBRT	LBRT	6/26/2022 8:08:00 PM	2,870	6/26/2022 8:36:00 PM	6/26/2022 8:48:00 PM	6/26/2022 9:28:00 PM	12	80	3,020	4,100	18	197	Null	197
43	LBRT	LBRT	6/27/2022 12:06:00 AM	3,210	6/27/2022 12:31:00 AM	6/27/2022 12:43:00 AM	6/27/2022 1:17:00 AM	12	71	3,060	4,000	18	187	Null	187
44	LBRT	LBRT	6/27/2022 5:52:00 AM	3,000	6/27/2022 6:18:00 AM	6/27/2022 6:32:00 AM	6/27/2022 7:03:00 AM	14	71	2,950	3,900	18	176	Null	176
45	LBRT	LBRT	6/27/2022 8:57:00 AM	3,000	6/27/2022 9:20:00 AM	6/27/2022 9:38:00 AM	6/27/2022 10:02:00 AM	18	65	2,960	3,800	18	167	Null	167
46	LBRT	LBRT	6/27/2022 1:48:00 PM	3,010	6/27/2022 2:18:00 PM	6/27/2022 2:35:00 PM	6/27/2022 3:51:00 PM	17	123	2,950	3,850	18	225	Null	225
47	LBRT	LBRT	6/27/2022 6:12:00 PM	3,180	6/27/2022 6:35:00 PM	6/27/2022 6:57:00 PM	6/27/2022 7:20:00 PM	22	68	3,000	3,875	18	149	Null	149
48	LBRT	LBRT	6/27/2022 9:48:00 PM	3,200	6/27/2022 10:08:00 PM	6/27/2022 10:19:00 PM	6/27/2022 10:43:00 PM	11	55	3,090	3,890	18	144	Null	144
49	LBRT	LBRT	6/28/2022 1:36:00 AM	3,180	6/28/2022 2:03:00 AM	6/28/2022 2:50:00 AM	6/28/2022 2:51:00 AM	47	75	3,010	3,930	18	129	Null	129
50	LBRT	LBRT	6/28/2022 9:36:00 AM	3,100	6/28/2022 9:57:00 AM	6/28/2022 10:08:00 AM	6/28/2022 10:35:00 AM	11	59	3,050	4,100	18	115	Null	115
51	LBRT	LBRT	6/28/2022 11:57:00 AM	3,050	6/28/2022 12:06:00 PM	6/28/2022 12:17:00 PM	6/28/2022 12:53:00 PM	11	56	3,000	4,000	18	112	Null	112
52	LBRT	LBRT	6/28/2022 4:34:00 PM	3,150	6/28/2022 4:56:00 PM	6/28/2022 5:03:00 PM	6/28/2022 5:30:00 PM	7	56	3,050	6,670	18	98	Null	98
53	LBRT	LBRT	6/28/2022 9:42:00 PM	3,200	6/28/2022 10:05:00 PM	6/28/2022 10:11:00 PM	6/28/2022 10:41:00 PM	6	59	3,150	3,950	18	91	Null	91
54	LBRT	LBRT	6/29/2022 1:40:00 AM	3,230	6/29/2022 2:04:00 AM	6/29/2022 2:10:00 AM	6/29/2022 2:41:00 AM	6	61	3,130	3,874	18	84	Null	84
55	LBRT	LBRT	6/29/2022 5:21:00 AM	3,200	6/29/2022 7:21:00 AM	6/29/2022 7:26:00 AM	6/29/2022 8:25:00 AM	5	184	3,150	3,850	18	73	Null	73
56	LBRT	LBRT	6/29/2022 12:20:00 PM	3,250	6/29/2022 12:40:00 PM	6/29/2022 12:48:00 PM	6/29/2022 1:13:00 PM	8	53	3,100	3,800	18	78	Null	78
57	LBRT	LBRT	6/29/2022 4:08:00 PM	3,300	6/29/2022 4:25:00 PM	6/29/2022 4:35:00 PM	6/29/2022 4:50:00 PM	10	42	3,750	3,900	18	69	Null	69
58	LBRT	LBRT	6/29/2022 8:56:00 PM	3,220	6/29/2022 9:09:00 PM	6/29/2022 9:44:00 PM	6/29/2022 10:00:00 PM	35	64	3,600	3,770	15	48	Null	48
59	LBRT	LBRT	6/30/2022 1:55:00 AM	3,350	6/30/2022 2:09:00 AM	6/30/2022 2:24:00 AM	6/30/2022 2:36:00 AM	15	41	3,450	3,656	15	39	Null	39
60	LBRT	LBRT	6/30/2022 5:38:00 AM	3,367	6/30/2022 6:02:00 AM	6/30/2022 6:12:00 AM	6/30/2022 6:48:00 AM	10	70	3,290	3,450	15	40	Null	40



CHEMICAL SUMMARY
(Please Note Independent Axis)

Stage	ACI-97	ASF-67	BIOSUITE GQ510X	FRP-1S	HCL-28
	gals	gals	gals	gals	gals
1	6	6			756
2					
3	4	4			504
4			113	478	252
5	2	2	126	466	252
6			115	481	252
7	2	2	111	476	252
8			115	467	252
9	2	2	113	465	252
10			112	508	252
11	2	2	116	474	252
12			120	479	252
13	2	2	112	535	252
14			115	463	252
15	2	2	115	435	252
16			115	476	252
17	2	2	115	465	252
18			113	548	252
19	2	2	113	436	252
20			114	477	252
21	2	2	114	468	252
22			111	436	252
23	2	2	112	476	252
24			110	465	252
25	2	2	110	471	252
26			111	462	252
27	2	2	112	431	252
28			113	428	252
29	2	2	109	457	252
30			109	426	252
31	2	2	108	454	252
32			111	459	252
33	2	2	107	426	252
34			107	428	252
35	2	2	111	430	252
36			107	432	252
37	2	2	107	423	252
38					
39	2	2			
40					
41	2	2			
42					
43	2	2			
44					
45	2	2			
46					
47	2	2			
48					
49	2	2			
50					
51	2	2			
52					
53	2	2			
54					
55	2	2			
56					
57	2	2			
58					
59	2	2			
60					



CHEMICAL SUMMARY TABLE

	ACI-97			ASF-67			BIOSUITE GQ510X			FRP-15			HCL-28		
	gals			gals			gals			gals			gals		
T O T A L	Frac	126		126		6,644			27,159			15,876			
	Pump Down														
	Chem Design	126		126		6,640			27,152			15,876			
	Chem NC														
	Chem Difference	0		0		4			7			0			
Total Chem Varian...	0.0%		0.0%		0.1%			0.0%			0.0%				

Stage	ACI-97			ASF-67			BIOSUITE GQ510X			FRP-15			HCL-28		
	Frac	Pump Down	Chem NC	Frac	Pump Down	Chem NC	Frac	Pump Down	Chem NC	Frac	Pump Down	Chem NC	Frac	Pump Down	Chem NC
1	6			6			46			194			756		
2	4			4			103			435			504		
3	2			2			113			478			252		
4	2			2			113			472			252		
5	2			2			126			442			252		
6	2			2			115			466			252		
7	2			2			113			482			252		
8	2			2			111			481			252		
9	2			2			115			478			252		
10	2			2			115			476			252		
11	2			2			114			486			252		
12	2			2			113			467			252		
13	2			2			116			465			252		
14	2			2			112			465			252		
15	2			2			113			458			252		
16	2			2			112			508			252		
17	2			2			116			448			252		
18	2			2			112			474			252		
19	2			2			120			465			252		
20	2			2			112			479			252		
21	2			2			118			535			252		
22	2			2			115			463			252		
23	2			2			115			464			252		
24	2			2			115			435			252		
25	2			2			113			476			252		
26	2			2			111			435			252		
27	2			2			115			465			252		
28	2			2			114			463			252		
29	2			2			113			464			252		
30	2			2			113			548			252		
31	2			2			113			436			252		
32	2			2			114			477			252		
33	2			2			114			462			252		
34	2			2			117			468			252		
35	2			2			111			436			252		
36	2			2			110			460			252		
37	2			2			112			453			252		
38	2			2			108			471			252		
39	2			2			110			449			252		
40	2			2			111			462			252		
41	2			2			110			431			252		
42	2			2			113			428			252		
43	2			2			108			428			252		
44	2			2			109			453			252		
45	2			2			108			457			252		
46	2			2			109			426			252		
47	2			2			108			427			252		
48	2			2			108			454			252		
49	2			2			106			449			252		
50	2			2			111			459			252		
51	2			2			108			453			252		
52	2			2			107			426			252		
53	2			2			108			426			252		
54	2			2			107			428			252		
55	2			2			110			431			252		
56	2			2			111			430			252		
57	2			2			109			436			252		
58	2			2			107			432			252		
59	2			2			110			421			252		
60	2			2			105			423			252		



BALL HIT INFO
(Please Note Independent Axis)

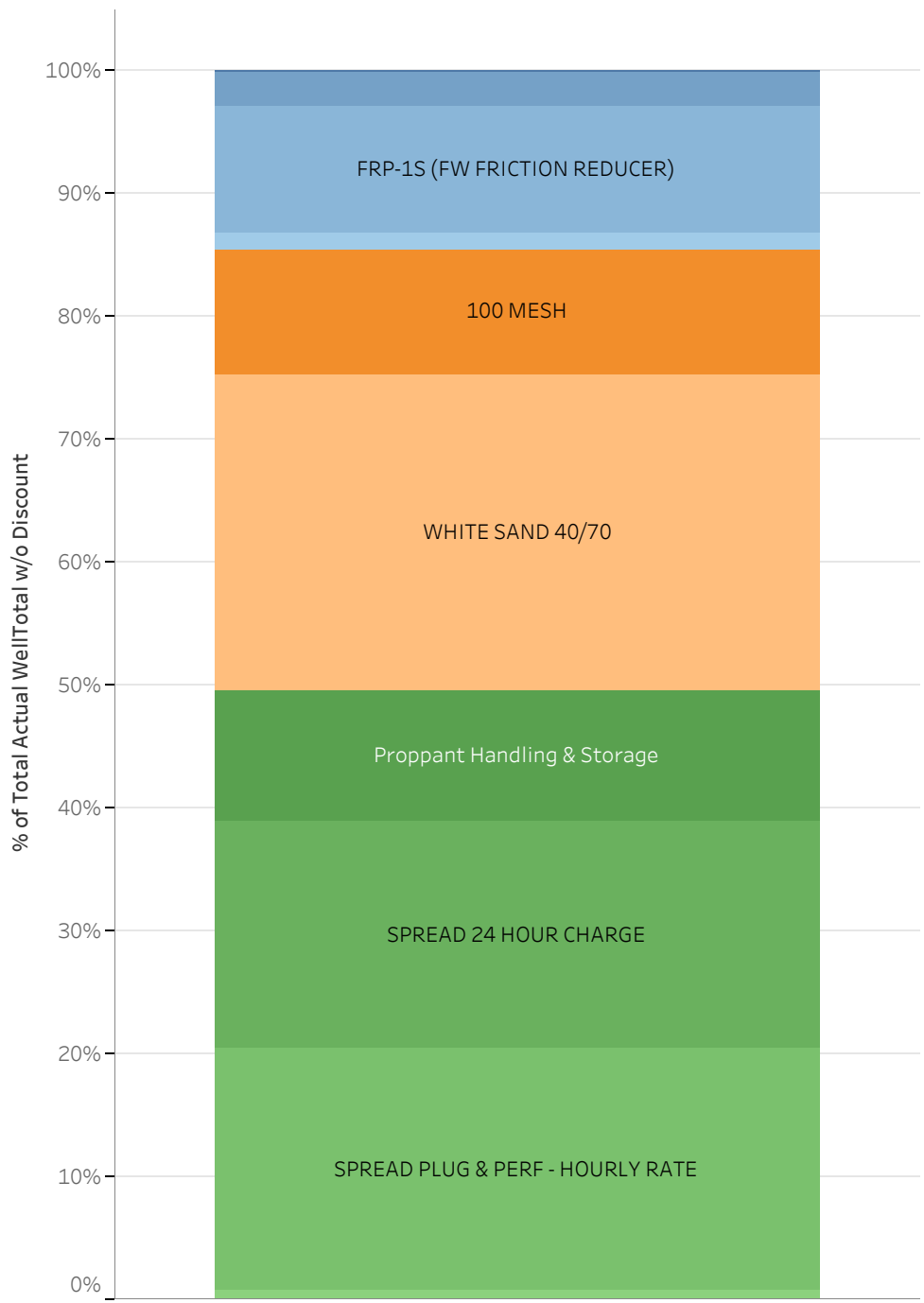
Stage No	Ball Hit Vol (bbls)	Ball Rate (bpm)	Ball Initial (psi)	Ball Max (psi)	Ball Final (psi)	BallHit Diff (psi)
1						
2						
3						
4						
5	420	18	3,700	3,973	3,899	456
6						
7						
8						
9						
10						
11						
12						
13						
14						
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60						



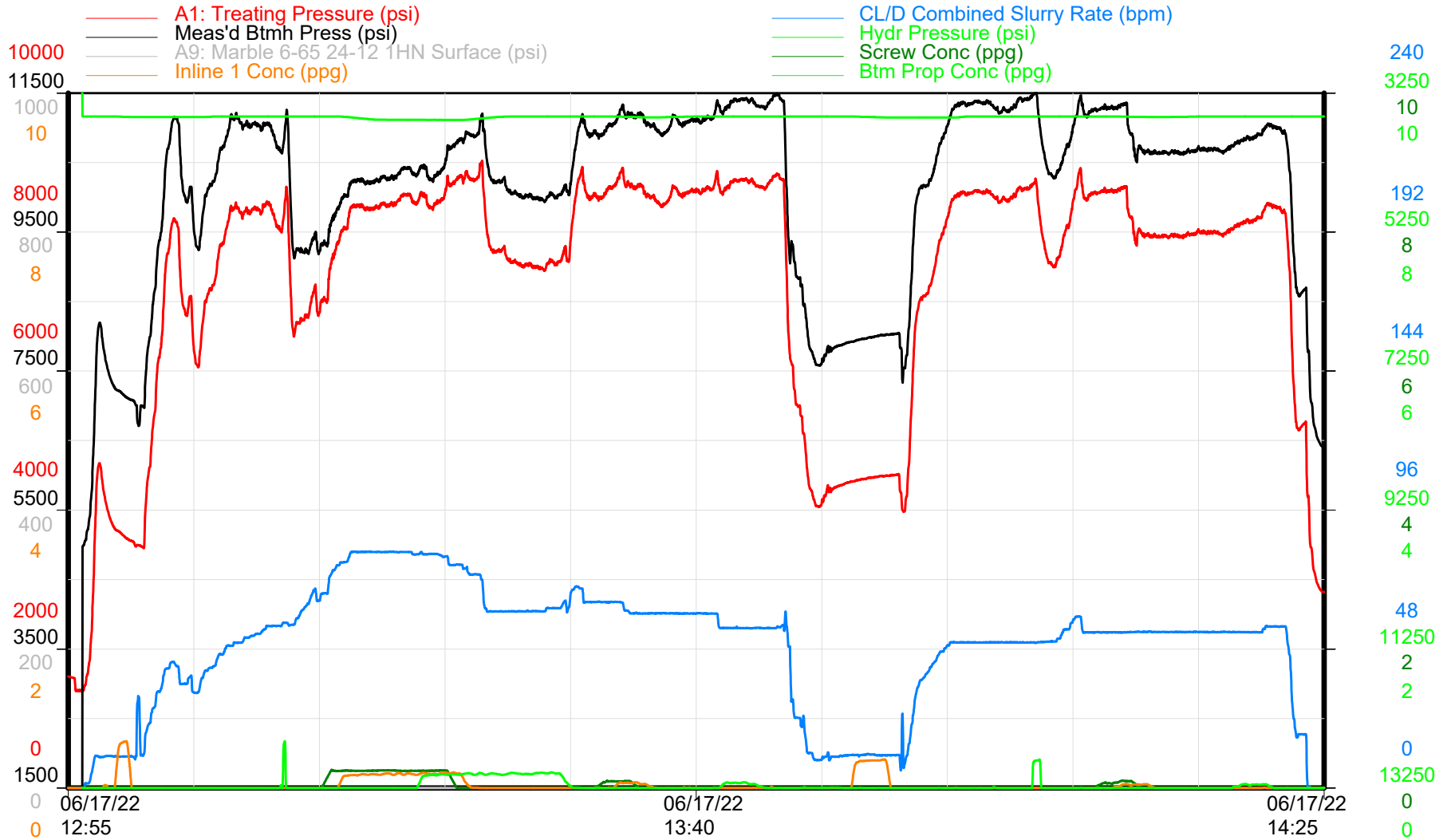
TICKET SUMMARY - MARBLE 6-65 24-12 2HN

Charge Type	Charge Description	Quote Qty	Actual Qty	Quote Discount	% Diff/Quote
Service	Proppant Handling & Storage	20,940,000.00	20,599,937.00	0%	-1.6%
	SPREAD 24 HOUR CHARGE	6.70	5.80	0%	-13.4%
	SPREAD PLUG & PERF - HOURLY RATE	112.40	105.55	0%	-6.1%
	SPREAD RIG-UP	0.50	0.50	0%	0.0%
Chemical	ACI-97 (GREEN ACID INHIBITOR)	60.00	126.00	0%	
	ASF-67 (ACID NE)	60.00	126.00	0%	
	BioSuite GQ510x (5 GLUT / 10 ADBAC Biocide)	6,527.00	6,644.00	0%	1.8%
	FRP-1S (FW FRICTION REDUCER)	27,267.00	27,159.00	0%	-0.4%
	HCL-28 (28 HCL ACID)	37,031.00	15,876.00	0%	-57.1%
Proppant	100 MESH	6,282,000.00	6,186,181.00	0%	-1.5%
	WHITE SAND 40/70	14,658,000.00	14,413,756.00	0%	-1.7%

Total Quote % Variance -6.75%



- Charge Type, Charge Description**
- Chemical, ACI-97 (GREEN ACID INHIBITOR)
 - Chemical, ASF-67 (ACID NE)
 - Chemical, BioSuite GQ510x (5 GLUT / 10 ADBAC Biocide)
 - Chemical, FRP-1S (FW FRICTION REDUCER)
 - Chemical, HCL-28 (28 HCL ACID)
 - Proppant, 100 MESH
 - Proppant, WHITE SAND 40/70
 - Service, Proppant Handling & Storage
 - Service, SPREAD 24 HOUR CHARGE
 - Service, SPREAD PLUG & PERF - HOURLY RATE
 - Service, SPREAD RIG-UP



Treatment Plot

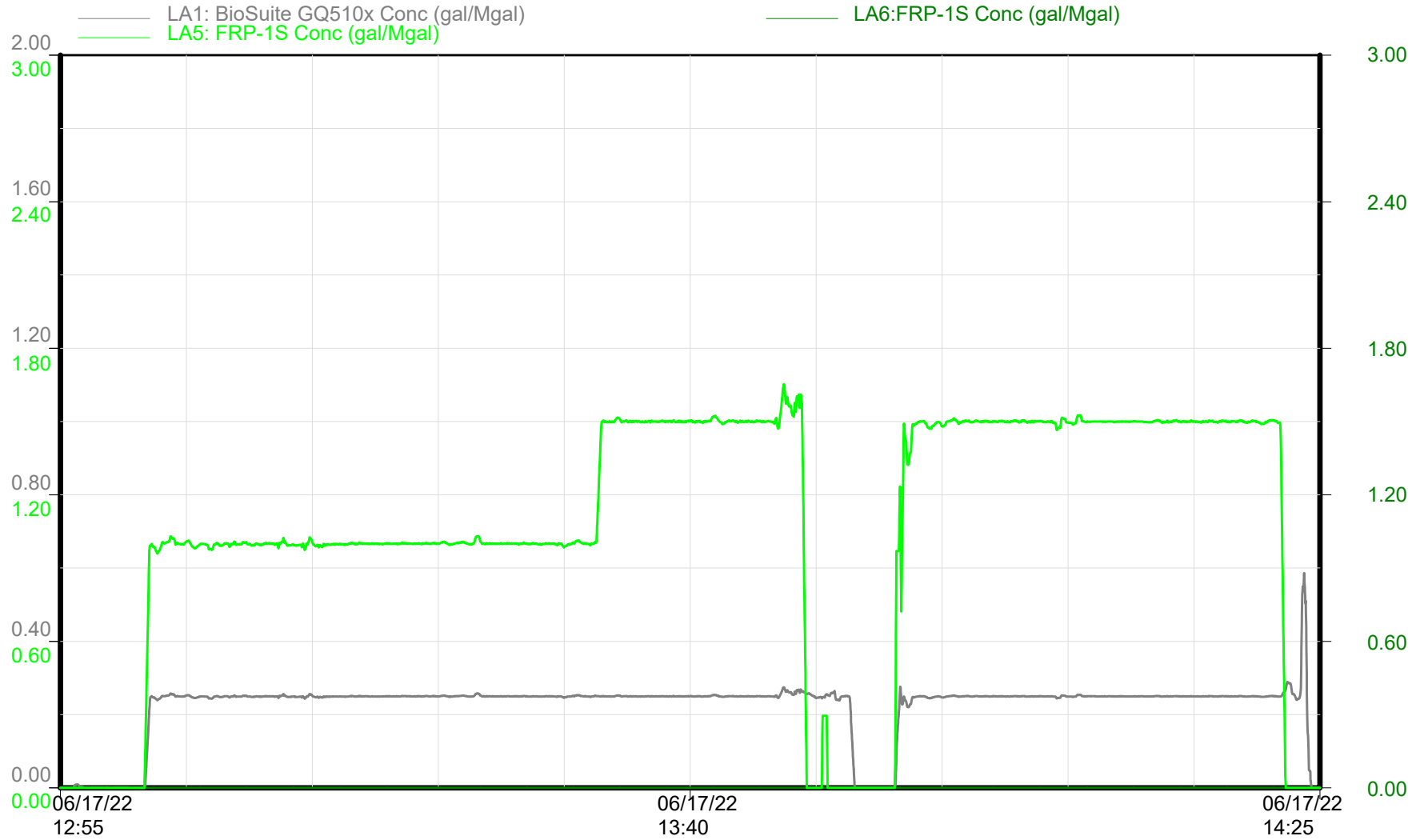
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

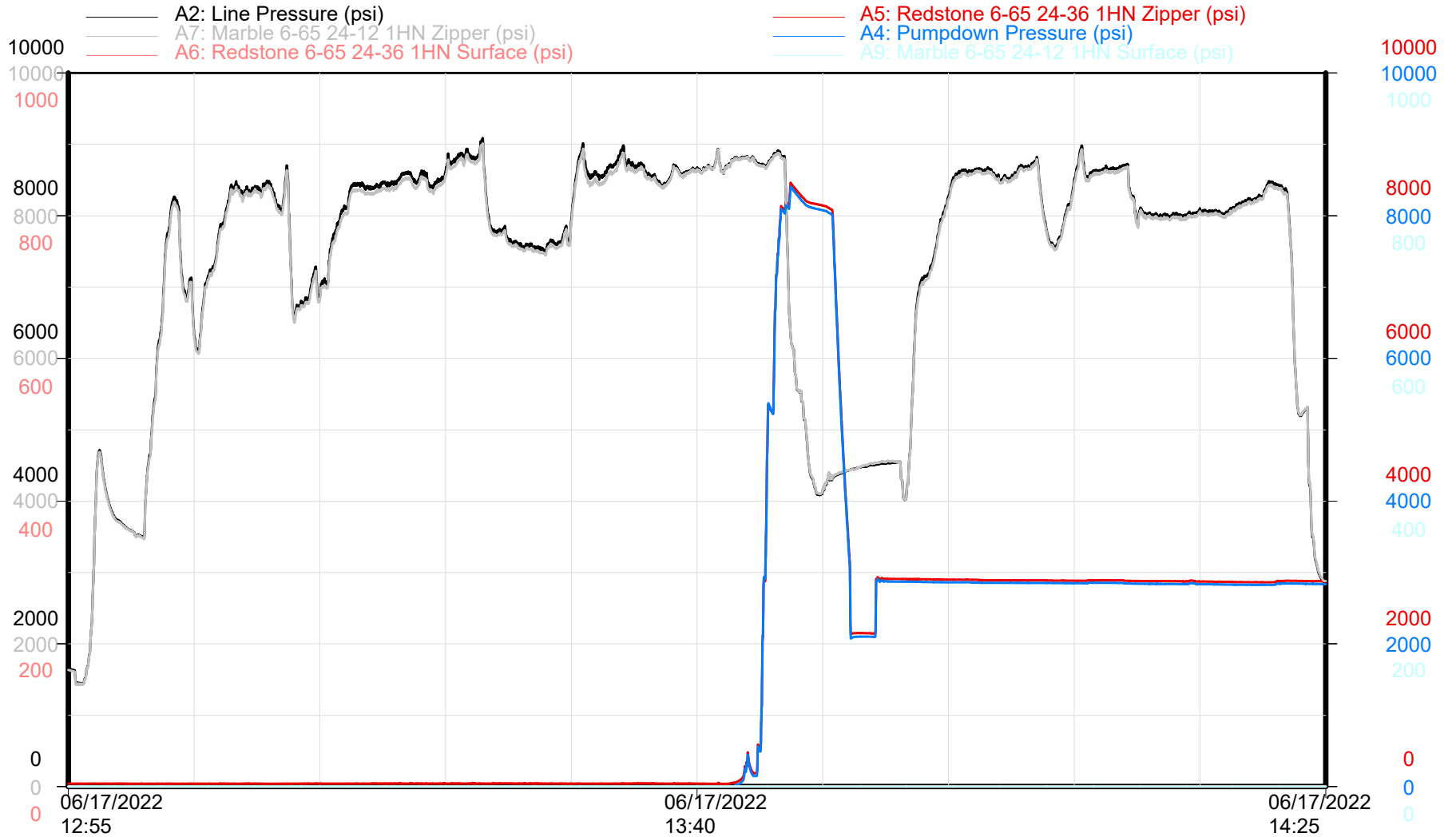
Niobrara - Stage 01 of 60



Chemical Additives

Time

Republic Crew



Zipper Pressures

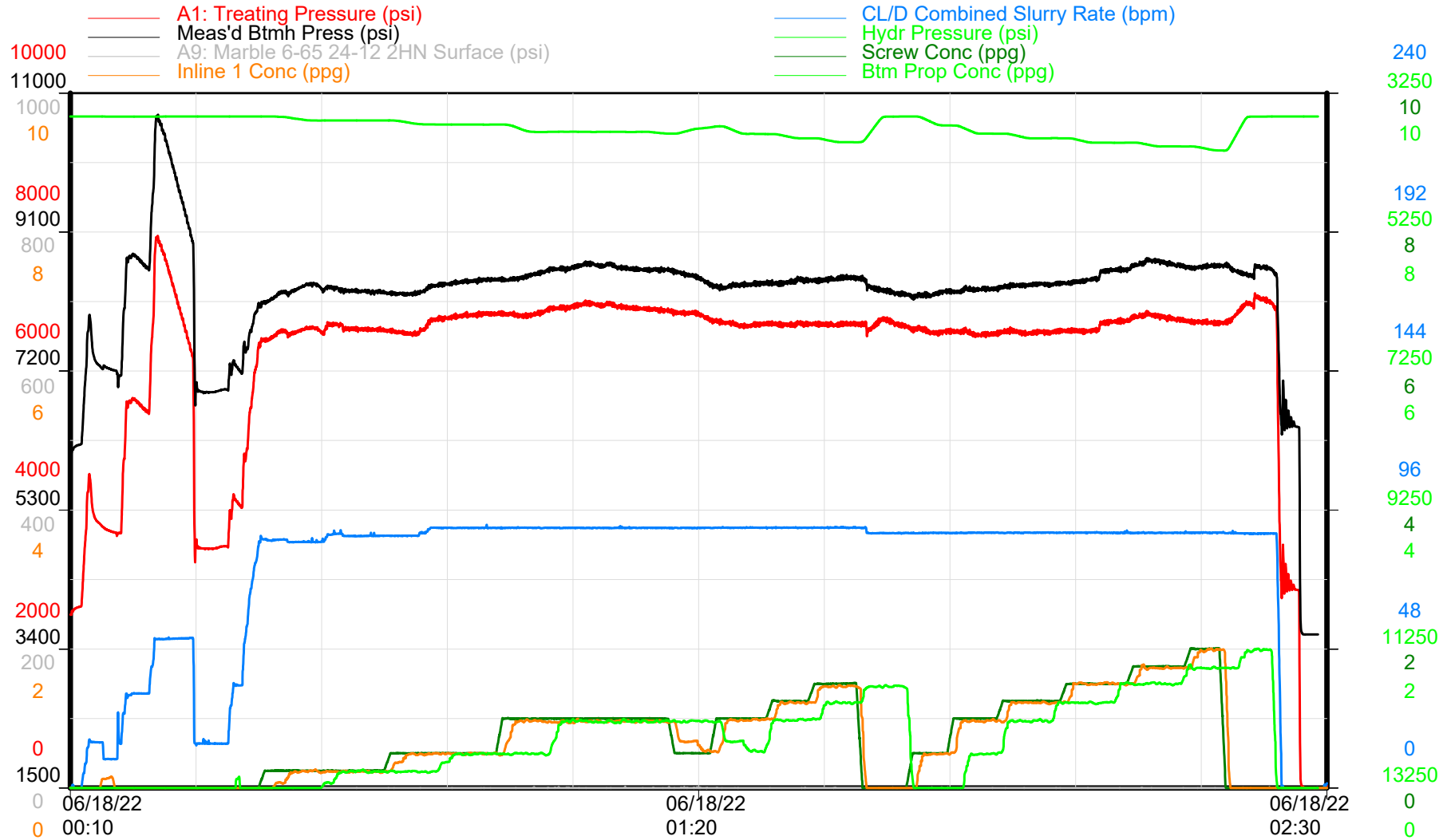
Time

Republic Crew

MARBLE 6-65 24-12 2HN Stage 02

GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 02 of 60



Treatment Plot

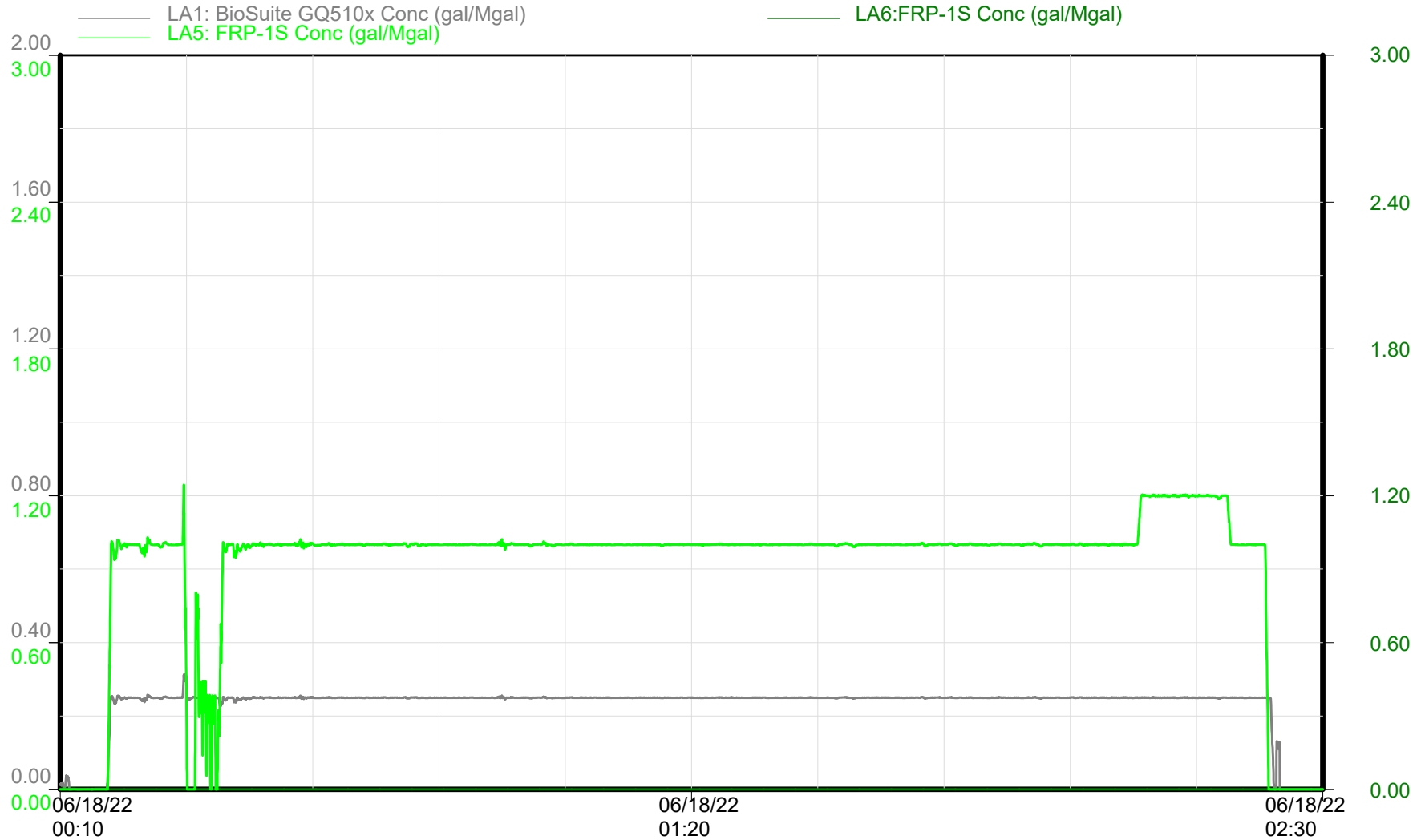
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 02 of 60



Chemical Additives

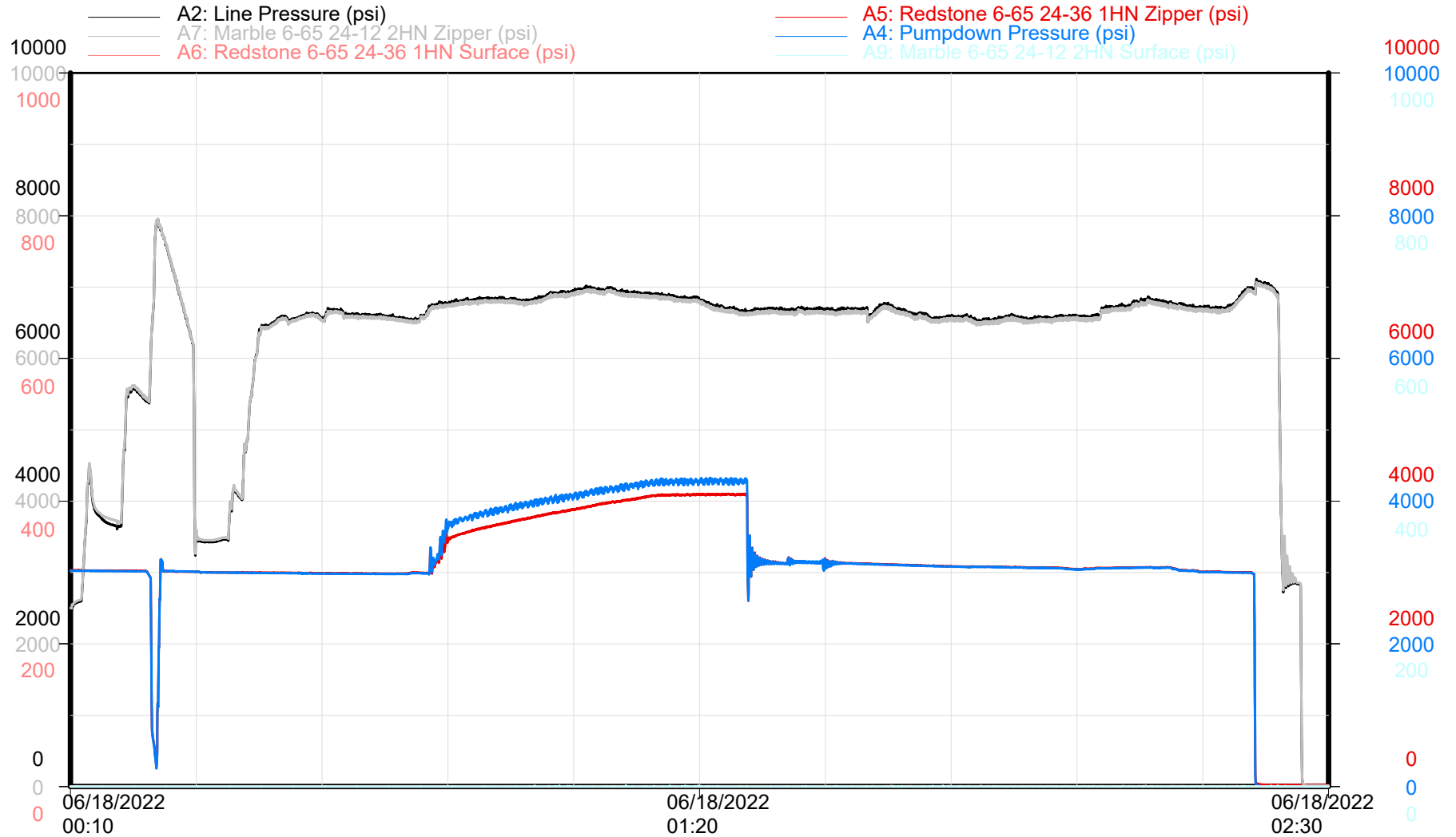
Time

Republic Crew

MARBLE 6-65 24-12 2HN Stage 02

GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 02 of 60



Zipper Pressures

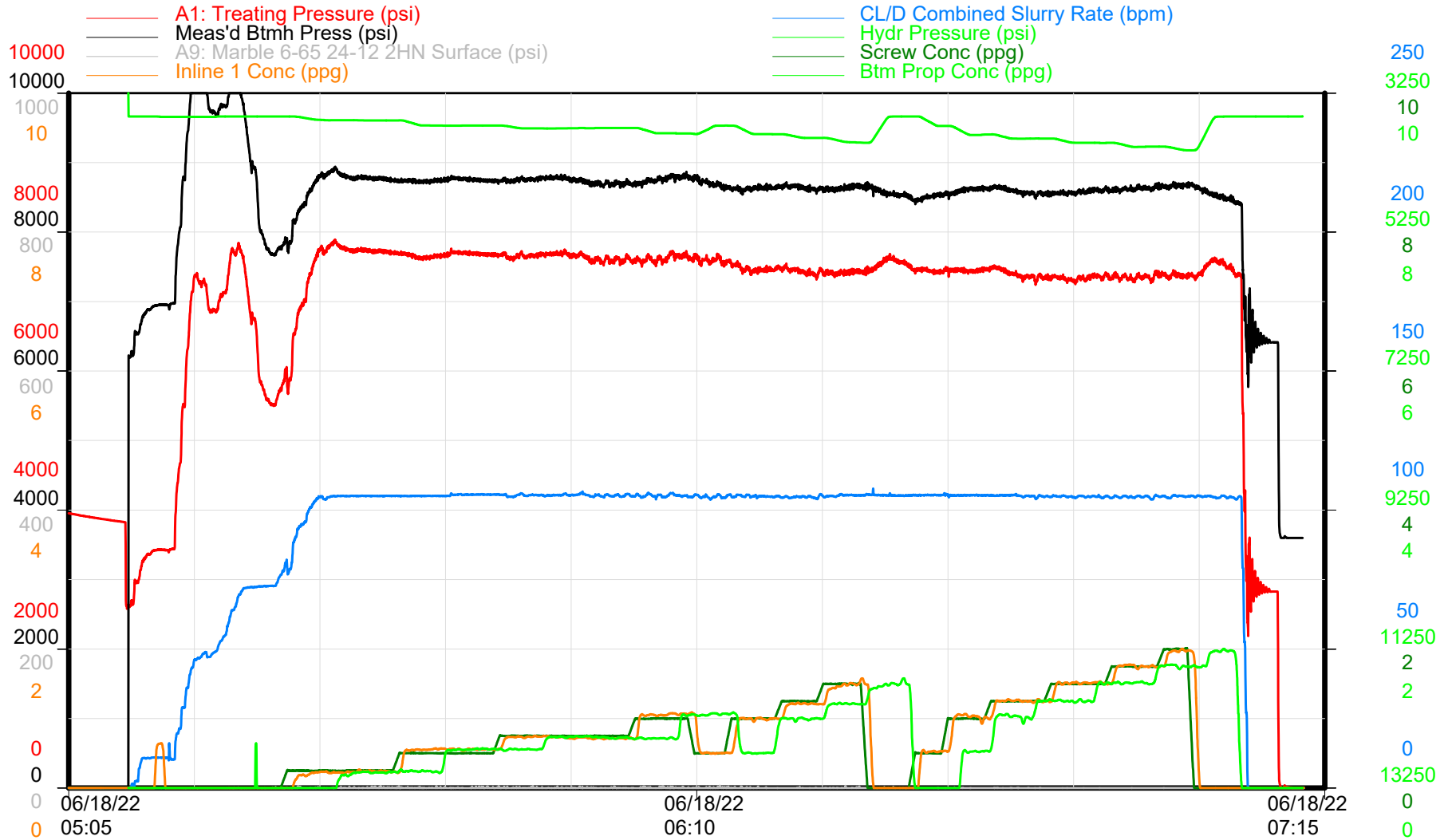
Time

Republic Crew

MARBLE 6-65 24-12 2HN Stage 03

GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 03 of 60



Treatment Plot

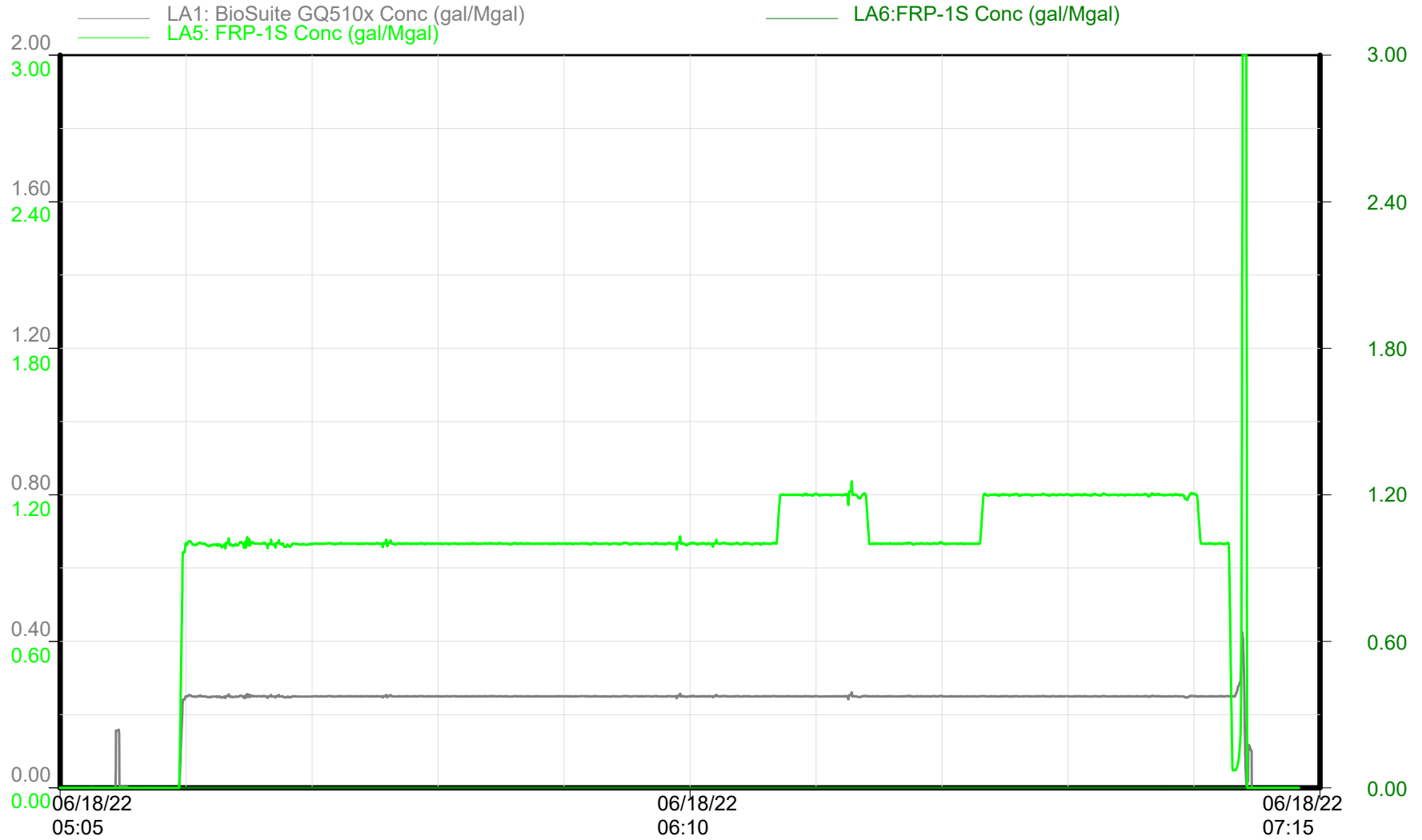
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 03 of 60



Chemical Additives

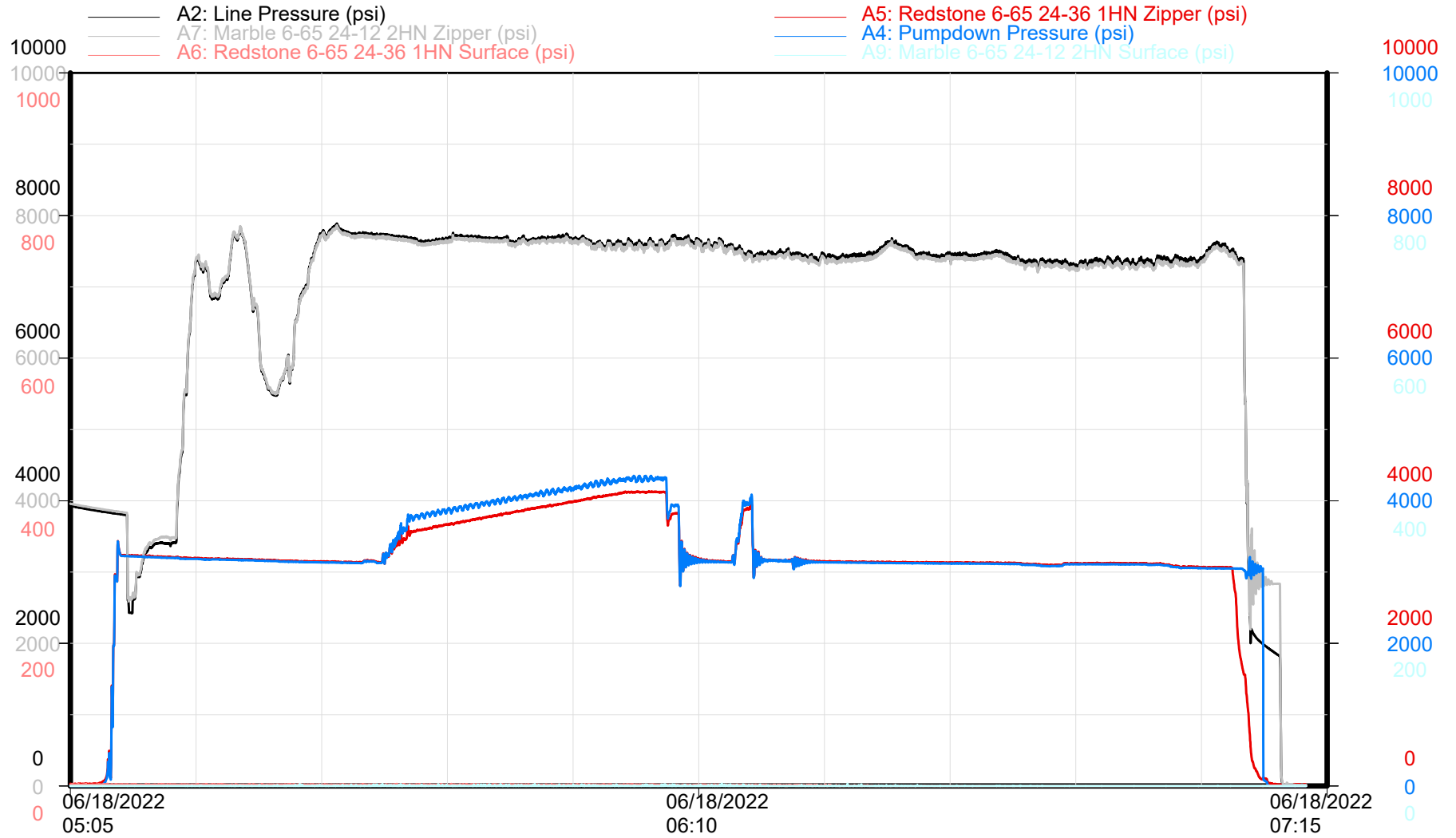
Time

Republic Crew

MARBLE 6-65 24-12 2HN Stage 03

GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 03 of 60



Zipper Pressures

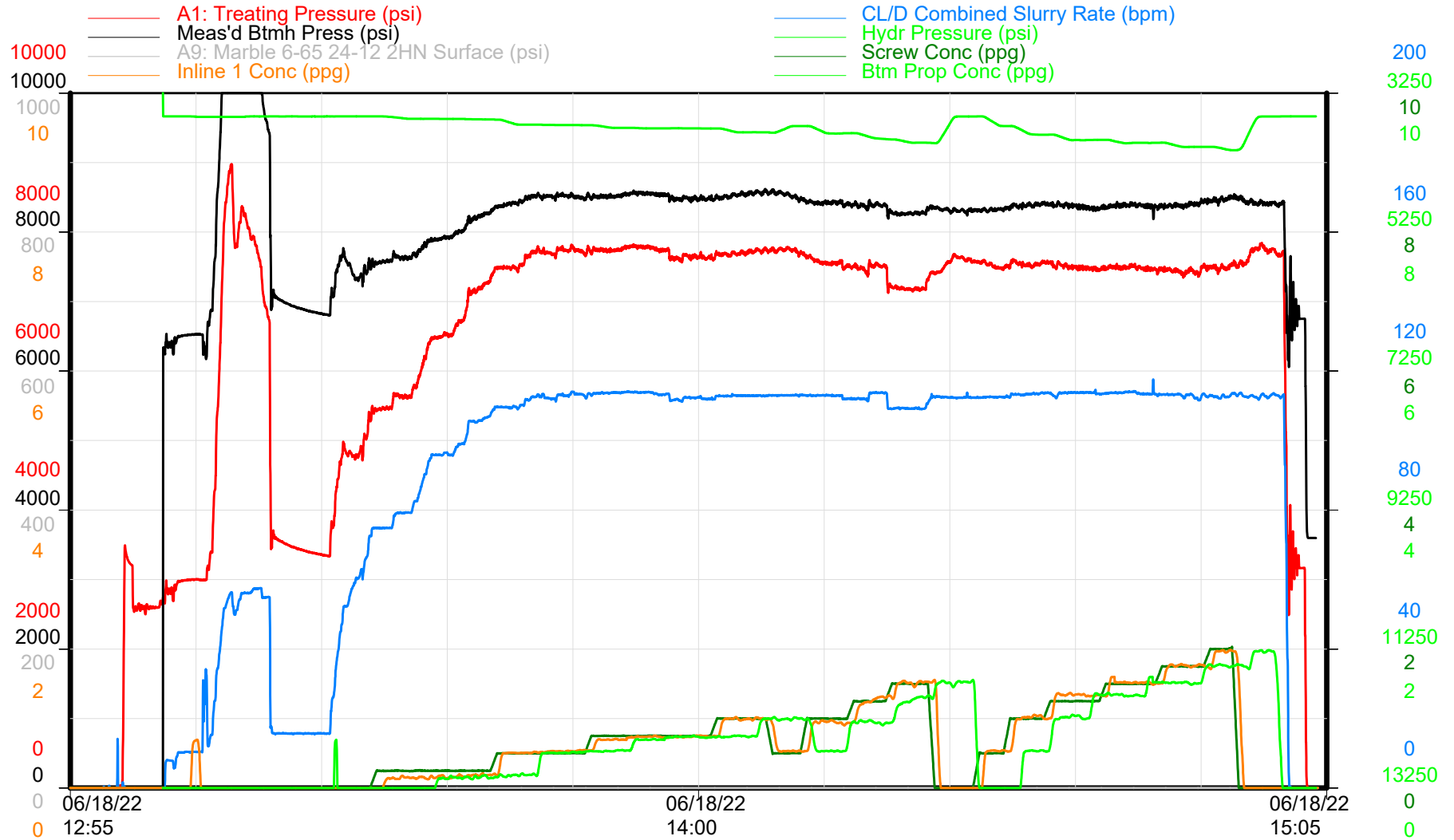
Time

Republic Crew

MARBLE 6-65 24-12 2HN Stage 04

GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 04 of 60



Treatment Plot

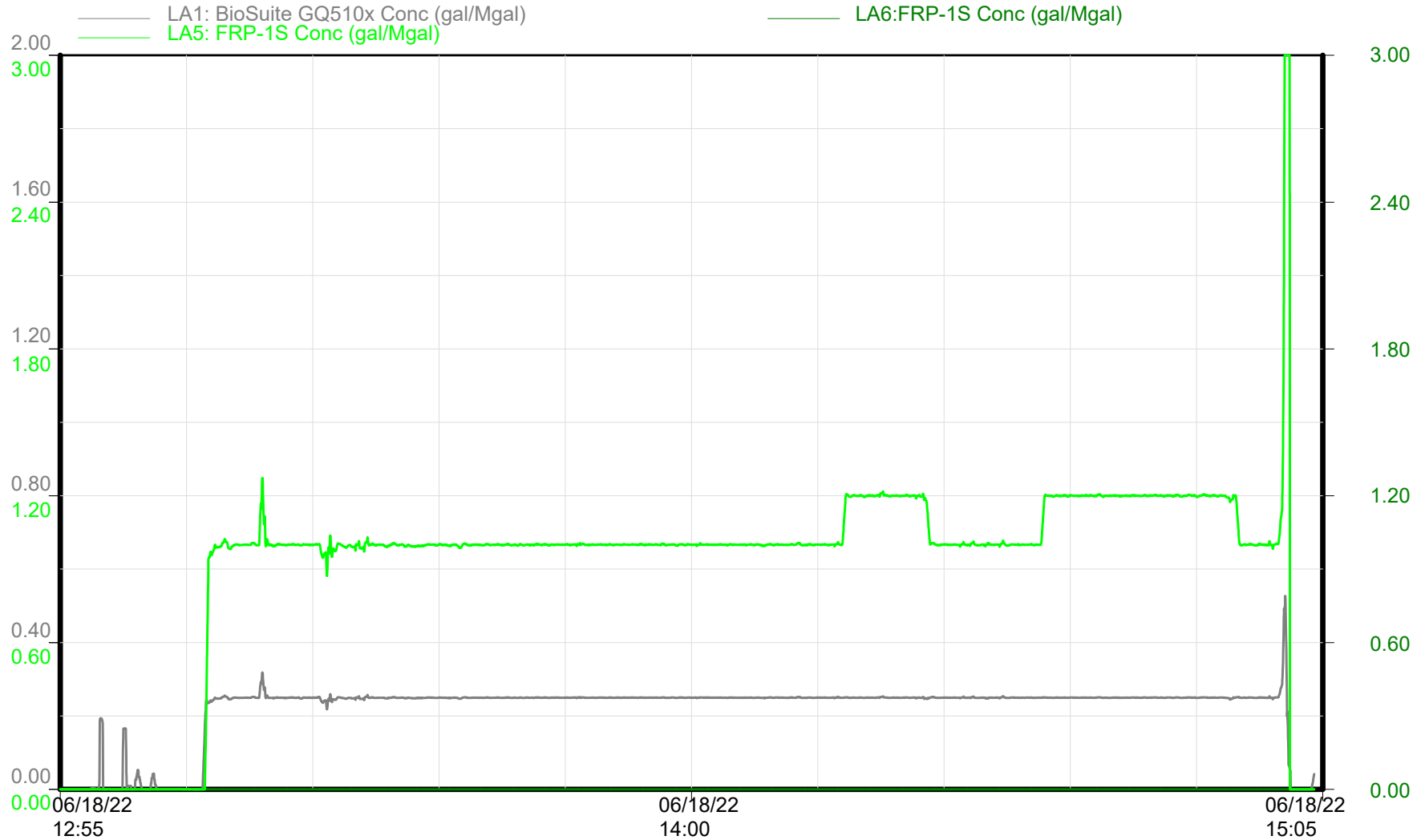
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 04 of 60



Chemical Additives

Time

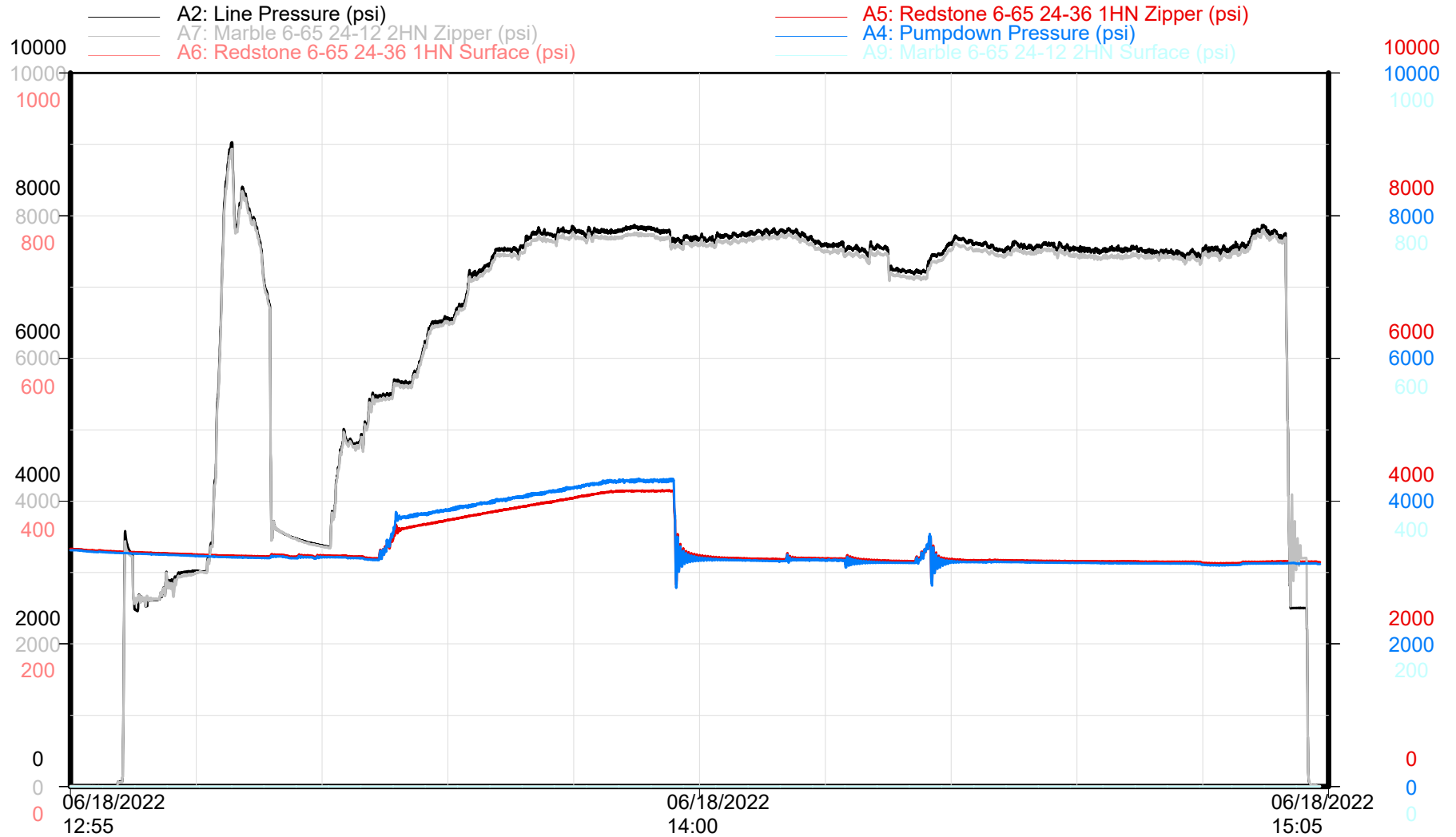
Republic Crew

MARBLE 6-65 24-12 2HN Stage 04



GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 04 of 60



Zipper Pressures

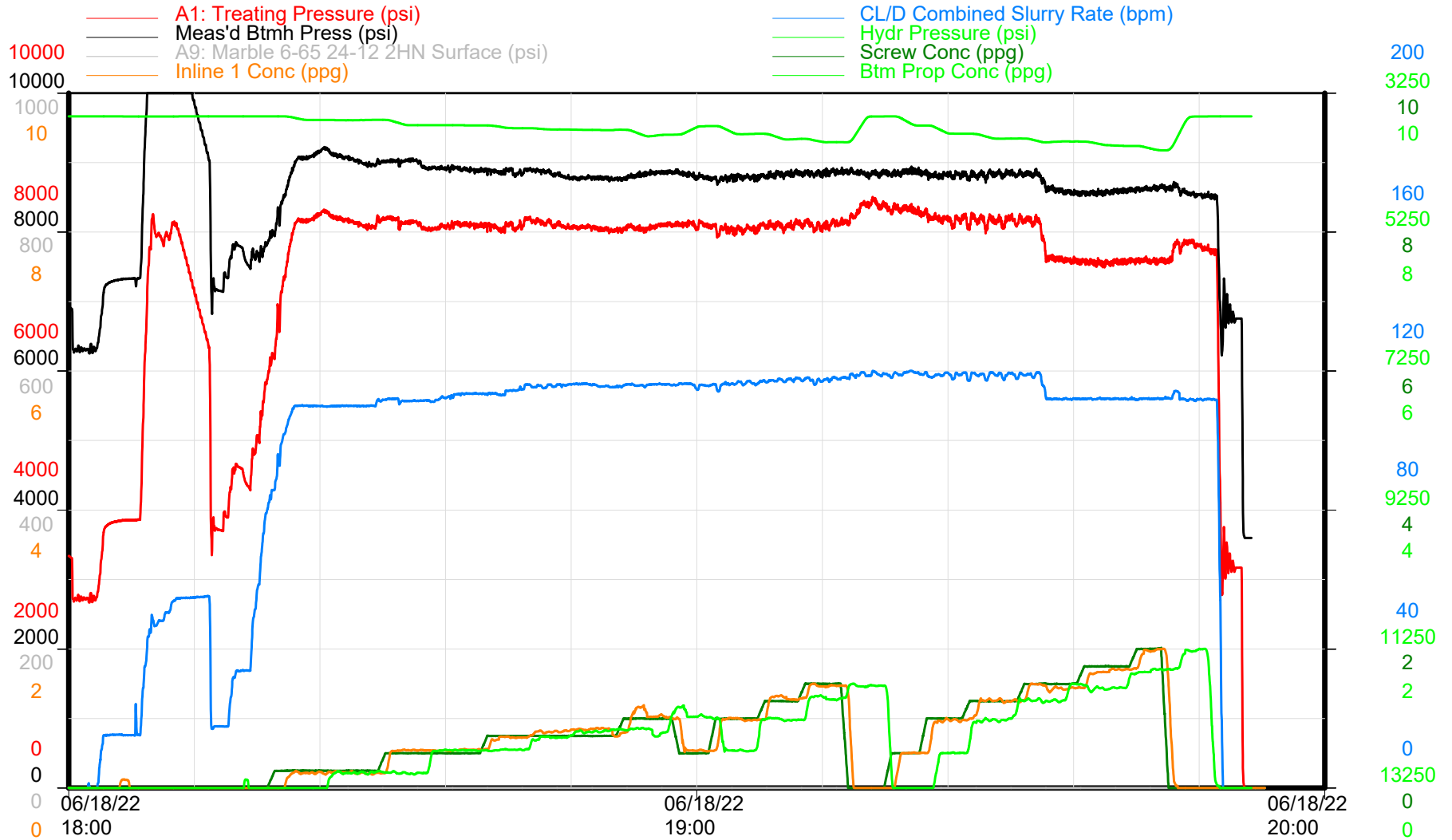
Time

Republic Crew

MARBLE 6-65 24-12 2HN Stage 05

GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 05 of 60



Treatment Plot

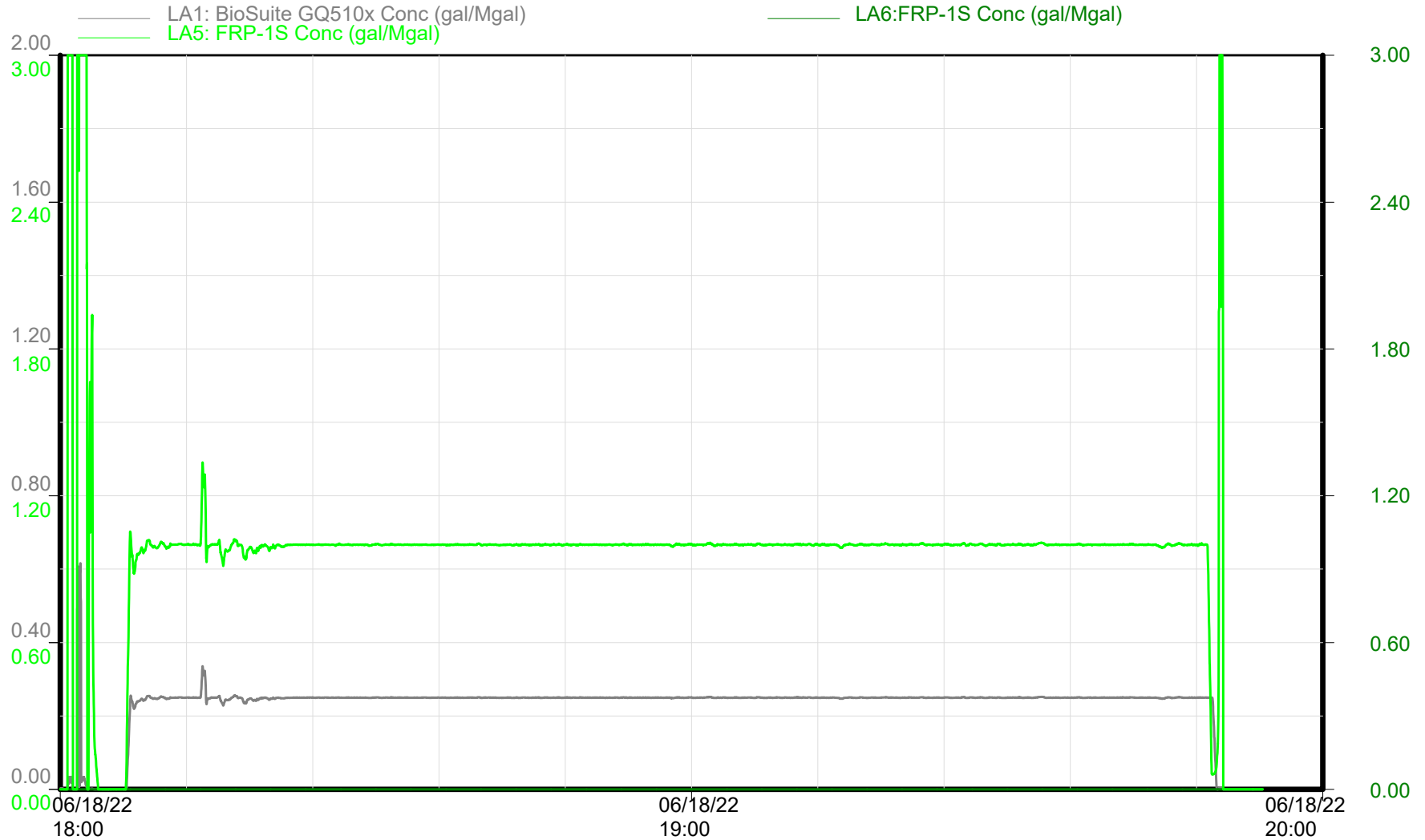
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 05 of 60



Chemical Additives

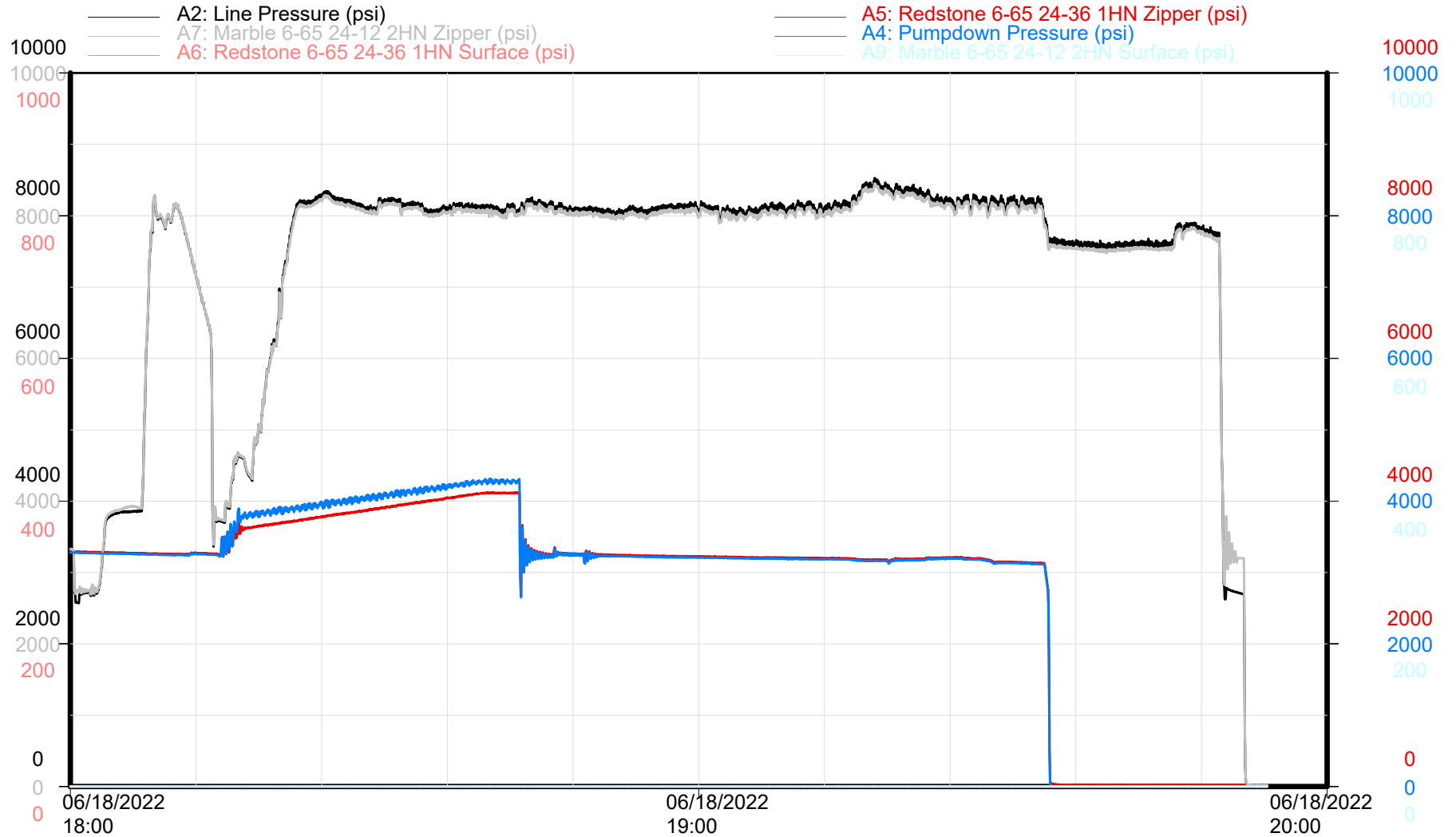
Time

Republic Crew

MARBLE 6-65 24-12 2HN Stage 05

GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 05 of 60



Zipper Pressures

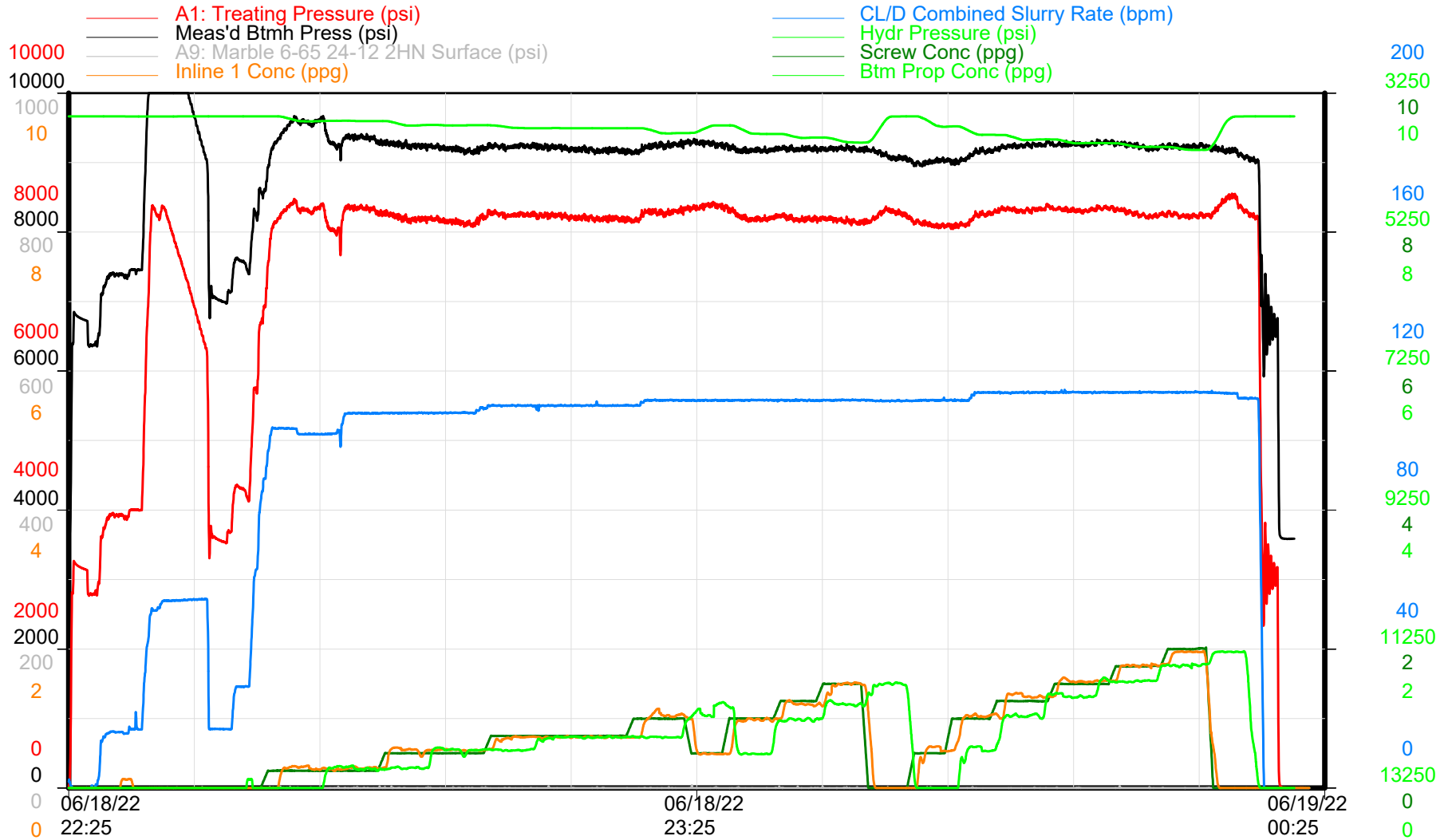
Time

Republic Crew

MARBLE 6-65 24-12 2HN Stage 06

GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 06 of 60



Treatment Plot

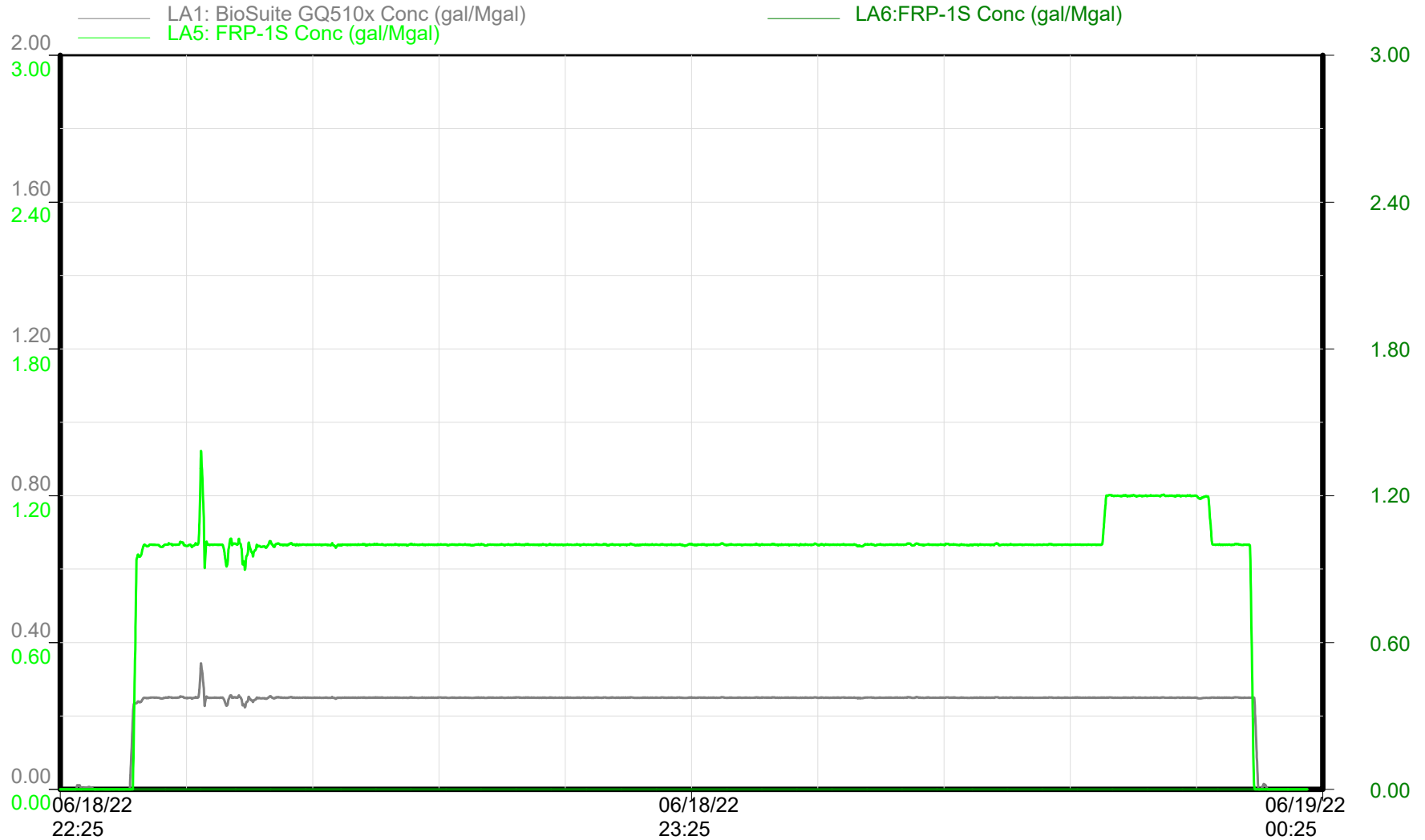
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 06 of 60



Chemical Additives

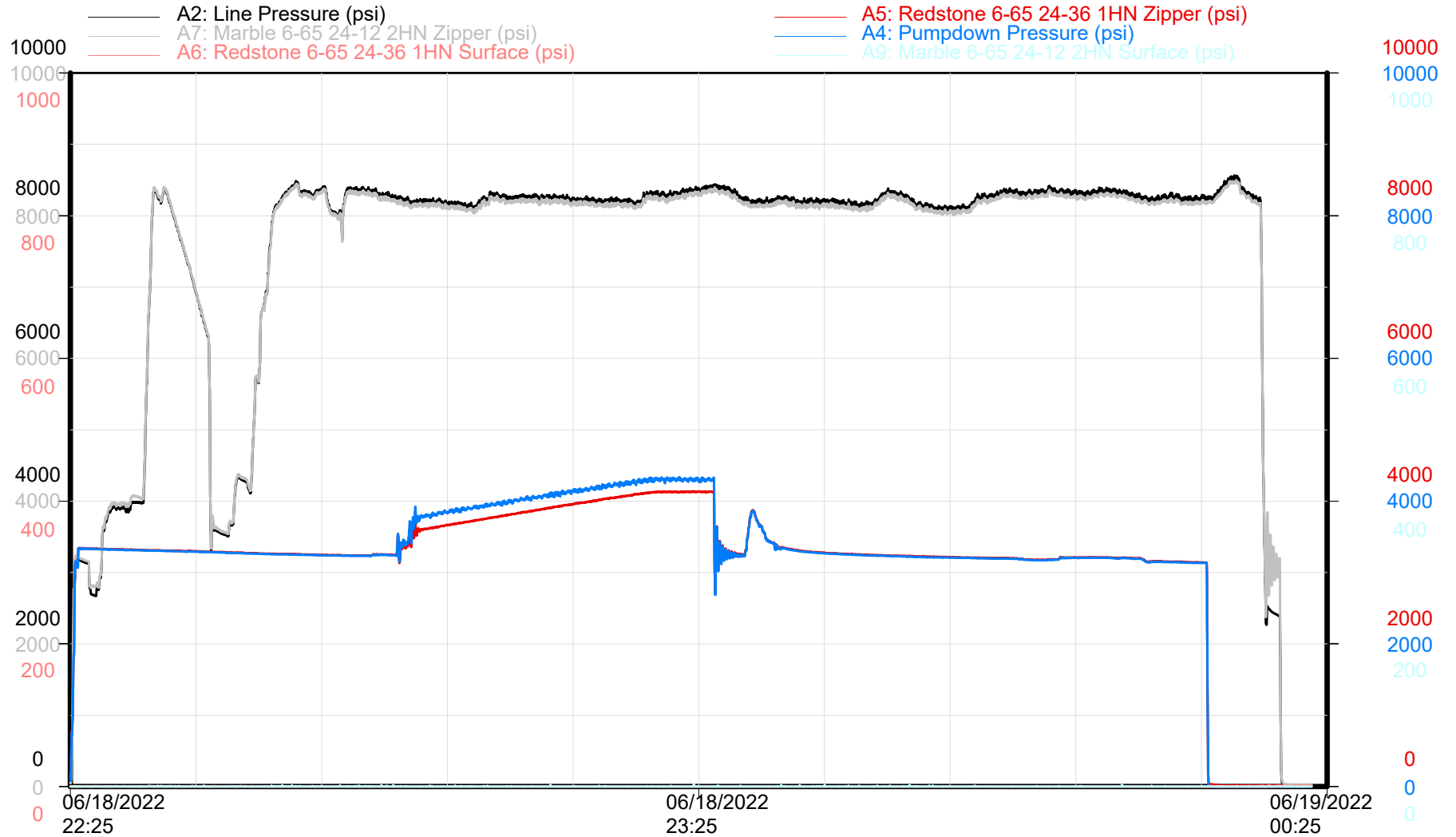
Time

Republic Crew

MARBLE 6-65 24-12 2HN Stage 06

GMT - MARBLE 6-65 24-12 2HN

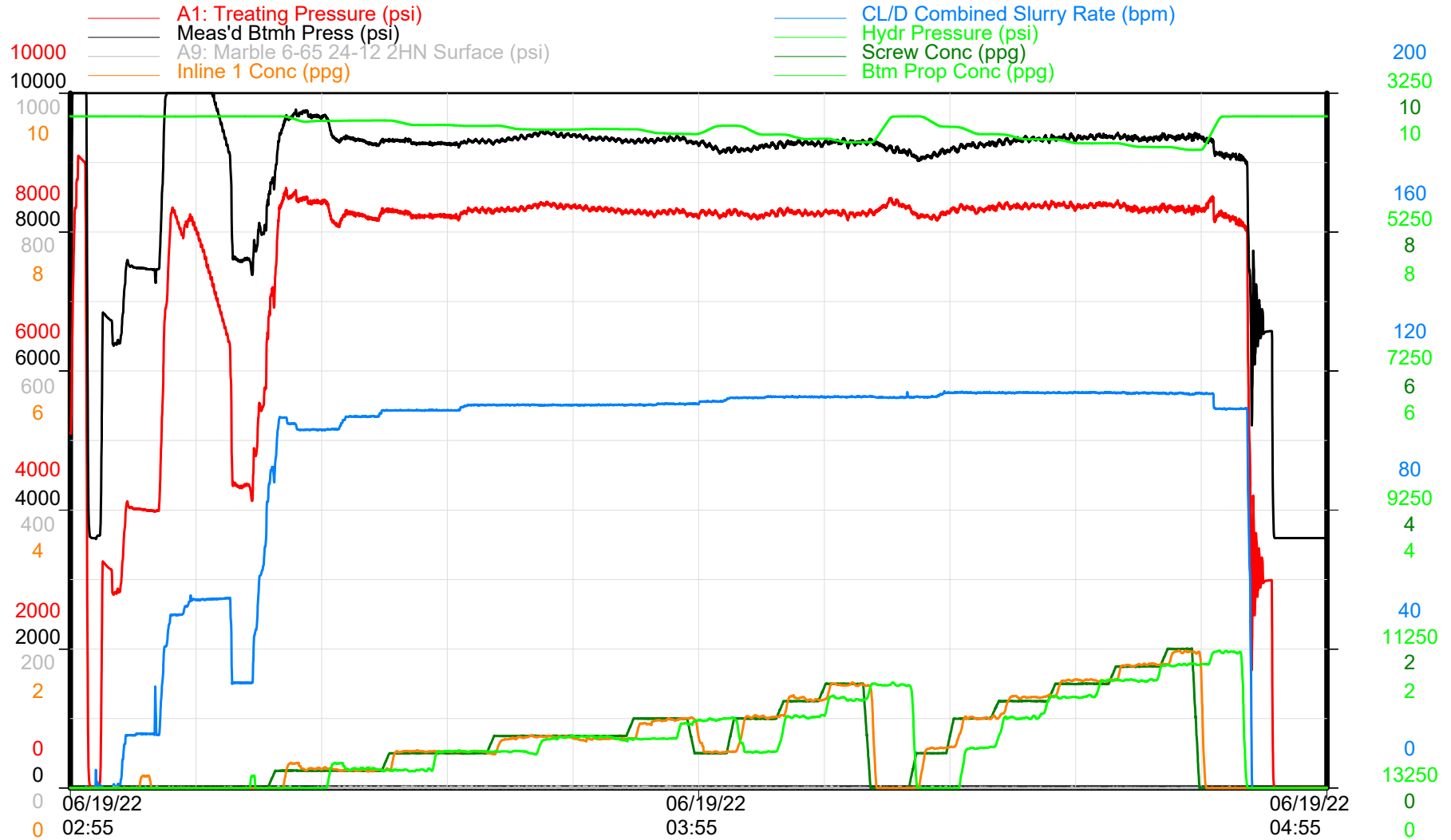
Niobrara - Stage 06 of 60



Zipper Pressures

Time

Republic Crew



Treatment Plot

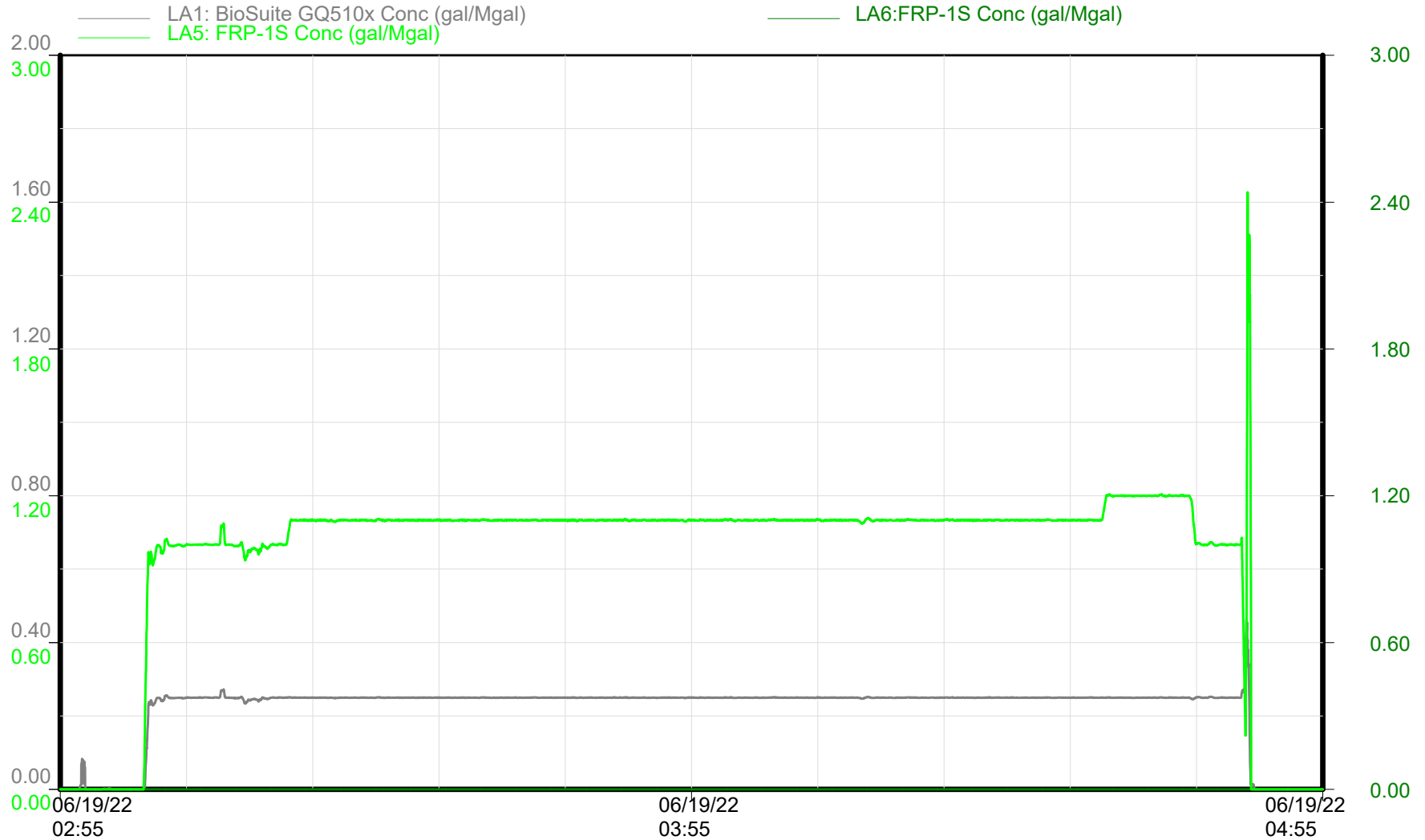
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 07 of 60



Chemical Additives

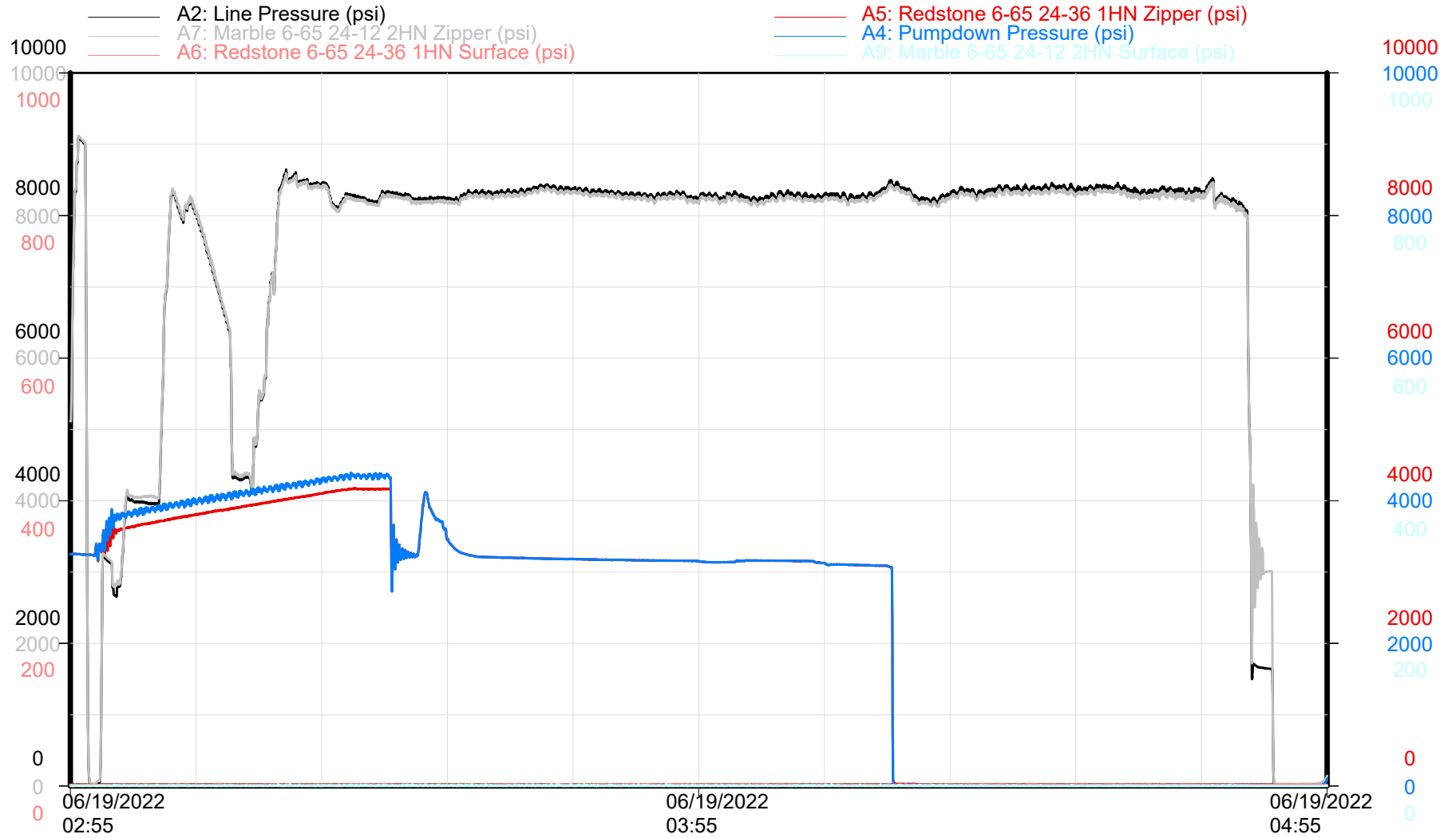
Time

Republic Crew

MARBLE 6-65 24-12 2HN Stage 07

GMT - MARBLE 6-65 24-12 2HN

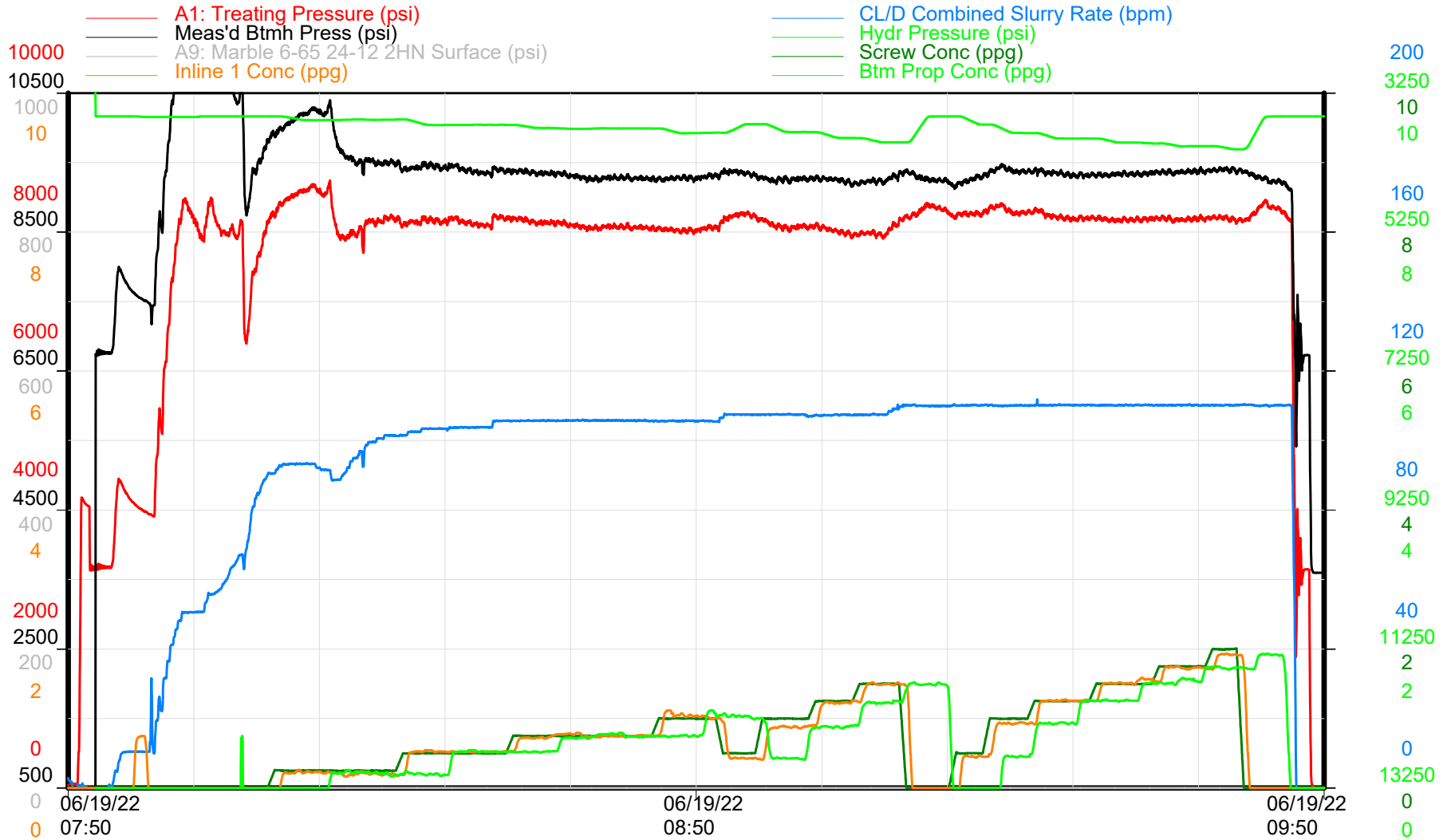
Niobrara - Stage 07 of 60



Zipper Pressures

Time

Republic Crew



Treatment Plot

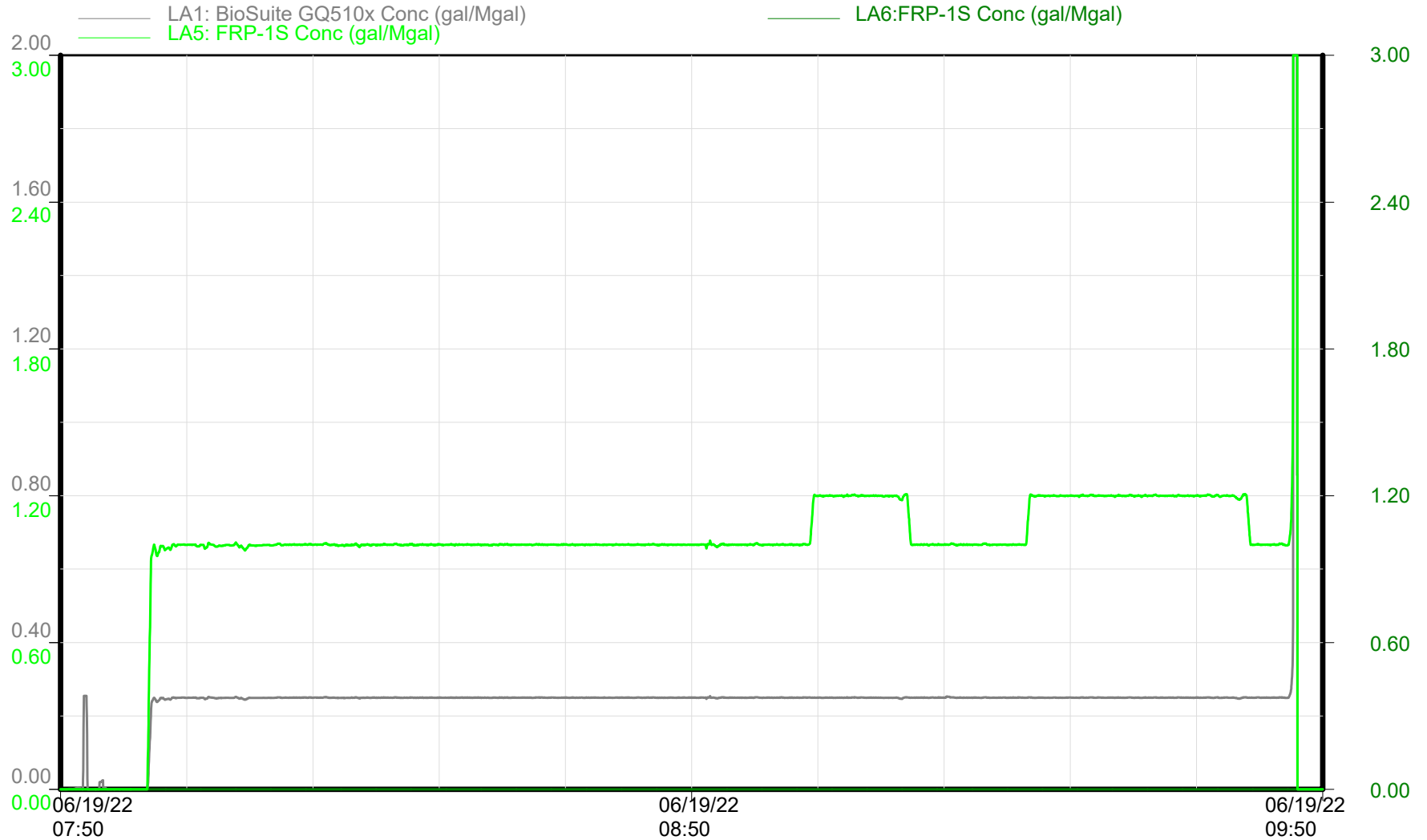
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

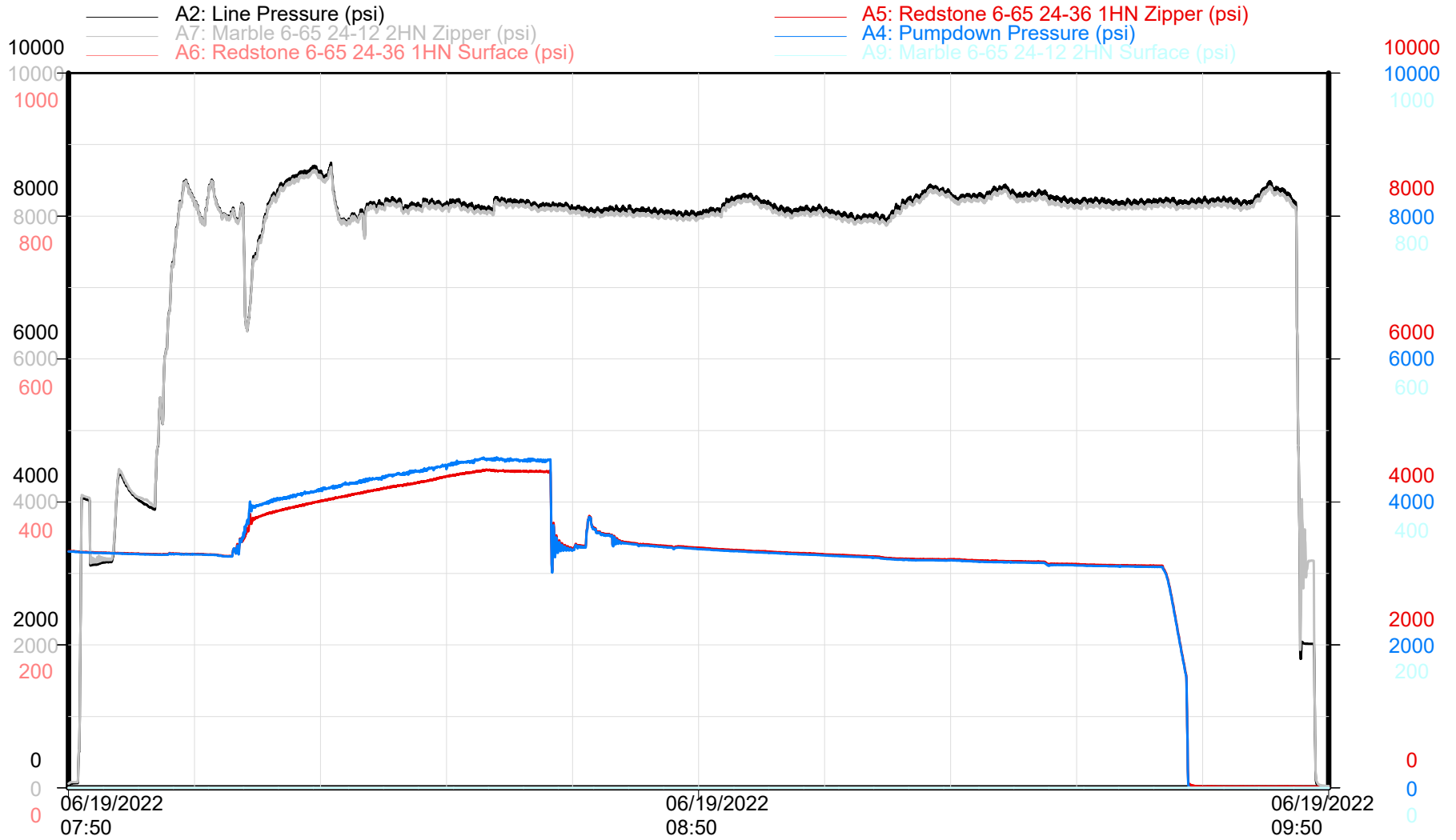
Niobrara - Stage 08 of 60



Chemical Additives

Time

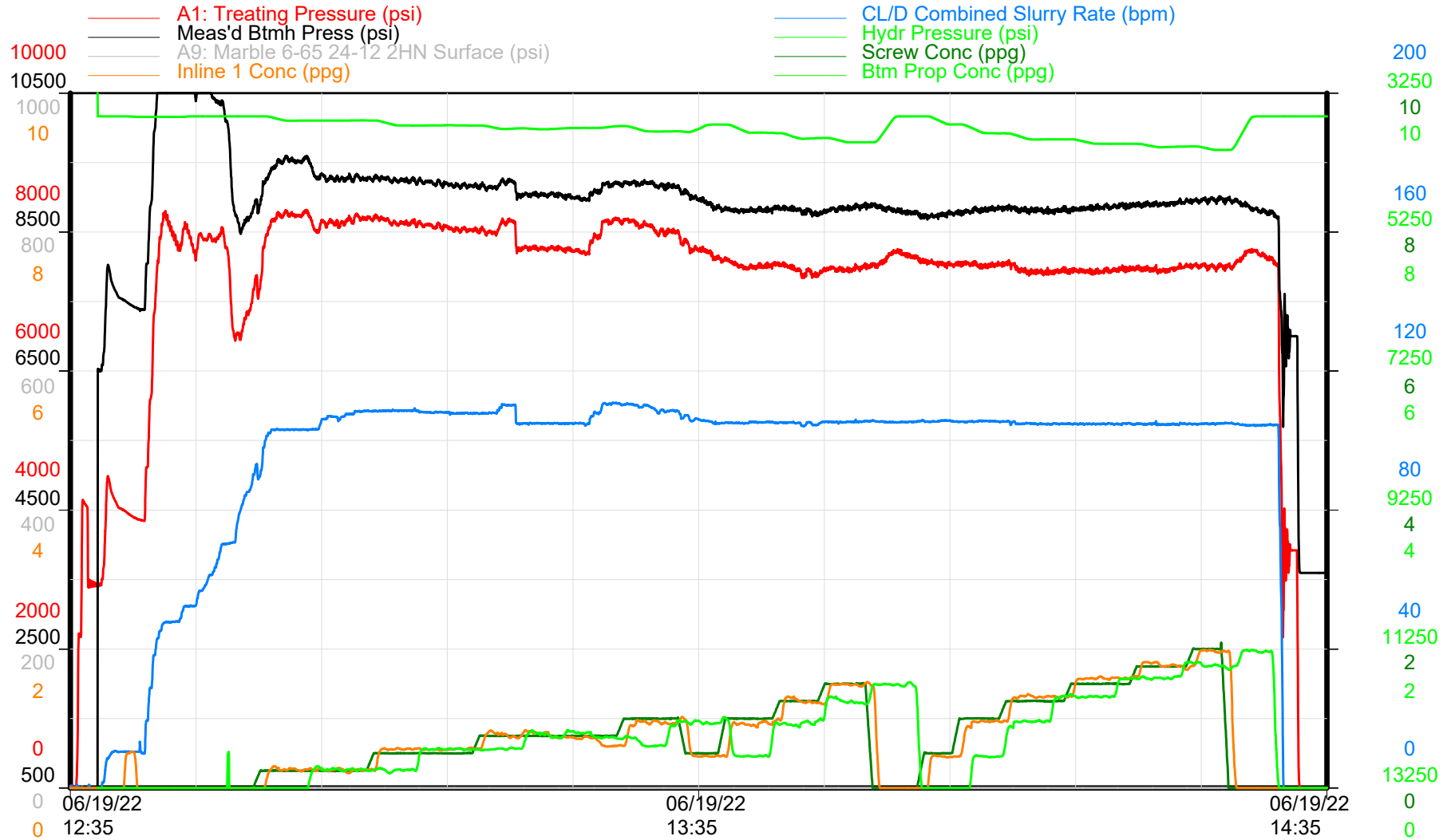
Republic Crew



Zipper Pressures

Time

Republic Crew



Treatment Plot

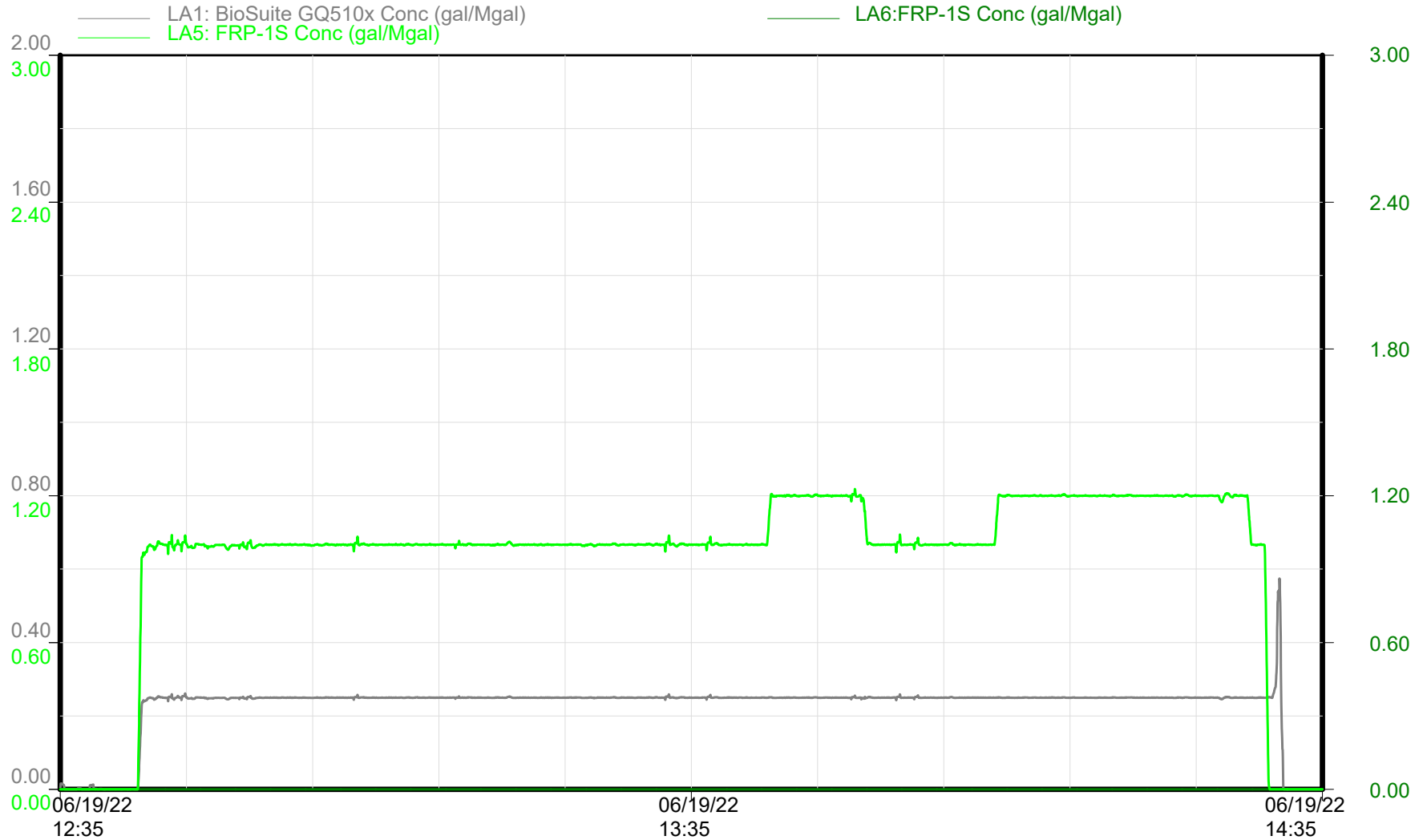
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 09 of 60



Chemical Additives

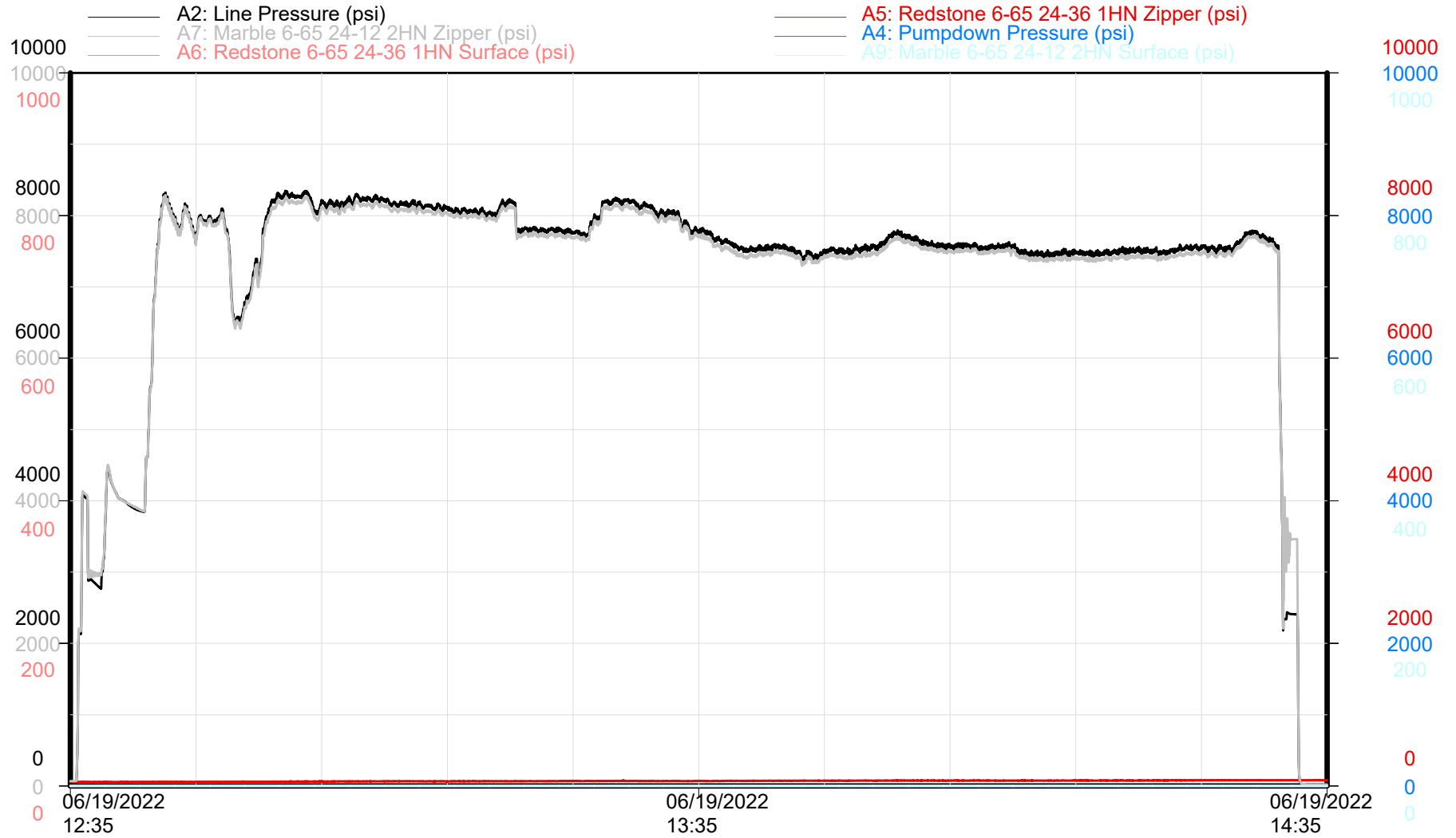
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 09 of 60



Zipper Pressures

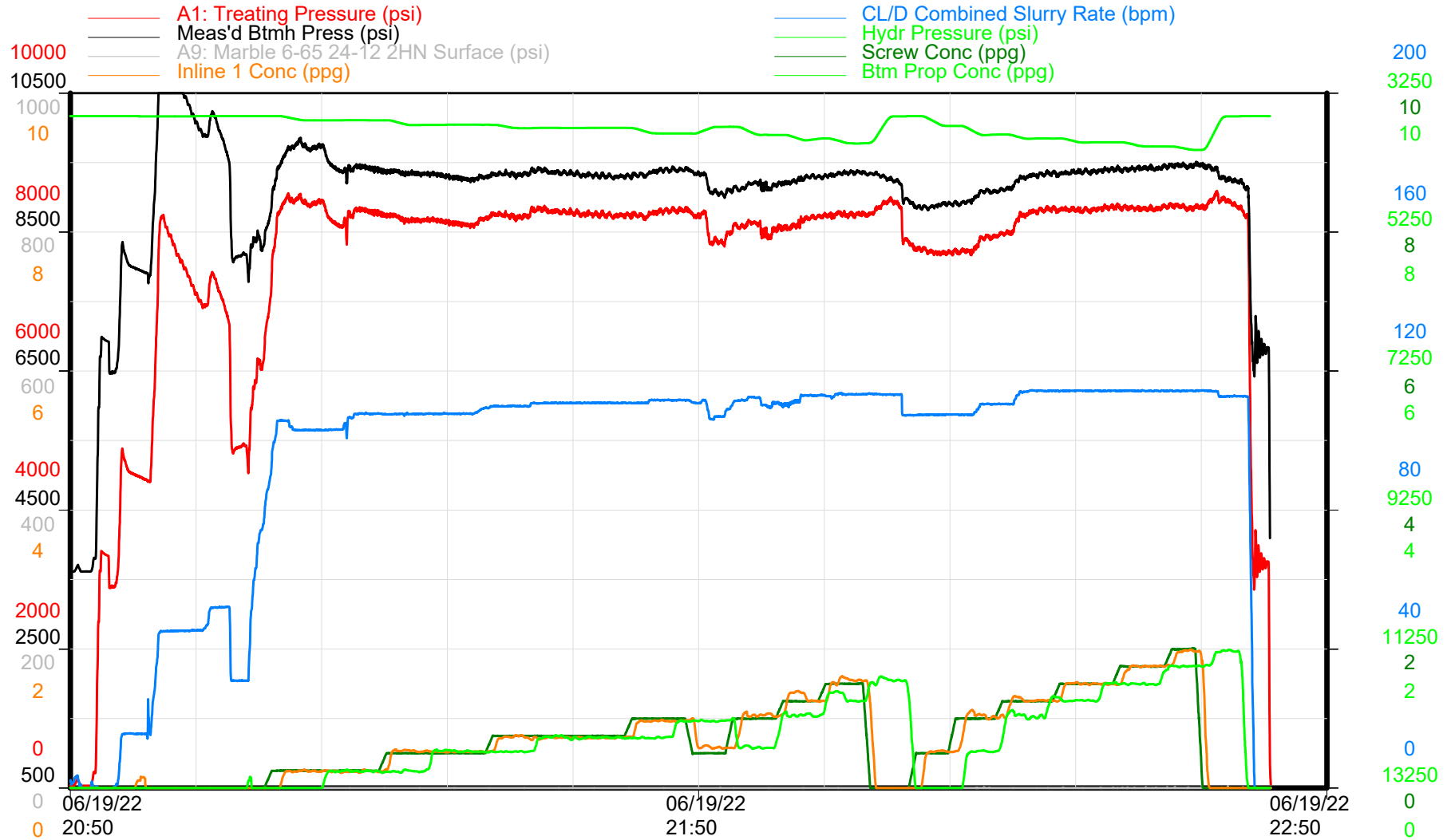
Time

Republic Crew

MARBLE 6-65 24-12 2HN Stage 10

GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 10 of 60



Treatment Plot

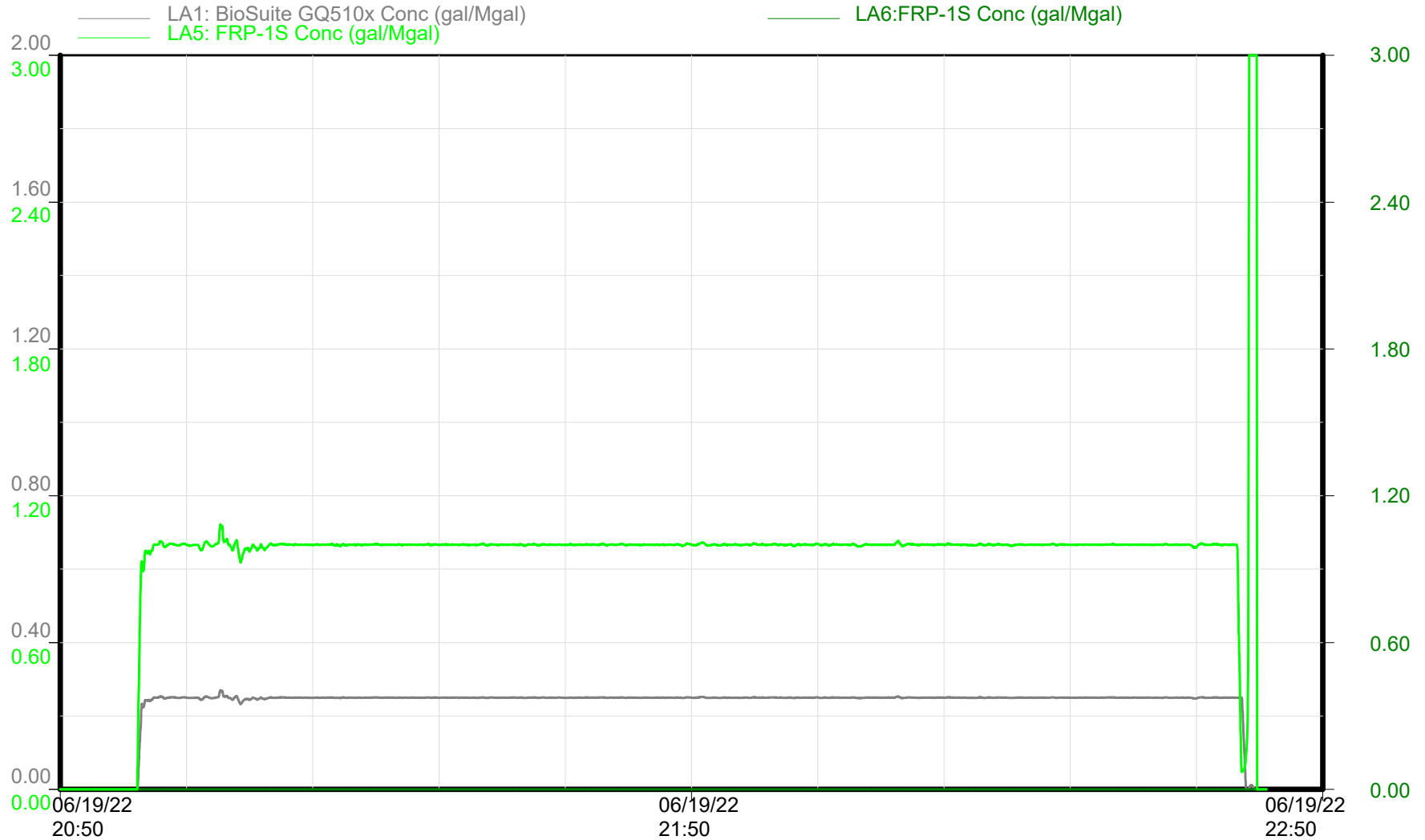
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 10 of 60



Chemical Additives

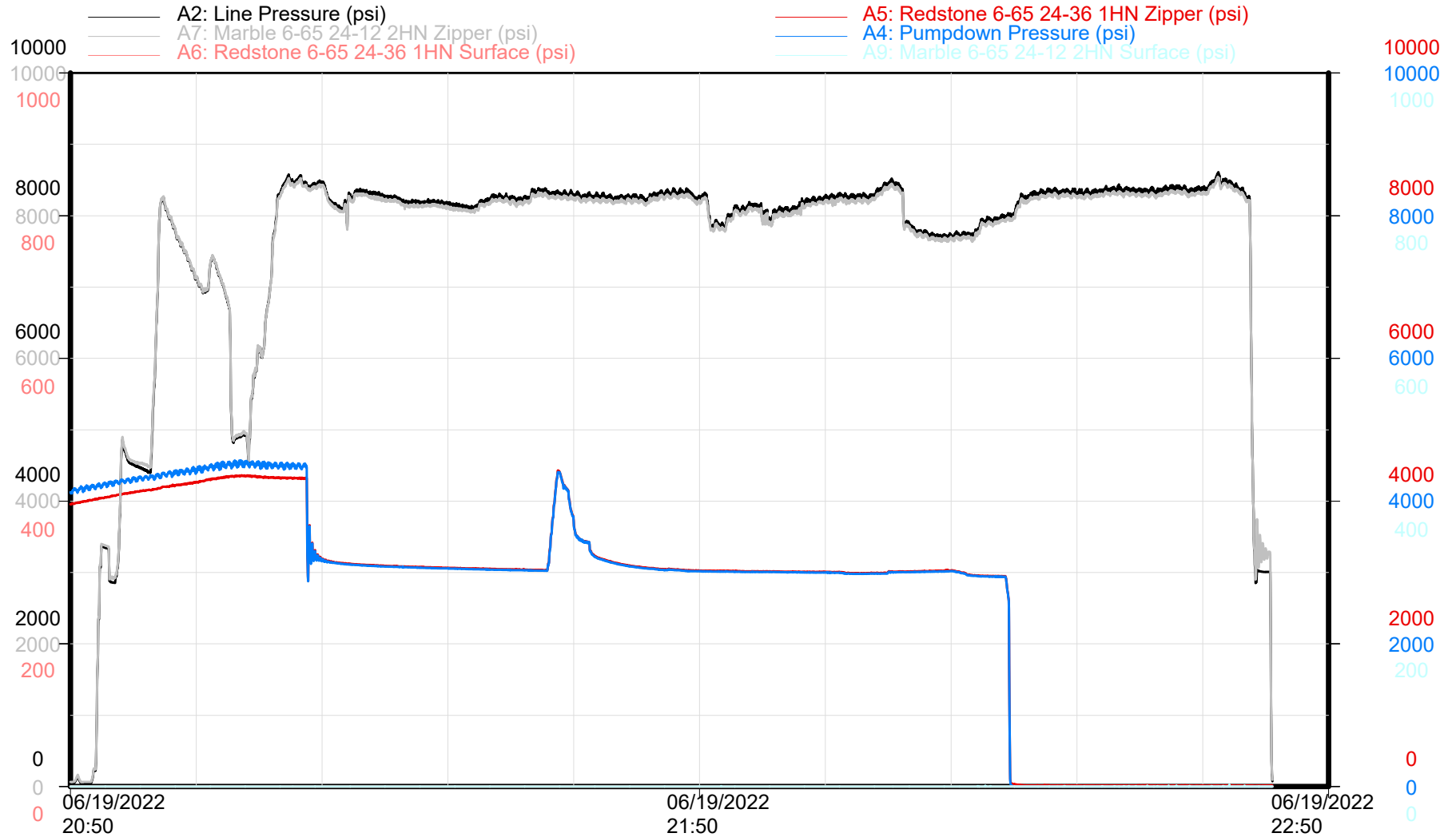
Time

Republic Crew

MARBLE 6-65 24-12 2HN Stage 10

GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 10 of 60



Zipper Pressures

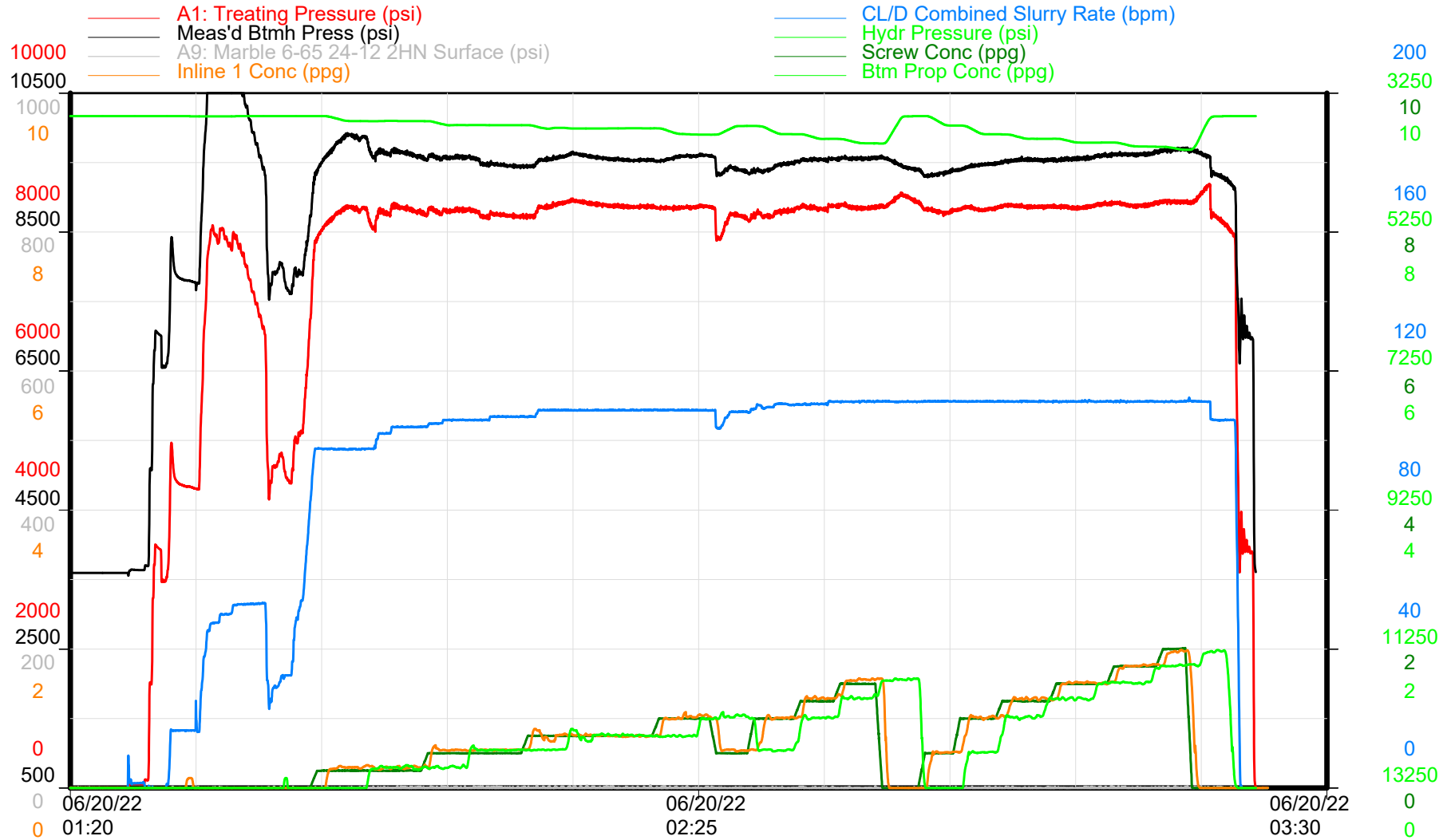
Time

Republic Crew

MARBLE 6-65 24-12 2HN Stage 11

GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 11 of 60



Treatment Plot

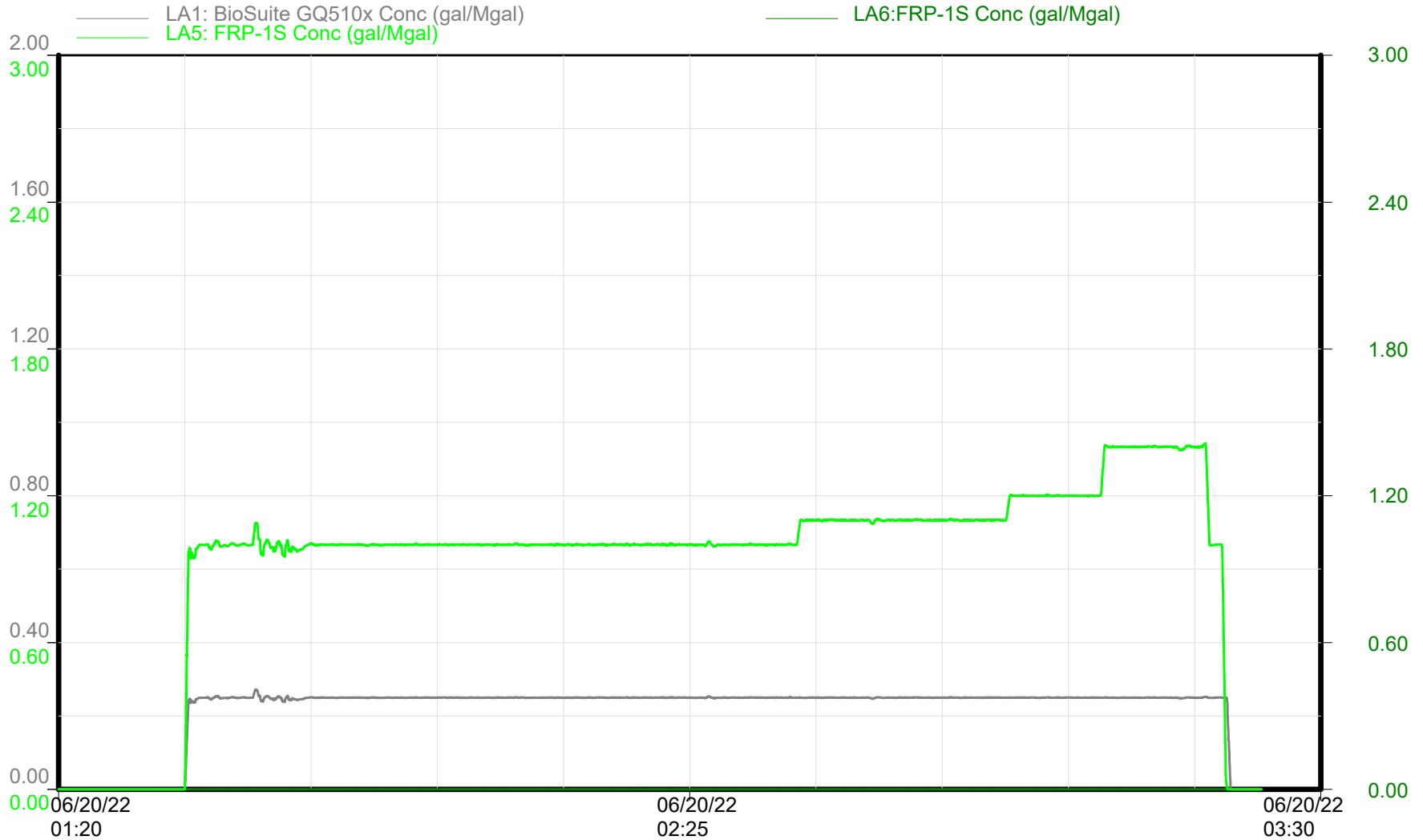
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 11 of 60



Chemical Additives

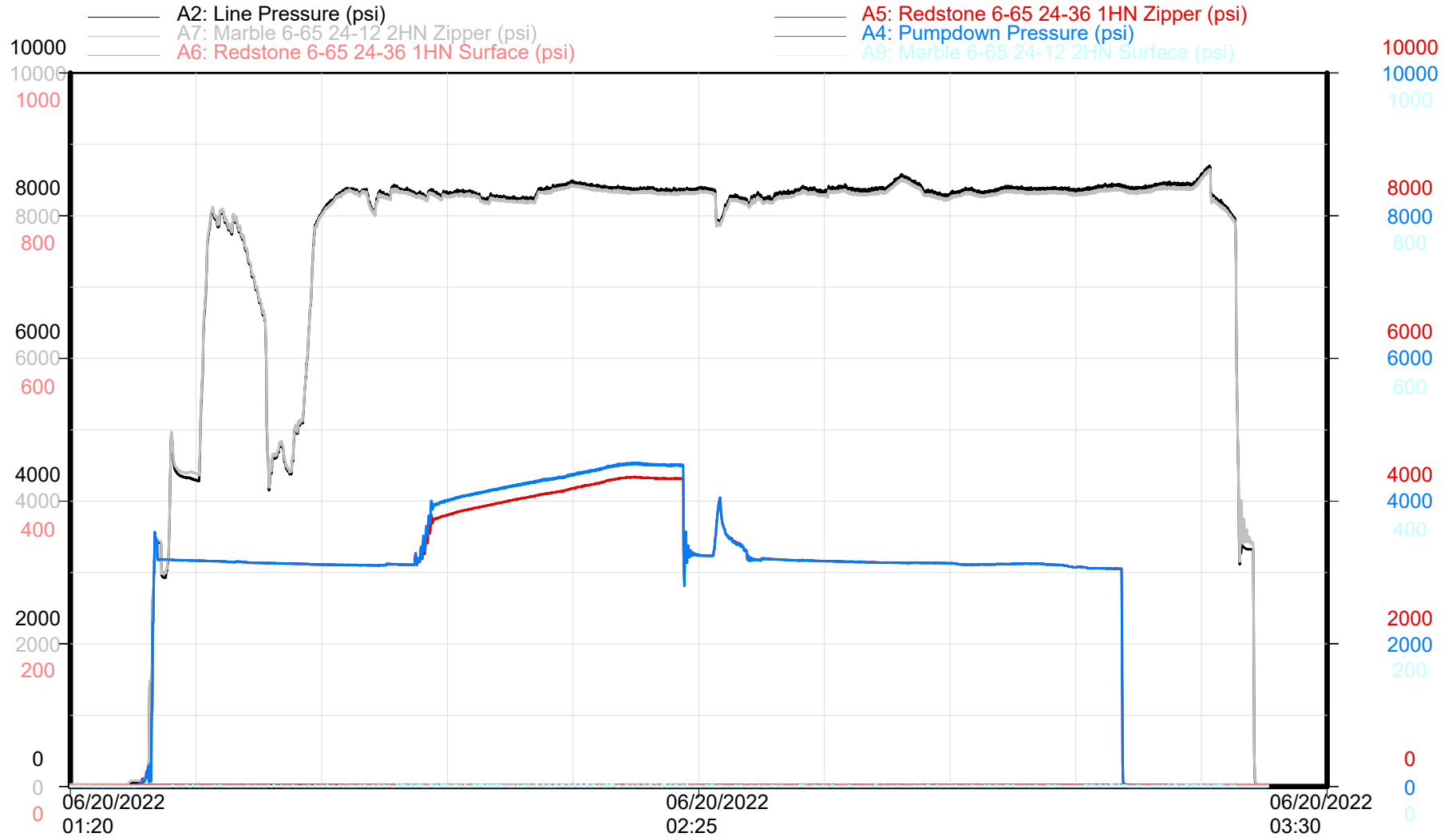
Time

Republic Crew

MARBLE 6-65 24-12 2HN Stage 11

GMT - MARBLE 6-65 24-12 2HN

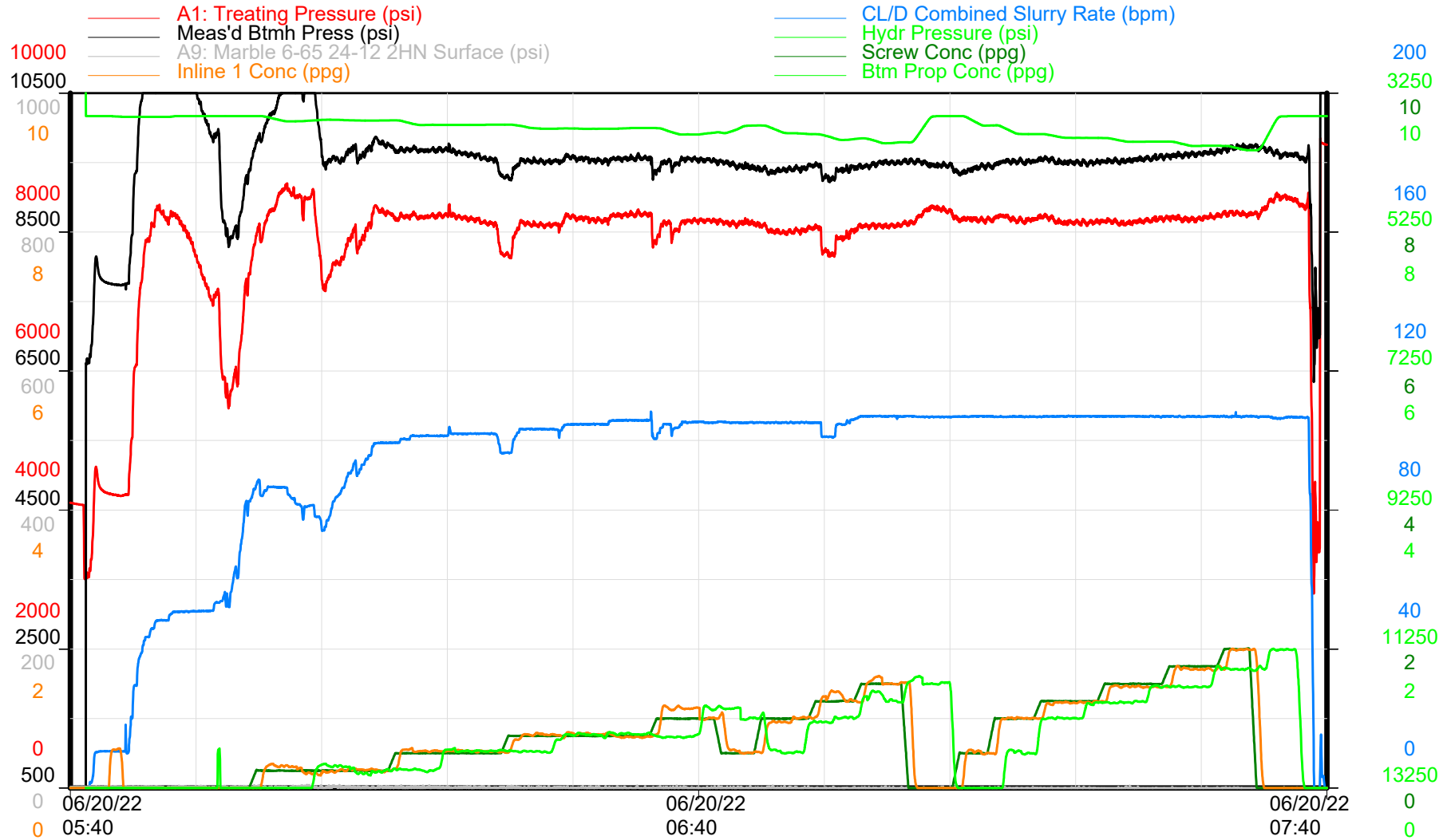
Niobrara - Stage 11 of 60



Zipper Pressures

Time

Republic Crew



Treatment Plot

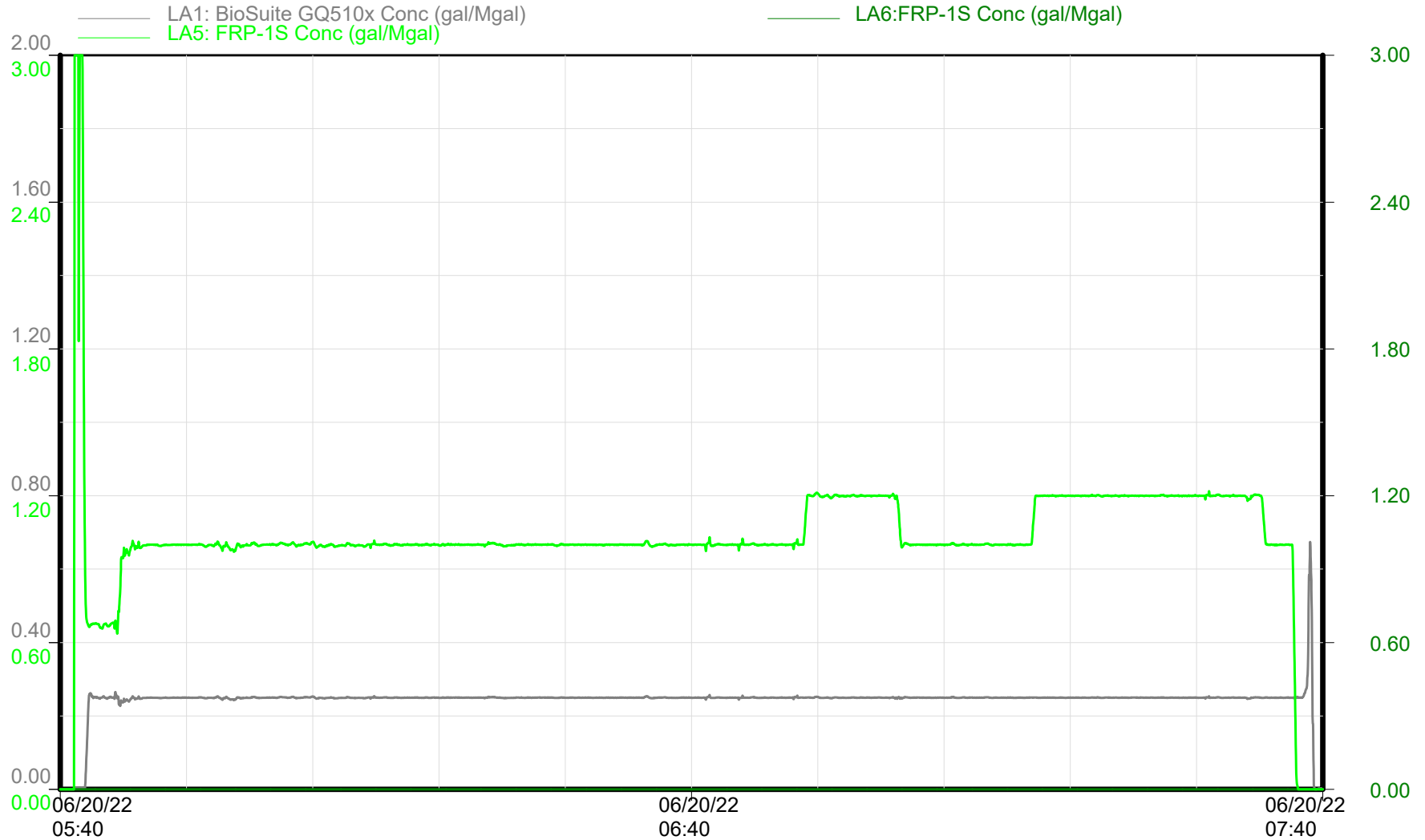
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 12 of 60



Chemical Additives

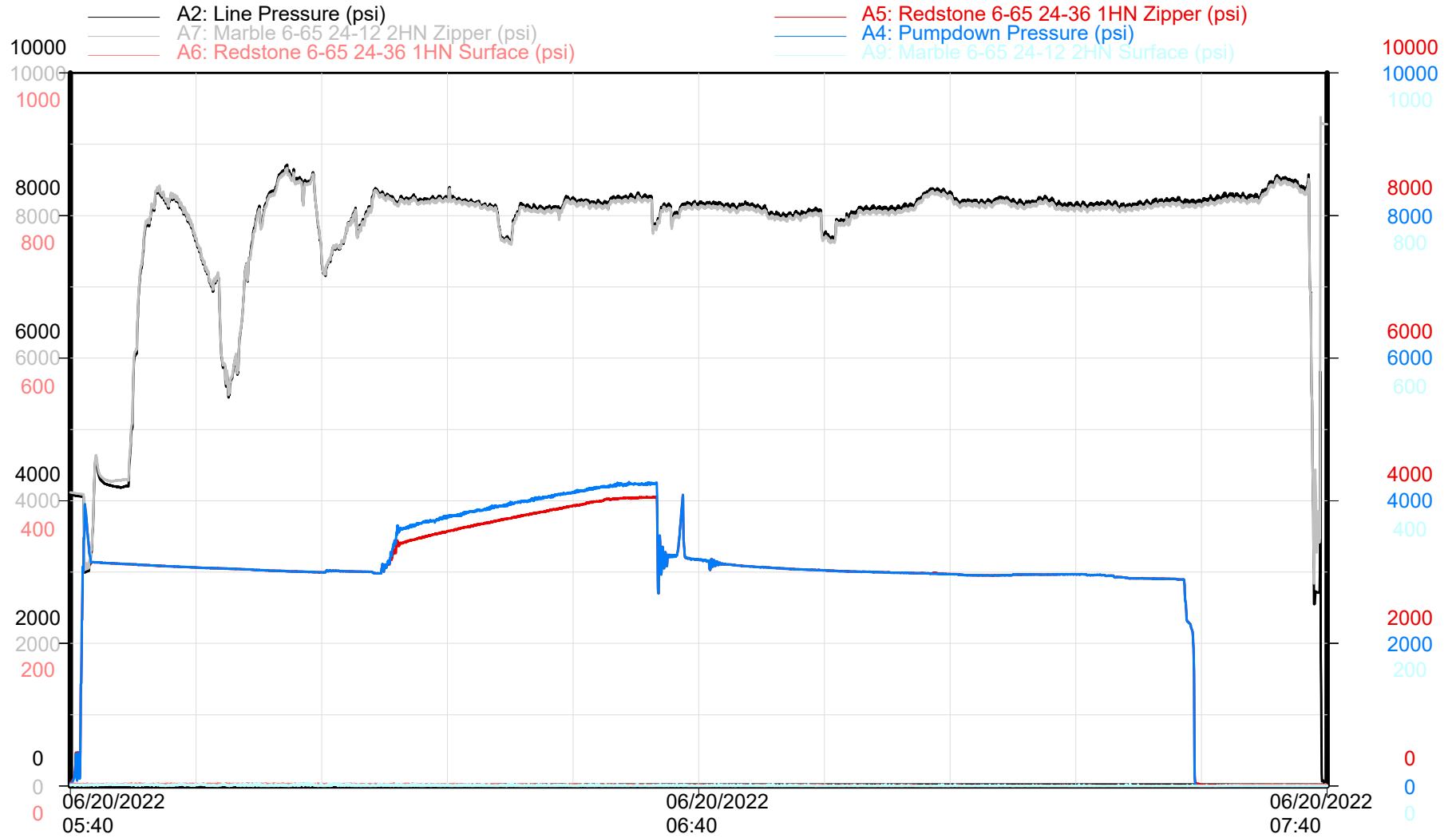
Time

Republic Crew

MARBLE 6-65 24-12 2HN Stage 12

GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 12 of 60



Zipper Pressures

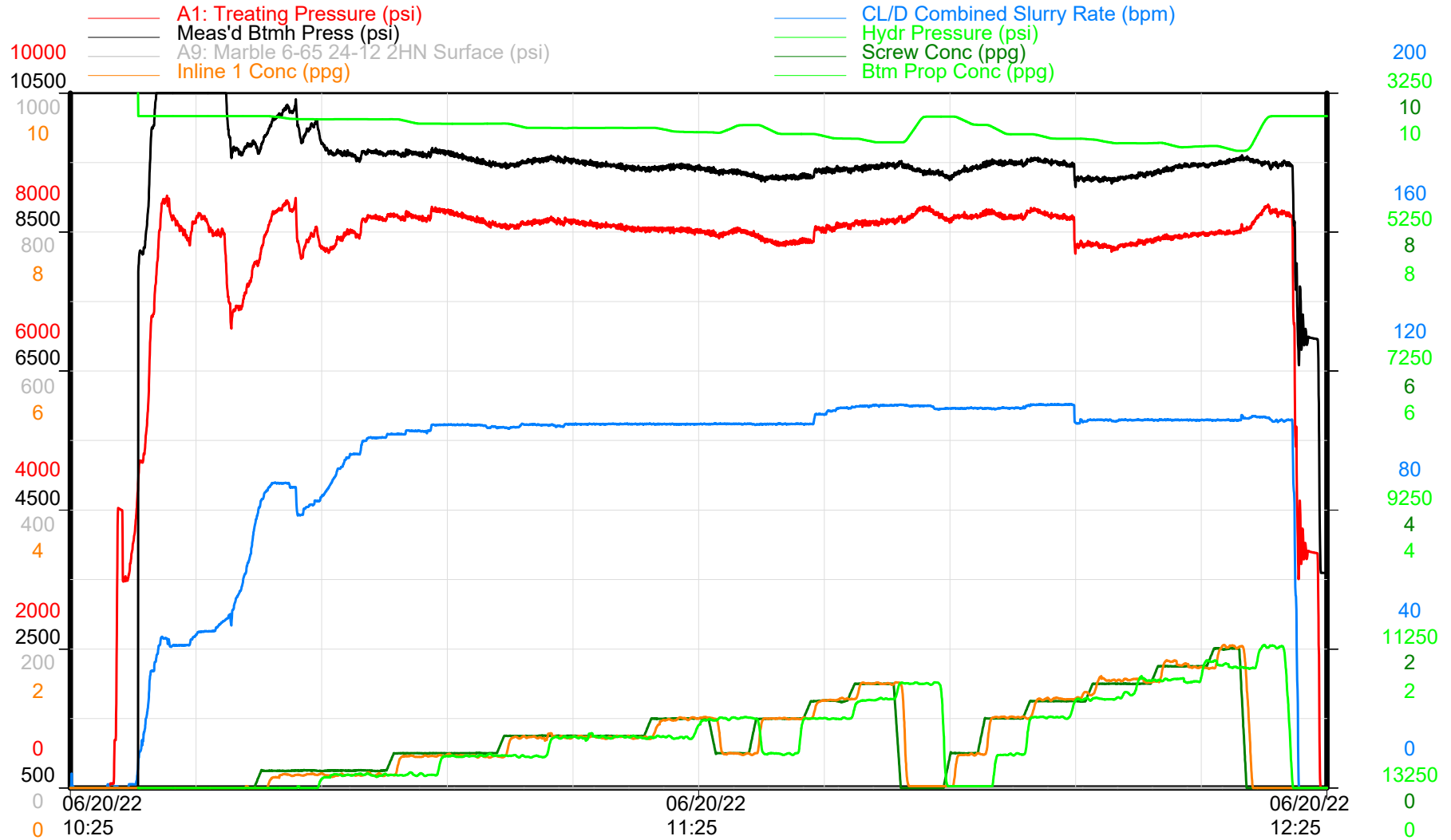
Time

Republic Crew

MARBLE 6-65 24-12 2HN Stage 13

GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 13 of 60



Treatment Plot

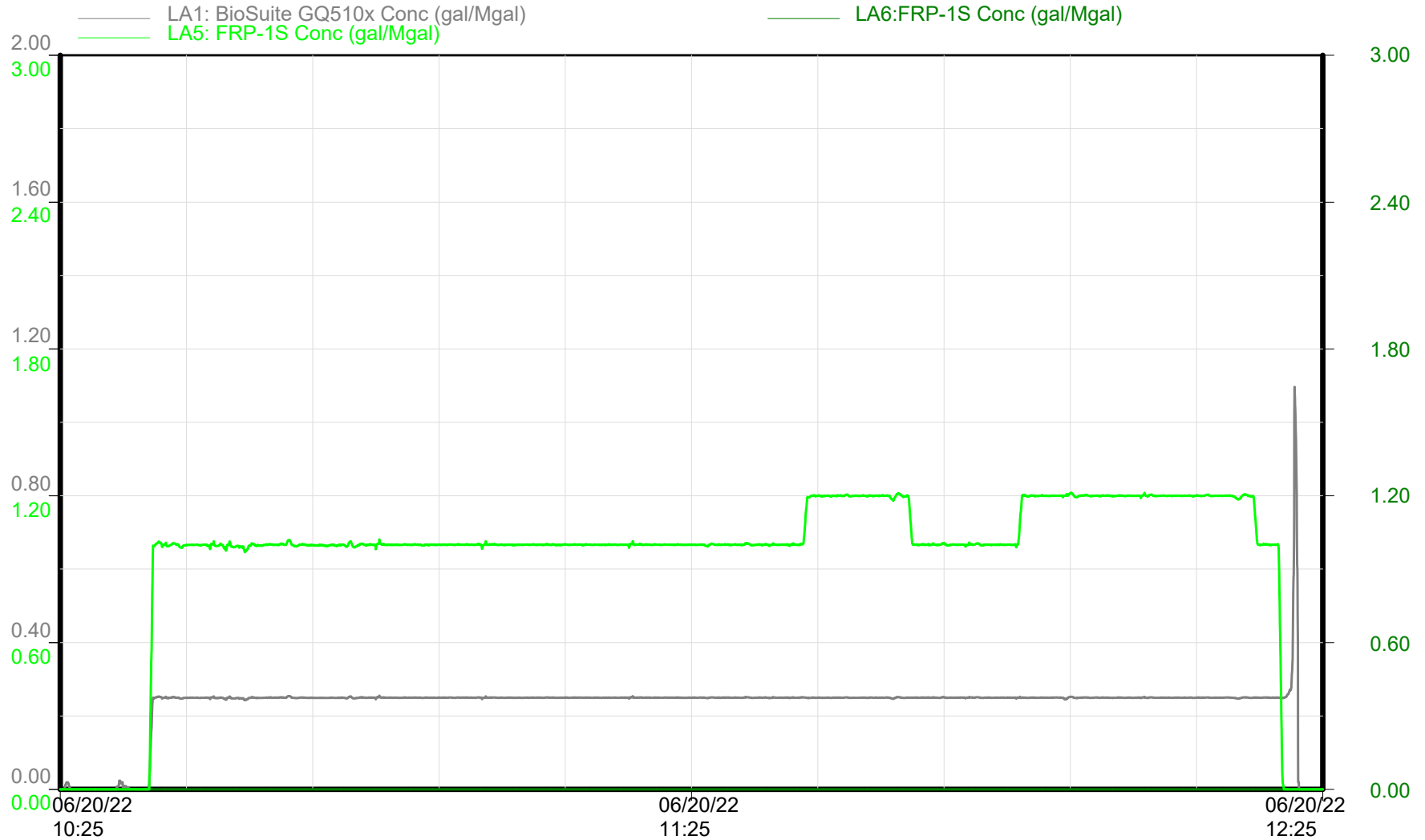
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 13 of 60



Chemical Additives

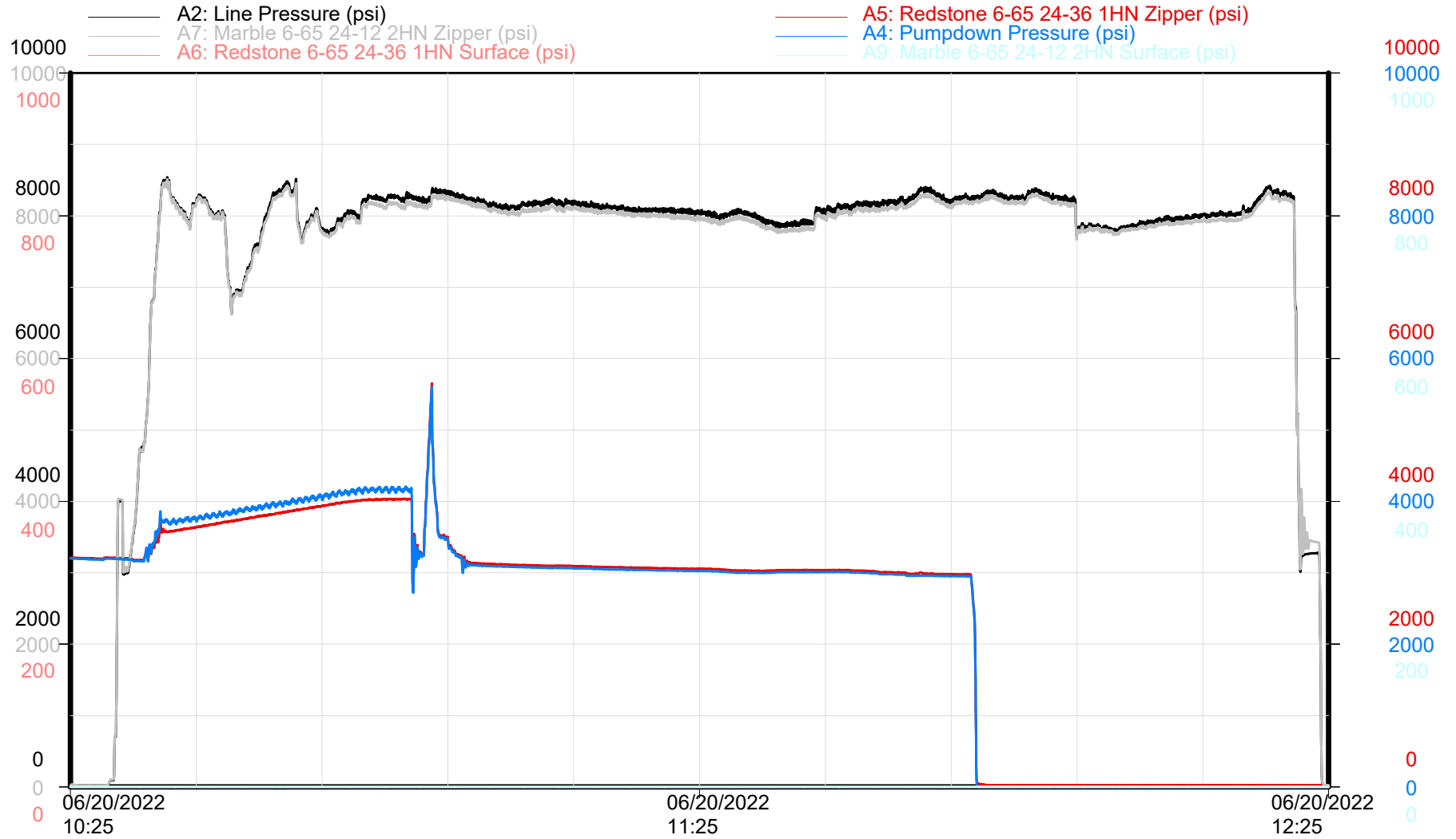
Time

Republic Crew

MARBLE 6-65 24-12 2HN Stage 13

GMT - MARBLE 6-65 24-12 2HN

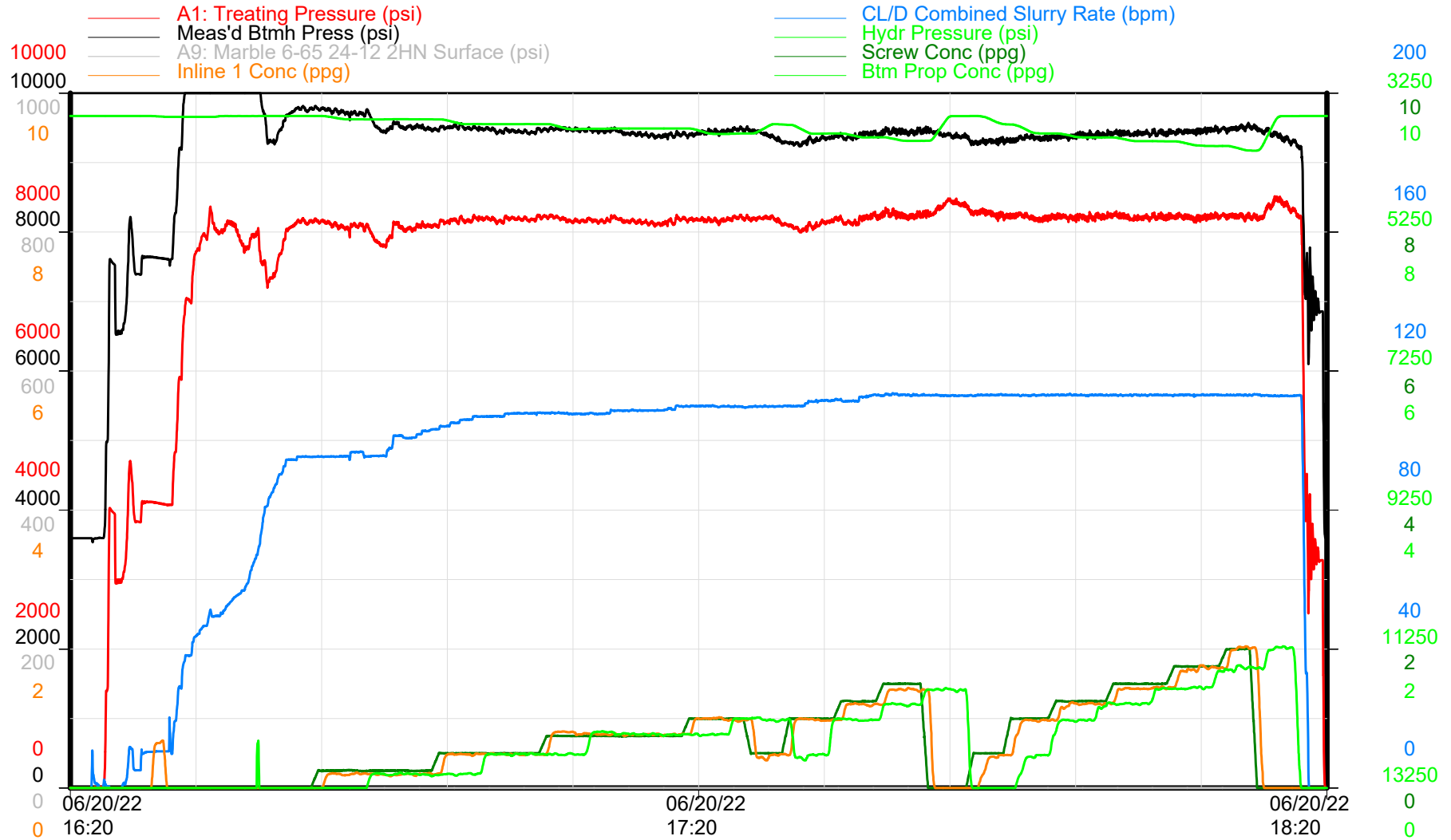
Niobrara - Stage 13 of 60



Zipper Pressures

Time

Republic Crew



Treatment Plot

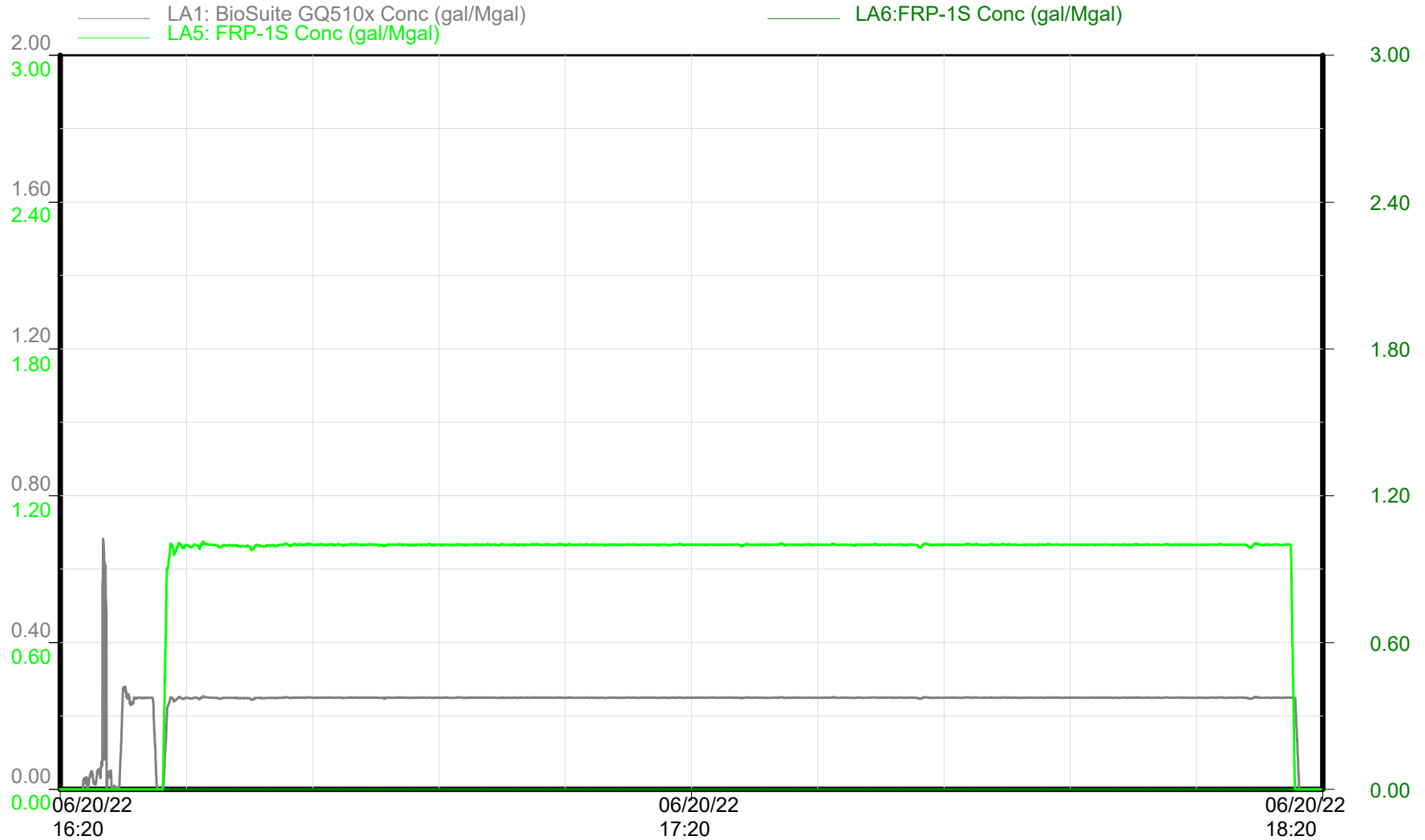
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 14 of 60



Chemical Additives

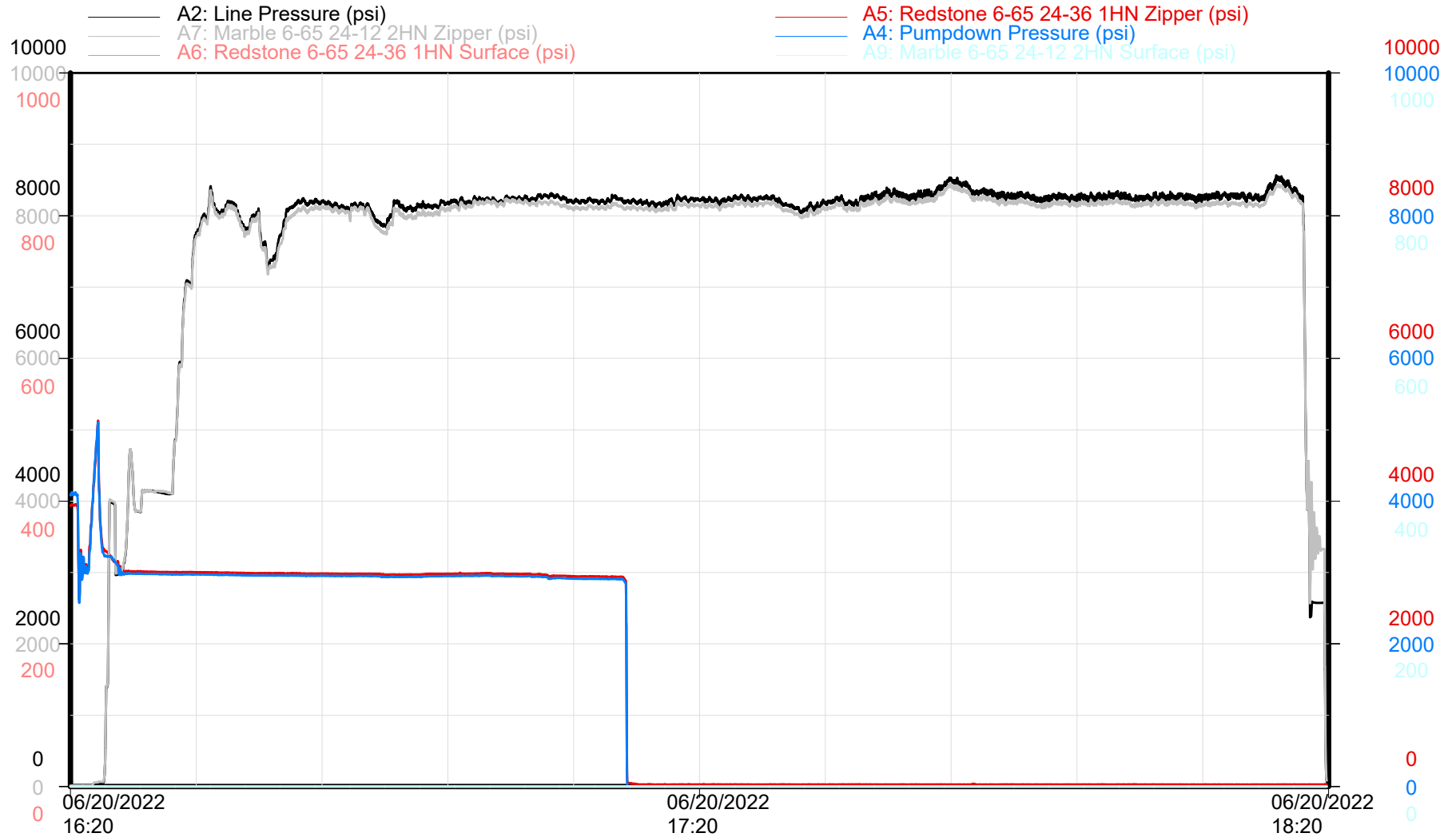
Time

Republic Crew

MARBLE 6-65 24-12 2HN Stage 14

GMT - MARBLE 6-65 24-12 2HN

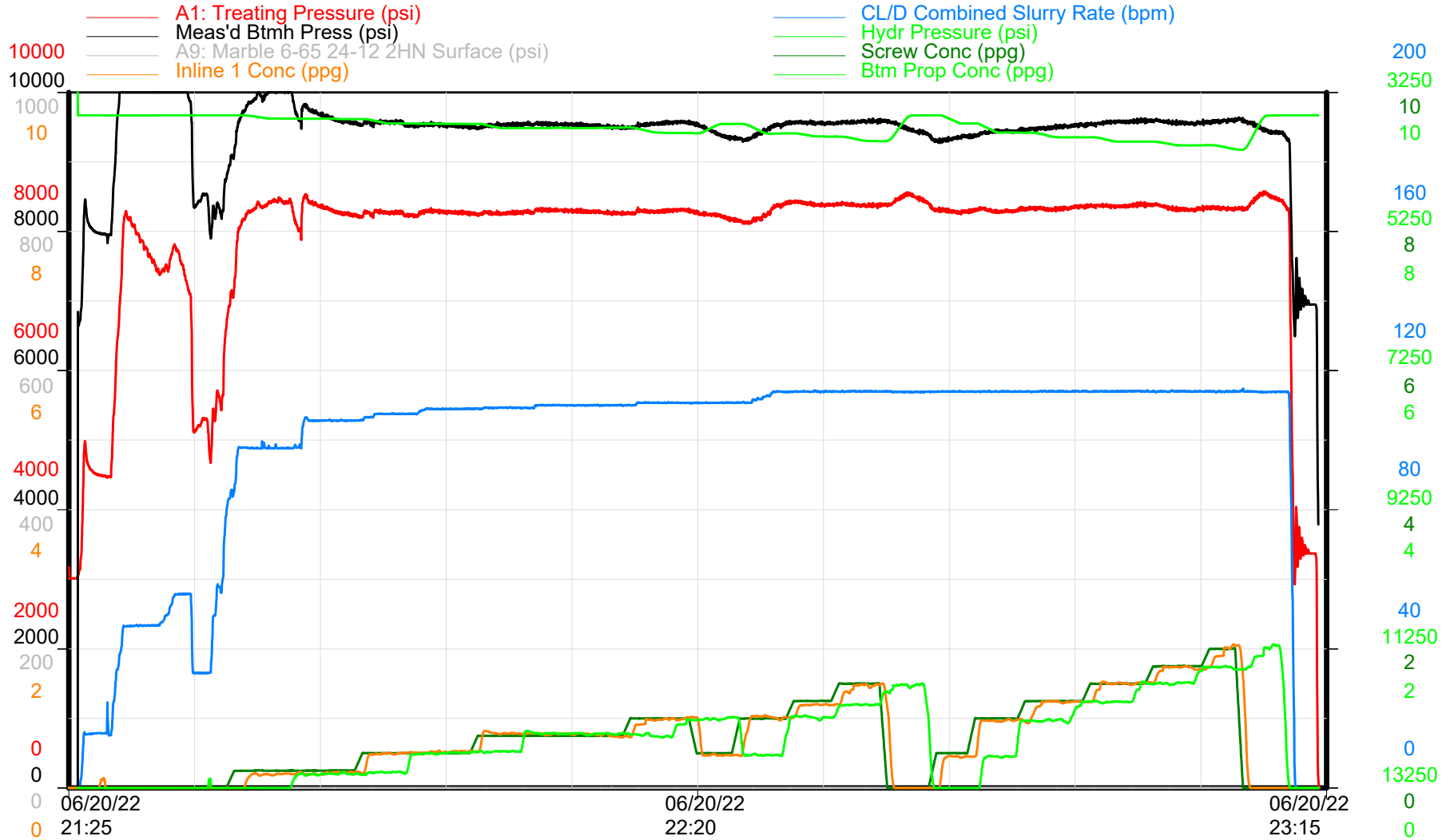
Niobrara - Stage 14 of 60



Zipper Pressures

Time

Republic Crew



Treatment Plot

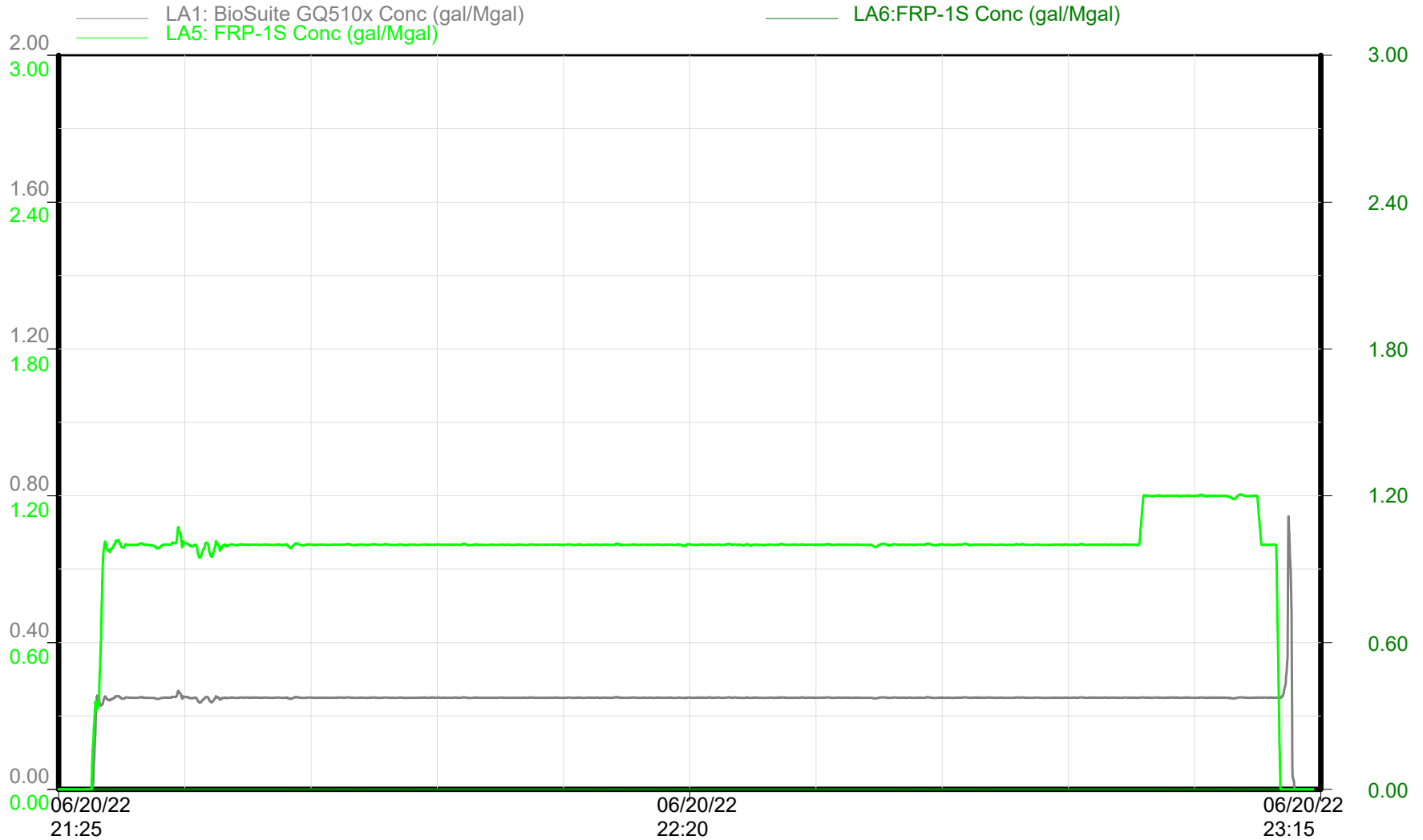
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 15 of 60



Chemical Additives

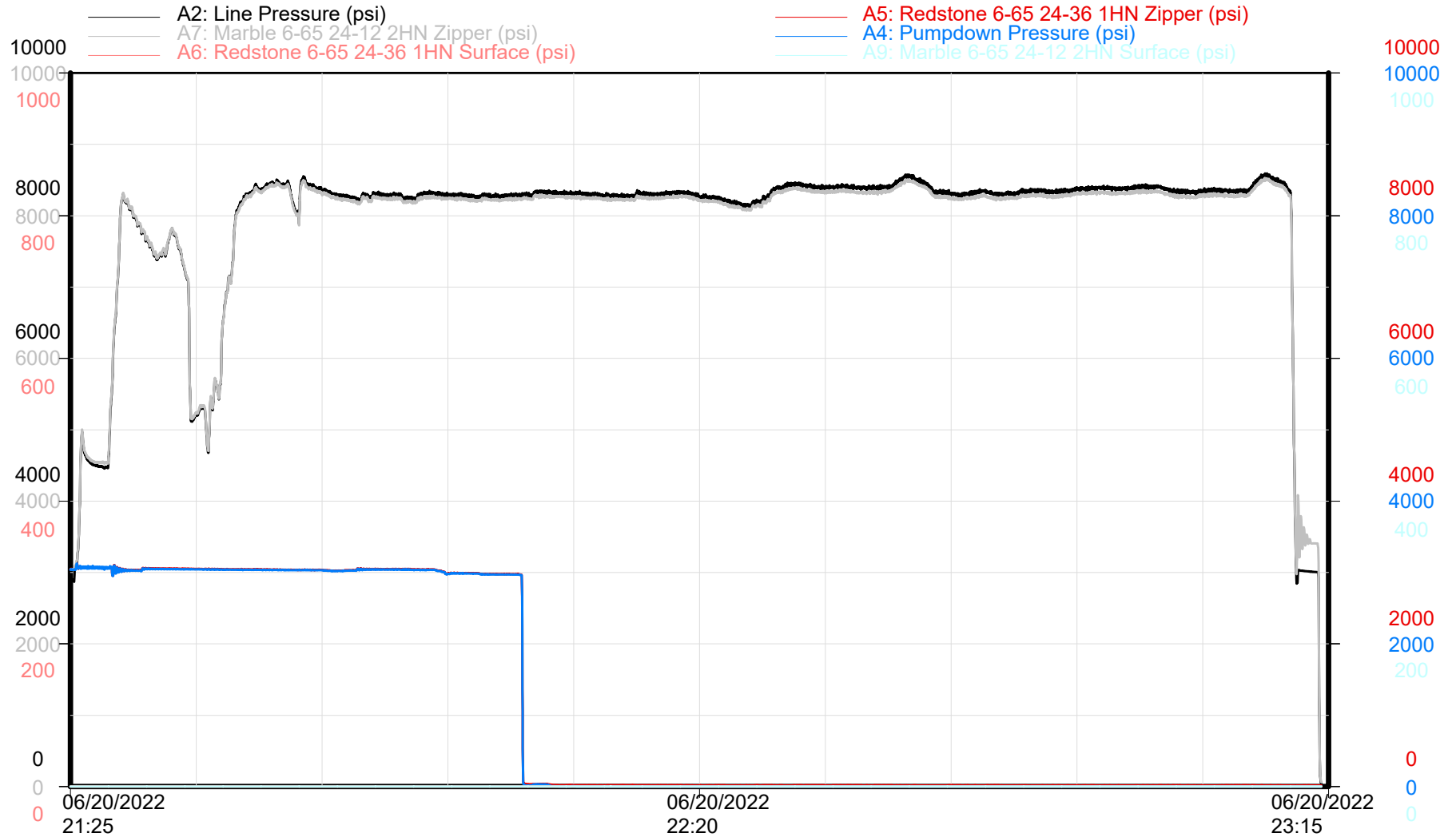
Time

Republic Crew

MARBLE 6-65 24-12 2HN Stage 15

GMT - MARBLE 6-65 24-12 2HN

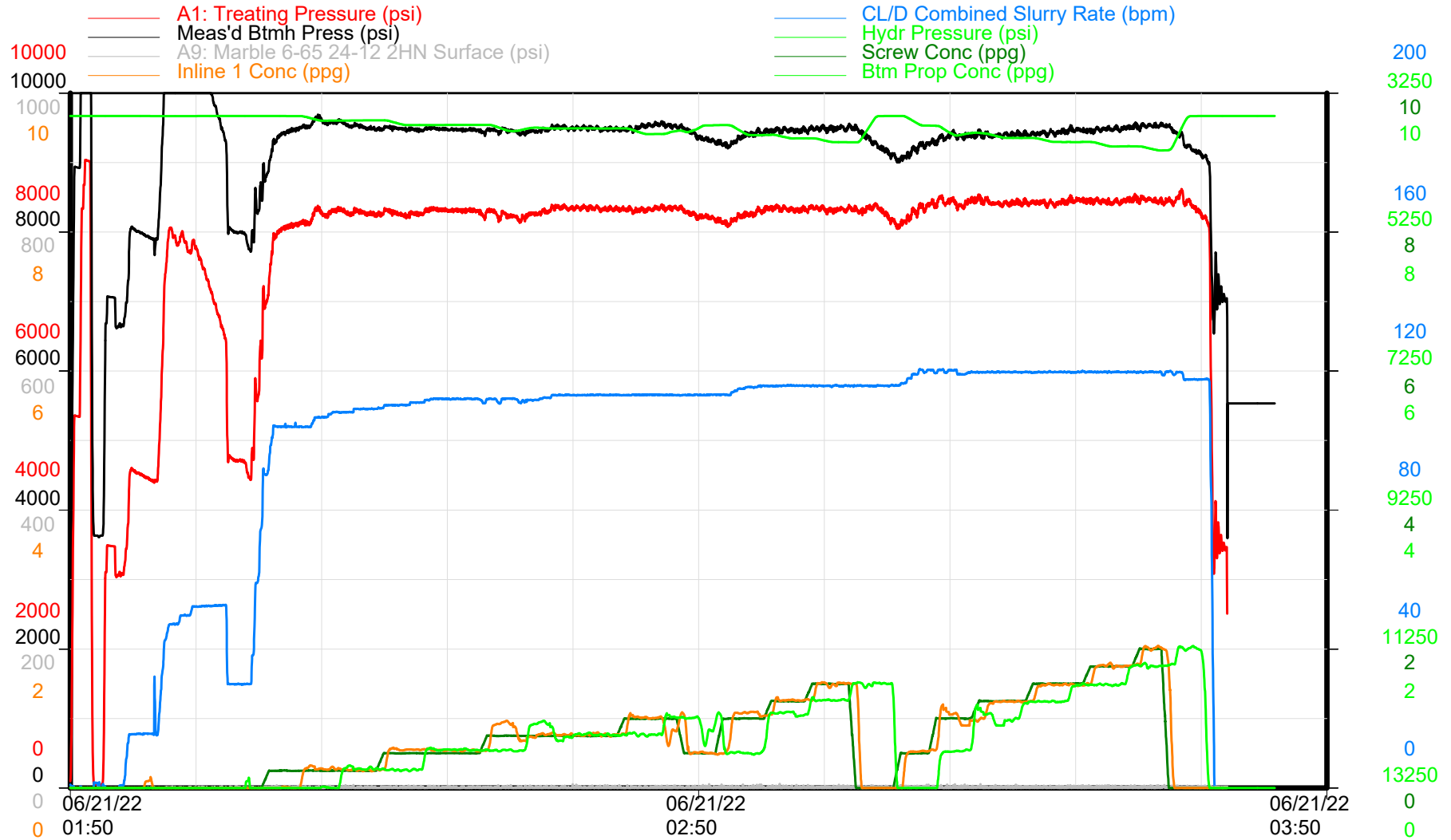
Niobrara - Stage 15 of 60



Zipper Pressures

Time

Republic Crew



Treatment Plot

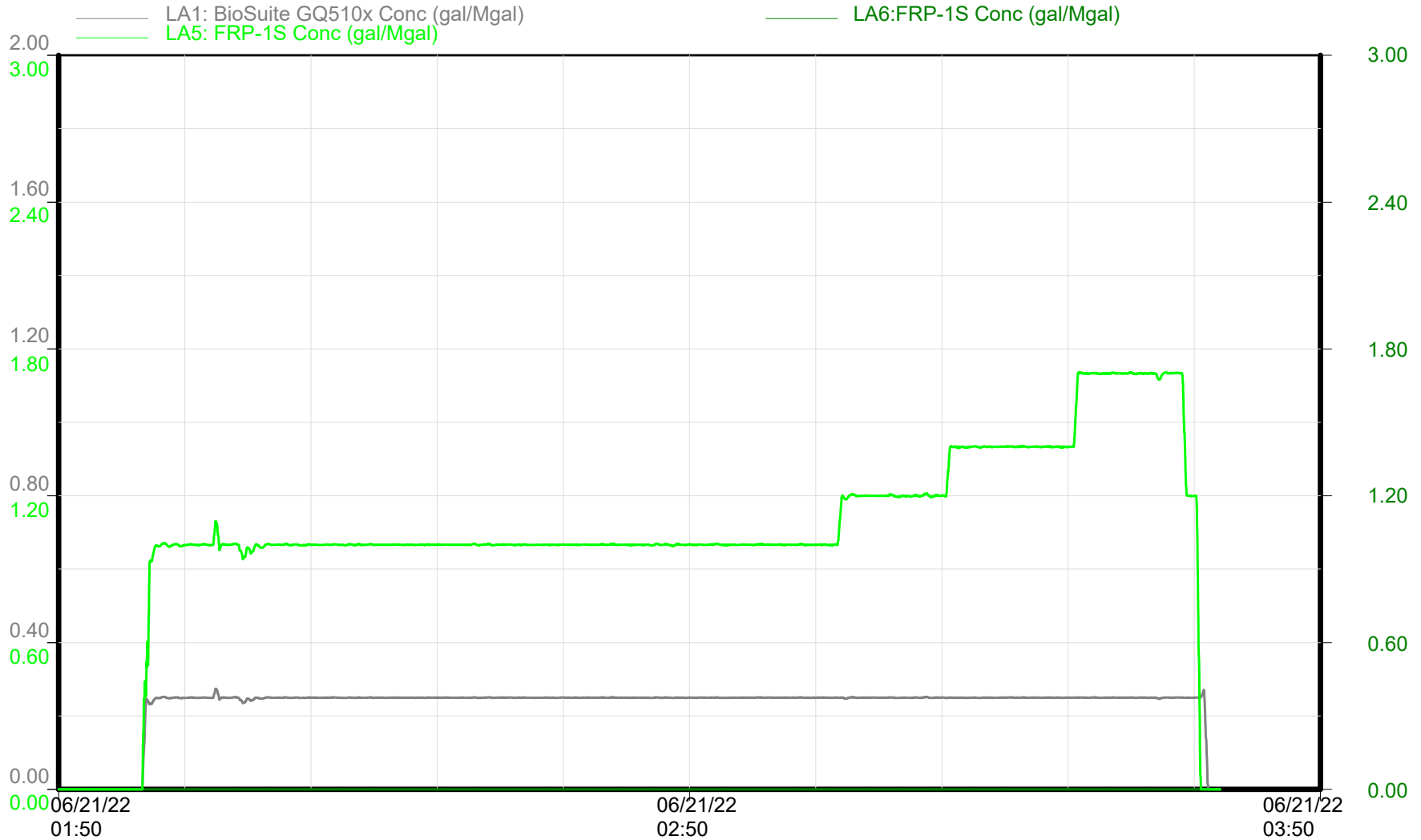
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 16 of 60



Chemical Additives

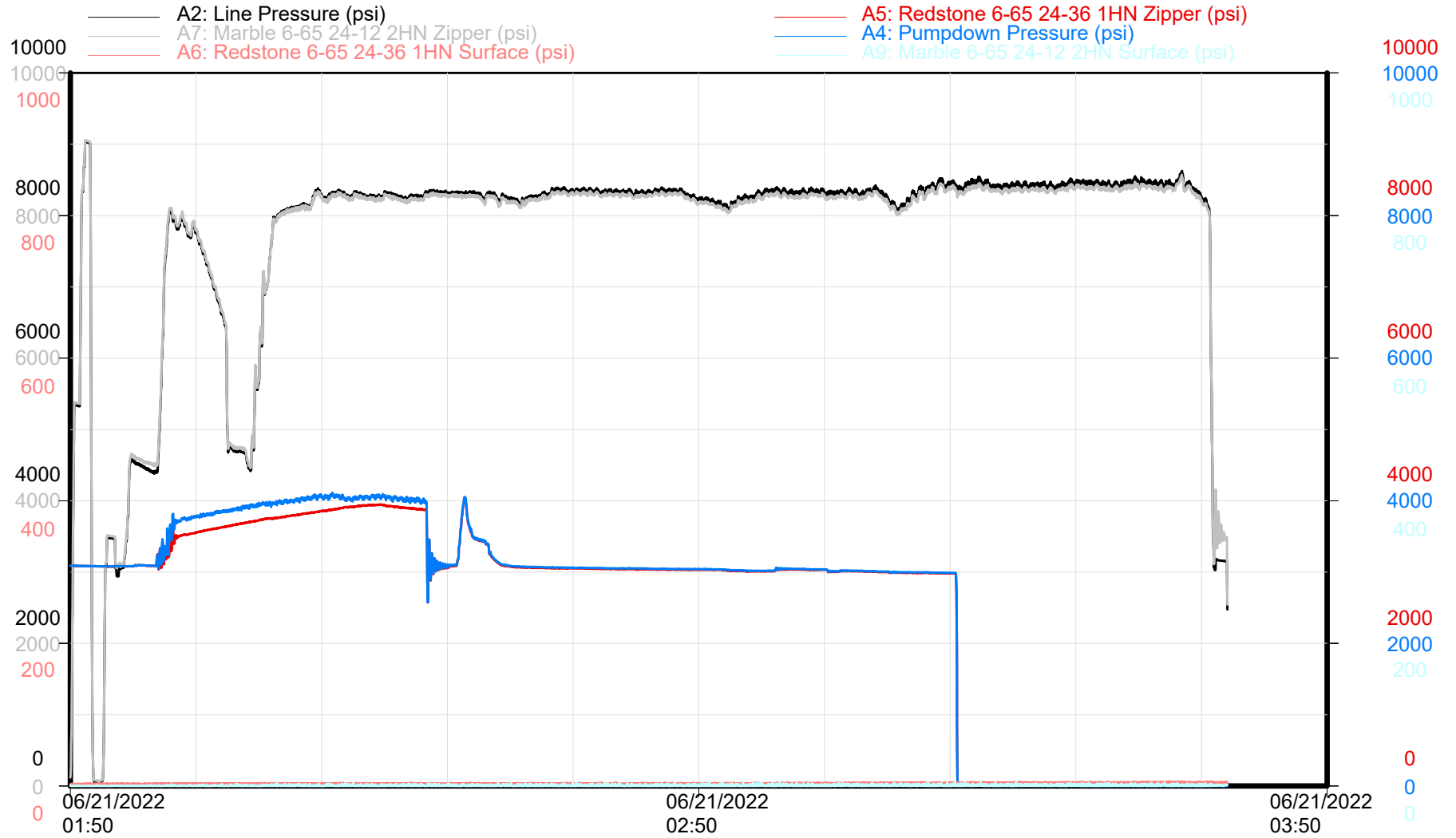
Time

Republic Crew

MARBLE 6-65 24-12 2HN Stage 16

GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 16 of 60



Zipper Pressures

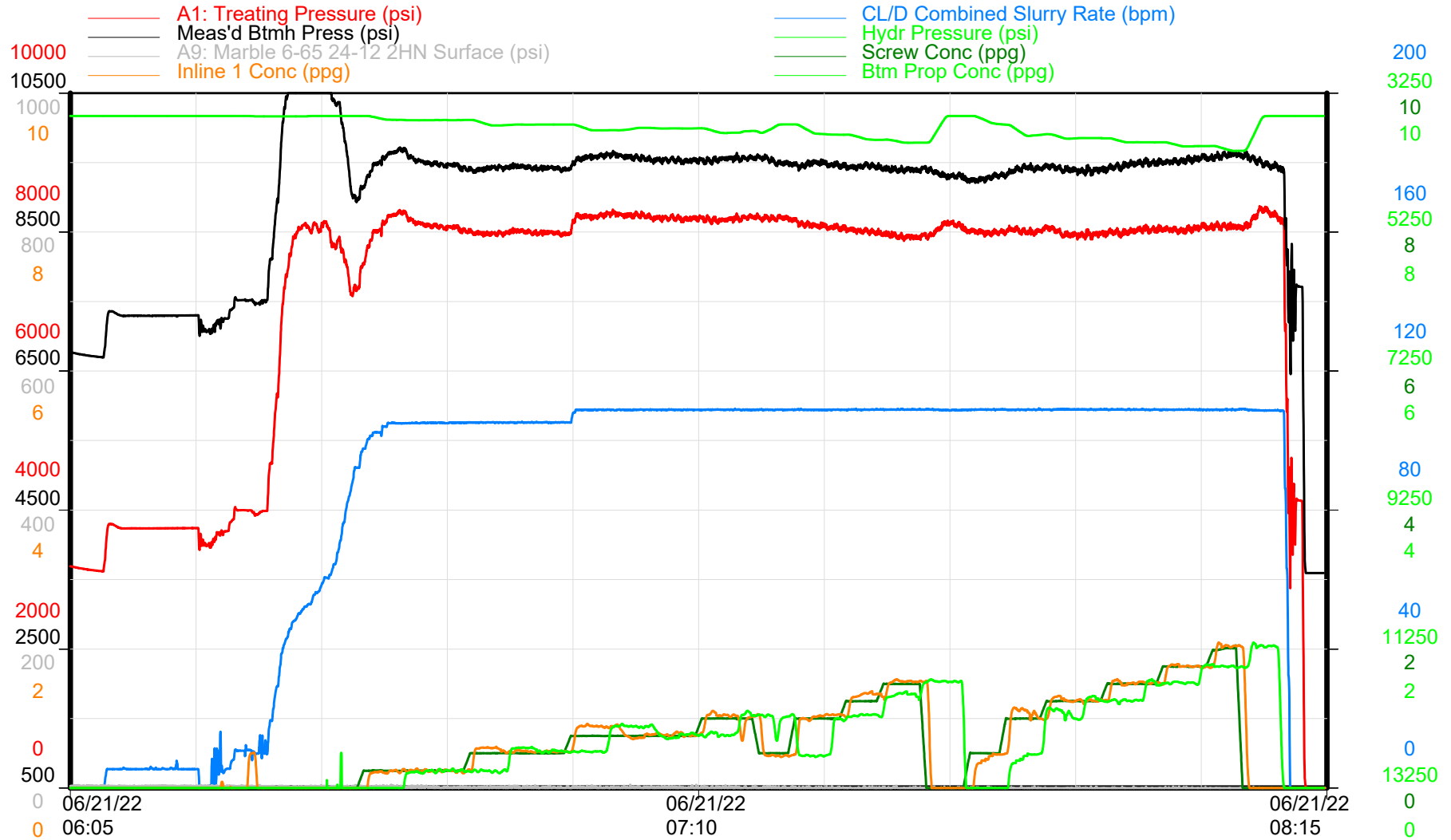
Time

Republic Crew

MARBLE 6-65 24-12 2HN Stage 17

GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 17 of 60



Treatment Plot

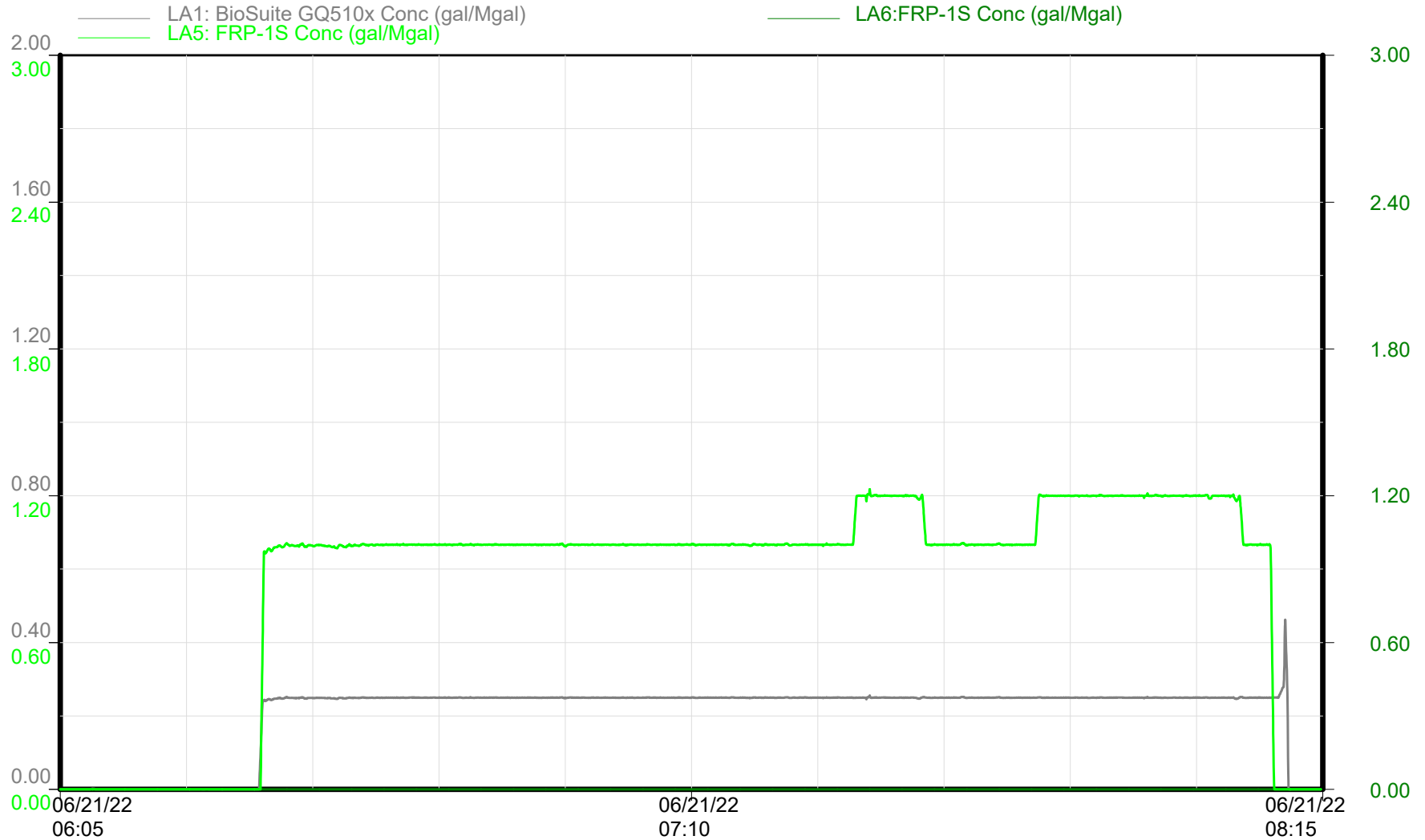
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 17 of 60



Chemical Additives

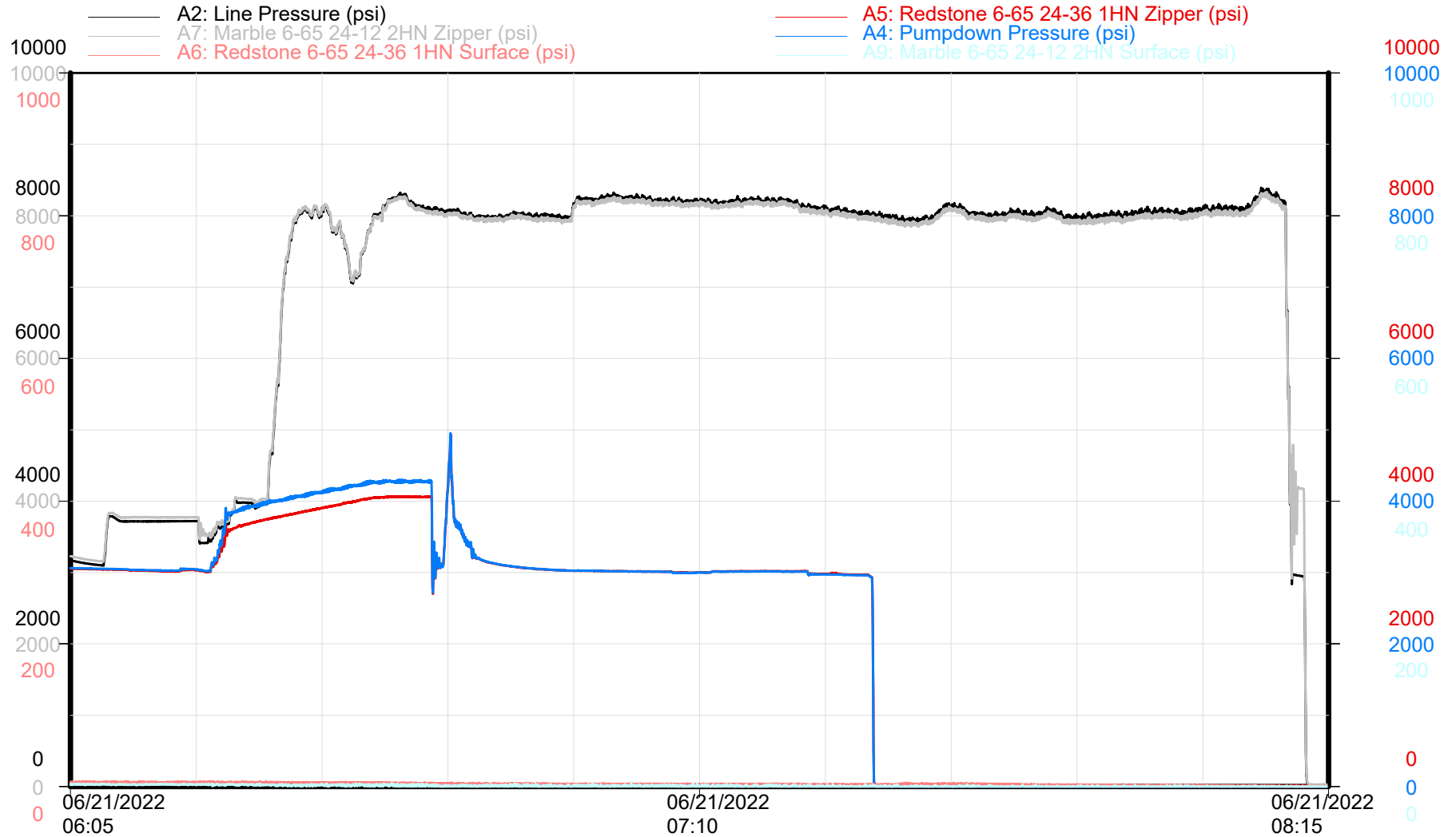
Time

Republic Crew

MARBLE 6-65 24-12 2HN Stage 17

GMT - MARBLE 6-65 24-12 2HN

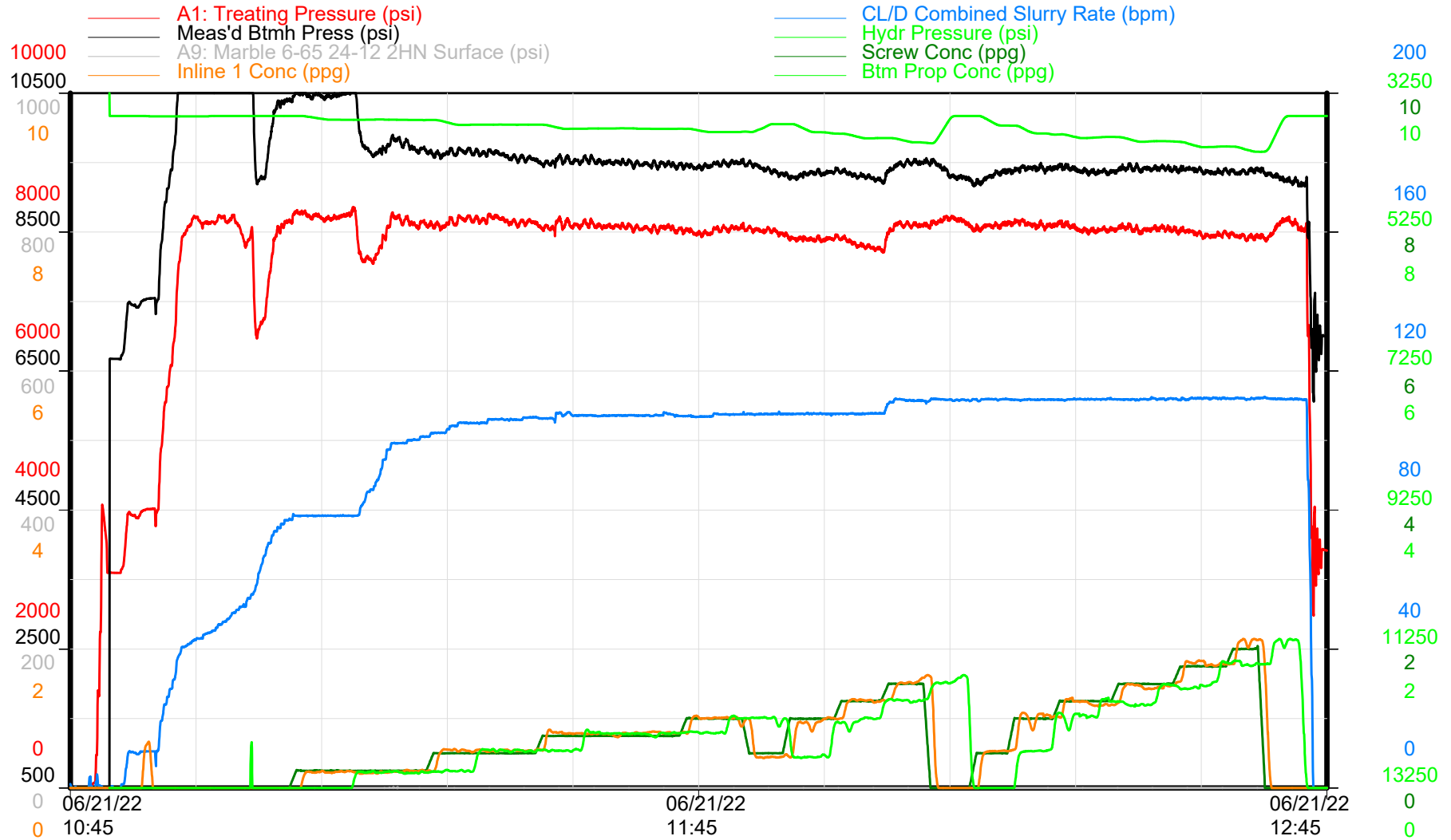
Niobrara - Stage 17 of 60



Zipper Pressures

Time

Republic Crew



Treatment Plot

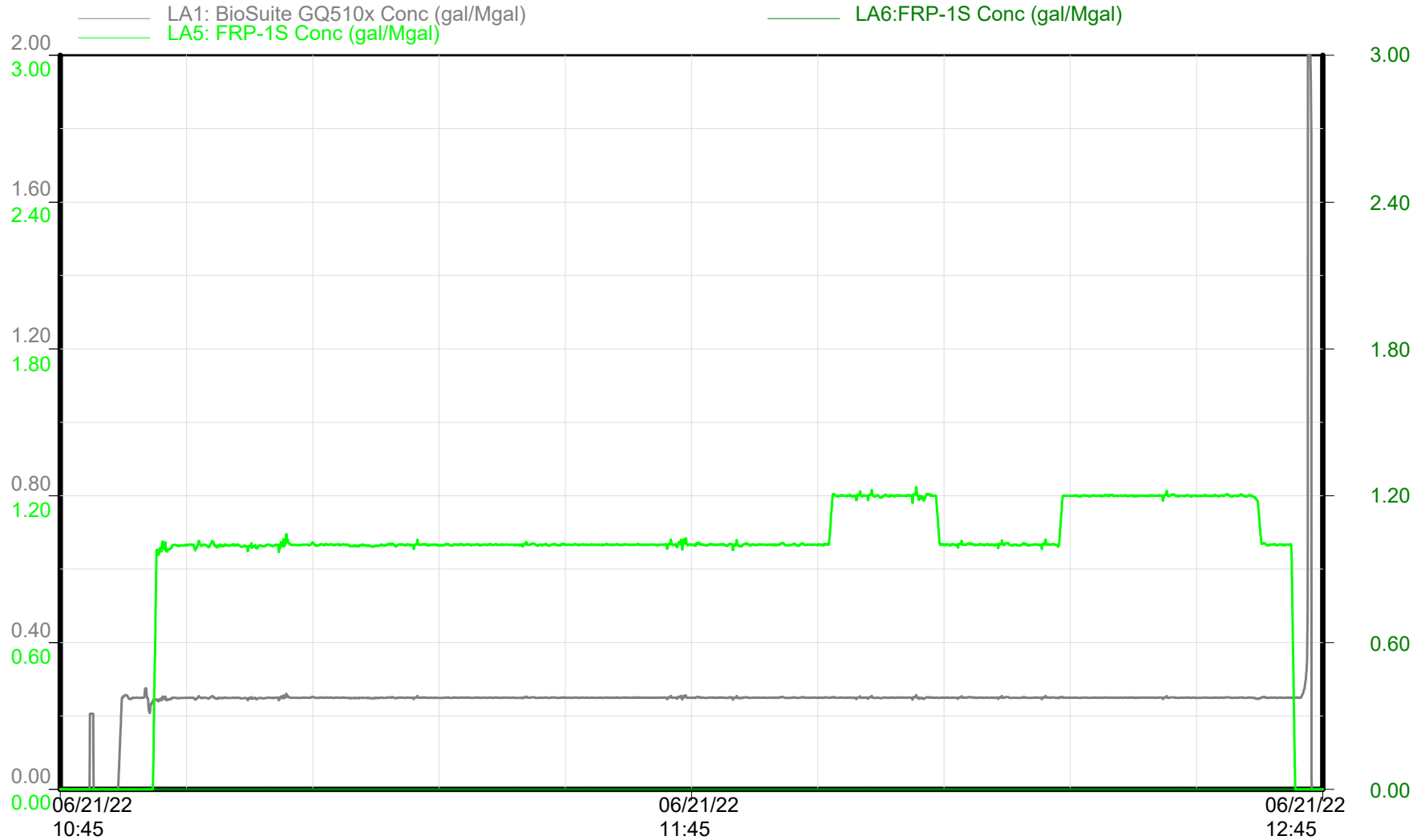
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 18 of 60



Chemical Additives

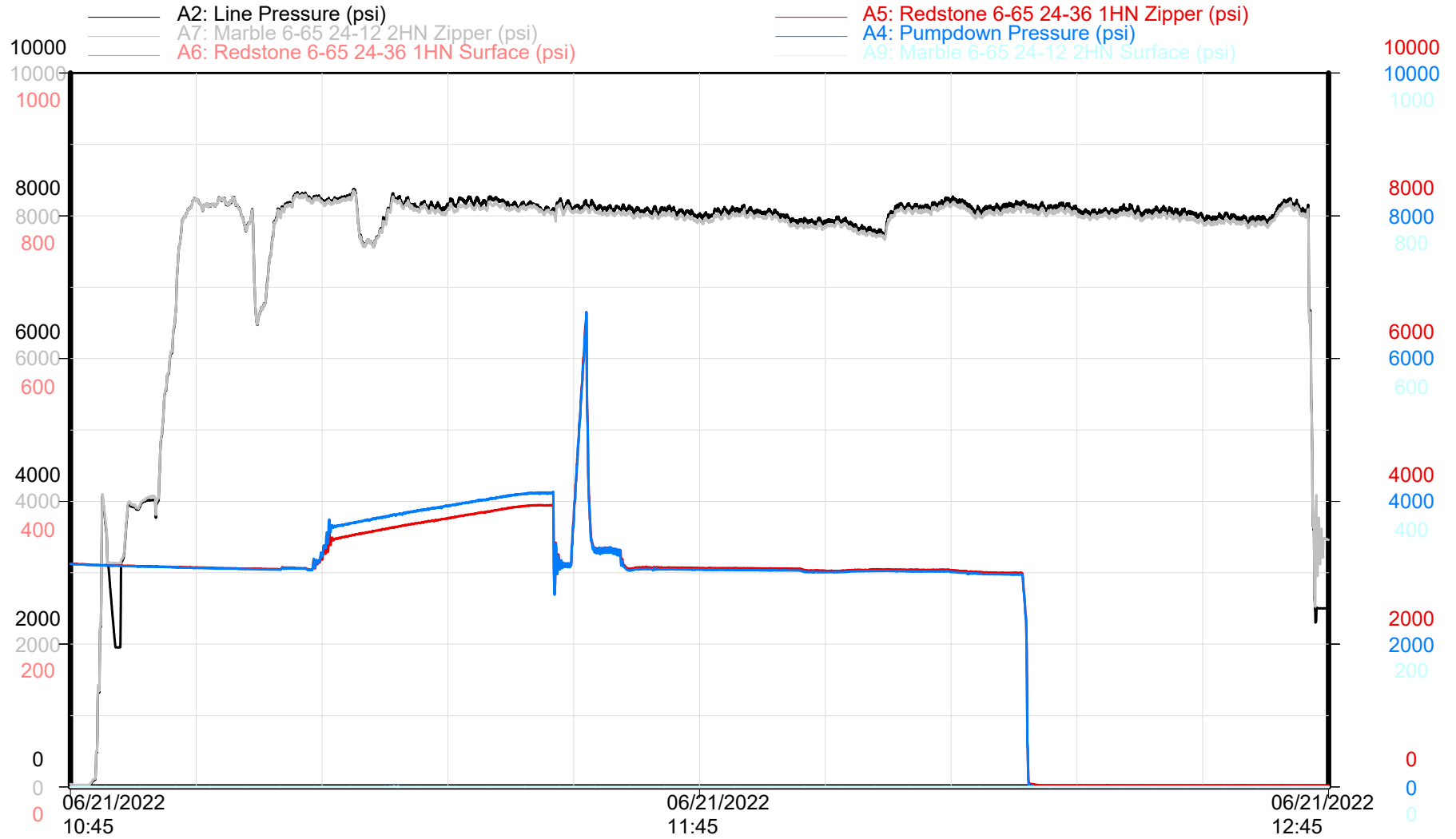
Time

Republic Crew

MARBLE 6-65 24-12 2HN Stage 18

GMT - MARBLE 6-65 24-12 2HN

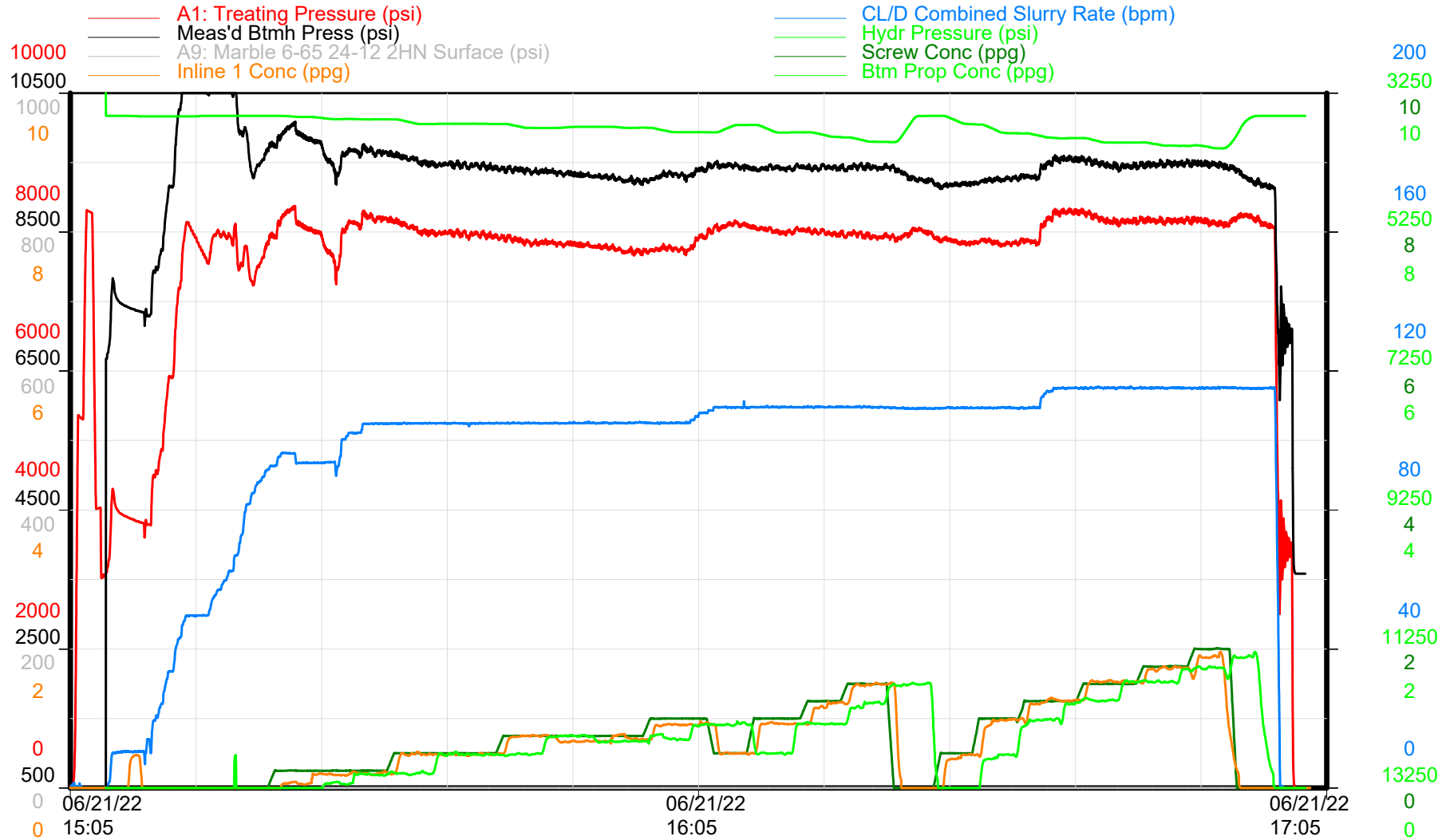
Niobrara - Stage 18 of 60



Zipper Pressures

Time

Republic Crew



Treatment Plot

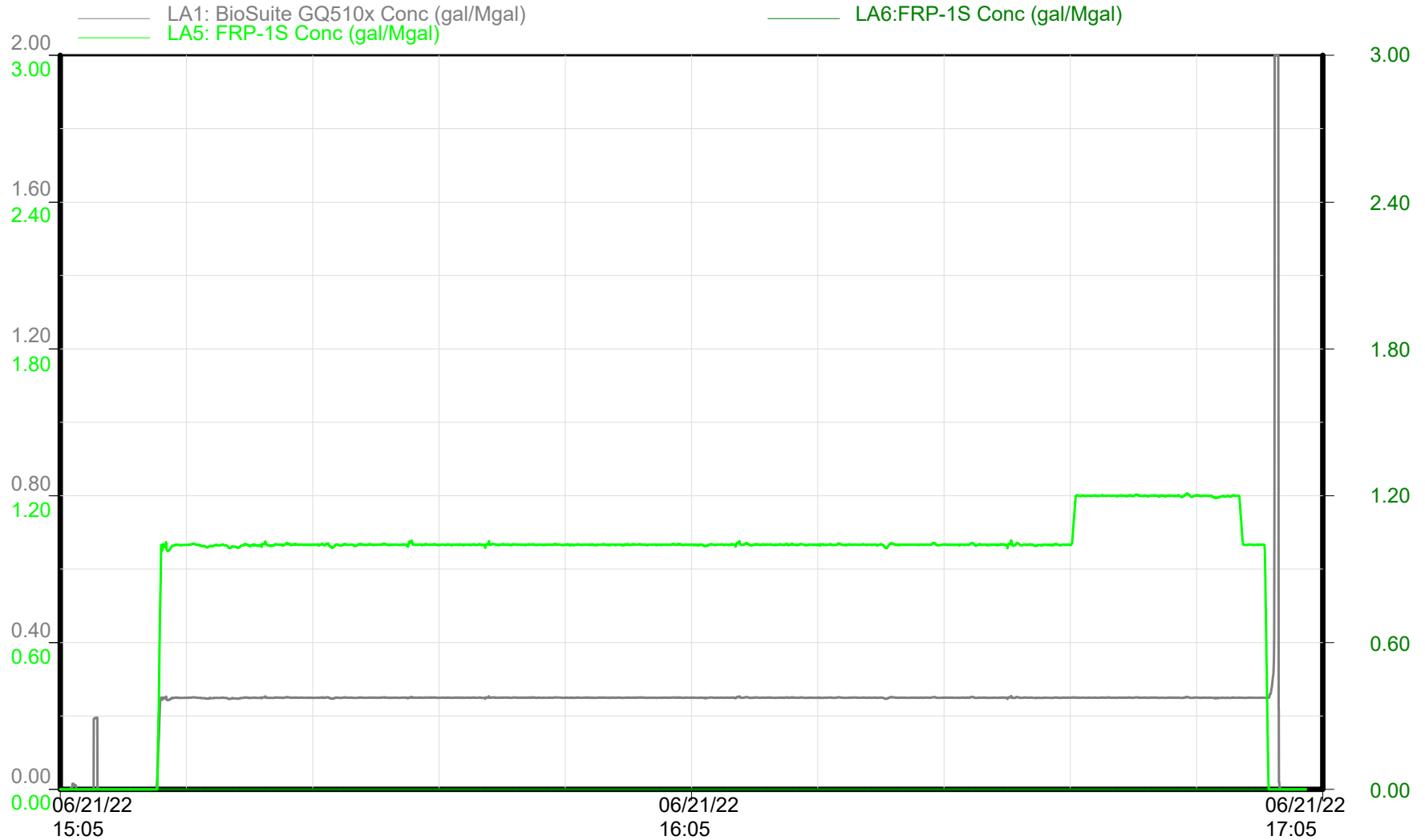
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 19 of 60



Chemical Additives

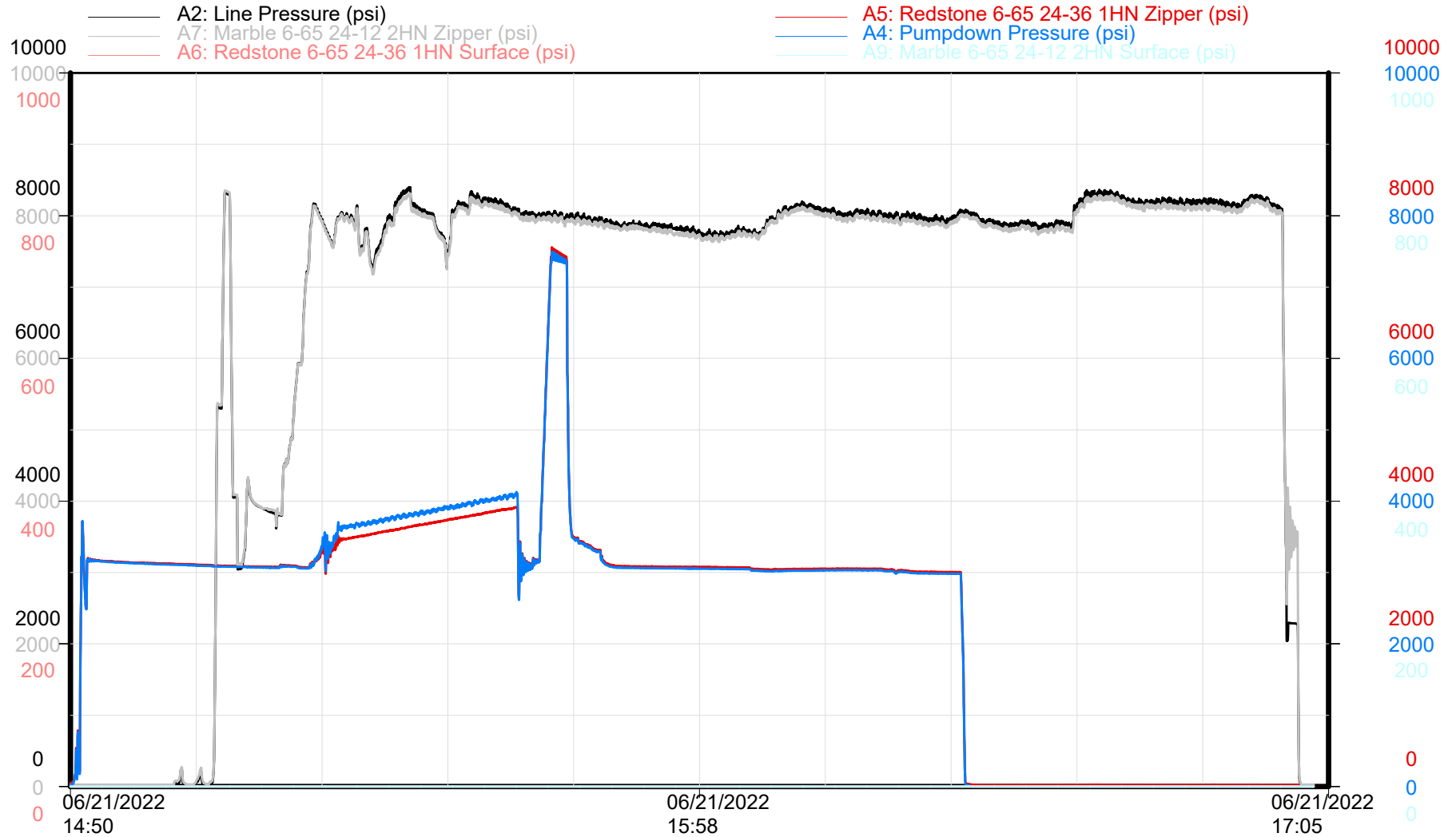
Time

Republic Crew

MARBLE 6-65 24-12 2HN Stage 19

GMT - MARBLE 6-65 24-12 2HN

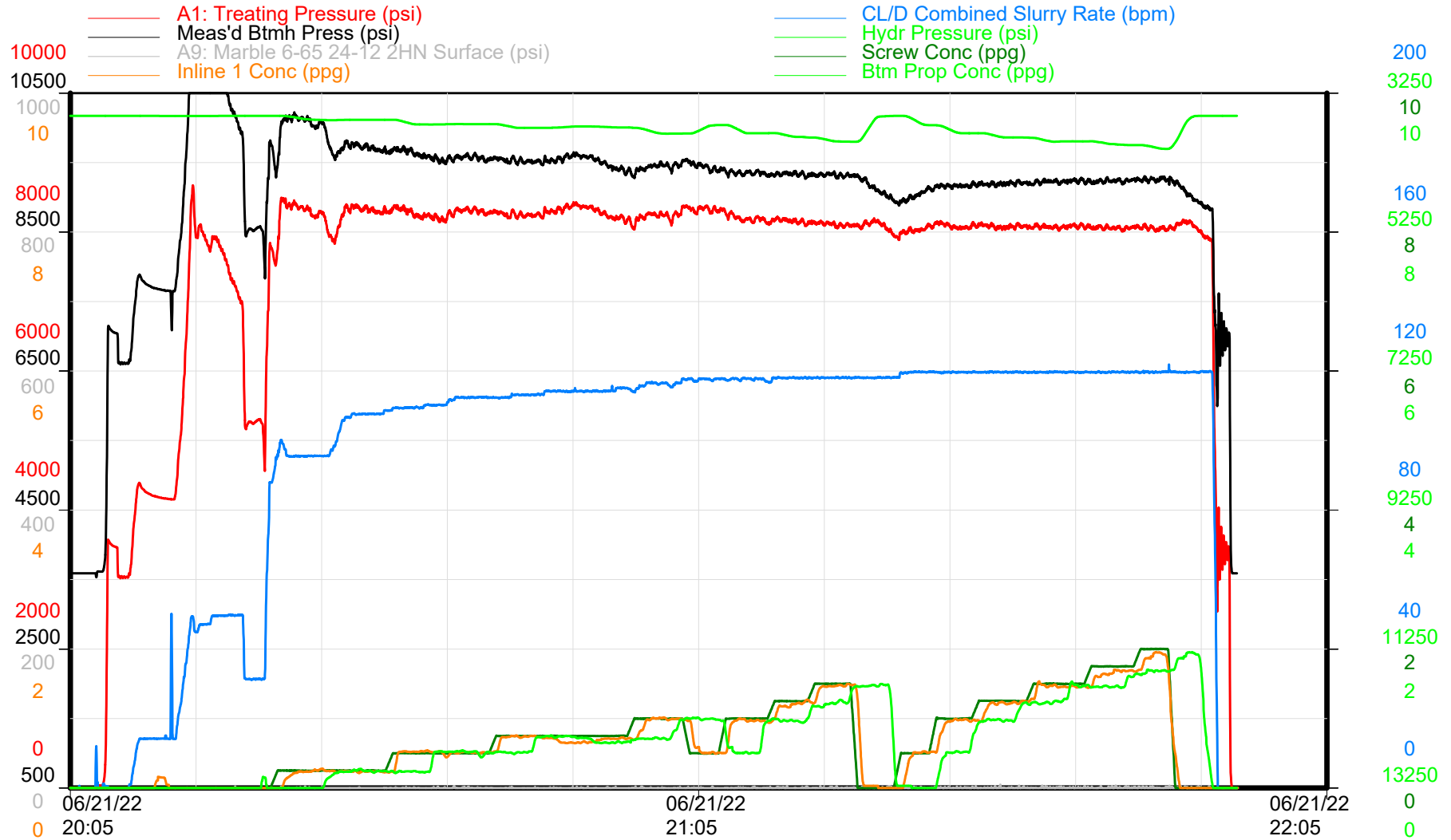
Niobrara - Stage 19 of 60



Zipper Pressures

Time

Republic Crew



Treatment Plot

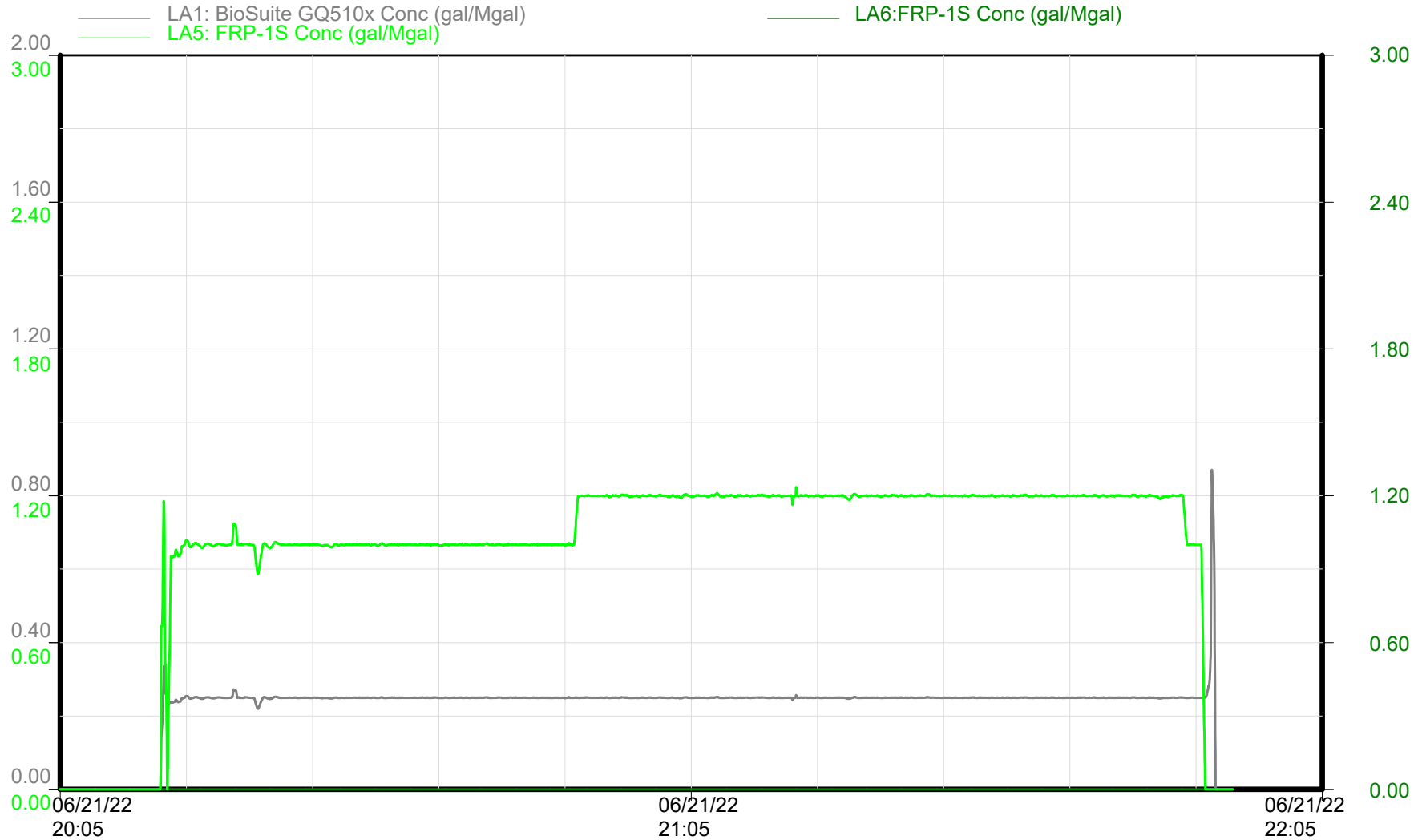
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 20 of 60



Chemical Additives

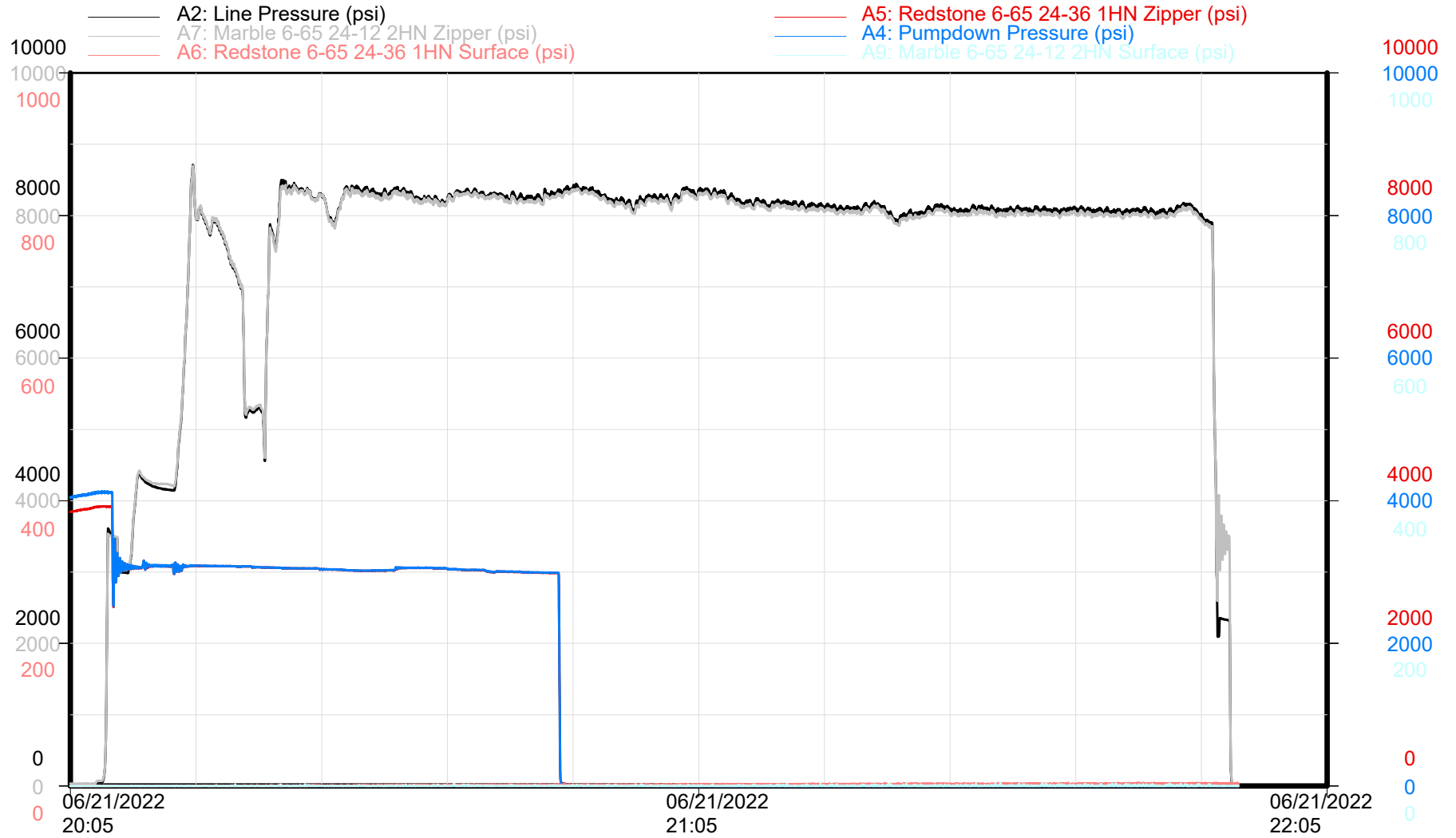
Time

Republic Crew

MARBLE 6-65 24-12 2HN Stage 20

GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 20 of 60



Zipper Pressures

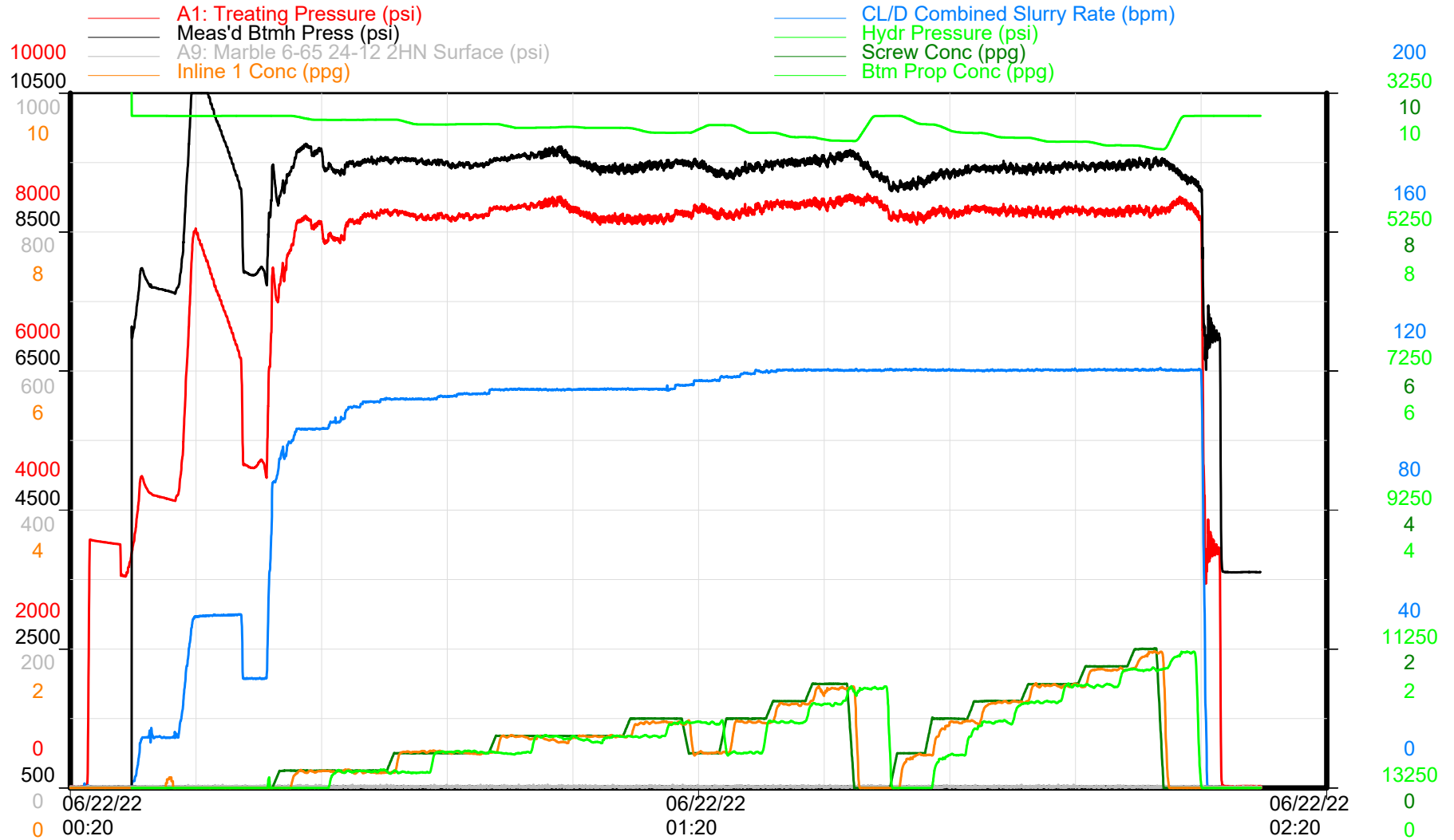
Time

Republic Crew

MARBLE 6-65 24-12 2HN Stage 21

GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 21 of 60



Treatment Plot

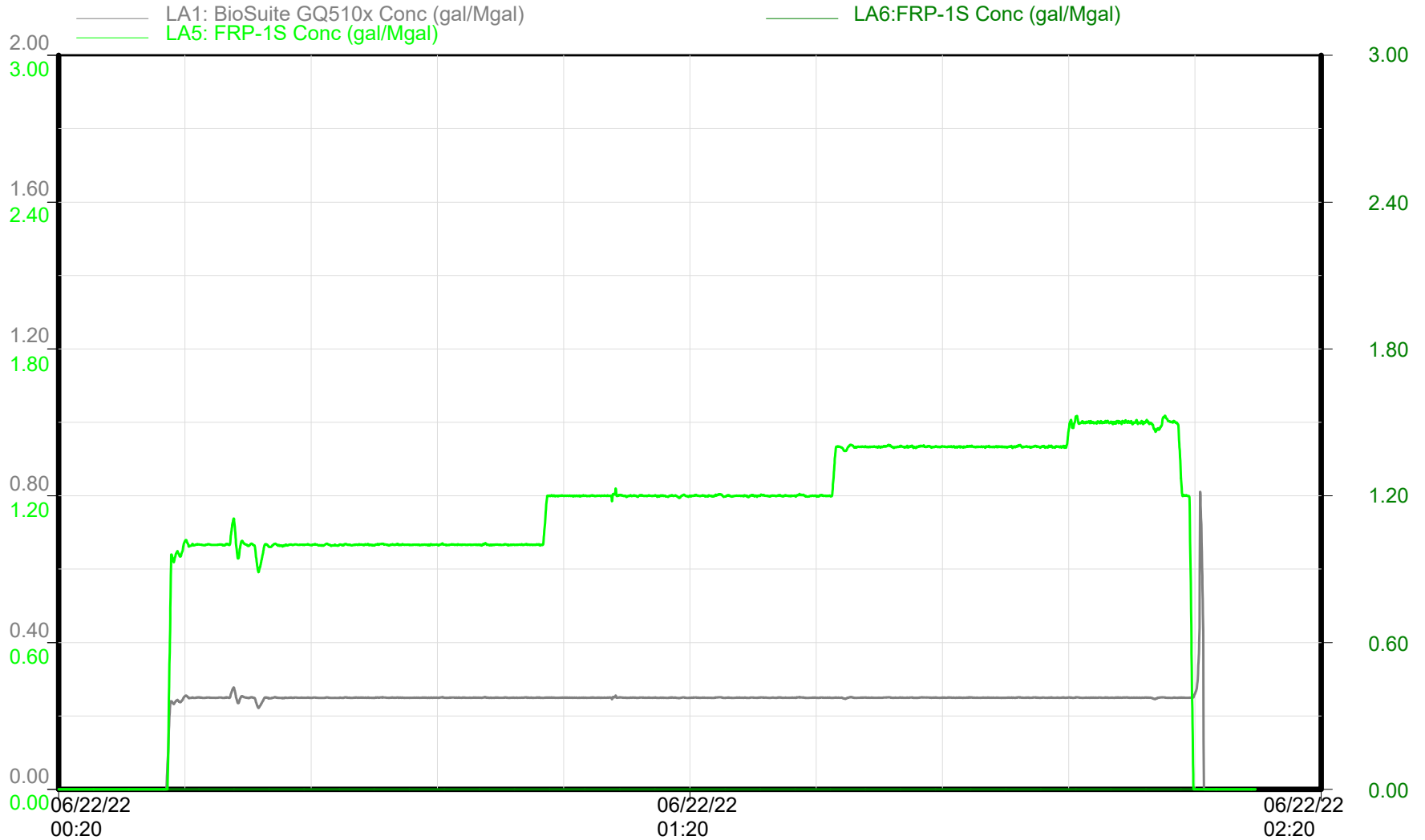
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 21 of 60



Chemical Additives

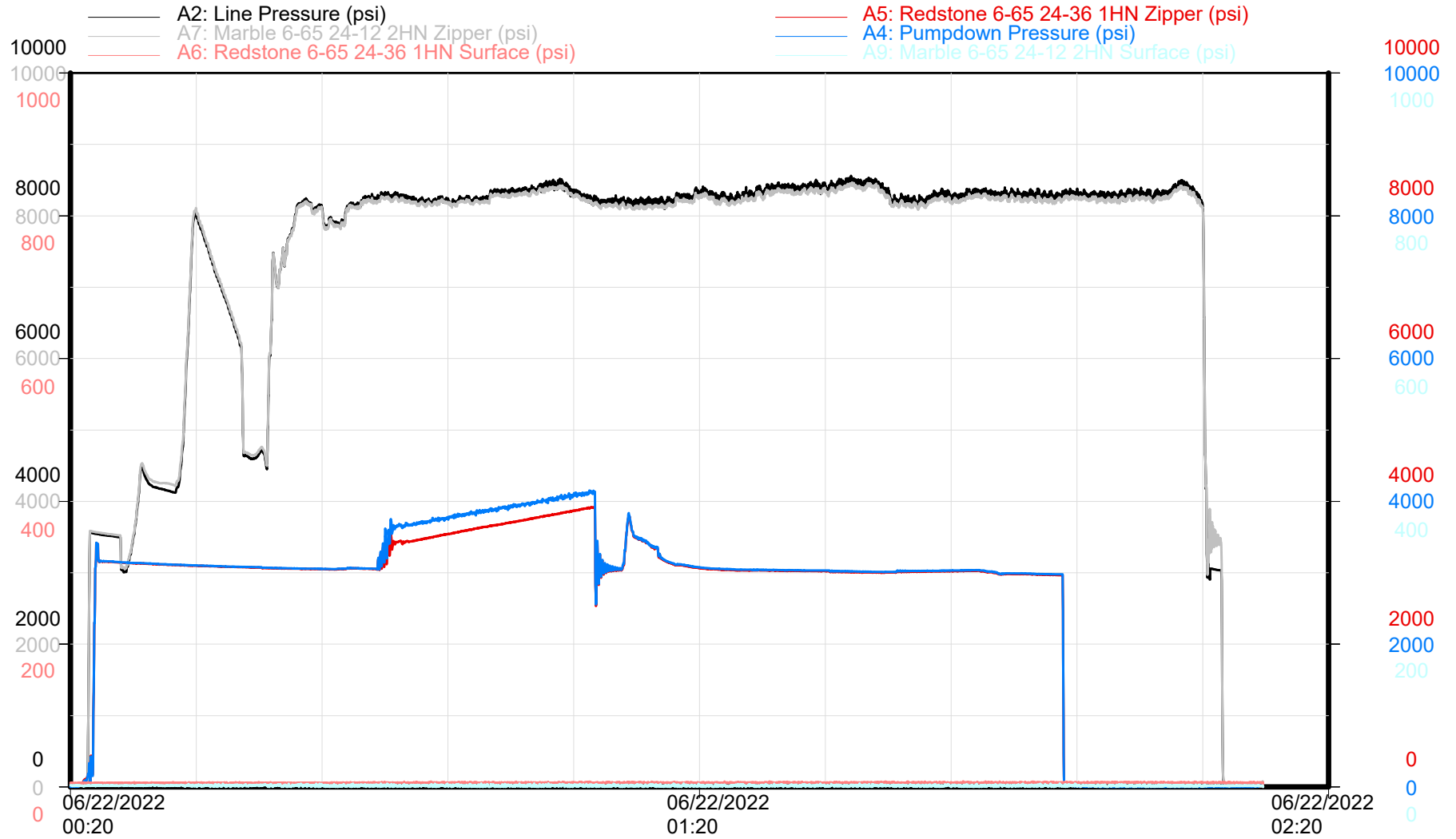
Time

Republic Crew

MARBLE 6-65 24-12 2HN Stage 21

GMT - MARBLE 6-65 24-12 2HN

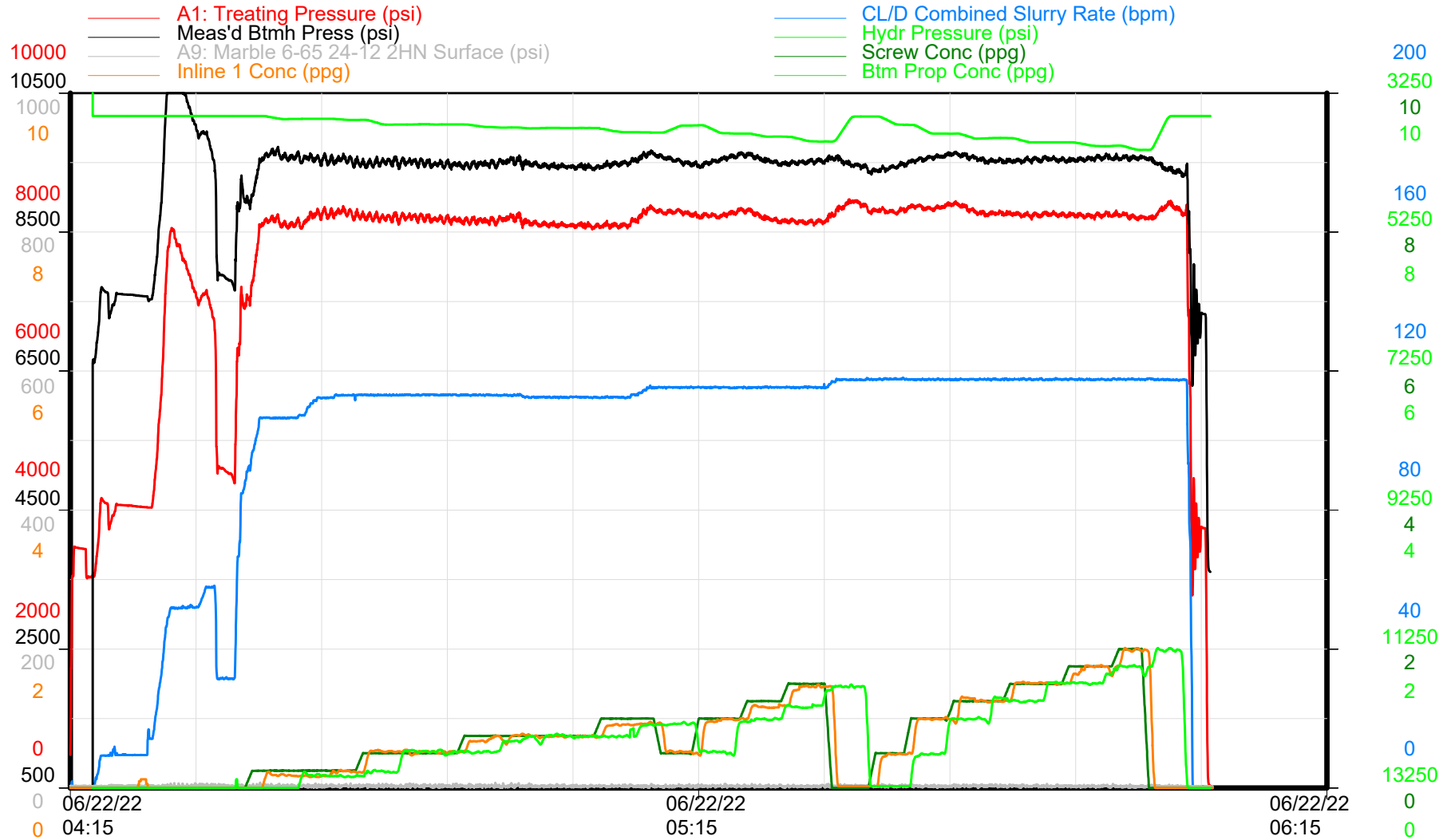
Niobrara - Stage 21 of 60



Zipper Pressures

Time

Republic Crew



Treatment Plot

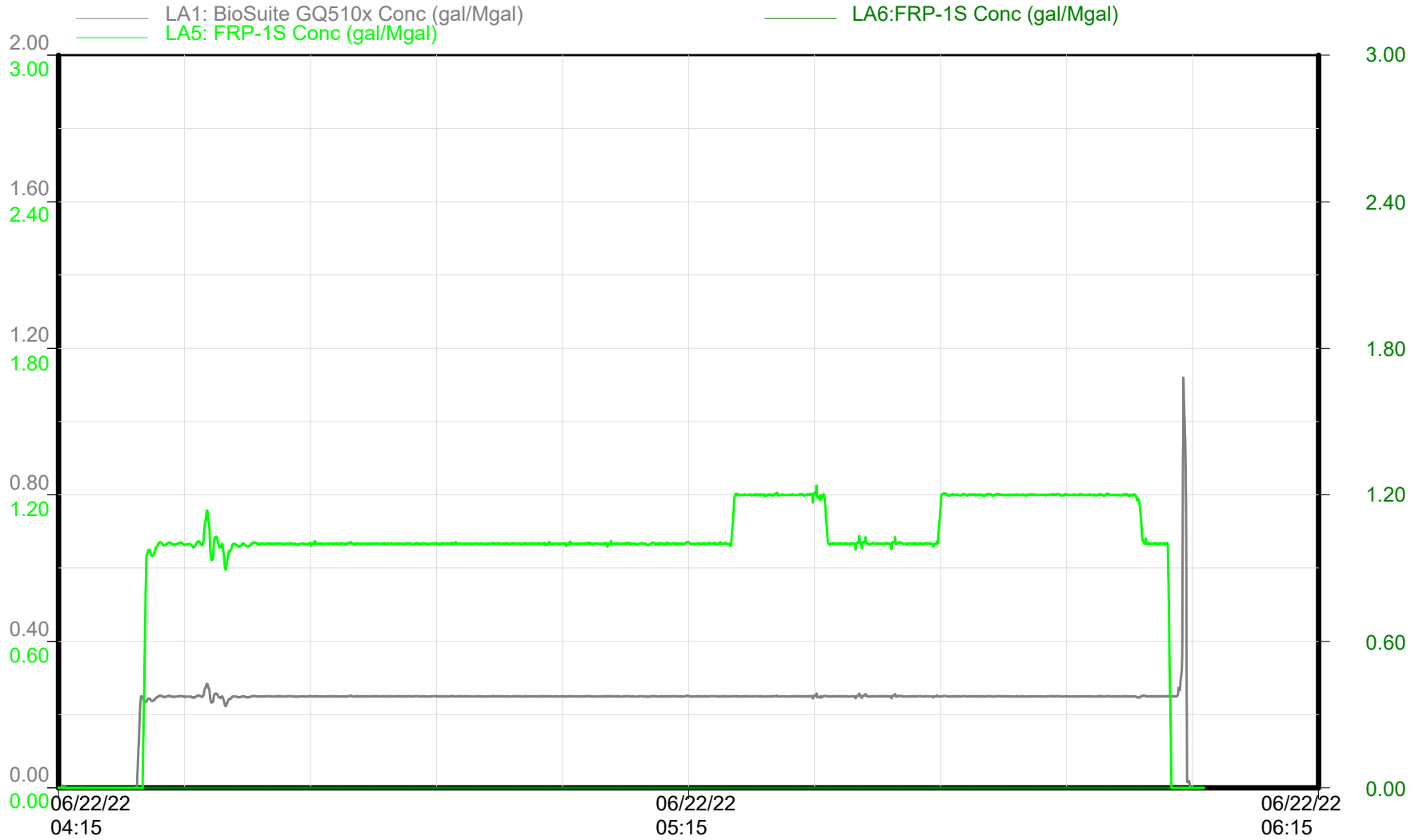
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 22 of 60



Chemical Additives

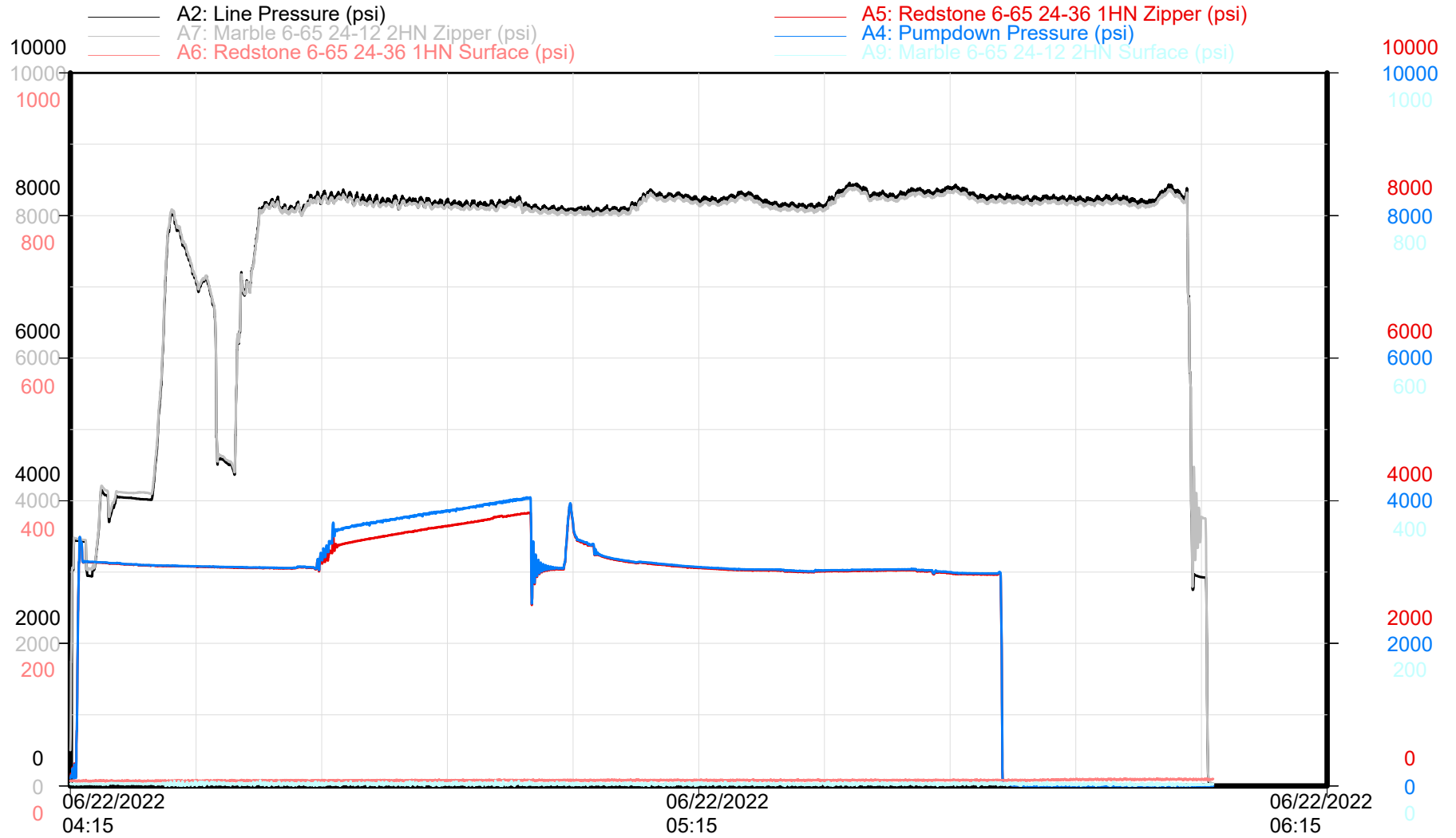
Time

Republic Crew

MARBLE 6-65 24-12 2HN Stage 22

GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 22 of 60



Zipper Pressures

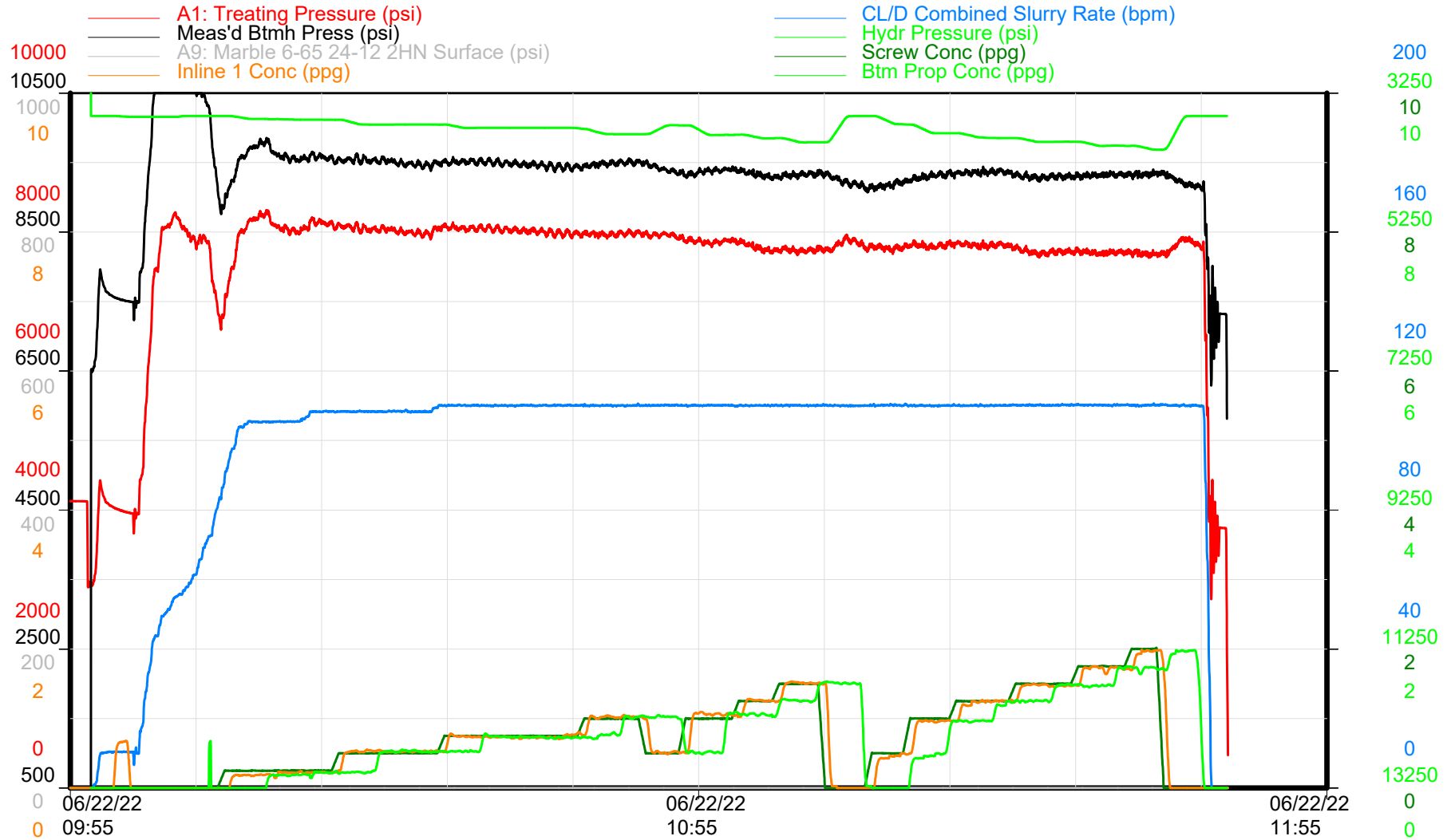
Time

Republic Crew

MARBLE 6-65 24-12 2HN Stage 23

GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 23 of 60



Treatment Plot

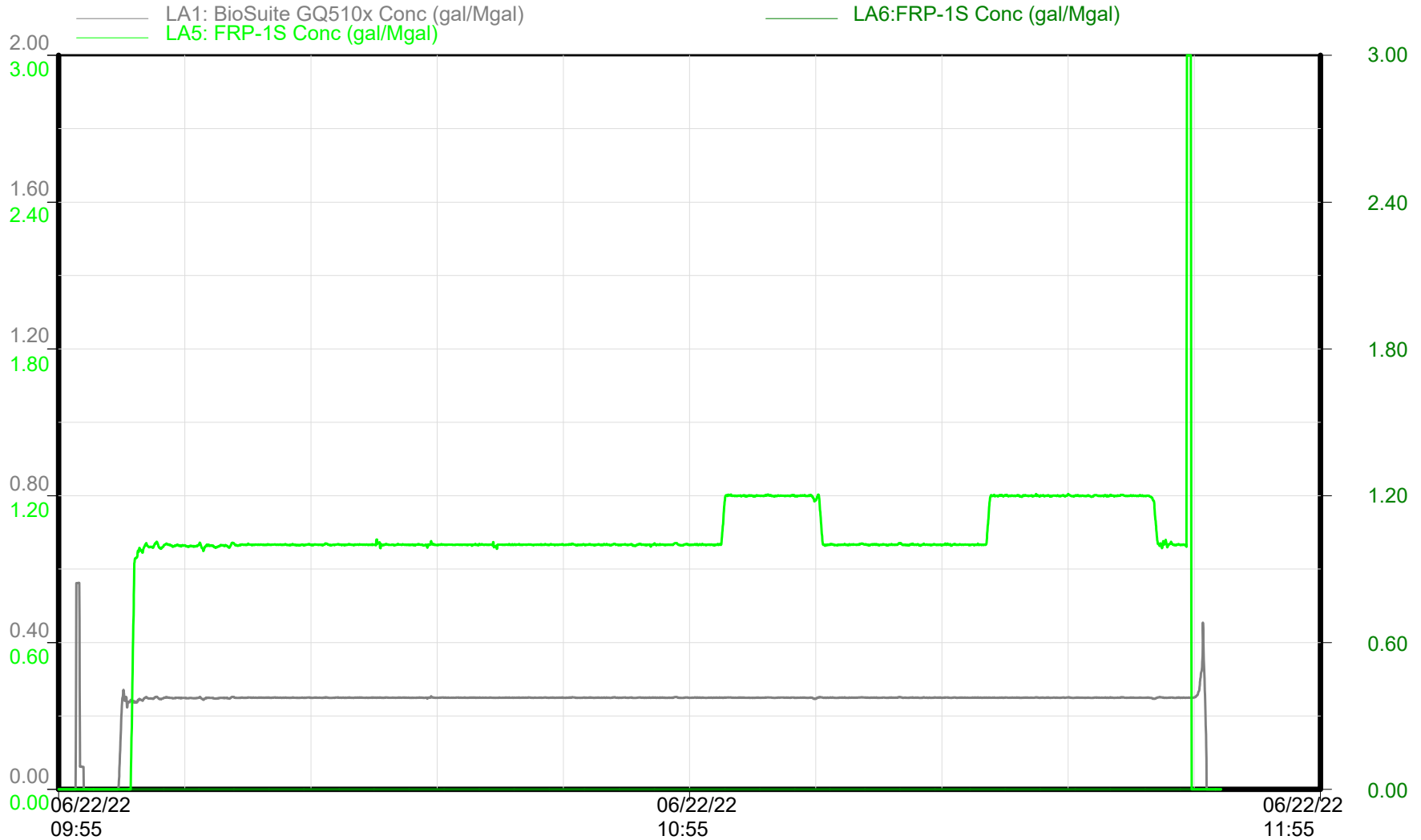
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 23 of 60



Chemical Additives

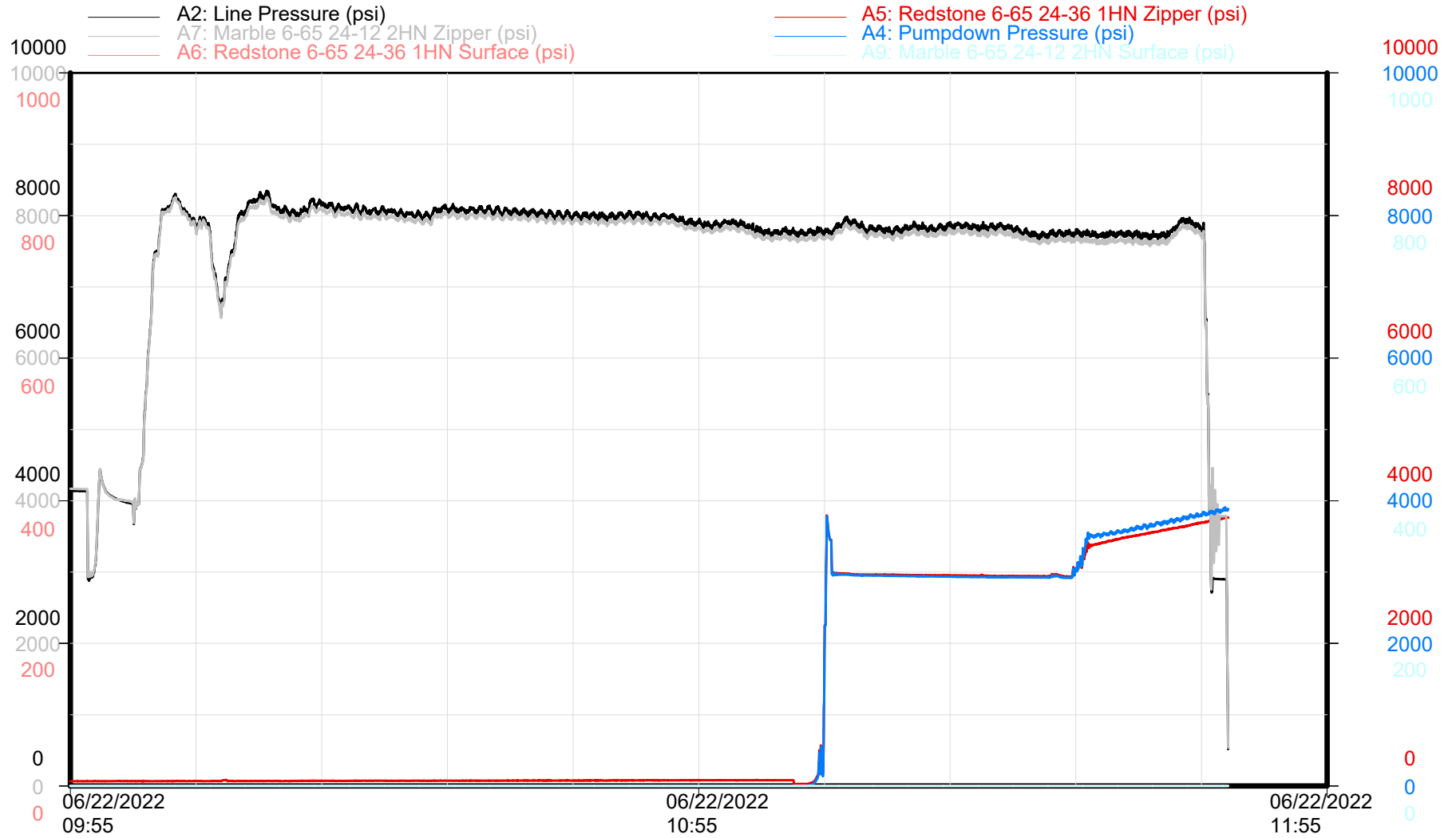
Time

Republic Crew

MARBLE 6-65 24-12 2HN Stage 23

GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 23 of 60



Zipper Pressures

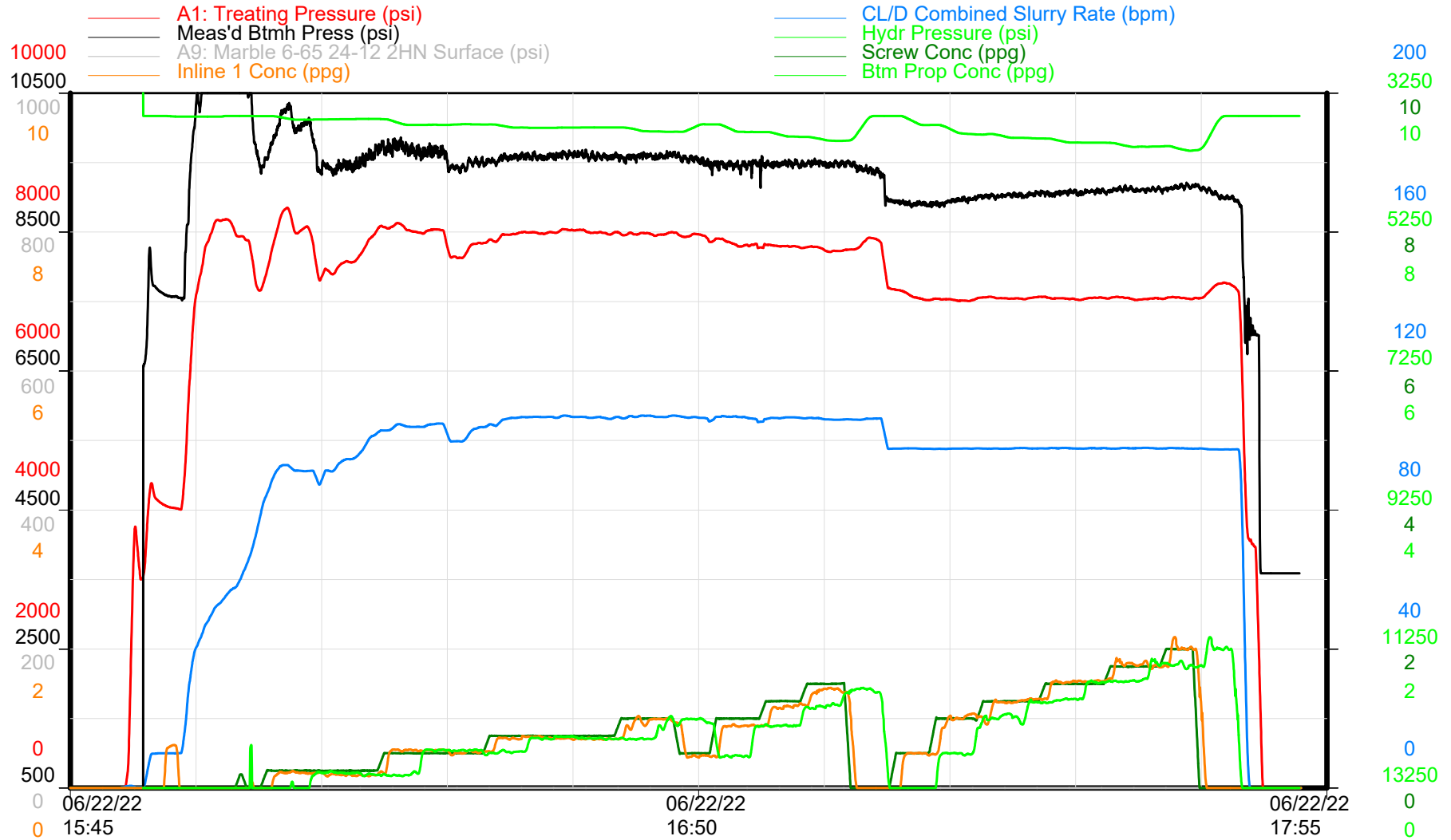
Time

Republic Crew

MARBLE 6-65 24-12 2HN Stage 24

GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 24 of 60



Treatment Plot

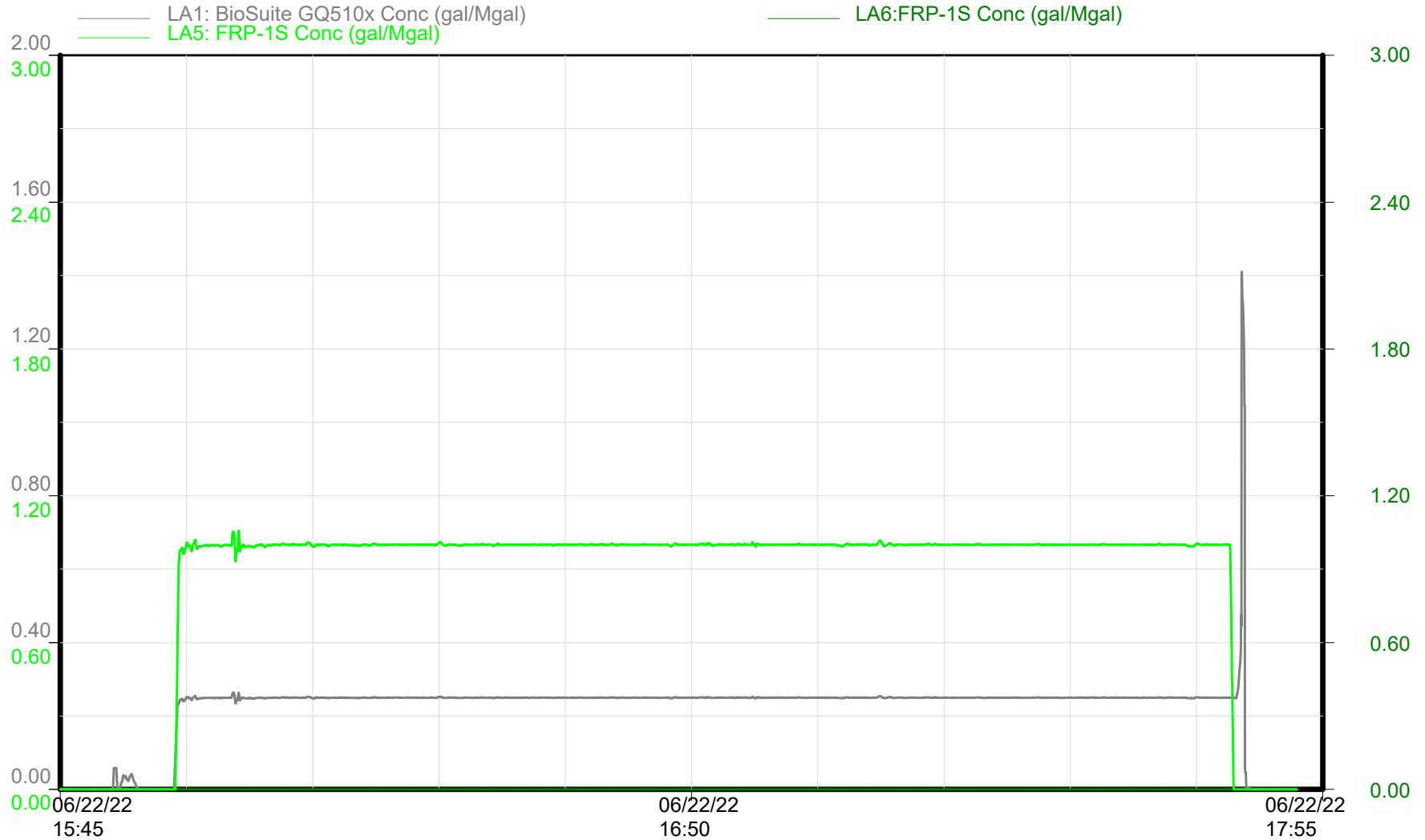
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 24 of 60



Chemical Additives

Time

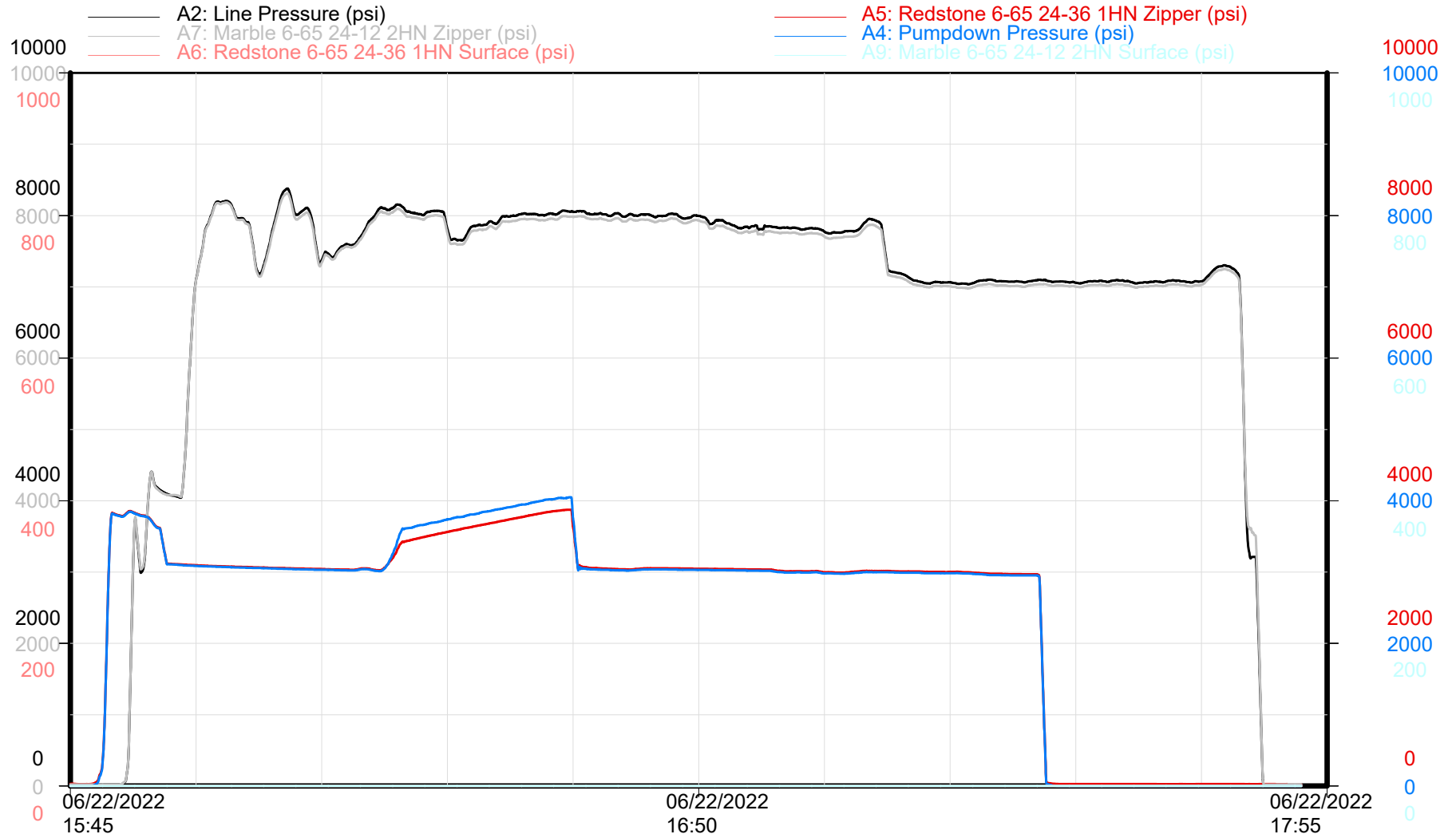
Republic Crew

MARBLE 6-65 24-12 2HN Stage 24



GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 24 of 60



Zipper Pressures

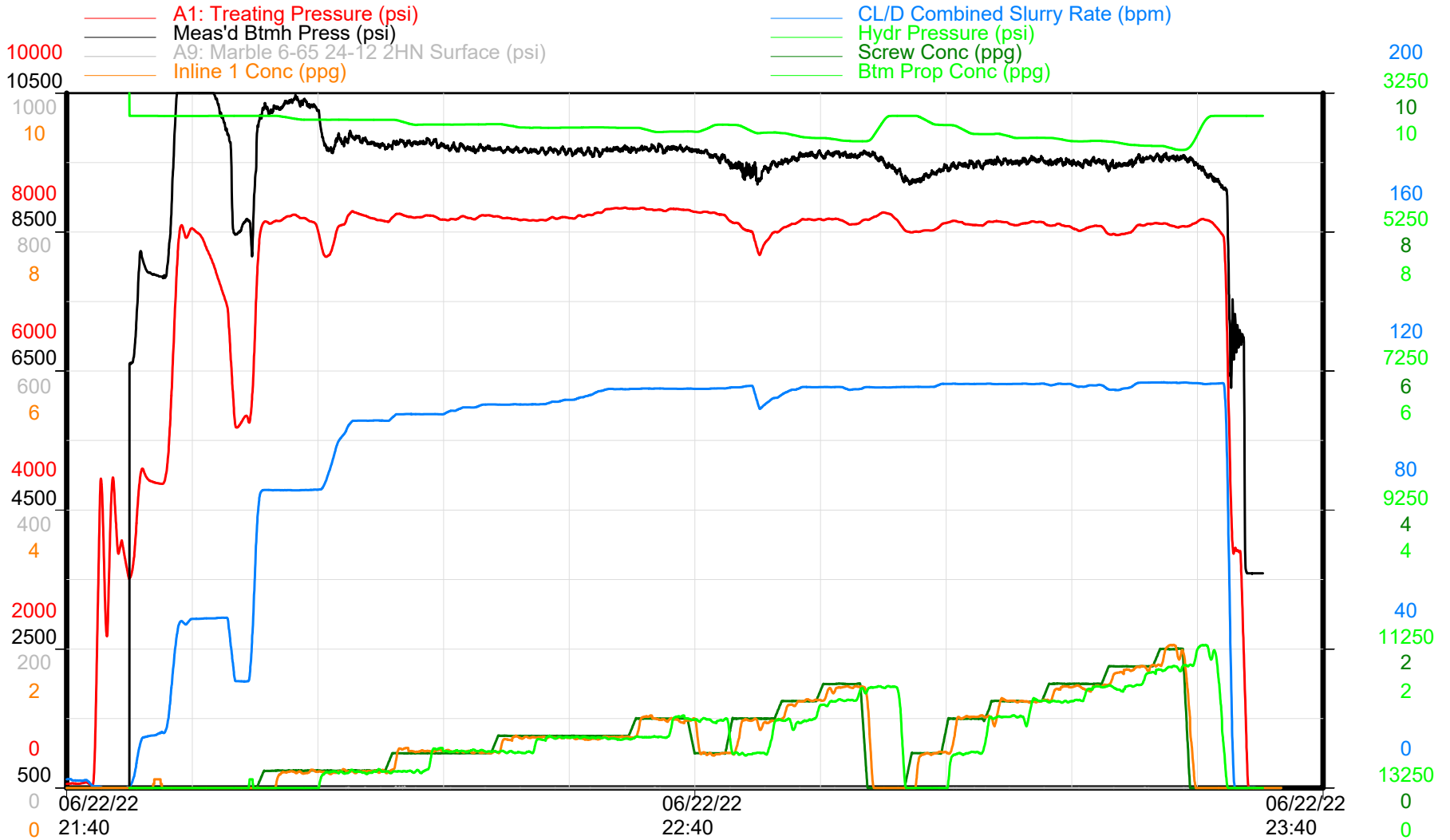
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 25 of 60



Treatment Plot

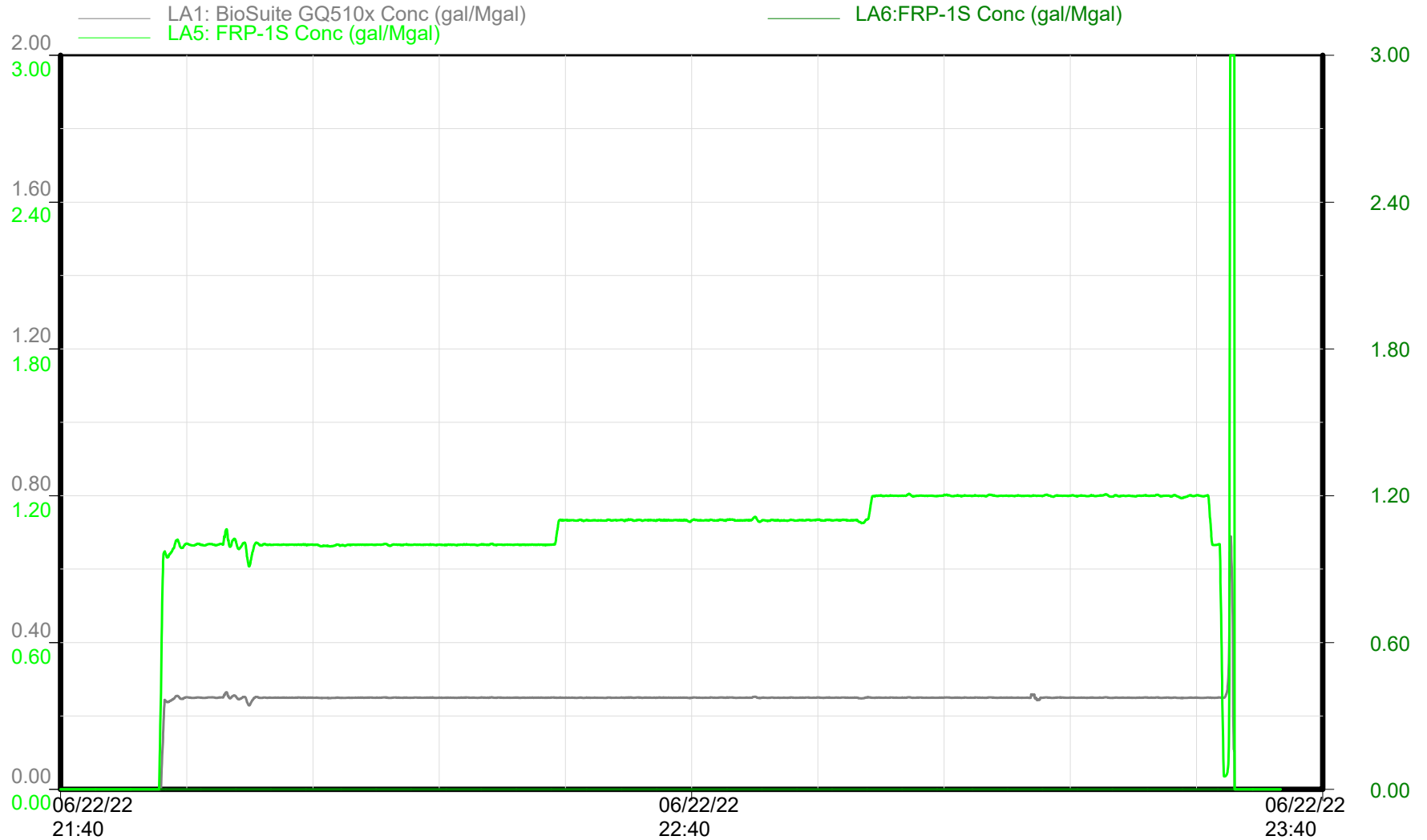
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 25 of 60



Chemical Additives

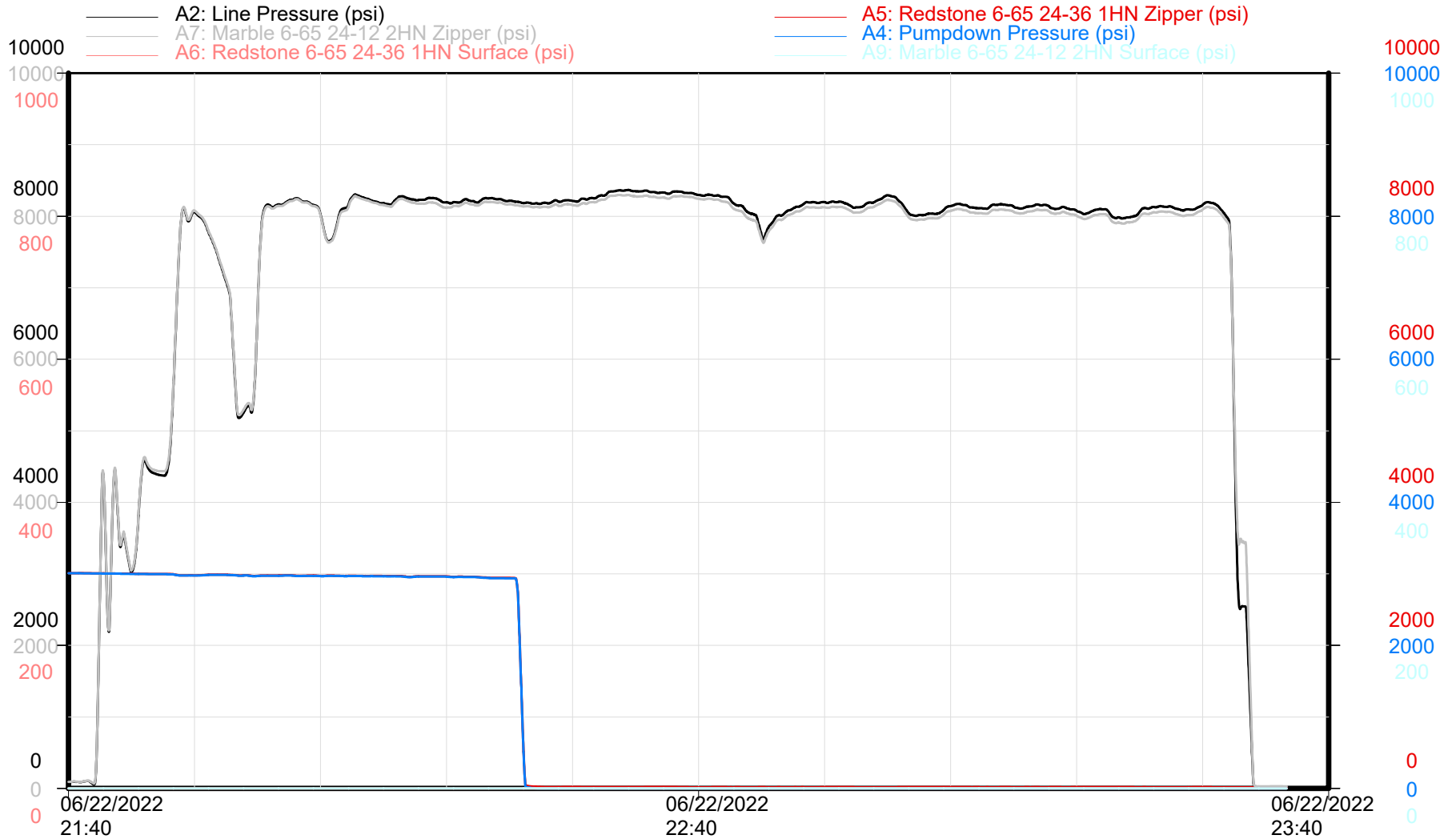
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

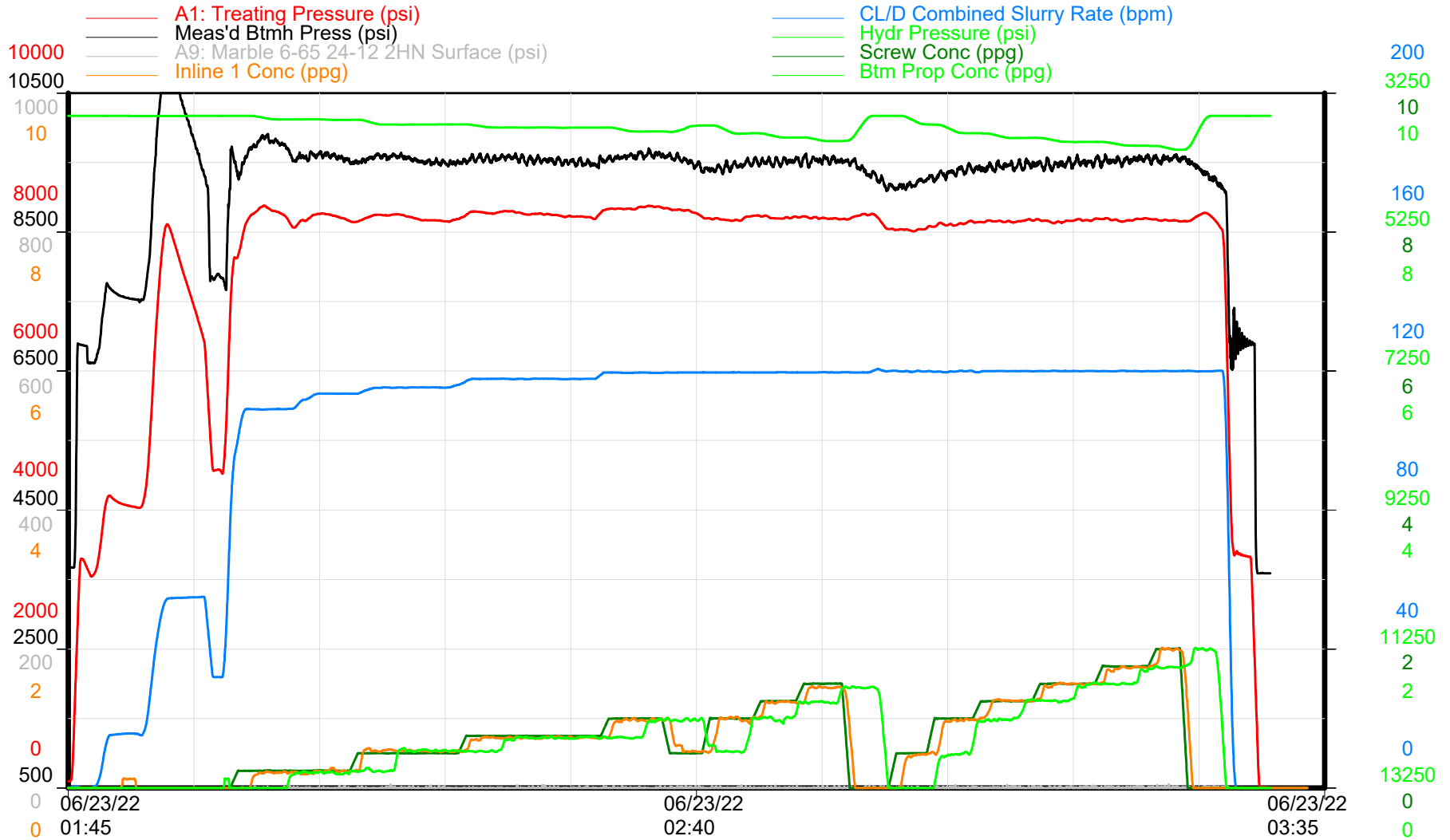
Niobrara - Stage 25 of 60



Zipper Pressures

Time

Republic Crew



Treatment Plot

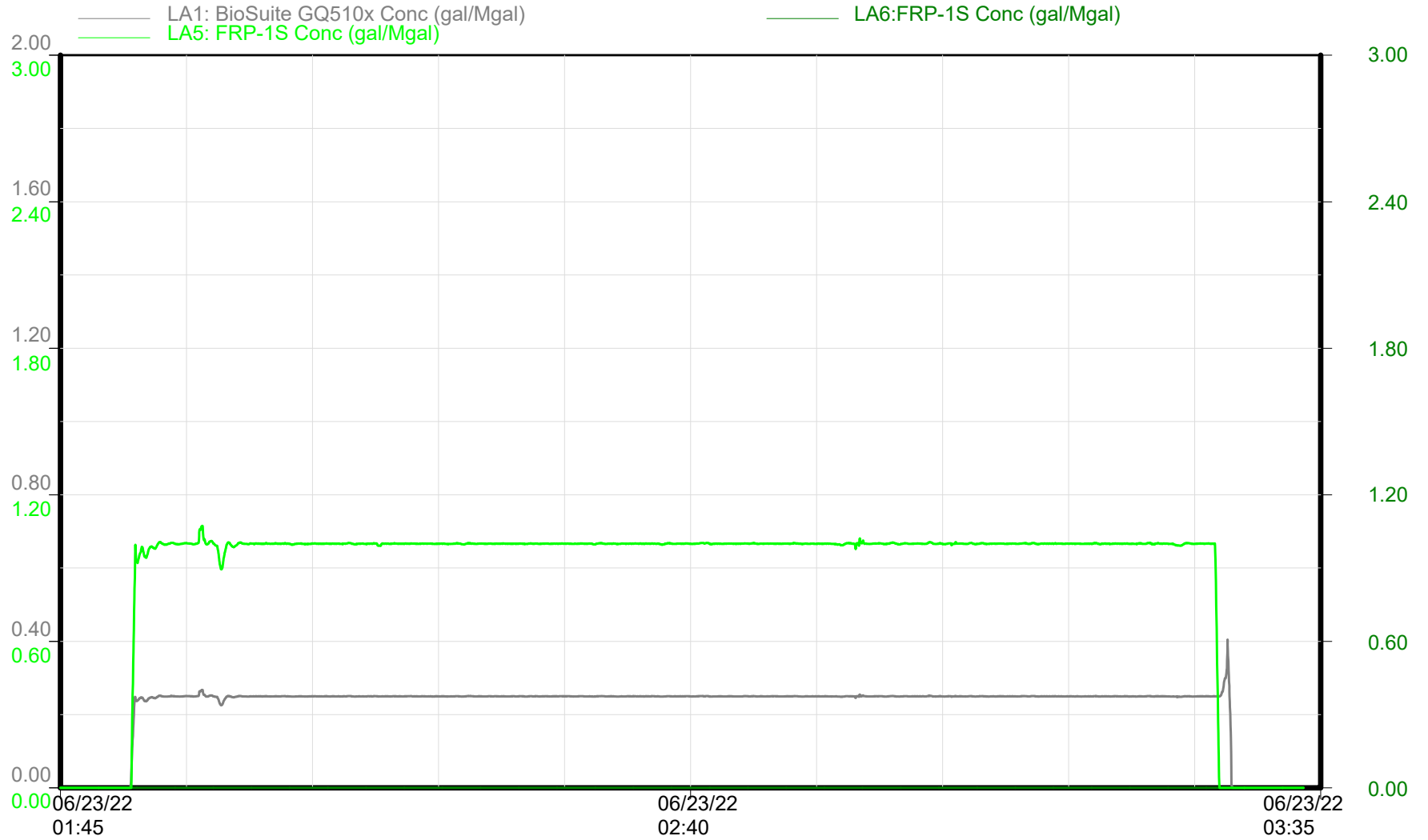
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 26 of 60



Chemical Additives

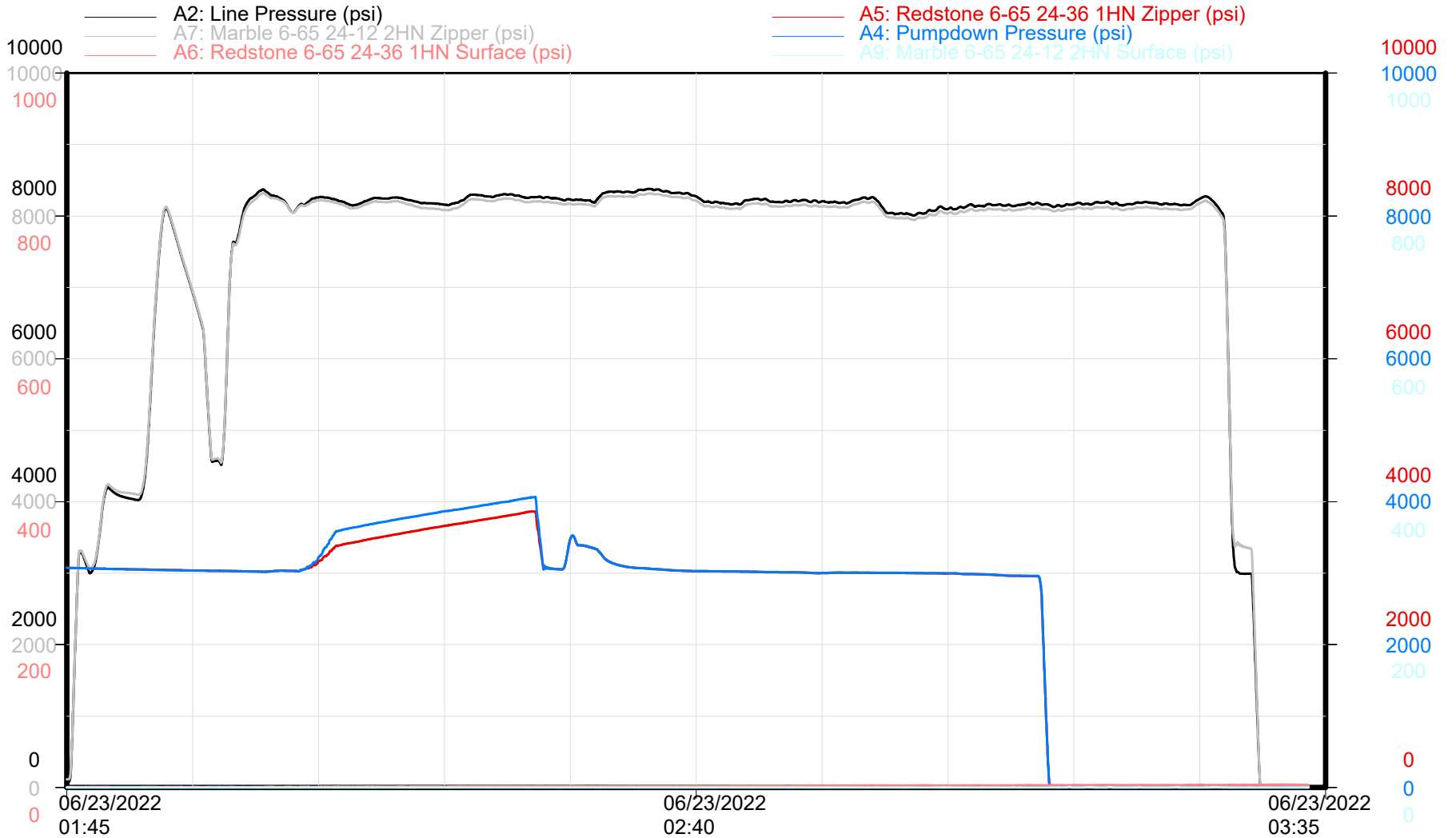
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

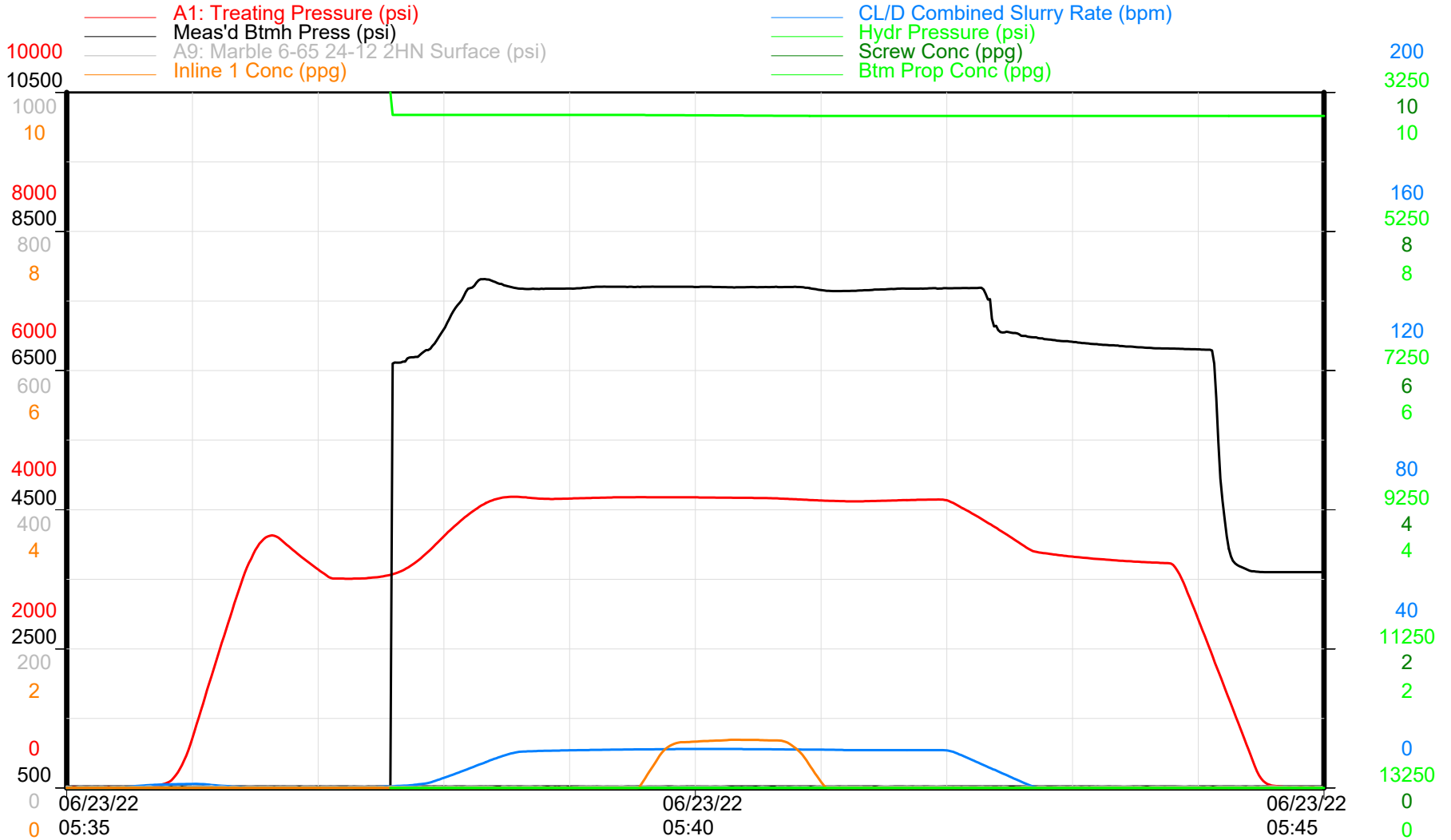
Niobrara - Stage 26 of 60



Zipper Pressures

Time

Republic Crew



Treatment Plot

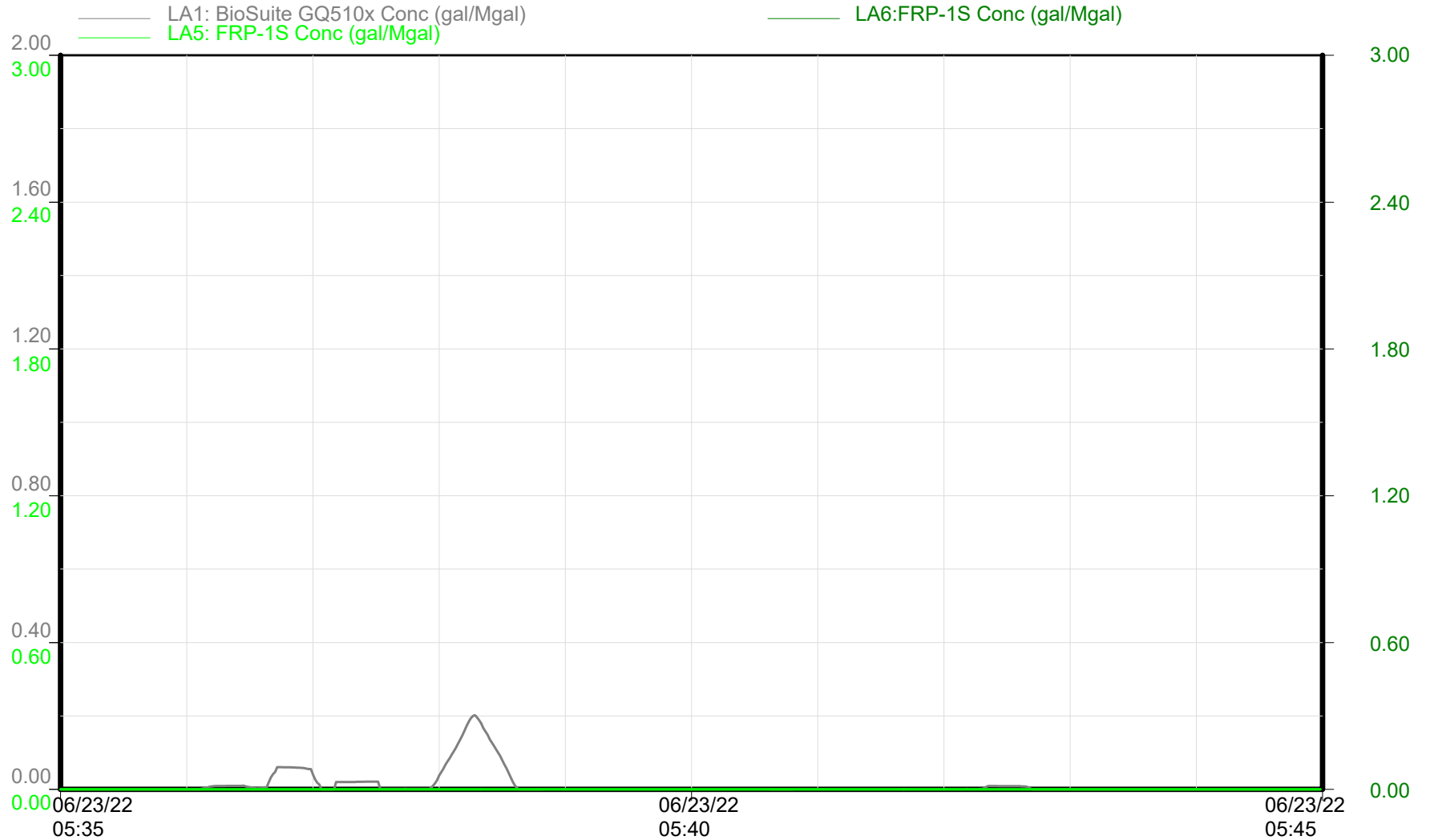
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 27a of 60



Chemical Additives

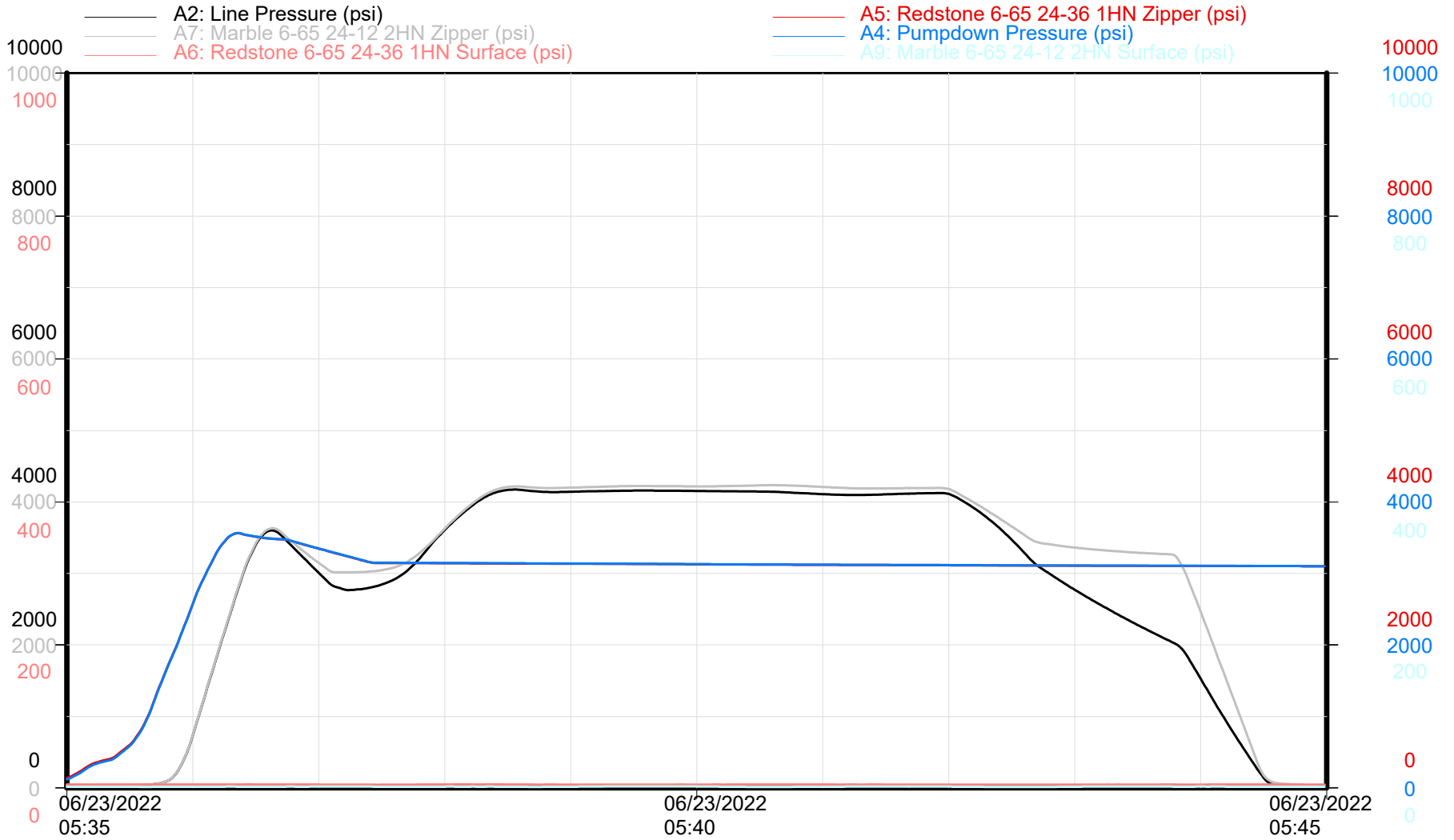
Time

Republic Crew

MARBLE 6-65 24-12 2HN Stage 27

GMT - MARBLE 6-65 24-12 2HN

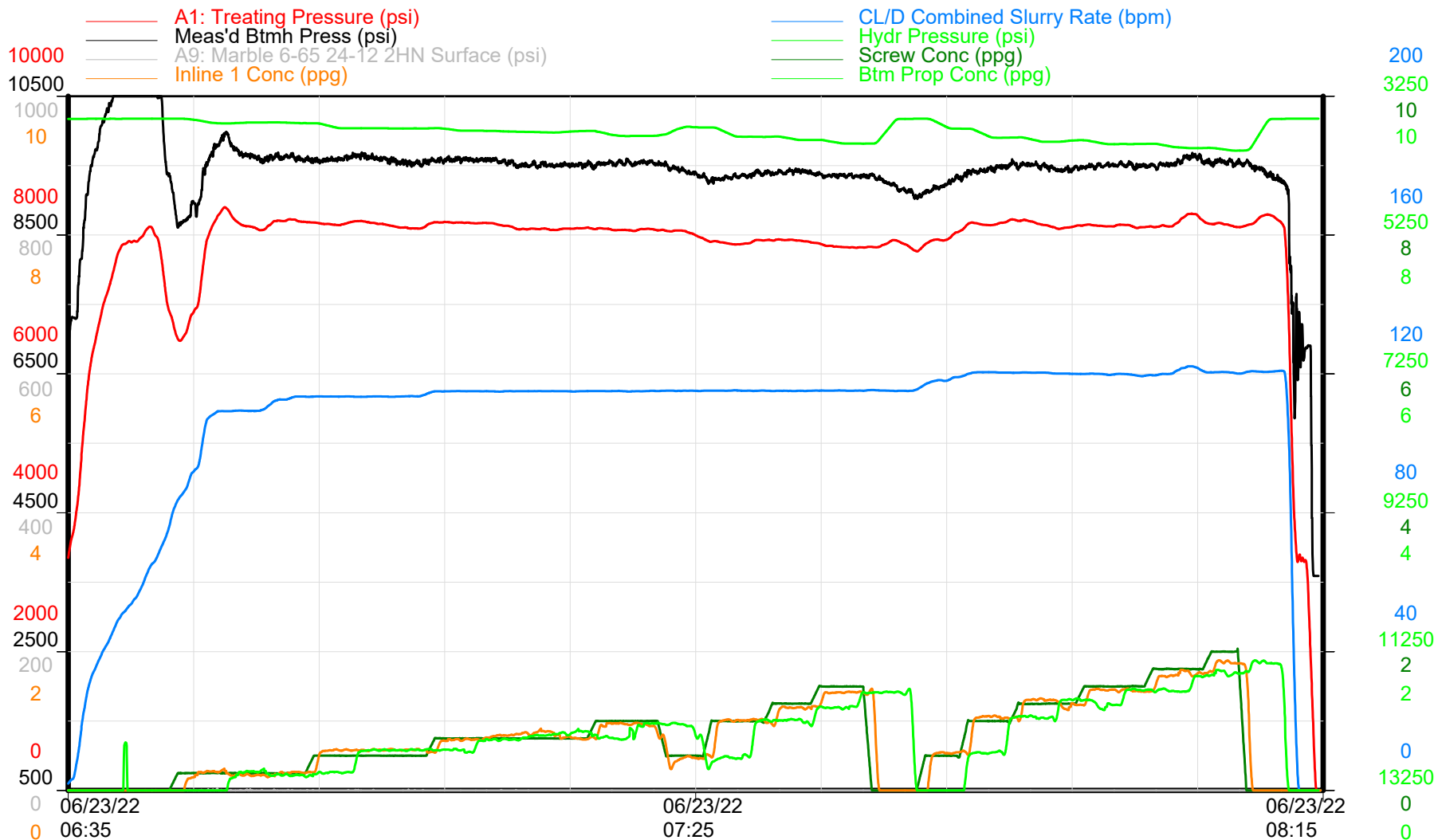
Niobrara - Stage 27a of 60



Zipper Pressures

Time

Republic Crew



Treatment Plot

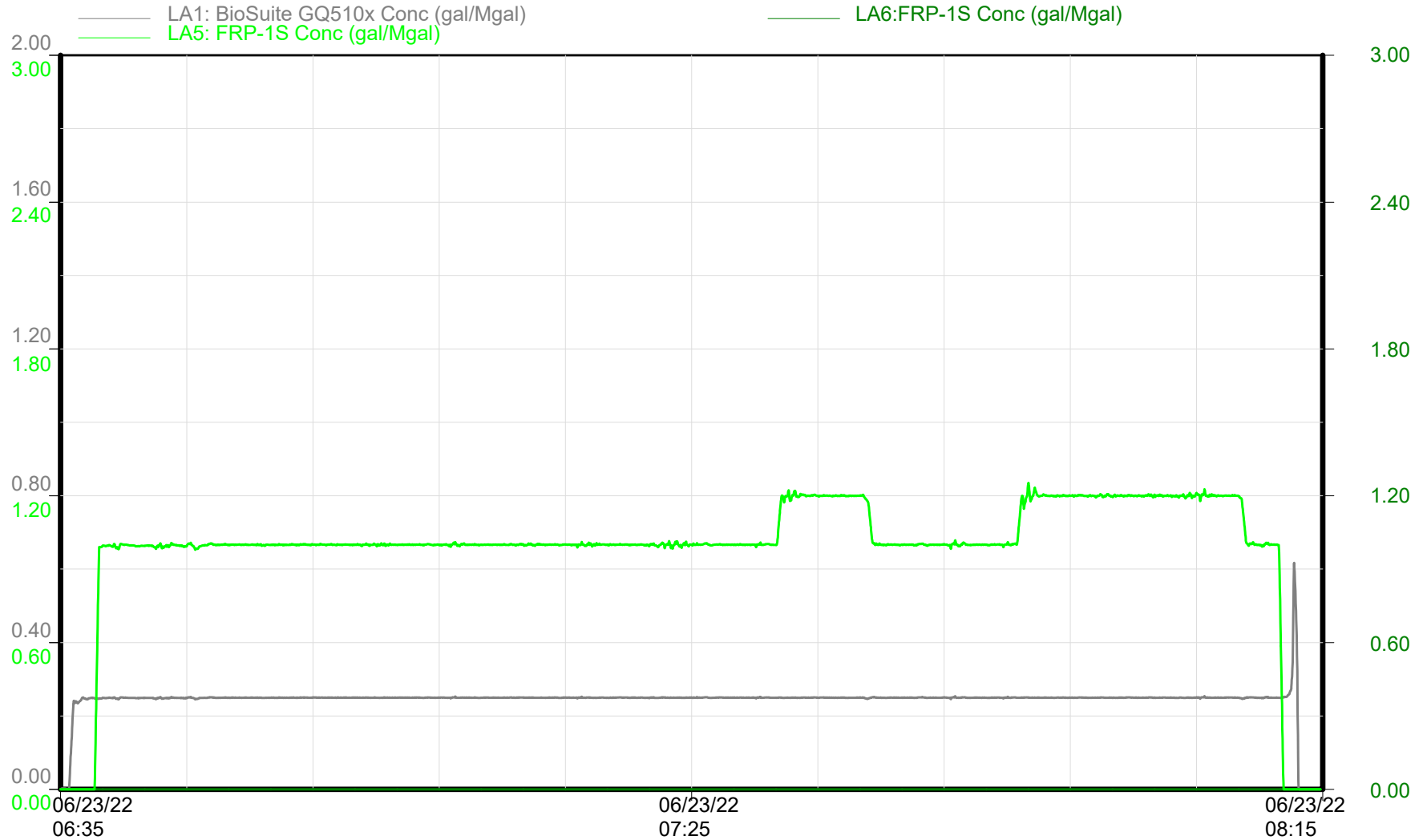
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 27b of 60



Chemical Additives

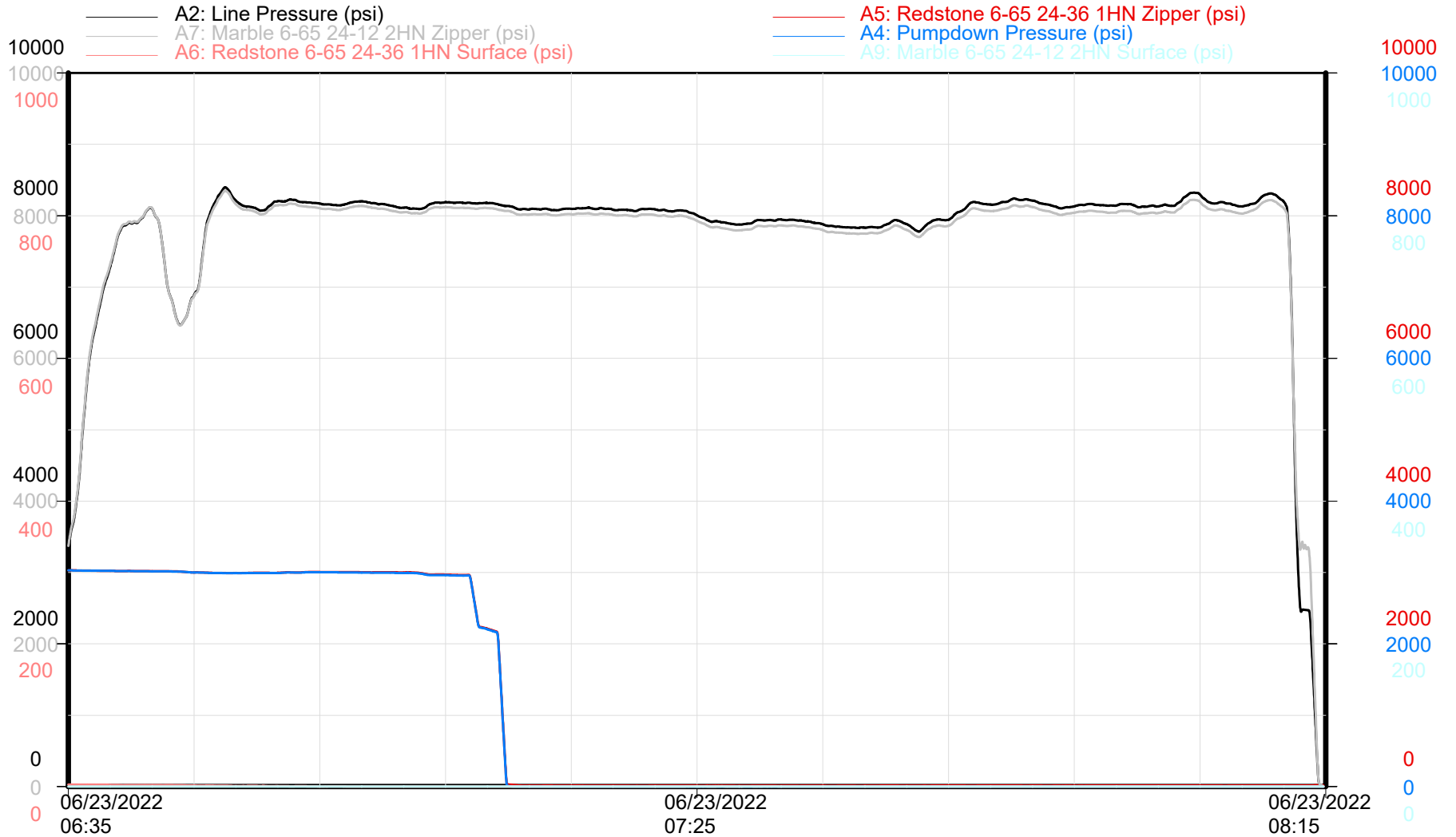
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 27b of 60



Zipper Pressures

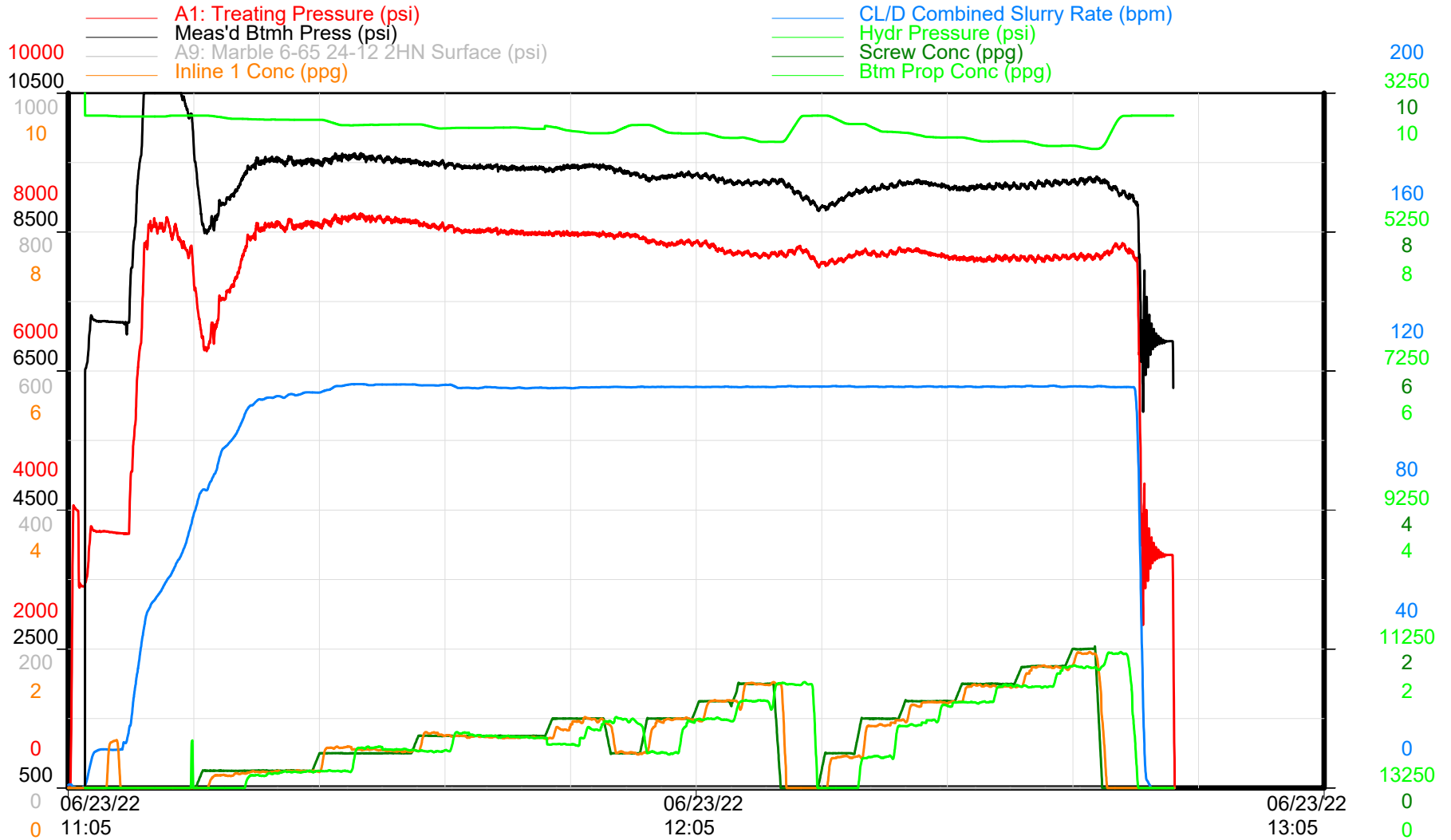
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 28 of 60



Treatment Plot

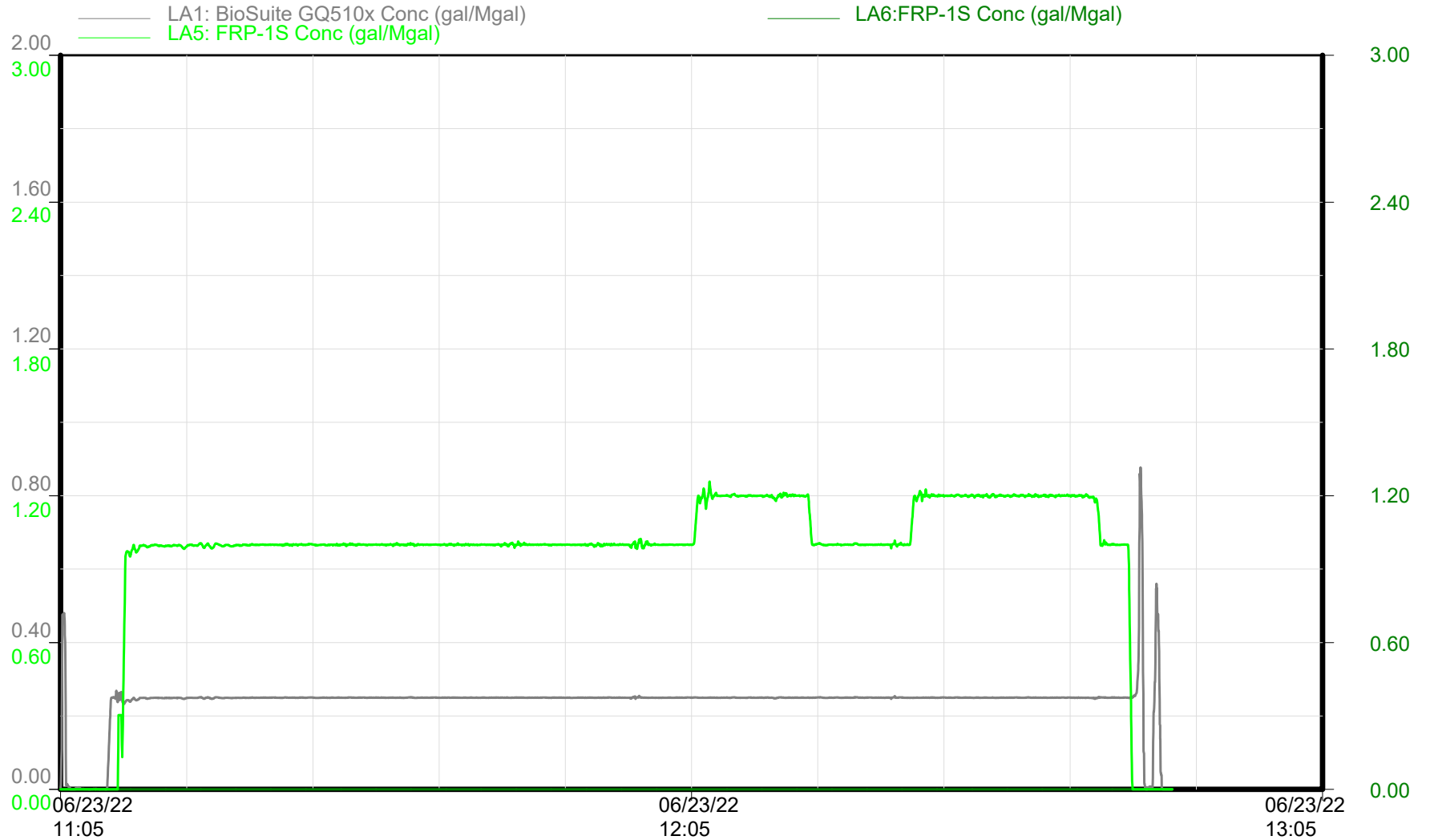
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

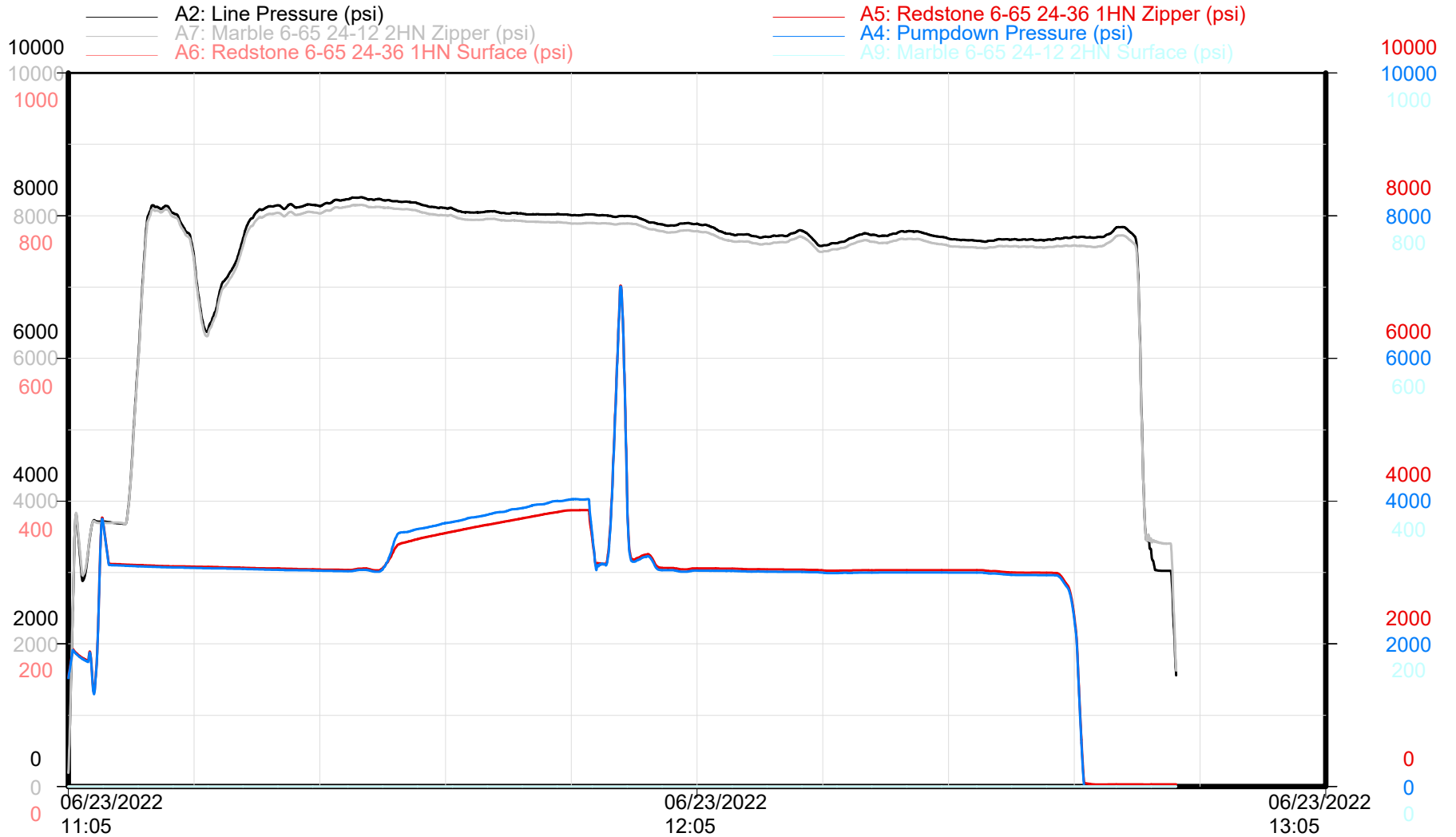
Niobrara - Stage 28 of 60



Chemical Additives

Time

Republic Crew



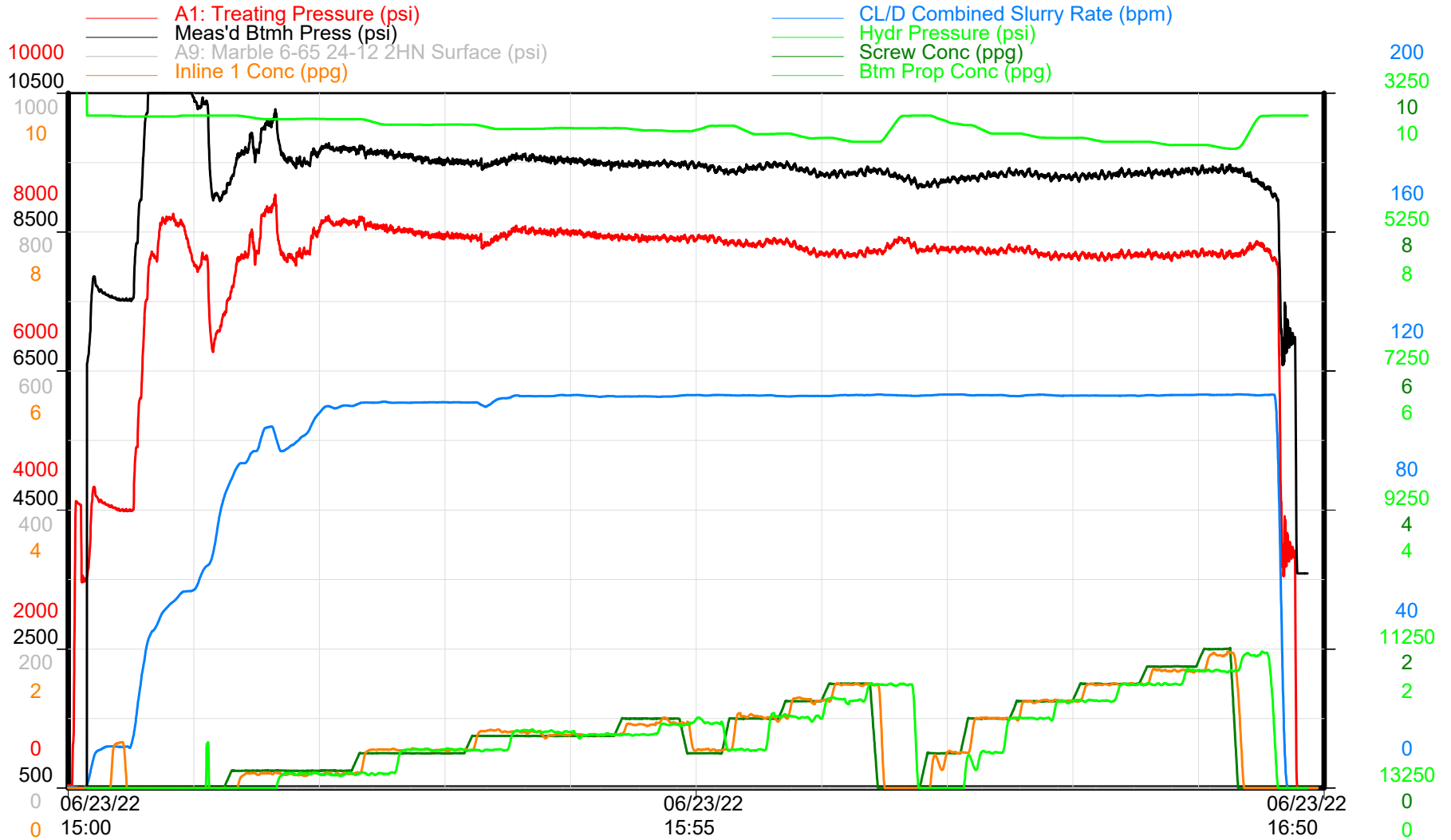
Zipper Pressures

Time

Republic Crew

GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 29 of 60



Treatment Plot

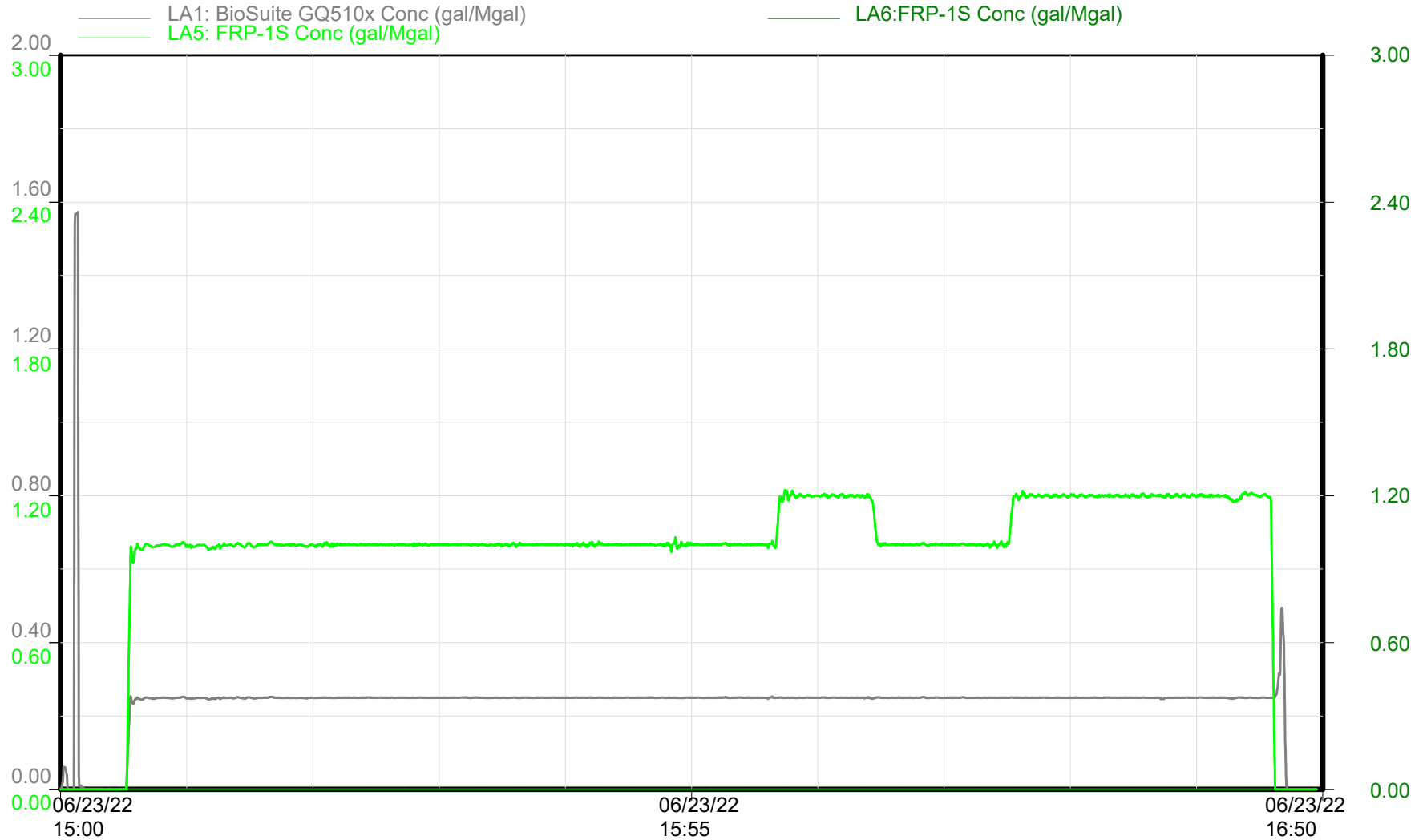
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

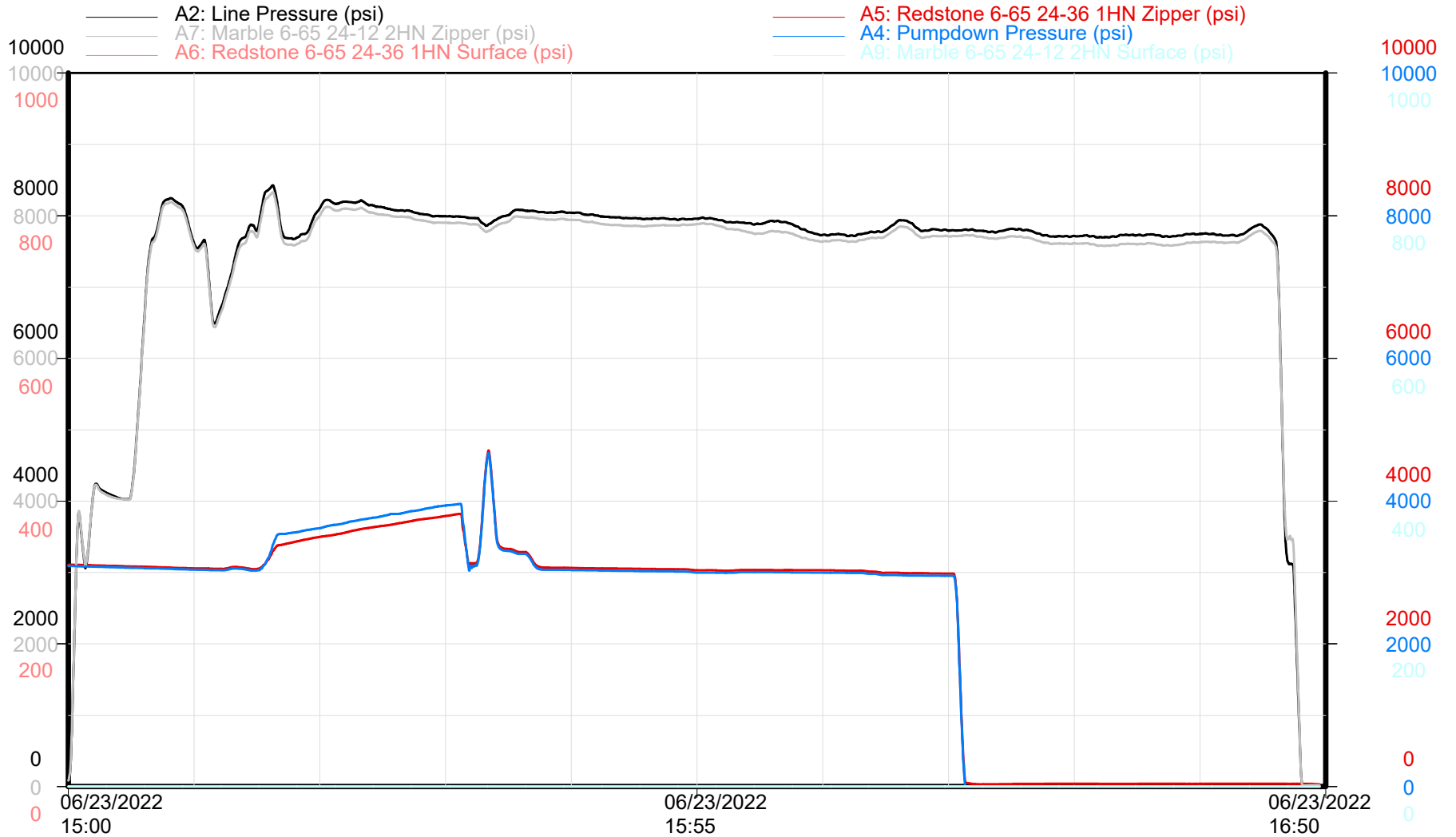
Niobrara - Stage 29 of 60



Chemical Additives

Time

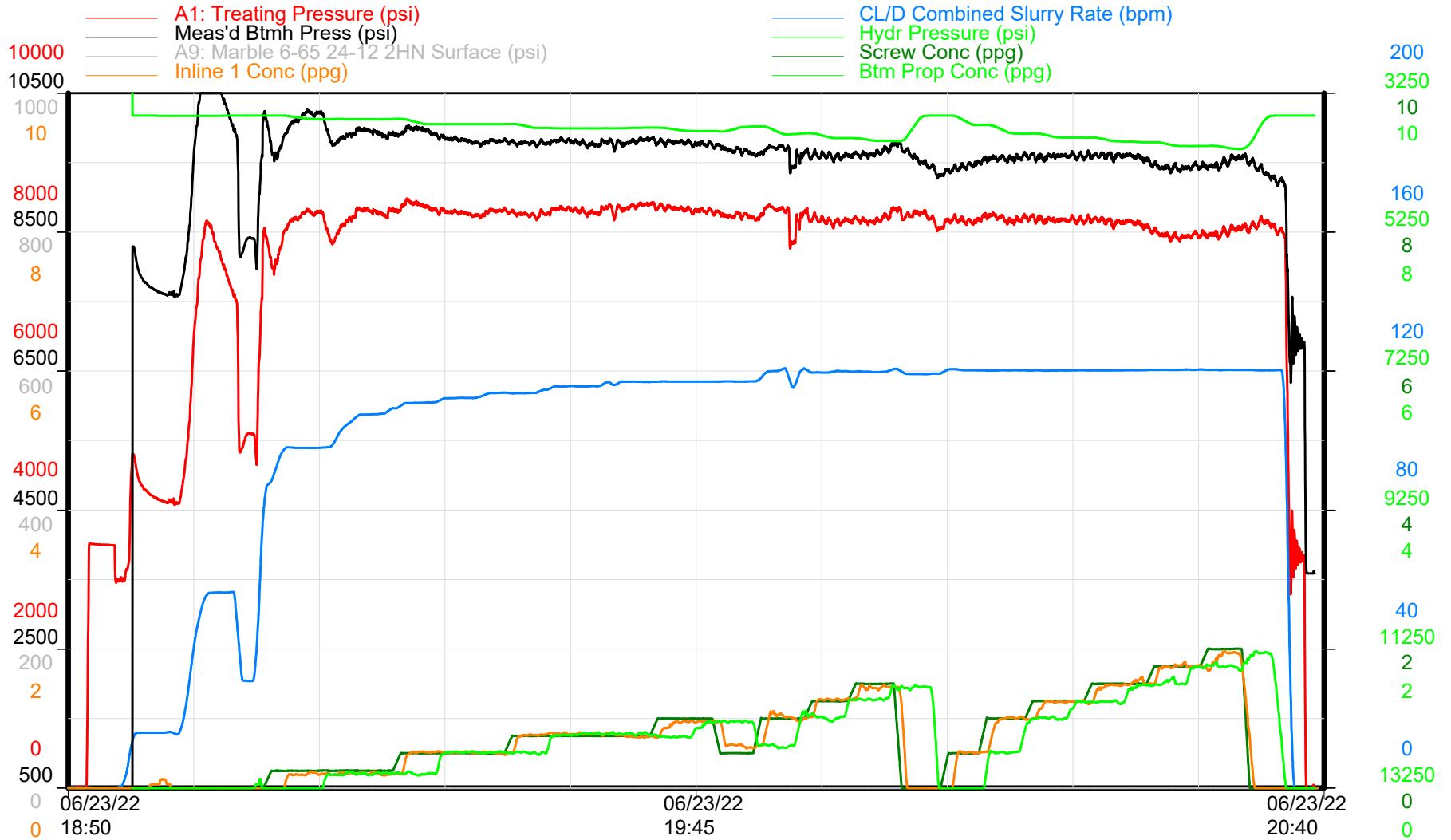
Republic Crew



Zipper Pressures

Time

Republic Crew



Treatment Plot

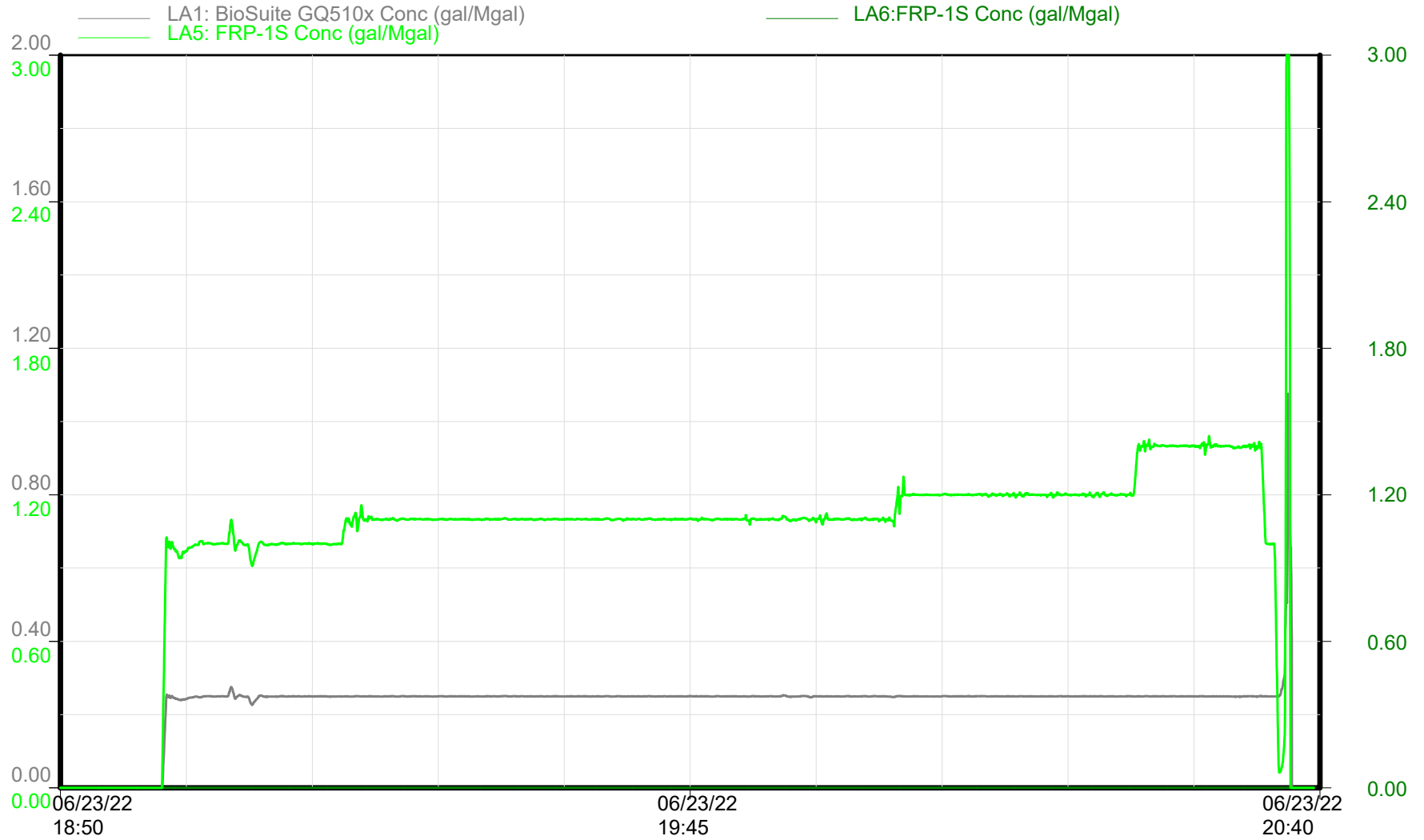
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 30 of 60



Chemical Additives

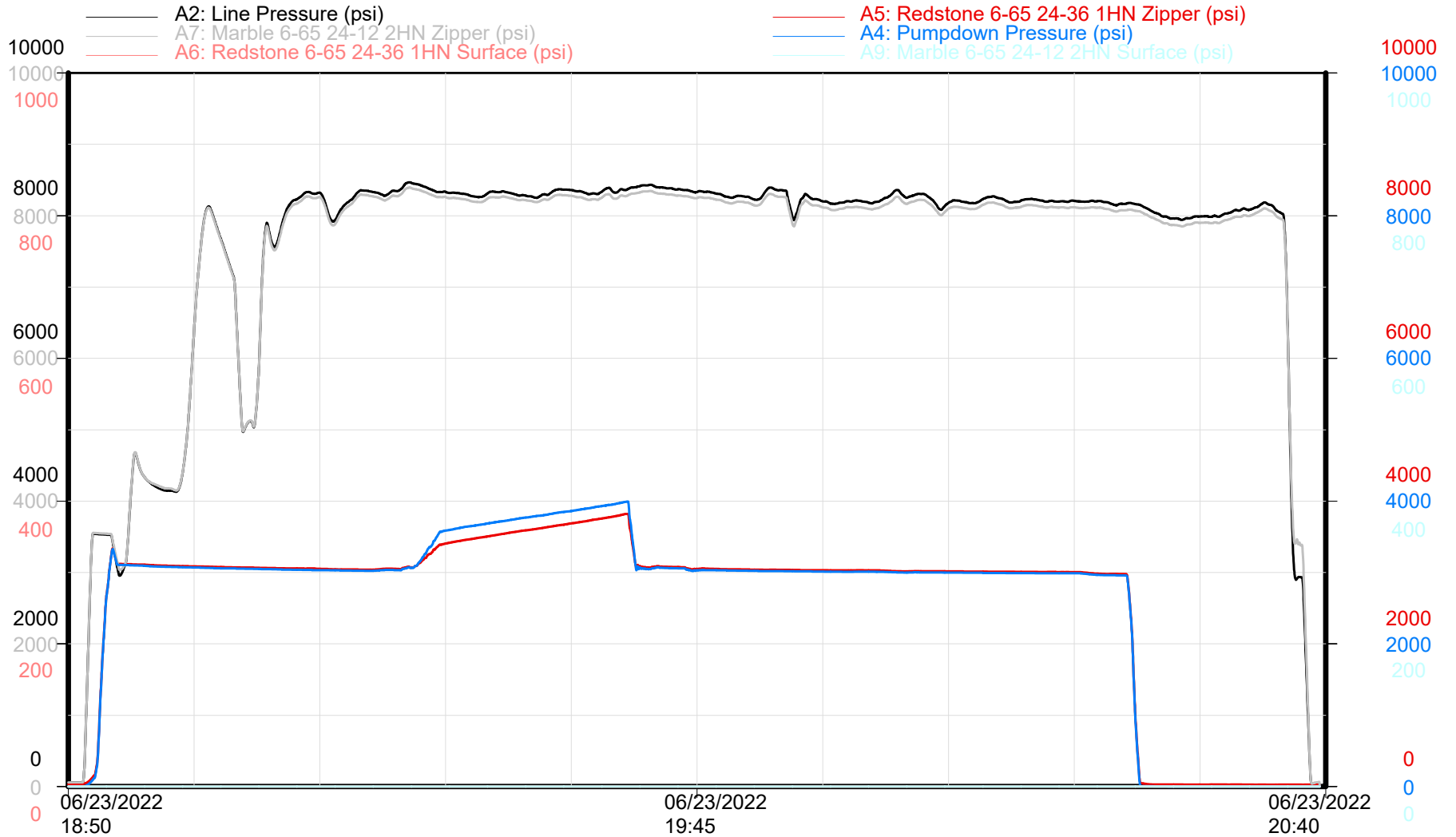
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

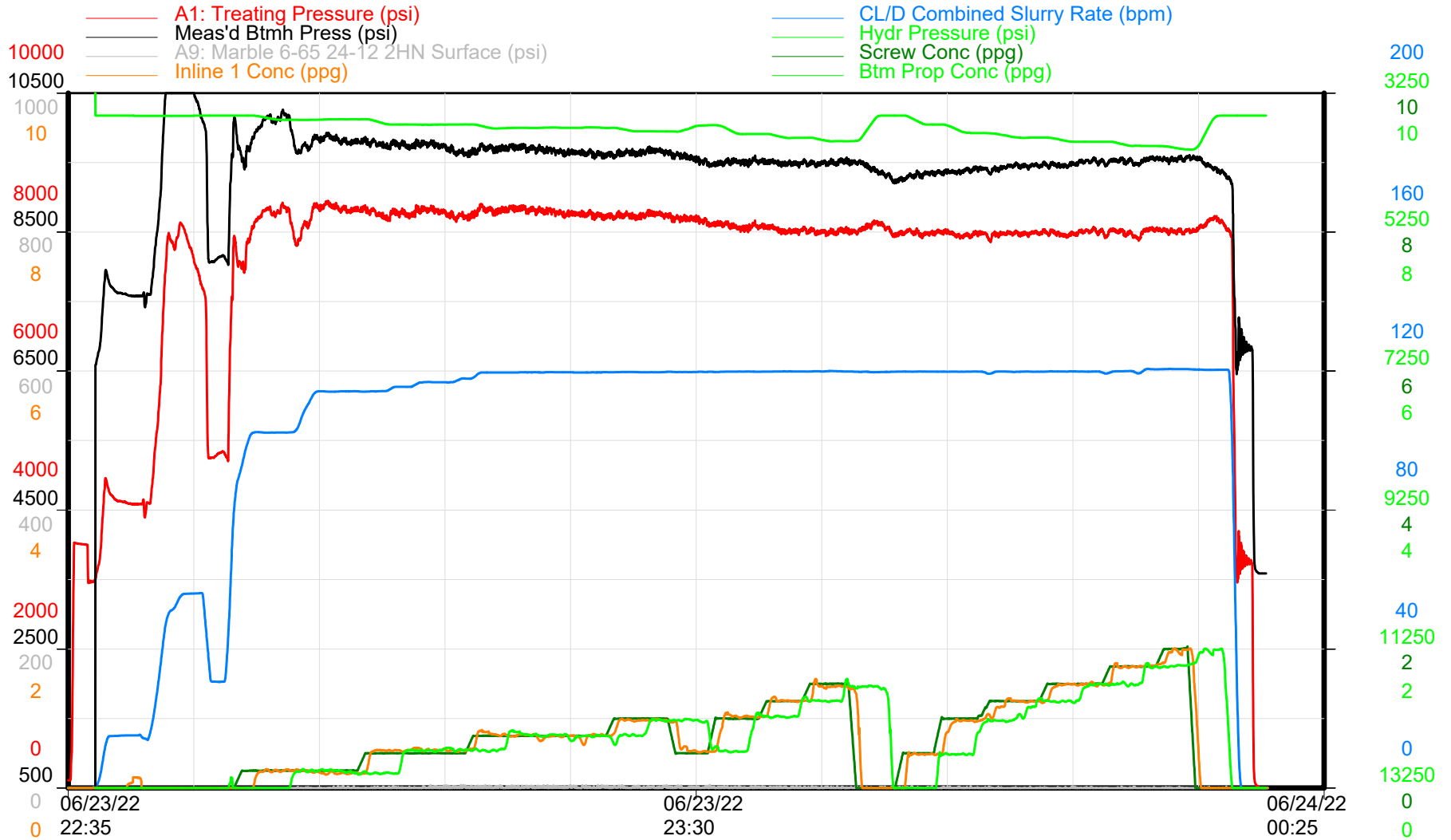
Niobrara - Stage 30 of 60



Zipper Pressures

Time

Republic Crew



Treatment Plot

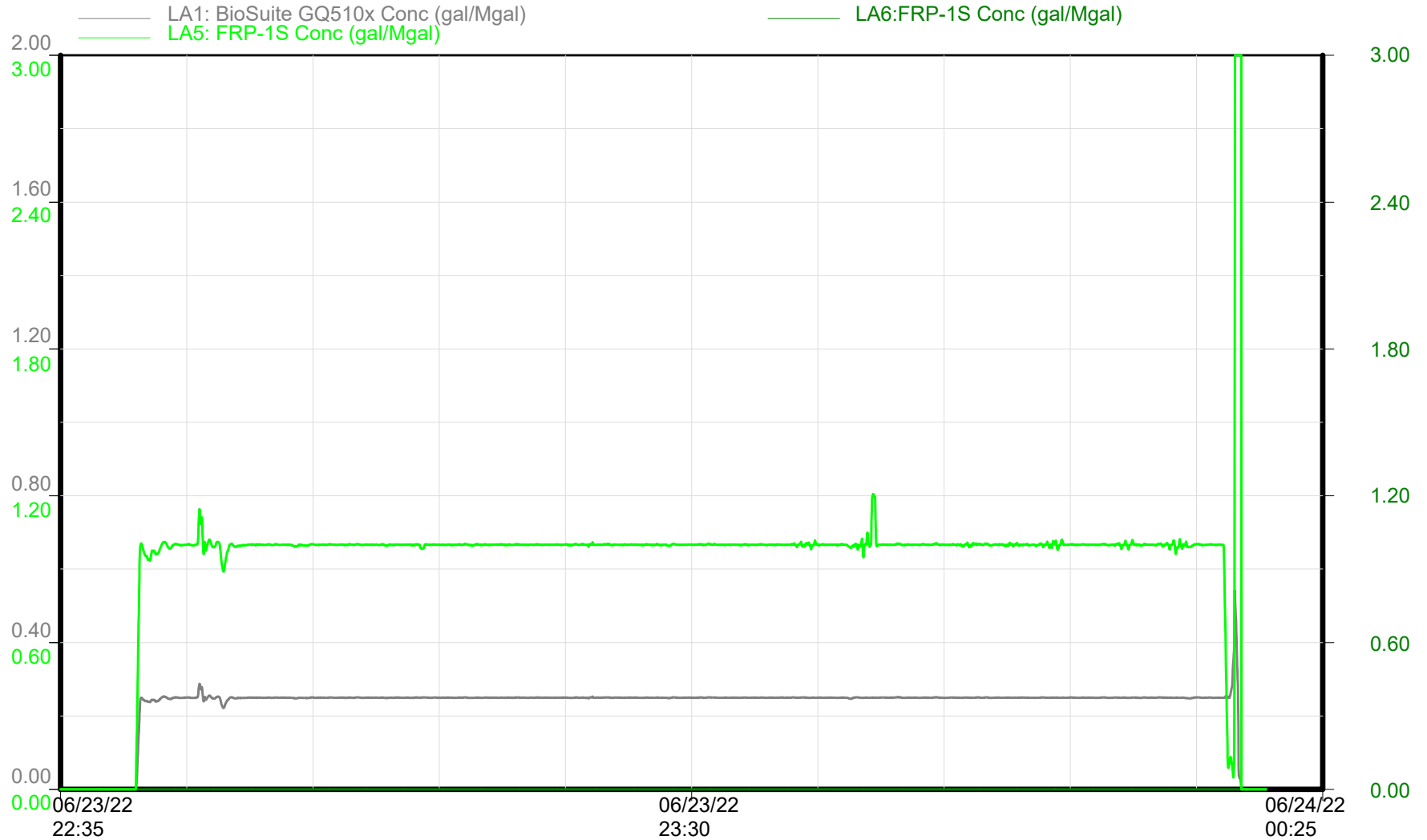
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 31 of 60



Chemical Additives

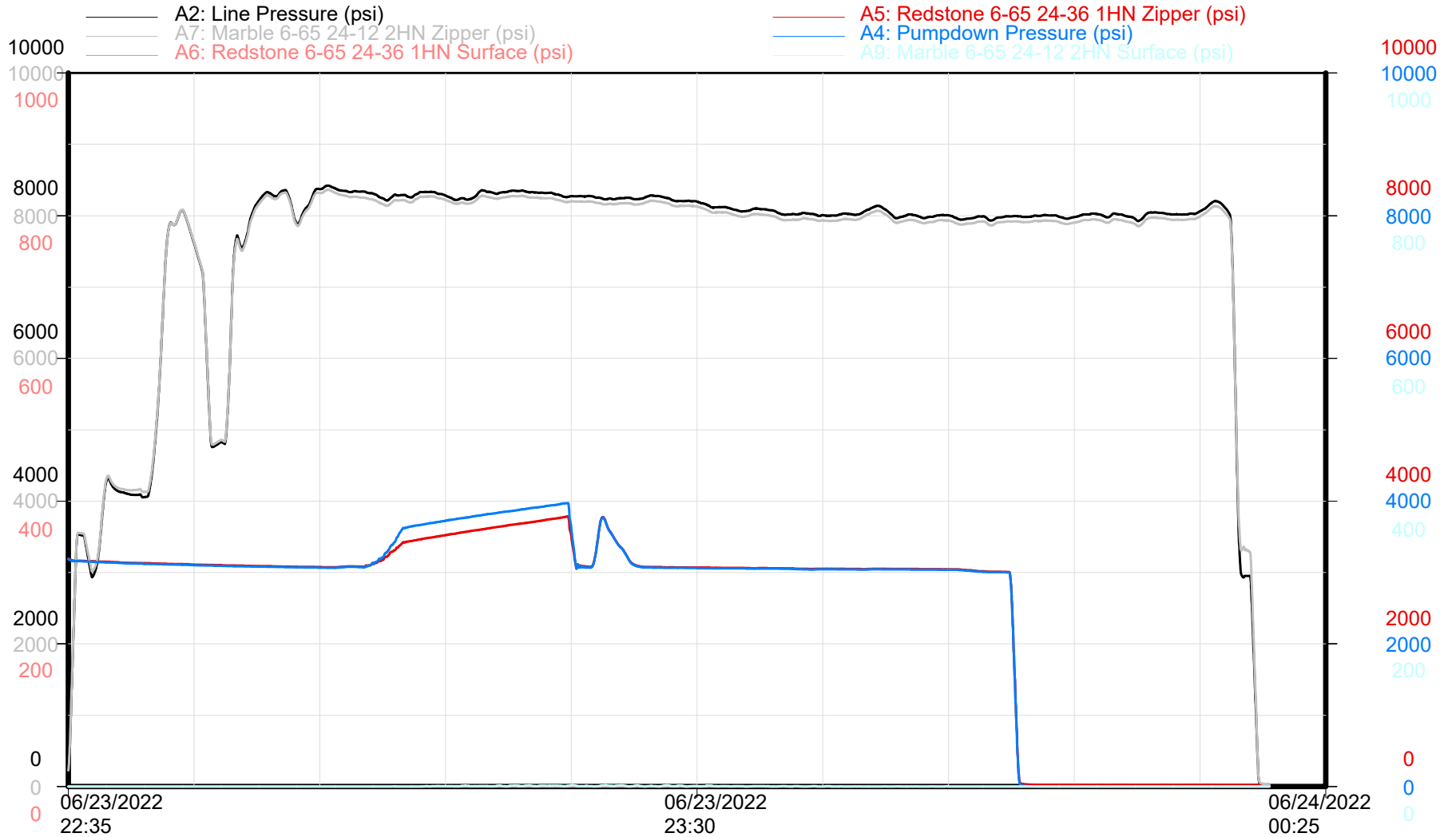
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 31 of 60



Zipper Pressures

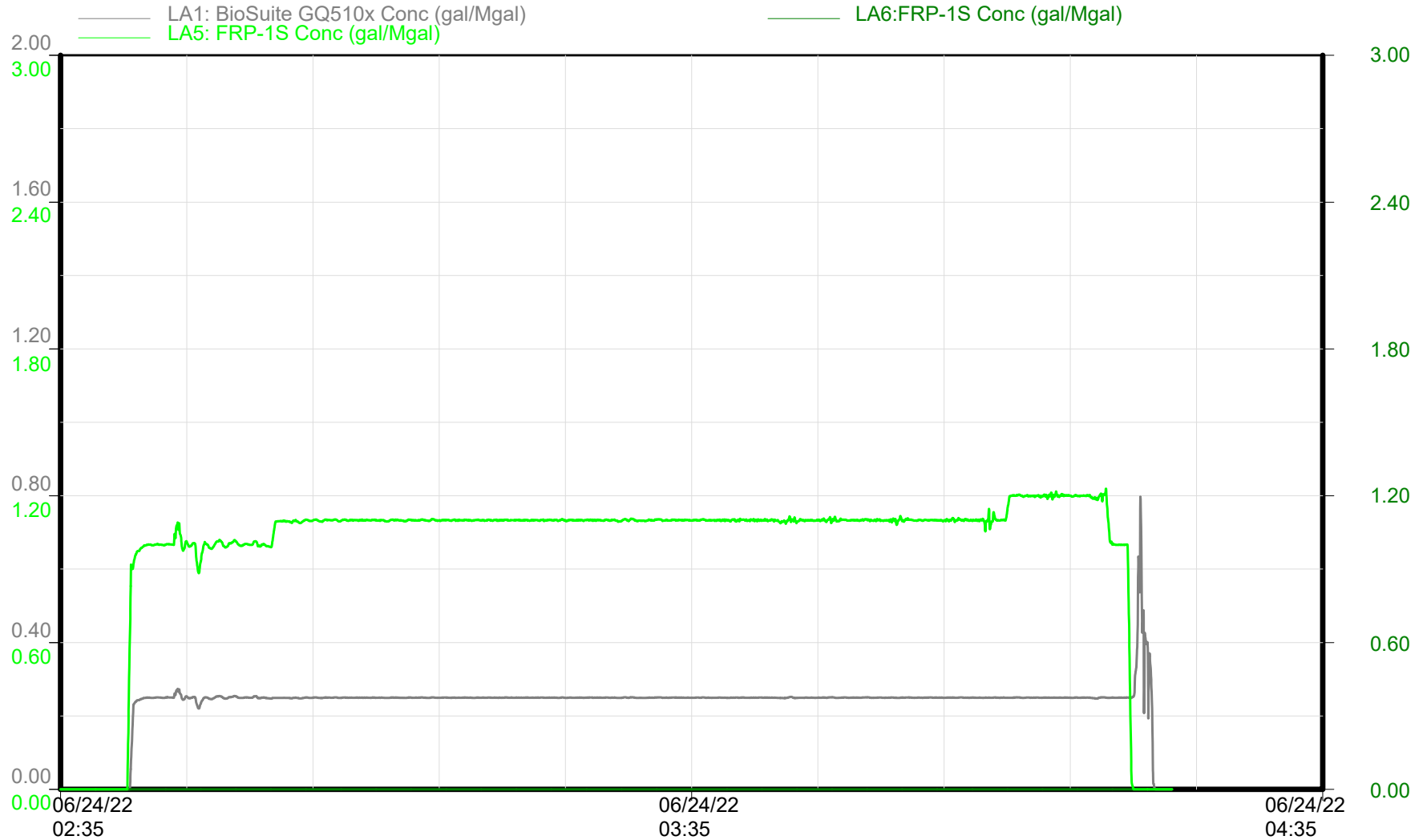
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

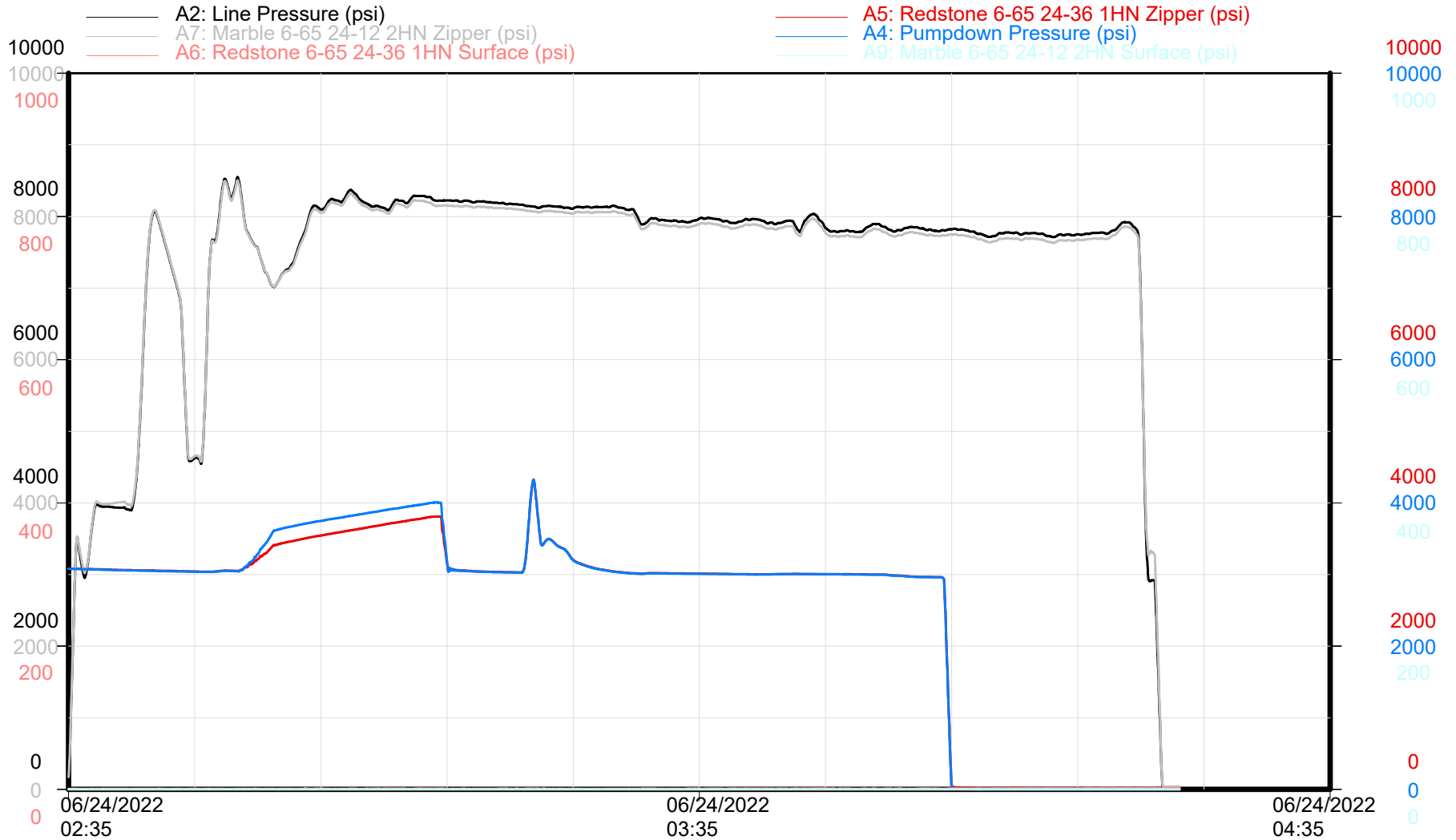
Niobrara - Stage 32 of 60



Chemical Additives

Time

Republic Crew



Zipper Pressures

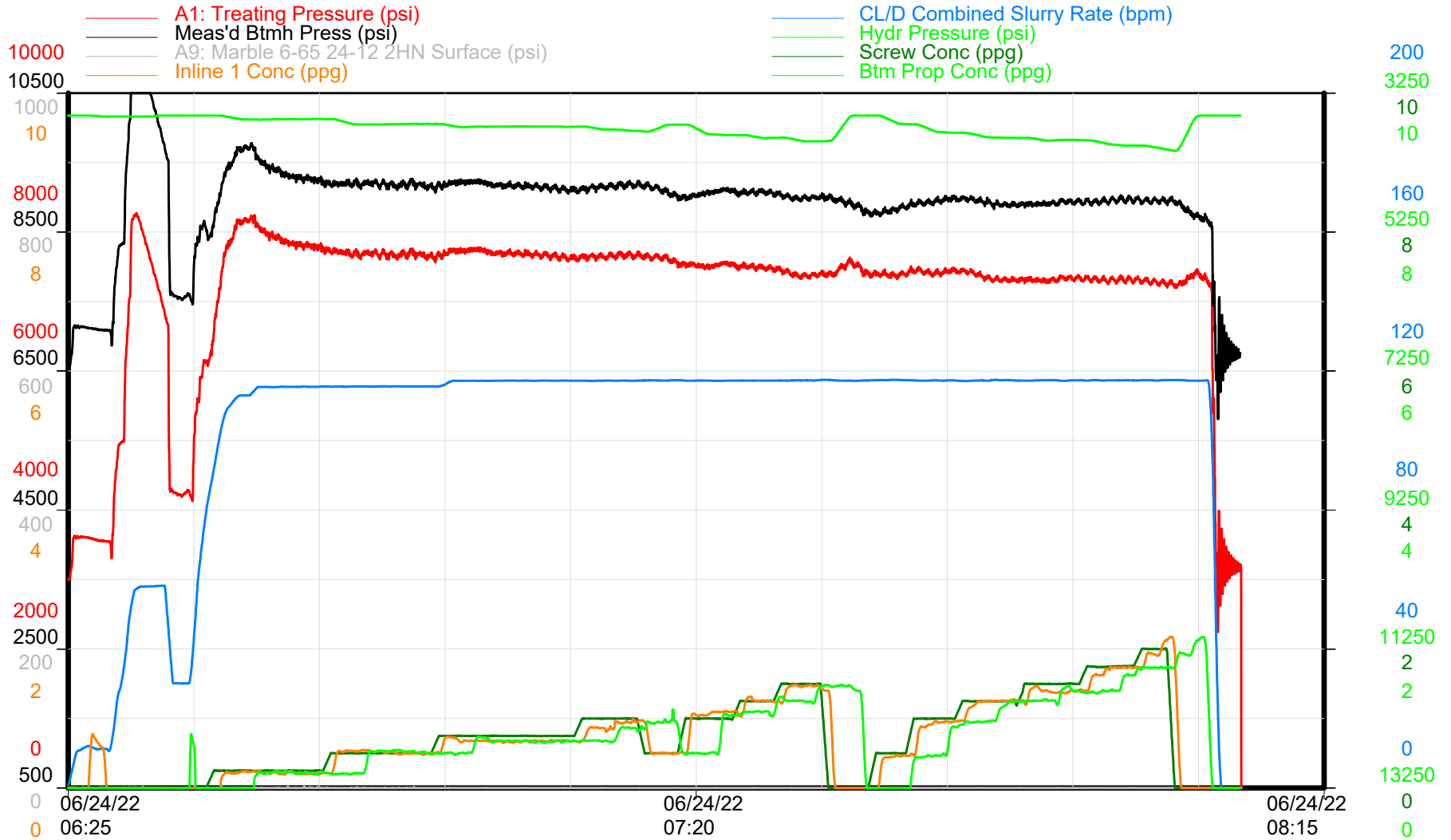
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 33 of 60



Treatment Plot

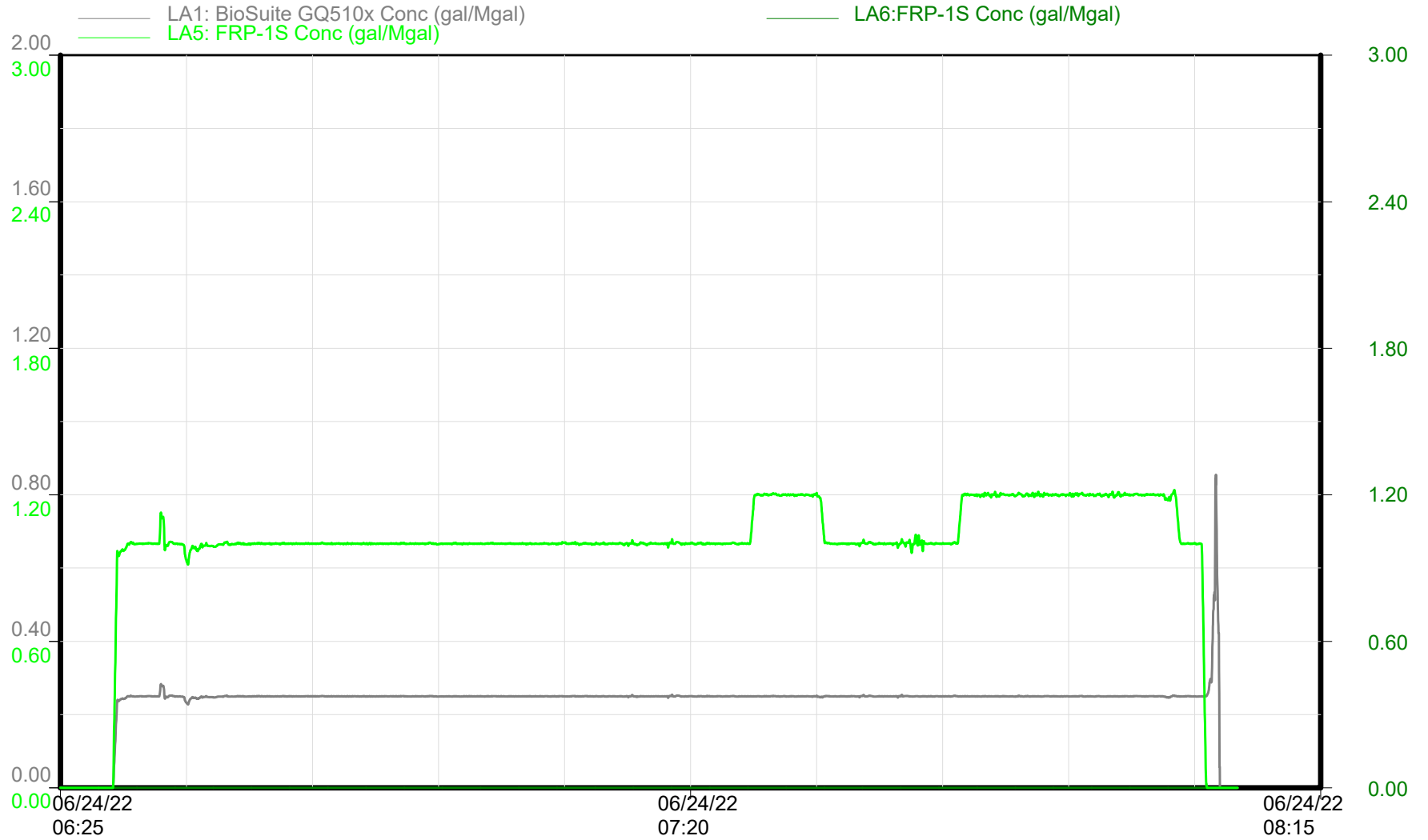
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 33 of 60



Chemical Additives

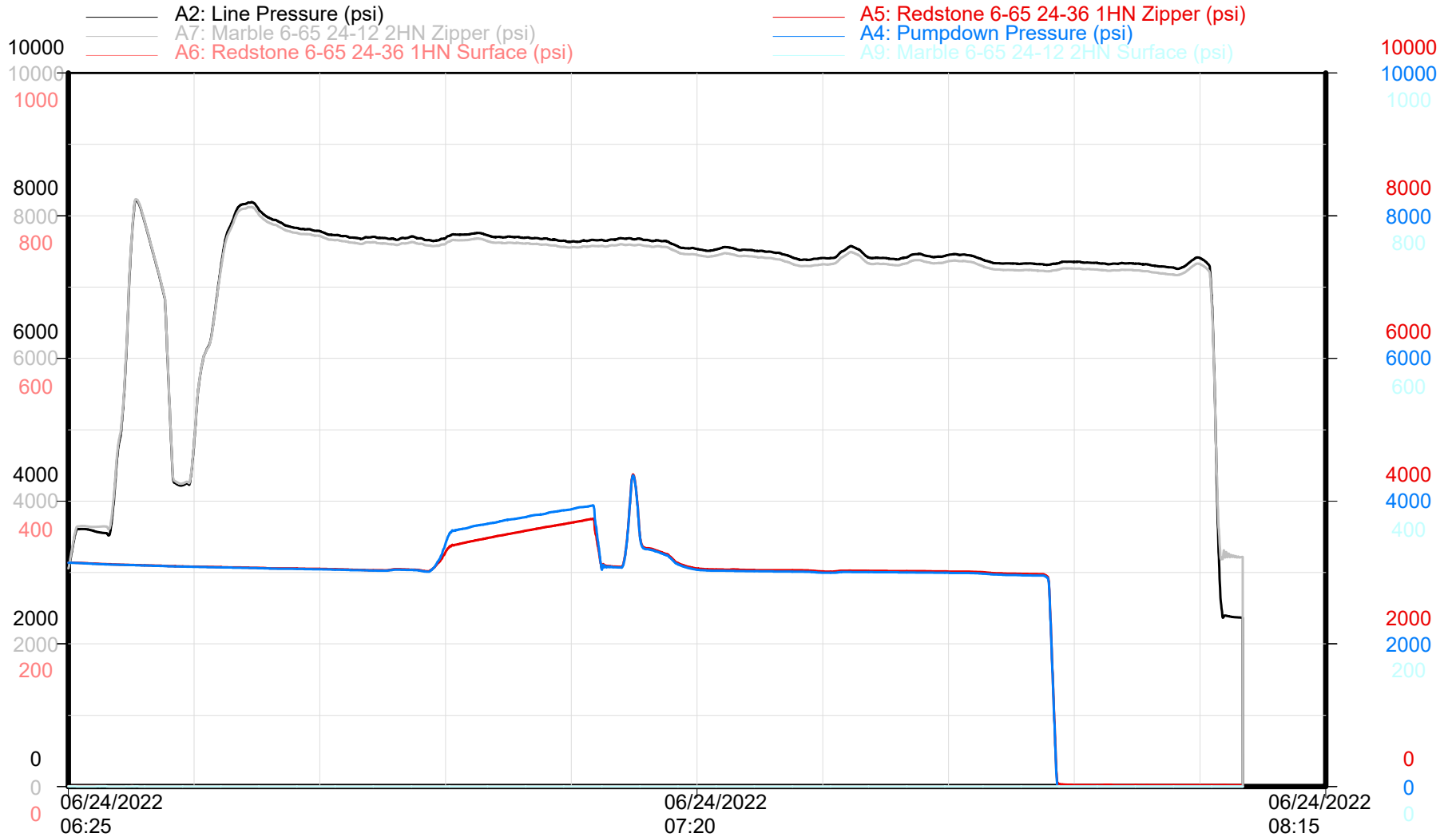
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

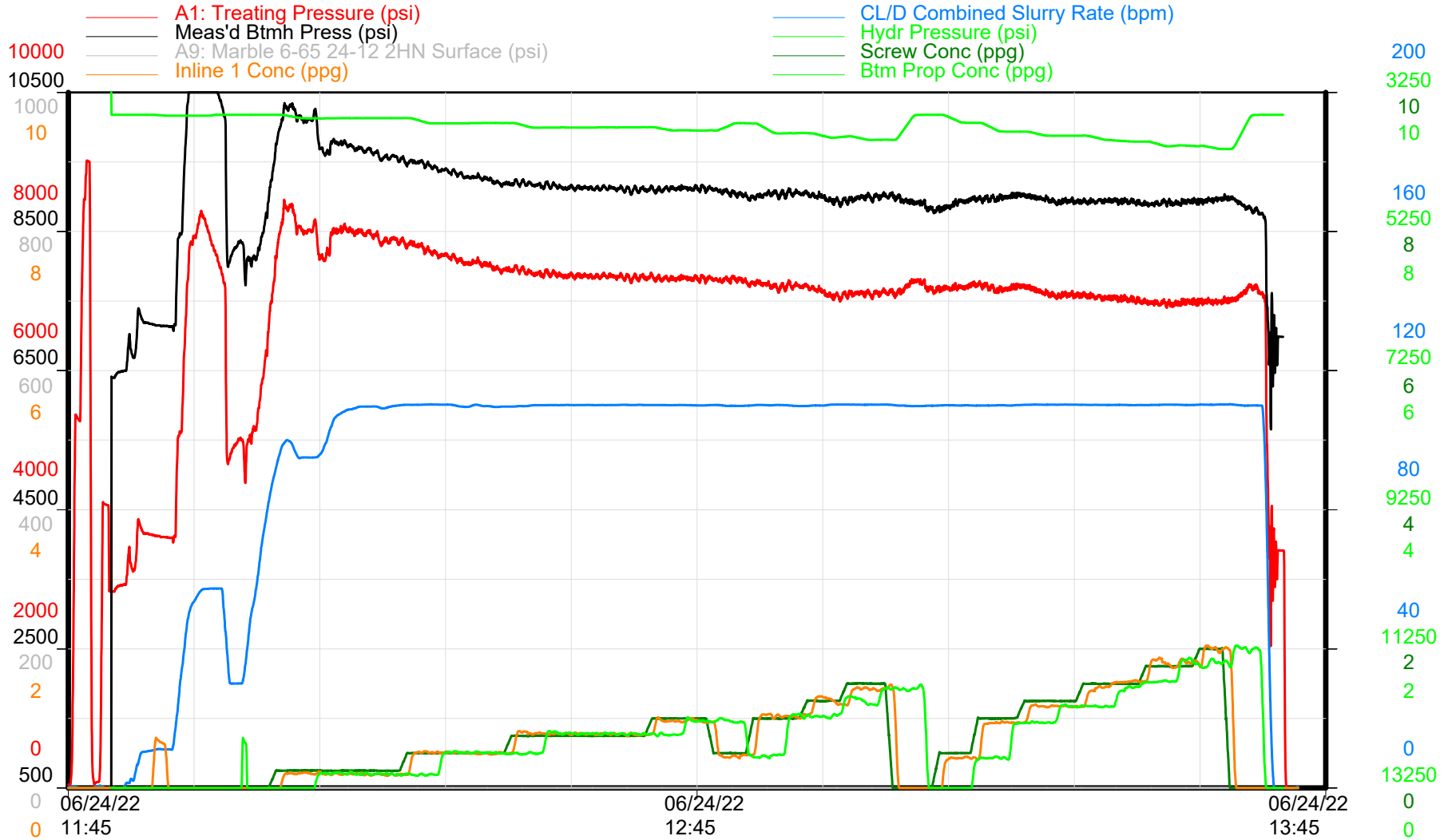
Niobrara - Stage 33 of 60



Zipper Pressures

Time

Republic Crew



Treatment Plot

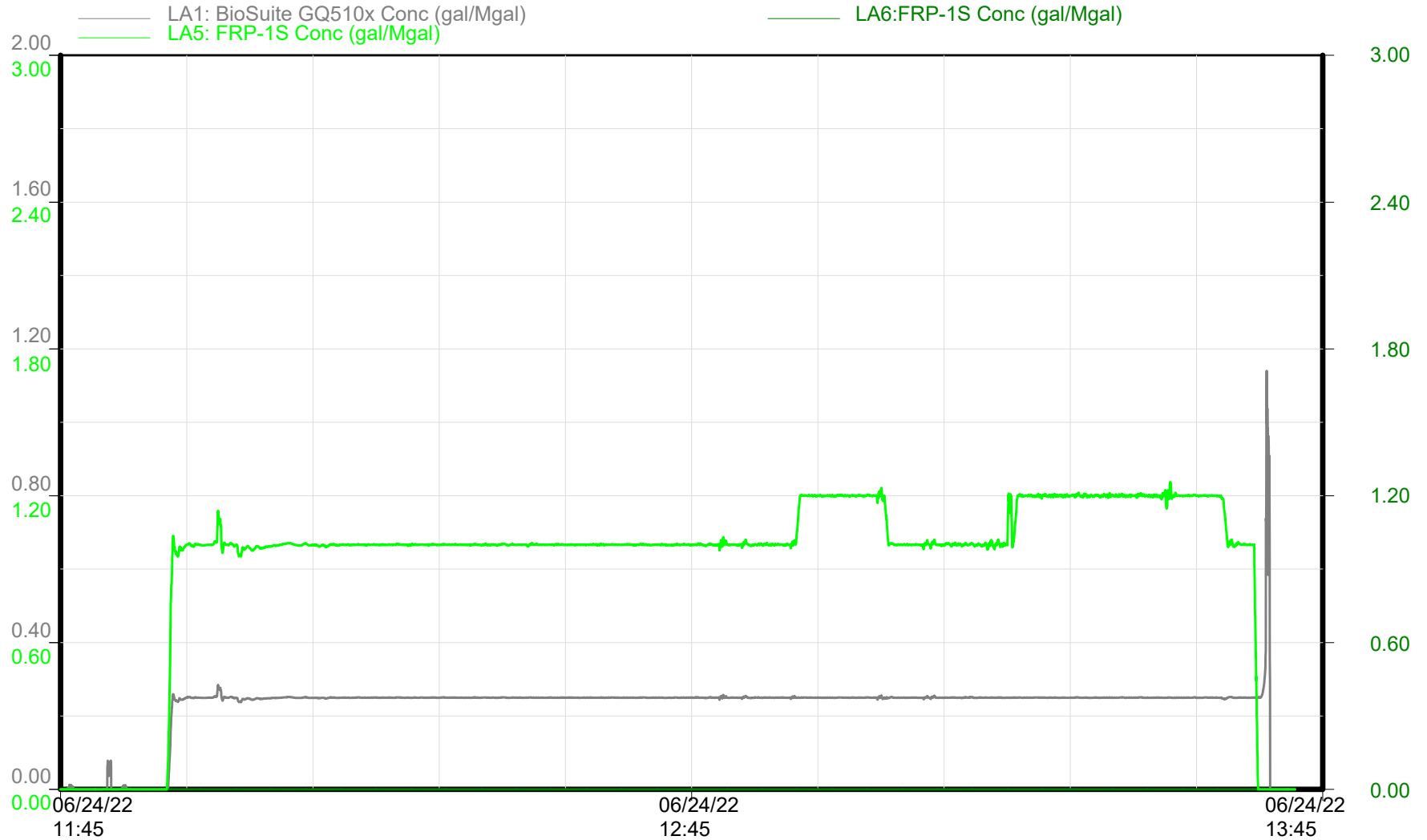
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

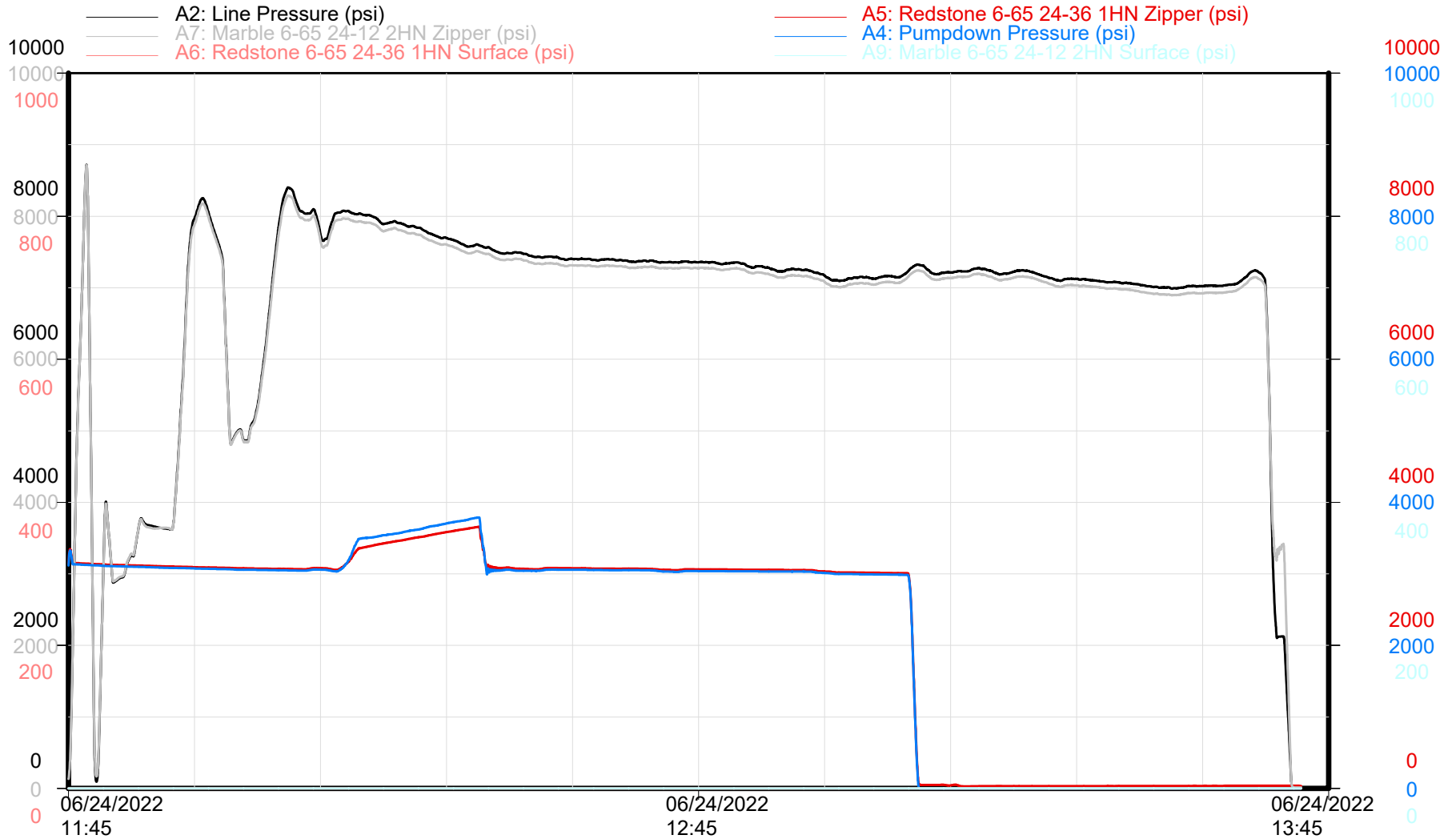
Niobrara - Stage 34 of 60



Chemical Additives

Time

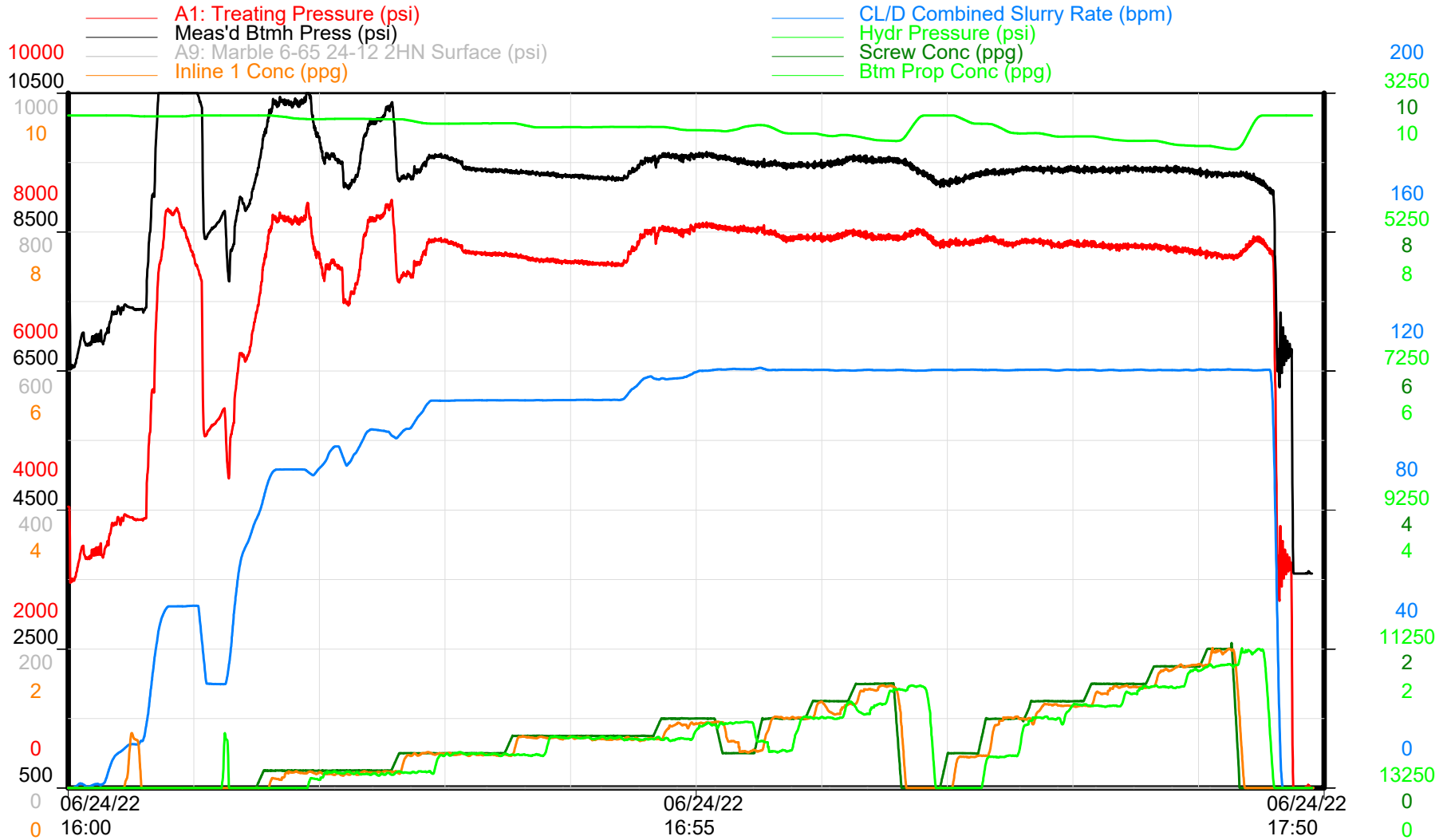
Republic Crew



Zipper Pressures

Time

Republic Crew



Treatment Plot

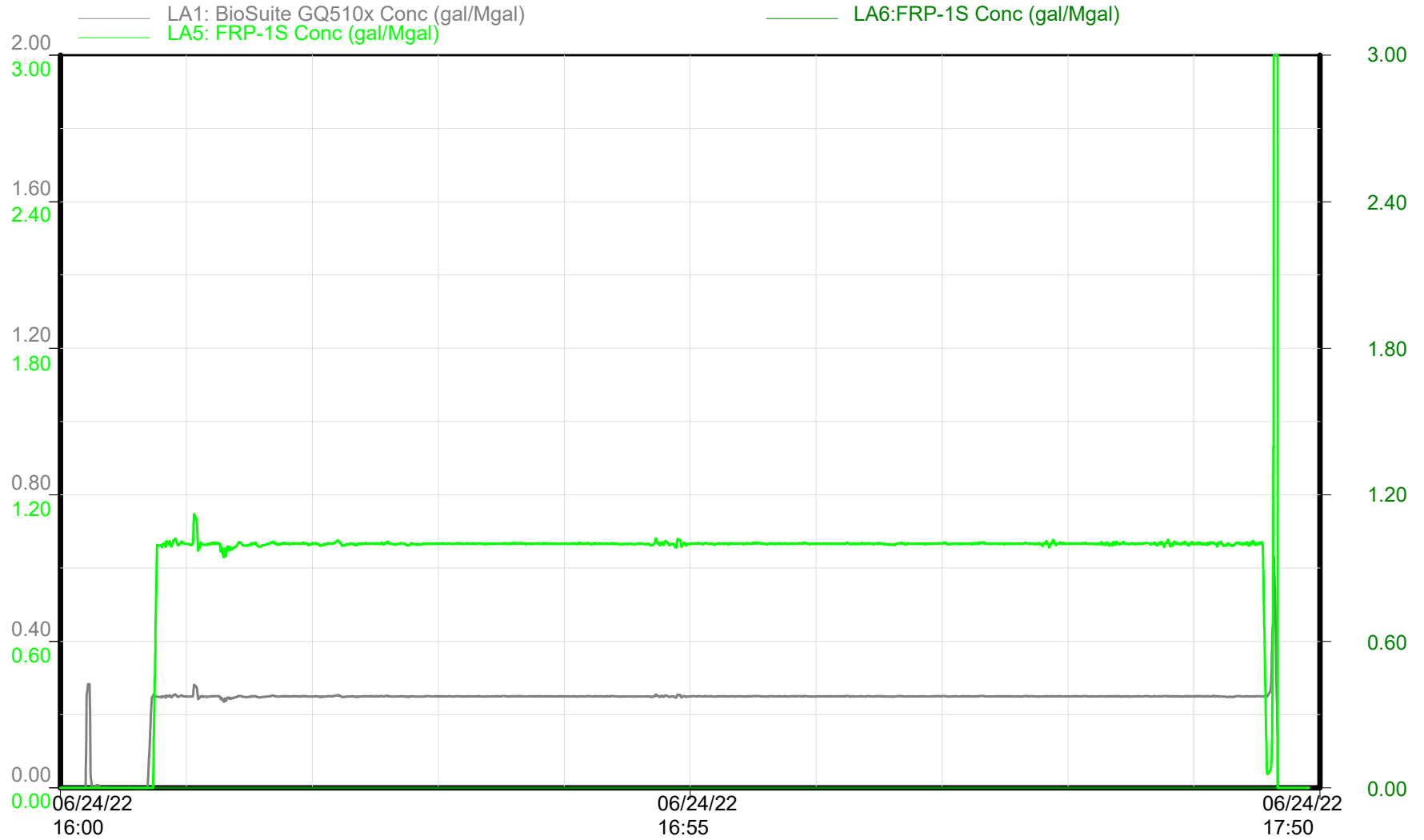
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 35 of 60



Chemical Additives

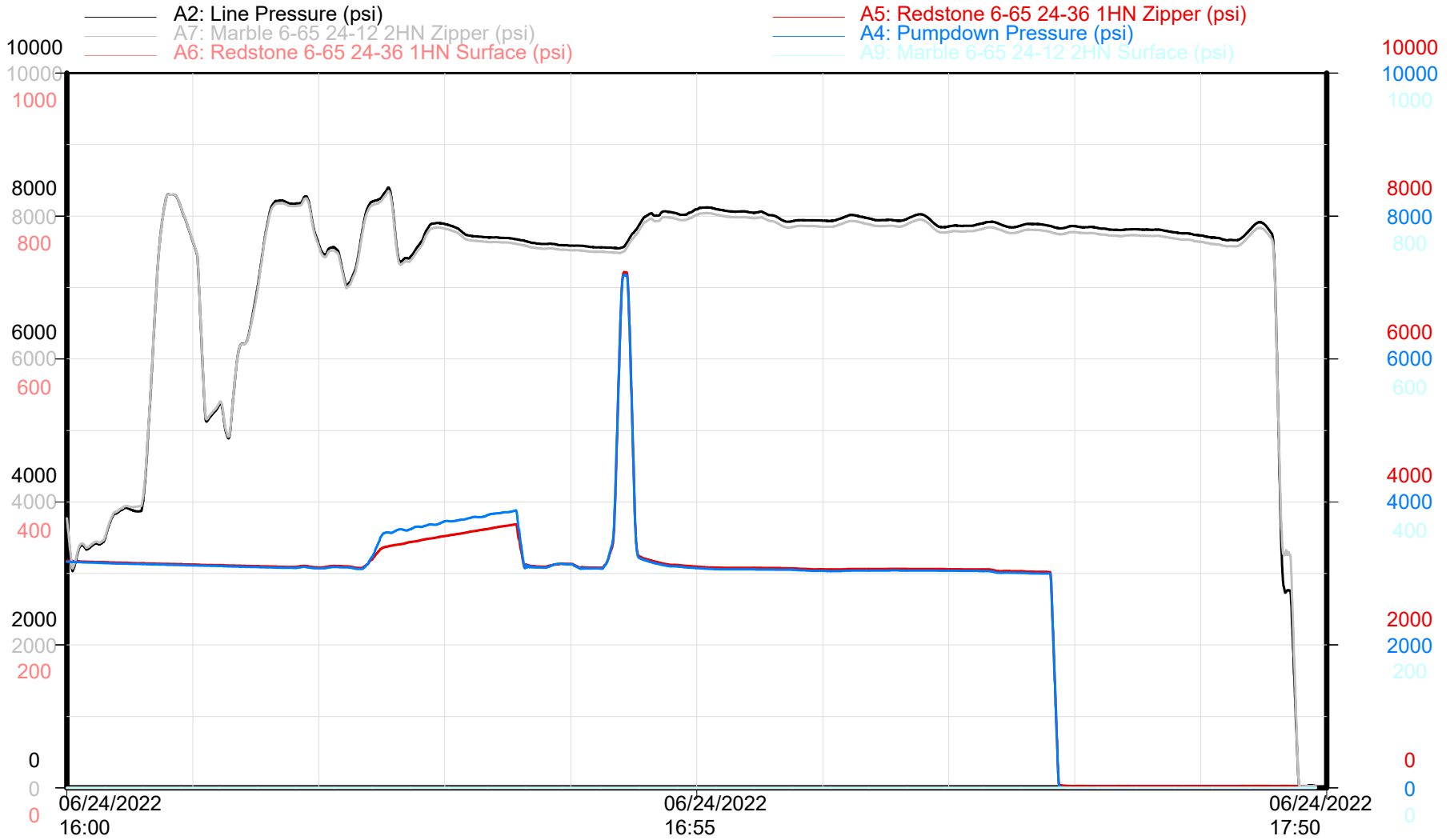
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 35 of 60



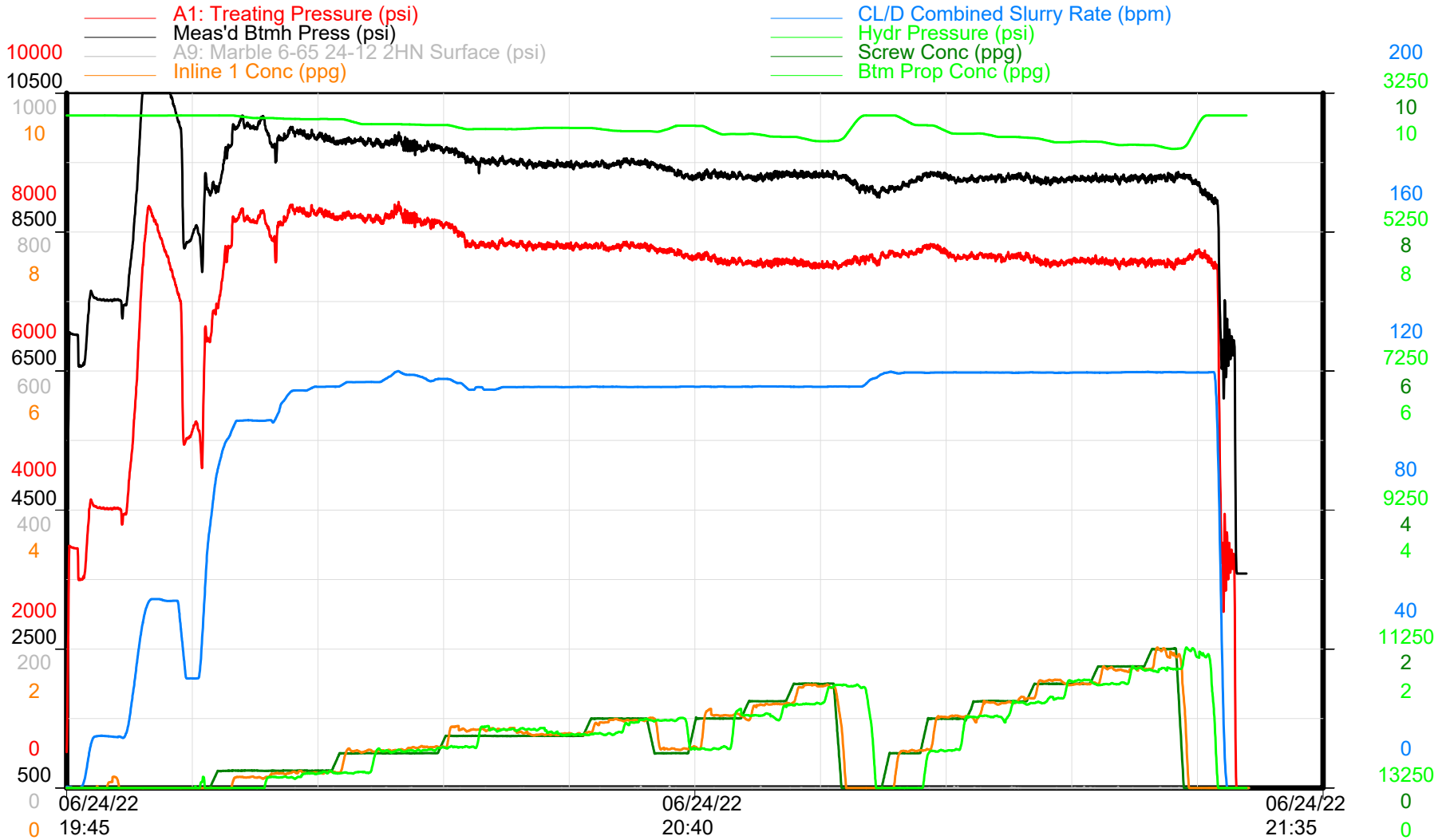
Zipper Pressures

Time

Republic Crew

GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 36 of 60



Treatment Plot

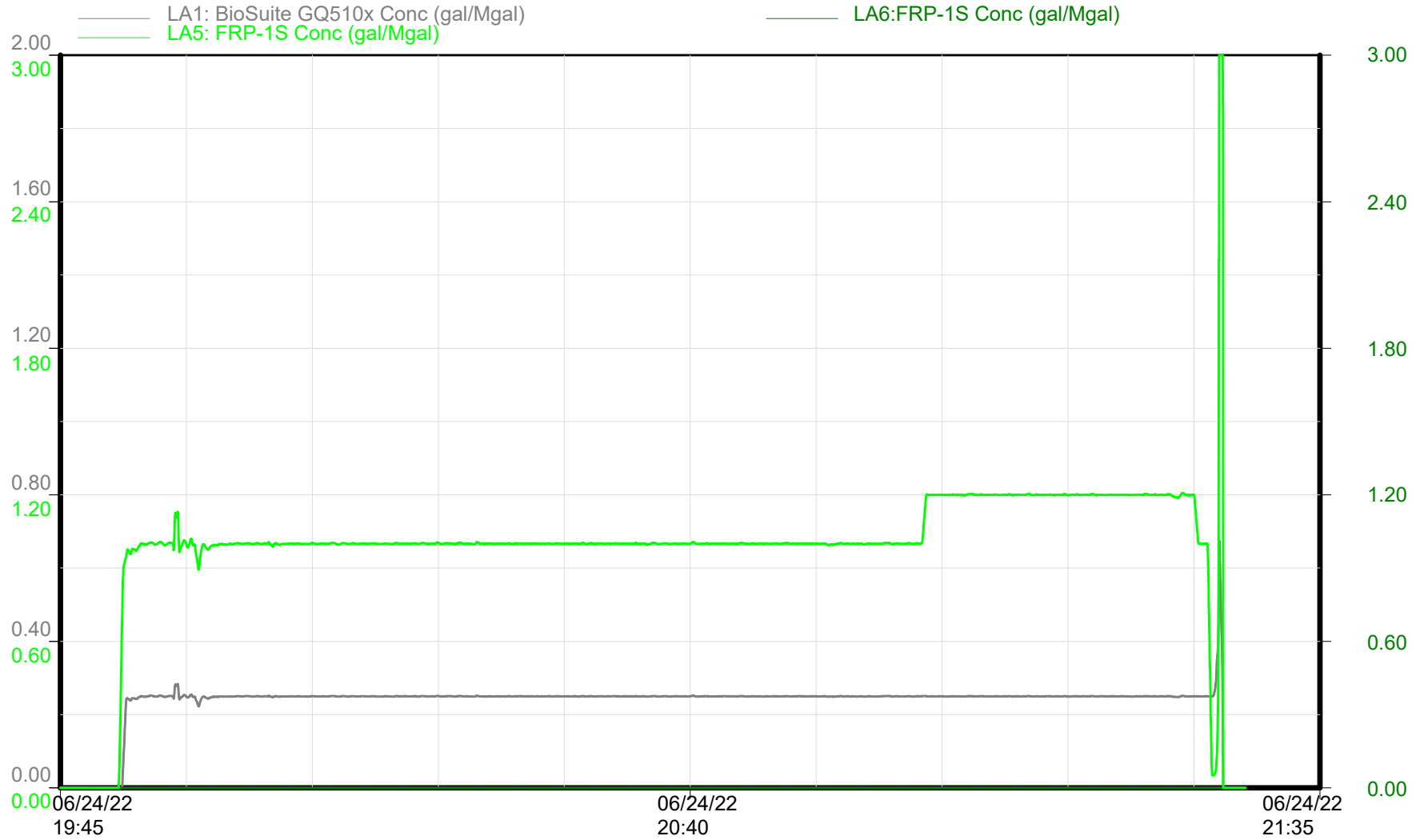
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

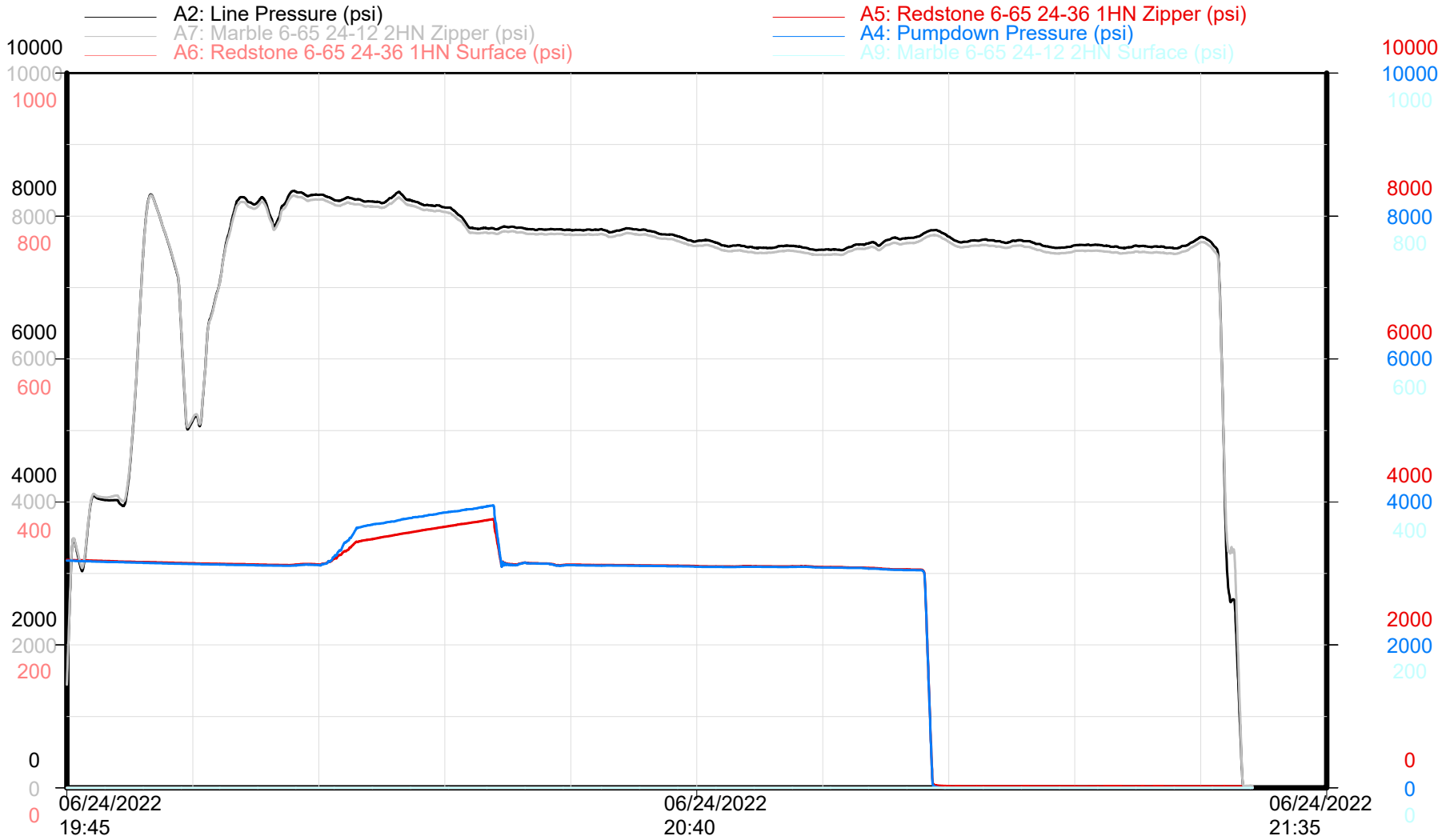
Niobrara - Stage 36 of 60



Chemical Additives

Time

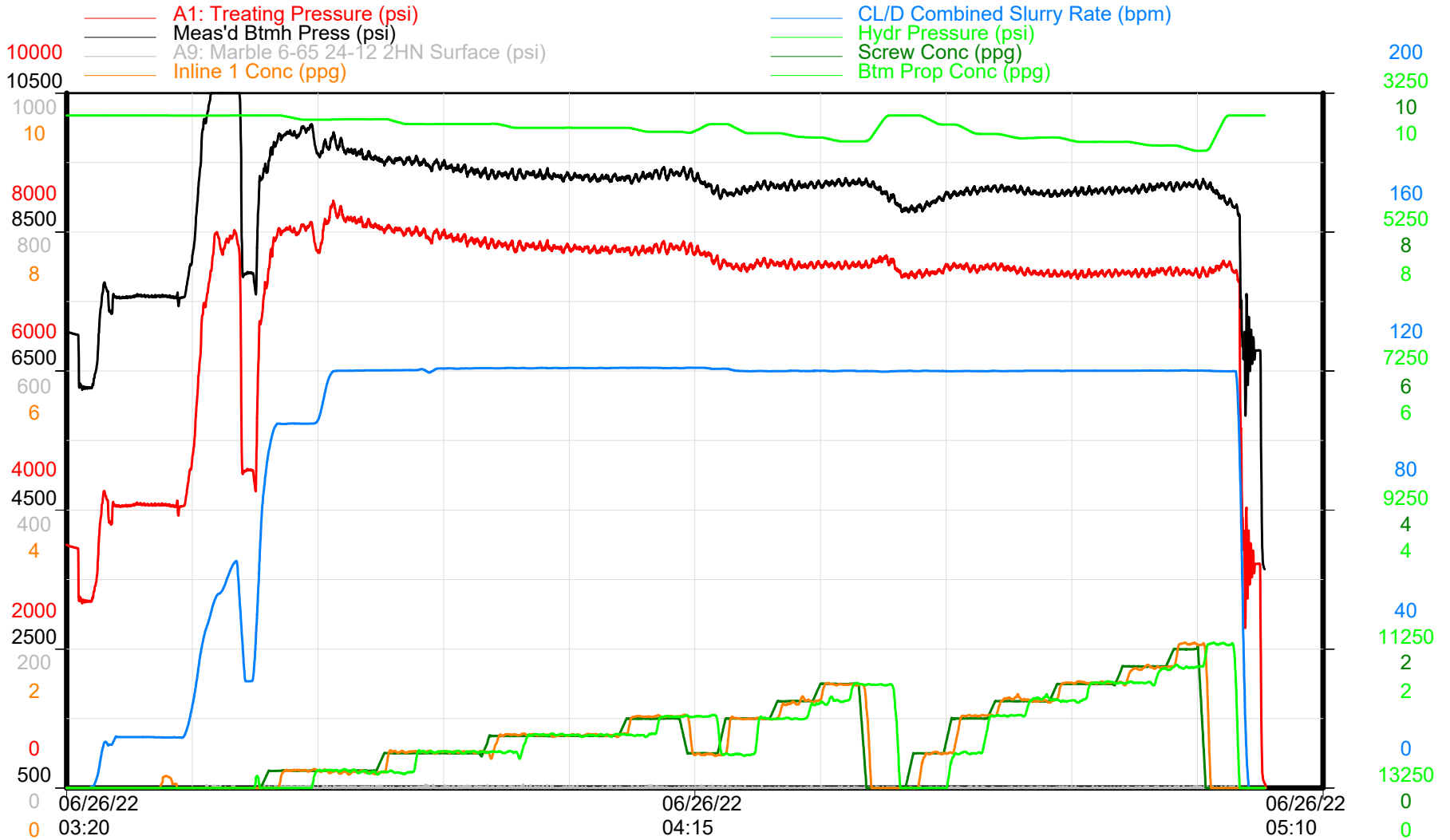
Republic Crew



Zipper Pressures

Time

Republic Crew



Treatment Plot

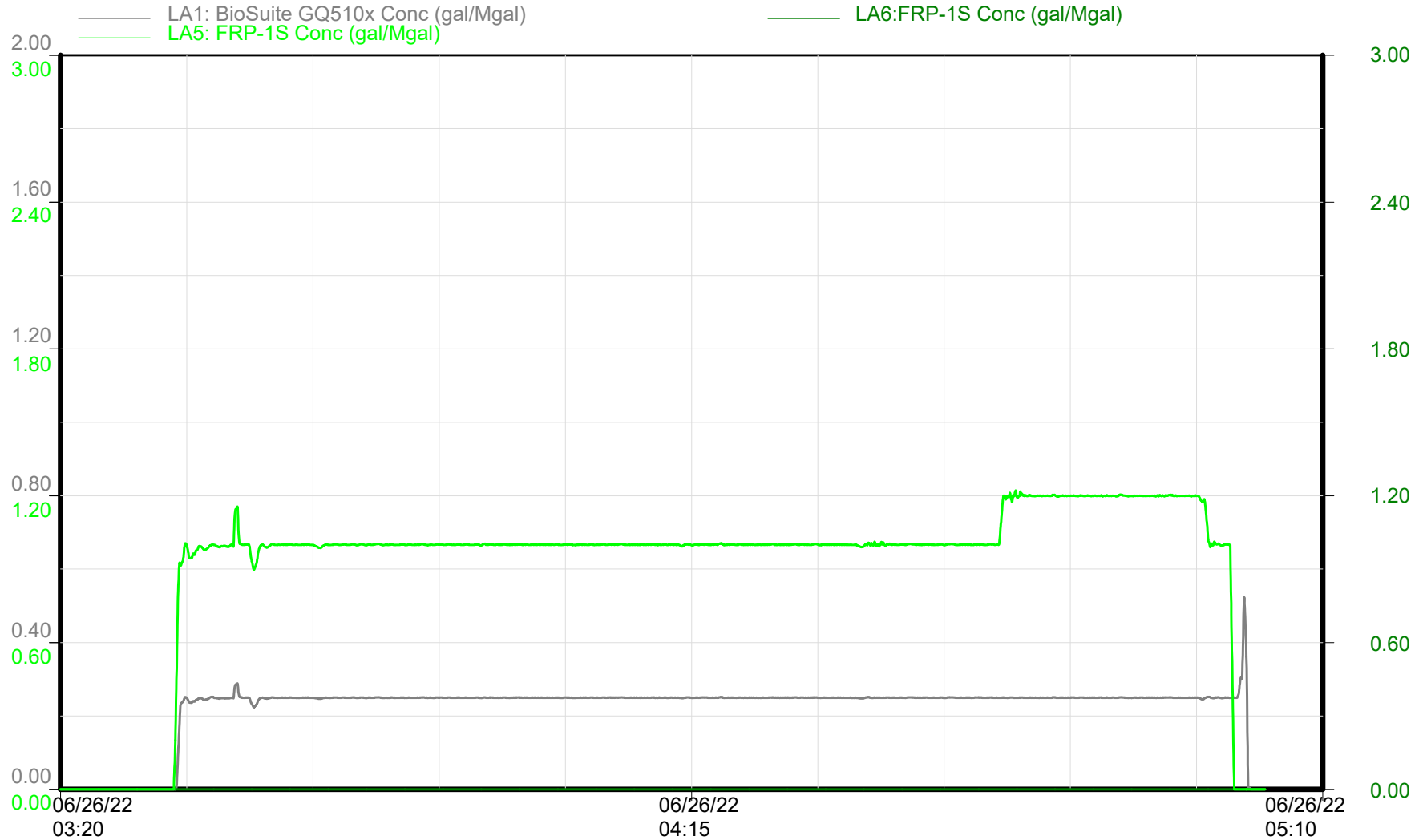
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 37 of 60



Chemical Additives

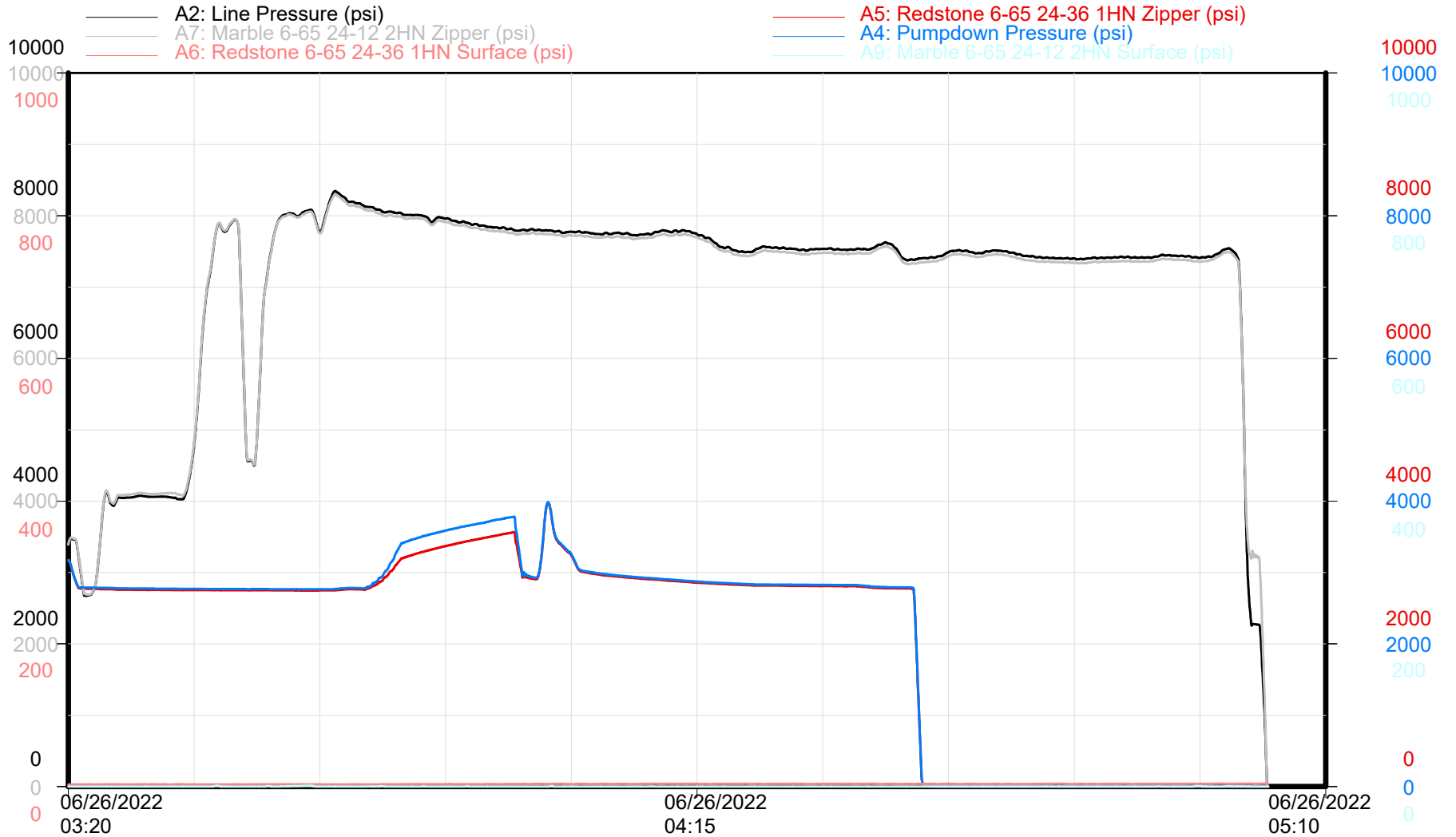
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 37 of 60



Zipper Pressures

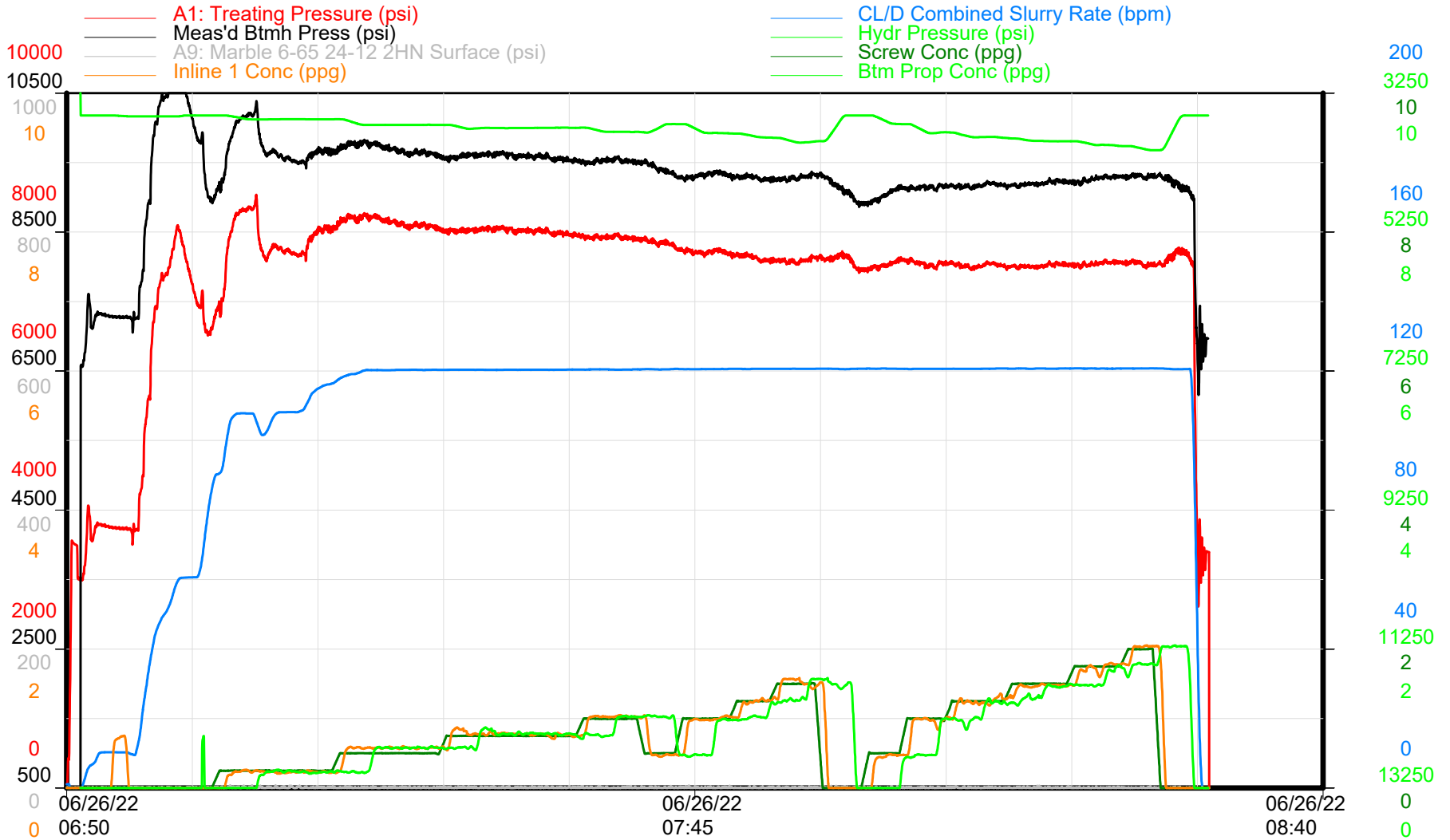
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 38 of 60



Treatment Plot

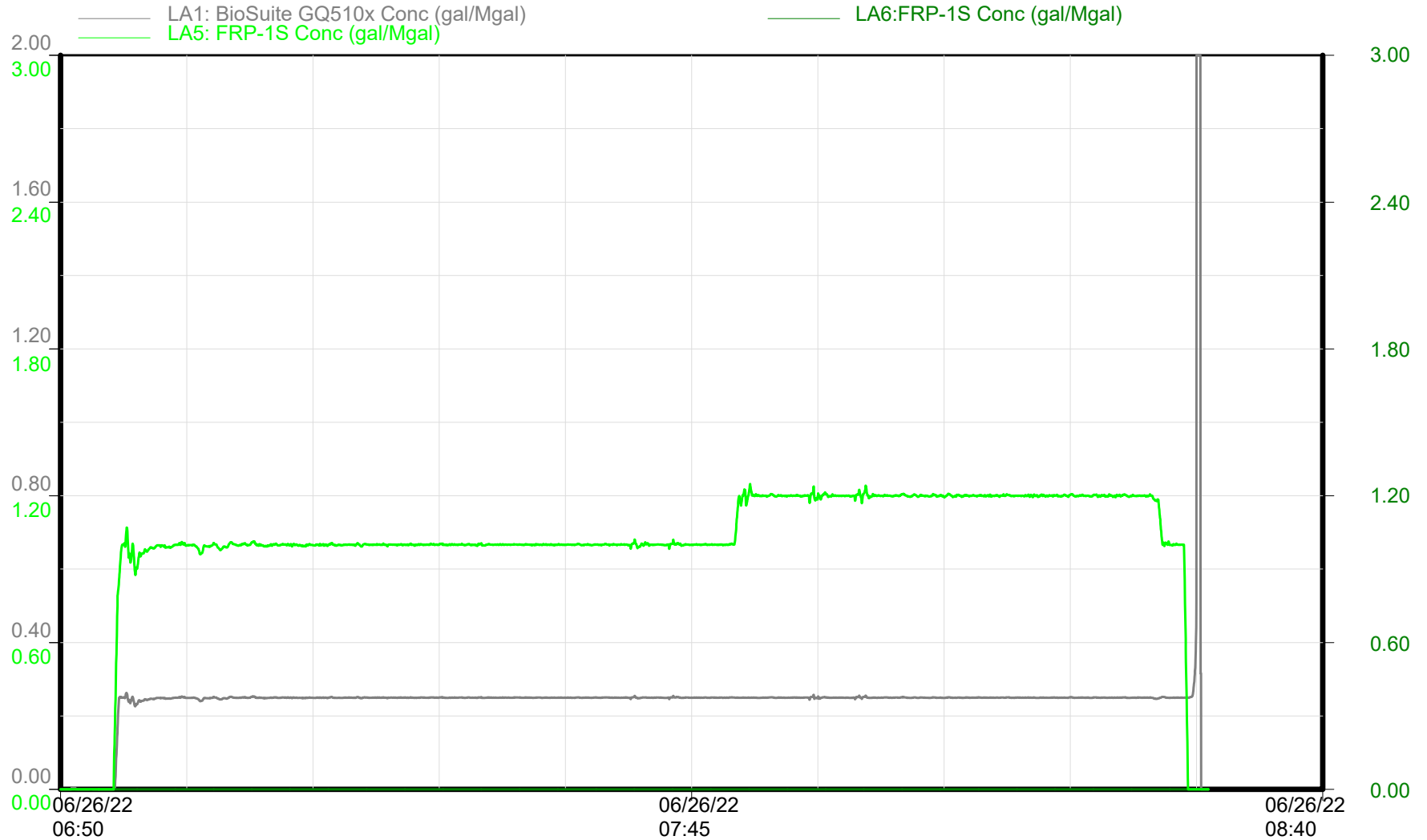
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 38 of 60



Chemical Additives

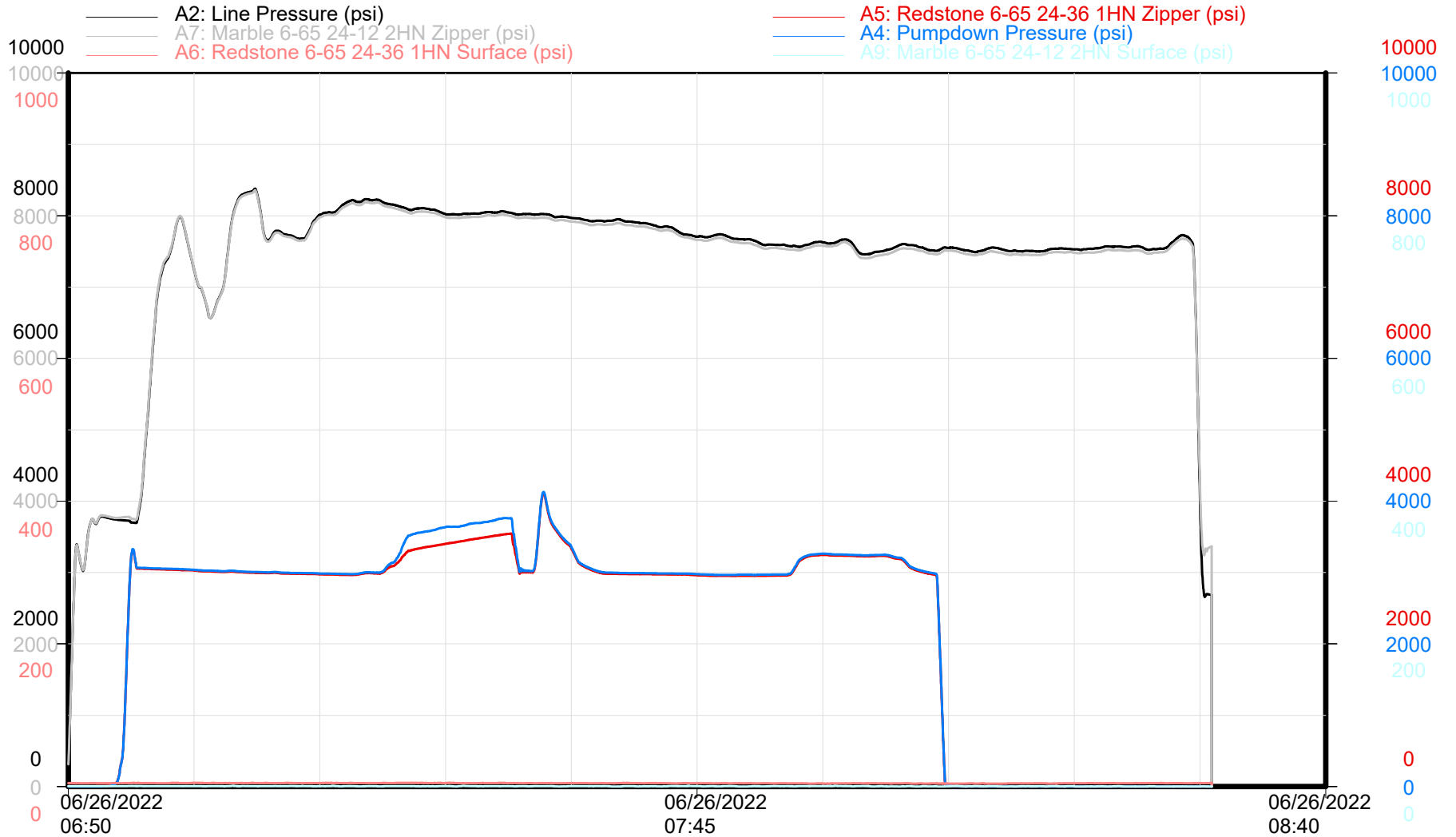
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 38 of 60



Zipper Pressures

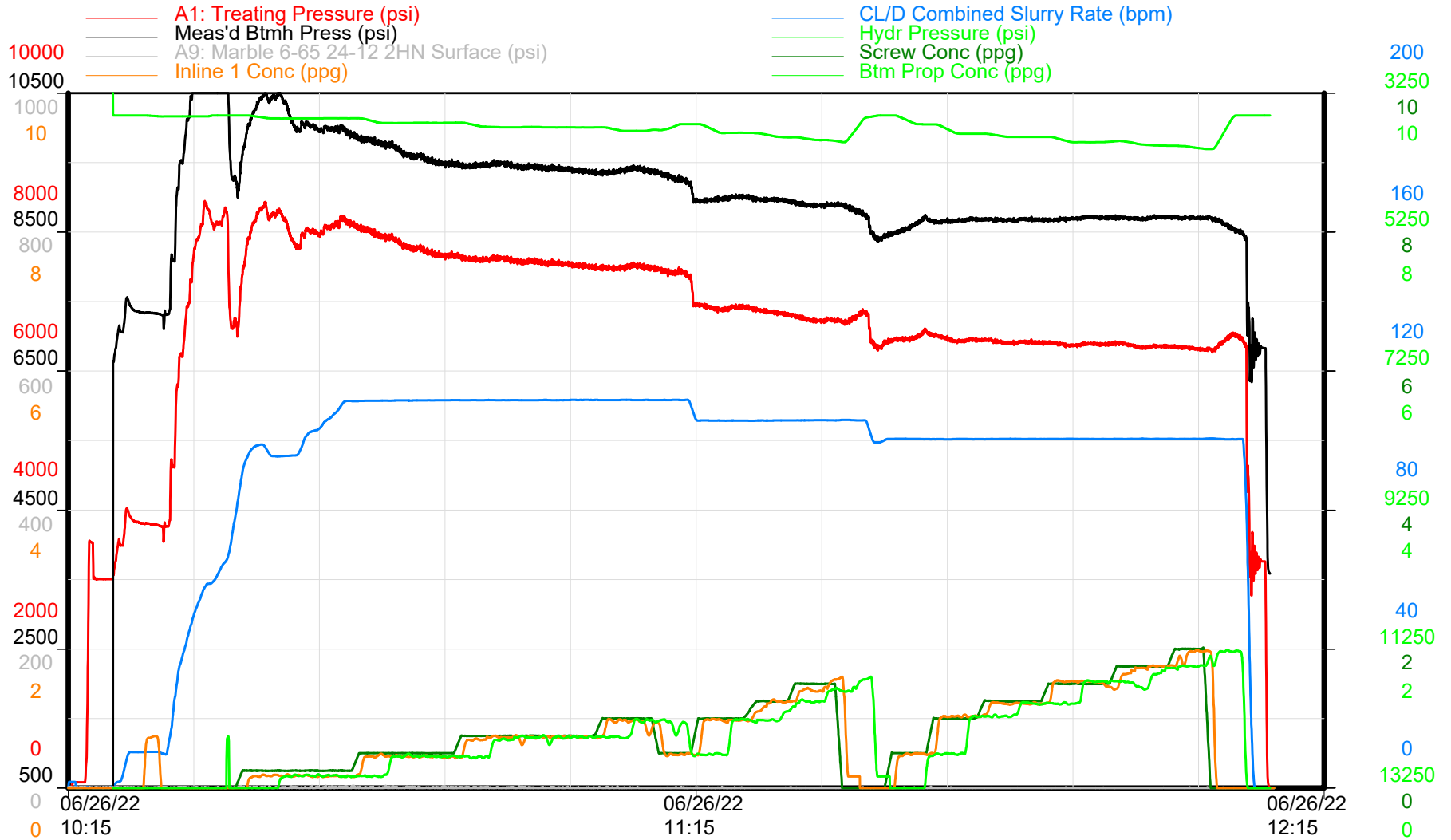
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 39 of 60



Treatment Plot

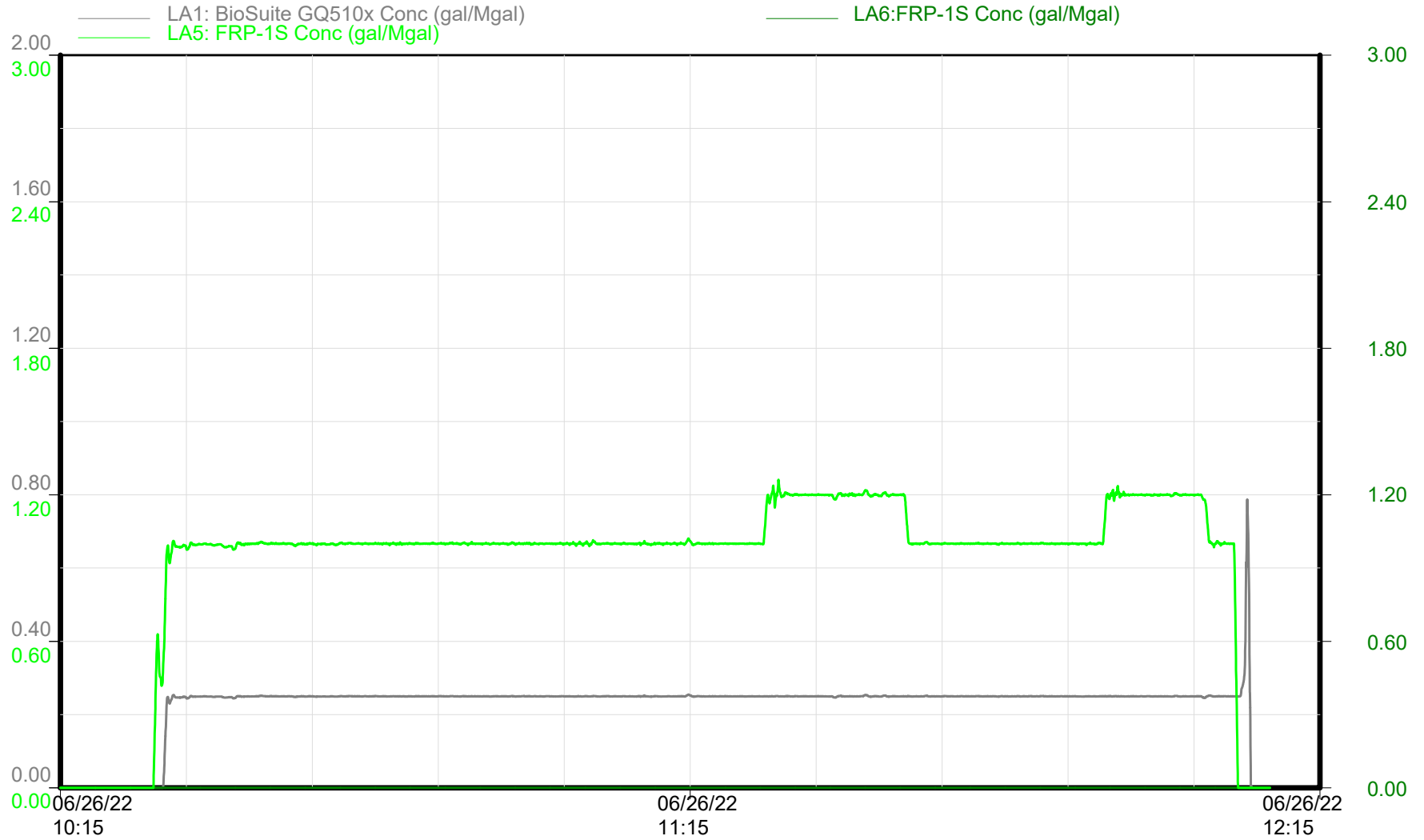
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 39 of 60



Chemical Additives

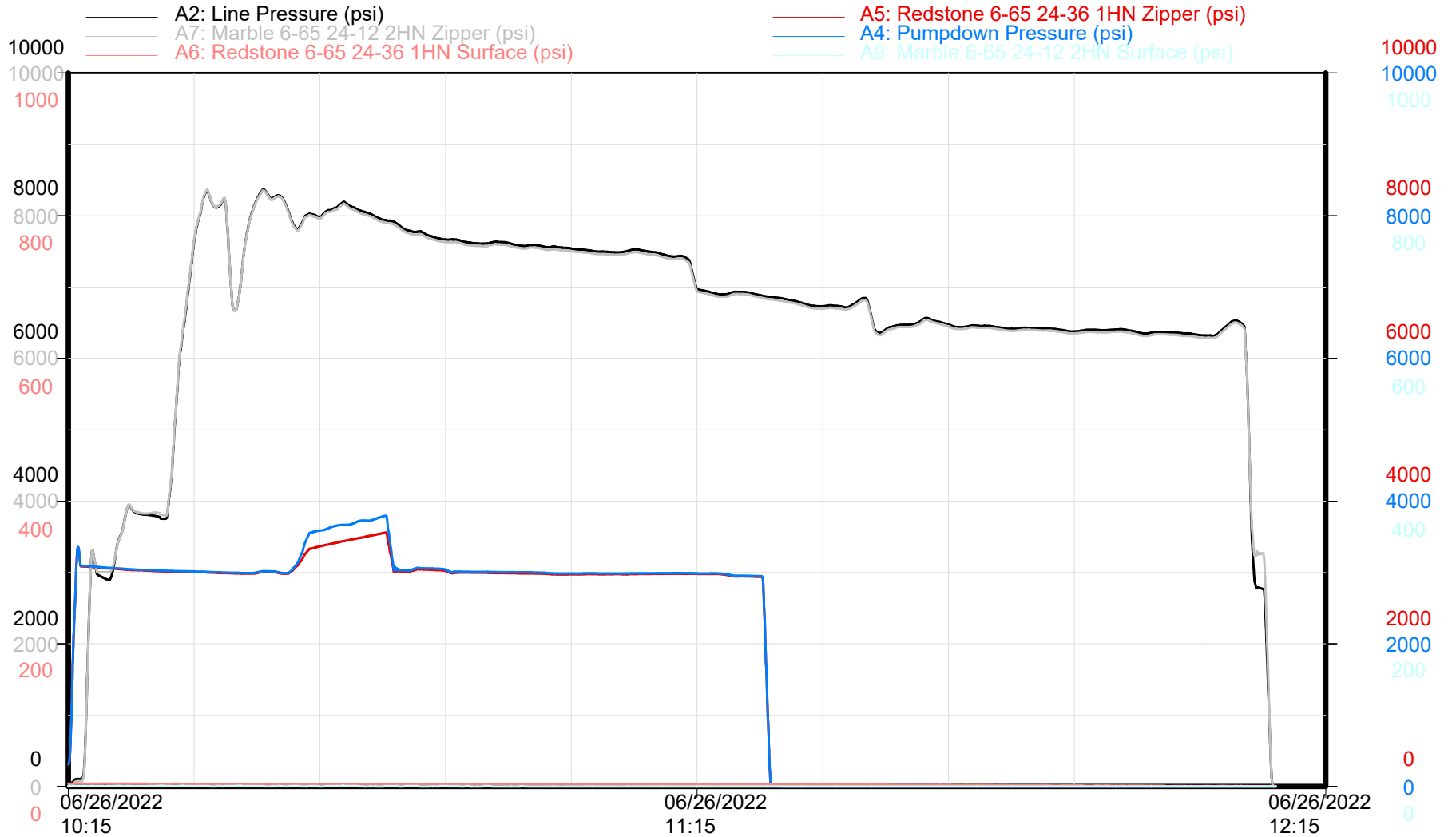
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 39 of 60



Zipper Pressures

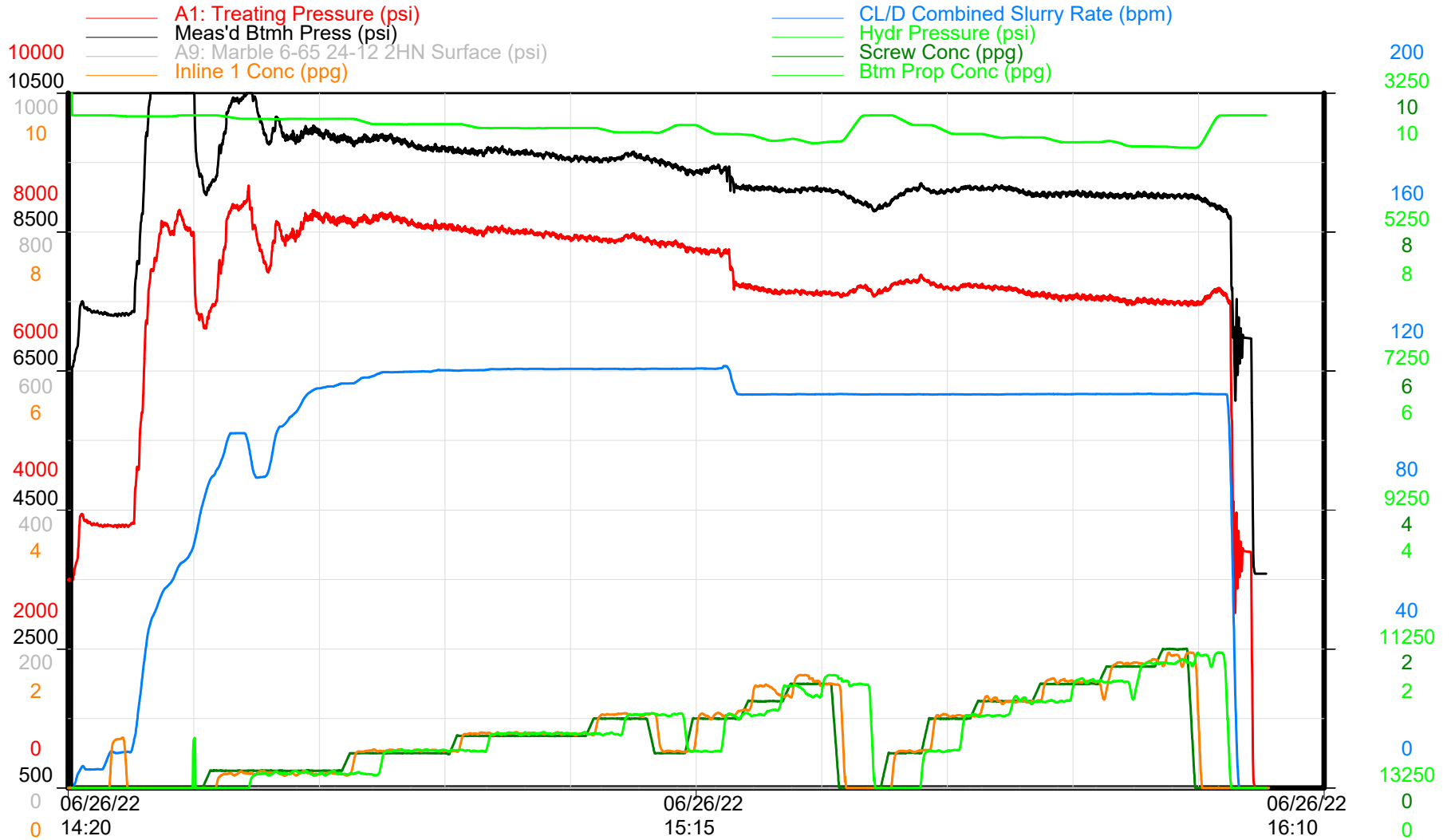
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 40 of 60



Treatment Plot

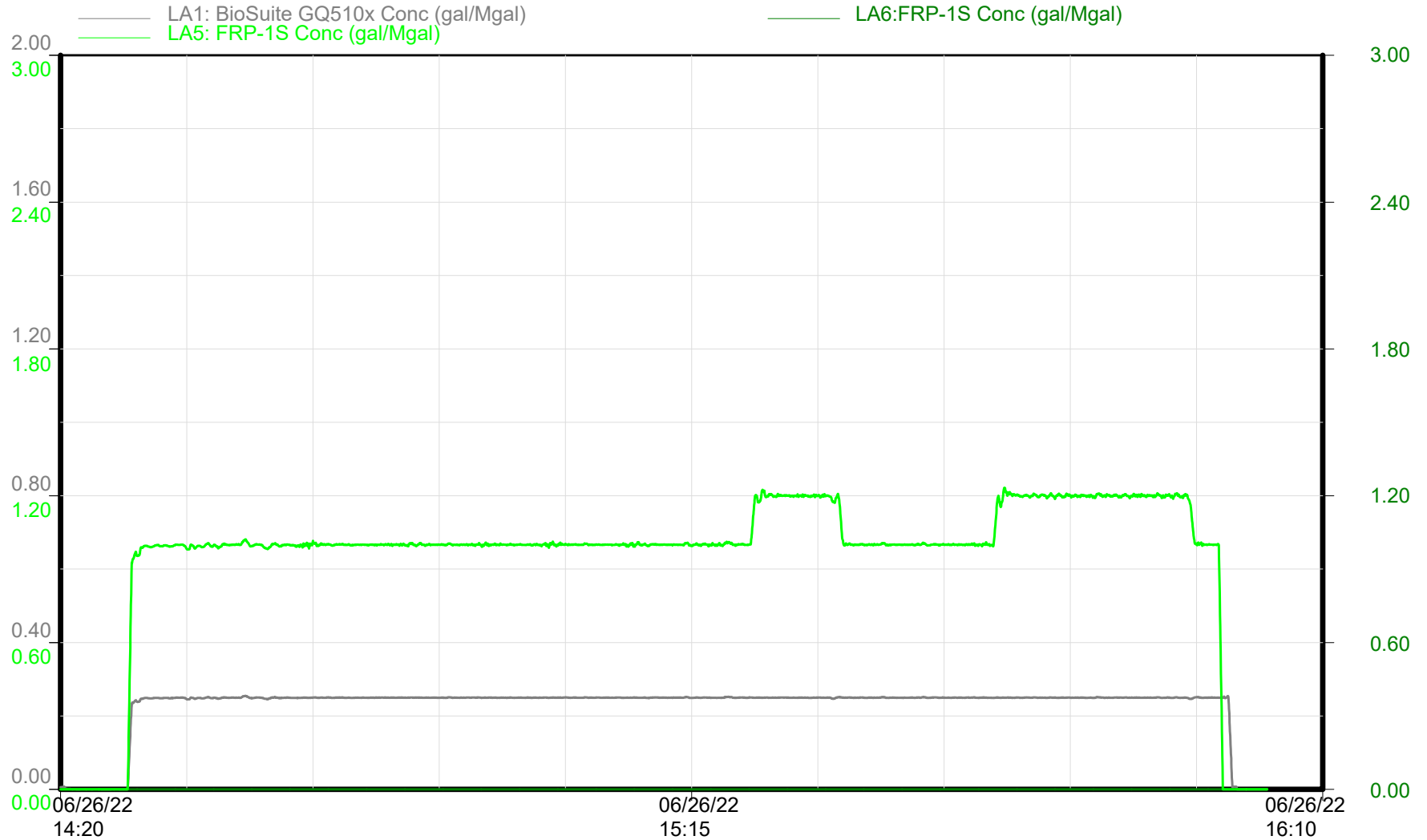
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

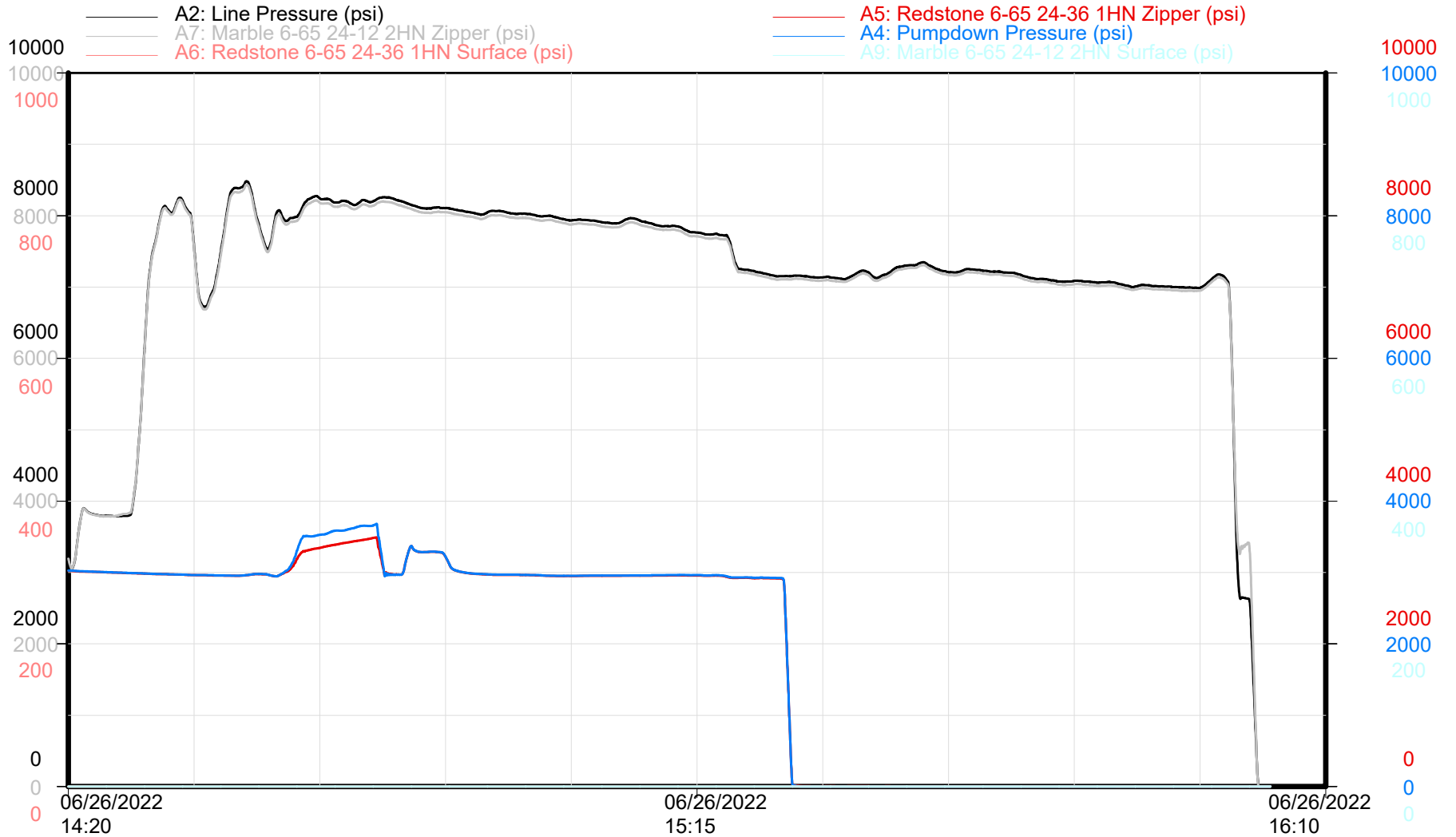
Niobrara - Stage 40 of 60



Chemical Additives

Time

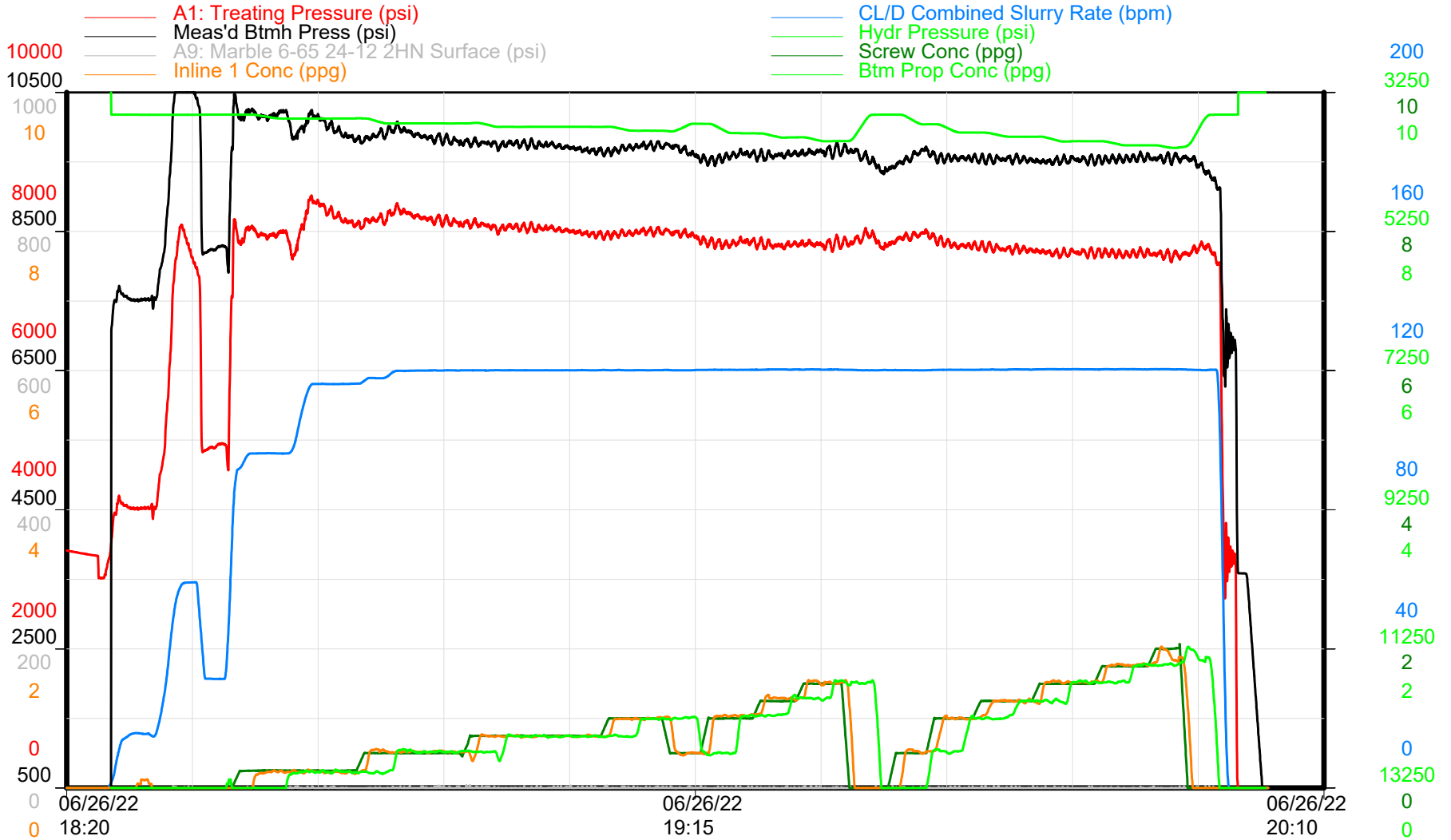
Republic Crew



Zipper Pressures

Time

Republic Crew



Treatment Plot

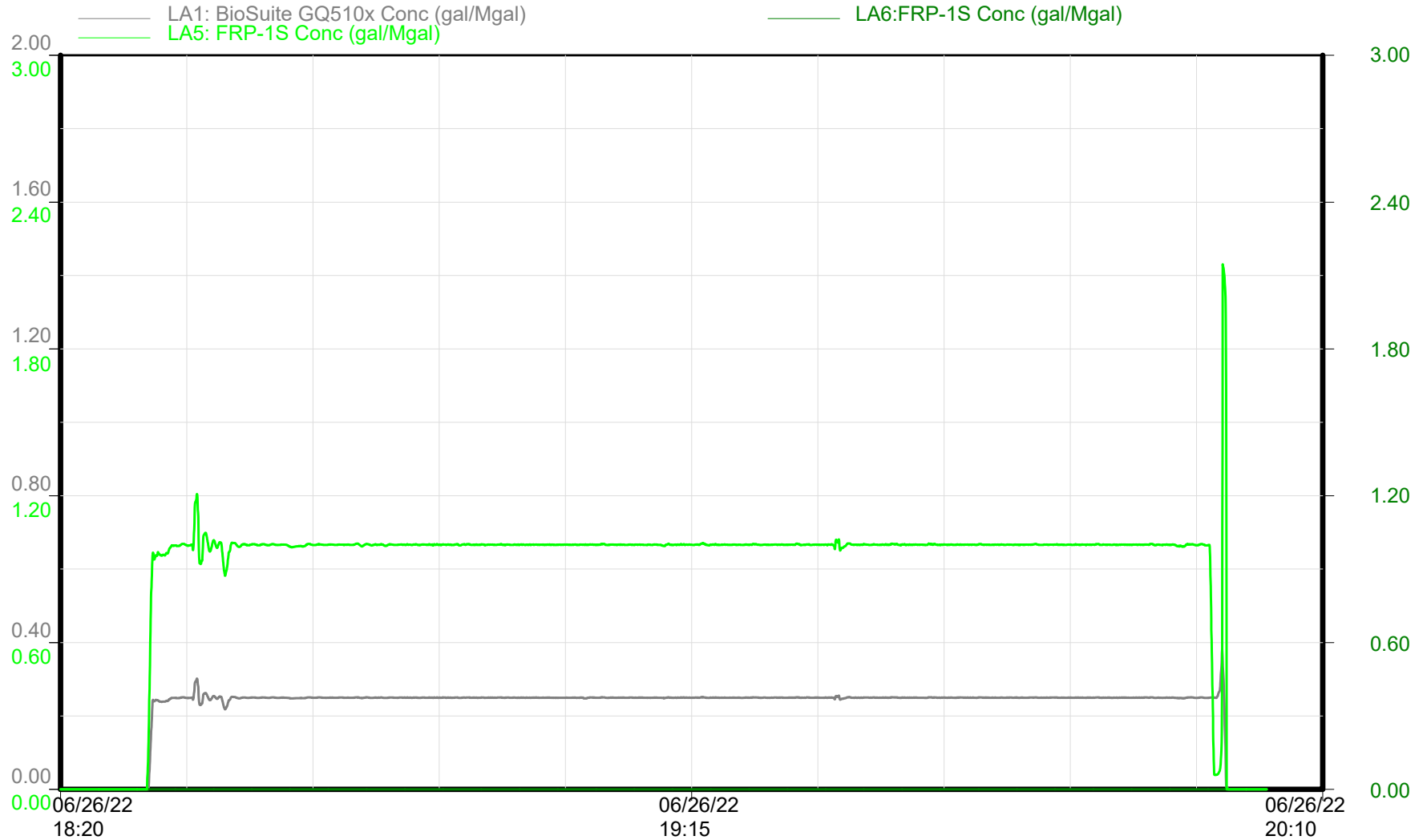
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 41 of 60



Chemical Additives

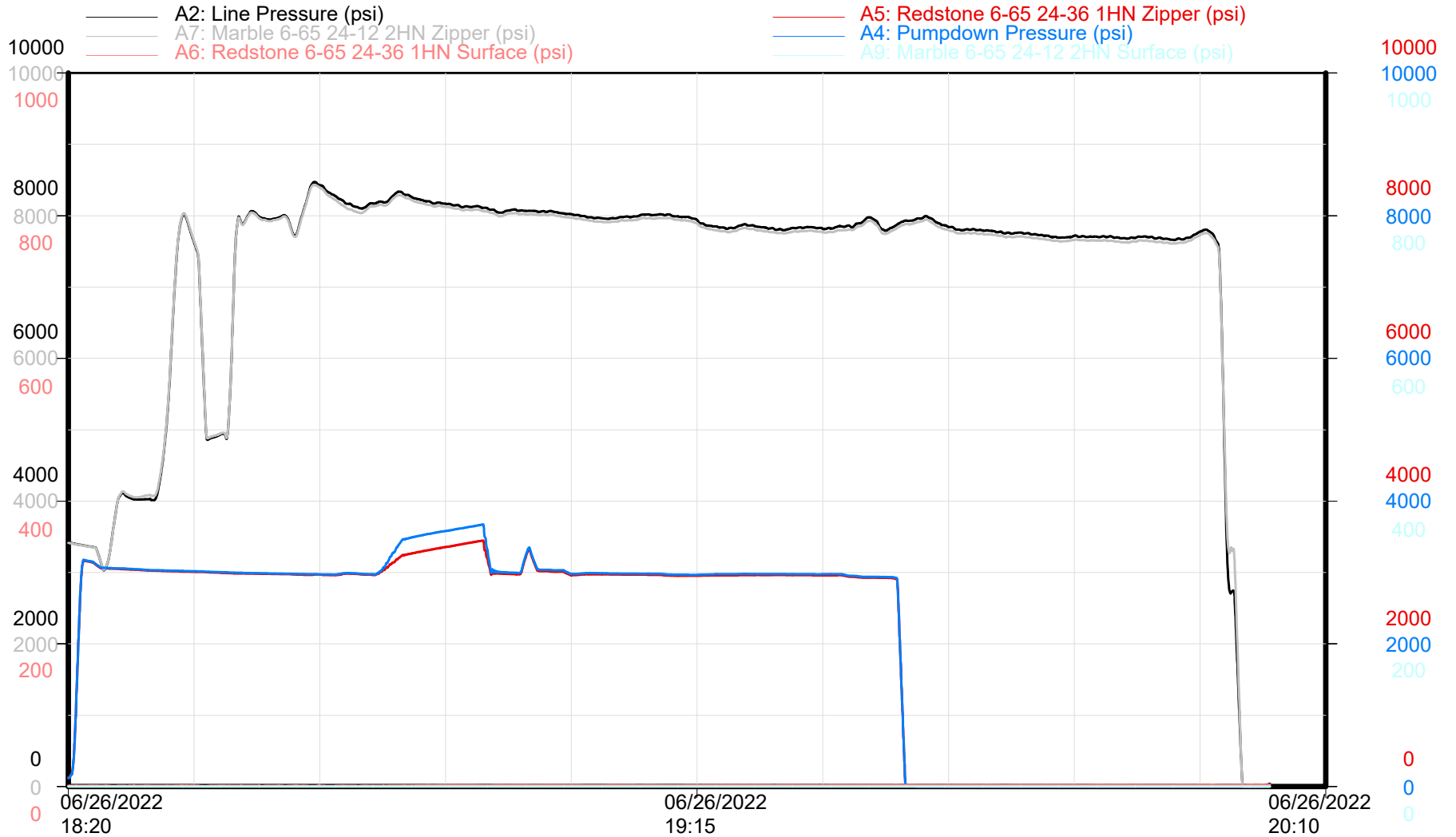
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

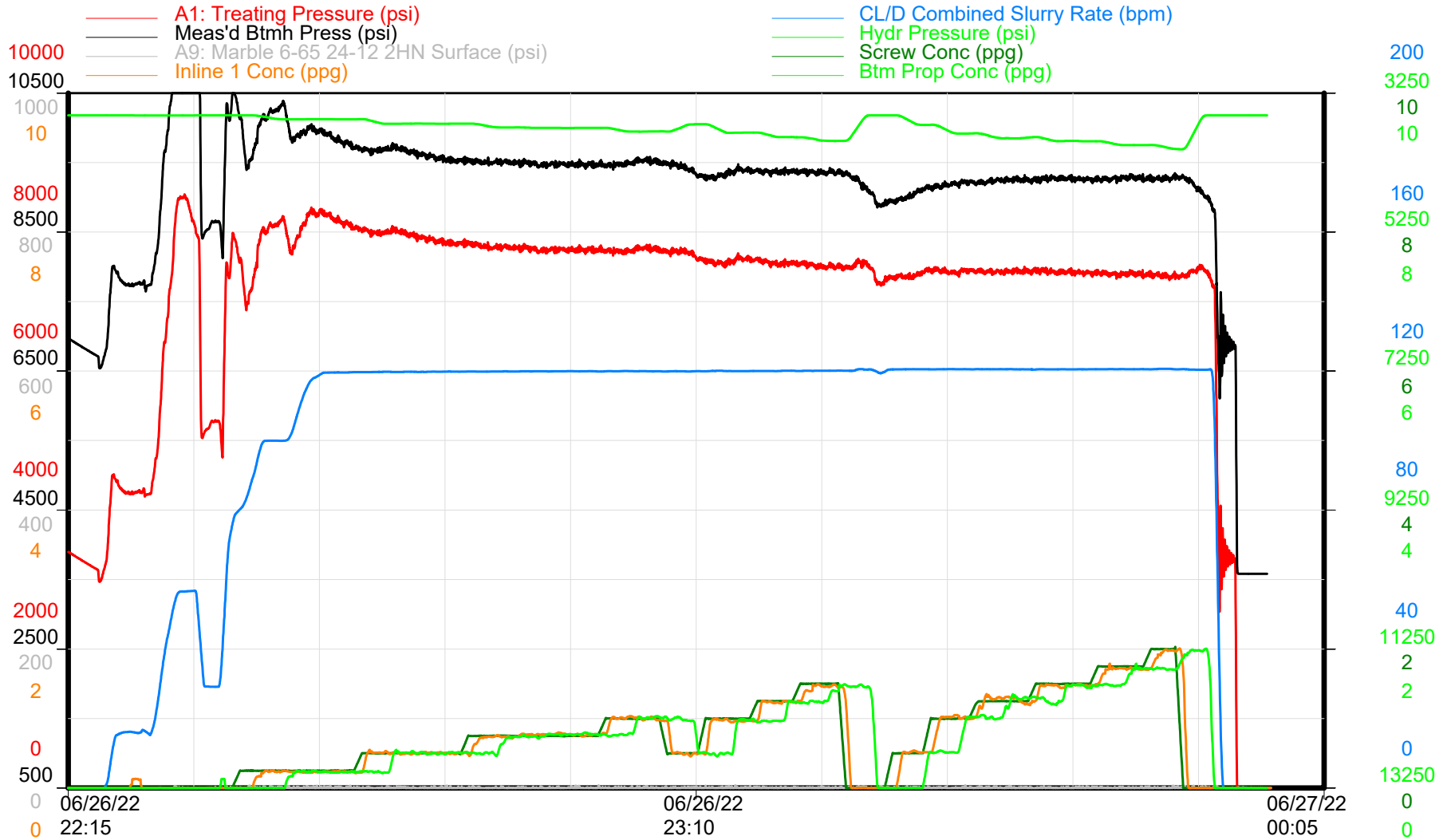
Niobrara - Stage 41 of 60



Zipper Pressures

Time

Republic Crew



Treatment Plot

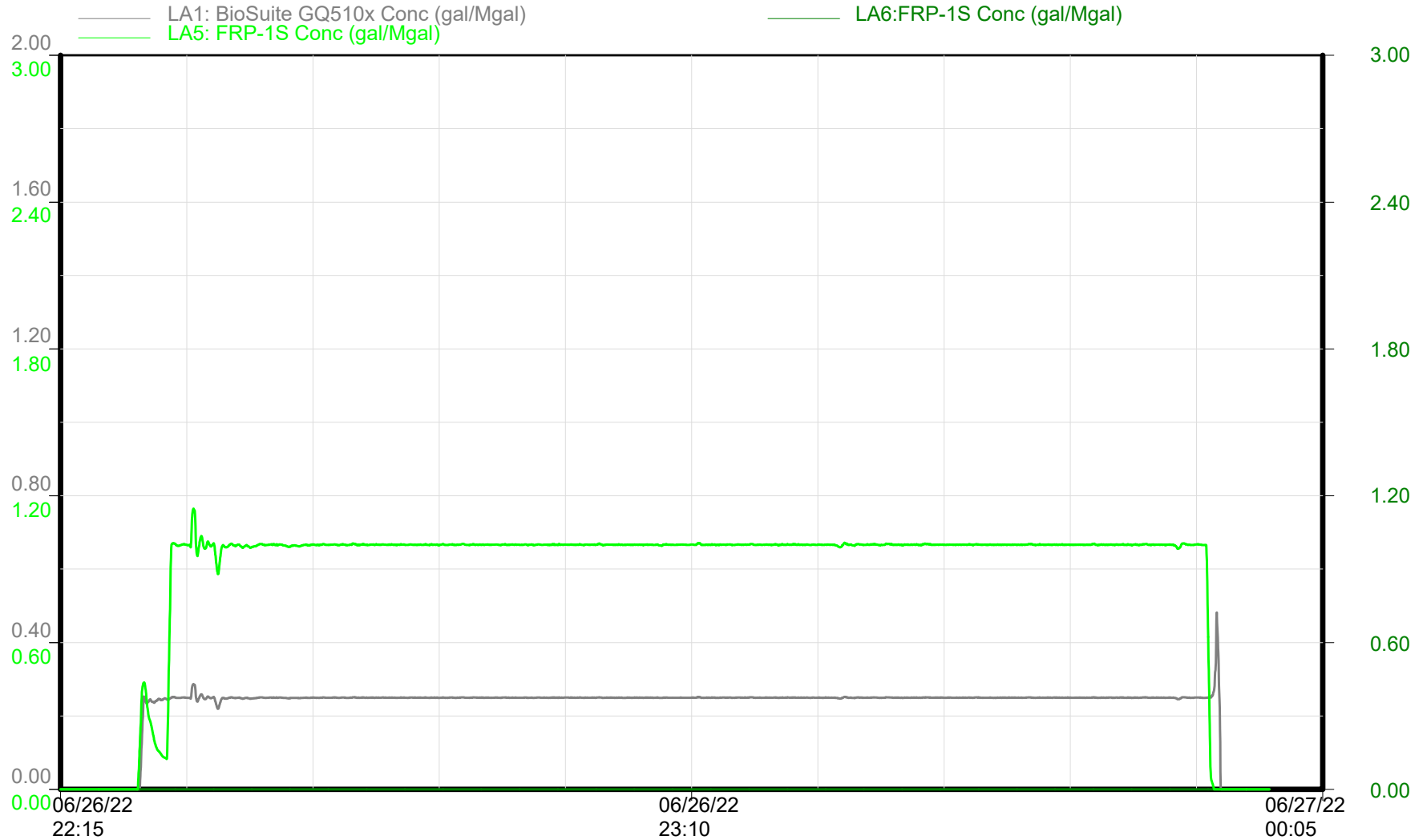
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 42 of 60



Chemical Additives

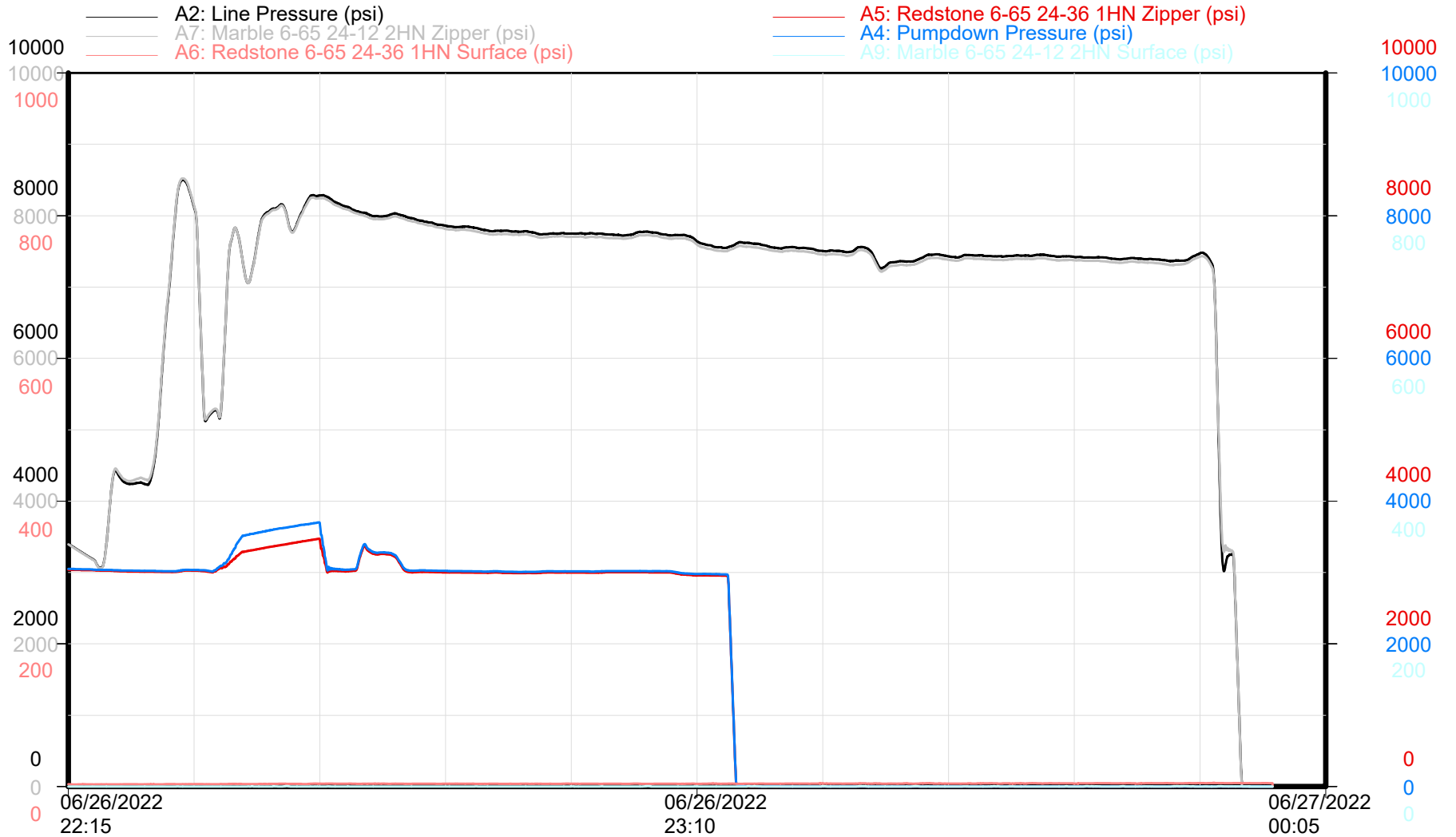
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 42 of 60



Zipper Pressures

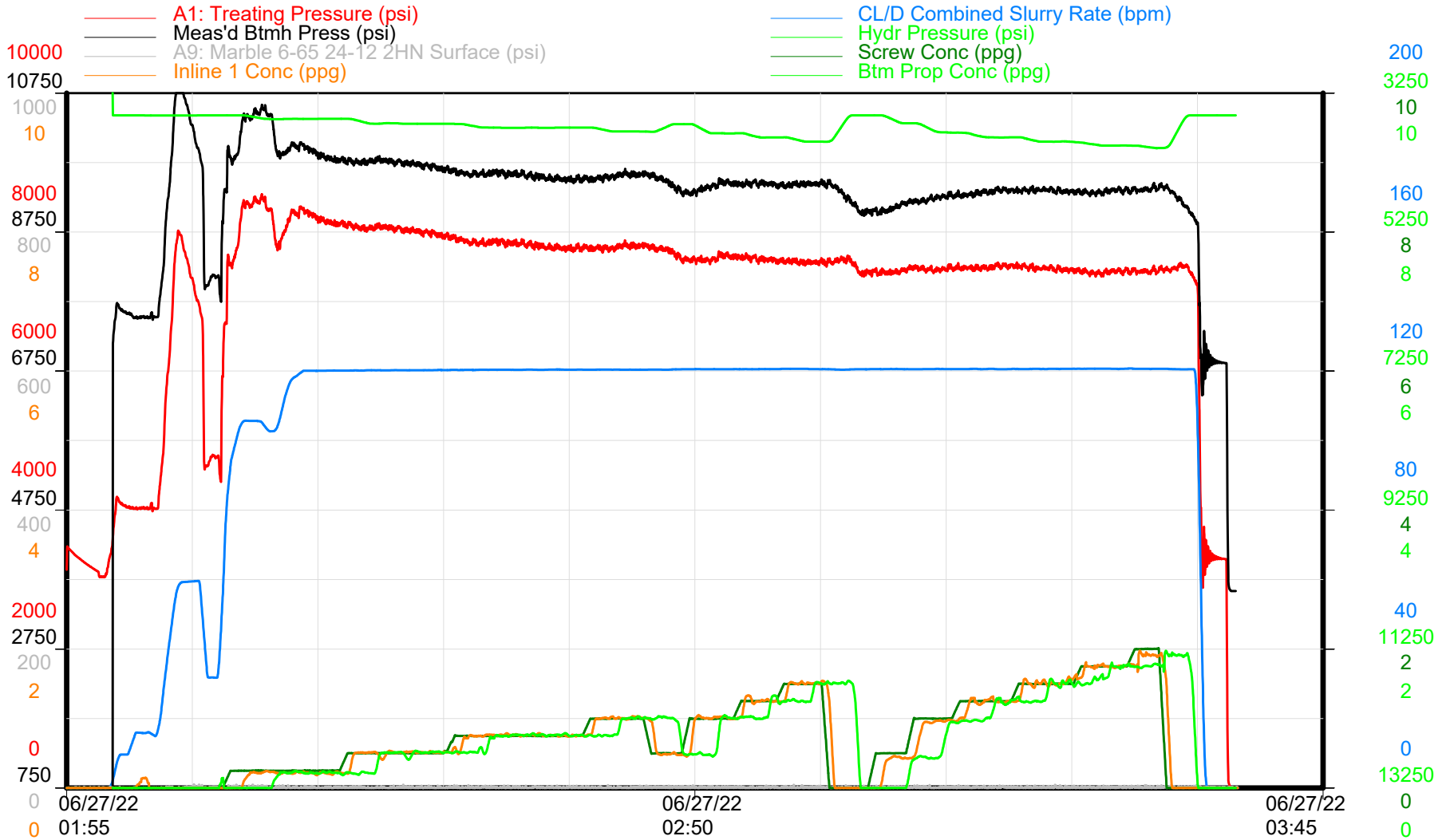
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 43 of 60



Treatment Plot

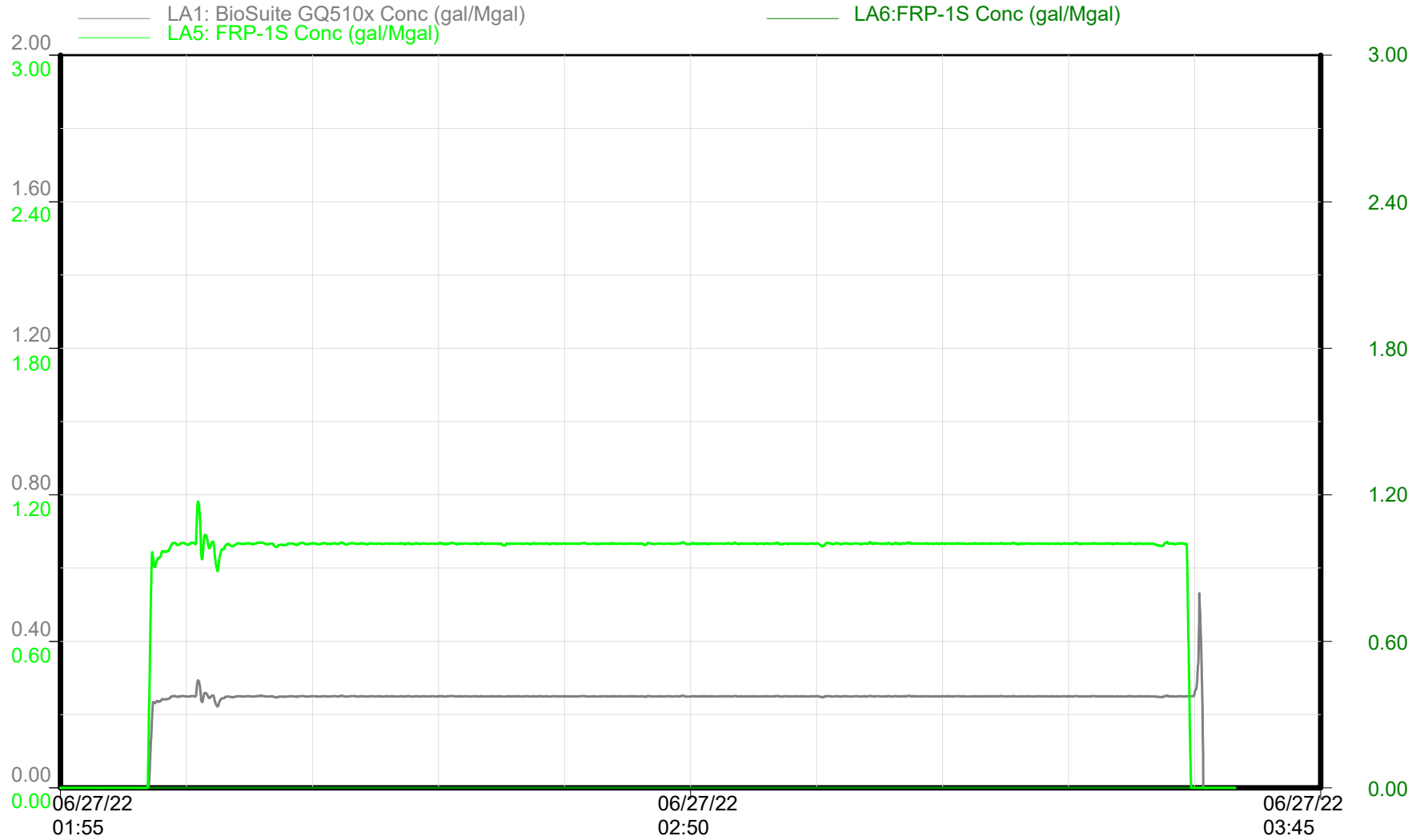
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 43 of 60



Chemical Additives

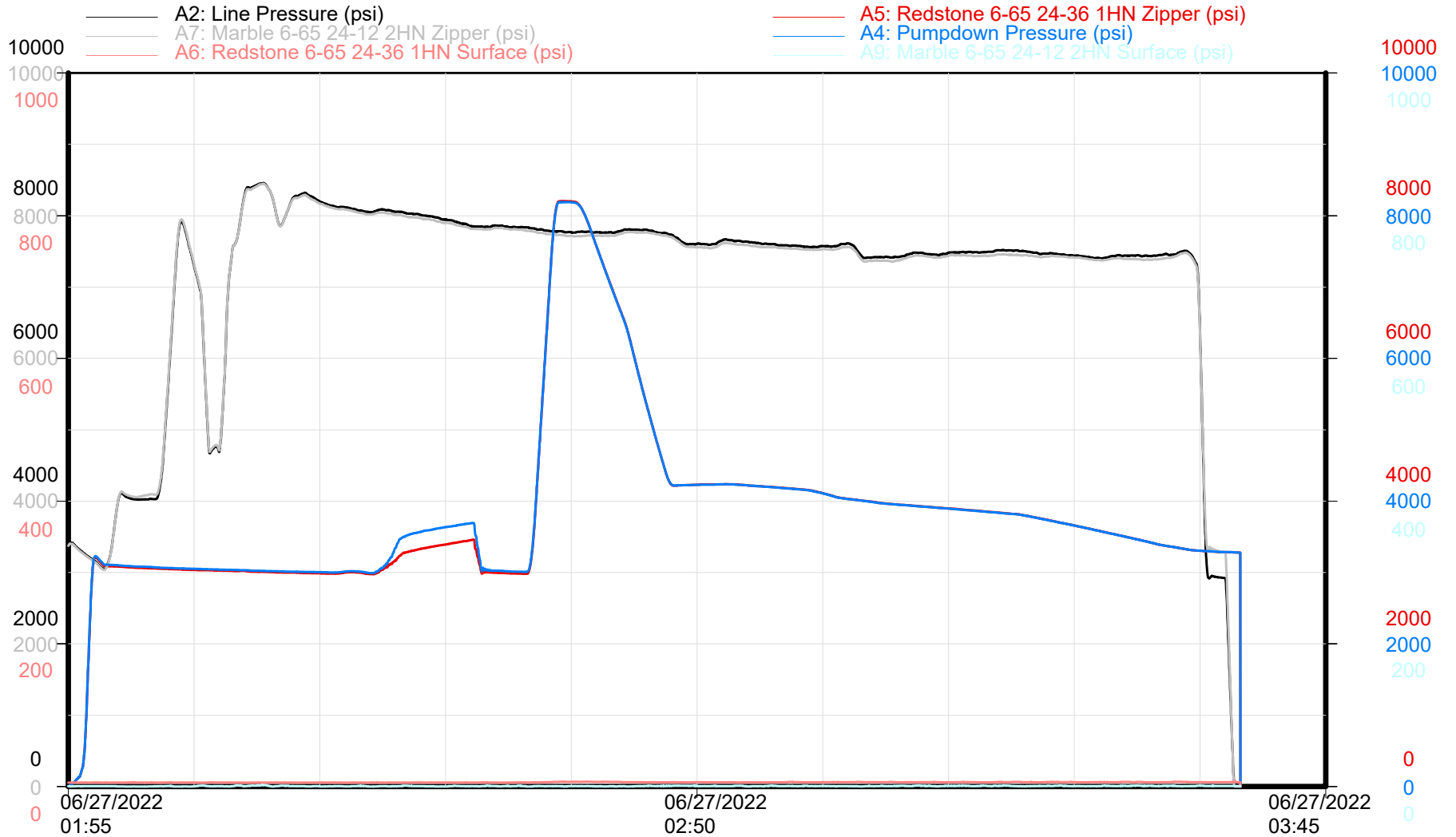
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 43 of 60



Zipper Pressures

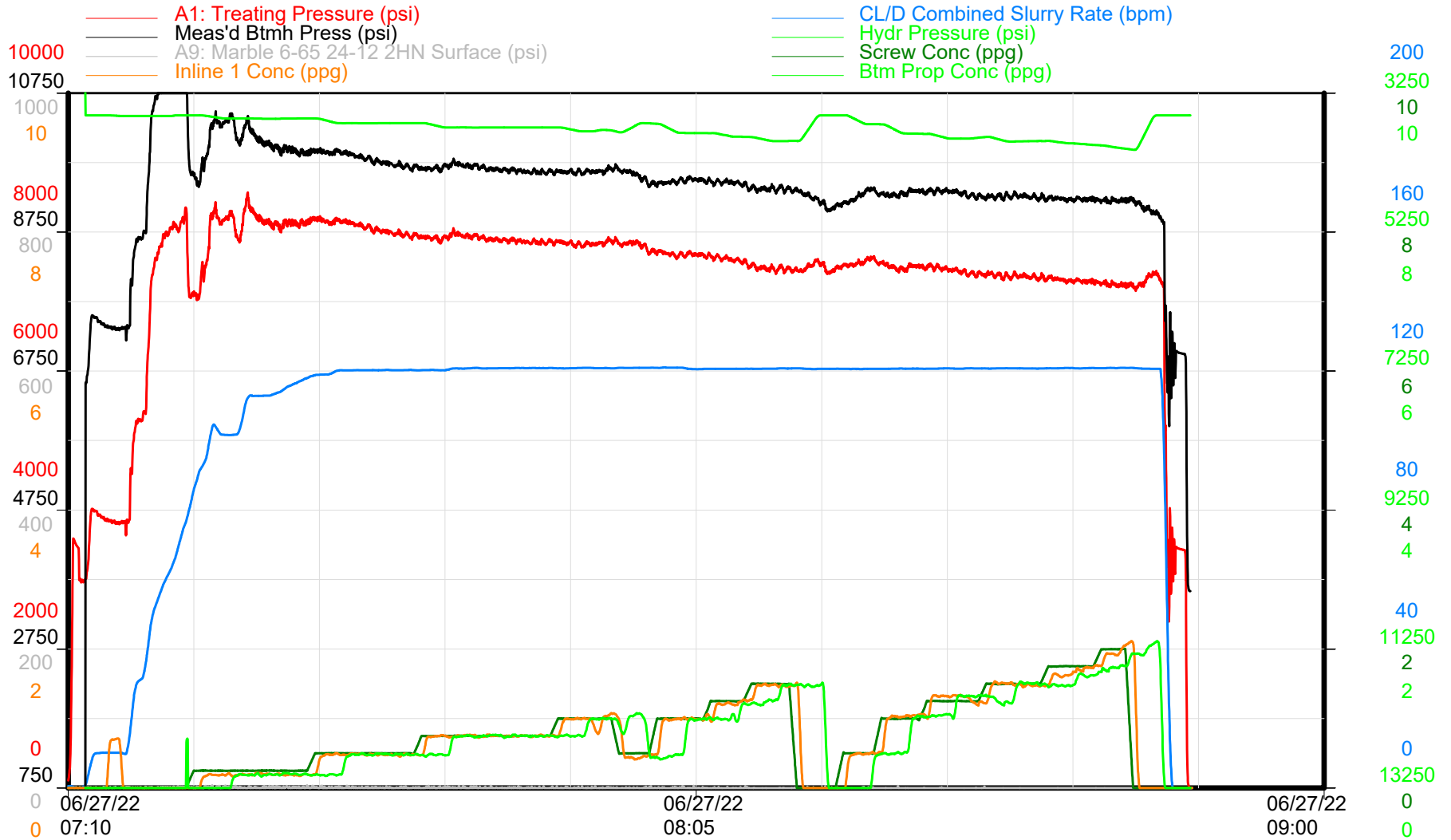
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 44 of 60



Treatment Plot

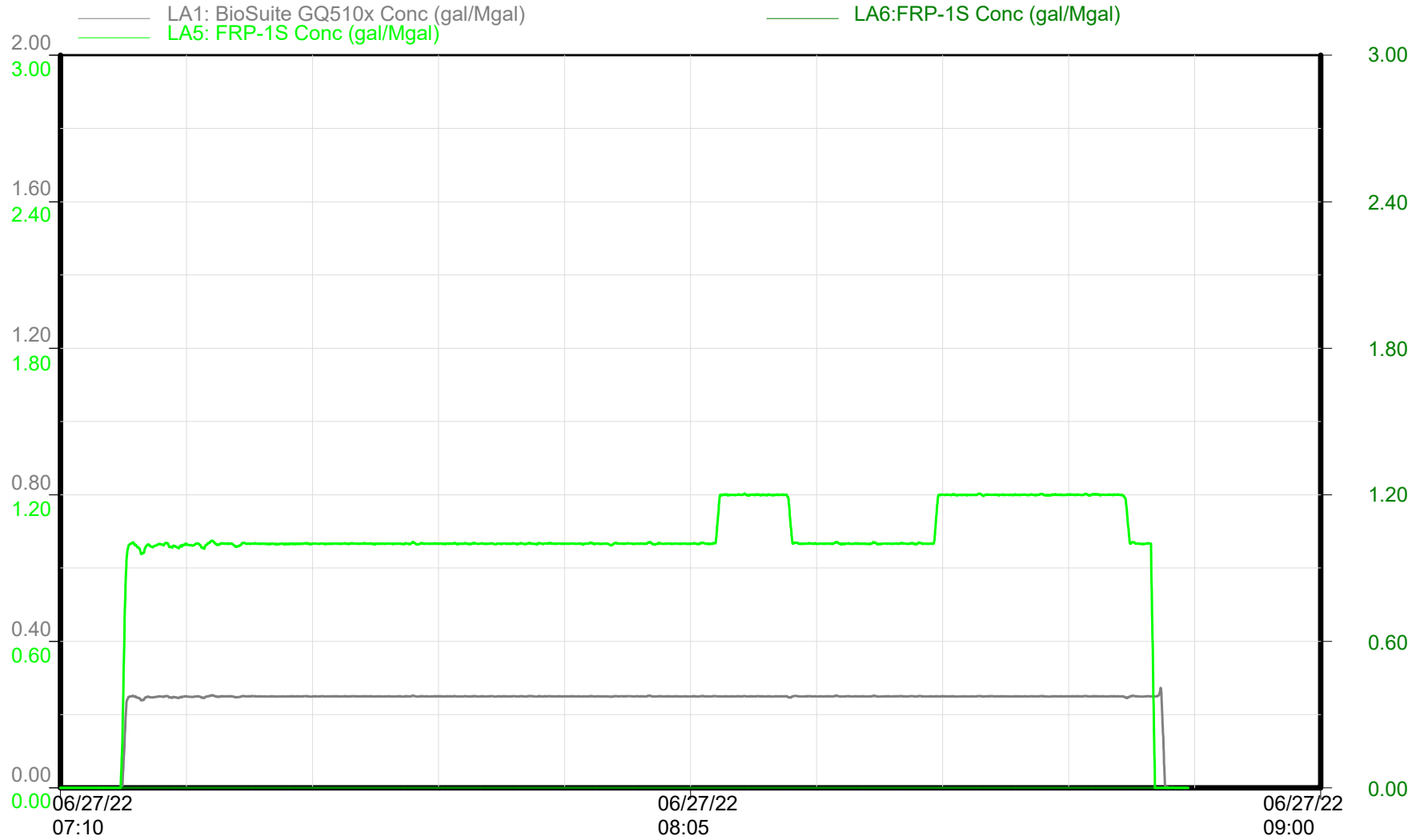
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 44 of 60



Chemical Additives

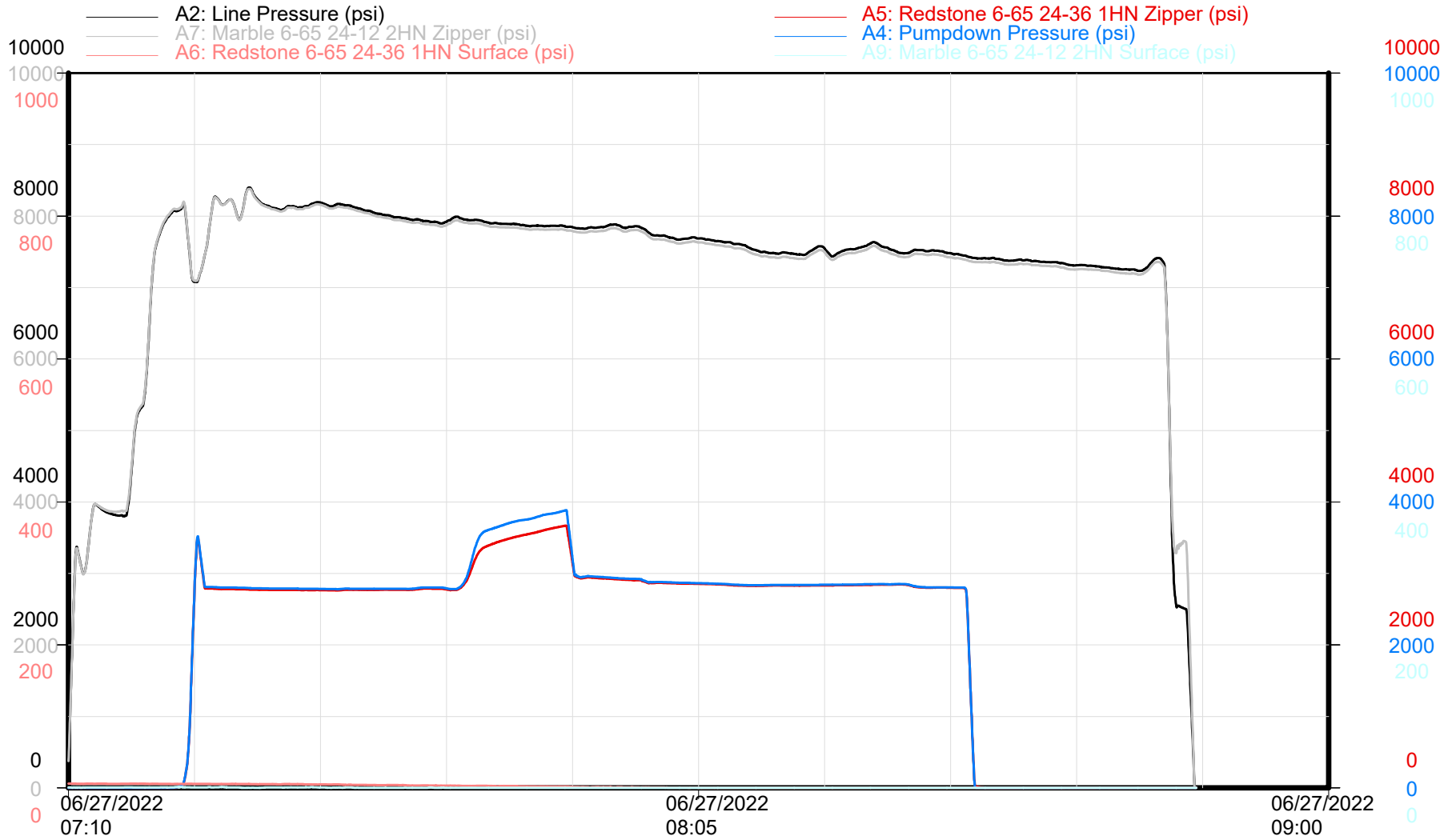
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

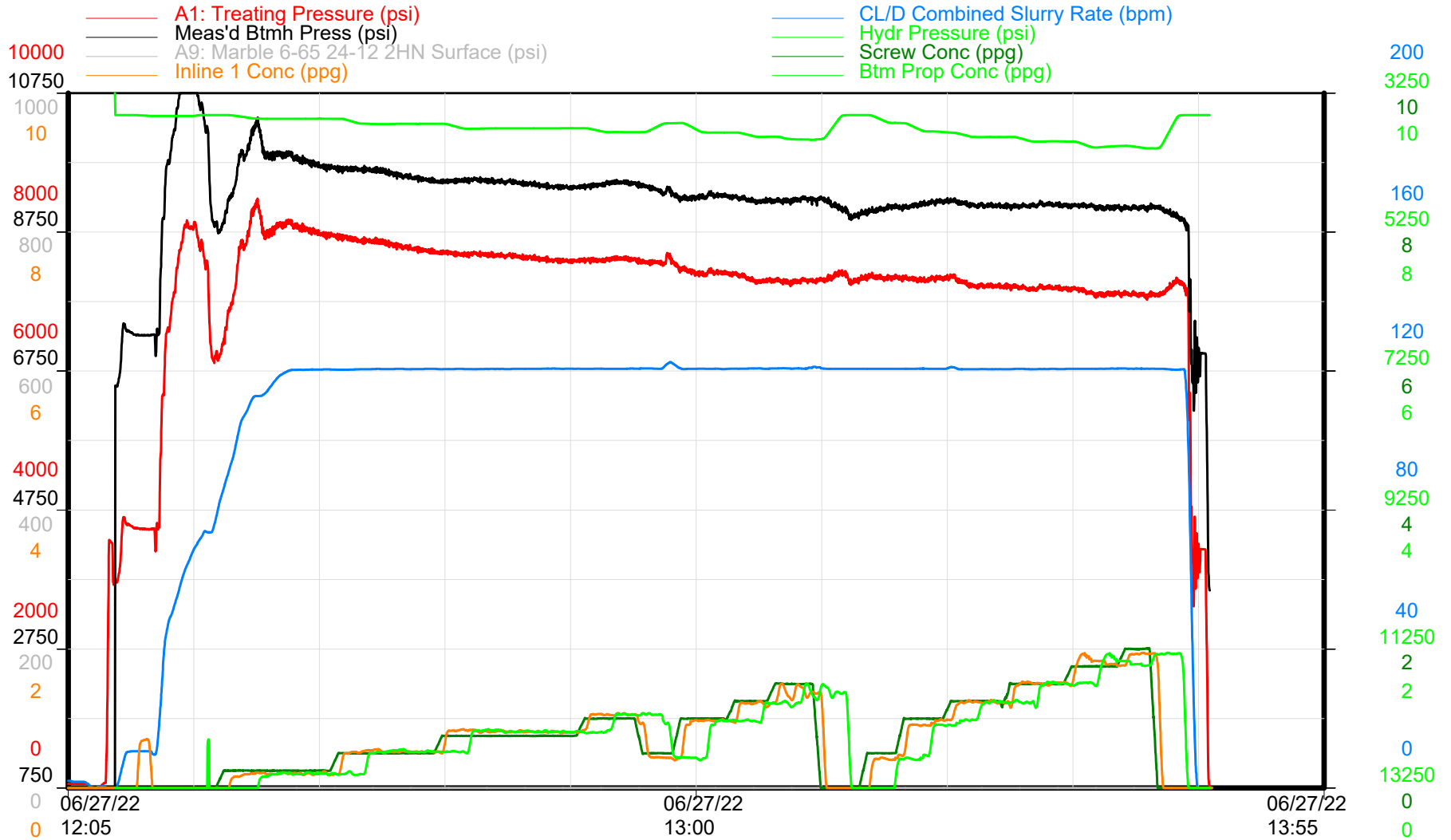
Niobrara - Stage 44 of 60



Zipper Pressures

Time

Republic Crew



Treatment Plot

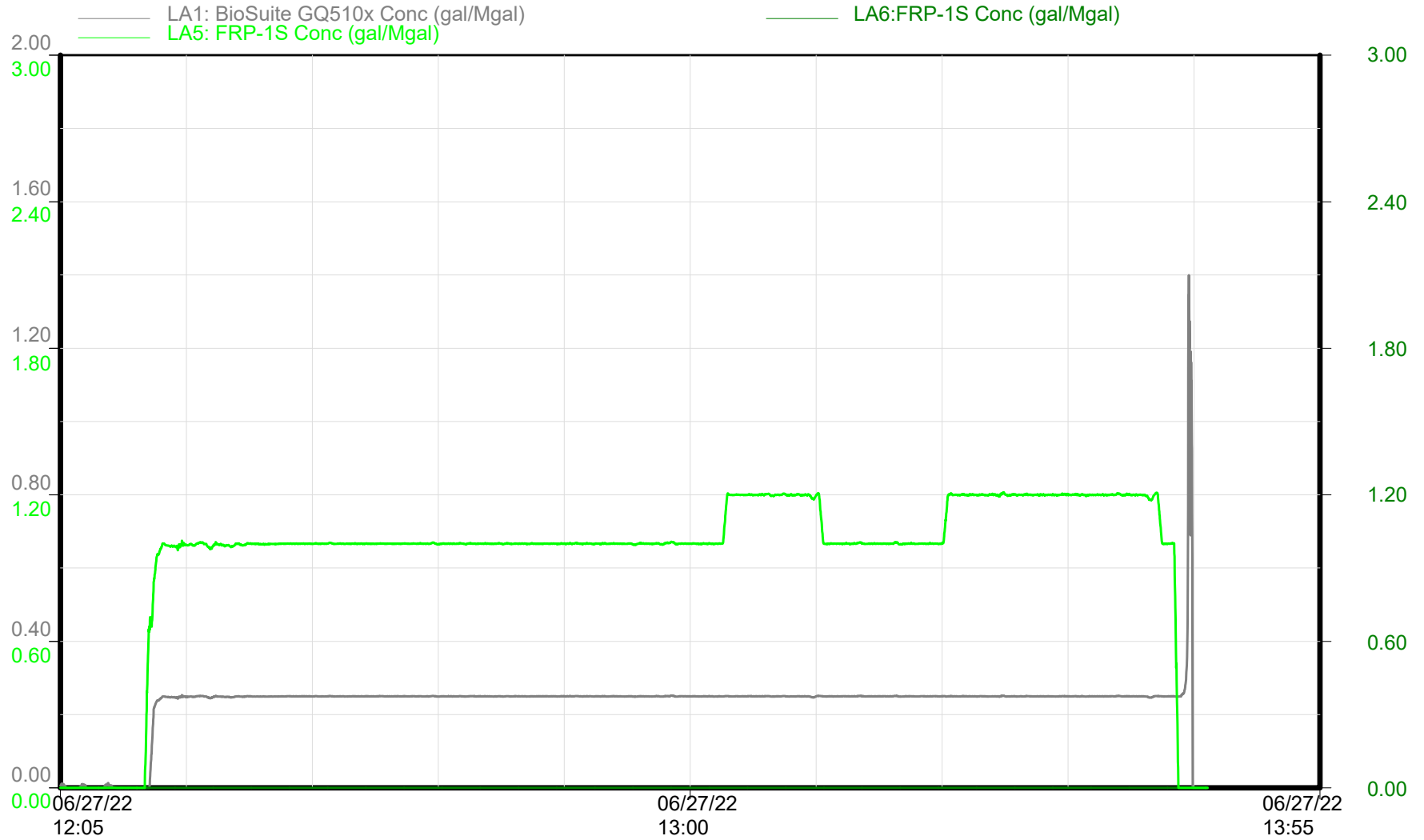
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 45 of 60



Chemical Additives

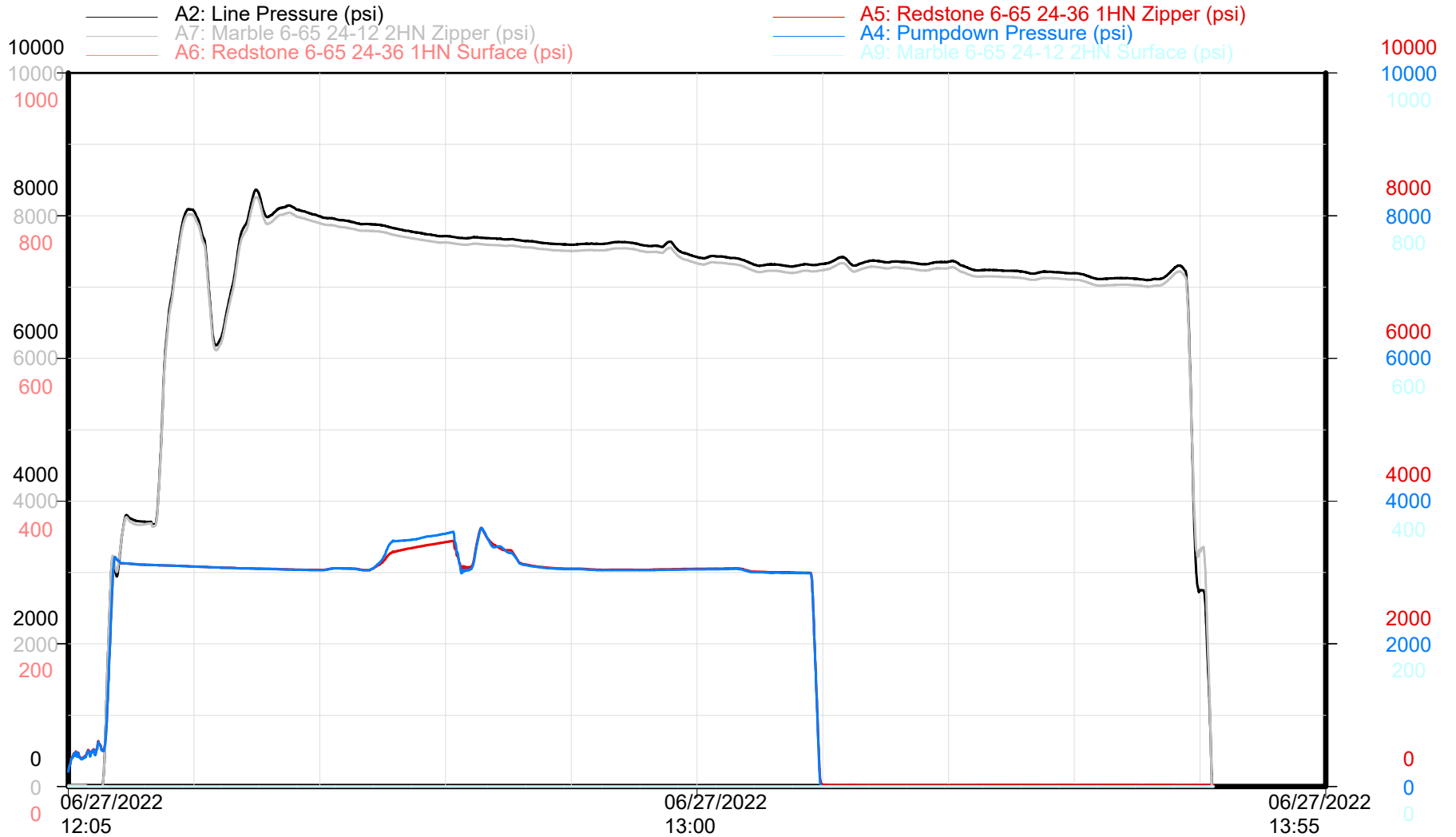
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

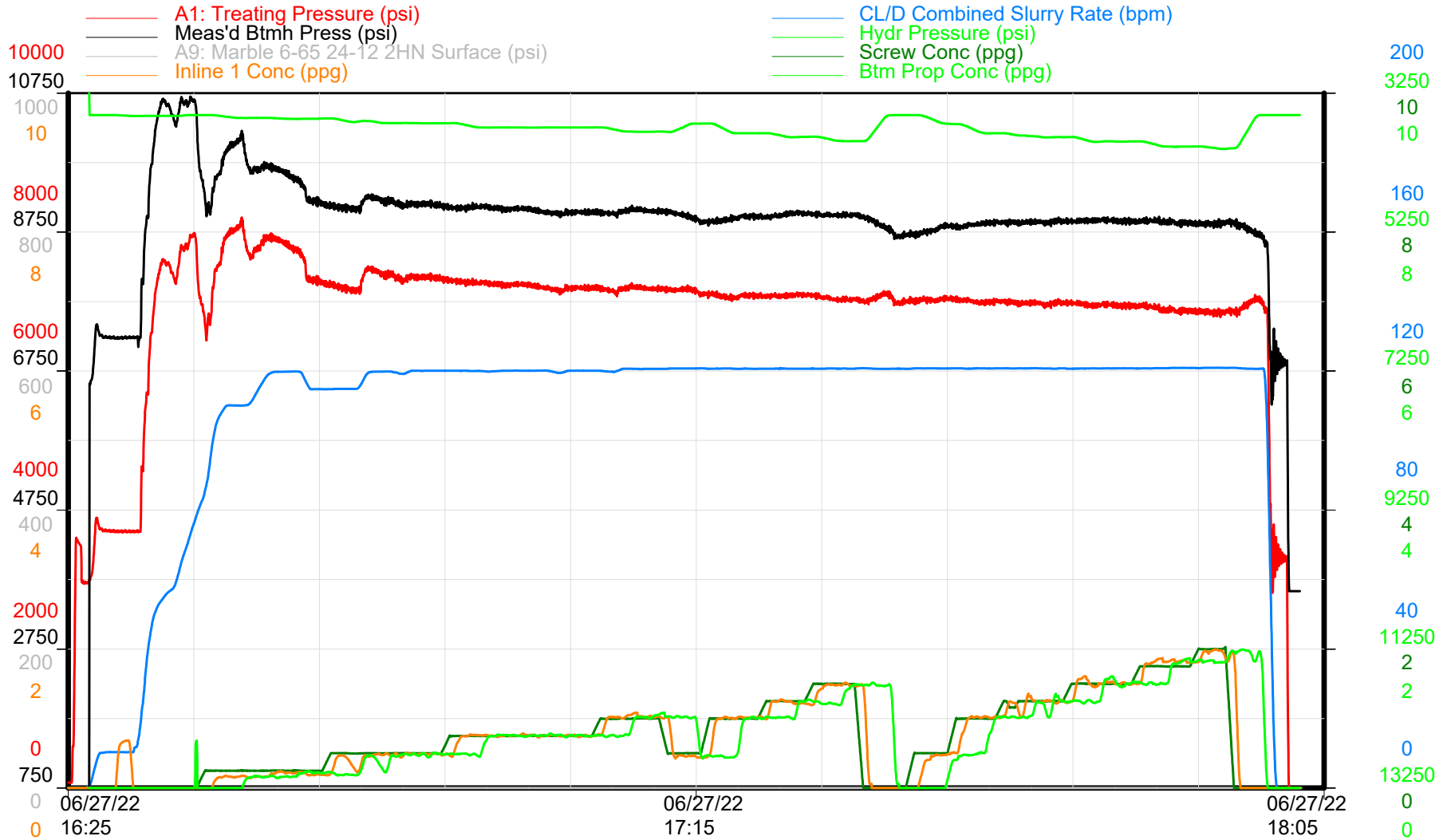
Niobrara - Stage 45 of 60



Zipper Pressures

Time

Republic Crew



Treatment Plot

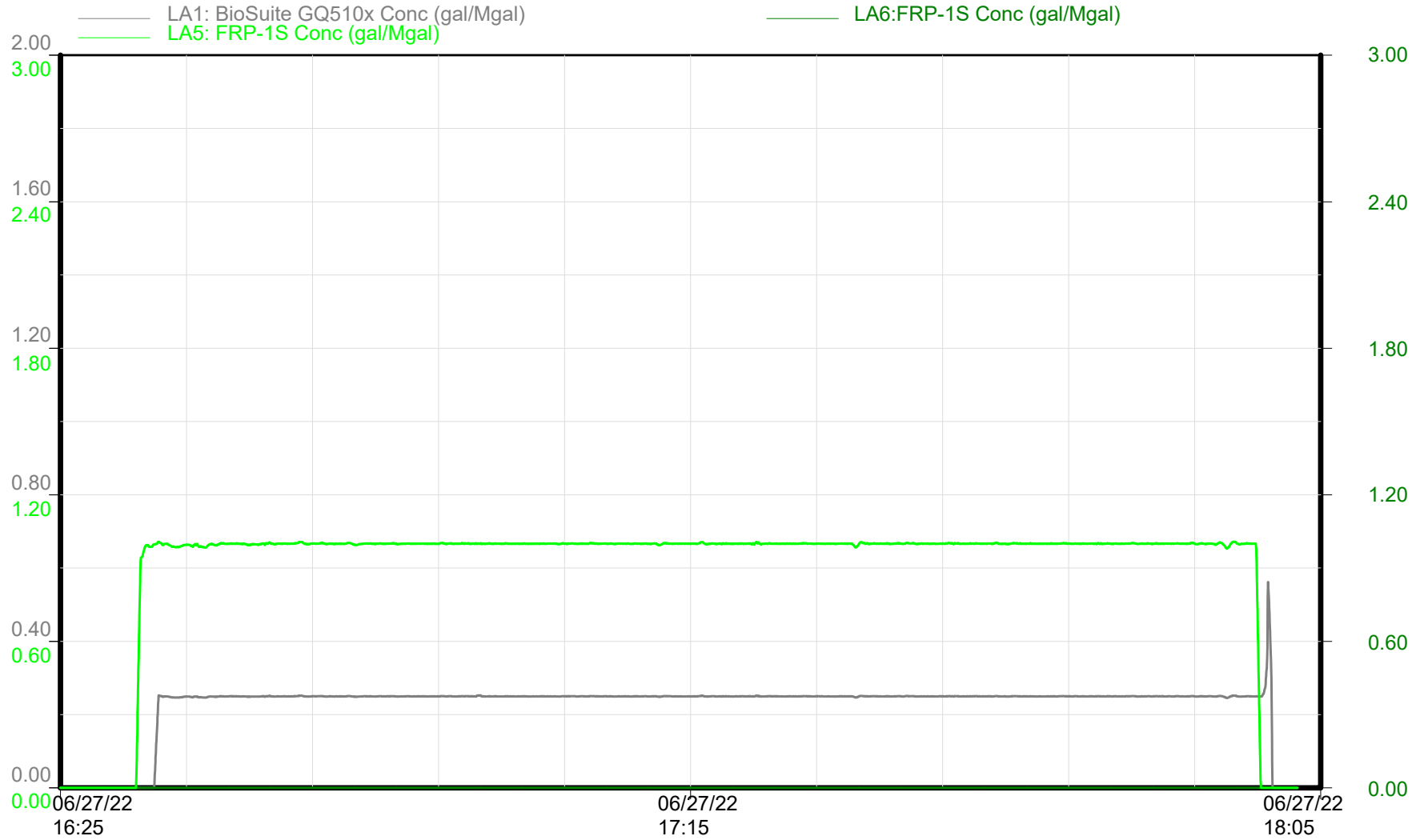
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 46 of 60



Chemical Additives

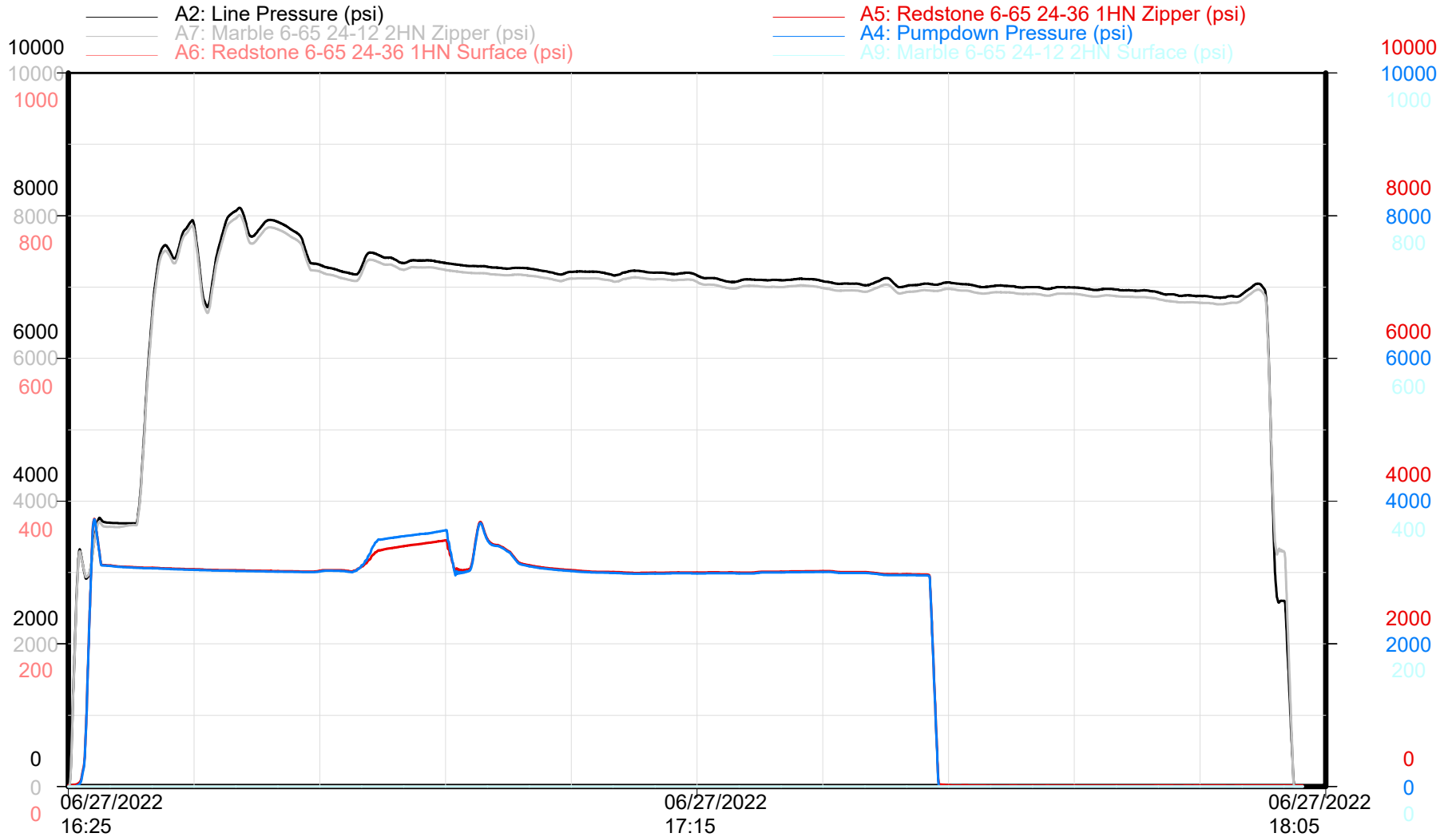
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

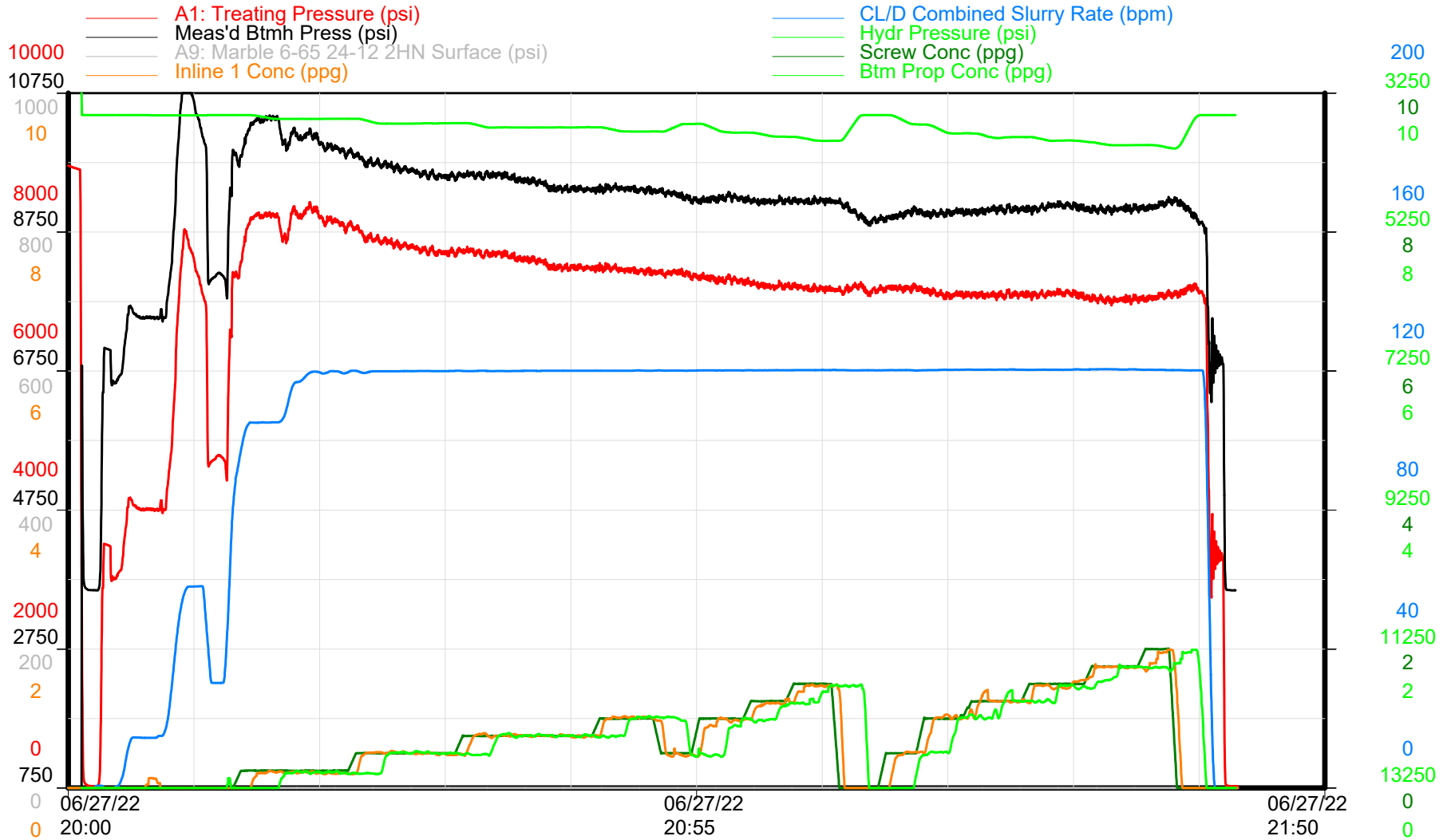
Niobrara - Stage 46 of 60



Zipper Pressures

Time

Republic Crew



Treatment Plot

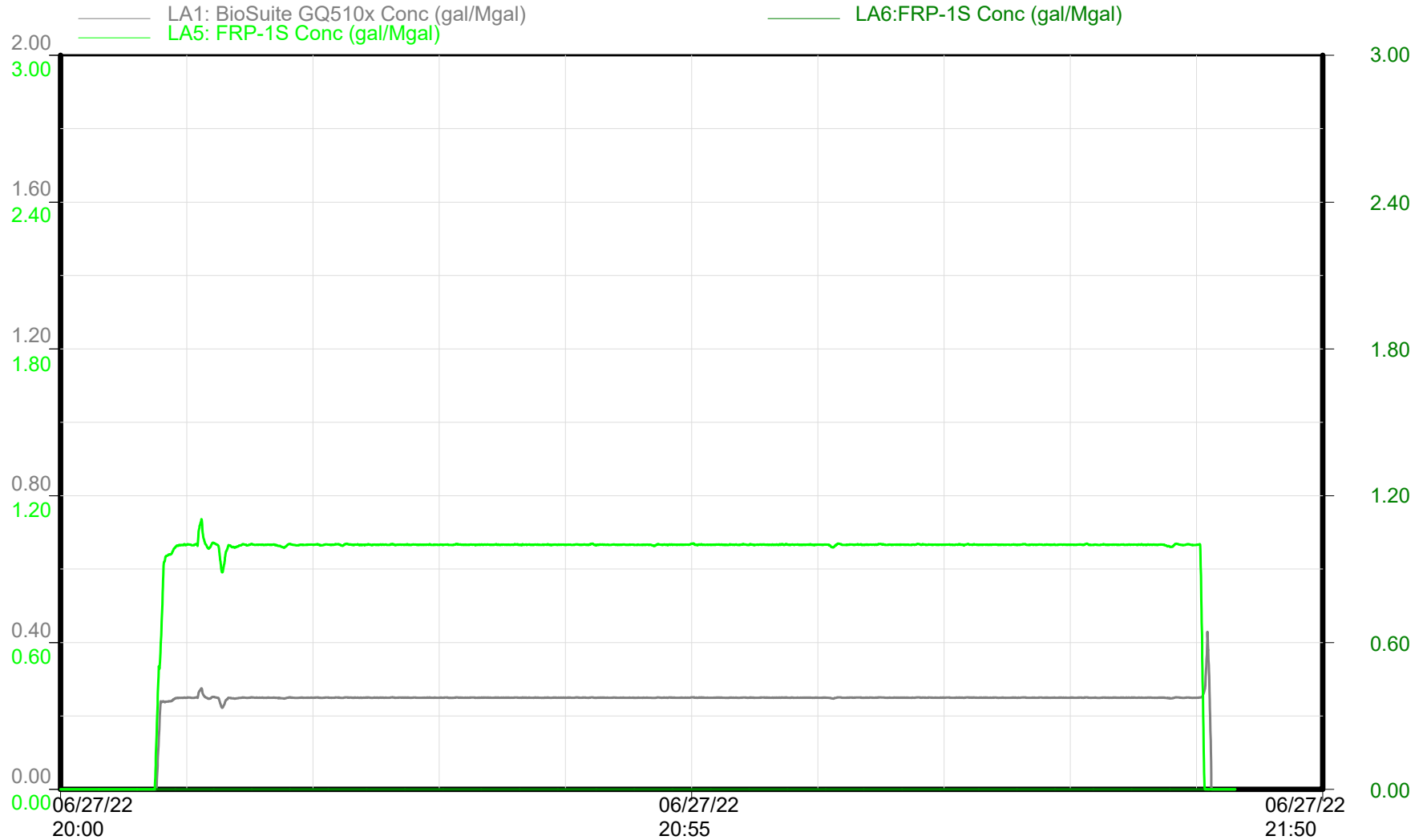
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 47 of 60



Chemical Additives

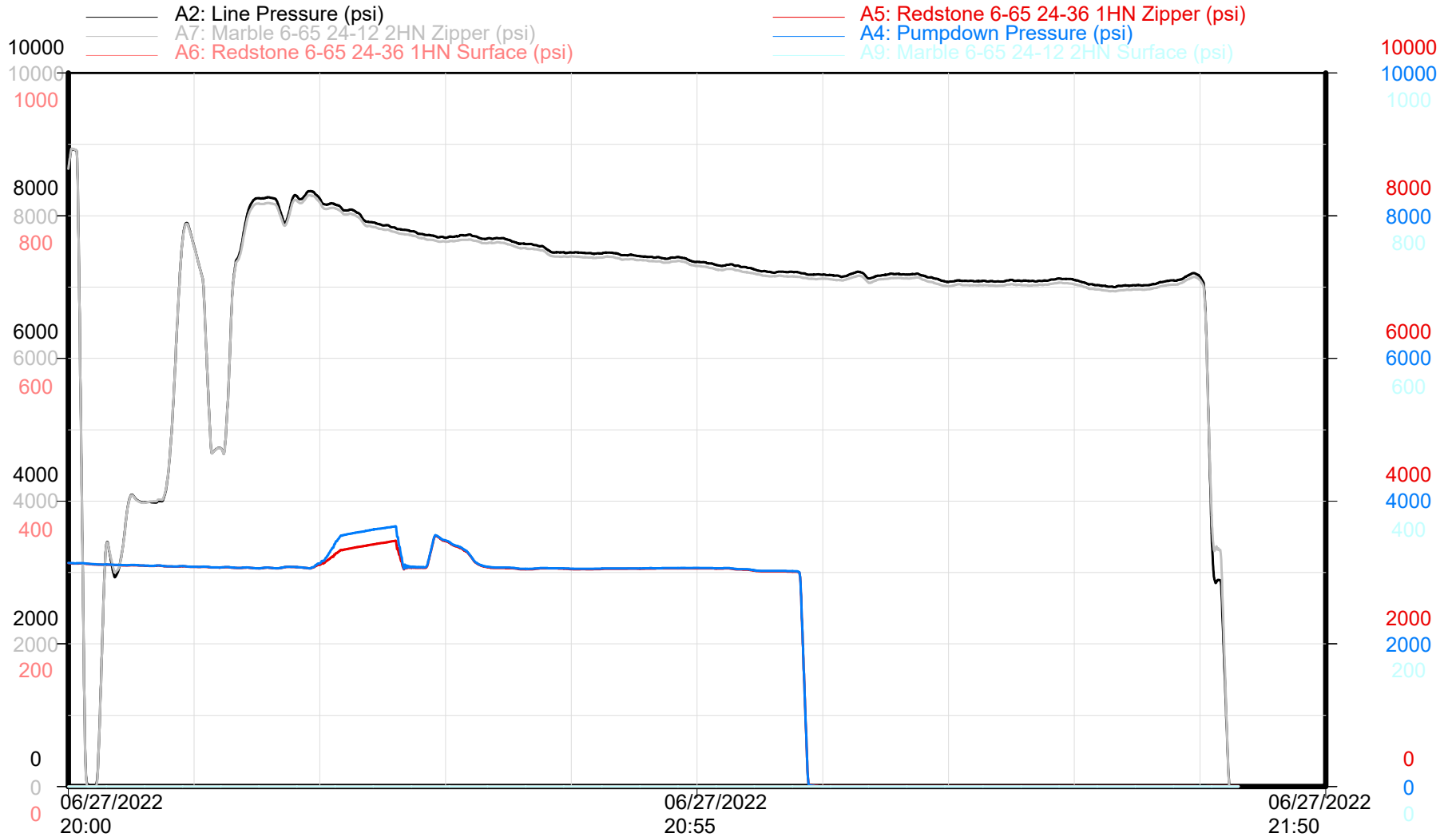
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

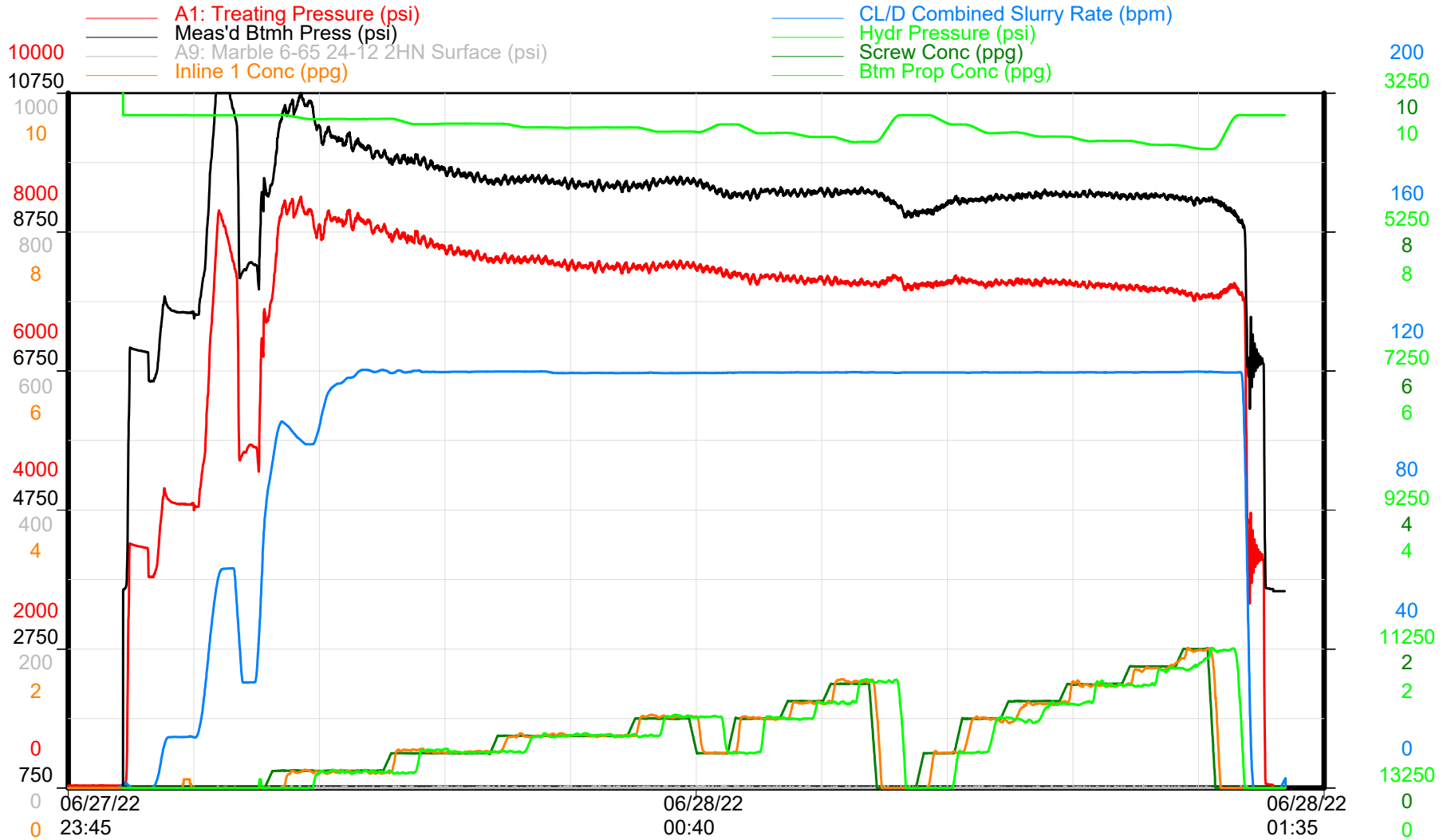
Niobrara - Stage 47 of 60



Zipper Pressures

Time

Republic Crew



Treatment Plot

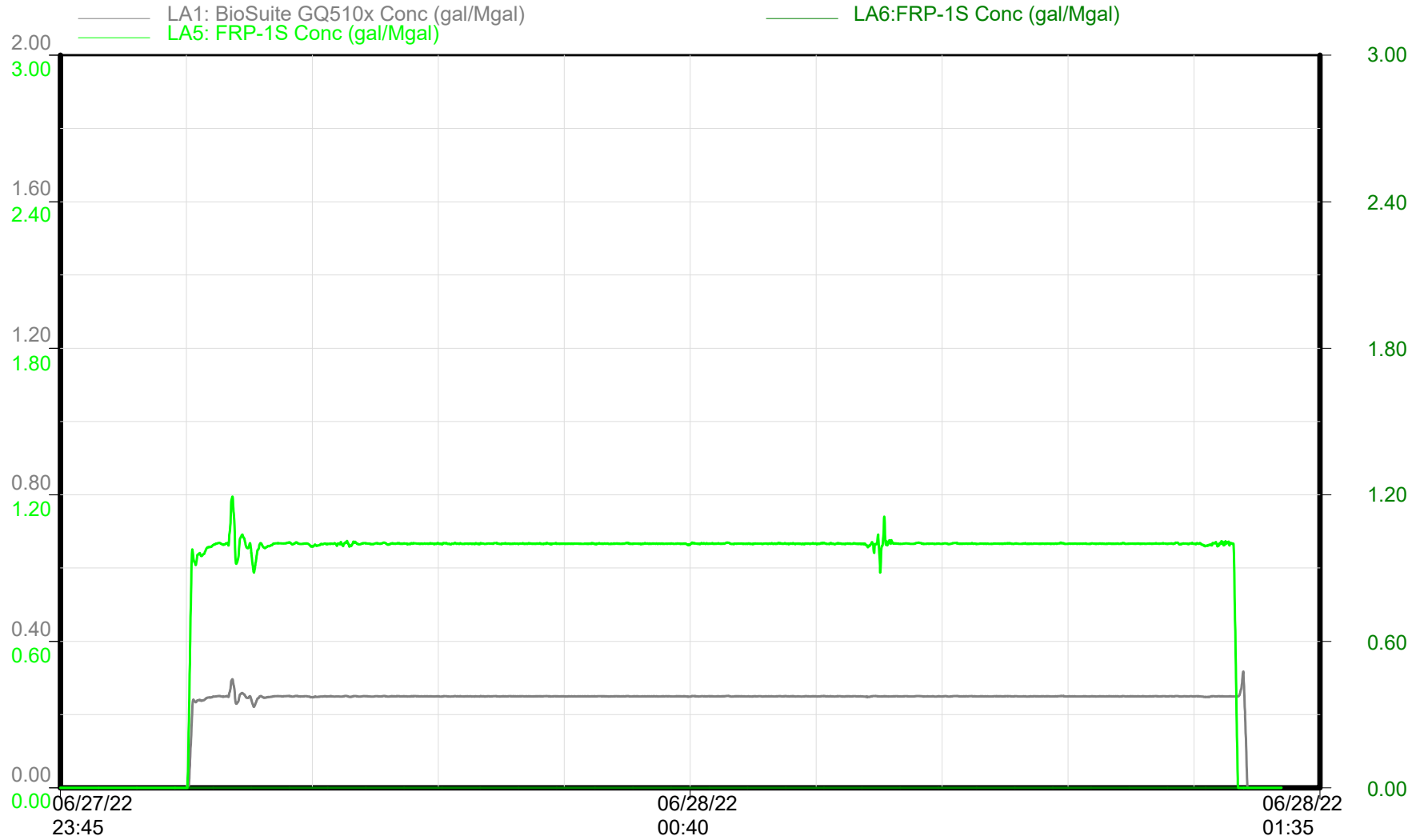
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

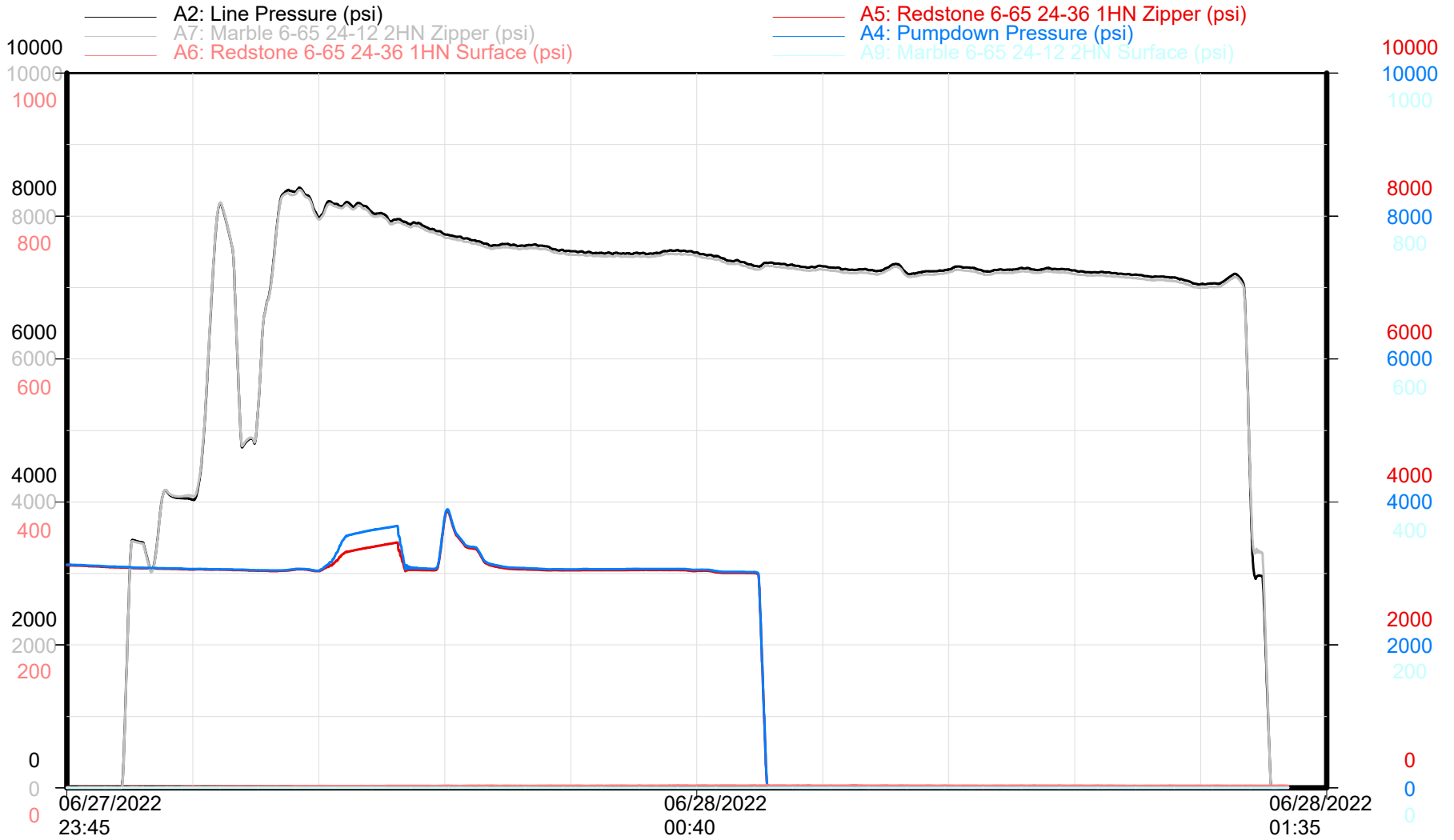
Niobrara - Stage 48 of 60



Chemical Additives

Time

Republic Crew



Zipper Pressures

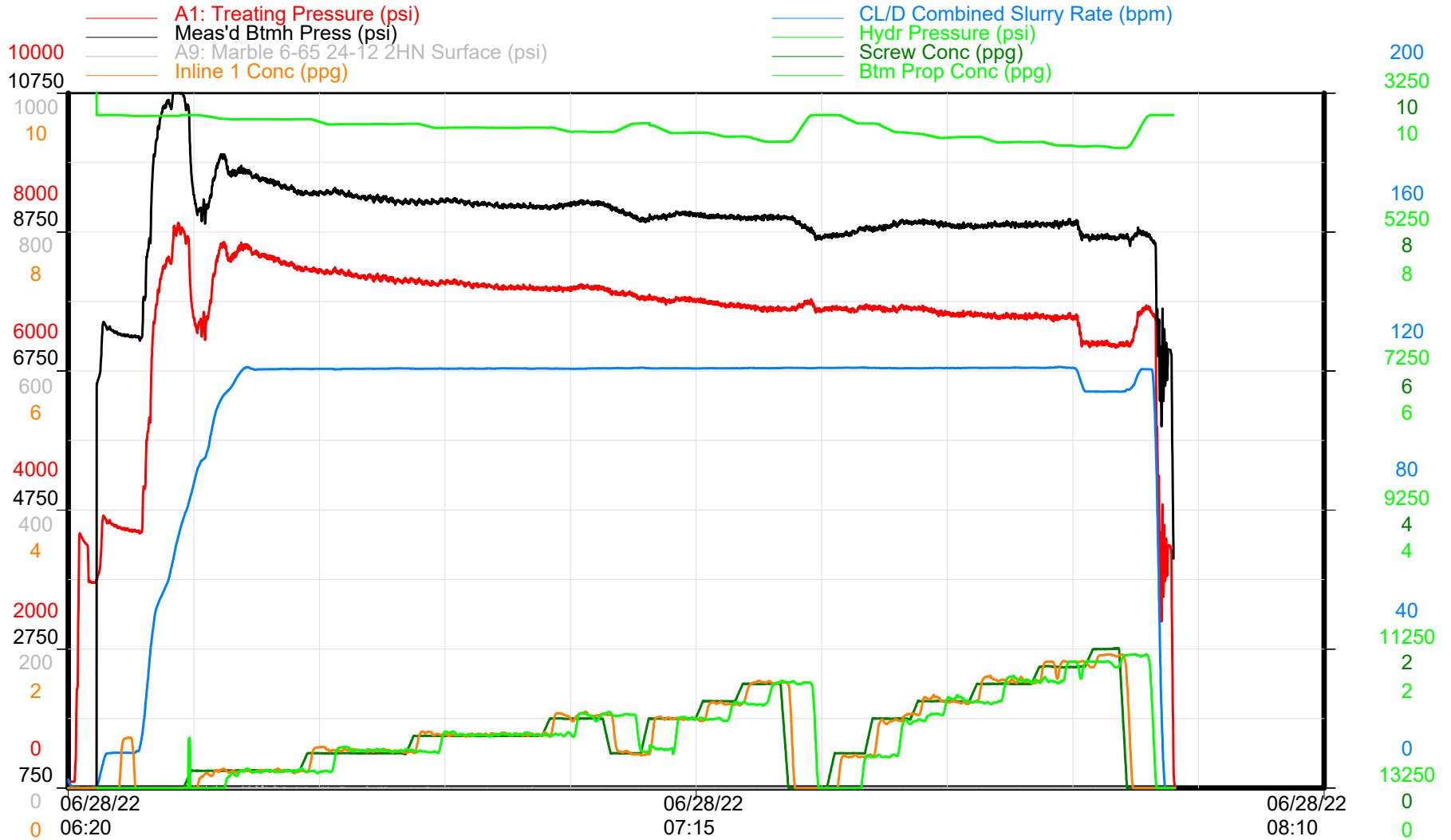
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 49 of 60



Treatment Plot

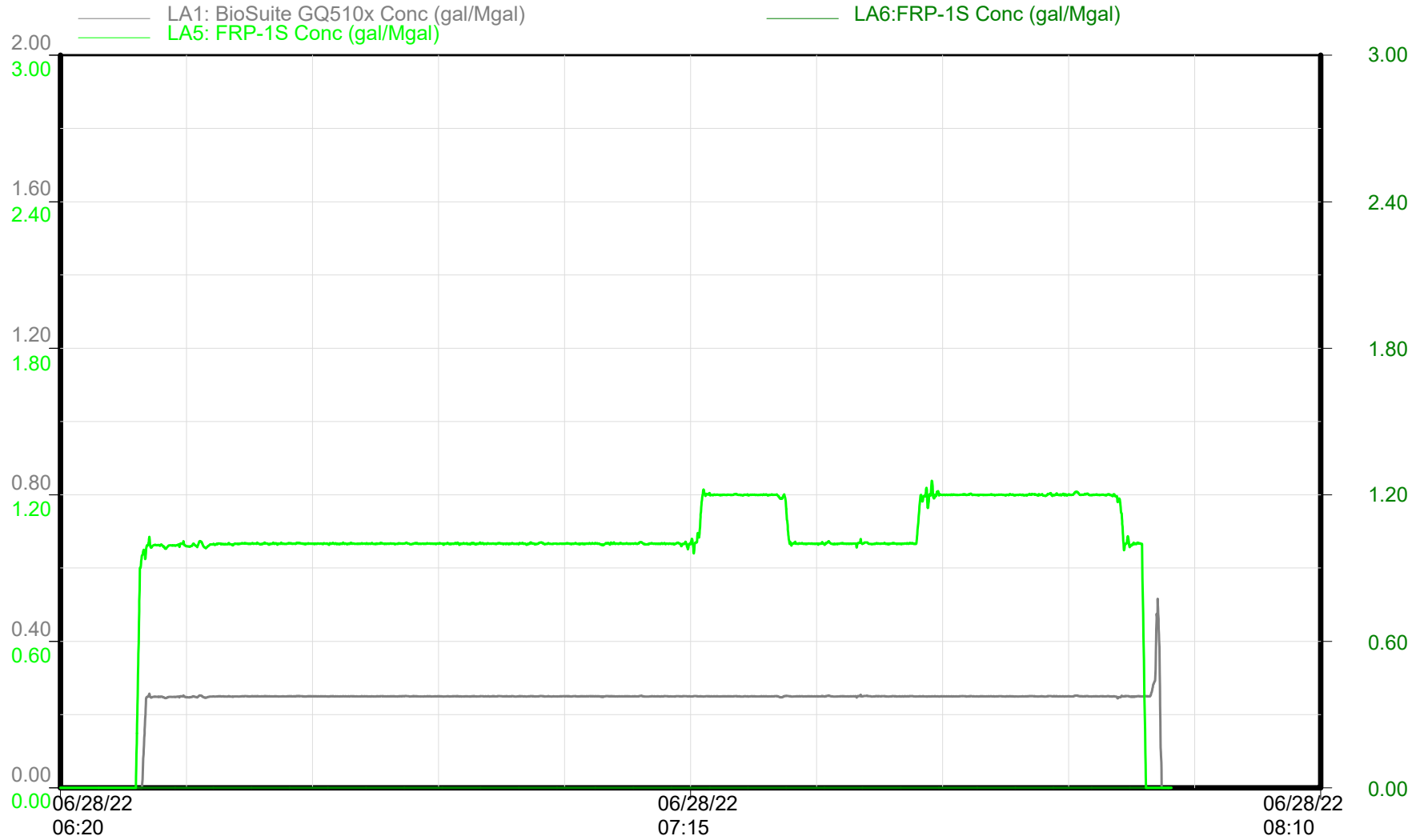
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 49 of 60



Chemical Additives

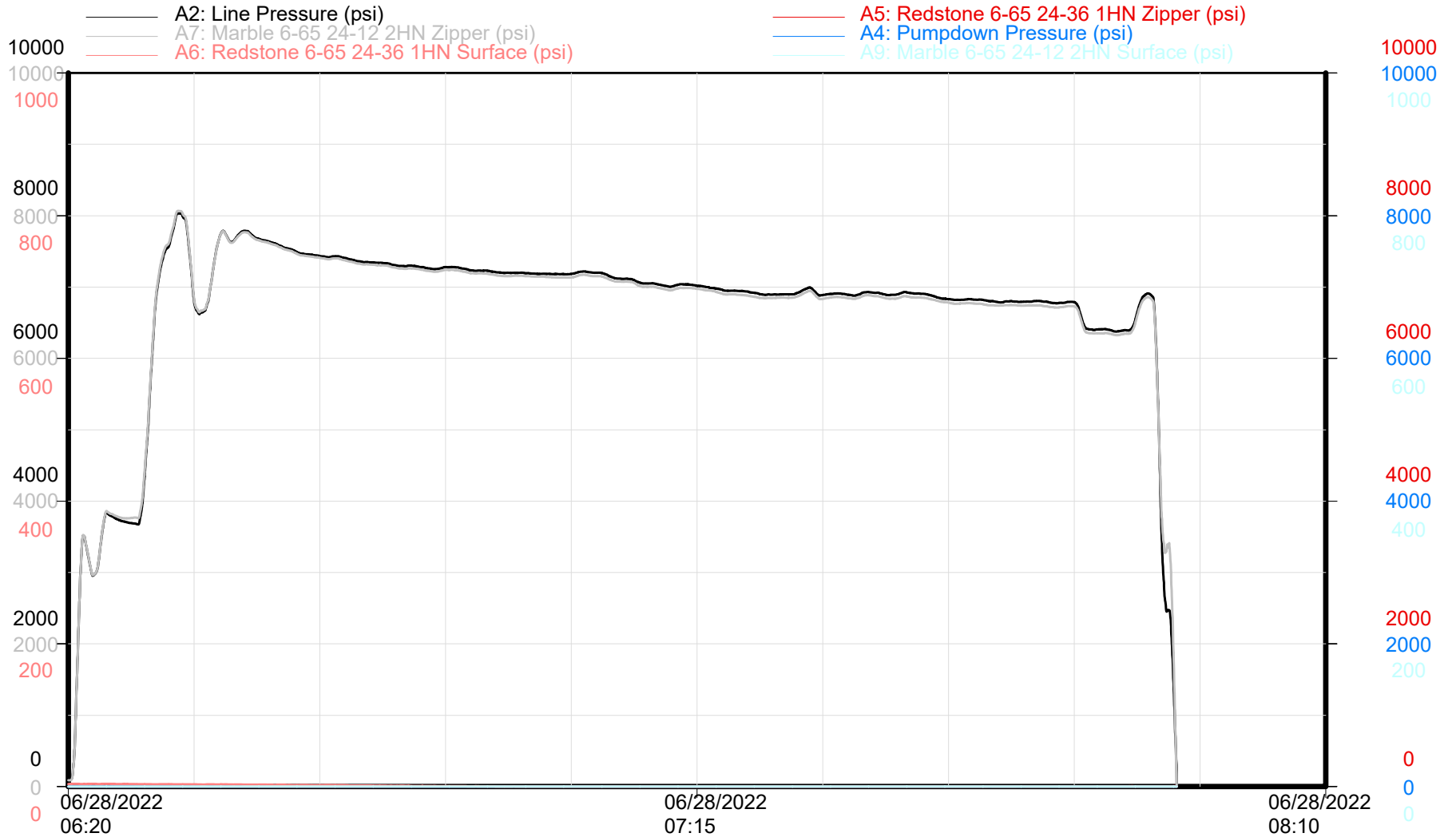
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

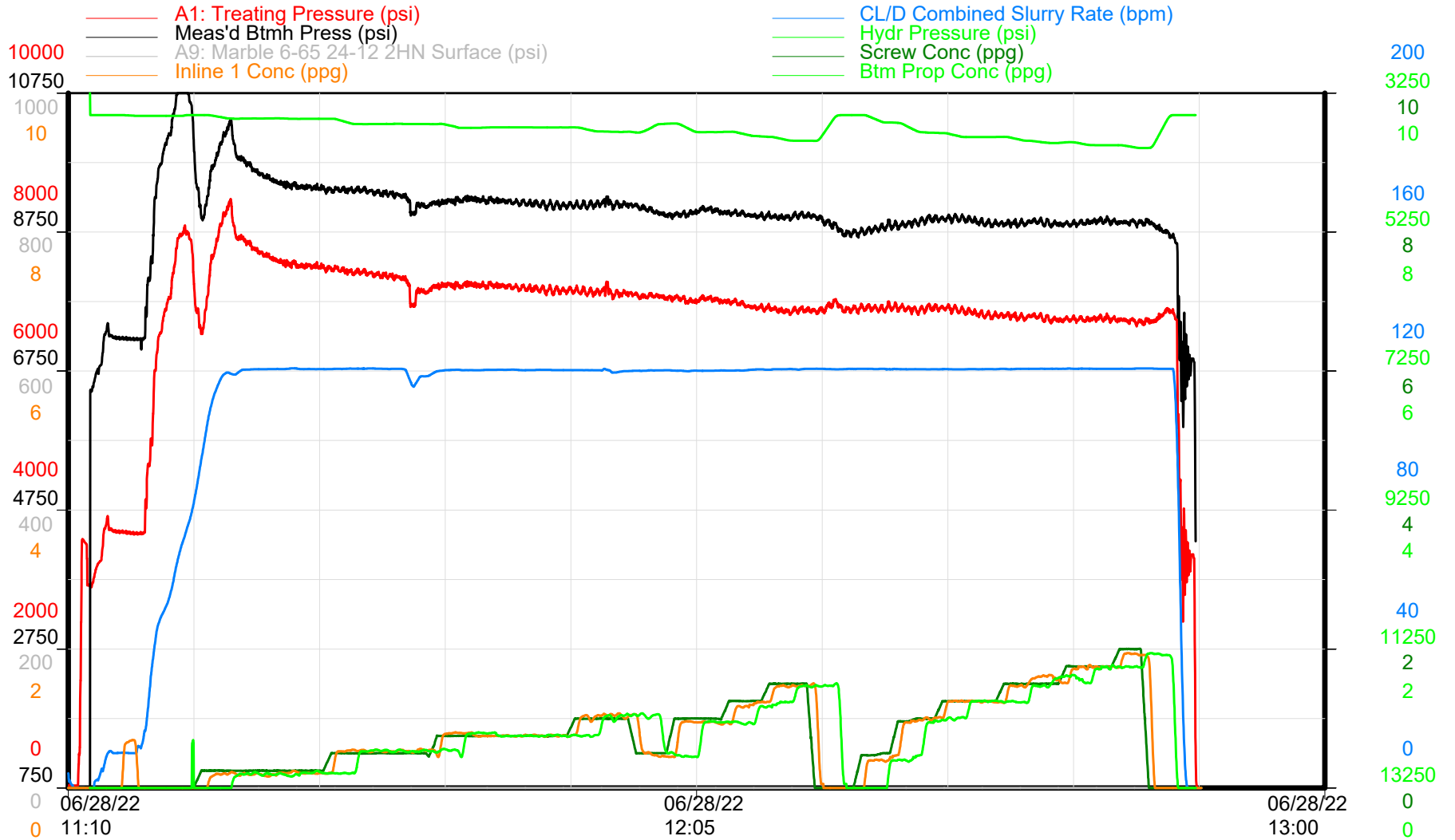
Niobrara - Stage 49 of 60



Zipper Pressures

Time

Republic Crew



Treatment Plot

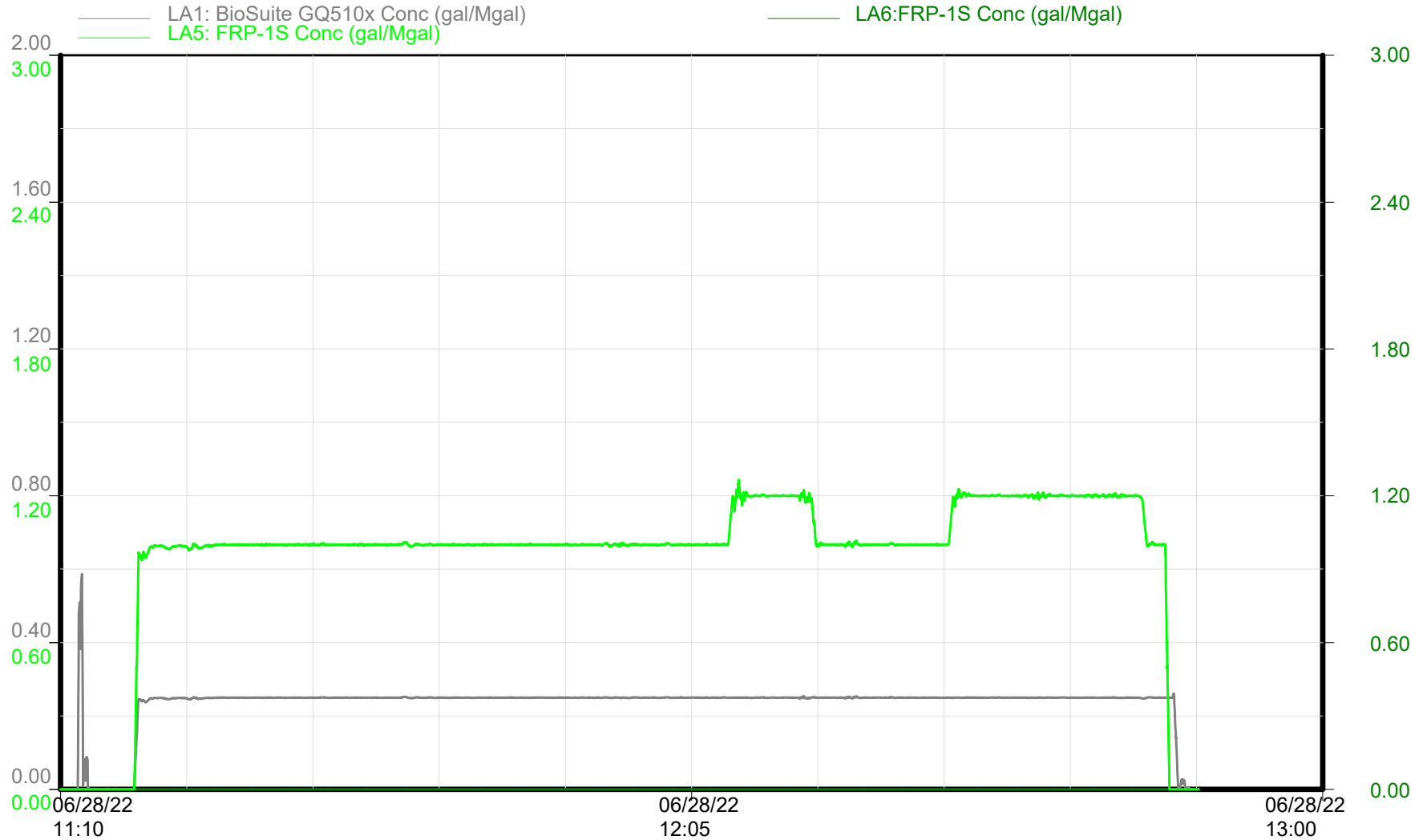
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 50 of 60



Chemical Additives

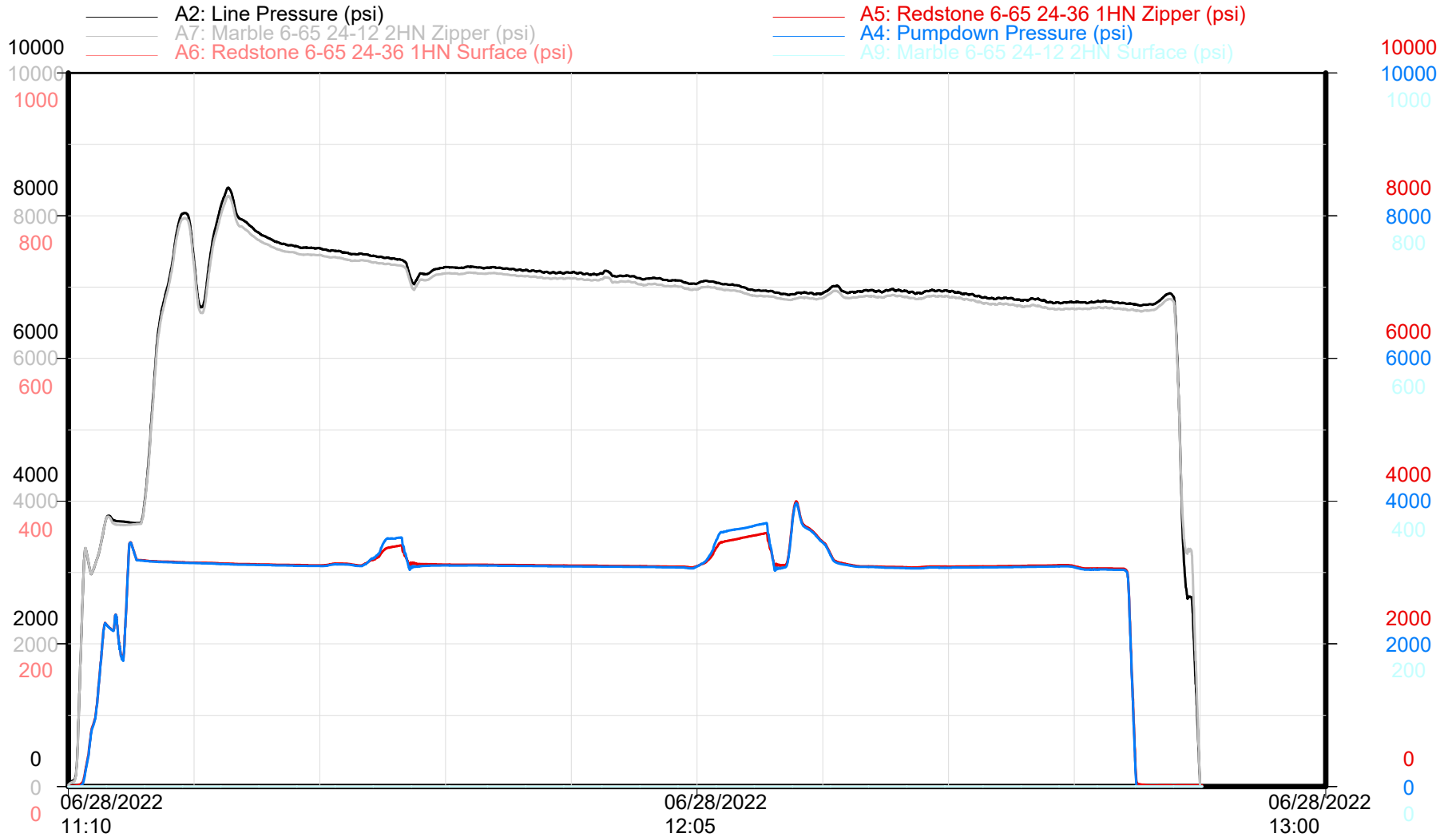
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

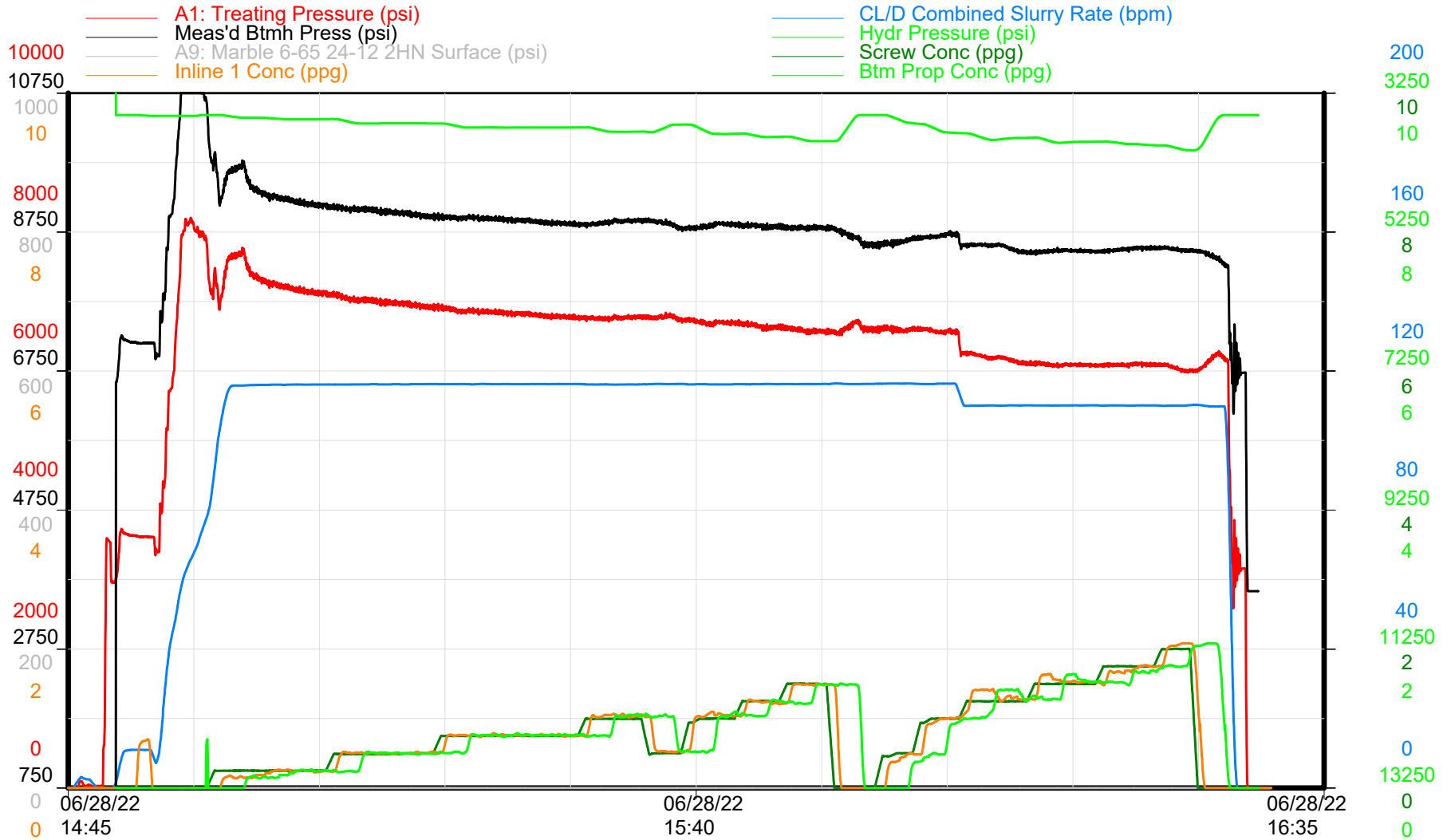
Niobrara - Stage 50 of 60



Zipper Pressures

Time

Republic Crew



Treatment Plot

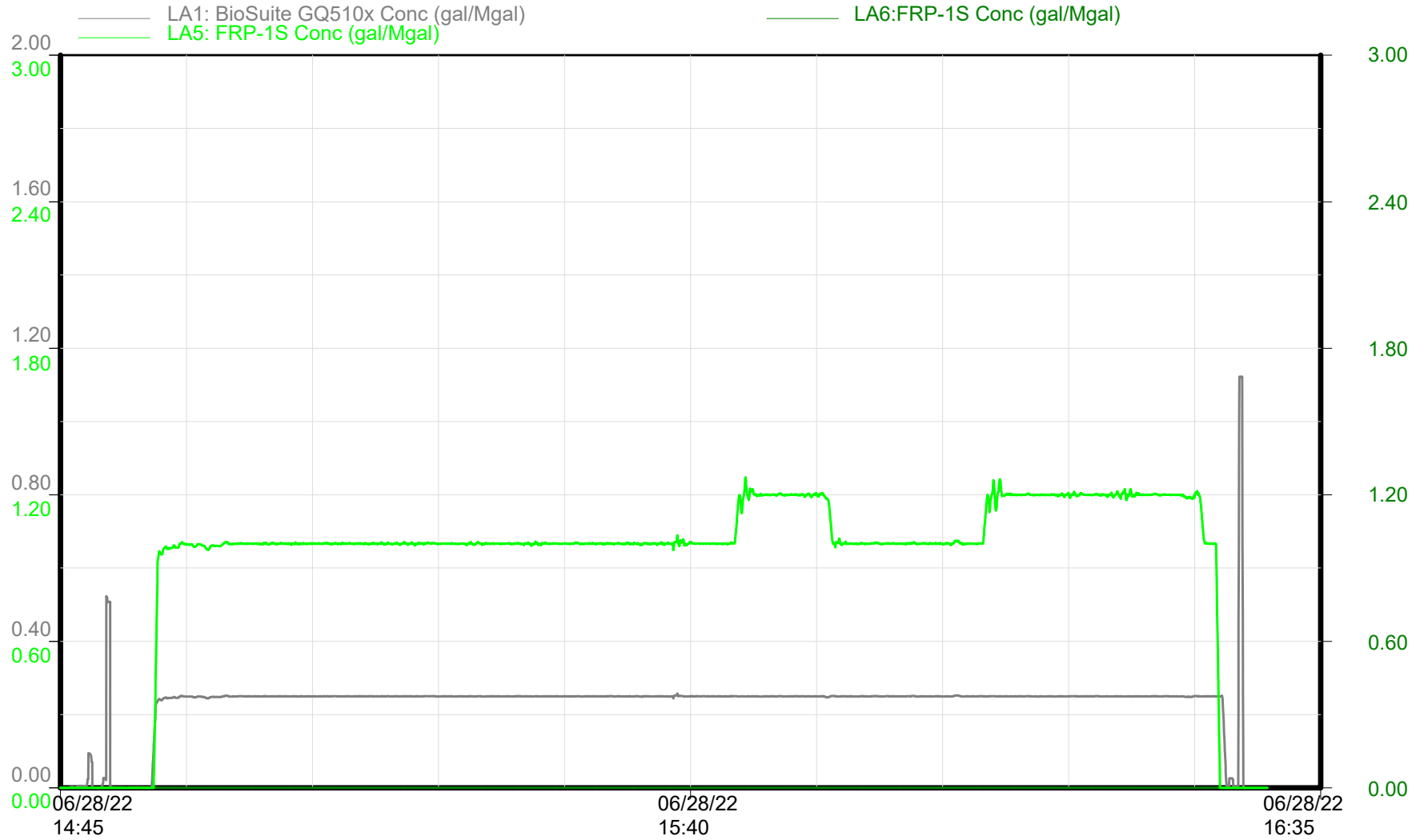
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 51 of 60



Chemical Additives

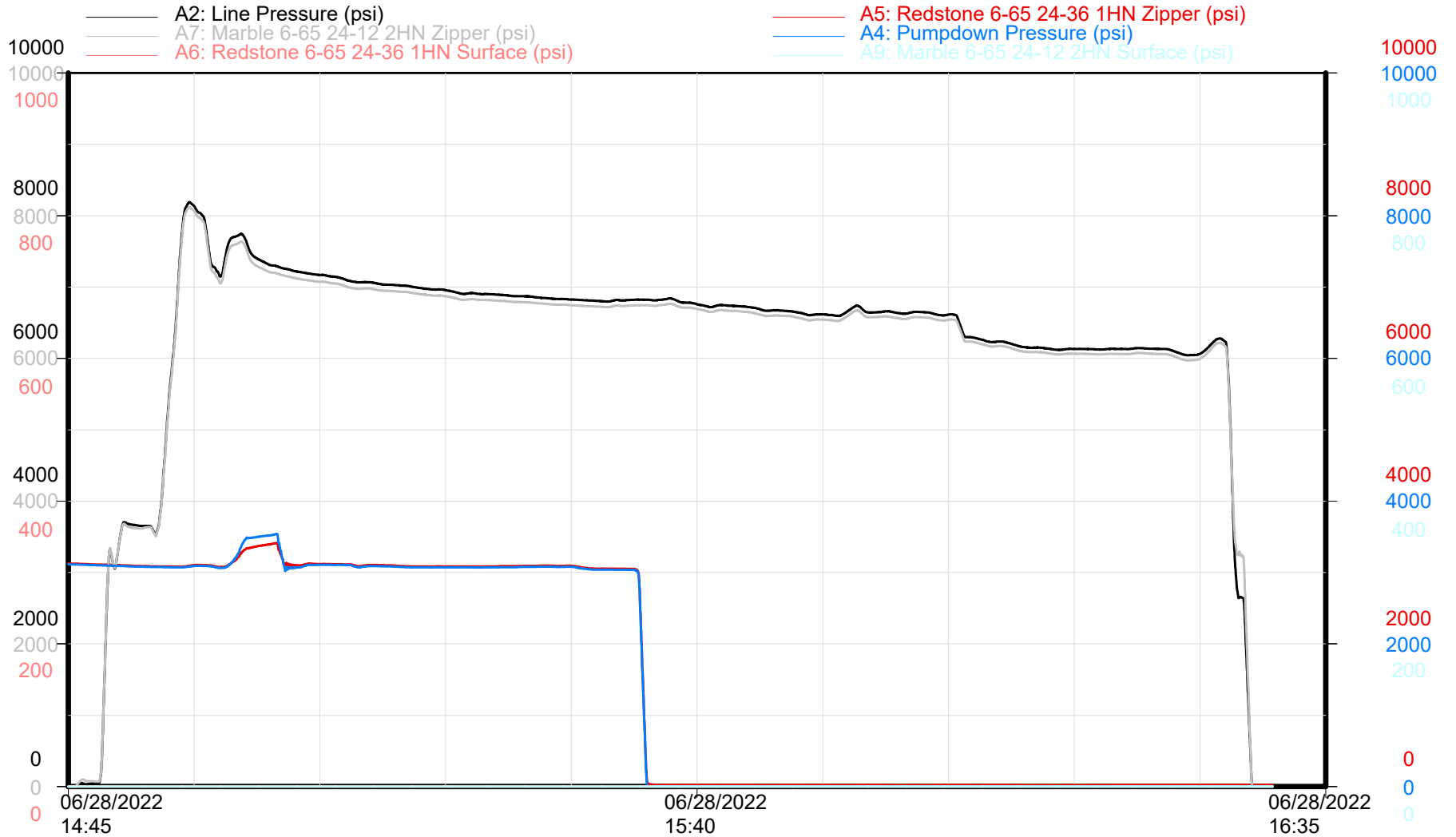
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

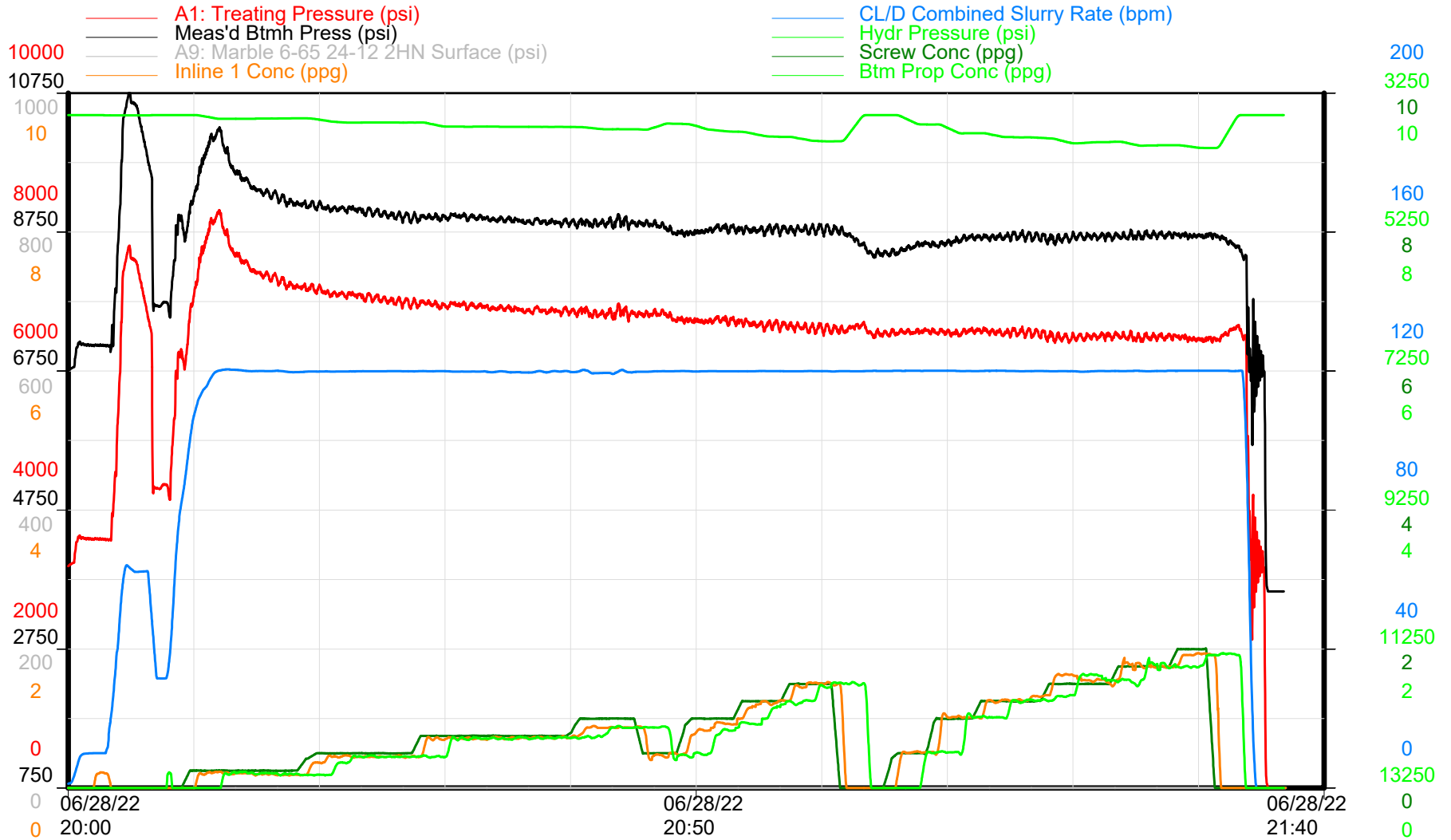
Niobrara - Stage 51 of 60



Zipper Pressures

Time

Republic Crew



Treatment Plot

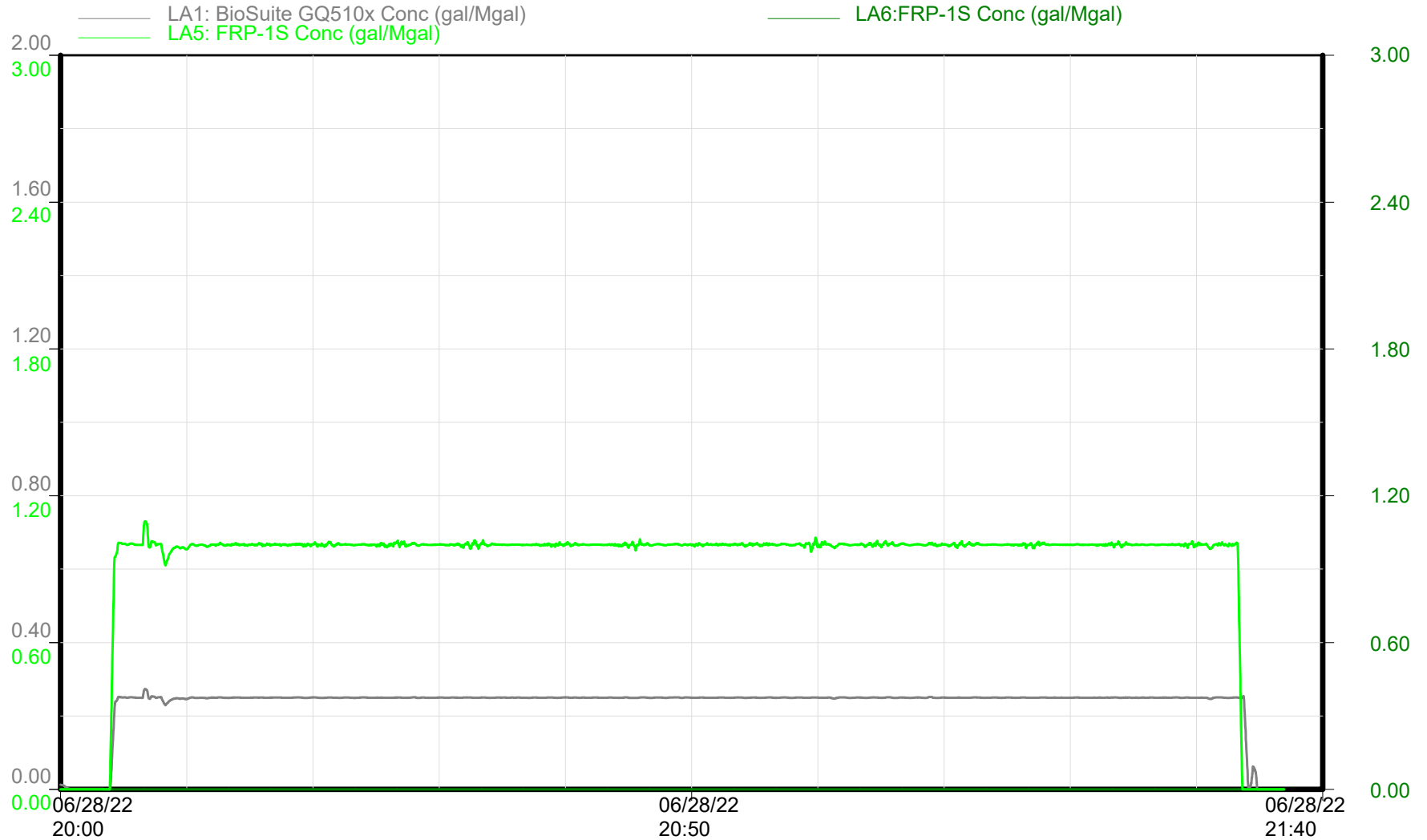
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 52 of 60



Chemical Additives

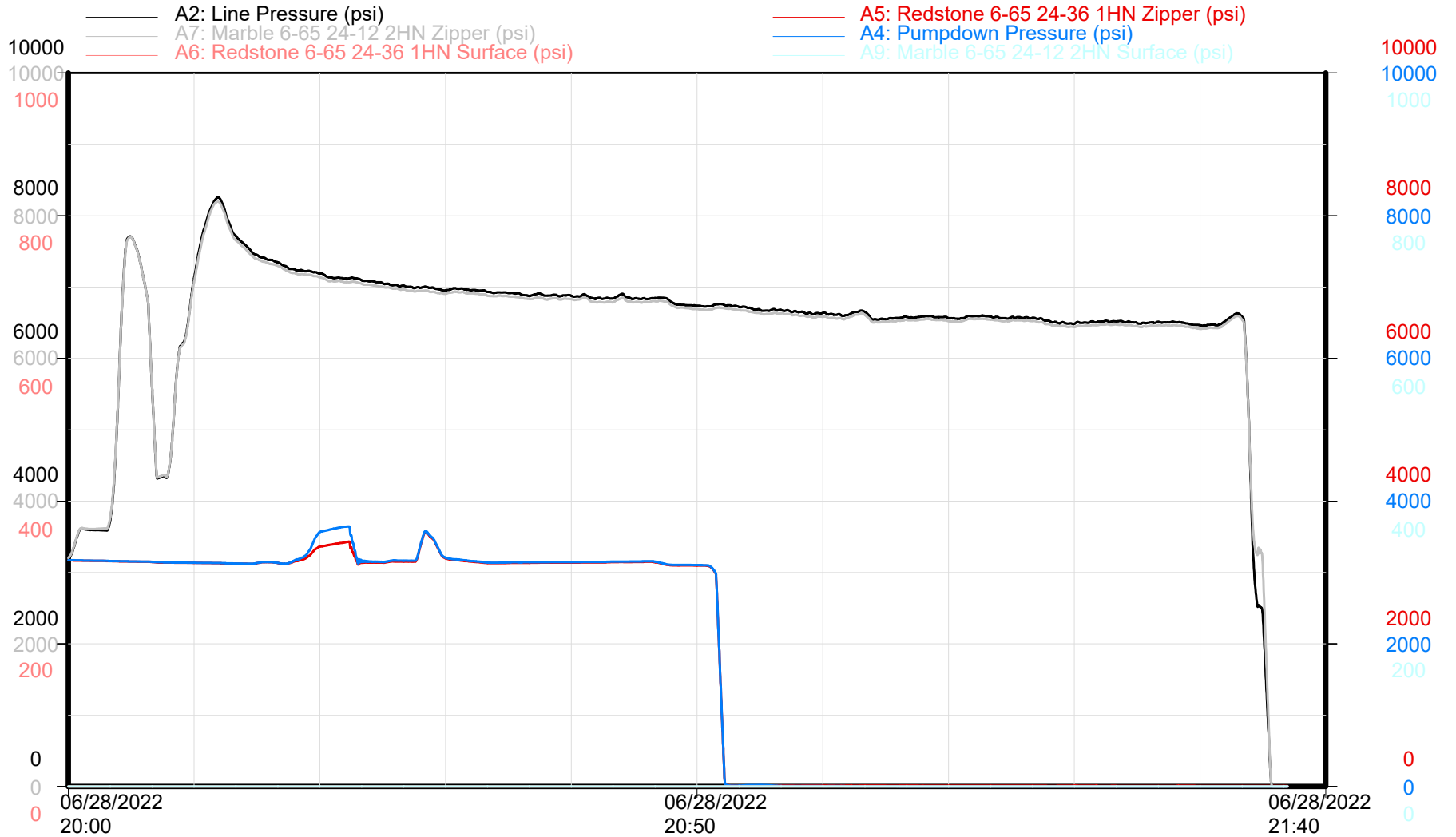
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

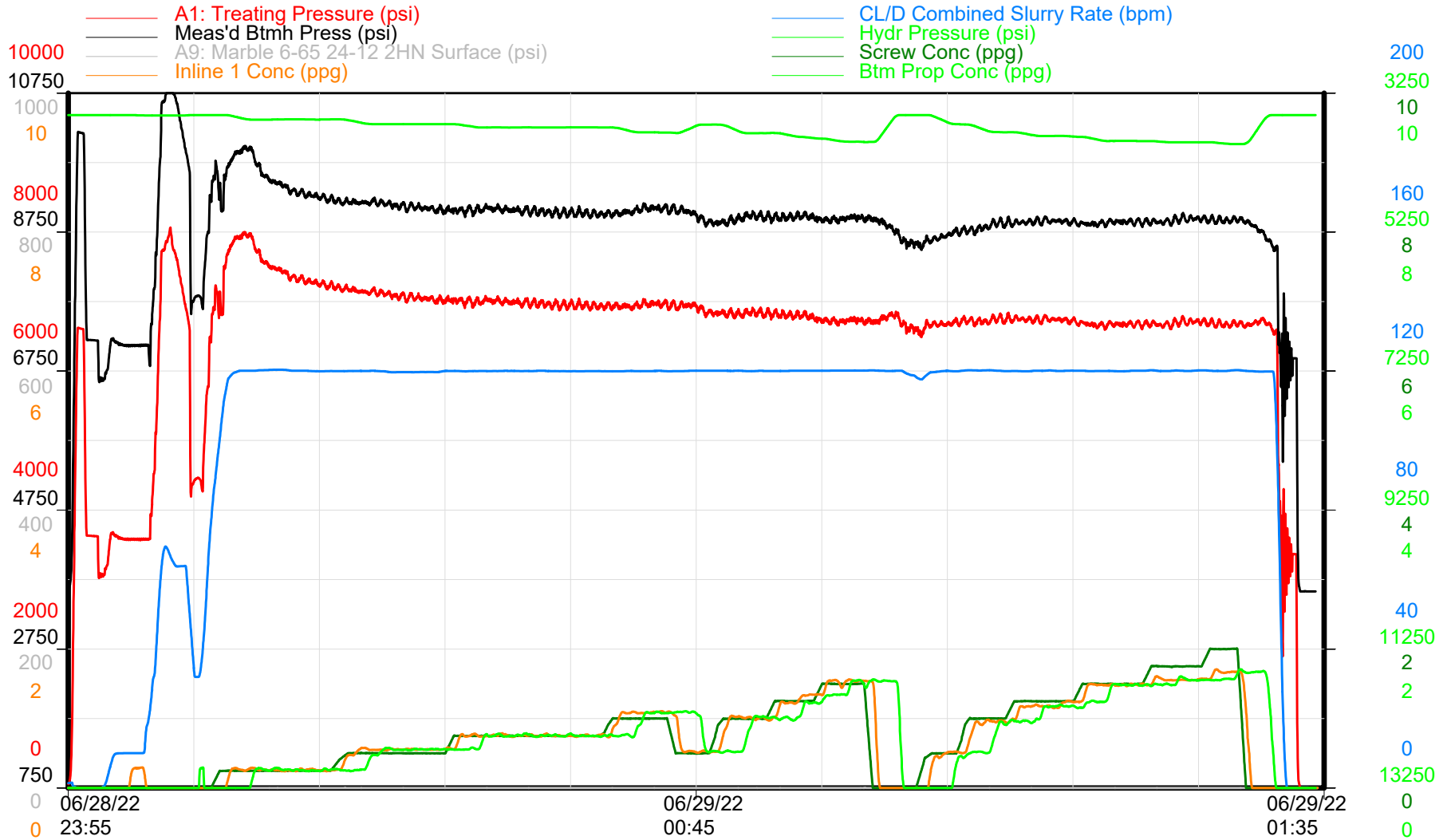
Niobrara - Stage 52 of 60



Zipper Pressures

Time

Republic Crew



Treatment Plot

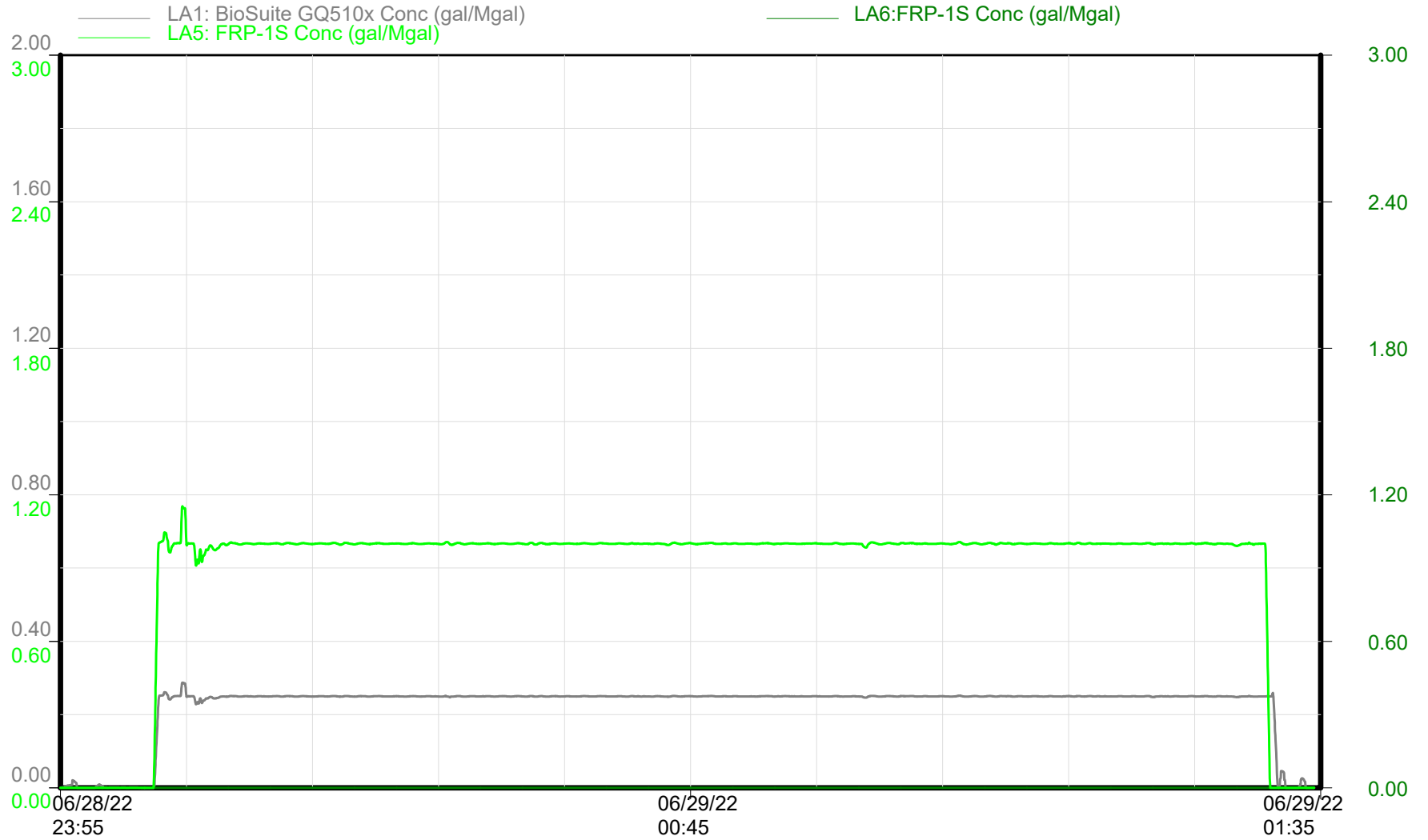
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 53 of 60



Chemical Additives

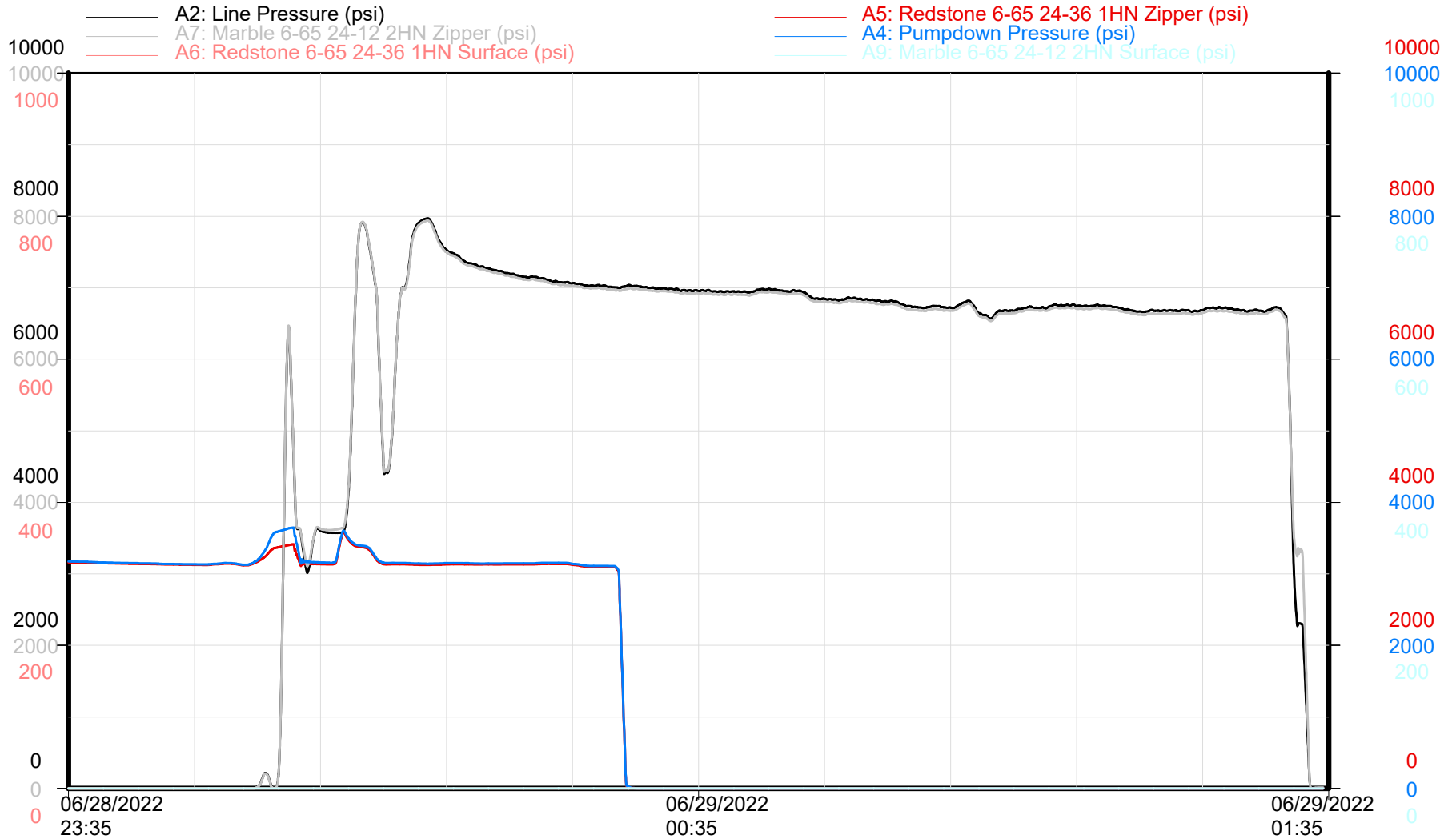
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 53 of 60



Zipper Pressures

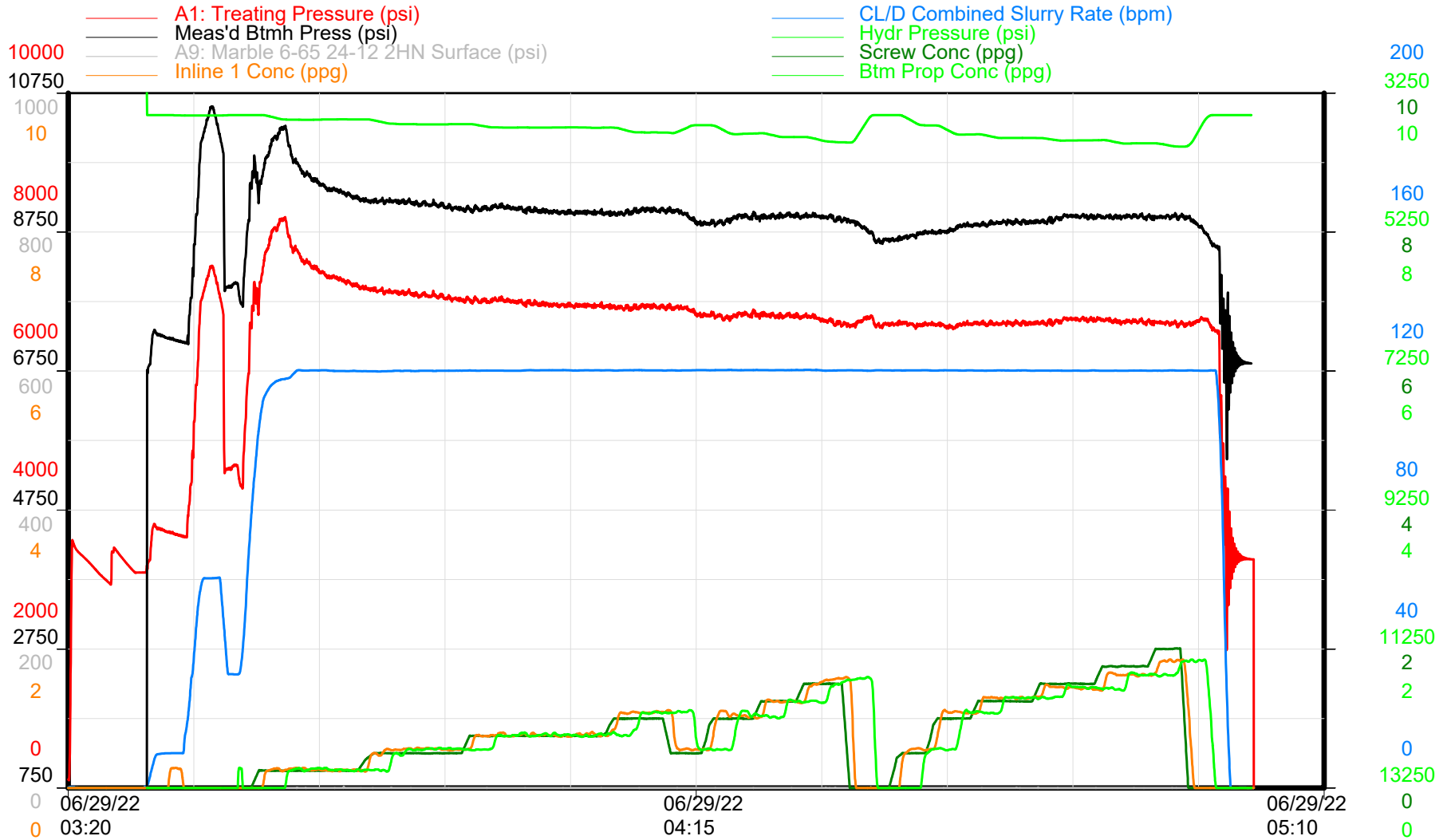
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 54 of 60



Treatment Plot

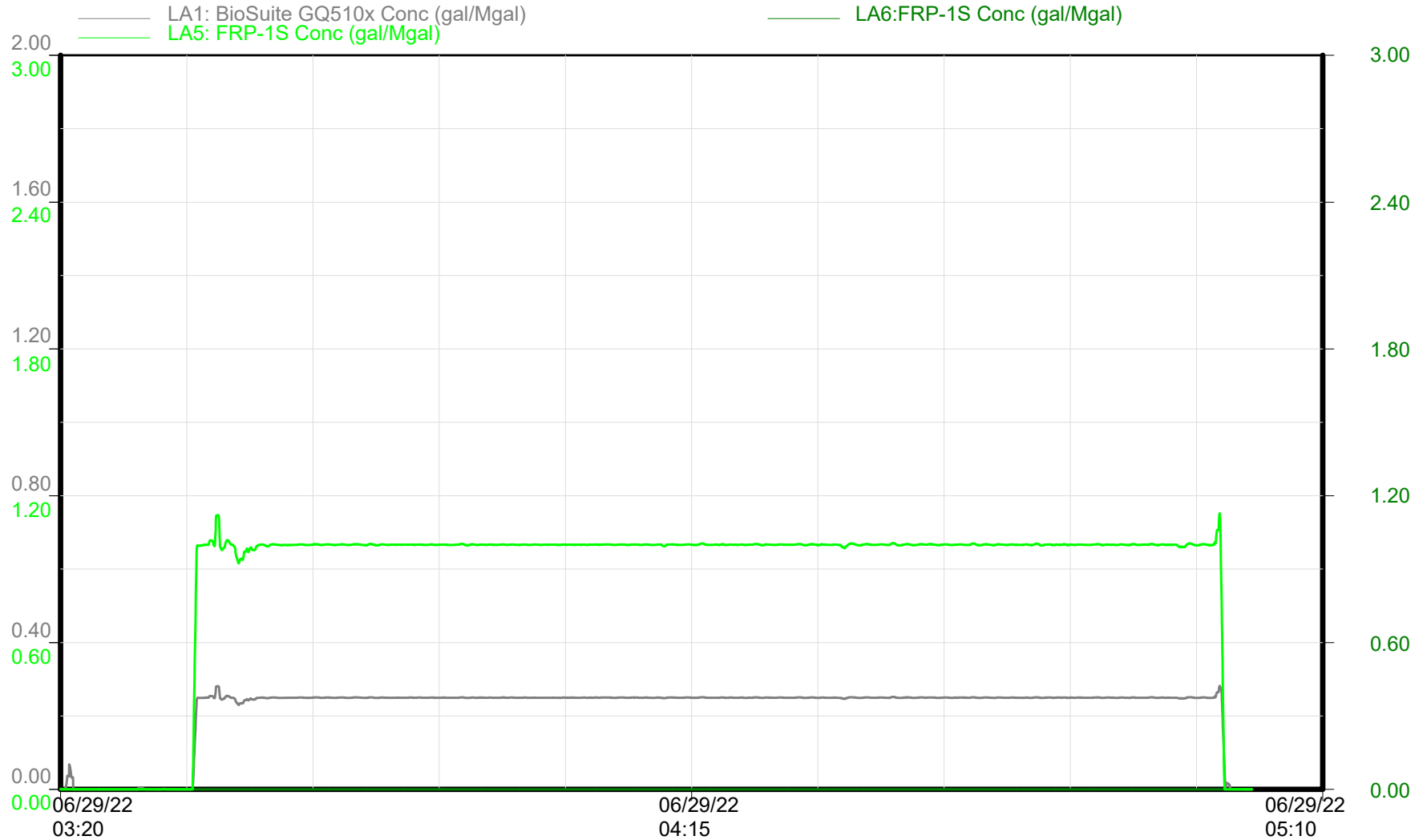
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 54 of 60



Chemical Additives

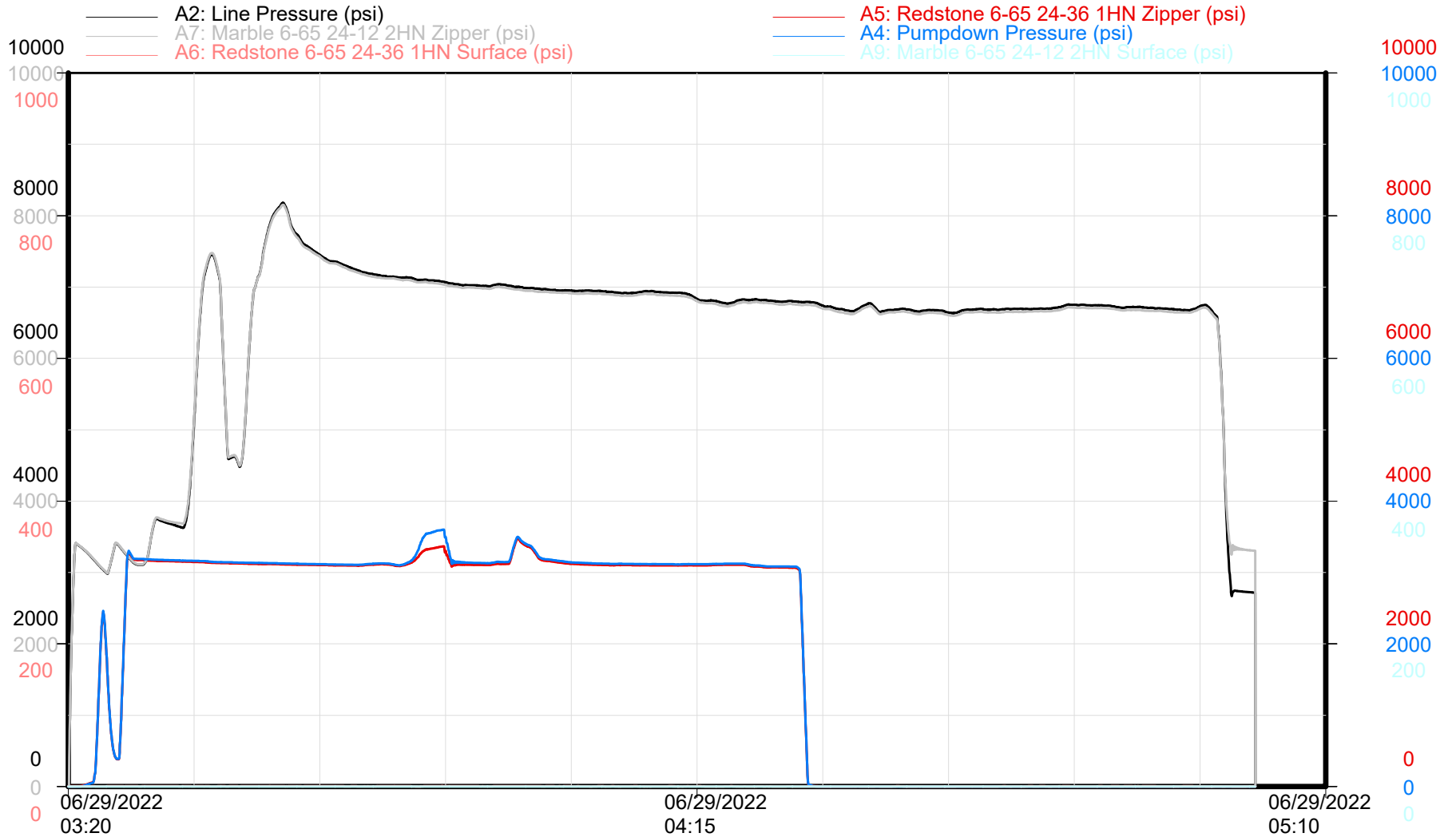
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 54 of 60



Zipper Pressures

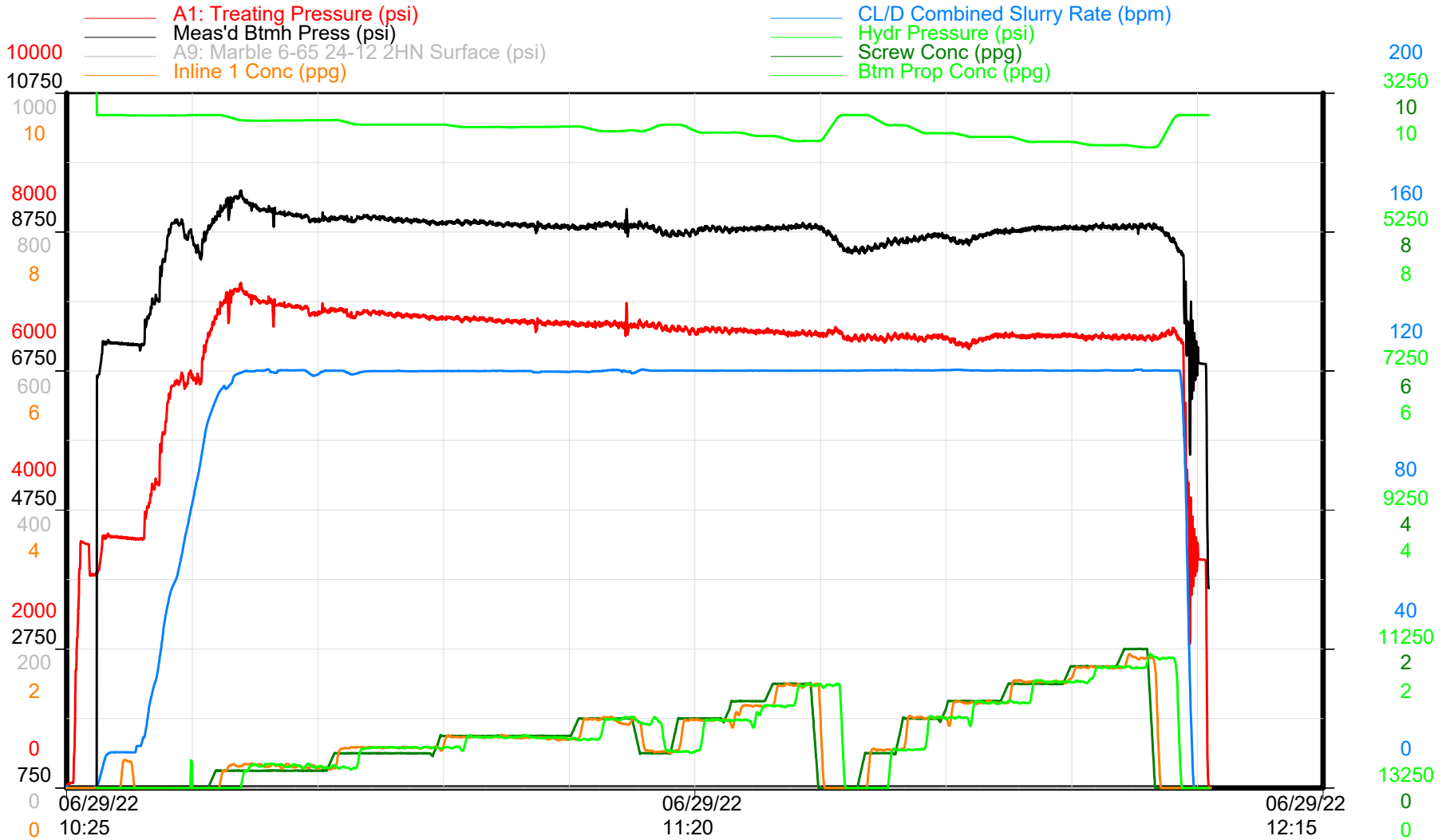
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 55 of 60



Treatment Plot

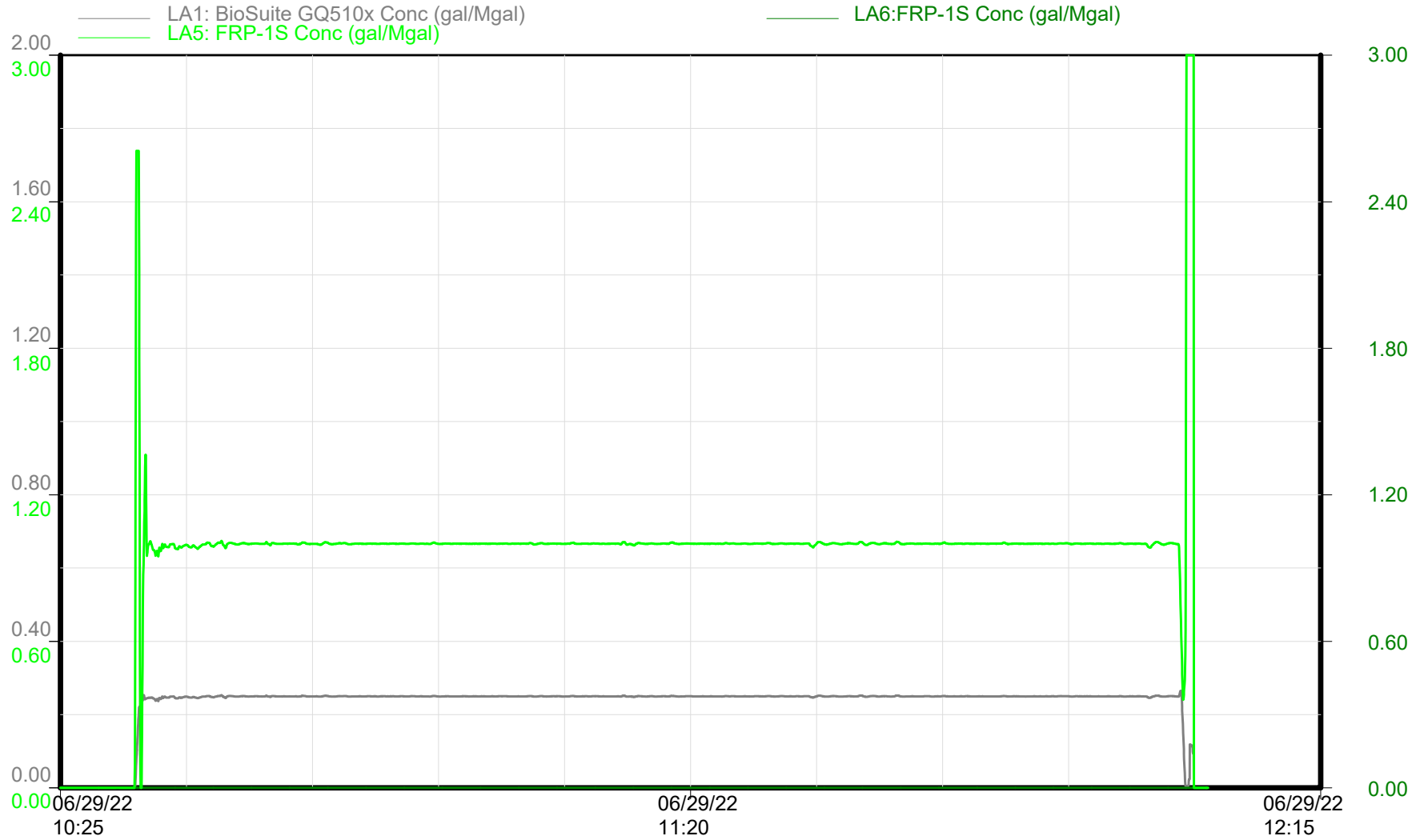
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 55 of 60



Chemical Additives

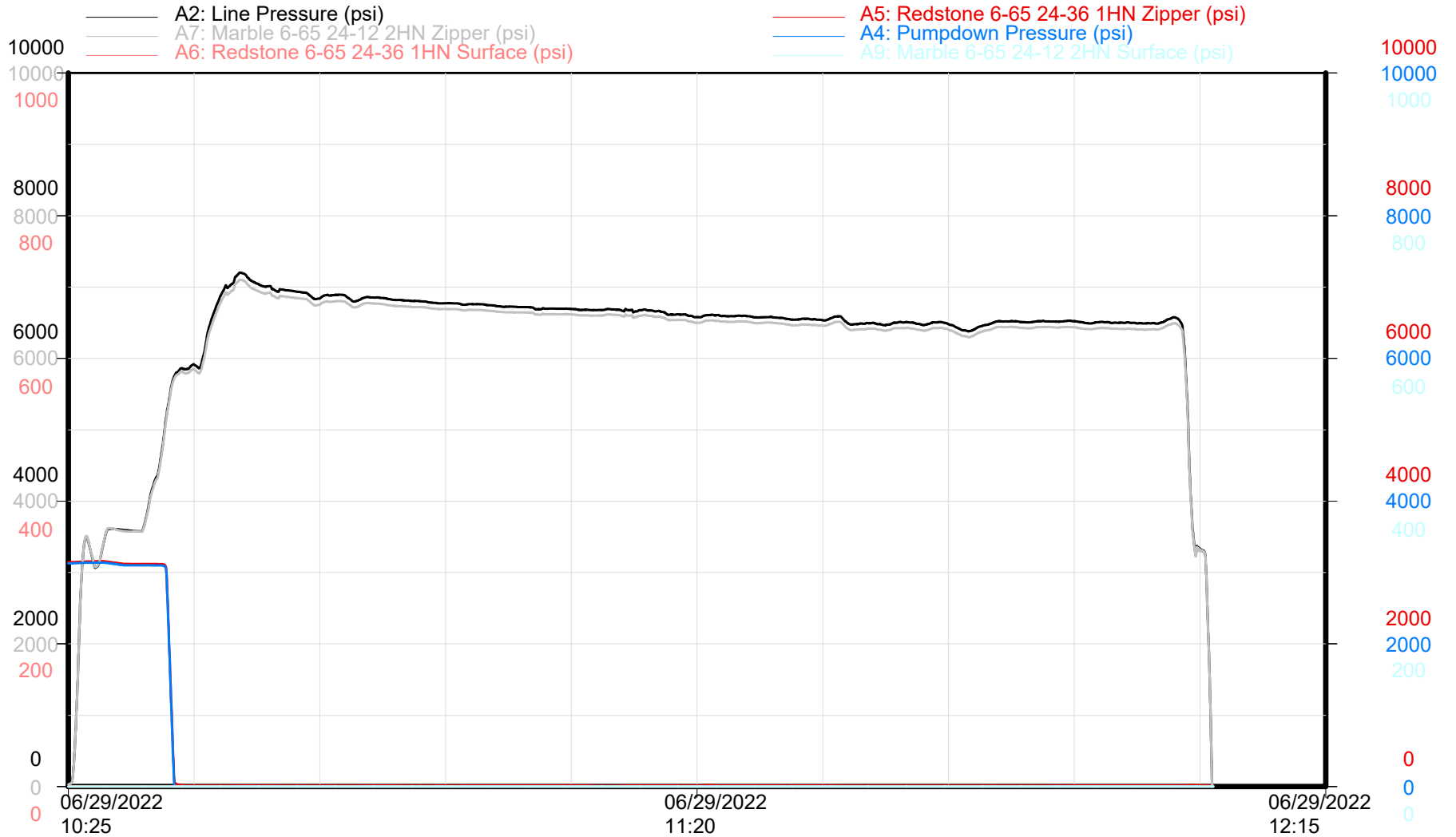
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

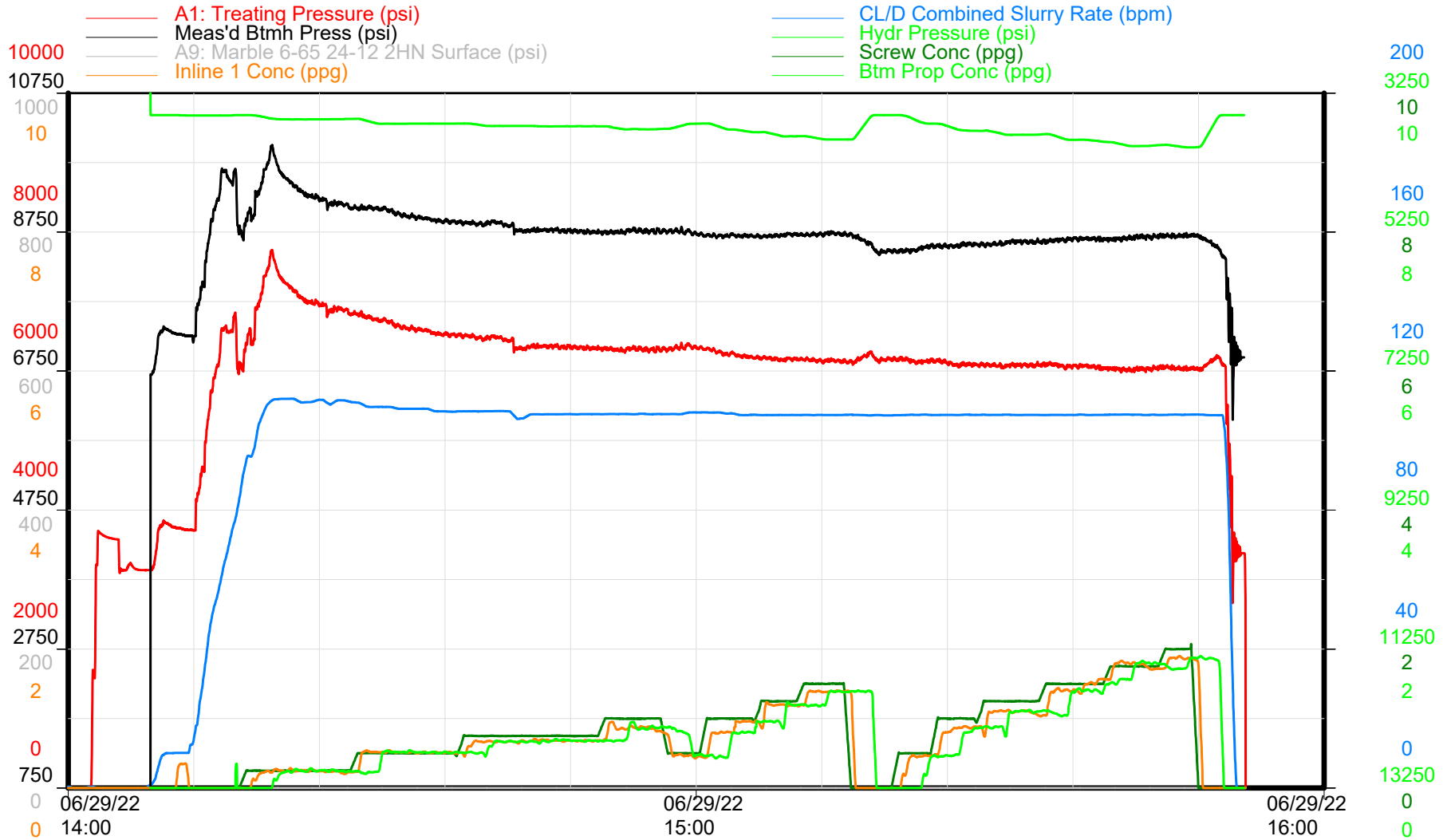
Niobrara - Stage 55 of 60



Zipper Pressures

Time

Republic Crew



Treatment Plot

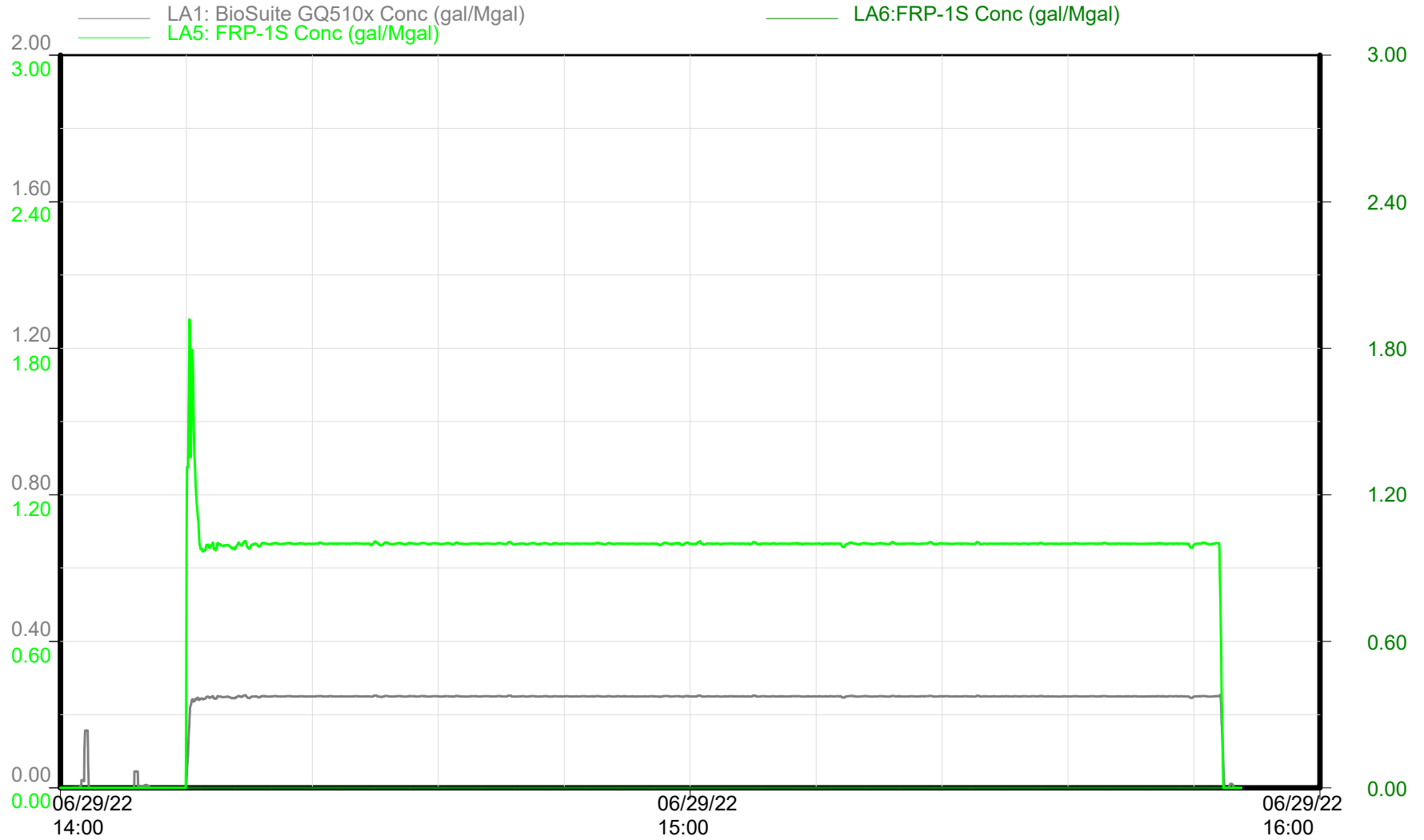
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 56 of 60



Chemical Additives

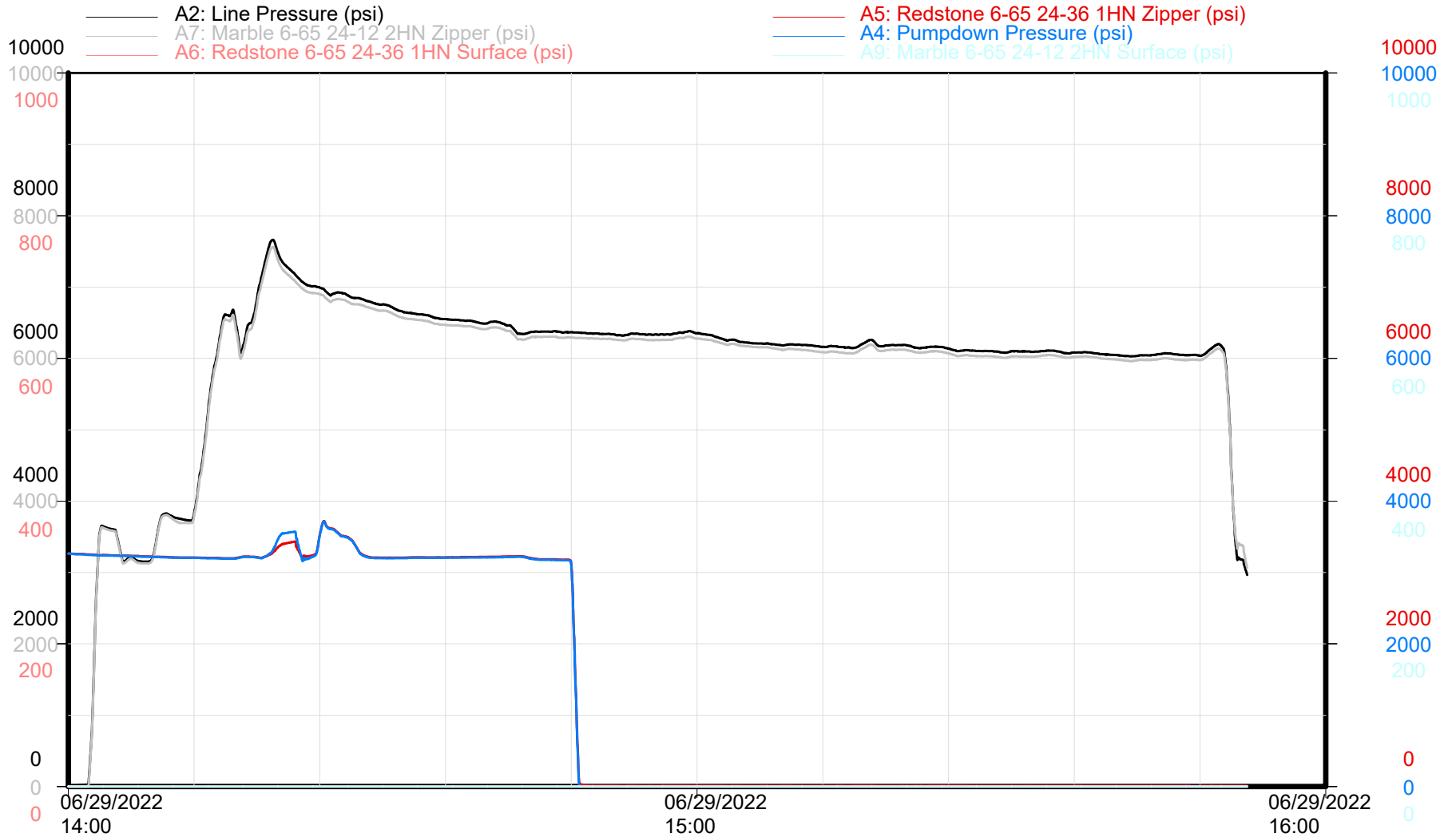
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

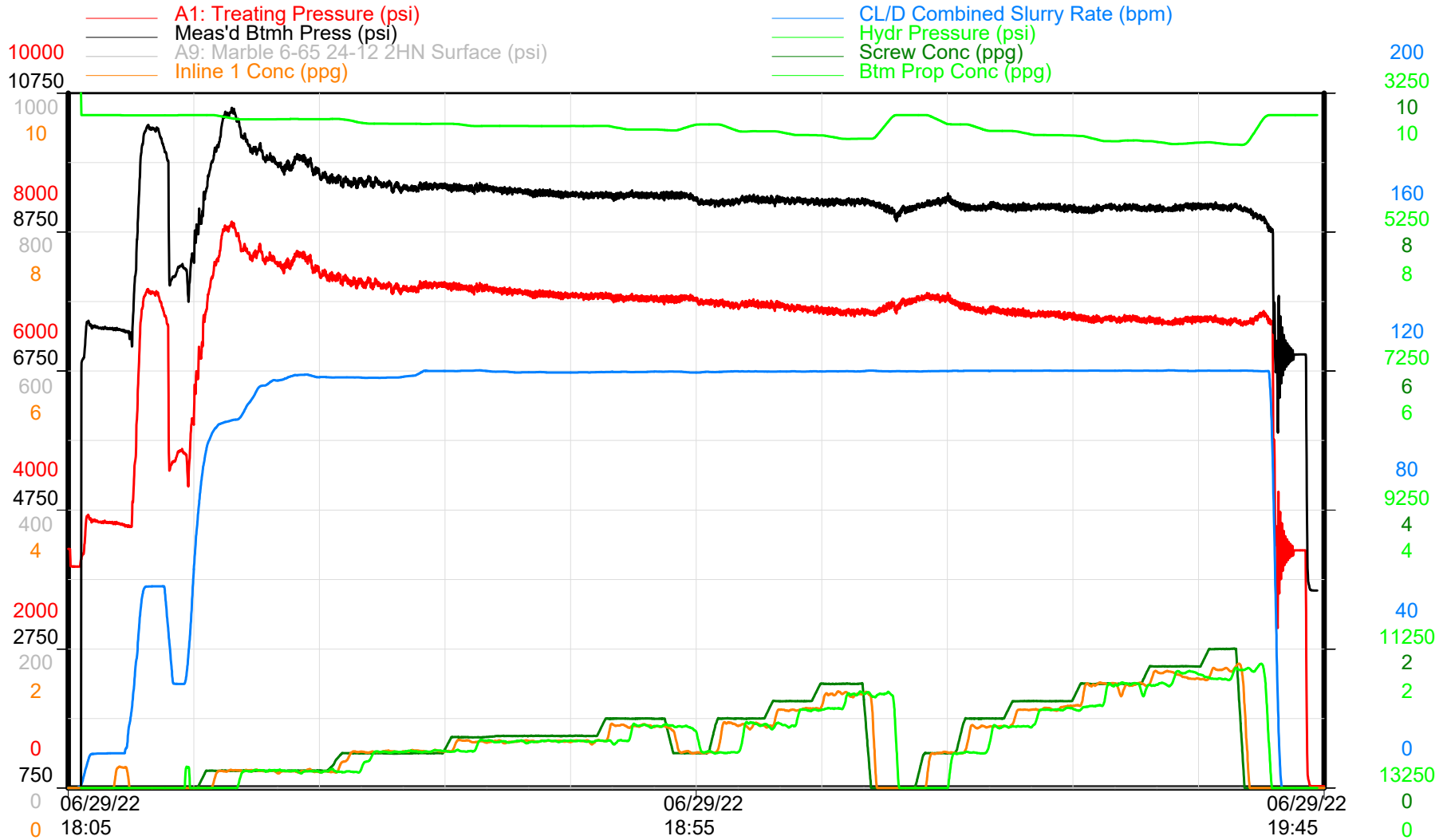
Niobrara - Stage 56 of 60



Zipper Pressures

Time

Republic Crew



Treatment Plot

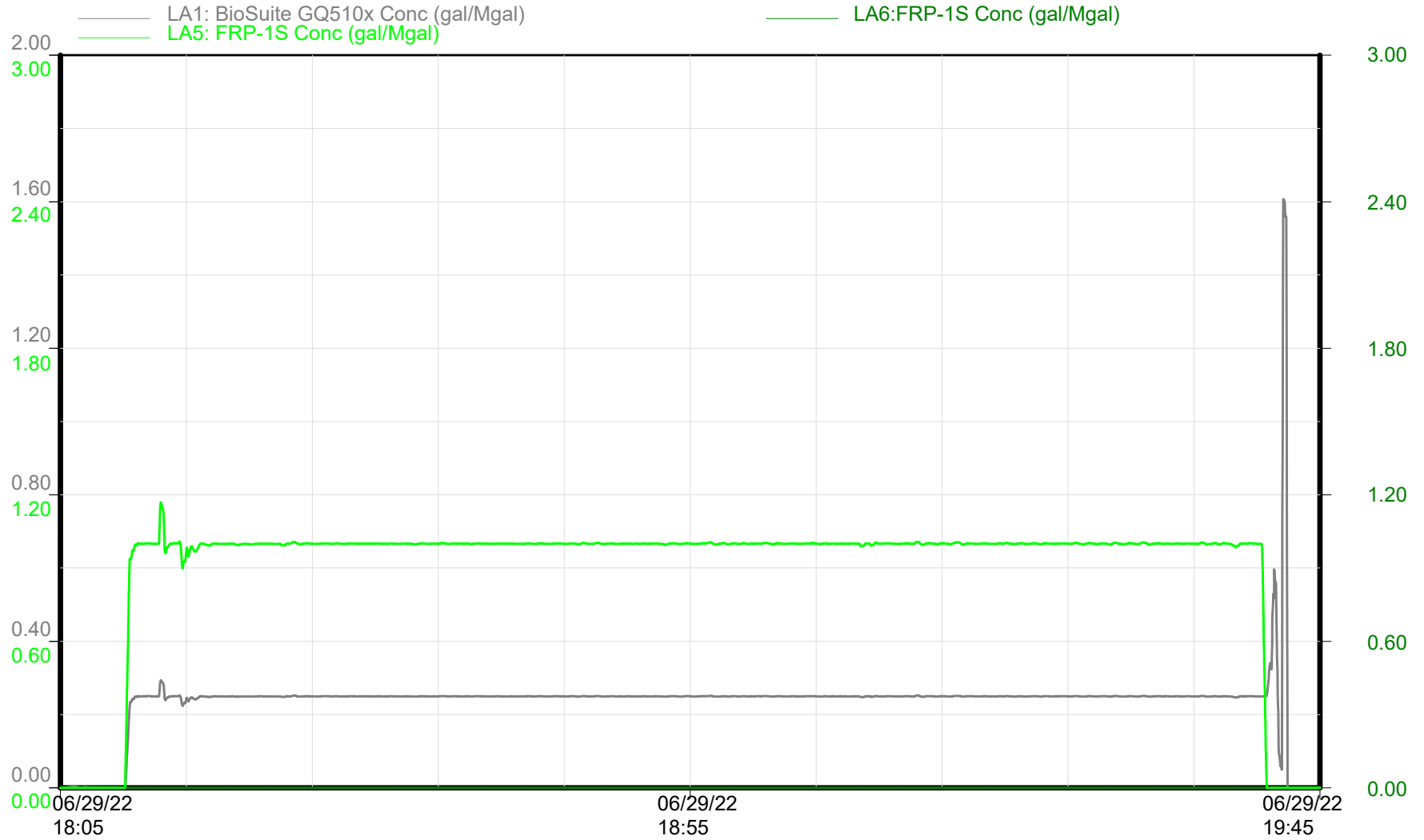
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 57 of 60



Chemical Additives

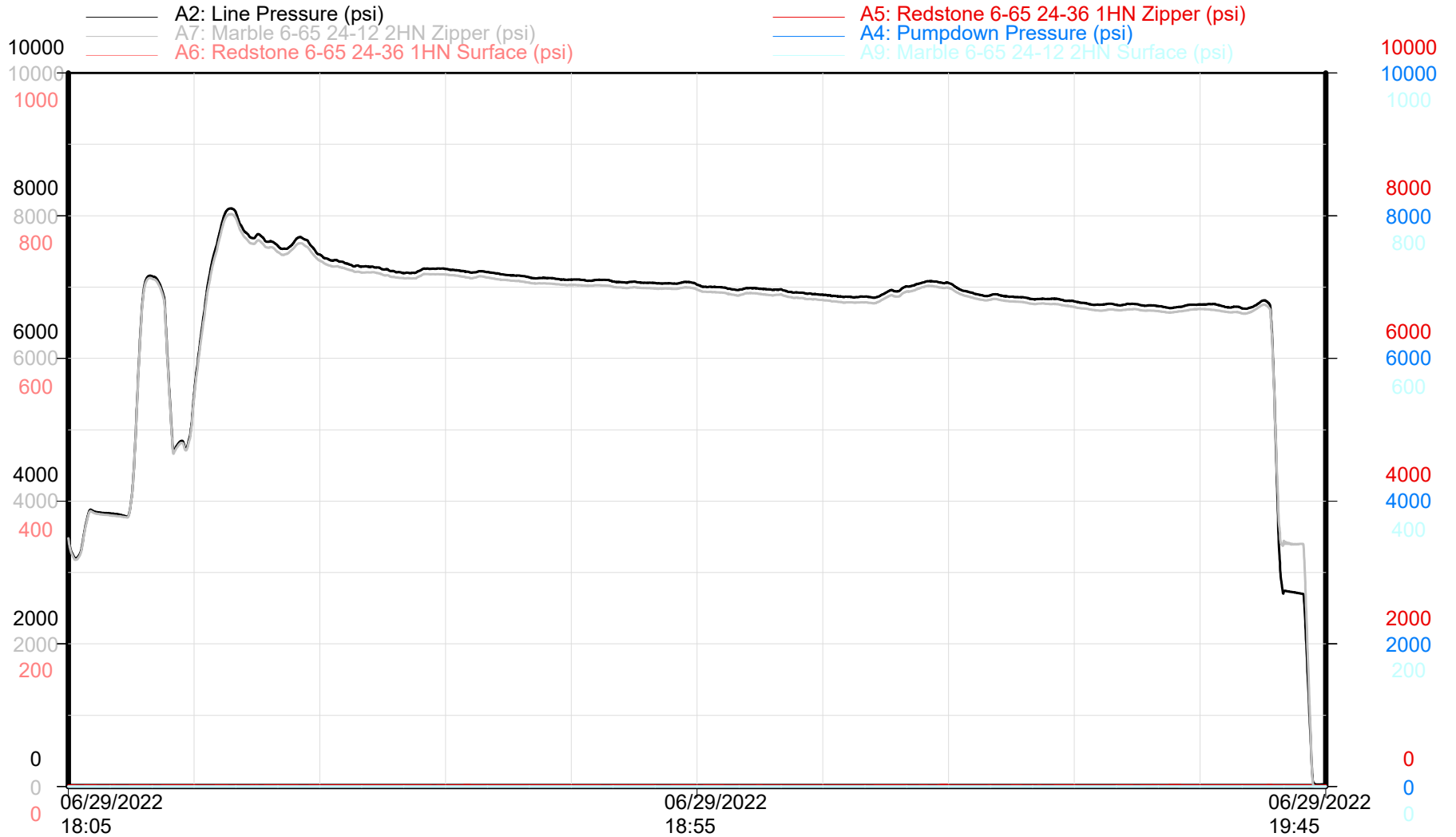
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 57 of 60



Zipper Pressures

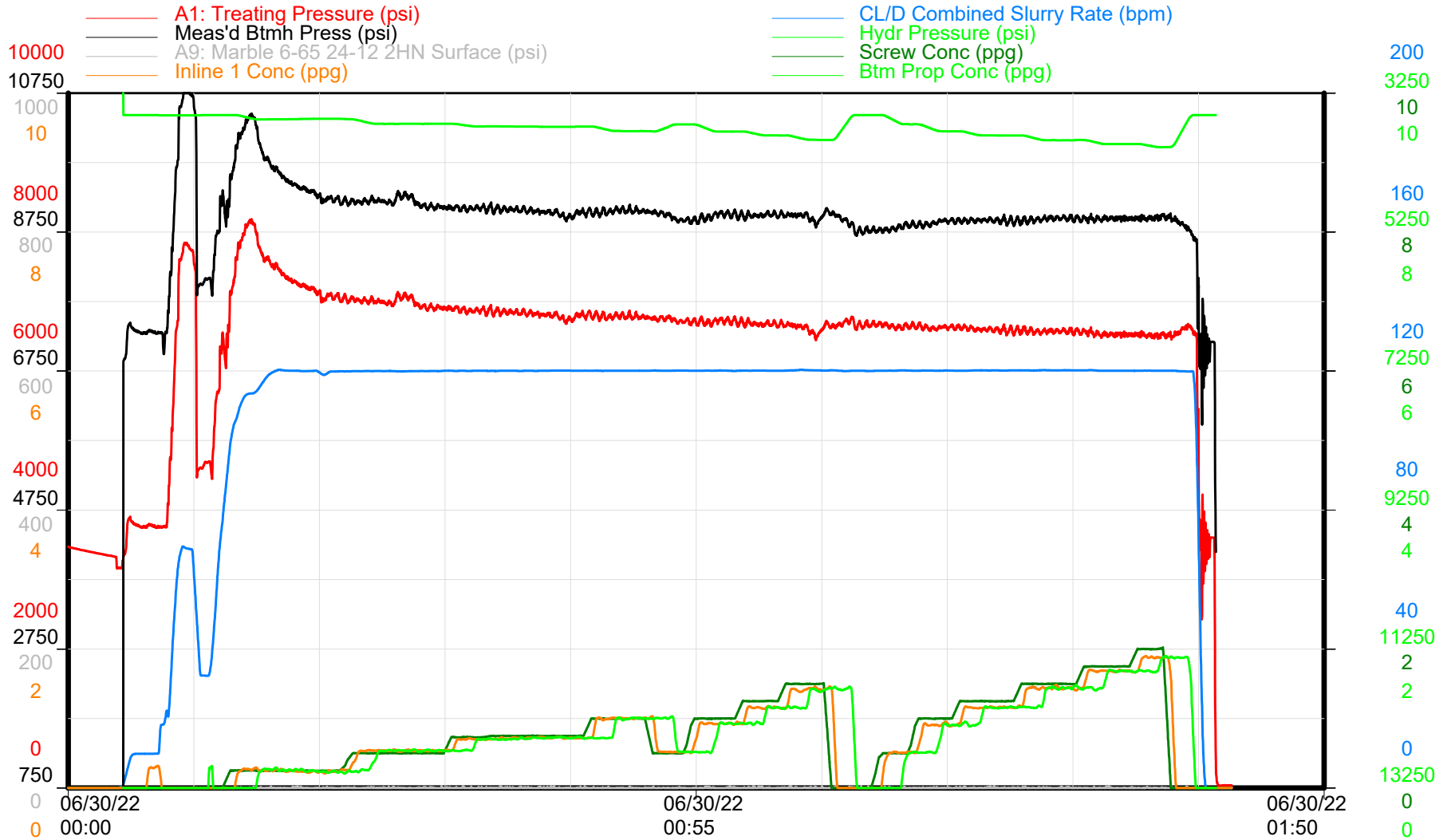
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 58 of 60



Treatment Plot

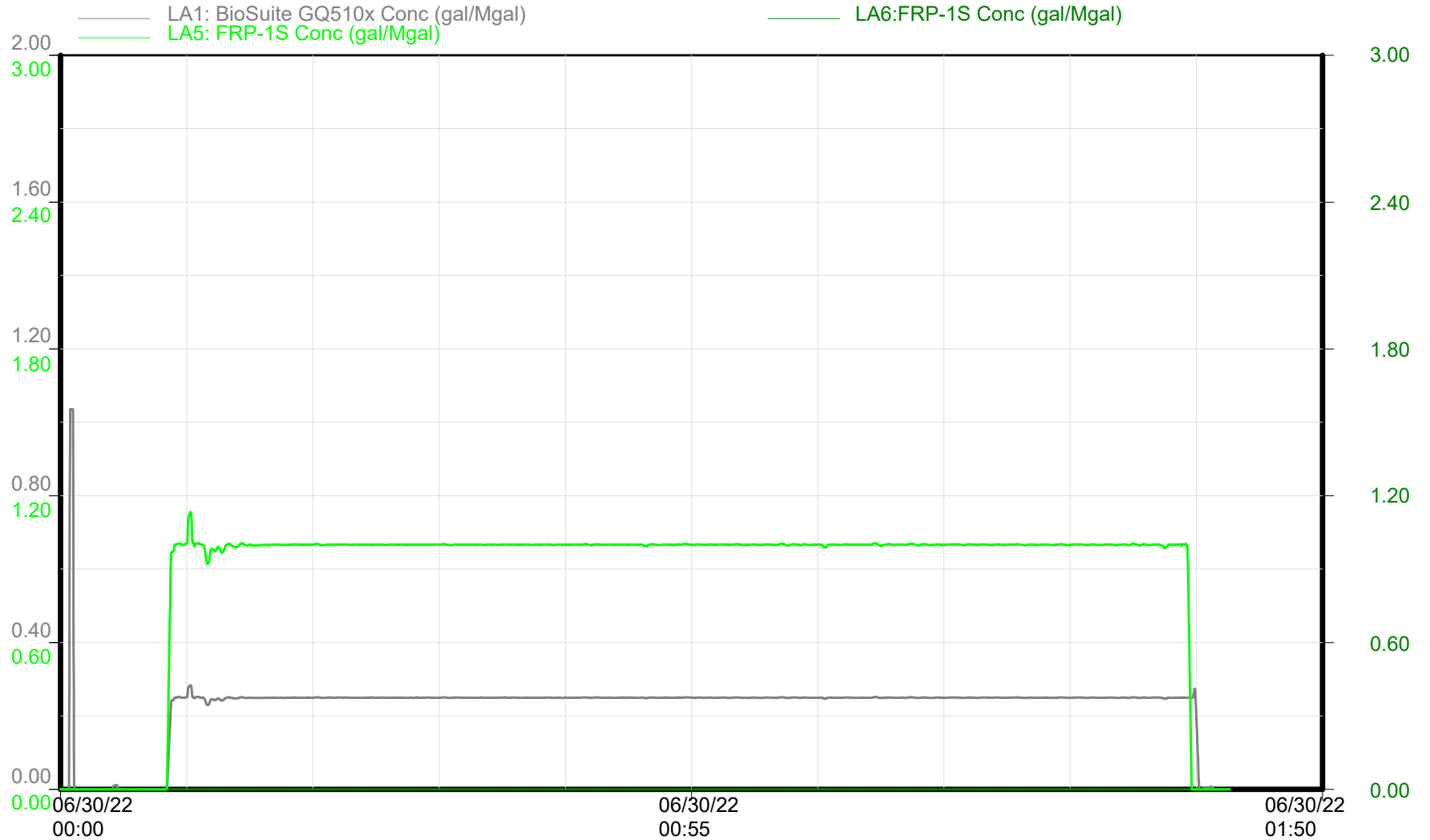
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 58 of 60



Chemical Additives

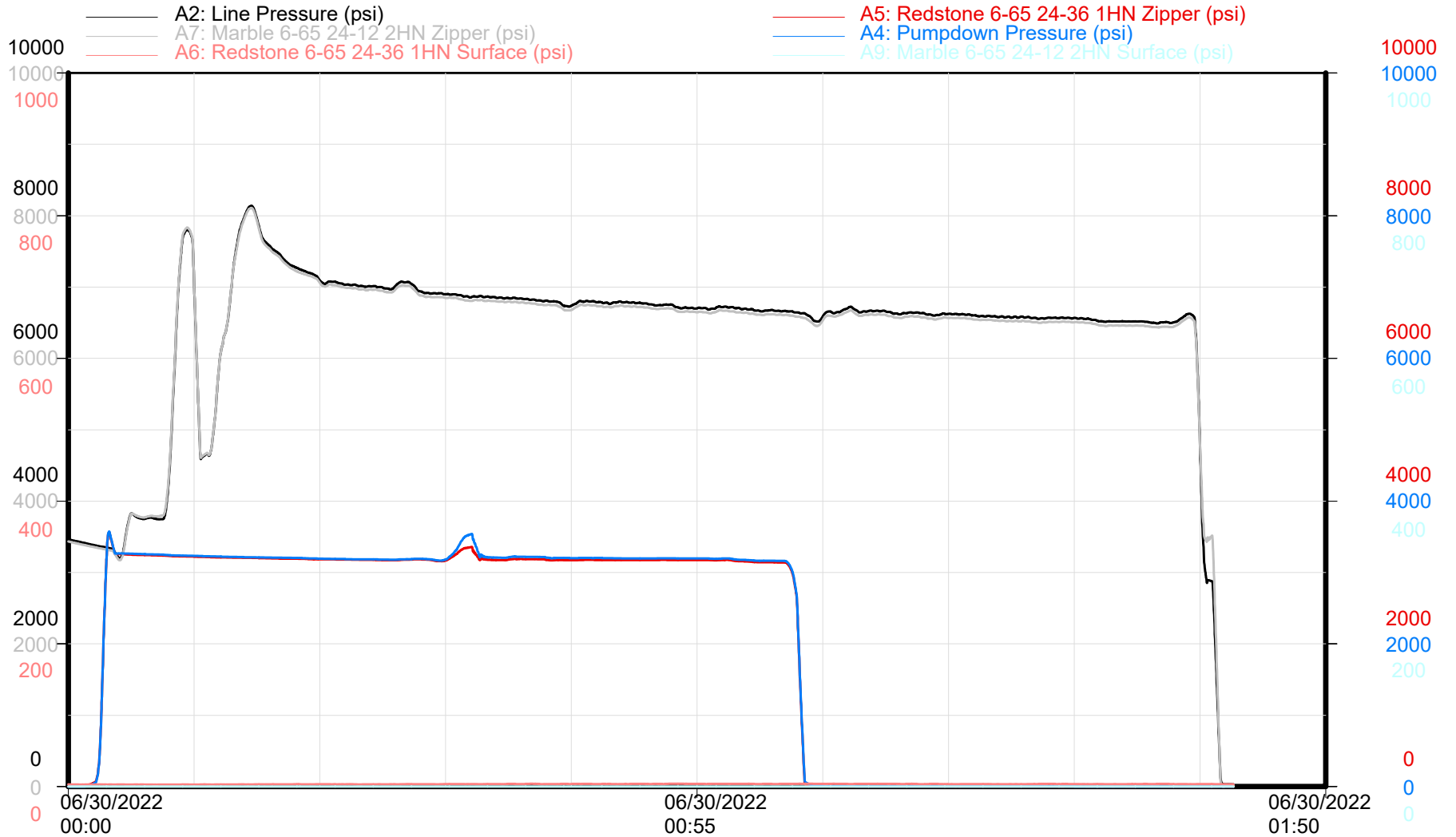
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

Niobrara - Stage 58 of 60



Zipper Pressures

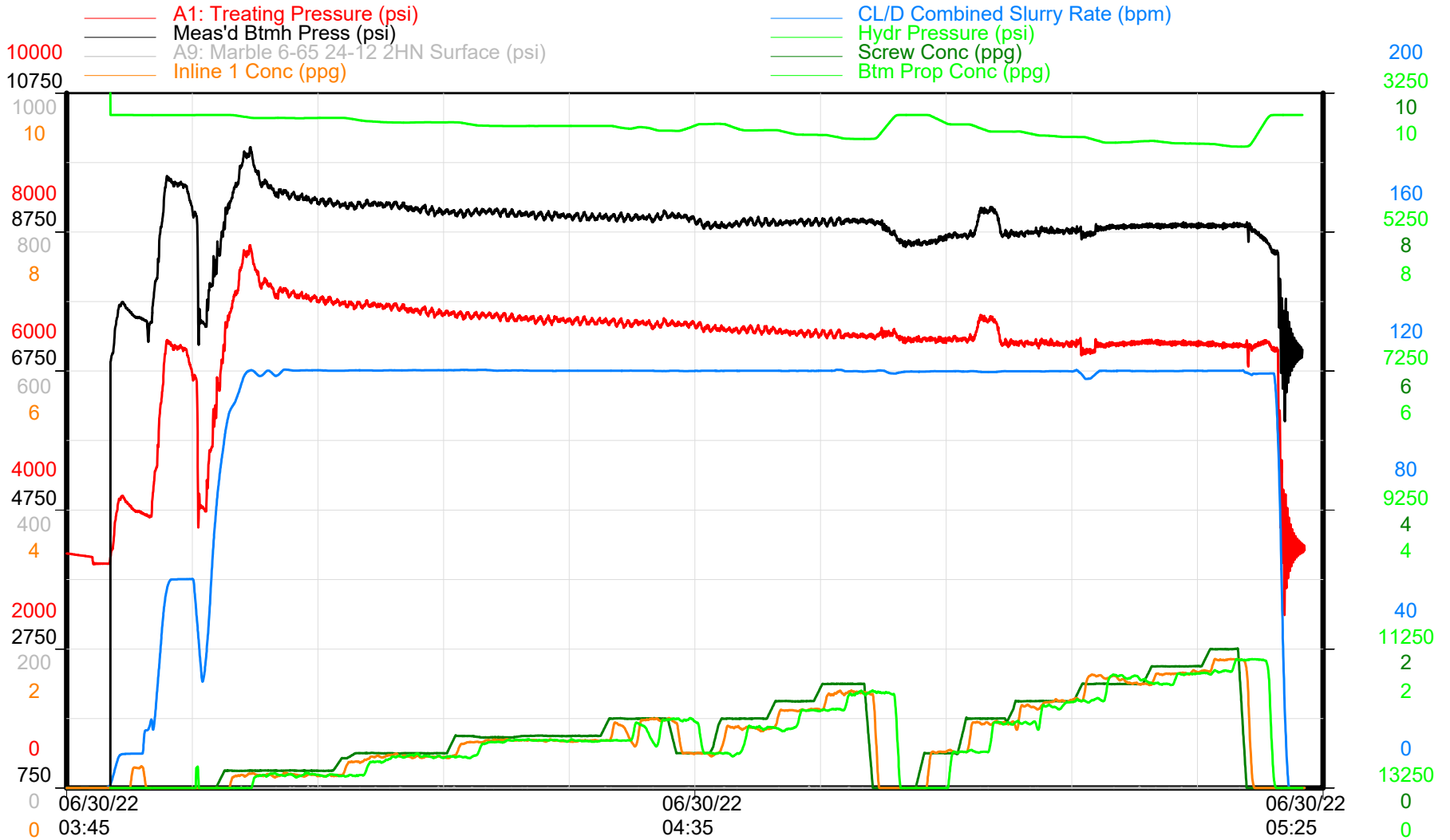
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

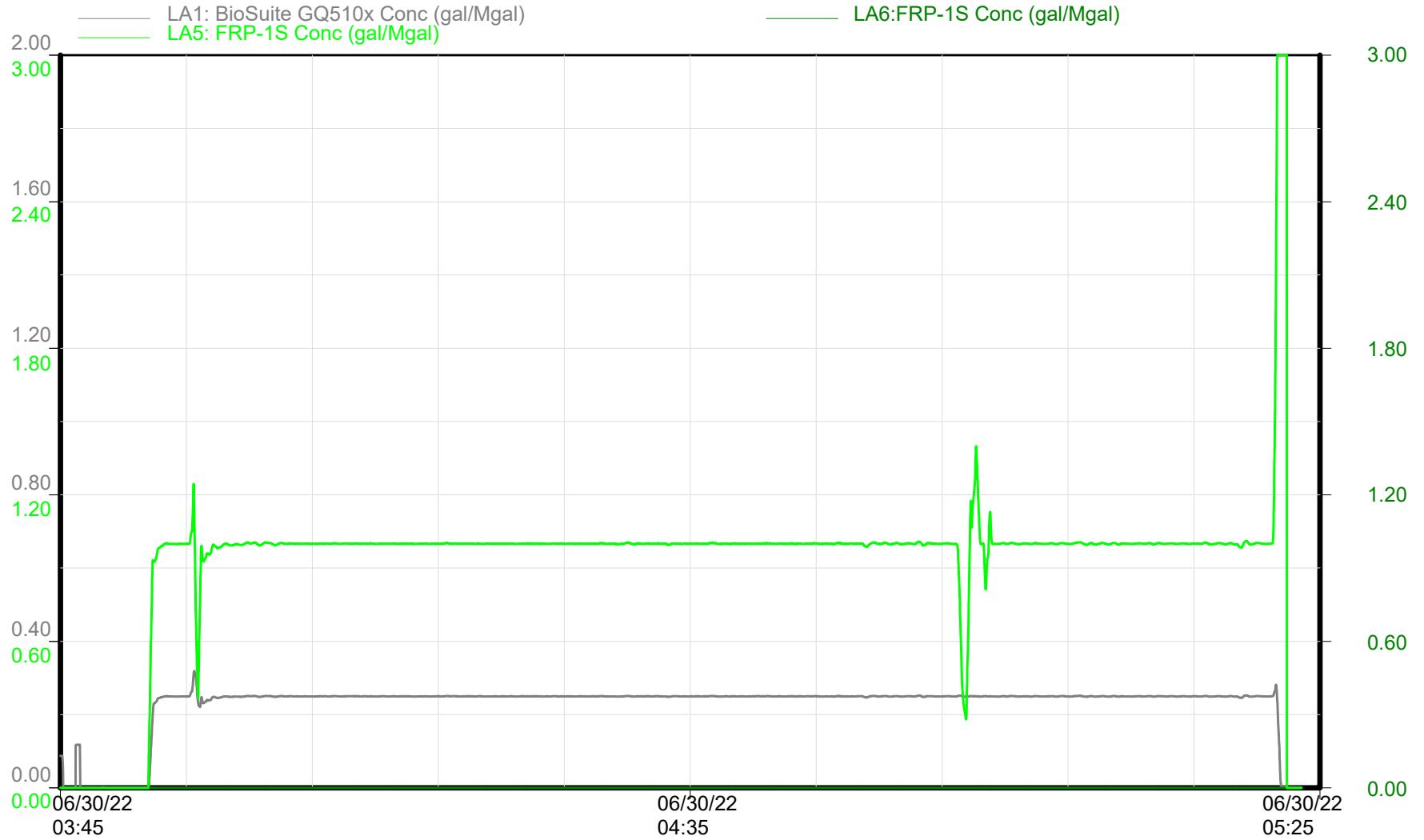
Niobrara - Stage 59 of 60



Treatment Plot

Time

Republic Crew



Chemical Additives

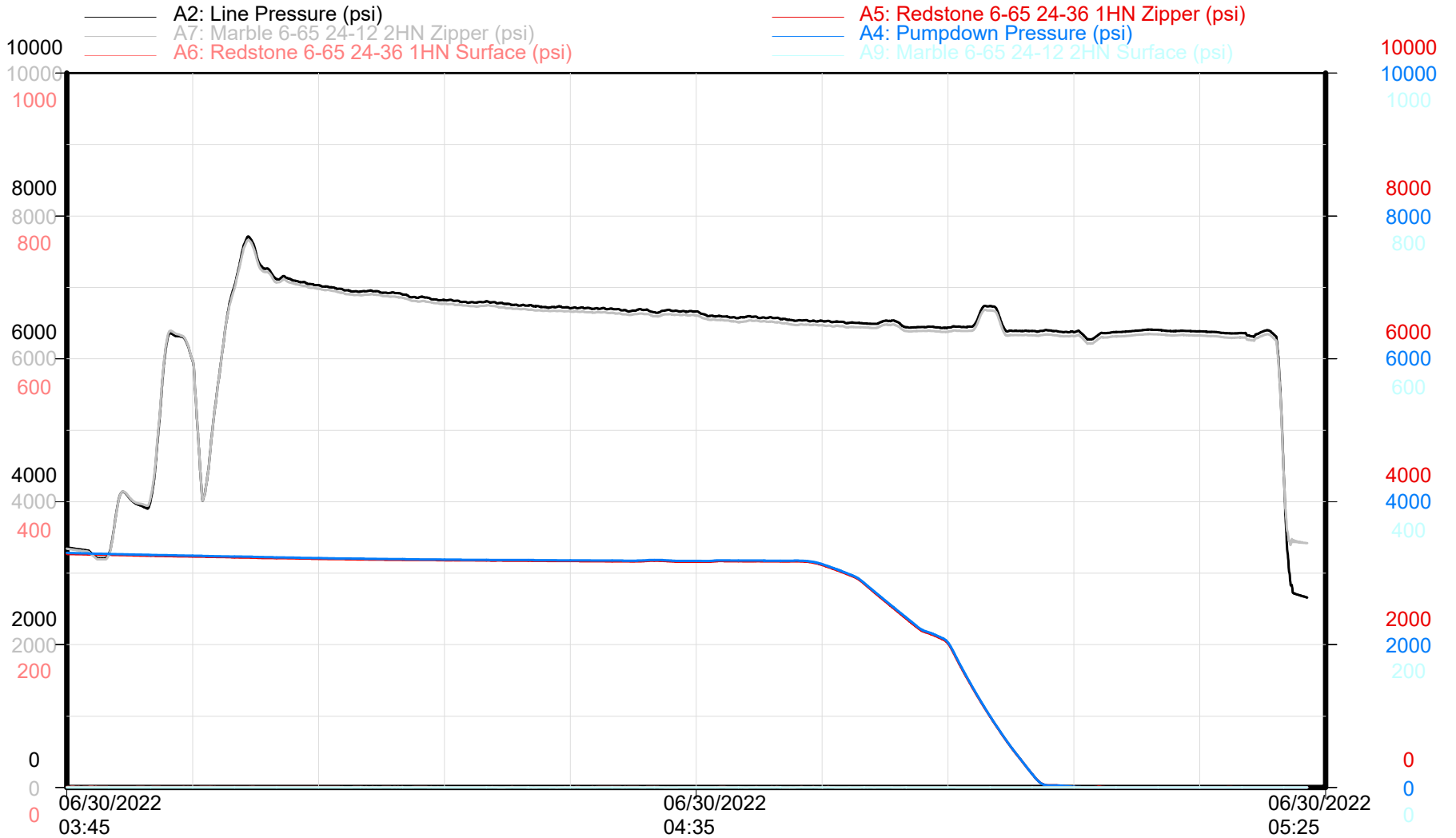
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

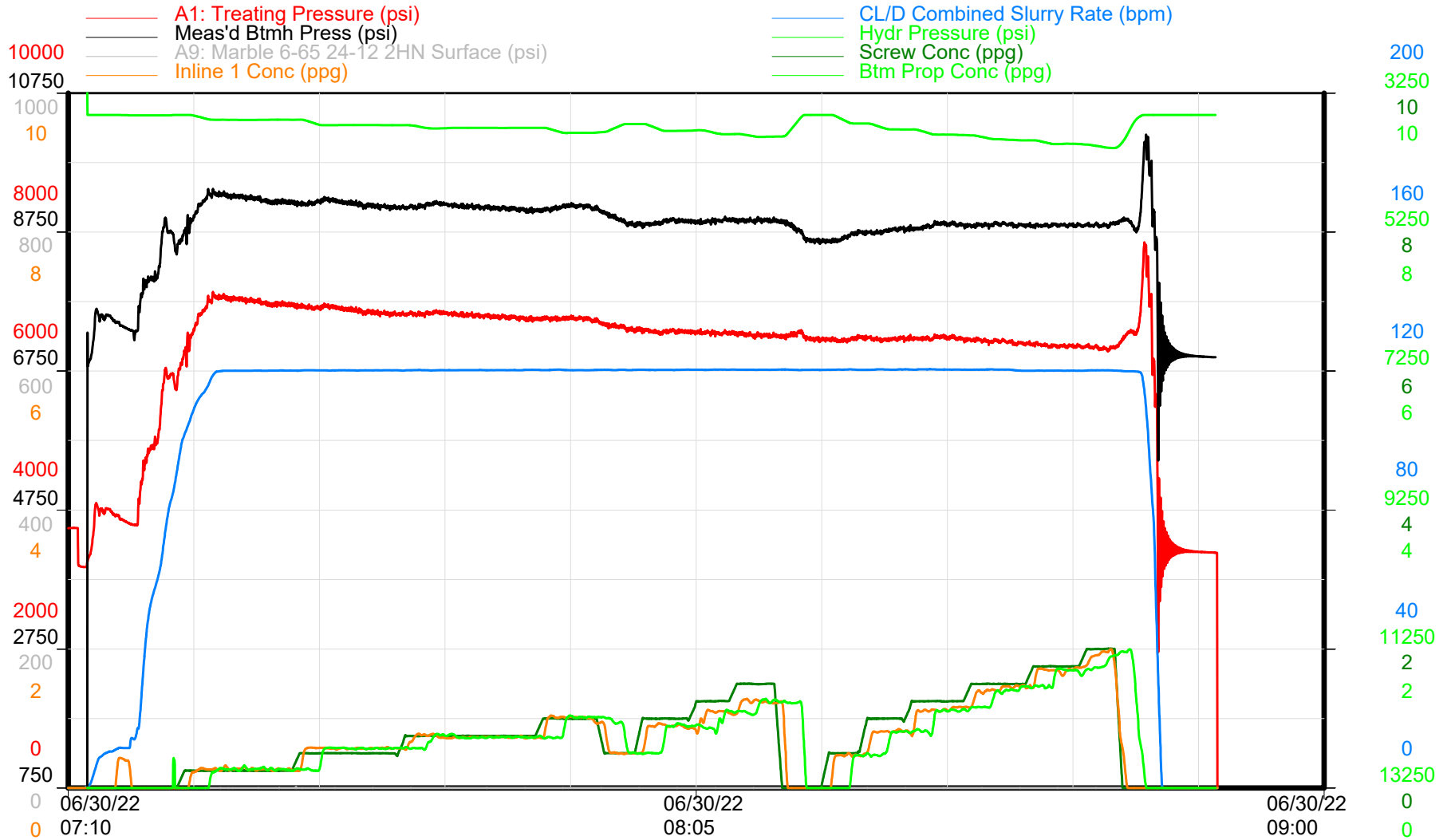
Niobrara - Stage 59 of 60



Zipper Pressures

Time

Republic Crew



Treatment Plot

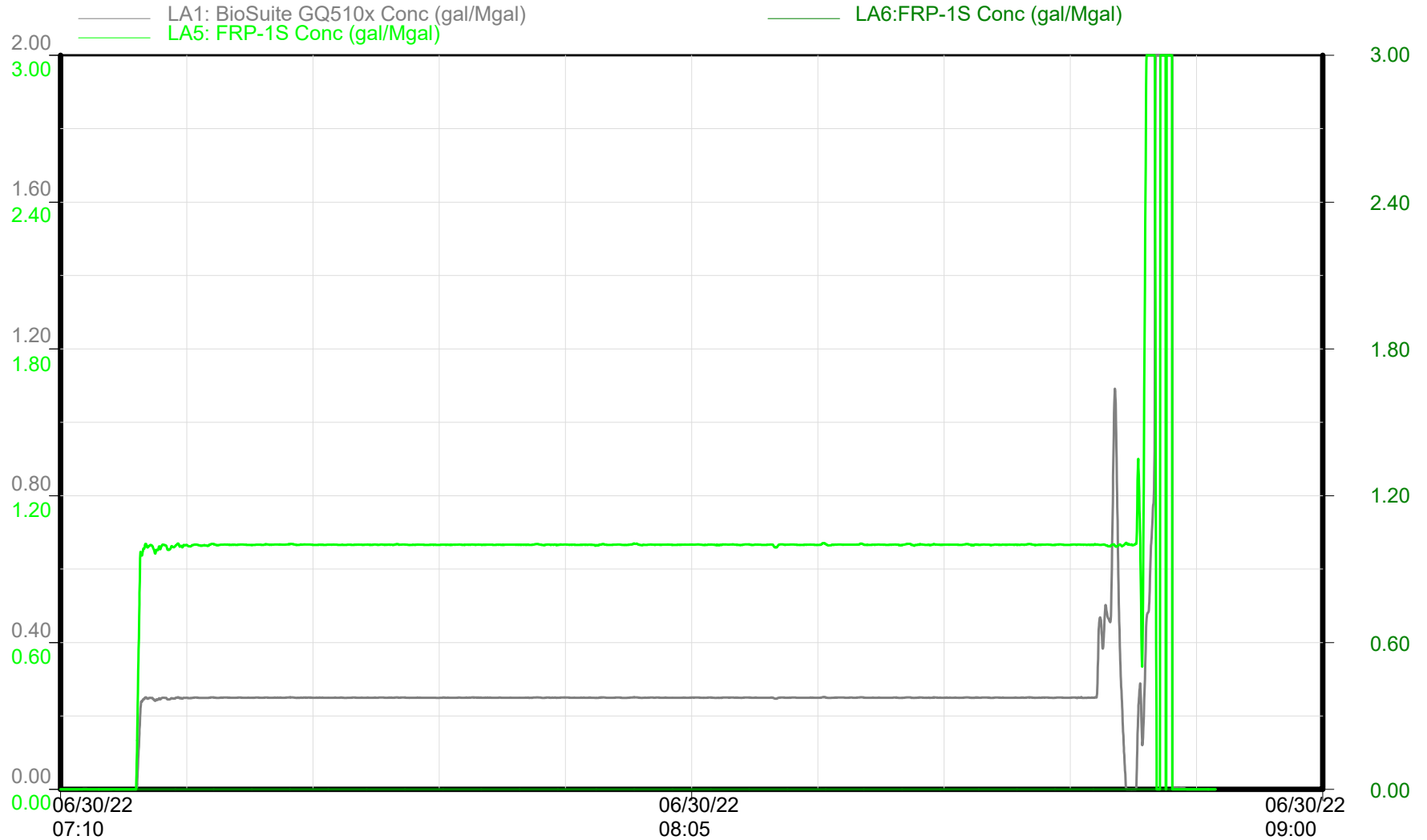
Time

Republic Crew



GMT - MARBLE 6-65 24-12 2HN

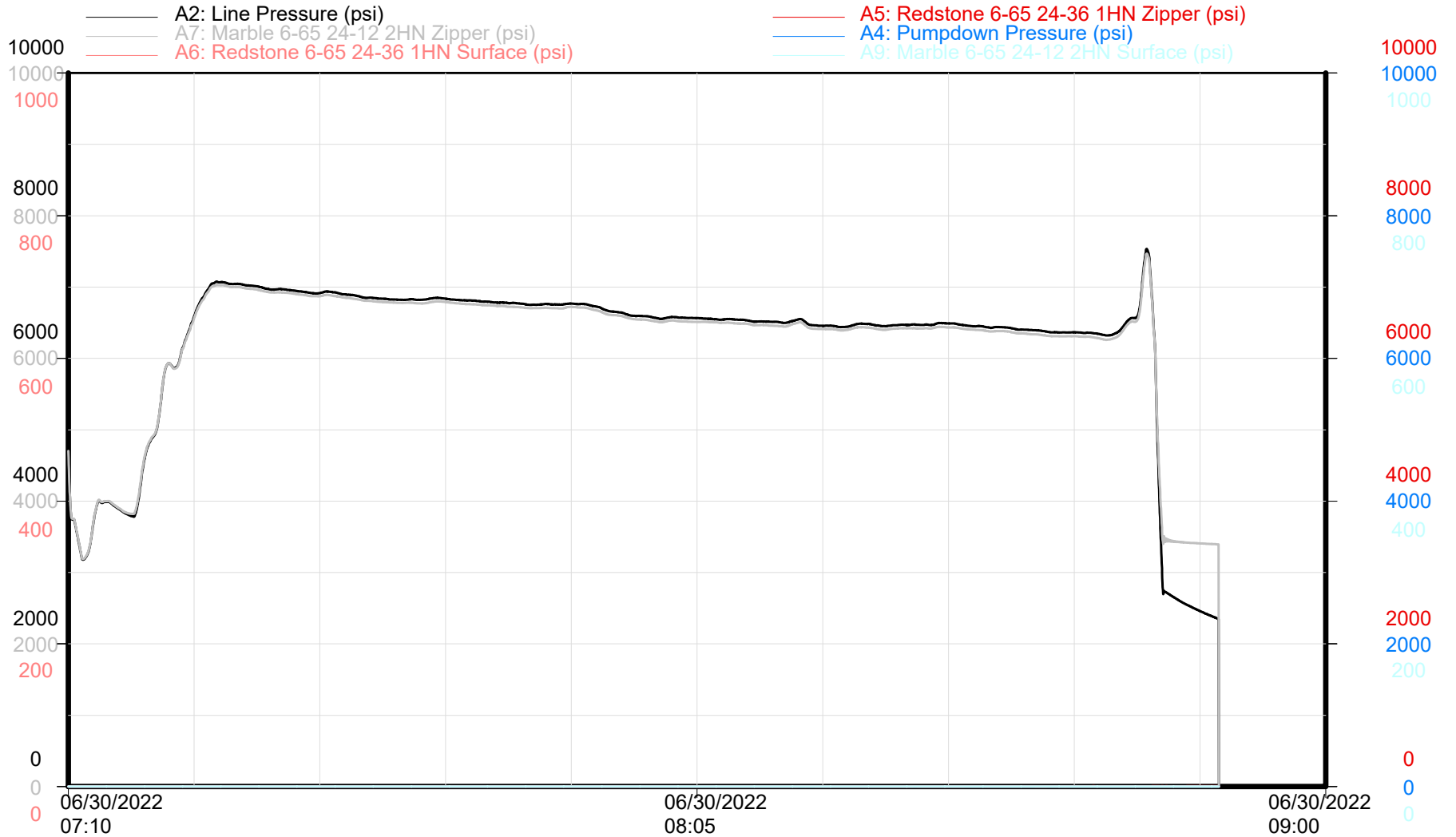
Niobrara - Stage 60 of 60



Chemical Additives

Time

Republic Crew



Zipper Pressures

Time

Republic Crew

GMT EXPLORATION

Marble / Redstone 2-Well Pad

MARBLE 6-65 24-12 1HN

Dennis Snow

**1560 BROADWAY
DENVER, Colorado**

Proposal Number: 142310

Version Number: 7

LOS District	DJ / Henderson
LOS Sales Contact	Edwin Lynch
Proposal Generated By	Edwin Lynch
LOS Operations Contact	Jeff Brady

Field	WILDCAT
Well	MARBLE 6-65 24-12 1HN
API	0503906693
Well Location	06S 65W 24 NESW
Well Coordinates	39.510866, -104.617927
County, State	Elbert, Colorado

Completion Type	Plug and Perf Zipper
Formation	NIOBRARA
Number of Stages	60
Main Fluid Type	HCFR



Formation: Ninhrara

intervals: 0u

Customer: GMT EXPLORATION

Well Name: MARBLE 6-65 24-12 1HN

API: 05-039-06693

Max Pressure

9,500 psi

Max HHP

27,941 hhp

INTERVAL #	STAGE #	CMTV STAGE #	STAGE TYPE	FLUID TYPE	PROPPANT TYPE	PPA	DESIGN SLURRY RATE (BPM)	DESIGN CLEAN VOLUME (GAL)	CLEAN VOLUME			LURRY VOLUM			PROPPANT			ADDITIVE CONCENTRATIONS					
									DESIGN (BBL)	DESIGN CUMULATIVE (BBL)	DESIGN (CALC'D) (BBL)	STAGE DESIGN (LBS)	CUMULATIVE STAGE DESIGN (LBS)	CUMULATIVE JOB DESIGN (LBS)	HCL-28 Gal	ACI-97 GPT	ASF-67 GPT	BioSuite GQ510x GPT	FRP-1S GPT	SpearPoint - WL Gal			
1	1	1	Establish Rate	LibertyFR			10	5,000	119.0	119.0	119.0									0.25	0.80		
	2	2	Acid	HCL-7.5			10	1,000	23.8	142.9	23.8					252.00	2.00	2.00					
	3	3	Pad	LibertyFR			120	24,000	571.4	714.3	571.4												
	4	4	PLF	LibertyFR	100 Mesh	0.25	120	45,000	1,071.4	1,785.7	1,083.5	11,250	11,250	11,250							0.25	0.80	
	5	5	PLF	LibertyFR	100 Mesh	0.5	120	45,000	1,071.4	2,857.1	1,095.7	22,500	33,750	33,750							0.25	0.80	
	6	6	PLF	LibertyFR	100 Mesh	0.75	120	60,000	1,428.6	4,285.7	1,477.1	45,000	78,750	78,750							0.25	0.80	
	7	7	PLF	LibertyFR	100 Mesh	1	120	25,950	617.9	4,903.6	645.8	25,950	104,700	104,700							0.25	0.80	
	8	8	PLF	LibertyFR	40/70 White	0.5	120	16,600	395.2	5,298.8	404.2	8,300	113,000	113,000							0.25	0.80	
	9	9	PLF	LibertyFR	40/70 White	1	120	22,000	523.8	5,822.6	547.5	22,000	135,000	135,000							0.25	0.80	
	10	10	PLF	LibertyFR	40/70 White	1.25	120	18,000	428.6	6,251.2	452.8	22,500	157,500	157,500							0.25	2.00	
	11	11	PLF	LibertyFR	40/70 White	1.5	120	19,000	452.4	6,703.6	483.1	28,500	186,000	186,000							0.25	2.00	
	12	12	Sweep	LibertyFR				120	20,000	476.2	7,179.8	476.2									0.25	0.80	
	13	13	PLF	LibertyFR	40/70 White	0.5	120	16,600	395.2	7,575.0	404.2	8,300	194,300	194,300							0.25	0.80	
	14	14	PLF	LibertyFR	40/70 White	1	120	19,000	452.4	8,027.4	472.8	19,000	213,300	213,300							0.25	0.80	
	15	15	PLF	LibertyFR	40/70 White	1.25	120	26,000	619.0	8,646.4	654.1	32,500	245,800	245,800							0.25	2.00	
	16	16	PLF	LibertyFR	40/70 White	1.5	120	26,000	619.0	9,265.5	661.1	39,000	284,800	284,800							0.25	2.00	
	17	17	PLF	LibertyFR	40/70 White	1.75	120	22,000	523.8	9,789.3	565.3	38,500	323,300	323,300							0.25	2.00	
	18	18	PLF	LibertyFR	40/70 White	2	120	12,850	306.0	10,095.2	333.6	25,700	349,000	349,000							0.25	2.00	
	19	19	Flush	LibertyFR				120	16,800	400.0	10,495.2	400.0									0.25	0.80	
	20	20	Shut Down																				
2	1	21	Pump Down	Treated Water																			
	2	22	Shut Down																				
	3	23	Establish Rate	LibertyFR			10	5,000	119.0	119.0	119.0									0.25	0.80		
	4	24	Acid	HCL-7.5			10	1,000	23.8	142.9	23.8					252.00	2.00	2.00					
	5	25	Pad	LibertyFR			120	24,000	571.4	714.3	571.4												
	6	26	PLF	LibertyFR	100 Mesh	0.25	120	45,000	1,071.4	1,785.7	1,083.5	11,250	11,250	360,250							0.25	0.80	
	7	27	PLF	LibertyFR	100 Mesh	0.5	120	45,000	1,071.4	2,857.1	1,095.7	22,500	33,750	382,750							0.25	0.80	
	8	28	PLF	LibertyFR	100 Mesh	0.75	120	60,000	1,428.6	4,285.7	1,477.1	45,000	78,750	427,750							0.25	0.80	
	9	29	PLF	LibertyFR	100 Mesh	1	120	25,950	617.9	4,903.6	645.8	25,950	104,700	453,700							0.25	0.80	
	10	30	PLF	LibertyFR	40/70 White	0.5	120	16,600	395.2	5,298.8	404.2	8,300	113,000	462,000							0.25	0.80	
	11	31	PLF	LibertyFR	40/70 White	1	120	22,000	523.8	5,822.6	547.5	22,000	135,000	484,000							0.25	0.80	
	12	32	PLF	LibertyFR	40/70 White	1.25	120	18,000	428.6	6,251.2	452.8	22,500	157,500	506,500							0.25	2.00	
	13	33	PLF	LibertyFR	40/70 White	1.5	120	19,000	452.4	6,703.6	483.1	28,500	186,000	535,000							0.25	2.00	
	14	34	Sweep	LibertyFR				120	20,000	476.2	7,179.8	476.2									0.25	0.80	
	15	35	PLF	LibertyFR	40/70 White	0.5	120	16,600	395.2	7,575.0	404.2	8,300	194,300	543,300							0.25	0.80	
	16	36	PLF	LibertyFR	40/70 White	1	120	19,000	452.4	8,027.4	472.8	19,000	213,300	562,300							0.25	0.80	
	17	37	PLF	LibertyFR	40/70 White	1.25	120	26,000	619.0	8,646.4	654.1	32,500	245,800	594,800							0.25	2.00	
	18	38	PLF	LibertyFR	40/70 White	1.5	120	26,000	619.0	9,265.5	661.1	39,000	284,800	633,800							0.25	2.00	
	19	39	PLF	LibertyFR	40/70 White	1.75	120	22,000	523.8	9,789.3	565.3	38,500	323,300	672,300							0.25	2.00	
	20	40	PLF	LibertyFR	40/70 White	2	120	12,850	306.0	10,095.2	333.6	25,700	349,000	698,000							0.25	2.00	
21	41	Flush	LibertyFR				120	16,800	400.0	10,495.2	400.0									0.25	0.80		
22	42	Shut Down																					
3	1	43	Pump Down	Treated Water																			
	2	44	Shut Down																				
	3	45	Establish Rate	LibertyFR			10	5,000	119.0	119.0	119.0									0.25	0.80		
	4	46	Acid	HCL-7.5			10	1,000	23.8	142.9	23.8					252.00	2.00	2.00					
	5	47	Pad	LibertyFR			120	24,000	571.4	714.3	571.4												
	6	48	PLF	LibertyFR	100 Mesh	0.25	120	45,000	1,071.4	1,785.7	1,083.5	11,250	11,250	709,250							0.25	0.80	
	7	49	PLF	LibertyFR	100 Mesh	0.5	120	45,000	1,071.4	2,857.1	1,095.7	22,500	33,750	731,750							0.25	0.80	
	8	50	PLF	LibertyFR	100 Mesh	0.75	120	60,000	1,428.6	4,285.7	1,477.1	45,000	78,750	776,750							0.25	0.80	
	9	51	PLF	LibertyFR	100 Mesh	1	120	25,950	617.9	4,903.6	645.8	25,950	104,700	802,700							0.25	0.80	
	10	52	PLF	LibertyFR	40/70 White	0.5	120	16,600	395.2	5,298.8	404.2	8,300	113,000	811,000							0.25	0.80	
	11	53	PLF	LibertyFR	40/70 White	1	120	22,000	523.8	5,822.6	547.5	22,000	135,000	833,000							0.25	0.80	
	12	54	PLF	LibertyFR	40/70 White	1.25	120	18,000	428.6	6,251.2	452.8	22,500	157,500	855,500							0.25	2.00	
	13	55	PLF	LibertyFR	40/70 White	1.5	120	19,000	452.4	6,703.6	483.1	28,500	186,000	884,000							0.25	2.00	
	14	56	Sweep	LibertyFR				120	20,000	476.2	7,179.8	476.2									0.25	0.80	
	15	57	PLF	LibertyFR	40/70 White	0.5	120	16,600	395.2	7,575.0	404.2	8,300	194,300	892,300							0.25	0.80	
	16	58	PLF	LibertyFR	40/70 White	1	120	19,000	452.4	8,027.4	472.8	19,000	213,300	911,300							0.25	0.80	
	17	59	PLF	LibertyFR	40/70 White	1.25	120	26,000	619.0	8,646.4	654.1	32,500	245,800	943,800							0.25	2.00	
	18	60	PLF	LibertyFR	40/70 White	1.5	120	26,000	619.0	9,265.5	661.1	39,000	284,800	982,800							0.25	2.00	
	19																						



Formation: Ninhrara

intervals: 0u

Customer: GMT EXPLORATION

Well Name: MARBLE 6-65 24-12 1HN

API: 05-039-06693

Max Pressure

9,500 psi

Max HHP

27,941 hhp

INTERVAL #	STAGE #	CMTV STAGE #	STAGE TYPE	FLUID TYPE	PROPPANT TYPE	PPA	DESIGN SLURRY RATE (BPM)	DESIGN CLEAN VOLUME (GAL)	CLEAN VOLUME			LURRY VOLUM			PROPPANT			ADDITIVE CONCENTRATIONS						
									DESIGN (BBL)	DESIGN CUMULATIVE (BBL)	DESIGN (CALC'D) (BBL)	STAGE DESIGN (LBS)	CUMULATIVE STAGE DESIGN (LBS)	CUMULATIVE JOB DESIGN (LBS)	HCL-28 Gal	ACI-97 GPT	ASF-67 GPT	BioSuite GQ510x GPT	FRP-1S GPT	SpearPoint - WL Gal				
43	1	923	Pump Down	Treated Water																				
	2	924	Shut Down																					
	3	925	Establish Rate	LibertyFR			10	5,000	119.0	119.0	119.0													
	4	926	Acid	HCL-7.5			10	1,000	23.8	142.9	23.8					252.00	2.00	2.00		0.25	0.80			
	5	927	Pad	LibertyFR			120	24,000	571.4	714.3	571.4													
	6	928	PLF	LibertyFR	100 Mesh	0.25	120	45,000	1,071.4	1,785.7	1,083.5	11,250	11,250	14,669,250							0.25	0.80		
	7	929	PLF	LibertyFR	100 Mesh	0.5	120	45,000	1,071.4	2,857.1	1,095.7	22,500	33,750	14,691,750							0.25	0.80		
	8	930	PLF	LibertyFR	100 Mesh	0.75	120	60,000	1,428.6	4,285.7	1,477.1	45,000	78,750	14,736,750							0.25	0.80		
	9	931	PLF	LibertyFR	100 Mesh	1	120	25,950	617.9	4,903.6	645.8	25,950	104,700	14,762,700							0.25	0.80		
	10	932	PLF	LibertyFR	40/70 White	0.5	120	16,600	395.2	5,298.8	404.2	8,300	113,000	14,771,000							0.25	0.80		
	11	933	PLF	LibertyFR	40/70 White	1	120	22,000	523.8	5,822.6	547.5	22,000	135,000	14,793,000							0.25	0.80		
	12	934	PLF	LibertyFR	40/70 White	1.25	120	18,000	428.6	6,251.2	452.8	22,500	157,500	14,815,500							0.25	2.00		
	13	935	PLF	LibertyFR	40/70 White	1.5	120	19,000	452.4	6,703.6	483.1	28,500	186,000	14,844,000							0.25	2.00		
	14	936	Sweep	LibertyFR				120	20,000	476.2	7,179.8										0.25	0.80		
	15	937	PLF	LibertyFR	40/70 White	0.5	120	16,600	395.2	7,575.0	404.2	8,300	194,300	14,852,300							0.25	0.80		
	16	938	PLF	LibertyFR	40/70 White	1	120	19,000	452.4	8,027.4	472.8	19,000	213,300	14,871,300							0.25	0.80		
	17	939	PLF	LibertyFR	40/70 White	1.25	120	26,000	619.0	8,646.4	654.1	32,500	245,800	14,903,800							0.25	2.00		
	18	940	PLF	LibertyFR	40/70 White	1.5	120	26,000	619.0	9,265.5	661.1	39,000	284,800	14,942,800							0.25	2.00		
	19	941	PLF	LibertyFR	40/70 White	1.75	120	22,000	523.8	9,789.3	565.3	38,500	323,300	14,981,300							0.25	2.00		
	20	942	PLF	LibertyFR	40/70 White	2	120	12,850	306.0	10,095.2	333.6	25,700	349,000	15,007,000							0.25	2.00		
	21	943	Flush	LibertyFR				120	16,800	400.0	10,495.2										0.25	0.80		
	22	944	Shut Down																					
44	1	945	Pump Down	Treated Water																				
	2	946	Shut Down																					
	3	947	Establish Rate	LibertyFR			10	5,000	119.0	119.0	119.0													
	4	948	Acid	HCL-7.5			10	1,000	23.8	142.9	23.8					252.00	2.00	2.00		0.25	0.80			
	5	949	Pad	LibertyFR			120	24,000	571.4	714.3	571.4													
	6	950	PLF	LibertyFR	100 Mesh	0.25	120	45,000	1,071.4	1,785.7	1,083.5	11,250	11,250	15,018,250							0.25	0.80		
	7	951	PLF	LibertyFR	100 Mesh	0.5	120	45,000	1,071.4	2,857.1	1,095.7	22,500	33,750	15,040,750							0.25	0.80		
	8	952	PLF	LibertyFR	100 Mesh	0.75	120	60,000	1,428.6	4,285.7	1,477.1	45,000	78,750	15,085,750							0.25	0.80		
	9	953	PLF	LibertyFR	100 Mesh	1	120	25,950	617.9	4,903.6	645.8	25,950	104,700	15,111,700							0.25	0.80		
	10	954	PLF	LibertyFR	40/70 White	0.5	120	16,600	395.2	5,298.8	404.2	8,300	113,000	15,120,000							0.25	0.80		
	11	955	PLF	LibertyFR	40/70 White	1	120	22,000	523.8	5,822.6	547.5	22,000	135,000	15,142,000							0.25	0.80		
	12	956	PLF	LibertyFR	40/70 White	1.25	120	18,000	428.6	6,251.2	452.8	22,500	157,500	15,164,500							0.25	2.00		
	13	957	PLF	LibertyFR	40/70 White	1.5	120	19,000	452.4	6,703.6	483.1	28,500	186,000	15,193,000							0.25	2.00		
	14	958	Sweep	LibertyFR				120	20,000	476.2	7,179.8										0.25	0.80		
	15	959	PLF	LibertyFR	40/70 White	0.5	120	16,600	395.2	7,575.0	404.2	8,300	194,300	15,201,300							0.25	0.80		
	16	960	PLF	LibertyFR	40/70 White	1	120	19,000	452.4	8,027.4	472.8	19,000	213,300	15,220,300							0.25	0.80		
	17	961	PLF	LibertyFR	40/70 White	1.25	120	26,000	619.0	8,646.4	654.1	32,500	245,800	15,252,800							0.25	2.00		
	18	962	PLF	LibertyFR	40/70 White	1.5	120	26,000	619.0	9,265.5	661.1	39,000	284,800	15,291,800							0.25	2.00		
	19	963	PLF	LibertyFR	40/70 White	1.75	120	22,000	523.8	9,789.3	565.3	38,500	323,300	15,330,300							0.25	2.00		
	20	964	PLF	LibertyFR	40/70 White	2	120	12,850	306.0	10,095.2	333.6	25,700	349,000	15,356,000							0.25	2.00		
	21	965	Flush	LibertyFR				120	16,800	400.0	10,495.2										0.25	0.80		
	22	966	Shut Down																					
45	1	967	Pump Down	Treated Water																				
	2	968	Shut Down																					
	3	969	Establish Rate	LibertyFR			10	5,000	119.0	119.0	119.0													
	4	970	Acid	HCL-7.5			10	1,000	23.8	142.9	23.8					252.00	2.00	2.00		0.25	0.80			
	5	971	Pad	LibertyFR			120	24,000	571.4	714.3	571.4													
	6	972	PLF	LibertyFR	100 Mesh	0.25	120	45,000	1,071.4	1,785.7	1,083.5	11,250	11,250	15,367,250							0.25	0.80		
	7	973	PLF	LibertyFR	100 Mesh	0.5	120	45,000	1,071.4	2,857.1	1,095.7	22,500	33,750	15,389,750							0.25	0.80		
	8	974	PLF	LibertyFR	100 Mesh	0.75	120	60,000	1,428.6	4,285.7	1,477.1	45,000	78,750	15,434,750							0.25	0.80		
	9	975	PLF	LibertyFR	100 Mesh	1	120	25,950	617.9	4,903.6	645.8	25,950	104,700	15,460,700							0.25	0.80		
	10	976	PLF	LibertyFR	40/70 White	0.5	120	16,600	395.2	5,298.8	404.2	8,300	113,000	15,469,000							0.25	0.80		
	11	977	PLF	LibertyFR	40/70 White	1	120	22,000	523.8	5,822.6	547.5	22,000	135,000	15,491,000							0.25	0.80		
	12	978	PLF	LibertyFR	40/70 White	1.25	120	18,000	428.6	6,251.2	452.8	22,500	157,500	15,513,500							0.25	2.00		
	13	979	PLF	LibertyFR	40/70 White	1.5	120	19,000	452.4	6,703.6	483.1	28,500	186,000	15,542,000							0.25	2.00		
	14	980	Sweep	LibertyFR				120	20,000	476.2	7,179.8										0.25	0.80		
	15	981	PLF	LibertyFR	40/70 White	0.5	120	16,600	395.2	7,575.0	404.2													



Formation: Ninhrara

intervals: 0u

Customer: GMT EXPLORATION

Well Name: MARBLE 6-65 24-12 1HN

API: 05-039-06693

Max Pressure

9,500 psi

Max HHP

27,941 hhp

INTERVAL #	STAGE #	CMTV STAGE #	STAGE TYPE	FLUID TYPE	PROPPANT TYPE	PPA	DESIGN SLURRY RATE (BPM)	DESIGN CLEAN VOLUME (GAL)	CLEAN VOLUME			LURRY VOLUM			PROPPANT			ADDITIVE CONCENTRATIONS						
									DESIGN (BBL)	DESIGN CUMULATIVE (BBL)	DESIGN (CALC'D) (BBL)	STAGE DESIGN (LBS)	CUMULATIVE STAGE DESIGN (LBS)	CUMULATIVE JOB DESIGN (LBS)	HCL-28 Gal	ACI-97 GPT	ASF-67 GPT	BioSuite GQ510x GPT	FRP-1S GPT	SpearPoint - WL Gal				
46	1	989	Pump Down	Treated Water																				
	2	990	Shut Down																					
	3	991	Establish Rate	LibertyFR			10	5,000	119.0	119.0	119.0													
	4	992	Acid	HCL-7.5			10	1,000	23.8	142.9	23.8					252.00	2.00	2.00		0.25	0.80			
	5	993	Pad	LibertyFR			120	24,000	571.4	714.3	571.4													
	6	994	PLF	LibertyFR	100 Mesh	0.25	120	45,000	1,071.4	1,785.7	1,083.5	11,250	11,250	15,716,250							0.25	0.80		
	7	995	PLF	LibertyFR	100 Mesh	0.5	120	45,000	1,071.4	2,857.1	1,095.7	22,500	33,750	15,738,750							0.25	0.80		
	8	996	PLF	LibertyFR	100 Mesh	0.75	120	60,000	1,428.6	4,285.7	1,477.1	45,000	78,750	15,783,750							0.25	0.80		
	9	997	PLF	LibertyFR	100 Mesh	1	120	25,950	617.9	4,903.6	645.8	25,950	104,700	15,809,700							0.25	0.80		
	10	998	PLF	LibertyFR	40/70 White	0.5	120	16,600	395.2	5,298.8	404.2	8,300	113,000	15,818,000							0.25	0.80		
	11	999	PLF	LibertyFR	40/70 White	1	120	22,000	523.8	5,822.6	547.5	22,000	135,000	15,840,000							0.25	0.80		
	12	1000	PLF	LibertyFR	40/70 White	1.25	120	18,000	428.6	6,251.2	452.8	22,500	157,500	15,862,500							0.25	2.00		
	13	1001	PLF	LibertyFR	40/70 White	1.5	120	19,000	452.4	6,703.6	483.1	28,500	186,000	15,891,000							0.25	2.00		
	14	1002	Sweep	LibertyFR			120	20,000	476.2	7,179.8	476.2										0.25	0.80		
	15	1003	PLF	LibertyFR	40/70 White	0.5	120	16,600	395.2	7,575.0	404.2	8,300	194,300	15,899,300							0.25	0.80		
	16	1004	PLF	LibertyFR	40/70 White	1	120	19,000	452.4	8,027.4	472.8	19,000	213,300	15,918,300							0.25	0.80		
	17	1005	PLF	LibertyFR	40/70 White	1.25	120	26,000	619.0	8,646.4	654.1	32,500	245,800	15,950,800							0.25	2.00		
	18	1006	PLF	LibertyFR	40/70 White	1.5	120	26,000	619.0	9,265.5	661.1	39,000	284,800	15,989,800							0.25	2.00		
	19	1007	PLF	LibertyFR	40/70 White	1.75	120	22,000	523.8	9,789.3	565.3	38,500	323,300	16,028,300							0.25	2.00		
	20	1008	PLF	LibertyFR	40/70 White	2	120	12,850	306.0	10,095.2	333.6	25,700	349,000	16,054,000							0.25	2.00		
	21	1009	Flush	LibertyFR			120	16,800	400.0	10,495.2	400.0										0.25	0.80		
	22	1010	Shut Down																					
47	1	1011	Pump Down	Treated Water																				
	2	1012	Shut Down																					
	3	1013	Establish Rate	LibertyFR			10	5,000	119.0	119.0	119.0													
	4	1014	Acid	HCL-7.5			10	1,000	23.8	142.9	23.8					252.00	2.00	2.00		0.25	0.80			
	5	1015	Pad	LibertyFR			120	24,000	571.4	714.3	571.4													
	6	1016	PLF	LibertyFR	100 Mesh	0.25	120	45,000	1,071.4	1,785.7	1,083.5	11,250	11,250	16,065,250							0.25	0.80		
	7	1017	PLF	LibertyFR	100 Mesh	0.5	120	45,000	1,071.4	2,857.1	1,095.7	22,500	33,750	16,087,750							0.25	0.80		
	8	1018	PLF	LibertyFR	100 Mesh	0.75	120	60,000	1,428.6	4,285.7	1,477.1	45,000	78,750	16,132,750							0.25	0.80		
	9	1019	PLF	LibertyFR	100 Mesh	1	120	25,950	617.9	4,903.6	645.8	25,950	104,700	16,158,700							0.25	0.80		
	10	1020	PLF	LibertyFR	40/70 White	0.5	120	16,600	395.2	5,298.8	404.2	8,300	113,000	16,167,000							0.25	0.80		
	11	1021	PLF	LibertyFR	40/70 White	1	120	22,000	523.8	5,822.6	547.5	22,000	135,000	16,189,000							0.25	0.80		
	12	1022	PLF	LibertyFR	40/70 White	1.25	120	18,000	428.6	6,251.2	452.8	22,500	157,500	16,211,500							0.25	2.00		
	13	1023	PLF	LibertyFR	40/70 White	1.5	120	19,000	452.4	6,703.6	483.1	28,500	186,000	16,240,000							0.25	2.00		
	14	1024	Sweep	LibertyFR			120	20,000	476.2	7,179.8	476.2										0.25	0.80		
	15	1025	PLF	LibertyFR	40/70 White	0.5	120	16,600	395.2	7,575.0	404.2	8,300	194,300	16,248,300							0.25	0.80		
	16	1026	PLF	LibertyFR	40/70 White	1	120	19,000	452.4	8,027.4	472.8	19,000	213,300	16,267,300							0.25	0.80		
	17	1027	PLF	LibertyFR	40/70 White	1.25	120	26,000	619.0	8,646.4	654.1	32,500	245,800	16,299,800							0.25	2.00		
	18	1028	PLF	LibertyFR	40/70 White	1.5	120	26,000	619.0	9,265.5	661.1	39,000	284,800	16,338,800							0.25	2.00		
	19	1029	PLF	LibertyFR	40/70 White	1.75	120	22,000	523.8	9,789.3	565.3	38,500	323,300	16,377,300							0.25	2.00		
	20	1030	PLF	LibertyFR	40/70 White	2	120	12,850	306.0	10,095.2	333.6	25,700	349,000	16,403,000							0.25	2.00		
	21	1031	Flush	LibertyFR			120	16,800	400.0	10,495.2	400.0										0.25	0.80		
	22	1032	Shut Down																					
48	1	1033	Pump Down	Treated Water																				
	2	1034	Shut Down																					
	3	1035	Establish Rate	LibertyFR			10	5,000	119.0	119.0	119.0													
	4	1036	Acid	HCL-7.5			10	1,000	23.8	142.9	23.8					252.00	2.00	2.00		0.25	0.80			
	5	1037	Pad	LibertyFR			120	24,000	571.4	714.3	571.4													
	6	1038	PLF	LibertyFR	100 Mesh	0.25	120	45,000	1,071.4	1,785.7	1,083.5	11,250	11,250	16,414,250							0.25	0.80		
	7	1039	PLF	LibertyFR	100 Mesh	0.5	120	45,000	1,071.4	2,857.1	1,095.7	22,500	33,750	16,436,750							0.25	0.80		
	8	1040	PLF	LibertyFR	100 Mesh	0.75	120	60,000	1,428.6	4,285.7	1,477.1	45,000	78,750	16,481,750							0.25	0.80		
	9	1041	PLF	LibertyFR	100 Mesh	1	120	25,950	617.9	4,903.6	645.8	25,950	104,700	16,507,700							0.25	0.80		
	10	1042	PLF	LibertyFR	40/70 White	0.5	120	16,600	395.2	5,298.8	404.2	8,300	113,000	16,516,000							0.25	0.80		
	11	1043	PLF	LibertyFR	40/70 White	1	120	22,000	523.8	5,822.6	547.5	22,000	135,000	16,538,000							0.25	0.80		
	12	1044	PLF	LibertyFR	40/70 White	1.25	120	18,000	428.6	6,251.2	452.8	22,500	157,500	16,560,500							0.25	2.00		
	13	1045	PLF	LibertyFR	40/70 White	1.5	120	19,000	452.4	6,703.6	483.1	28,500	186,000	16,589,000							0.25	2.00		
	14	1046	Sweep	LibertyFR			120	20,000	476.2	7,179.8	476.2										0.25	0.80		
	15	1047	PLF	LibertyFR	40/70 White	0.5																		



Formation: Ninhrara

Customer: GMT EXPLORATION

Well Name: MARBLE 6-65 24-12 1HN

Max Pressure

Max HHP

Intervals: 0U

API: 05-039-06693

9,500 psi

27,941 hhp

INTERVAL #	STAGE #	CMTV STAGE #	STAGE TYPE	FLUID TYPE	PROPPANT TYPE	PPA	DESIGN SLURRY RATE (BPM)	DESIGN CLEAN VOLUME (GAL)	CLEAN VOLUME		LURRY VOLUM	PROPPANT			ADDITIVE CONCENTRATIONS							
									DESIGN (BBL)	DESIGN CUMULATIVE (BBL)	DESIGN (CALC'D) (BBL)	STAGE DESIGN (LBS)	CUMULATIVE STAGE DESIGN (LBS)	CUMULATIVE JOB DESIGN (LBS)	HCL-28 Gal	ACI-97 GPT	ASF-67 GPT	BioSuite GQ510x GPT	FRP-15 GPT	SpearPoint - WL Gal		
60	1	1297	Pump Down	Treated Water																		
	2	1298	Shut Down																			
	3	1299	Establish Rate	LibertyFR			10	5,000	119.0	119.0	119.0							0.25	0.80			
	4	1300	Acid	HCL-7.5			10	1,000	23.8	142.9	23.8				252.00	2.00	2.00					
	5	1301	Pad	LibertyFR			120	24,000	571.4	714.3	571.4							0.25	0.80			
	6	1302	PLF	LibertyFR	100 Mesh	0.25	120	45,000	1,071.4	1,785.7	1,083.5	11,250	11,250	20,602,250				0.25	0.80			
	7	1303	PLF	LibertyFR	100 Mesh	0.5	120	45,000	1,071.4	2,857.1	1,095.7	22,500	33,750	20,624,750				0.25	0.80			
	8	1304	PLF	LibertyFR	100 Mesh	0.75	120	60,000	1,428.6	4,285.7	1,477.1	45,000	78,750	20,669,750				0.25	0.80			
	9	1305	PLF	LibertyFR	100 Mesh	1	120	25,950	617.9	4,903.6	645.8	25,950	104,700	20,695,700				0.25	0.80			
	10	1306	PLF	LibertyFR	40/70 White	0.5	120	16,600	395.2	5,298.8	404.2	8,300	113,000	20,704,000				0.25	0.80			
	11	1307	PLF	LibertyFR	40/70 White	1	120	22,000	523.8	5,822.6	547.5	22,000	135,000	20,726,000				0.25	0.80			
	12	1308	PLF	LibertyFR	40/70 White	1.25	120	18,000	428.6	6,251.2	452.8	22,500	157,500	20,748,500				0.25	2.00			
	13	1309	PLF	LibertyFR	40/70 White	1.5	120	19,000	452.4	6,703.6	483.1	28,500	186,000	20,777,000				0.25	2.00			
	14	1310	Sweep	LibertyFR			120	20,000	476.2	7,179.8	476.2							0.25	0.80			
	15	1311	PLF	LibertyFR	40/70 White	0.5	120	16,600	395.2	7,575.0	404.2	8,300	194,300	20,785,300				0.25	0.80			
	16	1312	PLF	LibertyFR	40/70 White	1	120	19,000	452.4	8,027.4	472.8	19,000	213,300	20,804,300				0.25	0.80			
	17	1313	PLF	LibertyFR	40/70 White	1.25	120	26,000	619.0	8,646.4	654.1	32,500	245,800	20,836,800				0.25	2.00			
	18	1314	PLF	LibertyFR	40/70 White	1.5	120	26,000	619.0	9,265.5	661.1	39,000	284,800	20,875,800				0.25	2.00			
	19	1315	PLF	LibertyFR	40/70 White	1.75	120	22,000	523.8	9,789.3	565.3	38,500	323,300	20,914,300				0.25	2.00			
	20	1316	PLF	LibertyFR	40/70 White	2	120	12,850	306.0	10,095.2	333.6	25,700	349,000	20,940,000				0.25	2.00			
	21	1317	Flush	LibertyFR			120	16,800	400.0	10,495.2	400.0							0.25	0.80			
	22	1318	Shut Down																			
									Total Design Clean	Total Design Clean		Total Design Slurry	Total Design Proppant	Job Design Prop	Total	Total	Total	Total	Total	Total		
									(GAL)	(BBL)		(BBL)	(LBS)	(LBS)	(Gal)	(gal)	(gal)	(gal)	(gal)	(gal)	(gal)	(Gal)
Total Job									26,448,000	629,714.3		652,273.1	20,940,000	20,940,000	15,120	120	120	6,597	30,028	0		
Fluid Volume Summary				Design (BBL)						Pump Time	Proppant Type	Pounds	HCL-28	ACI-97	ASF-67	BioSuite	FRP-15	SpearPoint -				
LibertyFR				628,285.7						103 hrs 41 min	100 Mesh	6,282,000	20%	20%	20%	20%	20%	0%				
HCL-7.5				1,428.6							40/70 White	14,658,000	18,144	144	144	7,916	36,033	0				
Treated Water													*Totals Required with % Excess									

Laboratory Report

GMT Exploration - Marble-Redstone

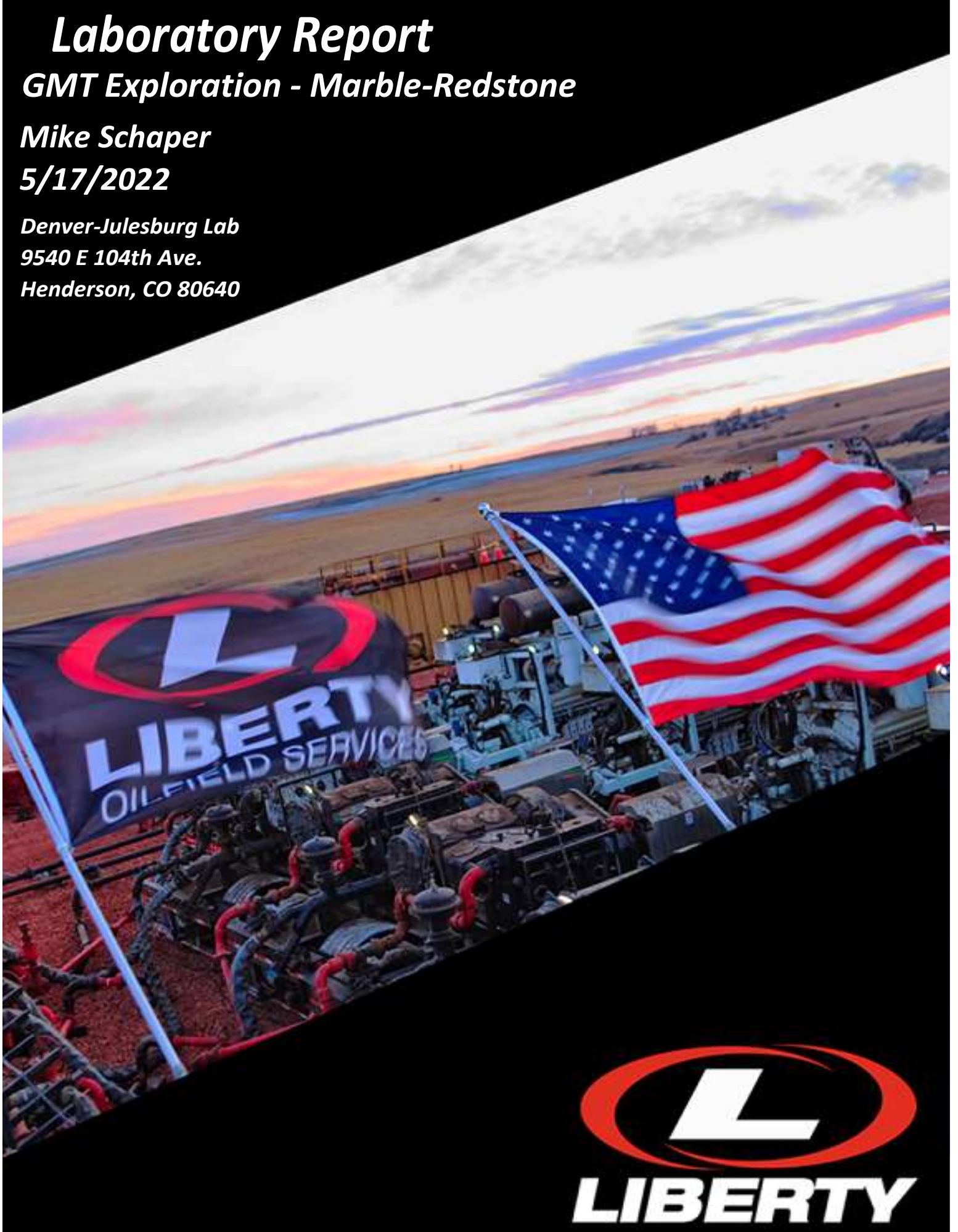
Mike Schaper

5/17/2022

Denver-Julesburg Lab

9540 E 104th Ave.

Henderson, CO 80640





GMT Exploration
Marble-Redstone Pad
Water Analysis

Test:	Untreated Source
Temperature (deg F)	68.8
Specific Gravity	1.001
pH	8.19
Sodium Na+ (mg/L)	127
Magnesium Mg 2+ (mg/L)	8
Iron Fe2+ (mg/L)	<LOD
Total Iron Fe2+ & Fe3+ (mg/L)	1
Calcium Ca 2+ (mg/L)	42
Total Hardness as CaCO3 (mg/L)	136
Chlorides CL- (mg/L)	89
Hydroxide OH- (mg/L)	<LOD
Carbonate CO3(2-) (mg/L)	<LOD
Bicarbonates HCO3- (mg/L)	268
Phosphates PO4(3-) (mg/L)	4
Sulfates SO4(2-) (mg/L)	60
ORP mV	39
TDS (mg/L)	598

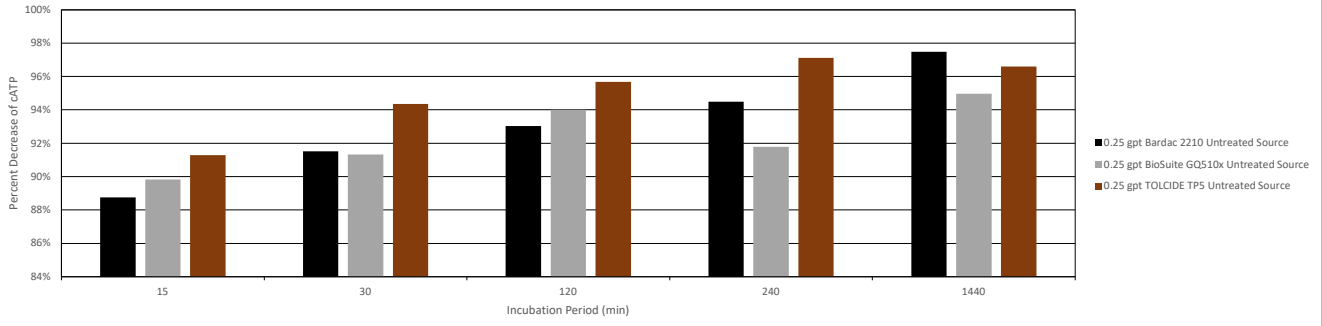
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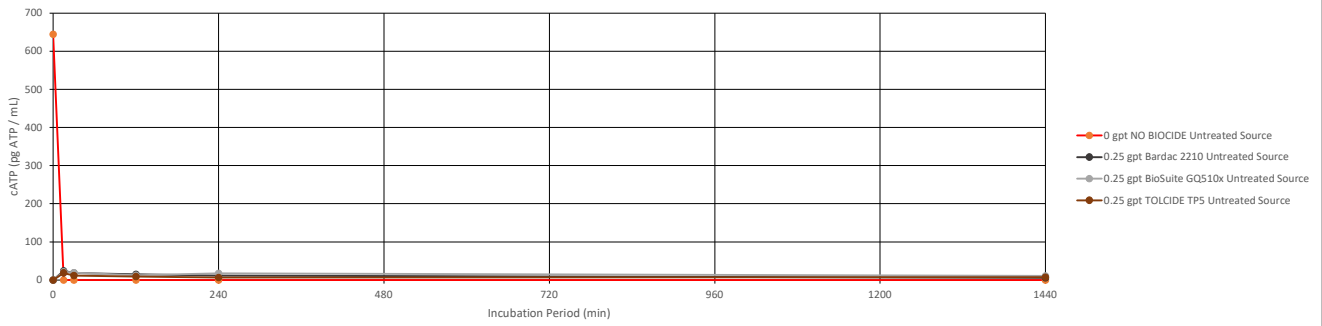
**GMT Exploration
Marble-Redstone Pad
Microbial Testing**

C#	Test Date & Time	Set Point 1	Biocide 1	Set Point 2	Biocide 2	WASampleLocation	Sample Volume	RLU _{UC1}	RLU _{CATP}	Incubation Period	C _{ATP}	% CATP Decrease from Control
		gpt		gpt			mL	RLU	RLU	min	pg ATP/mL	
Baselines: (No Biocide)	5/17/2022 7:00	0	NO BIOCIDES			Untreated Source	40	19,980	17,165	0	214.777	0.00%
										0		
										0		
										0		
										0		
										0		
1		0	NO BIOCIDES			Untreated Source	40	19980	17165	0	214.777	0.00%
		0.25	Bardac 2210			Untreated Source	40	19980	1931	15	24.162	88.75%
		0.25	Bardac 2210			Untreated Source	40	19980	1456	30	18.218	91.52%
		0.25	Bardac 2210			Untreated Source	40	19980	1197	120	14.977	93.03%
		0.25	Bardac 2210			Untreated Source	40	19980	947	240	11.849	94.48%
		0.25	Bardac 2210			Untreated Source	40	20340	441	1440	5.420	97.48%
2		0	NO BIOCIDES			Untreated Source	40	19980	17165	0	214.777	0.00%
		0.25	BioSuite GQ510x			Untreated Source	40	19980	1747	15	21.859	89.82%
		0.25	BioSuite GQ510x			Untreated Source	40	19980	1490	30	18.644	91.32%
		0.25	BioSuite GQ510x			Untreated Source	40	19980	1030	120	12.888	94.00%
		0.25	BioSuite GQ510x			Untreated Source	40	19980	1411	240	17.655	91.78%
		0.25	BioSuite GQ510x			Untreated Source	40	20340	879	1440	10.804	94.97%
3		0	NO BIOCIDES			Untreated Source	40	19980	17165	0	214.777	0.00%
		0.25	TOLCIDE TP5			Untreated Source	40	19980	1495	15	18.706	91.29%
		0.25	TOLCIDE TP5			Untreated Source	40	19980	967	30	12.100	94.37%
		0.25	TOLCIDE TP5			Untreated Source	40	19980	741	120	9.272	95.68%
		0.25	TOLCIDE TP5			Untreated Source	40	19980	494	240	6.181	97.12%
		0.25	TOLCIDE TP5			Untreated Source	40	20340	592	1440	7.276	96.61%

cATP Percent Decrease from Control



Biocide Efficacy Test





GMT Exploration
Marble-Redstone Pad
Shear Rate Testing

Test Specifications:

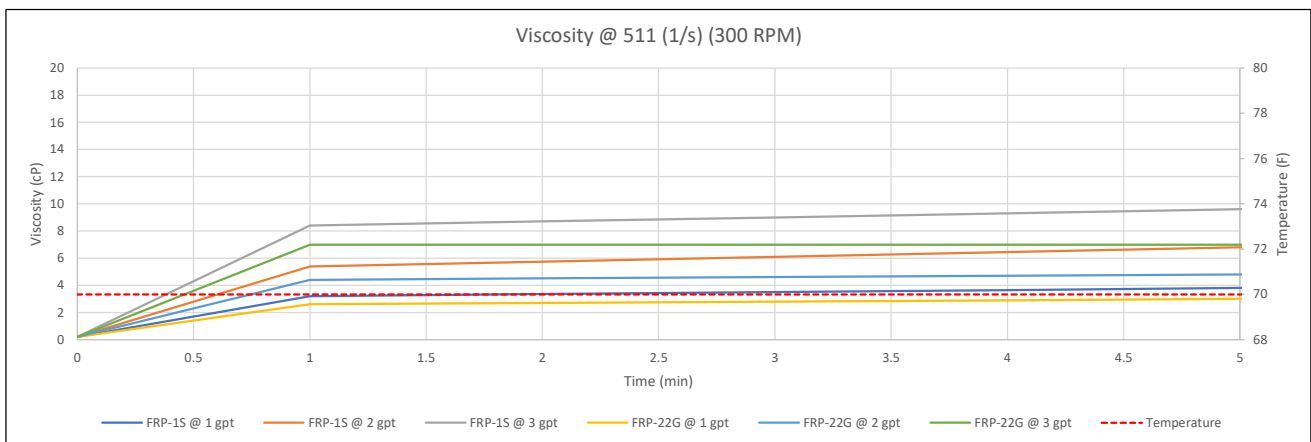
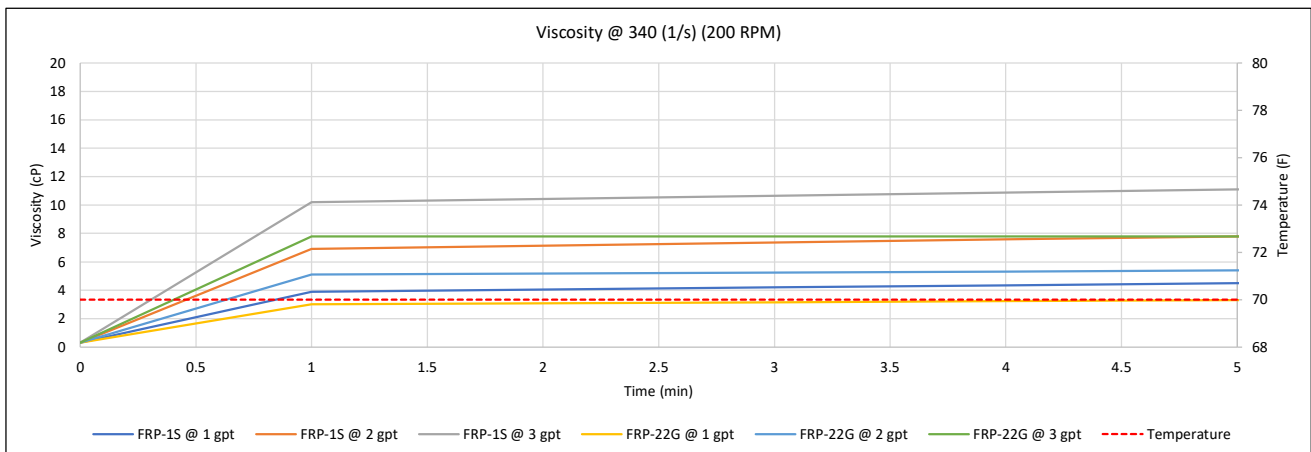
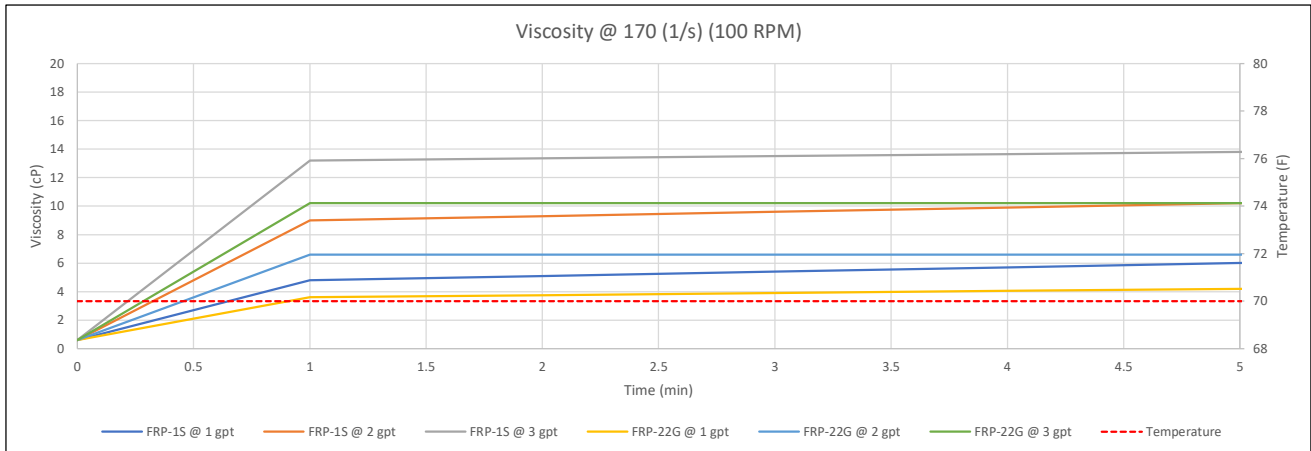
Viscometer Model:	Fann 35
Rotor:	R1
Bob:	B1
Torsion Spring:	FO.2
Shear:	170 s ⁻¹ (100 RPM), 340 s ⁻¹ (200RPM), 511 s ⁻¹ (300 RPM)

Chemical	Water Source	Set Point	Temp.	Shear Rate	Viscosity: 0	Viscosity: 1	Viscosity: 3	Viscosity: 5
					Min	Min	Min	Min
		GPT	(F)	(sec-1)/(RPM)	(cP)	(cP)	(cP)	(cP)
FRP-1S	Untreated Source	1.00	70.00	170s ⁻¹ /100 RPM	0.6	4.8	6	6
				340s ⁻¹ /200 RPM	0.3	3.9	4.5	4.5
				511s ⁻¹ /300 RPM	0.2	3.2	3.8	3.8
FRP-1S	Untreated Source	2.00	70.00	170s ⁻¹ /100 RPM	0.6	9	10.2	10.2
				340s ⁻¹ /200 RPM	0.3	6.9	7.8	7.8
				511s ⁻¹ /300 RPM	0.2	5.4	6.8	6.8
FRP-1S	Untreated Source	3.00	70.00	170s ⁻¹ /100 RPM	0.6	13.2	13.8	13.8
				340s ⁻¹ /200 RPM	0.3	10.2	11.1	11.1
				511s ⁻¹ /300 RPM	0.2	8.4	9.6	9.6
FRP-22G	Untreated Source	1.00	70.00	170s ⁻¹ /100 RPM	0.6	3.6	4.2	4.2
				340s ⁻¹ /200 RPM	0.3	3	3.3	3.3
				511s ⁻¹ /300 RPM	0.2	2.6	3	3
FRP-22G	Untreated Source	2.00	70.00	170s ⁻¹ /100 RPM	0.6	6.6	6.6	6.6
				340s ⁻¹ /200 RPM	0.3	5.1	5.4	5.4
				511s ⁻¹ /300 RPM	0.2	4.4	4.8	4.8
FRP-22G	Untreated Source	3.00	70.00	170s ⁻¹ /100 RPM	0.6	10.2	10.2	10.2
				340s ⁻¹ /200 RPM	0.3	7.8	7.8	7.8
				511s ⁻¹ /300 RPM	0.2	7	7	7
DFR-1S	Untreated Source	2.60	70.00	170s ⁻¹ /100 RPM	0.6	4.8	6	6
				340s ⁻¹ /200 RPM	0.3	3.9	4.5	4.5
				511s ⁻¹ /300 RPM	0.2	3.2	3.8	3.8
DFR-1S	Untreated Source	5.20	70.00	170s ⁻¹ /100 RPM	0.6	12	12	12
				340s ⁻¹ /200 RPM	0.3	8.7	8.7	8.7
				511s ⁻¹ /300 RPM	0.2	7	7	7
DFR-1S	Untreated Source	7.80	70.00	170s ⁻¹ /100 RPM	0.6	14.4	15	15.6
				340s ⁻¹ /200 RPM	0.3	10.5	11.7	11.7
				511s ⁻¹ /300 RPM	0.2	8.6	8.6	9.2
DFR-HV8100	Untreated Source	2.60	70.00	170s ⁻¹ /100 RPM	0.6	4.2	6	6
				340s ⁻¹ /200 RPM	0.3	3.6	4.5	4.5
				511s ⁻¹ /300 RPM	0.2	3.4	4	4
DFR-HV8100	Untreated Source	5.20	70.00	170s ⁻¹ /100 RPM	0.6	5.4	10.8	10.8
				340s ⁻¹ /200 RPM	0.3	4.5	8.1	8.1
				511s ⁻¹ /300 RPM	0.2	4	6.8	6.8
DFR-HV8100	Untreated Source	7.80	70.00	170s ⁻¹ /100 RPM	0.6	8.4	14.4	15.6
				340s ⁻¹ /200 RPM	0.3	6	10.5	12
				511s ⁻¹ /300 RPM	0.2	7.2	9	9.4



GMT Exploration Marble-Redstone Pad FR Inversion Curves

Viscosity by Shear Rate for Untreated Source: Liquid FR's





GMT Exploration Marble-Redstone Pad FR Inversion Curves

Viscosity by Shear Rate for Untreated Source: Dry FR's

