

TABLE 1
EMISSIONS ESTIMATE SUMMARY
POWDER WASH NORTH COMPRESSOR STATION - SOUTH PIT
MOFFAT COUNTY, COLORADO
ANDEAVOR GATHERING I, LLC

Sample Information and Lab Analysis								
Date	Total Flow (cf)	Delta Flow (cf)	Benzene (ug/l)	Toluene (ug/l)	Ethyl Benzene (ug/l)	Xylenes (ug/l)	VOCs TVPH (ug/l)	PID (ppm)
07/20/17	43,200	43,200	5,660	6,470	156	1,257.3	46,300	2,141
08/03/17	361,800	318,600	870	1,500	62	270	74,000	2,500
08/31/17	1,011,600	649,800	400	920	70	315	25,000	2,196
09/20/17	1,454,400	442,800	130	270	12	60	31,000	1,936
10/05/17	1,755,000	300,600	430	870	56	277	12,000	1,408
11/13/17	2,476,800	721,800	260	550	44	265	16,000	1,267
12/20/17	2,817,000	340,200	25	40	3.1	18.1	1,100	157
01/16/18	3,254,400	437,400	170	260	19	116	9,400	1,053
02/16/18	3,754,800	500,400	160	200	12	68	4,600	1,005
03/12/18	4,195,800	441,000	220	360	17	91	6,900	1,003
04/25/18	5,146,200	950,400	190	270	18	100	9,800	891
05/22/18	5,904,000	757,800	210	300	16	89	9,600	996
06/11/18	6,310,800	406,800	300	400	23	131	19,000	1,146
07/26/18	7,385,400	1,074,600	290	290	14	79	18,000	1,078
08/15/18	7,945,200	559,800	270	330	10	54.9	19,000	1,168

Emission Calculations						
Date	Flow Rate (cfm)	Benzene (lb/hr)	Toluene (lb/hr)	Ethyl Benzene (lb/hr)	Xylenes (lb/hr)	VOCs TVPH (lb/hr)
07/20/17	30	0.64	0.73	0.02	0.14	5.19
08/03/17	30	0.10	0.17	0.01	0.03	8.30
08/31/17	30	0.04	0.10	0.01	0.04	2.81
09/20/17	30	0.0146	0.0303	0.0013	0.0067	3.48
10/05/17	30	0.0482	0.0976	0.0063	0.0311	1.35
11/13/17	30	0.0292	0.0617	0.0049	0.0297	1.80
12/20/17	30	0.0028	0.0045	0.0003	0.0020	0.12
01/16/18	30	0.0191	0.0292	0.0021	0.0130	1.05
02/16/18	30	0.0180	0.0224	0.0013	0.0076	0.52
03/12/18	30	0.0247	0.0404	0.0019	0.0102	0.77
04/25/18	30	0.0213	0.0303	0.0020	0.0112	1.10
05/22/18	30	0.0236	0.0337	0.0018	0.0100	1.08
06/11/18	30	0.0337	0.0449	0.0026	0.0147	2.13
07/23/18	30	0.0325	0.0325	0.0016	0.0089	2.02
08/15/18	30	0.0303	0.0370	0.0011	0.0062	2.13



TABLE 1

Tons emitted over total operating time													
Date	Total Operational Hours	Delta Hours	Benzene (tons)	Toluene (tons)	Ethyl Benzene (tons)	Xylenes (tons)	TVPH (tons)	Cumulative TVPH (tons)	12 Month Rolling Throughput (tons)				
07/19/17													
	Startup												
07/20/17	24.0	24.0	0.0076	0.0087	0.0002	0.0017	0.0623	0.0623	0.1				
08/03/17	201.0	177.0	0.0086	0.0149	0.0006	0.0027	0.7348	0.7972	0.8				
08/31/17	562.0	361.0	0.0081	0.0186	0.0014	0.0064	0.5063	1.3035	1.3				
09/20/17	808.0	246.0	0.0018	0.0037	0.0002	0.0008	0.4278	1.7313	1.7				
10/05/17	975.0	167.0	0.0040	0.0082	0.0005	0.0026	0.1124	1.8437	1.8				
11/13/17	1,376.0	401.0	0.0058	0.0124	0.0010	0.0060	0.3599	2.2037	2.2				
12/20/17	1,565.0	189.0	0.0003	0.0004	0.0000	0.0002	0.0117	2.2153	2.2				
01/16/18	1,808.0	243.0	0.0023	0.0035	0.0003	0.0016	0.1281	2.3435	2.3				
02/16/18	2,086.0	278.0	0.0025	0.0031	0.0002	0.0011	0.0717	2.4152	2.4				
03/12/18	2,331.0	245.0	0.0030	0.0049	0.0002	0.0013	0.0948	2.5101	2.5				
04/25/18	2,859.0	528.0	0.0056	0.0080	0.0005	0.0030	0.2903	2.8004	2.8				
05/22/18	3,280.0	421.0	0.0050	0.0071	0.0004	0.0021	0.2267	3.0271	3.0				
06/11/18	3,506.0	226.0	0.0038	0.0051	0.0003	0.0017	0.2409	3.2680	3.3				
07/23/18	4,103.0	597.0	0.0097	0.0097	0.0005	0.0026	0.6029	3.8709	3.9				
08/15/18	4,414.0	311.0	0.0047	0.0058	0.0002	0.0010	0.3315	4.2024	3.4				
		Sum	0.073	0.114	0.006	0.035	4.202						

NOTES:

cf - cubic feet

ug/l - micrograms per liter

VOCs - volatile organic compounds

TVPH - total volatile petroleum hydrocarbons

cfm - cubic feet per minute

lb/hr - pounds per hour

lbs - pounds

PID - photo-ionization detector

ppm - part per million

