
**SUPPLEMENTAL ANALYSIS OF DELAYS CAUSED BY
RAIL DELIVERIES TO CHEVRON'S MONTEBELLO SITE**

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Additional information has been obtained including a detailed description regarding the planned delivery of ethanol by rail car to Chevron's Montebello site. Based on this more detailed information we are better able to assess whether or not the resultant delays to traffic on Vail Avenue and Maple Avenue will be significant.

ANALYSIS

The rail deliveries are expected to occur between the hours of 10:00 AM to 1:00 PM on weekdays (no weekends) three to five times per week. The locomotive switching operation will be such that Vail Avenue will be interrupted up to a maximum of six times creating a total delay of nine and one-half minutes during a period of 28 minutes required for the complete pick-up of 12 empty cars and their replacement with 12 full rail cars. During this same switching operation, Maple Avenue will be interrupted once for up to a maximum of two minutes.

Briefly, the rail operation is described as follows:

1. The arriving train with 12 full rail cars stops prior to crossing Vail Avenue and disconnects the 12 full cars.
2. The locomotive will pull forward of the switch and back into the Chevron site and connect to the 12 empty cars. The locomotive will stop short of Vail Avenue but may activate the gates even though the train does not actually cross Vail Avenue (maximum closure one minute).
3. The 12 empty cars will pull forward stopping just short of Vail Avenue (again activating the gates but not actually crossing the street) maximum closure of one minute.
4. The 12 empty rail cars will be backed down the tracts to connect to the 12 full rail cars. The Vail Avenue gates will be activated for up to one minute while the switch is changed from the spur to the main line.
5. The 24 cars then pull past Vail Avenue (blocking the street for up to 90 seconds) and continue past Maple Avenue closing that street for up to two minutes. Note: the Vail

Avenue crossing will be re-opened while Maple Avenue is closed. The switch will be opened for access to the Chevron spur during this period.

6. The 24 car train will be backed into the Chevron spur with the 12 full cars disconnected and left there. Vail Avenue will remain closed for up to four minutes.
7. The train with 12 empty cars will pull back out of the Chevron site again activating the Vail Avenue gates for up to one minute, while the switch is thrown but the train does not actually cross Vail Avenue (maximum closure one minute).
8. The train with 12 empty cars heads back west to the UPRR yard.

This entire operation lasts for a total of about 28 minutes, meanwhile Vail Avenue is closed and re-opened a total of six times (for a total of nine and one-half minutes during all six closings) and Maple Avenue is closed once for a total of two minutes. Traffic counts were obtained on Vail Avenue and Maple Avenue on typical weekdays. During the peak 15 minute period between 10:00 AM and 1:00 PM, 142 vehicles cross the UPRR tracks on Vail Avenue and 94 vehicles cross the tracts on Maple Avenue. This is equivalent to 10 vehicles per minute on Vail Avenue and six vehicles per minute on Maple Avenue. Assuming the rail delivery occurs during the peak 15 minute period (i.e., 12:30 - 12:45 PM) then the six closings of Vail Avenue will result in a total of 95 vehicles being delayed an average of 51 seconds each. The worst case delay during the maximum four minute closure will see 40 vehicles delayed an average of 123 seconds (or just over two minutes). The one closing of Maple Avenue will cause 12 vehicles to be delayed an average of just over one minute each.

CONCLUSION

In summary, it is concluded that the proposed delivery of ethanol by rail to the Chevron's Montebello site will cause up to six additional closures of Vail Avenue and one additional closure of Maple Avenue each weekday. However, the duration of these closures are all, except one, for two minutes or less with an average just under one minute of average delay on Vail Avenue and just about one minute for Maple Avenue. Delays of such short duration are commonplace at active railroad crossings and are not considered to cause a significant impact. The normal railroad operation is to re-open the gates immediately if emergency vehicle access is needed.

LOCATION - VAIL-BTN MINES/UP METRO LINK

AVERAGED VOLUMES FOR - TUESDAY 5/8/01 TO WEDNESDAY 5/9/01

AM				PM			
TIME	NB	SB	TOTAL	TIME	NB	SB	TOTAL
12:00 - 12:15	7	5	12	12:00 - 12:15	82	46	128
12:15 - 12:30	1	4	5	12:15 - 12:30	46	42	88
12:30 - 12:45	7	4	11	12:30 - 12:45	66	76	142
12:45 - 1:00	5	3	8	12:45 - 1:00	69	263	332
1:00 - 1:15	3	1	4	1:00 - 1:15	67	54	121
1:15 - 1:30	2	7	9	1:15 - 1:30	45	73	118
1:30 - 1:45	2	4	6	1:30 - 1:45	66	66	132
1:45 - 2:00	4	1	5	1:45 - 2:00	47	225	272
2:00 - 2:15	2	5	7	2:00 - 2:15	68	56	124
2:15 - 2:30	1	1	2	2:15 - 2:30	55	49	104
2:30 - 2:45	0	4	4	2:30 - 2:45	114	54	168
2:45 - 3:00	3	3	6	2:45 - 3:00	56	293	349
3:00 - 3:15	2	5	7	3:00 - 3:15	84	60	144
3:15 - 3:30	7	5	12	3:15 - 3:30	49	57	106
3:30 - 3:45	2	2	4	3:30 - 3:45	124	64	188
3:45 - 4:00	4	8	12	3:45 - 4:00	77	334	411
4:00 - 4:15	5	3	8	4:00 - 4:15	92	60	152
4:15 - 4:30	8	6	14	4:15 - 4:30	86	74	160
4:30 - 4:45	6	12	18	4:30 - 4:45	128	58	186
4:45 - 5:00	10	20	30	4:45 - 5:00	118	424	542
5:00 - 5:15	6	8	14	5:00 - 5:15	146	96	242
5:15 - 5:30	14	18	32	5:15 - 5:30	106	64	170
5:30 - 5:45	14	54	68	5:30 - 5:45	124	78	202
5:45 - 6:00	24	58	82	5:45 - 6:00	67	643	710
6:00 - 6:15	17	22	39	6:00 - 6:15	61	52	113
6:15 - 6:30	28	36	64	6:15 - 6:30	50	46	96
6:30 - 6:45	25	66	91	6:30 - 6:45	43	49	92
6:45 - 7:00	48	70	118	6:45 - 7:00	42	196	238
7:00 - 7:15	44	61	105	7:00 - 7:15	56	40	96
7:15 - 7:30	64	82	146	7:15 - 7:30	44	22	66
7:30 - 7:45	118	110	228	7:30 - 7:45	30	36	66
7:45 - 8:00	64	140	204	7:45 - 8:00	23	133	156
8:00 - 8:15	80	68	148	8:00 - 8:15	17	27	44
8:15 - 8:30	38	66	104	8:15 - 8:30	33	22	55
8:30 - 8:45	42	72	114	8:30 - 8:45	27	23	50
8:45 - 9:00	45	44	89	8:45 - 9:00	20	97	117
9:00 - 9:15	38	47	85	9:00 - 9:15	25	17	42
9:15 - 9:30	21	31	52	9:15 - 9:30	22	19	41
9:30 - 9:45	60	30	90	9:30 - 9:45	12	16	28
9:45 - 10:00	39	33	72	9:45 - 10:00	25	84	109
10:00 - 10:15	44	28	72	10:00 - 10:15	23	15	38
10:15 - 10:30	37	48	85	10:15 - 10:30	16	7	23
10:30 - 10:45	36	40	76	10:30 - 10:45	19	10	29
10:45 - 11:00	28	39	67	10:45 - 11:00	11	69	80
11:00 - 11:15	54	30	84	11:00 - 11:15	14	8	22
11:15 - 11:30	46	38	84	11:15 - 11:30	7	12	19
11:30 - 11:45	41	31	72	11:30 - 11:45	7	6	13
11:45 - 12:00	42	44	86	11:45 - 12:00	12	40	52
TOTALS	1,258	1,517	2,775		2,621	2,039	4,660
ADT'S					3,859	3,556	7,415

LOCATION - MAPLE-BTN MINES/RAILROAD TRACKS

AVERAGED VOLUMES FOR - TUESDAY 9/18/01 TO WEDNESDAY 9/19/01

***** AM *****					***** PM *****						
TIME	NB	SB	TOTAL		TIME	NB	SB	TOTAL			
12:00 - 12:15	3	8	11		12:00 - 12:15	52	42	94			
12:15 - 12:30	7	1	8		12:15 - 12:30	42	37	79			
12:30 - 12:45	1	2	3		12:30 - 12:45	30	52	82			
12:45 - 1:00	3	14	3	25	12:45 - 1:00	32	156	40	171	72	327
1:00 - 1:15	5	0	5		1:00 - 1:15	40	30	70			
1:15 - 1:30	8	0	8		1:15 - 1:30	32	34	66			
1:30 - 1:45	3	2	5		1:30 - 1:45	50	38	88			
1:45 - 2:00	5	21	3	26	1:45 - 2:00	64	186	42	144	106	330
2:00 - 2:15	1	4	5		2:00 - 2:15	56	52	108			
2:15 - 2:30	8	2	10		2:15 - 2:30	32	44	76			
2:30 - 2:45	4	1	5		2:30 - 2:45	44	41	85			
2:45 - 3:00	4	17	1	25	2:45 - 3:00	62	194	34	171	96	365
3:00 - 3:15	2	5	7		3:00 - 3:15	45	39	104			
3:15 - 3:30	7	4	11		3:15 - 3:30	45	40	85			
3:30 - 3:45	8	1	9		3:30 - 3:45	74	43	117			
3:45 - 4:00	7	24	9	43	3:45 - 4:00	60	224	44	186	104	410
4:00 - 4:15	9	2	11		4:00 - 4:15	64	52	116			
4:15 - 4:30	8	3	11		4:15 - 4:30	53	47	100			
4:30 - 4:45	16	6	22		4:30 - 4:45	68	64	132			
4:45 - 5:00	12	45	11	67	4:45 - 5:00	56	241	31	194	87	435
5:00 - 5:15	8	10	18		5:00 - 5:15	58	44	102			
5:15 - 5:30	10	10	20		5:15 - 5:30	60	51	111			
5:30 - 5:45	22	14	36		5:30 - 5:45	56	50	106			
5:45 - 6:00	9	49	12	95	5:45 - 6:00	50	224	36	181	86	405
6:00 - 6:15	8	11	19		6:00 - 6:15	50	40	90			
6:15 - 6:30	24	13	37		6:15 - 6:30	47	47	94			
6:30 - 6:45	22	12	34		6:30 - 6:45	53	39	92			
6:45 - 7:00	20	74	21	131	6:45 - 7:00	38	186	34	160	72	348
7:00 - 7:15	43	33	76		7:00 - 7:15	26	31	57			
7:15 - 7:30	58	29	87		7:15 - 7:30	32	24	56			
7:30 - 7:45	80	53	133		7:30 - 7:45	28	22	50			
7:45 - 8:00	62	243	74	432	7:45 - 8:00	18	184	34	111	52	215
8:00 - 8:15	49	35	84		8:00 - 8:15	22	17	39			
8:15 - 8:30	35	30	65		8:15 - 8:30	20	14	34			
8:30 - 8:45	40	20	60		8:30 - 8:45	12	18	30			
8:45 - 9:00	28	152	25	262	8:45 - 9:00	25	79	19	68	44	147
9:00 - 9:15	40	20	60		9:00 - 9:15	21	14	35			
9:15 - 9:30	30	18	48		9:15 - 9:30	10	20	30			
9:30 - 9:45	40	28	68		9:30 - 9:45	15	12	27			
9:45 - 10:00	42	152	31	249	9:45 - 10:00	19	65	7	53	26	118
10:00 - 10:15	42	28	70		10:00 - 10:15	11	13	24			
10:15 - 10:30	40	37	77		10:15 - 10:30	9	2	11			
10:30 - 10:45	52	34	86		10:30 - 10:45	10	12	22			
10:45 - 11:00	37	171	27	297	10:45 - 11:00	14	44	14	41	28	85
11:00 - 11:15	38	28	66		11:00 - 11:15	10	8	18			
11:15 - 11:30	52	18	70		11:15 - 11:30	6	6	12			
11:30 - 11:45	29	31	60		11:30 - 11:45	3	3	6			
11:45 - 12:00	42	161	40	278	11:45 - 12:00	10	29	3	20	13	49
TOTALS	1,123	807	1,930			1,734	1,500	3,234			
ADT'S						2,257	2,307	5,164			