



## TABLES

TABLE 1  
PIEZOMETER INSPECTION SUMMARY  
  
LOVE RANCH 8 EVAPORATION POND (SWD POND)  
RIO BLANCO COUNTY, COLORADO  
XTO ENERGY, INC.

Date	Observer	Reservoir Level		Outlet Discharge (gpm)	PZ-1			PZ-2			PZ-3		
		Gage Height	Elevation (ft)		TD (ft)	DTW (ft)	Water Elevation (ft)	TD (ft)	DTW (ft)	Water Elevation (ft)	TD (ft)	DTW (ft)	Water Elevation (ft)
1/24/2014	KRW	8	6156	0	28.00	0.00	0.00	27.07	0.00	0.00	32.09	0.00	1.00
2/25/2014	KRW	9	6157	0	28.00	0.00	0.00	27.07	0.00	0.00	32.09	trace	trace
3/25/2014	KRW	8	6156	0	28.00	0.00	0.00	27.07	0.00	0.00	32.09	trace	trace
4/24/2014	KRW	9	6157	0	28.00	0.00	0.00	27.07	0.00	0.00	32.09	trace	trace
6/26/2014	KRW	13	6161	0	28.00	0.00	0.00	27.07	0.00	0.00	32.09	0.00	1.00
9/29/2014	KRW	12	6160	0	28.00	0.00	0.00	27.07	0.00	0.00	32.09	trace	trace
1/20/2015	KRW	13	6161	0	28.00	0.00	0.00	27.07	0.00	0.00	32.09	0.00	0.00
3/6/2015	KRW	13	6161	0	28.00	0.00	0.00	27.07	0.00	0.00	32.09	0.00	0.00
6/4/2015	KRW	14	6162	0	28.00	0.00	0.00	27.07	0.00	0.00	32.09	0.00	0.00
9/9/2015	KRW	14	6162	0	28.00	0.00	0.00	27.07	0.00	0.00	32.09	0.00	0.00
12/4/2015	SMA	12	6160	0	28.00	0.00	0.00	27.07	0.00	0.00	32.09	0.00	0.00
3/25/2016	SMA	13	6161	0	28.00	0.00	0.00	27.07	0.00	0.00	32.09	0.00	0.00
6/23/2016	SMA	13	6161	0	28.00	0.00	0.00	27.07	0.00	0.00	32.09	0.00	0.00
9/16/2016	SMA	12	6160	0	28.00	0.00	0.00	27.07	0.00	0.00	32.09	0.00	0.00
12/9/2016	LTE	13	6161	0	27.80	0.00	0.00	26.85	0.00	0.00	31.89	0.00	0.00

**Notes:**  
All data prior to October 2016 was provided by  
SMA (previously KRW).





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PIEZOMETER INSPECTION SUMMARY  
  
LOVE RANCH 8 EVAPORATION POND (SWD POND)  
RIO BLANCO COUNTY, COLORADO  
XTO ENERGY, INC.

Date	Observer	Reservoir Level		PZ-4			PZ-5			PZ-6			PZ-7		
		Gage Height	Elevation (ft)	TD (ft)	DTW (ft)	Water Elevation (ft)	TD (ft)	DTW (ft)	Water Elevation (ft)	TD (ft)	DTW (ft)	Water Elevation (ft)	TD (ft)	DTW (ft)	Water Elevation (ft)
1/24/2014	KRW	8	6156	36.17	36.16	0.01	41.25	41.22	0.03	41.04	41.02	0.02	35.44	0.00	0.00
2/25/2014	KRW	9	6157	36.17	36.16	0.01	41.25	41.23	0.02	41.04	41.01	0.03	35.44	0.00	0.00
3/25/2014	KRW	8	6156	36.17	trace	trace	41.25	41.22	0.03	41.04	41.01	0.03	35.44	0.00	0.00
4/24/2014	KRW	9	6157	36.17	trace	trace	41.25	41.23	0.02	41.04	41.02	0.02	35.44	0.00	0.00
6/26/2014	KRW	13	6161	36.17	trace	trace	41.25	41.23	0.03	41.04	41.01	0.03	35.44	0.00	0.00
9/29/2014	KRW	12	6160	36.17	trace	trace	41.25	41.23	0.02	41.04	41.02	0.02	35.44	0.00	0.00
1/20/2015	KRW	13	6161	36.17	trace	trace	41.25	41.23	0.02	41.04	41.02	0.02	35.44	0.00	0.00
3/6/2015	KRW	13	6161	36.17	trace	trace	41.25	41.23	0.02	41.04	41.02	0.02	35.44	0.00	0.00
6/4/2015	KRW	14	6162	36.17	trace	trace	41.25	41.23	0.02	41.04	41.02	0.02	35.44	0.00	0.00
9/9/2015	KRW	14	6162	36.17	trace	trace	41.25	41.23	0.02	41.04	41.02	0.02	35.44	0.00	0.00
12/4/2015	SMA	12	6160	36.17	trace	trace	41.25	41.23	0.03	41.04	41.01	0.03	35.44	0.00	0.00
3/25/2016	SMA	13	6161	36.17	trace	trace	41.25	41.23	0.02	41.04	41.01	0.03	35.44	0.00	0.00
6/23/2016	SMA	13	6161	36.17	trace	trace	41.25	41.23	0.02	41.04	41.02	0.02	35.44	0.00	0.00
9/16/2016	SMA	12	6160	36.17	trace	trace	41.25	41.23	0.02	41.04	41.01	0.03	35.44	0.00	0.00
12/9/2016	LTE	13	6161	36.04	0.00	0.00	41.12	0.00	0.00	40.82	0.00	0.00	35.31	0.00	0.00

**Notes:**  
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TABLE 1  
PIEZOMETER INSPECTION SUMMARY  
  
LOVE RANCH 8 EVAPORATION POND (SWD POND)  
RIO BLANCO COUNTY, COLORADO  
XTO ENERGY, INC.

Date	Observer	Reservoir Level		PZ-8			PZ-9			PZ-10		
		Gage Height	Elevation (ft)	TD (ft)	DTW (ft)	Water Elevation (ft)	TD (ft)	DTW (ft)	Water Elevation (ft)	TD (ft)	DTW (ft)	Water Elevation (ft)
1/24/2014	KRW	8	6156	25.45	0.00	0.00	34.05	34.04	0.01	29.09	29.02	0.07
2/25/2014	KRW	9	6157	25.45	0.00	0.00	34.05	34.03	0.02	29.09	29.00	0.09
3/25/2014	KRW	8	6156	25.45	0.00	0.00	34.06	34.04	0.02	29.07	29.00	0.07
4/24/2014	KRW	9	6157	25.45	0.00	0.00	34.05	34.04	0.01	29.07	29.00	0.07
6/26/2014	KRW	13	6161	25.45	0.00	0.00	34.05	34.03	0.02	29.07	29.00	0.07
9/29/2014	KRW	12	6160	25.45	0.00	0.00	34.05	34.04	0.01	29.07	29.00	0.07
1/20/2015	KRW	13	6161	25.45	0.00	0.00	34.05	34.04	0.01	29.07	29.01	0.06
3/6/2015	KRW	13	6161	25.45	0.00	0.00	34.05	34.04	0.01	29.07	29.00	0.07
6/4/2015	KRW	14	6162	25.45	0.00	0.00	34.05	34.03	0.02	29.07	29.00	0.07
9/9/2015	KRW	14	6162	25.45	0.00	0.00	34.05	34.04	0.01	29.07	29.00	0.07
12/4/2015	SMA	12	6160	25.45	0.00	0.00	34.05	34.04	0.01	29.07	29.00	0.07
3/25/2016	SMA	13	6161	25.45	0.00	0.00	34.05	34.04	0.01	29.07	29.01	0.06
6/23/2016	SMA	13	6161	25.45	0.00	0.00	34.05	34.04	0.01	29.07	29.01	0.06
9/16/2016	SMA	12	6160	25.45	0.00	0.00	34.05	34.04	0.01	29.07	29.01	0.06
12/9/2016	LTE	13	6161	25.46	0.00	0.00	33.85	0.00	0.00	28.94	0.00	0.00

**Notes:**  
All data prior to October 2016 was provided by SMA (previously KRW).





TABLE 2  
SETTLEMENT DATA

LOVE RANCH 8 EVAPORATION POND (SWD POND)  
RIO BLANCO COUNTY, COLORADO  
XTO ENERGY

Date	Observer	Reservoir Level		SMK-1 (8+00)			SMK-2 (9+00)			SMK-3 (10+00)		
		Gage Height (ft)	Elevation (ft)	N	E	Elev (ft)	N	E	Elev (ft)	N	E	Elev (ft)
7/25/2005	KRW	0	6148.0	214802.54	216202.69	6169.53	214876.25	216269.79	6169.11	214951.56	216335.72	6169.22
Initial Reading												
8/31/2005	KRW	4.0	6152.0	214802.57	216202.70	6169.53	214876.30	216269.81	6169.11	214951.59	216335.71	6169.22
	Delta (Initial-Current)			-0.03	-0.01	0.00	-0.05	-0.02	0.00	-0.03	0.01	0.00
10/13/2005	KRW	8.5	6156.5	214802.56	216202.69	6169.52	214876.25	216269.79	6169.09	214951.56	216335.73	6169.19
	Delta (Initial-Current)			-0.02	0.00	0.01	0.00	0.00	0.02	0.00	-0.01	0.03
10/20/2005	KRW	9.5	6157.5	214802.57	216202.70	6169.53	214876.30	216269.81	6169.11	214951.59	216335.71	6169.22
	Delta (Initial-Current)			-0.03	-0.01	0.00	-0.05	-0.02	0.00	-0.03	0.01	0.00
10/28/2005	KRW	10.5	6158.5	214802.54	216202.73	6169.55	214876.25	216269.82	6169.12	214951.57	216335.72	6169.23
	Delta (Initial-Current)			0.00	-0.04	-0.02	0.00	-0.03	-0.01	0.00	0.00	-0.01
11/4/2005	KRW	11	6159	214802.55	216202.72	6169.54	214876.25	216269.82	6169.10	214951.56	216335.72	6169.22
	Delta (Initial-Current)			-0.01	-0.03	-0.01	0.00	-0.03	0.01	0.00	0.00	0.00
11/9/2005	KRW	11	6159	214802.52	216202.71	6169.54	214876.23	216269.80	6169.11	214951.53	216335.71	6169.23
	Delta (Initial-Current)			0.02	-0.02	-0.01	0.02	-0.01	0.00	0.03	0.01	-0.01
7/26/2006	KRW	9	6157	214802.52	216202.70	6169.53	214876.22	216269.83	6169.11	214951.53	216335.73	6169.22
	Delta (Initial-Current)			0.02	-0.01	0.00	0.03	-0.04	0.00	0.03	-0.01	0.00
12/8/2006	KRW	1	6149	214802.57	216202.67	6169.52	214876.27	216269.84	6169.10	214951.59	216335.73	6169.21
	Delta (Initial-Current)			-0.03	0.02	0.01	-0.02	-0.05	0.01	-0.03	-0.01	0.01
12/18/2007	KRW	0	6148	214802.55	216202.80	6169.55	214876.26	216269.88	6169.14	214951.59	216335.80	6169.24
	Delta (Initial-Current)			-0.01	-0.11	-0.02	-0.01	-0.09	-0.03	-0.03	-0.08	-0.02
12/9/2008	KRW	0.5	5148.5	214802.51	216202.76	6169.53	214876.24	216269.84	6169.09	214951.55	216335.77	6169.23
	Delta (Initial-Current)			0.03	-0.07	0.00	0.01	-0.05	0.02	0.01	-0.05	-0.01
12/29/2009	KRW	13	6161	214802.52	216202.88	6169.56	214876.26	216269.95	6169.14	214951.58	216335.84	6169.26
	Delta (Initial-Current)			0.02	-0.19	-0.03	-0.01	-0.16	-0.03	-0.02	-0.12	-0.04
11/18/2010	KRW	-	-	214802.57	216202.94	6169.55	214876.30	216269.96	6169.13	214951.66	216335.85	6169.23
	Delta (Initial-Current)			-0.03	-0.25	-0.02	-0.05	-0.17	-0.02	-0.10	-0.13	-0.01
12/9/2011	KRW	5	6153	214802.50	216203.00	6169.56	214876.27	216270.06	6169.14	214951.62	216335.94	6169.23
	Delta (Initial-Current)			0.04	-0.31	-0.03	-0.02	-0.27	-0.03	-0.06	-0.22	-0.01
12/5/2012	KRW	4	6152	214802.53	216202.99	6169.56	214876.29	216270.05	6169.12	214951.63	216335.93	6169.22
	Delta (Initial-Current)			0.01	-0.30	-0.03	-0.04	-0.26	-0.01	-0.07	-0.21	0.00
10/17/2013	KRW	9	6157	214802.52	216203.06	6169.55	214876.29	216270.09	6169.12	214951.63	216335.97	6169.22
	Delta (Initial-Current)			0.02	-0.37	-0.02	-0.04	-0.30	-0.01	-0.07	-0.25	0.00
10/21/2014	KRW/CAL	13	6161	214802.55	216203.12	6169.58	214876.29	216270.15	6169.13	214951.64	216336.03	6169.26
	Delta (Initial-Current)			-0.01	-0.43	-0.05	-0.04	-0.36	-0.02	-0.08	-0.31	-0.04
10/13/2015	KRW/CAL	14	6162	214802.53	216202.75	6169.58	214876.26	216269.83	6169.15	214951.57	216335.74	6169.24
	Delta (Initial-Current)			0.01	-0.06	-0.05	-0.01	-0.04	-0.04	-0.01	-0.02	-0.02
10/28/2016	LTE	13	6161	214802.56	216202.76	6169.54	214876.28	216269.84	6169.11	214951.6	216335.74	6169.19
	Delta (Initial-Current)			-0.02	-0.07	-0.01	-0.03	-0.05	0.00	-0.04	-0.02	0.03

Notes:  
All data prior to October 2016 was provided by SMA (previously KRW)  
N - Northing  
E - Easting  
Elev - Elevation





TABLE 2  
SETTLEMENT DATA

LOVE RANCH 8 EVAPORATION POND (SWD POND)  
RIO BLANCO COUNTY, COLORADO  
XTO ENERGY

Date	Observer	Reservoir Level		SMK-4 (10+50)			SMK-5 (11+50)			SMK-6 (12+00)			SMK-7 (13+00)		
		Gage Height (ft)	Elevation (ft)	N	E	Elev (ft)	N	E	Elev (ft)	N	E	Elev (ft)	N	E	Elev (ft)
7/25/2005	KRW	0	6148.0	214988.75	1216369.43	6169.25	215063.91	1216437.92	6171.16	215125.63	1216440.82	6172.56	215225.84	1216441.92	6172.30
Initial Reading															
8/31/2005	KRW	4.0	6152.0	214988.79	1216369.45	6169.25	215063.94	1216437.95	6171.16	215125.65	1216440.86	6172.56	215225.87	1216441.95	6172.27
	Delta (Initial-Current)			-0.04	-0.02	0.00	-0.03	-0.03	0.00	-0.02	-0.04	0.00	-0.03	-0.03	0.03
10/13/2005	KRW	8.5	6156.5	214988.75	1216369.43	6169.22	215063.91	1216437.92	6171.13	215125.66	1216440.85	6172.54	215225.86	1216441.93	6172.24
	Delta (Initial-Current)			0.00	0.00	0.03	0.00	0.00	0.03	-0.03	-0.03	0.02	-0.02	-0.01	0.06
10/20/2005	KRW	9.5	6157.5	214988.79	1216369.45	6169.25	215063.94	1216437.95	6171.16	215125.65	1216440.86	6172.56	215225.87	1216441.95	6172.27
	Delta (Initial-Current)			-0.04	-0.02	0.00	-0.03	-0.03	0.00	-0.02	-0.04	0.00	-0.03	-0.03	0.03
10/28/2005	KRW	10.5	6158.5	214988.74	1216369.43	6169.26	215063.90	1216437.93	6171.17	215125.64	1216440.84	6172.56	215225.86	1216441.96	6172.27
	Delta (Initial-Current)			0.01	0.00	-0.01	0.01	-0.01	-0.01	-0.01	-0.02	0.00	-0.02	-0.04	0.03
11/4/2005	KRW	11	6159	214988.75	1216369.43	6169.25	215063.91	1216437.92	6171.17	215125.66	1216440.82	6172.56	215225.88	1216441.95	6172.26
	Delta (Initial-Current)			0.00	0.00	0.00	0.00	0.00	-0.01	-0.03	0.00	0.00	-0.04	-0.03	0.04
11/9/2005	KRW	11	6159	214988.72	1216369.42	6169.26	215063.88	1216437.92	6171.16	215125.64	1216440.84	6172.57	215225.84	1216441.96	6172.27
	Delta (Initial-Current)			0.03	0.01	-0.01	0.03	0.00	0.00	-0.01	-0.02	-0.01	0.00	-0.04	0.03
7/26/2006	KRW	9	6157	214988.77	1216369.46	6169.25	215063.94	1216437.95	6171.16	215125.67	1216440.84	6172.56	215225.87	1216441.96	6172.27
	Delta (Initial-Current)			-0.02	-0.03	0.00	-0.03	-0.03	0.00	-0.04	-0.02	0.00	-0.03	-0.04	0.03
12/8/2006	KRW	1	6149	214988.81	1216369.45	6169.25	215063.98	1216438.00	6171.15	215125.69	1216440.85	6172.54	215225.87	1216441.93	6172.21
	Delta (Initial-Current)			-0.06	-0.02	0.00	-0.07	-0.08	0.01	-0.06	-0.03	0.02	-0.03	-0.01	0.09
12/18/2007	KRW	0	6148	214988.75	1216369.48	6169.26	215063.94	1216438.00	6171.17	215125.68	1216440.88	6172.55	215225.93	1216442.01	6172.22
	Delta (Initial-Current)			0.00	-0.05	-0.01	-0.03	-0.08	-0.01	-0.05	-0.06	0.01	-0.09	-0.09	0.08
12/9/2008	KRW	0.5	5148.5	214988.73	1216369.50	6169.26	215063.92	1216438.01	6171.15	215125.72	1216440.91	6172.55	215225.93	1216442.04	6172.19
	Delta (Initial-Current)			0.02	-0.07	-0.01	-0.01	-0.09	0.01	-0.09	-0.09	0.01	-0.09	-0.12	0.11
12/29/2009	KRW	13	6161	214988.79	1216369.56	6169.27	215063.96	1216438.06	6171.18	215125.72	1216440.94	6172.57	215225.97	1216442.08	6172.19
	Delta (Initial-Current)			-0.04	-0.13	-0.02	-0.05	-0.14	-0.02	-0.09	-0.12	-0.01	-0.13	-0.16	0.11
11/18/2010	KRW	-	-	214988.80	1216369.63	6169.27	215063.98	1216438.09	6171.19	215125.75	1216441.00	6172.56	215226.00	1216442.10	6172.19
	Delta (Initial-Current)			-0.05	-0.20	-0.02	-0.07	-0.17	-0.03	-0.12	-0.18	0.00	-0.16	-0.18	0.11
12/9/2011	KRW	5	6153	214988.83	1216369.64	6169.27	215064.01	1216438.13	6171.19	215125.76	1216440.99	6172.56	215226.01	1216442.11	6172.19
	Delta (Initial-Current)			-0.08	-0.21	-0.02	-0.10	-0.21	-0.03	-0.13	-0.17	0.00	-0.17	-0.19	0.11
12/5/2012	KRW	4	6152	214988.84	1216369.63	6169.26	215064.02	1216438.12	6171.16	215125.78	1216440.98	6172.56	215226.03	1216442.10	6172.17
	Delta (Initial-Current)			-0.09	-0.20	-0.01	-0.11	-0.20	0.00	-0.15	-0.16	0.00	-0.19	-0.18	0.13
10/17/2013	KRW	9	6157	214988.83	1216369.67	6169.26	215064.02	1216438.15	6171.16	215125.79	1216441.02	6172.55	215226.04	1216442.13	6172.17
	Delta (Initial-Current)			-0.08	-0.24	-0.01	-0.11	-0.23	0.00	-0.16	-0.20	0.01	-0.20	-0.21	0.13
10/21/2014	KRW/CAL	13	6161	214988.84	1216369.73	6169.3	215064.08	1216438.18	6171.17	215125.86	1216441.06	6172.58	215226.09	1216442.18	6172.19
	Delta (Initial-Current)			-0.09	-0.30	-0.05	-0.17	-0.26	-0.01	-0.23	-0.24	-0.02	-0.25	-0.26	0.11
10/13/2015	KRW/CAL	14	6162	214988.76	1216369.47	6169.28	215063.92	1216437.99	6171.19	215125.68	1216440.89	6172.58	215225.94	1216442.05	6172.18
	Delta (Initial-Current)			-0.01	-0.04	-0.03	-0.01	-0.07	-0.03	-0.05	-0.07	-0.02	-0.10	-0.13	0.12
10/28/2016	LTE	13	6161	214988.79	1216369.45	6169.24	215063.97	1216437.95	6171.188	215125.739	1216440.86	6172.476	215225.924	1216441.98	6172.034
	Delta (Initial-Current)			-0.04	-0.02	0.01	-0.06	-0.03	-0.03	-0.11	-0.04	0.08	-0.08	-0.06	0.27

Notes:  
All data prior to October 2016 was provided by SMA (previously KRW)  
N - Northing  
E - Easting  
Elev - Elevation





TABLE 2

## SETTLEMENT DATA

LOVE RANCH 8 EVAPORATION POND (SWD POND)  
RIO BLANCO COUNTY, COLORADO  
XTO ENERGY

Date	Observer	Reservoir Level		SMK-8 (14+00)			SMK-9 (16+00)			SMK-10 (16+00)			SMK-11 (17+00)		
		Gage Height (ft)	Elevation (ft)	N	E	Elev (ft)	N	E	Elev (ft)	N	E	Elev (ft)	N	E	Elev (ft)
7/25/2005	KRW	0	6148.0	215324.09	1216435.50	6172.31	215420.90	1216411.51	6172.26	215425.90	1216310.04	6172.01	215434.08	1216161.89	6170.16
8/31/2005	KRW	4.0	6152.0	215324.16	1216435.53	6172.28	215420.79	1216411.63	6172.72	215425.98	1216310.00	6172.02	215434.08	1216161.87	6170.16
	Delta (Initial-Current)			-0.07	-0.03	0.03	0.11	-0.12	-0.46	-0.08	0.04	-0.01	0.00	0.02	0.00
10/13/2005	KRW	8.5	6156.5	215324.10	1216435.53	6172.23	215420.69	1216411.68	6172.67	215425.92	1216310.00	6171.99	215434.07	1216161.88	6170.15
	Delta (Initial-Current)			-0.01	-0.03	0.08	0.21	-0.17	-0.41	-0.02	0.04	0.02	0.01	0.01	0.01
10/20/2005	KRW	9.5	6157.5	215324.16	1216435.53	6172.28	215420.79	1216411.63	6172.72	215425.98	1216310.00	6172.02	215434.08	1216161.87	6170.16
	Delta (Initial-Current)			-0.07	-0.03	0.03	0.11	-0.12	-0.46	-0.08	0.04	-0.01	0.00	0.02	0.00
10/28/2005	KRW	10.5	6158.5	215324.10	1216435.54	6172.26	215420.71	1216411.69	6172.72	215425.92	1216310.02	6172.03	215434.07	1216161.88	6170.16
	Delta (Initial-Current)			-0.01	-0.04	0.05	0.19	-0.18	-0.46	-0.02	0.02	-0.02	0.01	0.01	0.01
11/4/2005	KRW	11	6159	215324.12	1216435.53	6172.25	215420.71	1216411.67	6172.71	215425.94	1216309.99	6172.02	215434.07	1216161.88	6170.16
	Delta (Initial-Current)			-0.03	-0.03	0.06	0.19	-0.16	-0.45	-0.04	0.05	-0.01	0.01	0.01	0.01
11/9/2005	KRW	11	6159	215324.09	1216435.55	6172.27	215420.72	1216411.71	6172.72	215425.93	1216310.01	6172.02	215434.07	1216161.88	6170.16
	Delta (Initial-Current)			0.00	-0.05	0.04	0.18	-0.20	-0.46	-0.03	0.03	-0.01	0.01	0.01	0.01
7/26/2006	KRW	9	6157	215324.14	1216435.59	6172.28	215420.77	1216411.71	6172.64	215425.93	1216310.00	6172.04	215434.07	1216161.88	6170.16
	Delta (Initial-Current)			-0.05	-0.09	0.03	0.13	-0.20	-0.38	-0.03	0.04	-0.03	0.01	0.01	0.01
12/8/2006	KRW	1	6149	215324.21	1216435.63	6172.19	215420.77	1216411.72	6172.64	215425.95	1216309.98	6172.02	215434.07	1216161.88	6170.16
	Delta (Initial-Current)			-0.12	-0.13	0.12	0.13	-0.21	-0.38	-0.05	0.06	-0.01	0.01	0.01	0.01
12/18/2007	KRW	0	6148	215324.16	1216435.65	6172.18	215420.80	1216411.77	6172.63	215425.95	1216310.00	6172.02	215434.07	1216161.88	6170.16
	Delta (Initial-Current)			-0.07	-0.15	0.13	0.10	-0.26	-0.37	-0.05	0.04	-0.01	0.01	0.01	0.01
12/9/2008	KRW	0.5	5148.5	215324.17	1216435.68	6172.12	215420.80	1216411.81	6172.60	215425.93	1216310.03	6172.01	215434.07	1216161.88	6170.16
	Delta (Initial-Current)			-0.08	-0.18	0.19	0.10	-0.30	-0.34	-0.03	0.01	0.00	0.01	0.01	0.01
12/29/2009	KRW	13	6161	215324.20	1216435.70	6172.13	215420.84	1216411.82	6172.60	215425.94	1216310.03	6172.02	215434.07	1216161.88	6170.16
	Delta (Initial-Current)			-0.11	-0.20	0.18	0.06	-0.31	-0.34	-0.04	0.01	-0.01	0.01	0.01	0.01
11/18/2010	KRW	-	-	215324.24	1216435.71	6172.11	215420.87	1216411.83	6172.59	215425.96	1216310.04	6172	215434.07	1216161.88	6170.16
	Delta (Initial-Current)			-0.15	-0.21	0.20	0.03	-0.32	-0.33	-0.06	0.00	0.01	0.01	0.01	0.01
12/9/2011	KRW	5	6153	215324.25	1216435.73	6172.12	215420.89	1216411.83	6172.60	215425.97	1216310.04	6172	215434.07	1216161.88	6170.16
	Delta (Initial-Current)			-0.16	-0.23	0.19	0.01	-0.32	-0.34	-0.07	0.00	0.01	0.01	0.01	0.01
12/5/2012	KRW	4	6152	215324.25	1216435.71	6172.10	215420.87	1216411.83	6172.57	215425.96	1216310.03	6171.99	215434.07	1216161.88	6170.16
	Delta (Initial-Current)			-0.16	-0.21	0.21	0.03	-0.32	-0.31	-0.06	0.01	0.02	0.01	0.01	0.01
10/17/2013	KRW	9	6157	215324.25	1216435.74	6172.1	215420.89	1216411.87	6172.58	215425.95	1216310.05	6171.99	215434.07	1216161.88	6170.16
	Delta (Initial-Current)			-0.16	-0.24	0.21	0.01	-0.36	-0.32	-0.05	-0.01	0.02	0.01	0.01	0.01
10/21/2014	KRW/CAL	13	6161	215324.3	1216435.77	6172.12	215420.94	1216411.86	6172.59	215426.01	1216310.04	6171.99	215434.07	1216161.88	6170.16
	Delta (Initial-Current)			-0.21	-0.27	0.19	-0.04	-0.35	-0.33	-0.11	0.00	0.02	0.01	0.01	0.01
10/13/2015	KRW/CAL	14	6162	215324.15	1216435.71	6172.1	215420.8	1216411.88	6172.59	215425.93	1216310.06	6172.01	215434.094	1216161.92	6170.22
	Delta (Initial-Current)			-0.06	-0.21	0.21	0.10	-0.37	-0.33	-0.03	-0.02	0.00	-0.01	-0.03	-0.06
10/28/2016	LTE	13	6161	215324.162	1216435.63	6171.938	215420.817	1216411.79	6172.491	215425.9	1216310.08	6172.089	215434.045	1216161.93	6170.295
	Delta (Initial-Current)			-0.07	-0.13	0.37	0.08	-0.28	-0.23	0.00	-0.04	-0.08	0.03	-0.04	-0.14

## Notes:

All data prior to October 2016 was provided by SMA (previously KRW)

N - Northing

E - Easting

Elev - Elevation





**APPENDIX A**  
**DAM INSPECTION REPORT FORMS**



# DAM INSPECTION REPORT

Name of Dam: Love Ranch Evaporation Pond Date: 3/25/16 Division: 6 Dam ID: C-1881

Type of (circle): EARTH FILL, ROCKFILL, CONCRETE, OTHER: Earth Fill

Estimate Actual Capacity: 59,248 yd<sup>3</sup>

Estimate Surface Area: 142,825 ft<sup>2</sup>

Estimate Height: ft

Gauge Rod Reading: 13 ft = elevation 6161

Estimate Freeboard (Pond level to top of dam): 6 ft to Elevation of 6167.00 at the top of Dam

Use: IRRIGATION, MUNICIPAL, OTHER: Salt Water Evaporation

DIRECTIONS: Mark an "X" in the Yes or No column and circle the word or phrase which applies.

Yes No

1. Are the roads to the dam adequate to allow ACCESS BY EMERGENCY EQUIPMENT and TRAVEL ACROSS THE DAM (i.e., TRUCKS, AMBULANCES)? SEE ADDITIONAL COMMENTS	X	
2. Is there DEBRIS, TREES, or BRUSH on the upstream slope that prevent seeing the entire surface of the slope?		X
3. Are there TREES or BRUSH on the CREST, or DOWNSTREAM SLOPE that prevent seeing the entire surface of the slope?		X
4. Are there CRACKS, SLIDES, SLUMPS, BOILS, SETTLEMENT or OTHER on the UPSTREAM SLOPE, CREST, or DOWNSTREAM SLOPE?		X
5. Are there RODENT HOLES or ERODED GULLIES on the UPSTREAM or DOWNSTREAM SLOPE?	X	
6. Is there FLOWING WATER or LARGE BOGGY SPOTS at the toe of the dam?		X
7. Are there FLOWS OF WATER or WET SPOTS above the toe of the dam?		X
9. Are there toe drains?	X	
10. Is the water from the TOE DRAINS or LEAKS found to be MUDDY or SANDY? SEE ADDITIONAL COMMENTS		X
16. Is there evidence that the dam has been overtopped?		X
17. Is the reservoir usually full YEAR ROUND, OVER 1/2 OF YEAR, or LESS THAN 1/2 OF YEAR? Over 1/2 of Year	X	
18. Should this dam be promptly inspected by a field engineer from the State Engineer's offices?		X

Additional Comments:

Toe Drain = 16.01'

Inspected By:

Nate Grove



## DAM INSPECTION REPORT

NAME OF DAM: Love Ranch Evaporation Pond DATE: 3/25/16  
DAM HEIGHT: 44 (ft) MAX. RES. CAPACITY: 50.4 acre ft.  
MAXIMUM GAGE ROD: 17 (ft) TODAY'S GAGE HEIGHT: 13 (ft)

### NOTE:

a) Enter 1 below if: No problems found in this area, the whole area appears to be acceptable.

b) Circle items of particular concern.

UPSTREAM SLOPE 1

CREST 1

DOWNSTREAM SLOPE 1

SEEPAGE AREAS 1

OUTLET N/A

SPILLWAY 1

HDPE LINER 1

REQUIRED MAINTENANCE OR ACTION:

INSPECTOR'S SIGNATURE: Noted

# DAM INSPECTION REPORT

Name of Dam: Love Ranch Evaporation Pond Date: 6/23/16 Division: 6 Dam ID: C-1881

Type of (circle): EARTH FILL, ROCKFILL, CONCRETE, OTHER: Earth Fill

Estimate Actual Capacity: 59,248 yd<sup>3</sup>

Estimate Surface Area: 142,825 ft<sup>2</sup>

Estimate Height: ft

Gauge Rod Reading: 13 ft = elevation 6161

Estimate Freeboard (Pond level to top of dam): 6 ft to Elevation of 6167.00 at the top of Dam

Use: IRRIGATION, MUNICIPAL, OTHER: Salt Water Evaporation

DIRECTIONS: Mark an "X" in the Yes or No column and circle the word or phrase which applies.

	Yes	No
1. Are the roads to the dam adequate to allow ACCESS BY EMERGENCY EQUIPMENT and TRAVEL ACROSS THE DAM (i.e., TRUCKS, AMBULANCES)? SEE ADDITIONAL COMMENTS	X	
2. Is there DEBRIS, TREES, or BRUSH on the upstream slope that prevent seeing the entire surface of the slope?		X
3. Are there TREES or BRUSH on the CREST, or DOWNSTREAM SLOPE that prevent seeing the entire surface of the slope?		X
4. Are there CRACKS, SLIDES, SLUMPS, BOILS, SETTLEMENT or OTHER on the UPSTREAM SLOPE, CREST, or DOWNSTREAM SLOPE?		X
5. Are there RODENT HOLES or ERODED GULLIES on the UPSTREAM or DOWNSTREAM SLOPE?	X	
6. Is there FLOWING WATER or LARGE BOGGY SPOTS at the toe of the dam?		X
7. Are there FLOWS OF WATER or WET SPOTS above the toe of the dam?		X
9. Are there toe drains?	X	
10. Is the water from the TOE DRAINS or LEAKS found to be MUDDY or SANDY? SEE ADDITIONAL COMMENTS		X
16. Is there evidence that the dam has been overtopped?		X
17. Is the reservoir usually full YEAR ROUND, OVER 1/2 OF YEAR, or LESS THAN 1/2 OF YEAR? Over 1/2 of Year	X	
18. Should this dam be promptly inspected by a field engineer from the State Engineer's offices?		X

Additional Comments:

Toe Drain = 16.01'

Inspected By:

Nate Grove



## DAM INSPECTION REPORT

NAME OF DAM: Love Ranch Evaporation Pond DATE: 6/23/16  
DAM HEIGHT: 44 (ft) MAX. RES. CAPACITY: 50.4 acre ft.  
MAXIMUM GAGE ROD: 17 (ft) TODAY'S GAGE HEIGHT: 13 (ft)

NOTE:

- a) Enter 1 below if: No problems found in this area, the whole area appears to be acceptable.  
b) Circle items of particular concern.

UPSTREAM SLOPE 1

\_\_\_\_\_

CREST 1

\_\_\_\_\_

DOWNSTREAM SLOPE 1

\_\_\_\_\_

SEEPAGE AREAS 1

\_\_\_\_\_

\_\_\_\_\_

OUTLET N/A

\_\_\_\_\_

SPILLWAY 1

\_\_\_\_\_

HDPE LINER 1

\_\_\_\_\_

REQUIRED MAINTENANCE OR ACTION:

INSPECTOR'S SIGNATURE: Nate Grove

# DAM INSPECTION REPORT

Name of Dam: Love Ranch Evaporation Pond Date: 9/16/16 Division: 6 Dam ID: C-1881

Type of (circle): EARTH FILL, ROCKFILL, CONCRETE, OTHER: Earth Fill

Estimate Actual Capacity: 53,959 yd<sup>3</sup> Estimate Surface Area: 139,645 ft<sup>2</sup>

Estimate Height: ft Gauge Rod Reading: 12 ft = elevation 6160

Estimate Freeboard (Pond level to top of dam): 7 ft to Elevation of 6167.00 at the top of Dam

Use: IRRIGATION, MUNICIPAL, OTHER: Salt Water Evaporation

DIRECTIONS: Mark an "X" in the Yes or No column and circle the word or phrase which applies.

	Yes	No
1. Are the roads to the dam adequate to allow ACCESS BY EMERGENCY EQUIPMENT and TRAVEL ACROSS THE DAM (i.e., TRUCKS, AMBULANCES)? SEE ADDITIONAL COMMENTS	X	
2. Is there DEBRIS, TREES, or BRUSH on the upstream slope that prevent seeing the entire surface of the slope?		X
3. Are there TREES or BRUSH on the CREST, or DOWNSTREAM SLOPE that prevent seeing the entire surface of the slope?		X
4. Are there CRACKS, SLIDES, SLUMPS, BOILS, SETTLEMENT or OTHER on the UPSTREAM SLOPE, CREST, or DOWNSTREAM SLOPE?		X
5. Are there RODENT HOLES or ERODED GULLIES on the UPSTREAM or DOWNSTREAM SLOPE?	X	
6. Is there FLOWING WATER or LARGE BOGGY SPOTS at the toe of the dam?		X
7. Are there FLOWS OF WATER or WET SPOTS above the toe of the dam?		X
9. Are there toe drains?	X	
10. Is the water from the TOE DRAINS or LEAKS found to be MUDDY or SANDY? SEE ADDITIONAL COMMENTS		X
16. Is there evidence that the dam has been overtopped?		X
17. Is the reservoir usually full YEAR ROUND, OVER 1/2 OF YEAR, or LESS THAN 1/2 OF YEAR? Over 1/2 of Year	X	
18. Should this dam be promptly inspected by a field engineer from the State Engineer's offices?		X

Additional Comments:

Toe Drain = 16.01'

Inspected By: Nate Grove



## DAM INSPECTION REPORT

NAME OF DAM: Love Ranch Evaporation Pond DATE: 9/16/16  
DAM HEIGHT: 44 (ft) MAX. RES. CAPACITY: 50.4 acre ft.  
MAXIMUM GAGE ROD: 17 (ft) TODAY'S GAGE HEIGHT: 12 (ft)

### NOTE:

a) Enter 1 below if: No problems found in this area, the whole area appears to be acceptable.

b) Circle items of particular concern.

UPSTREAM SLOPE 1

CREST 1

DOWNSTREAM SLOPE Varmit holes and bird balls on East Slope

SEEPAGE AREAS 1

OUTLET N/A

SPILLWAY 1

HDPE LINER 1

REQUIRED MAINTENANCE OR ACTION:

INSPECTOR'S SIGNATURE: Neth Grave

# DAM INSPECTION REPORT FORM

Name of Dam: Love Ranch E&P Pond      Date: 12/9/16      Division: 6      Dam ID: C-1881

Type of (circle) EARTHFILL ROCKFILL, CONCRETE, OTHER Earthen Fill

Estimate Actual Capacity: 59,248 yd3

Estimate Surface Area: 142,825 ft2

Estimate Height: 19'

Gage Rod Reading: 13' - Elev. 6161'

Estimate Freeboard (Pond level to top of dam): 6' - Elev. 6167'

Use: IRRIGATION, MUNICIPAL, OTHER: Other

DIRECTIONS: Check the Yes or No column and the word or phrase that applies.

	Yes	No
1. Are the roads to the dam adequate to allow ACCESS OF EMERGENCY EQUIPMENT & TRAVEL ACROSS THE DAM (i.e., TRUCKS, AMBULANCES)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Is there <input type="checkbox"/> DEBRIS <input type="checkbox"/> TREES <input type="checkbox"/> BRUSH on the upstream slope that prevents seeing the entire surface of the slope?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. Are there <input type="checkbox"/> TREES <input type="checkbox"/> BRUSH on the <input type="checkbox"/> CREST or <input type="checkbox"/> DOWNSTREAM SLOPE that prevents seeing the entire surface of the slope?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4. Are there <input type="checkbox"/> CRACKS <input type="checkbox"/> SLIDES <input type="checkbox"/> SLUMPS <input type="checkbox"/> BOILS <input type="checkbox"/> SETTLEMENT <input type="checkbox"/> OTHER on the <input type="checkbox"/> UPSTREAM SLOPE <input type="checkbox"/> CREST or <input type="checkbox"/> DOWNSTREAM SLOPE?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5. Are there <input checked="" type="checkbox"/> RODENT HOLES <input type="checkbox"/> ERODED GULLIES on the <input checked="" type="checkbox"/> UPSTREAM or <input checked="" type="checkbox"/> DOWNSTREAM SLOPE?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6. Is there <input type="checkbox"/> FLOWING WATER or <input type="checkbox"/> LARGE BOGGY SPOTS at the toe of the dam?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7. Are there <input type="checkbox"/> FLOWS OF WATER or <input type="checkbox"/> WET SPOTS above the toe of the dam?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
9. Are there toe drains?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
10. Is the water from the <input type="checkbox"/> TOE DRAINS or <input type="checkbox"/> LEAKS found to be <input type="checkbox"/> MUDDY or <input type="checkbox"/> SANDY?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
16. Is there evidence that the dam has been overtopped?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
17. Is the reservoir usually full <input type="checkbox"/> YEAR ROUND <input checked="" type="checkbox"/> OVER 1/2 OF YEAR <input type="checkbox"/> LESS THAN 1/2 OF YEAR?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
18. Should this dam be promptly inspected by a field engineer from the State Engineer's	<input type="checkbox"/>	<input checked="" type="checkbox"/>
23. Additional Comments:		

Inspected By: Steve Sivigliano, Environmental Technician, LT Environmental, Inc.



# DAM INSPECTION REPORT FORM

Name of Dam: <b>Love Ranch E&amp;P Pond</b>	Date: <b>12/9/16</b>
Dam Height (ft): <b>44'</b>	Max. Res. Capacity (A.F): <b>50.4 A.F.</b>
Maximum Gage Rod (ft): <b>17'</b>	Today's Gage Height (ft): <b>13'</b>

Note: Toe Drain DTW = 15.65'

a) Enter 1 below if: No problems found in this area, the whole area appears to be acceptable.

b) Check items of particular concern.

UPSTREAM SLOPE <sub>1</sub>

CREST <sub>1</sub>

DOWNSTREAM SLOPE <sub>1</sub>

SEEPAGE AREAS <sub>1</sub>

OUTLET <sub>NA</sub>

SPILLWAY <sub>1</sub>

HDPE LINER <sub>1</sub>

REQUIRED MAINTENANCE OR ACTION Repair gaps at bottom of fence in NW corner, and along west side near culvert inlet.

INSPECTOR'S SIGNATURE Steve Siglin

**Table 1**  
**Love Ranch Evaporation Pond Lab Summary**

Last Update

2/7/2017

Analytical Parameter	E&P Facility	COGCC	E & P Facility		COGCC
(with units)	Solids	Soils Table 910-1 Concentration Levels	Produced Water Inlet	Produced Water Outlet	Ground Water Table 910-1 Concentration Levels
<b>Accutest Job #</b>	<b>D87332 (9/29/16)</b>	-	<b>D87330 (9/29/16)</b>		-
Sample type (Composite/Discrete)	C	-	D	D	-
TPH (GRO) (mg/Kg)	5940	-	128000	276	-
TPH (DRO) (mg/Kg)	23100	-	12900	1480	-
TPH (GRO + DRO) (mg/Kg)	29040	500	140900	1756	-
Benzene (mg/Kg)	1.190	0.170	14900	4.6	5
Toluene (mg/Kg)	4.860	85	23300	8.9	560 to 1000
Ethylbenzene (mg/Kg)	6.250	100	777	0.85 J	700
Xylenes (total) (mg/Kg)	98.200	175	12200	14.8	1400 to 10000
Acenaphthene (mg/Kg)	ND	1000	-	-	-
Anthracene (mg/Kg)	ND	1000	-	-	-
Benzo(A)anthracene (mg/Kg)	ND	0.22	-	-	-
Benzo(A)pyrene (mg/Kg)	ND	0.022	-	-	-
Benzo(B)fluoranthene (mg/Kg)	ND	0.22	-	-	-
Benzo(K)fluoranthene (mg/Kg)	ND	2.2	-	-	-
Chrysene (mg/Kg)	ND	22	-	-	-
Dibenzo(A,H)anthracene (mg/Kg)	ND	0.022	-	-	-
Fluoranthene (mg/Kg)	ND	1000	-	-	-
Fluorene (mg/Kg)	ND	1000	-	-	-
Indeno(1,2,3,C,D)pyrene (mg/Kg)	ND	0.22	-	-	-
Naphthalene (mg/Kg)	25.10	23	-	-	-
Pyrene (mg/Kg)	2.050	1000	-	-	-
Electrical Conductivity (mmhos/cm)	6.370	4	-	-	-
Sodium Adsorption Ratio (SAR)	69.1	12	-	-	-
pH	8.21	6-9	-	-	-
Arsenic (mg/kg)	26.1	0.39	-	-	-
Barium (mg/kg)	1690	15000	-	-	-
Cadmium (mg/kg)	ND	70	-	-	-
Chromium (III) (mg/Kg)	153	120000	-	-	-
Chromium (VI) (mg/Kg)	ND	23	-	-	-
Copper (mg/kg)	154	3100	-	-	-
Lead (inorganic) (mg/kg)	33.2	400	-	-	-
Mercury (mg/kg)	5.4	23	-	-	-
Nickel (mg/kg)	146	1600	-	-	-
Selenium (mg/kg)	17.9	390	-	-	-
Silver (mg/kg)	ND	390	-	-	-
Zinc (mg/kg)	ND	23000	-	-	-
% Solids	61.9	-	N/A	N/A	-

## Notes:

- 1) ND= not detectable to the laboratory detection limit.
- 2) "-" indicates no analysis or COGCC requirements
- 3) Results highlighted in yellow exceed Table 910-1 concentration levels.
- 4) J = Indicates an estimated value