Denison Environmental Services

Table B-1: Summary of Historic and 2010 Direct Water Use from Rose Creek

Faro Mine Closure

Water Use[4]	Maximum Rate (m³/day)	Total (million m³)
Zone II Pit Pumping		
2007	2,074	0.07
2008	1,417	0.07
2009	1,831	0.10
2010	1,323	0.07
Faro Pit Pumping		
2007	9,599	1.15
2008	15,528	2.27
2009	26,784	2.13
2010	19,750	2.01
Intermediate Pond[1]		
2007	2,514	0.33
2008	21,774	2.00
2009	18,870	1.76
2010	10,103	1.16
S-Wells Area		
2009	243	0.05
2010	214	0.07
Emergency Tailings Area (to Mill)[2]		
2010	453	0.03
Total Estimated Water Use		
2007	14,187	1.6
2008	38,719	4.3
2009	47,728	4.0
2010	**31,843**	**3.34**
Total Allowable	**65,465**	**4.1** [3]

1. *Includes water pumped to Mill, Faro Pit, and siphoned to the Cross Valley Pond. ETA water that was diverted to the Intermediate Pond is accounted for in the Intermediate Pond water use and is therefore not shown as a separate water use.*
2. *Water pumped from Emergency Tailing Area to Faro Treatment Plant via new pumping system is shown here.*
3. *As suggested in the historic Water Licence Application Report.*
4. *Historic Water Use as reported in previous annual reports.*

Table B-2: Precipitation at Faro Airport from 1978 to 2010

Year	Jan (mm)	Feb (mm)	Mar (mm)	Apr (mm)	May (mm)	Jun (mm)	Jul (mm)	Aug (mm)	Sep (mm)	Oct (mm)	Nov (mm)	Dec (mm)	Total (mm)
1978	0.4	**miss.**	trace	4.1	11.6	27	38.1	41.6	7.8	32.4	20.2	19	
1979	8.9	18.3	20.2	6.7	10.5	68.2	55.4	13.8	13.4	11.6	12.4	34.4	273.8
1980	19.7	2.4	11.7	12.5	10.5	11.1	95.4	33.2	46.7	**miss.**	21.3	13.3	
1981	6.5	23.1	4	4.5	7.8	42.8	41.3	22.5	41.9	21.5	17	5.4	238.3
1982	10.2	18	9.5	4.1	18.2	14.3	58.3	47.3	47.2	42.3	11.8	13.6	294.8
1983	35.7	6.6	9.8	2.2	20.6	55.6	49.1	65.8	21.2	16.3	11.4	3.9	298.2
1984	27.6	24.1	5.9	2.4	38.8	49	16.6	64.9	5.5	10.8	10.7	22.5	278.8
1985	22.5	24.8	2.2	13.8	17.2	28.1	62.6	80.8	46.3	20	22.2	26.1	366.6
1986	8.4	4.7	34.6	12.9	35.1	12.8	81.8	77.4	44.4	22.7	15.9	5.6	356.3
1987	3.1	14	2.8	10	40.1	50.8	92.4	63.5	30.2	26.6	17.8	6.2	357.5
1988	7	10.4	17.2	8.2	38	37.3	97.2	25.5	43.8	29	17.9	16.5	348
1989	19.8	3.6	19.8	2	17.9	41	51.7	16.9	30.8	46.3	39.8	13.8	303.4
1990	14.4	25.8	5	7	23.4	45.4	30	64.4	66.2	22.7	25.4	24.8	354.5
1991	17.2	22.6	16.6	2.8	22.4	30.2	115.4	33	48.2	49.6	43.4	40	441.4
1992	22.8	24.6	7.6	15.8	14.4	11.4	66.1	34.4	47.8	13.8	18.8	13	290.5
1993	22.2	15	1.6	6	76.7	48.6	50.2	56	50.8	35.7	**miss.**	**miss.**	
1994	20.2	8.4	11.4	5	39.8	24.2	19.6	25.2	45.6	41.6	24.4	8	273.4
1995	8.4	7.8	18.4	5.2	10.9	33.9	73.4	63.4	28.8	12.2	22.3	15.4	300.1
1996	10.2	9.1	27.1	7.2	13.4	20	64.4	70.8	52.7	34.8	3.5	5.9	319.1
1997	6.6	8.7	1.4	14	16.5	39.3	86.4	33.2	trace	25.2	6.4	12.4	250.1
1998	7	2.8	4.8	4.2	14.4	29.6	19.2	24.2	23.4	24	4.6	8.2	166.4
1999	24.4	10	15.4	1.8	44.4	64.8	42	33.8	27	22.4	12.8	21.6	320.4
2000	12.2	2	trace	6	9.6	39.6	48.1	116.2	102.2	8.6	19.4	5.8	369.7
2001	7.4	3	4	14.6	30.8	35	58.4	14.2	44.6	28.6	12.2	15.4	268.2
2002	9.2	5.8	9	7	19.6	19.4	34.9	64.1	38.4	18.2	9.6	9.4	244.6
2003	22.4	8	16	0.4	7.6	45.2	63.2	30.4	30.8	12.8	32.8	19.9	289.5
2004	31.1	11.4	45	4	15.6	34	13.5	38	48.5	33.6	9.8	45	329.5
2005	26.7	12.4	2.6	19.5	58.6	41	83.8	38.6	36.6	13	30	10.8	373.6
2006	11	7	18.5	21.6	16.2	38	33.4	33.3	35.6	21	33.1	8.3	277
2007	16.4	16.4	14.4	3.6	11.4	52	43.5	33.5	50.7	39.6	13.4	28	322.9
2008	**miss.**	**miss.**	**miss.**	**miss.**	**miss.**	68.6	74.8	99	27.2	**miss.**	**miss.**	**miss.**	
2009	**miss.**	15.4	20.3	20.4	19.9	26.1	16.8	62.4	28.2	**miss.**	**miss.**	**miss.**	
2010	20.3	5.6	9	3.4	15	45.6	37.4	29	30.8	16.4	29.2	12.8	254.5
Max	**35.7**	**25.8**	**45**	**21.6**	**76.7**	**68.2**	**115.4**	**116.2**	**102.2**	**49.6**	**43.4**	**45**	**441.4**
Year	1983	1990	2004	2005	1993	1979	1991	2000	2000	1991	1991	2004	1991
Mean	**15.5**	**12**	**12.9**	**7.9**	**23.3**	**37.3**	**55**	**47**	**38.9**	**25.1**	**19**	**16.2**	**307.6**
Min	**0.4**	**2**	**1.4**	**0.4**	**7.6**	**11.1**	**13.5**	**13.8**	**5.5**	**8.6**	**3.5**	**3.9**	**166.4**
Year	1978	2000	1978	2003	2003	1980	2004	1979	1997	2000	1996	1983	1998
St.Dev.	8.8	7.5	10.1	5.8	15.9	15.5	26.2	24.7	17.8	11.3	10	10.4	54.6

Data from 1978 to 2008 compiled by BGC Engineering Inc. Subsequent data compiled by Denison Environmental Services.

For some months in 2008/2009, the Faro Airport had technical difficulties with instrumentation, such that in each case the data is incomplete. The totals expressed for these years are only totals from the months for which data was available. In this case, both years will have significantly more precipitation than is represented.

Table B-3: Precipitation at Faro Rock Dump 2010

Month	Monthly Avg. Precipitation (mm)	Monthly Cumulative Precipitation (mm)
January	0.65	20
February	0.15	4.1
March	0.29	8
April	0.85	25.6
May	1.33	41.3
June	1.22	36.7
July	0.68	21.2
August	0.97	30.2
September	1.29	38.8
October	0.57	17.7
November	0.74	22.1
December	n/a	n/a
Total	0.8	266.6

Table B-4: Zone II
Volume Pumped (1995 to 2010)

Year	Volume Pumped (m^3)
1995	139,000
1996	75,000
1997	51,000
1998	43,000
1999	73,500
2000	64,500
2001	157,500
2002	99,500
2003	135,000
2004	66,500
2005	101,500
2006	75,250
2007	69,230
2008	65,210
2009	100,175
2010	67,158

Table B-5: Faro Pit Water Balance

Month	Faro Pit to Mill (m^3)	Zone II Discharge (m^3)	SRK08-SPW3 (m^3)	Net Uncontrolled Inflows (m^3)	Elevation Change (m)	Elevation Change (ft)	Net Volume Change (m^3)
January	0	0	6,602	98,903	0.20	0.67	105,506
February	0	0	5,736	61,783	0.13	0.43	67,519
March	0	0	5,477	110,995	0.22	0.73	116,472
April	108,835	0	6,415	161,681	0.11	0.37	59,261
May	369,464	41,030	6,220	193,667	-0.25	-0.81	-128,547
June	592,519	2,866	6,013	315,351	-0.52	-1.69	-268,288
July	529,051	9,227	6,085	149,266	-0.70	-2.3	-364,473
August	414,332	66	6,169	165,462	-0.47	-1.53	-242,635
September	0	5,658	6,444	85,668	0.19	0.62	97,769
October	0	8,313	5,207	70,438	0.16	0.53	83,958
November	0	0	5,459	72,600	0.15	0.49	78,059
December	0	0	5,852	105,451	0.21	0.7	111,303
Total	2,014,201	67,158	71,680	1,591,268	-0.55	-1.79	-284,095

Table B-6: Faro Pit Water Volumes

Year	Water Treated (million m³)	Annual Change in Pit Level[1] (m)	Natural Inflows[1] (million m³)	Annual Precipitation[2] (mm)	Inflow Factor[3]
1999	1.06	0.9	1.48	320	4.6
2000	1.8	0.6	2.03	370	5.5
2001	1.93	-0.7	1.45	268	5.4
2002	1.94	-1.5	1.02	245	4.2
2003	1.76	-0.5	1.38	290	4.8
2004	0.78	0.7	1.11	330	3.4
2005	1.62	-2.1	1.18	374	3.2
2006	1.28	0	1.22	277	4.4
2007	1.15	0.25	1.22	323	3.8
2008	2.27	0.25	2.24	Incomplete Data	N/A
2009	2.13	-0.08	1.85	298[4]	6.24
2010	2.01	-0.56	1.59	281[5]	5.75

1. As reported in the Annual Environmental Reports.

2. At the Faro airport as compiled by BGC Engineering Inc except where noted.

3. Calculated as natural inflows divided by annual precipitation.

4. Calculations for 2009 are based on data from the Faro Dump Weather Station. Data compiled by DES.

5. Calculations for 2010 are based on data from the Faro Dump Weather Station from January to November while December precipitation was taken from the Faro Airport Weather Station (due to instrument failure onsite).

Table B-7: Intermediate Pit Water Balance

Month	I.P. to Mill (m^3)	ETA to I.P. (m^3)	Net Uncontrolled Inflows (m^3)	Elevation Change (m)	Net Volume Change (m^3)
January	0	0	475	0.002	475
February	0	0	28,352	0.128	28,352
March	0	0	49,761	0.222	49,761
April	160,505	0	164,974	0.02	4,469
May	313,205	0	176,002	-0.619	-137,203
June	259,545	0	93,493	-0.793	-166,052
July	221,502	0	71,690	-0.812	-149,812
August	208,040	715	96,400	-0.712	-110,925
September	0	8,946	85,306	0.622	94,252
October	0	0	65,152	0.379	65,152
November	0	0	57,243	0.31	57,243
December	0	0	52,534	0.271	52,534
Total	1,162,797	9,661	941,380	-0.983	-211,756

Table B-8: Cross Valley Pond Water Balance

Month	X5 Discharge (m^3)	Mill to C.V.P. (m^3)	C.V.P. Seepage (m^3)	Net Uncontrolled Inflows (m^3)	Elevation Change (m)	Net Volume Change (m^3)
January	0	0	52,965	159,100	0.498	106,135
February	0	0	51,166	119,113	0.319	67,947
March	52,916	0	70,844	128,020	0.02	4,260
April	238,793	269,340	78,641	106,182	0.273	58,088
May	854,255	682,669	105,797	93,716	-0.862	-183,667
June	1,080,467	858,980	84,067	151,951	-0.721	-153,603
July	1,113,189	764,603	47,461	240,374	-0.731	-155,673
August	575,131	635,873	38,837	114,324	0.64	136,229
September	225,110	0	32,711	249,666	-0.038	-8,155
October	0	0	41,716	158,714	0.549	116,998
November	235,157	0	37,001	195,265	-0.361	-76,893
December	24,158	0	37,337	160,563	0.465	99,069
Total	4,399,175	3,211,465	678,543	1,876,988	0.05	10,735

Table B-9: Vangorda Pit Water Balance

Month	Van. Pit to V.T.P. (m^3)	L.C.D. to Van. Pit (m^3)	Net Uncontrolled Inflows (m^3)	Elevation Change (m)	Net Volume Change (m^3)
January	0	0	6,883	0.34	6,883
February	0	0	4,788	0.24	4,788
March	0	0	5,150	0.26	5,150
April	0	0	14,444	0.72	14,444
May	0	25,659	-12,534	0.65	13,125
June	177,785	0	134,444	-2.15	-43,340
July	211,748	0	160,919	-2.53	-50,829
August	0	0	12,004	0.60	12,004
September	0	4,925	3,884	0.44	8,808
October	0	0	7,374	0.37	7,374
November	0	0	6,682	0.33	6,682
December			7,128	0.35	7,128
Total	389,533	30,583	351,165	-0.39	-7,785

Table B-10: Vangorda Pit Water Volumes

Year	Water Treated (m^3)	Annual Change in Pit Level[1] (m)	Natural Inflows[1] (m^3)	Annual Precipitation[2] (mm)	Inflow Factor[3]
1998		20	231,100	166	7.2
1999		13.2	441,500	320	7.3
2000		14.8	817,000	370	4.5
2001		3	417,000	268	6.4
2002	894,000	-7	389,000	245	6.2
2003	750,000	4.4	1,006,500	290	2.9
2004	556,000	-1.1	456,500[4]	330	7.2
2005	924,500	-7.8	446,000	374	8.4
2006		2.2	368,000	277	7.5
2007		5.4	352,419	323	9.2
2008	788,416	-0.9	658,993	Data incomplete	Data incomplete
2009	925,678	-3.1	678,754[5]	Data incomplete	Data incomplete
2010	389,533	-0.4	351,165	297[6]	8.5

1. As reported in the Annual Environmental Reports.

2. As estimated from the Vangorda Pit water balance.

3. At the Faro airport as compiled by BGC Engineering Inc. as summarized from Table 2-2.

4. Includes the inflow of a portion of Vangorda Creek for ~12 hrs related to extreme flooding.

5. Includes inflow of water diverted from V25 BSP during a high TSS episode in May.

6. Total precipitation calculated using Grum Climate Station from January to November and (due to instrument malfunction) December data from Faro Airport.

Table B-11: Precipitation at Grum Climate Station in 2010

Month	Monthly Avg. Precip. (mm)	Monthly Cumulative Precip. (mm)
January	0.68	21
February	0.1	2.9
March	0.05	1.6
April	0.43	13
May	1	31.1
June	1.99	59.7
July	1.57	48.7
August	1.13	35
September	0.8	23.9
October	0.73	22.6
November	0.82	24.6
December	n/a	n/a
Year (excluding December)	**0.85**	**284.1**

Table B-12: Pumped Water Flow Rates and Volumes - Zone II to Faro Pit

Date	Time		Total hrs	Total mins	Flow Rate (Litres/Min)	Total discharge for Day (m^3)	Comments
	start	finish					
4-May-10	5:00 PM	12:00 AM	7.00	420	1090	458	
5-May-10	12:00 AM	12:00 AM	24.00	1440	1090	1570	Bucket Flow (18.17 L/s)
6-May-10	12:00 AM	12:00 AM	24.00	1440	1090	1570	
7-May-10	12:00 AM	12:00 AM	24.00	1440	1090	1570	
8-May-10	12:00 AM	12:00 AM	24.00	1440	1090	1570	
9-May-10	12:00 AM	12:00 AM	24.00	1440	1090	1570	
10-May-10	12:00 AM	12:00 AM	24.00	1440	1090	1570	
11-May-10	12:00 AM	12:00 AM	24.00	1440	1090	1570	
12-May-10	12:00 AM	12:00 AM	24.00	1440	1090	1570	
13-May-10	12:00 AM	12:00 AM	24.00	1440	1090	1570	
14-May-10	12:00 AM	12:00 AM	24.00	1440	1090	1570	
15-May-10	12:00 AM	12:00 AM	24.00	1440	1090	1570	
16-May-10	12:00 AM	12:00 AM	24.00	1440	1090	1570	
17-May-10	12:00 AM	12:00 AM	24.00	1440	1090	1570	
18-May-10	12:00 AM	12:00 AM	24.00	1440	1090	1570	
19-May-10	12:00 AM	12:00 AM	24.00	1440	1090	1570	
20-May-10	12:00 AM	12:00 AM	24.00	1440	1090	1570	
21-May-10	12:00 AM	12:00 AM	24.00	1440	1090	1570	
22-May-10	12:00 AM	12:00 AM	24.00	1440	1090	1570	
23-May-10	12:00 AM	12:00 AM	24.00	1440	1090	1570	
24-May-10	12:00 AM	12:00 AM	24.00	1440	1090	1570	
25-May-10	12:00 AM	1:00 PM	13.00	780	1090	850	
25-May-10	1:00 PM	12:00 AM	11.00	660	0	0	Zone II down to pump problems
26-May-10	12:00 AM	4:45 PM	16.75	1005	0	0	
26-May-10	4:45 PM	12:00 AM	7.25	435	1090	474	Zone II repaired and back up at 4:45 PM
27-May-10	12:00 AM	12:00 AM	24.00	1440	1090	1570	
28-May-10	12:00 AM	12:00 AM	24.00	1440	1090	1570	
29-May-10	12:00 AM	12:00 AM	24.00	1440	1090	1570	
30-May-10	12:00 AM	12:00 AM	24.00	1440	1090	1570	
31-May-10	12:00 AM	12:00 AM	24.00	1440	1090	1570	
1-Jun-10	12:00 AM	12:00 AM	24.00	1440	1090	1570	
2-Jun-10	12:00 AM	5:15 PM	17.25	1035	1090	1128	

Table B-12: Pumped Water Flow Rates and Volumes - Zone II to Faro Pit

Date	Time		Total hrs	Total mins	Flow Rate (Litres/Min)	Total discharge for Day (m^3)	Comments
	start	finish					
2-Jun-10	5:15 PM	12:00 AM	6.75	405	0	0	Zone II shutdown at 5:15 PM; WL 64.049 m; CLK: 13506.4
3-Jun-10	12:00 AM	12:00 AM	24.00	1440	0	0	
4-Jun-10	12:00 AM	12:00 AM	24.00	1440	0	0	
5-Jun-10	12:00 AM	12:00 AM	24.00	1440	0	0	
6-Jun-10	12:00 AM	12:00 AM	24.00	1440	0	0	
7-Jun-10	12:00 AM	12:00 AM	24.00	1440	0	0	
8-Jun-10	12:00 AM	12:00 AM	24.00	1440	0	0	
9-Jun-10	12:00 AM	12:00 AM	24.00	1440	0	0	
10-Jun-10	12:00 AM	12:00 AM	24.00	1440	0	0	
11-Jun-10	12:00 AM	12:00 AM	24.00	1440	0	0	
12-Jun-10	12:00 AM	12:00 AM	24.00	1440	0	0	
13-Jun-10	12:00 AM	12:56 PM	12.93	776	0	0	
13-Jun-10	12:56 PM	2:46 PM	1.83	110	917	101	
13-Jun-10	2:46 PM	12:00 AM	9.23	554	0	0	
14-Jun-10	12:00 AM	12:00 AM	24.00	1440	0	0	
15-Jun-10	12:00 AM	12:00 AM	24.00	1440	0	0	
16-Jun-10	12:00 AM	12:00 AM	24.00	1440	0	0	
17-Jun-10	12:00 AM	12:00 AM	24.00	1440	0	0	
18-Jun-10	12:00 AM	12:00 AM	24.00	1440	0	0	
19-Jun-10	12:00 AM	12:00 AM	24.00	1440	0	0	
20-Jun-10	12:00 AM	12:00 AM	24.00	1440	0	0	
21-Jun-10	12:00 AM	12:00 AM	24.00	1440	0	0	
22-Jun-10	12:00 AM	12:00 AM	24.00	1440	0	0	
23-Jun-10	12:00 AM	12:00 AM	24.00	1440	0	0	
24-Jun-10	12:00 AM	11:17 AM	11.28	677	0	0	
24-Jun-10	11:17 AM	12:30 PM	1.22	73	917	67	
24-Jun-10	12:30 PM	12:00 AM	11.50	690	0	0	
25-Jun-10	12:00 AM	12:00 AM	24.00	1440	0	0	
26-Jun-10	12:00 AM	12:00 AM	24.00	1440	0	0	
27-Jun-10	12:00 AM	12:00 AM	24.00	1440	0	0	
28-Jun-10	12:00 AM	12:00 AM	24.00	1440	0	0	

Table B-12: Pumped Water Flow Rates and Volumes - Zone II to Faro Pit

Date	Time		Total hrs	Total mins	Flow Rate (Litres/Min)	Total discharge for Day (m^3)	Comments
	start	finish					
29-Jun-10	12:00 AM	12:00 AM	24.00	1440	0	0	
30-Jun-10	12:00 AM	12:00 AM	24.00	1440	0	0	
1-Jul-10	12:00 AM	12:00 AM	24.00	1440	0	0	
2-Jul-10	12:00 AM	12:00 AM	24.00	1440	0	0	
3-Jul-10	12:00 AM	12:00 AM	24.00	1440	0	0	
4-Jul-10	12:00 AM	12:00 AM	24.00	1440	0	0	
5-Jul-10	12:00 AM	4:40 PM	16.67	1000	0	0	
5-Jul-10	4:40 PM	12:00 AM	7.33	440	1380	607	Zone II pump started at 4:40 PM; Volumteric flow (bucket test) of 23 L/s = 1380 L/min
6-Jul-10	12:00 AM	12:00 AM	24.00	1440	1380	1987	
7-Jul-10	12:00 AM	12:00 AM	24.00	1440	1380	1987	
8-Jul-10	12:00 AM	12:00 AM	24.00	1440	1380	1987	
9-Jul-10	12:00 AM	12:00 AM	24.00	1440	1380	1987	
10-Jul-10	12:00 AM	8:06 AM	8.10	486	1380	671	
10-Jul-10	8:06 AM	12:00 AM	15.90	954	0	0	Zone II pump off at 8:06 AM; WL: 63.237m; CLK: 13621.0
11-Jul-10	12:00 AM	12:00 AM	24.00	1440	0	0	
12-Jul-10	12:00 AM	12:00 AM	24.00	1440	0	0	WL: 62.859 m; CLK: 13621.0
13-Jul-10	12:00 AM	12:00 AM	24.00	1440	0	0	
14-Jul-10	12:00 AM	12:00 AM	24.00	1440	0	0	
15-Jul-10	12:00 AM	12:00 AM	24.00	1440	0	0	
16-Jul-10	12:00 AM	12:00 AM	24.00	1440	0	0	
17-Jul-10	12:00 AM	12:00 AM	24.00	1440	0	0	
18-Jul-10	12:00 AM	12:00 AM	24.00	1440	0	0	
19-Jul-10	12:00 AM	12:00 AM	24.00	1440	0	0	WL: 62.123m; CLK: 13621.0
20-Jul-10	12:00 AM	12:00 AM	24.00	1440	0	0	
21-Jul-10	12:00 AM	12:00 AM	24.00	1440	0	0	
22-Jul-10	12:00 AM	12:00 AM	24.00	1440	0	0	
23-Jul-10	12:00 AM	12:00 AM	24.00	1440	0	0	
24-Jul-10	12:00 AM	12:00 AM	24.00	1440	0	0	
25-Jul-10	12:00 AM	12:00 AM	24.00	1440	0	0	

Table B-12: Pumped Water Flow Rates and Volumes - Zone II to Faro Pit

Date	Time		Total hrs	Total mins	Flow Rate (Litres/Min)	Total discharge for Day (m^3)	Comments
	start	finish					
26-Jul-10	12:00 AM	12:00 AM	24.00	1440	0	0	WL: 61.548, CLK: 13621.0
27-Jul-10	12:00 AM	12:00 AM	24.00	1440	0	0	
28-Jul-10	12:00 AM	12:00 AM	24.00	1440	0	0	
29-Jul-10	12:00 AM	12:00 AM	24.00	1440	0	0	
30-Jul-10	12:00 AM	12:00 AM	24.00	1440	0	0	
31-Jul-10	12:00 AM	12:00 AM	24.00	1440	0	0	
1-Aug-10	12:00 AM	12:00 AM	24.00	1440	0	0	
2-Aug-10	12:00 AM	12:00 AM	24.00	1440	0	0	
3-Aug-10	12:00 AM	9:55 AM	9.92	595	0	0	
3-Aug-10	9:55 AM	10:56 AM	1.02	61	1080	66	Zone II pump started at 9:55 AM for monthly sample; Volumteric flow (bucket test) of 18 L/s = 1080 L/min; Turned off at 10:56 AM - WL:61.021; CLK:136220
3-Aug-10	10:56 AM	12:00 AM	13.07	784	0	0	
4-Aug-10	12:00 AM	12:00 AM	24.00	1440	0	0	
5-Aug-10	12:00 AM	12:00 AM	24.00	1440	0	0	
6-Aug-10	12:00 AM	12:00 AM	24.00	1440	0	0	
7-Aug-10	12:00 AM	12:00 AM	24.00	1440	0	0	
8-Aug-10	12:00 AM	12:00 AM	24.00	1440	0	0	
9-Aug-10	12:00 AM	12:00 AM	24.00	1440	0	0	
10-Aug-10	12:00 AM	12:00 AM	24.00	1440	0	0	
11-Aug-10	12:00 AM	12:00 AM	24.00	1440	0	0	
12-Aug-10	12:00 AM	12:00 AM	24.00	1440	0	0	
13-Aug-10	12:00 AM	12:00 AM	24.00	1440	0	0	
14-Aug-10	12:00 AM	12:00 AM	24.00	1440	0	0	
15-Aug-10	12:00 AM	12:00 AM	24.00	1440	0	0	
16-Aug-10	12:00 AM	12:00 AM	24.00	1440	0	0	
17-Aug-10	12:00 AM	12:00 AM	24.00	1440	0	0	
18-Aug-10	12:00 AM	12:00 AM	24.00	1440	0	0	
19-Aug-10	12:00 AM	12:00 AM	24.00	1440	0	0	
20-Aug-10	12:00 AM	12:00 AM	24.00	1440	0	0	
21-Aug-10	12:00 AM	12:00 AM	24.00	1440	0	0	
22-Aug-10	12:00 AM	12:00 AM	24.00	1440	0	0	

Table B-12: Pumped Water Flow Rates and Volumes - Zone II to Faro Pit

Date	Time		Total hrs	Total mins	Flow Rate (Litres/Min)	Total discharge for Day (m^3)	Comments
	start	finish					
23-Aug-10	12:00 AM	12:00 AM	24.00	1440	0	0	
24-Aug-10	12:00 AM	12:00 AM	24.00	1440	0	0	
25-Aug-10	12:00 AM	12:00 AM	24.00	1440	0	0	
26-Aug-10	12:00 AM	12:00 AM	24.00	1440	0	0	
27-Aug-10	12:00 AM	12:00 AM	24.00	1440	0	0	
28-Aug-10	12:00 AM	12:00 AM	24.00	1440	0	0	
29-Aug-10	12:00 AM	12:00 AM	24.00	1440	0	0	
30-Aug-10	12:00 AM	12:00 AM	24.00	1440	0	0	
31-Aug-10	12:00 AM	12:00 AM	24.00	1440	0	0	
1-Sep-10	12:00 AM	2:07 PM	14.12	847	0	0	
1-Sep-10	2:07 PM	12:00 AM	9.88	593	792	469	Zone II pump started at 2:07 PM; Volumteric flow (bucket test) of 13.19 L/s = 791.60 L/min
2-Sep-10	12:00 AM	12:00 AM	24.00	1440	792	1140	
3-Sep-10	12:00 AM	12:00 AM	24.00	1440	792	1140	
4-Sep-10	12:00 AM	12:00 AM	24.00	1440	792	1140	
5-Sep-10	12:00 AM	12:00 AM	24.00	1440	792	1140	
6-Sep-10	12:00 AM	1:14 PM	13.23	794	792	629	
6-Sep-10	1:14 PM	12:00 AM	10.77	646	0	0	Zone II pump shutdown at 1:14 PM: WL = 63.410; Clk = 13741.1;
7-Sep-10	12:00 AM	12:00 AM	24.00	1440	0	0	
8-Sep-10	12:00 AM	12:00 AM	24.00	1440	0	0	
9-Sep-10	12:00 AM	12:00 AM	24.00	1440	0	0	
10-Sep-10	12:00 AM	12:00 AM	24.00	1440	0	0	
11-Sep-10	12:00 AM	12:00 AM	24.00	1440	0	0	
12-Sep-10	12:00 AM	12:00 AM	24.00	1440	0	0	
13-Sep-10	12:00 AM	12:00 AM	24.00	1440	0	0	
14-Sep-10	12:00 AM	12:00 AM	24.00	1440	0	0	
15-Sep-10	12:00 AM	12:00 AM	24.00	1440	0	0	
16-Sep-10	12:00 AM	12:00 AM	24.00	1440	0	0	
17-Sep-10	12:00 AM	12:00 AM	24.00	1440	0	0	
18-Sep-10	12:00 AM	12:00 AM	24.00	1440	0	0	
19-Sep-10	12:00 AM	12:00 AM	24.00	1440	0	0	

Table B-12: Pumped Water Flow Rates and Volumes - Zone II to Faro Pit

Date	Time		Total hrs	Total mins	Flow Rate (Litres/Min)	Total discharge for Day (m^3)	Comments
	start	finish					
20-Sep-10	12:00 AM	12:00 AM	24.00	1440	0	0	
21-Sep-10	12:00 AM	12:00 AM	24.00	1440	0	0	
22-Sep-10	12:00 AM	12:00 AM	24.00	1440	0	0	
23-Sep-10	12:00 AM	12:00 AM	24.00	1440	0	0	
24-Sep-10	12:00 AM	12:00 AM	24.00	1440	0	0	
25-Sep-10	12:00 AM	12:00 AM	24.00	1440	0	0	
26-Sep-10	12:00 AM	12:00 AM	24.00	1440	0	0	
27-Sep-10	12:00 AM	12:00 AM	24.00	1440	0	0	
28-Sep-10	12:00 AM	12:00 AM	24.00	1440	0	0	
29-Sep-10	12:00 AM	12:00 AM	24.00	1440	0	0	
30-Sep-10	12:00 AM	12:00 AM	24.00	1440	0	0	
1-Oct-10	12:00 AM	12:00 AM	24.00	1440	0	0	
2-Oct-10	12:00 AM	12:00 AM	24.00	1440	0	0	
3-Oct-10	12:00 AM	12:00 AM	24.00	1440	0	0	
4-Oct-10	12:00 AM	12:00 AM	24.00	1440	0	0	
5-Oct-10	12:00 AM	12:00 AM	24.00	1440	0	0	
6-Oct-10	12:00 AM	12:00 AM	24.00	1440	0	0	
7-Oct-10	12:00 AM	12:00 AM	24.00	1440	0	0	
8-Oct-10	12:00 AM	12:00 AM	24.00	1440	0	0	
9-Oct-10	12:00 AM	12:00 AM	24.00	1440	0	0	
10-Oct-10	12:00 AM	12:00 AM	24.00	1440	0	0	
11-Oct-10	12:00 AM	12:00 AM	24.00	1440	0	0	
12-Oct-10	12:00 AM	12:00 AM	24.00	1440	0	0	
13-Oct-10	12:00 AM	12:00 AM	24.00	1440	0	0	
14-Oct-10	12:00 AM	12:00 AM	24.00	1440	0	0	
15-Oct-10	12:00 AM	12:00 AM	24.00	1440	0	0	
16-Oct-10	12:00 AM	12:00 AM	24.00	1440	0	0	
17-Oct-10	12:00 AM	12:00 AM	24.00	1440	0	0	
18-Oct-10	12:00 AM	10:30 AM	10.50	630	0	0	
18-Oct-10	10:30 AM	12:00 AM	13.50	810	1620	1313	Zone II pump started at 10:30 AM; Volumteric flow (bucket test) of 27.0063 L/s = 1620.38 L/min

Table B-12: Pumped Water Flow Rates and Volumes - Zone II to Faro Pit

Date	Time		Total hrs	Total mins	Flow Rate (Litres/Min)	Total discharge for Day (m^3)	Comments
	start	finish					
19-Oct-10	12:00 AM	12:00 AM	24.00	1440	1620	2333	
20-Oct-10	12:00 AM	12:00 AM	24.00	1440	1620	2333	
21-Oct-10	12:00 AM	3:30 PM	15.50	930	1620	1507	
21-Oct-10	3:30 PM	12:00 AM	8.50	510	1620	826	Zone II pump shutoff 3:30 PM; WL: ; Clk: 13818.2;

Table B-13: Pumped Water Flow Rates and Volumes
S-Wells Totalizers

	SPW1			SPW2			SPW3			
Date	Time of Read	Totalizer (m^3)	Total since last read (m^3)	Time of Read	Totalizer (m^3)	Total since last read (m^3)	Time of Read	Totalizer (m^3)	Total since last read (m^3)	Comments
4-Jan-10	3:40PM	10105.4	-	3:40PM	24045.6	-	3:40PM	54015.4	-	2009 yr total for sump is 54014.9 m^3
1-Feb-10	2:57PM	12254.5	2149.1	2:29PM	26525.2	2479.6	2:42PM	60617.5	6602.1	
1-Mar-10	12:44PM	13484.9	1230.4	12:45PM	29083.7	2558.5	12:46PM	66353.5	5736	SRK08-SPW1 shut off 28/2/10 for iron precipitate testing to see if it is obstructing flow.
1-Apr-10	2:11PM	13486.8	1.9	2:12PM	32346.6	3262.9	2:13PM	71830.1	5476.6	SRK08-SPW1 shut off 28/2/10 for iron precipitate testing to see if it is obstructing flow.
1-May-10	8:37AM	13488.7	1.9	8:37AM	35589.8	3243.2	8:38AM	78245.2	6415.1	SRK08-SPW1 shut off 28/2/10 for iron precipitate testing to see if it is obstructing flow.
1-Jun-10	5:00PM	13489.4	0.7	5:00PM	39145.7	3555.9	5:00PM	84465.3	6220.1	S-Wells down 26/05/10 at 8:20AM due to Zone II problems; backup at 4:50 PM; SRK08-SPW1 remains shut off from 28/2/10
1-Jul-10	1:23PM	13491.4	2	1:23PM	42770.4	3624.7	1:24PM	90478.4	6013.1	SRK08-SPW1 remains shut off from 28/2/11
1-Aug-10	9:00AM	13496.6	5.2	9:01AM	46486	3715.6	9:01AM	96563.8	6085.4	SRK08-SPW1 remains shut off from 28/2/12
1-Sep-10	9:48AM	13497.21	0.61	9:48AM	50228.1	3742.1	9:49AM	102733	6169.2	SRK08-SPW1 remains shut off from 28/2/12
4-Oct-10	11:08AM	13501.7	4.49	11:09AM	54222.6	3994.5	11:10AM	109177	6444	SRK08-SPW1 remains shut off from 28/2/12
1-Nov-10	9:47AM	13503.7	2	9:48 AM	57423.9	3201.3	9:49AM	114384	5207	SRK08-SPW1 remains shut off from 28/2/12
1-Dec-10	9:58AM	13505	1.3	10:00AM	60843.9	3420	10:01AM	119843	5459	SRK08-SPW1 remains shut off from 28/2/12
3-Jan-11	11:20AM	13505	0	11:21AM	64385.6	3541.7	11:22AM	125695	5852	SRK08-SPW1 remains shut off from 28/2/12

Table B-14: Pumped Water Flow Rates and Volumes
Faro Pit to Faro Treatment Plant

Date	Time		Total hrs	Total mins	Flow Rate (Litres/Min)	Total discharge for Day (m^3)	Comments
	start	finish					
19-Apr-10	1:30 PM	12:00 AM	10.50	630	5900	3717	Faro Pit Barge Started - Ultrasonic flow meter
20-Apr-10	12:00 AM	10:30 AM	10.50	630	5900	3717	
20-Apr-10	10:30 AM	11:00 AM	0.50	30	0	0	Faro Pit Barge Turned Off
20-Apr-10	11:00 AM	12:00 AM	13.00	780	6650	5187	Ultrasonic flow meter
21-Apr-10	12:00 AM	11:00 AM	11.00	660	6650	4389	
21-Apr-10	11:00 AM	11:30 AM	0.50	30	0	0	Faro Pit Barge Turned Off
21-Apr-10	11:30 AM	12:00 AM	12.50	750	6650	4988	
22-Apr-10	12:00 AM	12:00 AM	24.00	1440	6650	9576	
23-Apr-10	12:00 AM	12:00 AM	24.00	1440	6650	9576	
24-Apr-10	12:00 AM	12:00 AM	24.00	1440	6650	9576	
25-Apr-10	12:00 AM	12:00 AM	24.00	1440	6650	9576	
26-Apr-10	12:00 AM	8:50 AM	8.83	530	6650	3525	
26-Apr-10	8:50 AM	12:00 AM	15.17	910	6748	6141	Ultrasonic flow meter
27-Apr-10	12:00 AM	12:00 AM	24.00	1440	6748	9717	
28-Apr-10	12:00 AM	12:00 AM	24.00	1440	6748	9717	
29-Apr-10	12:00 AM	12:00 AM	24.00	1440	6748	9717	
30-Apr-10	12:00 AM	12:00 AM	24.00	1440	6748	9717	
1-May-10	12:00 AM	12:00 AM	24.00	1440	6748	9717	
2-May-10	12:00 AM	12:00 AM	24.00	1440	6748	9717	
3-May-10	12:00 AM	8:50 AM	8.83	530	6748	3576	
3-May-10	8:50 AM	9:40 AM	0.83	50	0	0	Faro Pit Barge shut down due to Zone II Pump installation
3-May-10	9:40 AM	11:25 AM	1.75	105	6300	662	Ultrasonic flow meter
3-May-10	11:25 AM	2:30 PM	3.08	185	7700	1425	Ultrasonic flow meter
3-May-10	2:30 PM	2:45 PM	0.25	15	0	0	Faro Pit Barge shut down due to Zone II Pump installation
3-May-10	2:45 PM	12:00 AM	9.25	555	7700	4274	
4-May-10	12:00 AM	8:30 AM	8.50	510	7700	3927	
4-May-10	8:30 AM	9:10 AM	0.67	40	0	0	Faro Pit Barge shut down due to Zone II Pump installation
4-May-10	9:10 AM	1:00 PM	3.83	230	7700	1771	

Table B-14: Pumped Water Flow Rates and Volumes
Faro Pit to Faro Treatment Plant

Date	Time		Total hrs	Total mins	Flow Rate (Litres/Min)	Total discharge for Day (m^3)	Comments
	start	finish					
4-May-10	1:00 PM	1:30 PM	0.50	30	0	0	Faro Pit Barge shut down due to Zone II Pump installation
4-May-10	1:30 PM	12:00 AM	10.50	630	7700	4851	
5-May-10	12:00 AM	12:00 AM	24.00	1440	7700	11088	
6-May-10	12:00 AM	12:00 AM	24.00	1440	7700	11088	
7-May-10	12:00 AM	12:00 AM	24.00	1440	7700	11088	
8-May-10	12:00 AM	12:00 AM	24.00	1440	7700	11088	
9-May-10	12:00 AM	12:00 AM	24.00	1440	7700	11088	
10-May-10	12:00 AM	11:58 AM	11.97	718	7700	5529	
11-May-10	11:58 AM	12:00 AM	12.03	722	8350	6029	Ultrasonic flow meter
12-May-10	12:00 AM	12:00 AM	24.00	1440	8350	12024	
13-May-10	12:00 AM	12:00 AM	24.00	1440	8350	12024	
14-May-10	12:00 AM	12:00 AM	24.00	1440	8350	12024	
15-May-10	12:00 AM	12:00 AM	24.00	1440	8350	12024	
16-May-10	12:00 AM	12:00 AM	24.00	1440	8350	12024	
17-May-10	12:00 AM	10:45 AM	10.75	645	8832.70	5697	Ultrasonic flow meter
17-May-10	10:45 AM	12:00 AM	13.25	795	9822.90	7809	Ultrasonic flow meter
18-May-10	12:00 AM	12:00 AM	24.00	1440	9822.90	14145	
19-May-10	12:00 AM	12:00 AM	24.00	1440	9822.90	14145	
20-May-10	12:00 AM	12:00 AM	24.00	1440	9822.90	14145	
21-May-10	12:00 AM	12:00 AM	24.00	1440	9822.90	14145	
22-May-10	12:00 AM	12:00 AM	24.00	1440	9822.90	14145	
23-May-10	12:00 AM	10:55 AM	10.92	655	9822.90	6434	
23-May-10	10:55 AM	12:00 AM	13.08	785	12439	9765	Ultrasonic flow meter; Increase flow by approx. 1400 as Int. Pond was decreased
24-May-10	12:00 AM	9:48 AM	9.80	588	9200	5410	Ultrasonic flow meter; Weekly flow measurement
24-May-10	9:48 AM	12:00 AM	14.20	852	9200	7838	
25-May-10	12:00 AM	1:00 PM	13.00	780	9200	7176	
25-May-10	1:00 PM	1:15 PM	0.25	15	0	0	
25-May-10	1:15 PM	12:00 AM	10.75	645	9200	5934	

Table B-14: Pumped Water Flow Rates and Volumes
Faro Pit to Faro Treatment Plant

Date	Time		Total hrs	Total mins	Flow Rate (Litres/Min)	Total discharge for Day (m^3)	Comments
	start	finish					
26-May-10	12:00 AM	8:20 AM	8.33	500	9200	4600	
26-May-10	8:20 AM	8:50 AM	0.50	30	0	0	Faro barge shut down from 8:20 AM to 8:50 AM
26-May-10	8:50 AM	4:14 PM	7.40	444	9200	4085	
26-May-10	4:14 PM	4:45 PM	0.52	31	0	0	Faro Barge shut down from 4:14 PM to 4:45 PM for Zone II repairs
26-May-10	4:50 PM	12:00 AM	7.17	430	9200	3956	
27-May-10	12:00 AM	12:00 AM	24.00	1440	9200	13248	
28-May-10	12:00 AM	12:00 AM	24.00	1440	9200	13248	
29-May-10	12:00 AM	12:00 AM	24.00	1440	9200	13248	
30-May-10	12:00 AM	3:15 PM	15.25	915	9200	8418	
30-May-10	3:15 PM	4:15 PM	1.00	60			
30-May-10	4:15 PM	12:00 AM	7.75	465			
31-May-10	12:00 AM	11:40 AM	11.67	700	9200	6440	
31-May-10	11:40 AM	12:00 AM	12.33	740	11347	8397	Ultrasonic flow meter; Weekly flow measurement
1-Jun-10	12:00 AM	12:00 AM	24.00	1440	11347	16340	
2-Jun-10	12:00 AM	12:00 AM	24.00	1440	11347	16340	
3-Jun-10	12:00 AM	9:45 AM	9.75	585	12500	7313	
3-Jun-10	9:45 AM	2:00 PM	4.25	255	12500	3188	Flow increased to 12, 500 L/min
3-Jun-10	2:00 PM	2:30 PM	0.50	30	0	0	Faro pump down from 2:00 PM to 2:30 PM
3-Jun-10	2:30 PM	10:15 PM	7.75	465	12500	5813	
3-Jun-10	10:15 PM	11:15 PM	1.00	60	0	0	Barge at Faro Pit down at 10:15 PM to 11:15 PM
3-Jun-10	11:15 PM	12:00 AM	0.75	45	14400	648	
4-Jun-10	12:00 AM	12:00 AM	24.00	1440	14400	20736	Ultrasonic flow read at 8:00 AM; backdated to June 3 when Barge back online
5-Jun-10	12:00 AM	12:00 AM	24.00	1440	14400	20736	
6-Jun-10	12:00 AM	12:00 AM	24.00	1440	14400	20736	
7-Jun-10	12:00 AM	9:50 AM	9.83	590	14400	8496	

Table B-14: Pumped Water Flow Rates and Volumes
Faro Pit to Faro Treatment Plant

Date	Time		Total hrs	Total mins	Flow Rate (Litres/Min)	Total discharge for Day (m^3)	Comments
	start	finish					
3-Jul-10	12:00 AM	12:00 AM	24.00	1440	12465	17950	
4-Jul-10	12:00 AM	12:00 AM	24.00	1440	12465	17950	
5-Jul-10	12:00 AM	11:55 AM	11.92	715	12465	8912	
5-Jul-10	11:55 AM	12:00 AM	12.08	725	12853	9318	Ultrasonic flow meter; Weekly flow measurement
6-Jul-10	12:00 AM	12:00 AM	24.00	1440	12465	17950	
7-Jul-10	12:00 AM	12:00 AM	24.00	1440	12465	17950	
8-Jul-10	12:00 AM	12:00 AM	24.00	1440	12465	17950	
9-Jul-10	12:00 AM	11:15 AM	11.25	675	12465	8414	
9-Jul-10	11:15 AM	12:00 AM	12.75	765	13500	10328	Flow increased to 13500 L/min at 11:15 AM
10-Jul-10	12:00 AM	12:00 AM	24.00	1440	13500	19440	
11-Jul-10	12:00 AM	12:00 AM	24.00	1440	13500	19440	
12-Jul-10	12:00 AM	11:24 AM	11.40	684	13500	9234	
12-Jul-10	11:24 AM	12:00 AM	12.60	756	14016	10596	Ultrasonic flow meter; Weekly flow measurement
13-Jul-10	12:00 AM	12:00 AM	24.00	1440	14016	20183	
14-Jul-10	12:00 AM	12:00 AM	24.00	1440	14016	20183	
15-Jul-10	12:00 AM	12:00 AM	24.00	1440	14016	20183	
16-Jul-10	12:00 AM	12:00 AM	24.00	1440	14016	20183	
17-Jul-10	12:00 AM	12:00 AM	24.00	1440	14016	20183	
18-Jul-10	12:00 AM	12:00 AM	24.00	1440	14016	20183	
19-Jul-10	12:00 AM	3:30 PM	15.50	930	14016	13035	
19-Jul-10	3:30 PM	12:00 AM	8.50	510	14016	7148	Ultrasonic flow meter; Weekly flow measurement
20-Jul-10	12:00 AM	12:00 AM	24.00	1440	14016	20183	
21-Jul-10	12:00 AM	12:00 AM	24.00	1440	14016	20183	
22-Jul-10	12:00 AM	12:00 AM	24.00	1440	14016	20183	
23-Jul-10	12:00 AM	12:00 AM	24.00	1440	14016	20183	
24-Jul-10	12:00 AM	12:00 AM	24.00	1440	14016	20183	
25-Jul-10	12:00 AM	12:00 AM	24.00	1440	14016	20183	
26-Jul-10	12:00 AM	12:00 AM	24.00	1440	14016	20183	Ultrasonic flow meter; Weekly flow measurement
27-Jul-10	12:00 AM	11:55 PM	23.92	1435	14016	20113	
27-Jul-10	11:55 PM	12:00 AM	0.08	5	0	0	

Table B-14: Pumped Water Flow Rates and Volumes
Faro Pit to Faro Treatment Plant

Date	Time		Total hrs	Total mins	Flow Rate (Litres/Min)	Total discharge for Day (m^3)	Comments
	start	finish					
7-Jun-10	9:50 AM	12:00 AM	14.17	850	14269	12129	Ultrasonic flow meter; Weekly flow measurement
8-Jun-10	12:00 AM	12:00 AM	24.00	1440	14269	20547	
9-Jun-10	12:00 AM	12:00 AM	24.00	1440	14269	20547	
10-Jun-10	12:00 AM	12:00 AM	24.00	1440	14269	20547	
11-Jun-10	12:00 AM	12:00 AM	24.00	1440	14269	20547	
12-Jun-10	12:00 AM	12:00 AM	24.00	1440	14269	20547	
13-Jun-10	12:00 AM	12:00 AM	24.00	1440	14269	20547	
14-Jun-10	12:00 AM	11:44 AM	11.73	704	14700	10349	Ultrasonic flow meter; Weekly flow measurement
14-Jun-10	11:44 AM	12:00 AM	12.27	736	14700	10819	
15-Jun-10	12:00 AM	12:00 AM	24.00	1440	14700	21168	
16-Jun-10	12:00 AM	12:00 AM	24.00	1440	14700	21168	
17-Jun-10	12:00 AM	12:00 AM	24.00	1440	14700	21168	
18-Jun-10	12:00 AM	12:00 AM	24.00	1440	14700	21168	
19-Jun-10	12:00 AM	12:00 AM	24.00	1440	14700	21168	
20-Jun-10	12:00 AM	12:00 AM	24.00	1440	14700	21168	
21-Jun-10	12:00 AM	11:42 AM	11.70	702	14700	10319	
21-Jun-10	11:42 AM	12:00 AM	12.30	738	13200	9742	Ultrasonic flow meter; Weekly flow measurement
22-Jun-10	12:00 AM	12:00 AM	24.00	1440	13200	19008	
23-Jun-10	12:00 AM	12:00 AM	24.00	1440	13200	19008	
24-Jun-10	12:00 AM	12:00 AM	24.00	1440	13200	19008	
25-Jun-10	12:00 AM	12:00 AM	24.00	1440	13200	19008	
26-Jun-10	12:00 AM	12:00 AM	24.00	1440	13200	19008	
27-Jun-10	12:00 AM	12:00 AM	24.00	1440	13200	19008	
28-Jun-10	12:00 AM	2:15 PM	14.25	855	13200	11286	
28-Jun-10	2:15 PM	12:00 AM	9.75	585	12465	7292	Ultrasonic flow meter; Weekly flow measurement
29-Jun-10	12:00 AM	12:00 AM	24.00	1440	12465	17950	
30-Jun-10	12:00 AM	12:00 AM	24.00	1440	12465	17950	
1-Jul-10	12:00 AM	12:00 AM	24.00	1440	12465	17950	
2-Jul-10	12:00 AM	12:00 AM	24.00	1440	12465	17950	

Table B-14: Pumped Water Flow Rates and Volumes
Faro Pit to Faro Treatment Plant

Date	Time		Total hrs	Total mins	Flow Rate (Litres/Min)	Total discharge for Day (m^3)	Comments
	start	finish					
28-Jul-10	12:00 AM	2:12 PM	14.20	852	0	0	
29-Jul-10	12:00 AM	12:00 AM	0.00	0	14016	0	
29-Jul-10	12:00 AM	2:30 AM	2.50	150	14016	2102	
30-Jul-10	2:30 AM	8:00 AM	5.50	330	0	0	
30-Jul-10	8:00 AM	11:30 AM	3.50	210	14016	2943	
30-Jul-10	11:30 AM	12:00 AM	12.50	750	11500	8625	Turned down one notch, flow measurement taken August 2, 2010
31-Jul-10	12:00 AM	12:00 AM	24.00	1440	11500	16560	
1-Aug-10	12:00 AM	12:00 AM	24.00	1440	11500	16560	
2-Aug-10	12:00 AM	12:00 AM	24.00	1440	11500	16560	
3-Aug-10	12:00 AM	12:00 AM	24.00	1440	11500	16560	
4-Aug-10	12:00 AM	12:00 AM	24.00	1440	11500	16560	
5-Aug-10	12:00 AM	8:11 AM	8.18	491	11500	5647	
5-Aug-10	8:11 AM	10:02 AM	1.85	111	0	0	
5-Aug-10	10:02 AM	12:00 AM	13.97	838	11500	9637	
6-Aug-10	12:00 AM	5:40 AM	5.67	340	11500	3910	Pump down at 5:40 AM, up at 6:50AM
6-Aug-10	6:50 AM	12:00 AM	17.17	1030	11000	11330	Ultrasonic Flow Measurement Taken
7-Aug-10	12:00 AM	12:00 AM	24.00	1440	11000	15840	
8-Aug-10	12:00 AM	12:00 AM	24.00	1440	11000	15840	
9-Aug-10	12:00 AM	11:34 AM	11.57	694	11000	7634	
9-Aug-10	11:34 AM	12:00 AM	12.43	746	11350	8467	Ultrasonic Flow Measurement Taken
10-Aug-10	12:00 AM	12:00 AM	24.00	1440	11350	16344	
11-Aug-10	12:00 AM	3:13 PM	15.22	913	11350	10363	
11-Aug-10	3:13 PM	12:00 AM	8.78	527	10900	5744	
12-Aug-10	12:00 AM	12:00 AM	24.00	1440	10900	15696	
13-Aug-10	12:00 AM	12:00 AM	24.00	1440	10900	15696	
14-Aug-10	12:00 AM	12:00 AM	24.00	1440	10900	15696	
15-Aug-10	12:00 AM	12:00 AM	24.00	1440	10900	15696	
16-Aug-10	12:00 AM	5:25 PM	17.42	1045	10900	11391	
16-Aug-10	5:25 PM	12:00 AM	6.58	395	9800	3871	Ultrasonic Flow Measurement Taken
17-Aug-10	12:00 AM	12:00 AM	24.00	1440	9800	14112	
18-Aug-10	12:00 AM	1:15 PM	13.25	795	9800	7791	

Table B-14: Pumped Water Flow Rates and Volumes
Faro Pit to Faro Treatment Plant

Date	Time		Total hrs	Total mins	Flow Rate (Litres/Min)	Total discharge for Day (m^3)	Comments
	start	finish					
18-Aug-10	1:15 PM	2:50 PM	1.58	95	0	0	Power outage - Faro pump down from 1:15 PM to 2:50 PM
18-Aug-10	2:50 PM	12:00 AM	9.17	550	9800	5390	
19-Aug-10	12:00 AM	12:00 AM	24.00	1440	9800	14112	
20-Aug-10	12:00 AM	12:00 AM	24.00	1440	9800	14112	
21-Aug-10	12:00 AM	12:00 AM	24.00	1440	9800	14112	
22-Aug-10	12:00 AM	12:00 AM	24.00	1440	9800	14112	
23-Aug-10	12:00 AM	10:25 AM	10.42	625	9800	6125	Ultrasonic Flow Measurement Taken
23-Aug-10	10:25 AM	12:00 AM	13.58	815	11767	9590	Ultrasonic Flow Measurement Taken
24-Aug-10	12:00 AM	12:00 AM	24.00	1440	11767	16944	
25-Aug-10	12:00 AM	12:00 AM	24.00	1440	11767	16944	
26-Aug-10	12:00 AM	12:00 AM	24.00	1440	11767	16944	
27-Aug-10	12:00 AM	12:45 PM	12.75	765	11767	9002	
27-Aug-10	12:45 PM	12:00 AM	11.25	675	0	0	Faro barge shutdown for season

Table B-15: Pumped Water Flow Rates and Volumes
ETA to Faro Treatment Plant

Date	Time		Total hrs	Total mins	Flow Rate (Litres/Min)	Total discharge for Day (m^3)	Comments
	start	finish					
16-Jun-10	12:00 AM	4:00 PM	16.00	960	322	309	
16-Jun-10	4:00 PM	12:00 AM	8.00	480	322	155	
17-Jun-10	12:00 AM	12:00 AM	24.00	1440	322	464	Volumetric (Bucket) flow test at 10:16 AM
18-Jun-10	12:00 AM	12:00 AM	24.00	1440	322	464	
19-Jun-10	12:00 AM	12:00 AM	24.00	1440	322	464	
20-Jun-10	12:00 AM	12:00 AM	24.00	1440	322	464	
21-Jun-10	12:00 AM	12:00 AM	24.00	1440	322	464	
22-Jun-10	12:00 AM	2:27 PM	14.45	867	322	279	
22-Jun-10	2:27 PM	4:30 PM	2.05	123	0	0	
22-Jun-10	4:30 PM	12:00 AM	7.50	450	322	145	
23-Jun-10	12:00 AM	12:00 AM	24.00	1440	322	464	
24-Jun-10	12:00 AM	12:00 AM	24.00	1440	322	464	
25-Jun-10	12:00 AM	12:00 AM	24.00	1440	322	464	
26-Jun-10	12:00 AM	12:00 AM	24.00	1440	322	464	
27-Jun-10	12:00 AM	12:00 AM	24.00	1440	322	464	
28-Jun-10	12:00 AM	12:00 AM	24.00	1440	322	464	Unable to measure with flow with Ultrasonic.
29-Jun-10	12:00 AM	12:00 AM	24.00	1440	322	464	
30-Jun-10	12:00 AM	12:00 AM	24.00	1440	322	464	
1-Jul-10	12:00 AM	12:00 AM	24.00	1440	322	464	
2-Jul-10	12:00 AM	12:00 AM	24.00	1440	322	464	
3-Jul-10	12:00 AM	12:00 AM	24.00	1440	322	464	
4-Jul-10	12:00 AM	12:00 AM	24.00	1440	322	464	
5-Jul-10	12:00 AM	12:00 AM	24.00	1440	322	464	
6-Jul-10	12:00 AM	12:00 AM	24.00	1440	322	464	
7-Jul-10	12:00 AM	12:00 AM	24.00	1440	322	464	
8-Jul-10	12:00 AM	12:00 AM	24.00	1440	322	464	
9-Jul-10	12:00 AM	12:00 AM	24.00	1440	322	464	
10-Jul-10	12:00 AM	12:00 AM	24.00	1440	322	464	
11-Jul-10	12:00 AM	12:00 AM	24.00	1440	322	464	
12-Jul-10	12:00 AM	12:00 AM	24.00	1440	322	464	
13-Jul-10	12:00 AM	12:00 AM	24.00	1440	322	464	

Table B-15: Pumped Water Flow Rates and Volumes
ETA to Faro Treatment Plant

Date	Time		Total hrs	Total mins	Flow Rate (Litres/Min)	Total discharge for Day (m^3)	Comments
	start	finish					
14-Jul-10	12:00 AM	12:00 AM	24.00	1440	322	464	
15-Jul-10	12:00 AM	12:00 AM	24.00	1440	322	464	
16-Jul-10	12:00 AM	12:00 AM	24.00	1440	322	464	
17-Jul-10	12:00 AM	12:00 AM	24.00	1440	322	464	
18-Jul-10	12:00 AM	9:07 AM	9.12	547	322	176	
18-Jul-10	9:07 AM	11:44 AM	2.62	157	0	0	NuLine on site doing electrical work
18-Jul-10	11:44 AM	12:00 AM	12.27	736	322	237	
19-Jul-10	12:00 AM	12:00 AM	24.00	1440	322	464	
20-Jul-10	12:00 AM	12:00 AM	24.00	1440	322	464	
21-Jul-10	12:00 AM	12:00 AM	24.00	1440	322	464	
22-Jul-10	12:00 AM	12:00 AM	24.00	1440	322	464	
23-Jul-10	12:00 AM	12:00 AM	24.00	1440	322	464	
24-Jul-10	12:00 AM	12:00 AM	24.00	1440	322	464	
25-Jul-10	12:00 AM	12:00 AM	24.00	1440	322	464	
26-Jul-10	12:00 AM	12:00 AM	24.00	1440	322	464	
27-Jul-10	12:00 AM	11:55 PM	23.92	1435	322	462	
27-Jul-10	11:55 PM	12:00 AM	0.08	5	0	0	Power outage
28-Jul-10	12:00 AM	2:02 PM	14.03	842	0	0	Power outage
28-Jul-10	2:02 PM	12:00 AM	9.97	598	322	193	
29-Jul-10	12:00 AM	12:00 AM	24.00	1440	322	464	
30-Jul-10	12:00 AM	12:00 AM	24.00	1440	322	464	
31-Jul-10	12:00 AM	12:00 AM	24.00	1440	322	464	
1-Aug-10	12:00 AM	12:00 AM	24.00	1440	322	464	
2-Aug-10	12:00 AM	12:00 AM	24.00	1440	322	464	
3-Aug-10	12:00 AM	12:37 PM	12.62	757	322	244	
3-Aug-10	12:37 PM	4:30 PM	3.88	233	0	0	ETA down from 12:37 PM to 4:30 PM
3-Aug-10	4:30 PM	12:00 AM	7.50	450	322	145	
4-Aug-10	12:00 AM	12:00 AM	24.00	1440	322	464	
5-Aug-10	12:00 AM	12:00 AM	24.00	1440	322	464	
6-Aug-10	12:00 AM	12:00 AM	24.00	1440	322	464	
7-Aug-10	12:00 AM	12:00 AM	24.00	1440	322	464	
8-Aug-10	12:00 AM	12:00 AM	24.00	1440	322	464	
9-Aug-10	12:00 AM	12:00 AM	24.00	1440	322	464	
10-Aug-10	12:00 AM	12:00 AM	24.00	1440	322	464	

Table B-15: Pumped Water Flow Rates and Volumes
ETA to Faro Treatment Plant

Date	Time		Total hrs	Total mins	Flow Rate (Litres/Min)	Total discharge for Day (m^3)	Comments
	start	finish					
11-Aug-10	12:00 AM	12:00 AM	24.00	1440	322	464	
12-Aug-10	12:00 AM	12:00 AM	24.00	1440	322	464	
13-Aug-10	12:00 AM	12:00 AM	24.00	1440	322	464	
14-Aug-10	12:00 AM	12:00 AM	24.00	1440	322	464	
15-Aug-10	12:00 AM	12:00 AM	24.00	1440	322	464	
16-Aug-10	12:00 AM	12:00 AM	24.00	1440	322	464	
17-Aug-10	12:00 AM	12:00 AM	24.00	1440	322	464	
18-Aug-10	12:00 AM	1:15 PM	13.25	795	322	256	
18-Aug-10	1:15 PM	3:07 PM	1.87	112	0	0	Power outage - ETA pump down from 1:15 PM to 3:07 PM
18-Aug-10	3:07 PM	12:00 AM	8.88	533	322	172	
19-Aug-10	12:00 AM	12:00 AM	24.00	1440	322	464	
20-Aug-10	12:00 AM	12:00 AM	24.00	1440	322	464	
21-Aug-10	12:00 AM	12:00 AM	24.00	1440	322	464	
22-Aug-10	12:00 AM	12:00 AM	24.00	1440	322	464	
23-Aug-10	12:00 AM	12:00 AM	24.00	1440	322	464	
24-Aug-10	12:00 AM	12:00 AM	24.00	1440	322	464	
25-Aug-10	12:00 AM	12:00 AM	24.00	1440	322	464	
26-Aug-10	12:00 AM	12:00 AM	24.00	1440	322	464	
27-Aug-10	12:00 AM	12:00 AM	24.00	1440	322	464	
28-Aug-10	12:00 AM	12:00 AM	24.00	1440	322	464	
29-Aug-10	12:00 AM	12:00 AM	24.00	1440	322	464	
30-Aug-10	12:00 AM	8:32 AM	8.53	512	322	165	
30-Aug-10	8:32 AM	9:13 AM	0.68	41	0	0	ETA back up at 9:13 AM and discharging into I.P.

Table B-16: Pumped Water Flow Rates and Volumes
ETA to Intermediate Pond

Date	Time		Total hrs	Total mins	Flow Rate (Litres/Min)	Total discharge for Day (m^3)	Comments
	start	finish					
30-Aug-10	9:13 AM	12:00 AM	14.78	887	357	317	ETA back up at 9:13 AM and discharging into I.P.
31-Aug-10	12:00 AM	12:00 AM	24.00	1440	357	515	
1-Sep-10	12:00 AM	12:00 AM	24.00	1440	357	515	
2-Sep-10	12:00 AM	12:00 AM	24.00	1440	357	515	Weekly Volumetric (Bucket) flow test conducted
3-Sep-10	12:00 AM	12:00 AM	24.00	1440	357	515	
4-Sep-10	12:00 AM	12:00 AM	24.00	1440	357	515	
5-Sep-10	12:00 AM	12:00 AM	24.00	1440	357	515	
6-Sep-10	12:00 AM	12:00 AM	24.00	1440	357	515	
7-Sep-10	12:00 AM	12:00 AM	24.00	1440	357	515	
8-Sep-10	12:00 AM	12:00 AM	24.00	1440	357	515	
9-Sep-10	12:00 AM	10:03 AM	10.05	603	357	215	
9-Sep-10	10:03 AM	12:00 AM	13.95	837	221	185	Weekly Volumetric (Bucket) flow test conducted
10-Sep-10	12:00 AM	12:00 AM	24.00	1440	221	319	
11-Sep-10	12:00 AM	12:00 AM	24.00	1440	221	319	
12-Sep-10	12:00 AM	12:00 AM	24.00	1440	221	319	
13-Sep-10	12:00 AM	12:00 AM	24.00	1440	221	319	
14-Sep-10	12:00 AM	12:00 AM	24.00	1440	221	319	
15-Sep-10	12:00 AM	12:00 AM	24.00	1440	221	319	
16-Sep-10	12:00 AM	9:35 AM	9.58	575	221	127	
16-Sep-10	9:35 AM	12:00 AM	14.42	865	323	279	
17-Sep-10	12:00 AM	12:00 AM	24.00	1440	323	465	
18-Sep-10	12:00 AM	12:00 AM	24.00	1440	323	465	
19-Sep-10	12:00 AM	12:00 AM	24.00	1440	323	465	
20-Sep-10	12:00 AM	12:00 AM	24.00	1440	323	465	
21-Sep-10	12:00 AM	12:00 AM	24.00	1440	323	465	
22-Sep-10	12:00 AM	12:00 AM	24.00	1440	323	465	
23-Sep-10	12:00 AM	12:16 PM	12.27	736	283	209	
23-Sep-10	12:16 PM	12:00 AM	11.73	704	283	200	
24-Sep-10	12:00 AM	12:00 AM	24.00	1440	283	408	
25-Sep-10	12:00 AM	12:00 AM	24.00	1440	283	408	

Table B-16: Pumped Water Flow Rates and Volumes
ETA to Intermediate Pond

Date	Time		Total hrs	Total mins	Flow Rate (Litres/Min)	Total discharge for Day (m^3)	Comments
	start	finish					
26-Sep-10	12:00 AM	12:00 AM	24.00	1440	283	408	
27-Sep-10	12:00 AM	8:45 AM	8.75	525	283	149	
27-Sep-10	8:45 AM	12:00 AM	15.25	915	0	0	ETA Pump shutdown for the season at 8:45 AM

Table B-17: Pumped Water Flow Rates and Volumes Intermediate Pond to Faro Treatment Plant

Date	Time		Total hrs	Total mins	Flow Rate (Litres/Min)	Total discharge for Day (m^3)	Comments
	start	finish					
6-Apr-10	1:45 PM	12:00 AM	10.25	615	5833	3587	Godwin turned on at 1:45pm, Water into Mill at 2:15pm - Ultrasonic Flow Meter with flow of 5833.03 L/min
7-Apr-10	12:00 AM	12:00 AM	24.00	1440	5833	8400	Godwin running 1700 RPM
8-Apr-10	12:00 AM	8:00 PM	20.00	1200	5833	7000	Godwin turned up from 1700 RPM to 1850 RPM at 8:00 pm
8-Apr-10	8:00 PM	12:00 AM	4.00	240	6150	1476	Godwin running at 1850 RPM; Flow at 8:00 PM of 6150 L/min
9-Apr-10	12:00 AM	12:00 AM	24.00	1440	6150	8856	Godwin running at 1850 RPM - Ultrasonic Flow Meter - Mill water now going to Cross Valley Pond
10-Apr-10	12:00 AM	12:00 AM	24.00	1440	6150	8856	Godwin running at 1850 RPM
11-Apr-10	12:00 AM	12:00 AM	24.00	1440	6150	8856	Godwin running at 1850 RPM
12-Apr-10	12:00 AM	6:30 AM	6.50	390	6150	2399	Godwin running at 1850 RPM
12-Apr-10	6:30 AM	5:30 PM	11.00	660	0	0	Godwin shut down for Intermediate Pond Barge and Pump installation
12-Apr-10	5:30 PM	12:00 AM	6.50	390	7250	2828	Godwin turned back on at 5:30pm to 1850 RPM with flow of 7250 L/min, Water into the Mill at 5:50pm
13-Apr-10	12:00 AM	12:00 AM	24.00	1440	7250	10440	Godwin running at 1850 RPM - Ultrasonic Flow Meter
14-Apr-10	12:00 AM	9:55 AM	9.92	595	7250	4314	Godwin running at 1850 RPM
14-Apr-10	9:55 AM	2:25 PM	4.50	270	0	0	Godwin shut down for Intermediate Pond Barge and Pump installation
14-Apr-10	2:25 PM	12:00 AM	9.58	575	2100	1208	Intermediate Pond Barge turned on between 50 - 75% - In-line pipe flow of 2100 L/min - Water into Mill at 2:58 PM
15-Apr-10	12:00 AM	12:00 AM	24.00	1440	2100	3024	
16-Apr-10	12:00 AM	12:00 AM	24.00	1440	2100	3024	
17-Apr-10	12:00 AM	12:00 AM	24.00	1440	2100	3024	
18-Apr-10	12:00 AM	12:00 AM	24.00	1440	2100	3024	
19-Apr-10	12:00 AM	12:00 AM	24.00	1440	2100	3024	
20-Apr-10	12:00 AM	12:00 AM	24.00	1440	2100	3024	

Table B-17: Pumped Water Flow Rates and Volumes
Intermediate Pond to Faro Treatment Plant

Date	Time		Total hrs	Total mins	Flow Rate (Litres/Min)	Total discharge for Day (m^3)	Comments
	start	finish					
21-Apr-10	12:00 AM	12:00 AM	24.00	1440	2100	3024	
22-Apr-10	12:00 AM	12:00 AM	24.00	1440	2100	3024	
23-Apr-10	12:00 AM	12:00 AM	24.00	1440	2100	3024	
24-Apr-10	12:00 AM	12:00 AM	24.00	1440	2100	3024	
25-Apr-10	12:00 AM	12:00 AM	24.00	1440	7347	10580	In-line pipe flow 7346.89 L/min
26-Apr-10	12:00 AM	8:58 AM	8.97	538	7347	3953	
26-Apr-10	8:58 AM	12:00 AM	15.03	902	7347	6627	
27-Apr-10	12:00 AM	12:00 AM	24.00	1440	7347	10580	
28-Apr-10	12:00 AM	12:00 AM	24.00	1440	7347	10580	
29-Apr-10	12:00 AM	9:00 AM	9.00	540	7347	3967	
29-Apr-10	9:00 AM	12:30 PM	3.50	210	0	0	Intermedite Barge Turned Off
29-Apr-10	12:30 PM	12:00 AM	11.50	690	7400	5106	IP Barge back on at 12:30 PM, flow rate: 7400 L/min
30-Apr-10	12:00 AM	12:00 AM	24.00	1440	7400	10656	Totalizer read on May 1, 2010 - 164500 m^3
3-May-10	12:00 AM	1:30 PM	13.50	810	7400	5994	
3-May-10	1:30 PM	12:00 AM	10.50	630	7380	4649	
4-May-10	12:00 AM	8:30 AM	8.50	510	7380	3764	
1-May-10	12:00 AM	12:00 AM	24.00	1440	7400	10656	
2-May-10	12:00 AM	12:00 AM	24.00	1440	7400	10656	Flow of 7400 from Apr. 29
3-May-10	12:00 AM	12:00 AM	24.00	1440	7370	10613	In-line Pipe Flow 7370 L/min
4-May-10	12:00 AM	12:00 AM	24.00	1440	7380	10627	Totalizer down between 1:30PM 3/5/10 - 8:30AM 4/5/10; flow at 7380 L/min
5-May-10	12:00 AM	12:00 AM	24.00	1440	7380	10627	
6-May-10	12:00 AM	12:00 AM	24.00	1440	7380	10627	
7-May-10	12:00 AM	12:00 AM	24.00	1440	7380	10627	
8-May-10	12:00 AM	12:00 AM	24.00	1440	7380	10627	
9-May-10	12:00 AM	12:00 AM	24.00	1440	7380	10627	
10-May-10	12:00 AM	12:00 AM	24.00	1440	7380	10627	In-line Pipe flow 7380 L/min
11-May-10	12:00 AM	12:00 AM	24.00	1440	7380	10627	
12-May-10	12:00 AM	12:00 AM	24.00	1440	7380	10627	
13-May-10	12:00 AM	12:00 AM	24.00	1440	7380	10627	
14-May-10	12:00 AM	12:00 AM	24.00	1440	7380	10627	

Table B-17: Pumped Water Flow Rates and Volumes
Intermediate Pond to Faro Treatment Plant

Date	Time		Total hrs	Total mins	Flow Rate (Litres/Min)	Total discharge for Day (m^3)	Comments
	start	finish					
15-May-10	12:00 AM	12:00 AM	24.00	1440	7380	10627	
16-May-10	12:00 AM	12:00 AM	24.00	1440	7380	10627	
17-May-10	12:00 AM	12:00 AM	24.00	1440	7380	10627	
18-May-10	12:00 AM	12:00 AM	24.00	1440	7380	10627	
19-May-10	12:00 AM	12:00 AM	24.00	1440	7380	10627	
20-May-10	12:00 AM	12:00 AM	24.00	1440	7380	10627	
21-May-10	12:00 AM	12:00 AM	24.00	1440	7380	10627	
22-May-10	12:00 AM	12:00 AM	24.00	1440	7380	10627	
23-May-10	12:00 AM	9:45 AM	9.75	585	7380	4317	
23-May-10	9:45 AM	12:00 AM	14.25	855	6050	5173	Flow decreased at 9:45 AM to 6050 L/min
24-May-10	12:00 AM	12:00 AM	24.00	1440	6050	8712	
25-May-10	12:00 AM	12:00 AM	24.00	1440	6050	8712	
26-May-10	12:00 AM	9:00 AM	9.00	540	6050	3267	
26-May-10	9:00 AM	12:00 AM	15.00	900	6500	5850	Flow increased to 6500 Ltr/min at 9:00 AM
27-May-10	12:00 AM	12:00 AM	24.00	1440	6500	9360	
28-May-10	12:00 AM	12:00 AM	24.00	1440	6500	9360	
29-May-10	12:00 AM	12:00 AM	24.00	1440	6500	9360	
30-May-10	12:00 AM	12:00 AM	24.00	1440	6500	9360	
31-May-10	12:00 AM	12:00 AM	24.00	1440	6500	9360	
1-Jun-10	12:00 AM	12:00 AM	24.00	1440	6500	9360	
2-Jun-10	12:00 AM	12:00 AM	24.00	1440	6500	9360	
3-Jun-10	12:00 AM	9:00 AM	9.00	540	6500	3510	
3-Jun-10	9:00 AM	12:00 AM	15.00	900	6050	5445	Decrease flow to 6050 L/min
4-Jun-10	12:00 AM	12:00 AM	24.00	1440	6050	8712	
5-Jun-10	12:00 AM	10:30 AM	10.50	630	6050	3812	
5-Jun-10	10:30 AM	12:00 AM	13.50	810	6500	5265	Increase flow to 6500 L/min
6-Jun-10	12:00 AM	8:50 AM	8.83	530	6500	3445	
6-Jun-10	8:50 AM	12:00 AM	15.17	910	6000	5460	Decrease flow to 6000 L/min
7-Jun-10	12:00 AM	12:00 AM	24.00	1440	6000	8640	
8-Jun-10	12:00 AM	12:00 AM	24.00	1440	6000	8640	
9-Jun-10	12:00 AM	9:30 AM	9.50	570	6000	3420	
9-Jun-10	9:30 AM	12:00 AM	14.50	870	6500	5655	Increase flow to 6500 L/min

Table B-17: Pumped Water Flow Rates and Volumes
Intermediate Pond to Faro Treatment Plant

Date	Time		Total hrs	Total mins	Flow Rate (Litres/Min)	Total discharge for Day (m^3)	Comments
	start	finish					
10-Jun-10	12:00 AM	12:00 AM	24.00	1440	6500	9360	
11-Jun-10	12:00 AM	3:45 AM	3.75	225	6500	1463	
11-Jun-10	3:45 AM	4:15 AM	0.50	30	0	0	Both IP pumps down from 3:45 AM to 4:15 AM
11-Jun-10	4:15 AM	7:15 AM	3.00	180	3650	657	1 IP pump on with flow of 3650 L/min
11-Jun-10	7:15 AM	11:15 AM	4.00	240	4200	1008	1 IP pump on with flow of 4200 L/min
11-Jun-10	11:15 AM	3:00 PM	3.75	225	6500	1463	Both IP pumps back on at 11:15 AM at 6500 L/min
11-Jun-10	3:00 PM	12:00 AM	9.00	540	6800	3672	Increase flow to 6800 L/min
12-Jun-10	12:00 AM	12:00 AM	24.00	1440	6800	9792	
13-Jun-10	12:00 AM	12:00 AM	24.00	1440	6800	9792	
14-Jun-10	12:00 AM	9:15 AM	9.25	555	6800	3774	
14-Jun-10	9:15 AM	3:20 PM	6.08	365	0	0	IP Pumps down for repair
14-Jun-10	3:20 PM	3:45 PM	0.42	25	6800	170	Both pumps back on.
14-Jun-10	3:45 PM	4:15 PM	0.50	30	4300	129	Pump #1 shutdown. Packing getting changed. Pump #2 turned to max.
14-Jun-10	4:15 PM	12:00 AM	7.75	465	6800	3162	Both pumps back on.
15-Jun-10	12:00 AM	12:00 AM	24.00	1440	6800	9792	
16-Jun-10	12:00 AM	12:00 AM	24.00	1440	6800	9792	
17-Jun-10	12:00 AM	6:30 AM	6.50	390	6800	2652	
17-Jun-10	6:30 AM	12:00 AM	17.50	1050	6300	6615	Flow decreased to 6300 L/min at 6:30 AM
18-Jun-10	12:00 AM	10:35 AM	10.58	635	6300	4001	
18-Jun-10	10:35 AM	12:00 AM	13.42	805	5500	4428	FLow decreased to 5500 L/min at 10:30 AM
19-Jun-10	12:00 AM	12:00 AM	24.00	1440	5500	7920	
20-Jun-10	12:00 AM	12:00 AM	24.00	1440	5500	7920	
21-Jun-10	12:00 AM	12:00 AM	24.00	1440	5500	7920	
22-Jun-10	12:00 AM	8:15 AM	8.25	495	5500	2723	
22-Jun-10	8:15 AM	11:45 AM	3.50	210	0	0	IP Pumps down to move barge
22-Jun-10	11:45 AM	12:00 AM	12.25	735	5508	4048	IP Pumps back up at 5508L/min
23-Jun-10	12:00 AM	12:00 AM	24.00	1440	5508	7932	
24-Jun-10	12:00 AM	8:00 AM	8.00	480	5508	2644	
24-Jun-10	8:00 AM	12:00 AM	16.00	960	6450	6192	Flow increased to 6450
25-Jun-10	12:00 AM	12:00 AM	24.00	1440	6450	9288	

Table B-17: Pumped Water Flow Rates and Volumes Intermediate Pond to Faro Treatment Plant

Date	Time		Total hrs	Total mins	Flow Rate (Litres/Min)	Total discharge for Day (m^3)	Comments
	start	finish					
26-Jun-10	12:00 AM	12:00 AM	24.00	1440	6450	9288	
27-Jun-10	12:00 AM	7:45 AM	7.75	465	6450	2999	
27-Jun-10	7:45 AM	12:00 AM	16.25	975	5950	5801	Flow decreased to 5950
28-Jun-10	8:25 AM	3:50 PM	7.42	445	0	0	Both pumps shutdown. Barge moved further out. Staff gauge moved as well and set at 0.90 M
28-Jun-10	3:50 PM	12:00 AM	8.17	490	5950	2916	Pumps back up at 5950 L/min
29-Jun-10	12:00 AM	12:00 AM	24.00	1440	5950	8568	
30-Jun-10	12:00 AM	5:30 PM	17.50	1050	5950	6248	
30-Jun-10	5:30 PM	12:00 AM	6.50	390	5500	2145	
1-Jul-10	12:00 AM	12:00 AM	24.00	1440	5500	7920	
2-Jul-10	12:00 AM	12:00 AM	24.00	1440	5500	7920	
3-Jul-10	12:00 AM	12:00 AM	24.00	1440	5500	7920	
4-Jul-10	12:00 AM	12:00 AM	24.00	1440	5500	7920	
5-Jul-10	12:00 AM	12:00 AM	24.00	1440	5500	7920	
6-Jul-10	12:00 AM	12:00 AM	24.00	1440	5500	7920	
7-Jul-10	12:00 AM	12:00 AM	24.00	1440	5500	7920	
8-Jul-10	12:00 AM	12:00 AM	24.00	1440	5500	7920	
9-Jul-10	12:00 AM	9:46 AM	9.77	586	5500	3223	
9-Jul-10	9:46 AM	12:00 AM	14.23	854	5000	4270	IP flow decreased to 5000 L/min at 9:46 AM
10-Jul-10	12:00 AM	9:00 AM	9.00	540	5000	2700	
10-Jul-10	9:00 AM	12:00 AM	15.00	900	4500	4050	IP flow decreased to 4500 L/min at 9:00 AM
11-Jul-10	12:00 AM	7:30 PM	19.50	1170	4500	5265	
11-Jul-10	7:30 PM	12:00 AM	4.50	270	4250	1148	IP flow decreased to 4250 L/min at 7:30 PM; Pump #1 shutdown, leaving only Pump #2 running
12-Jul-10	12:00 AM	12:00 AM	24.00	1440	4250	6120	
13-Jul-10	12:00 AM	12:00 AM	24.00	1440	4250	6120	
14-Jul-10	12:00 AM	8:30 AM	8.50	510	4250	2168	
14-Jul-10	8:30 AM	12:00 AM	15.50	930	5000	4650	Pump #2 started up at 8:30 AM; Flow increased to 5000 L/min
15-Jul-10	12:00 AM	12:00 AM	24.00	1440	5000	7200	

Table B-17: Pumped Water Flow Rates and Volumes
Intermediate Pond to Faro Treatment Plant

Date	Time		Total hrs	Total mins	Flow Rate (Litres/Min)	Total discharge for Day (m^3)	Comments
	start	finish					
16-Jul-10	12:00 AM	12:00 AM	24.00	1440	5000	7200	
17-Jul-10	12:00 AM	8:15 AM	8.25	495	5000	2475	
17-Jul-10	8:15 AM	12:00 AM	15.75	945	5500	5198	Flow increased to 5500 L/m
18-Jul-10	12:00 AM	9:45 AM	9.75	585	5500	3218	
18-Jul-10	9:45 AM	12:00 AM	14.25	855	5000	4275	Flow decreased to 5000 L/min
19-Jul-10	12:00 AM	8:30 AM	8.50	510	5000	2550	
19-Jul-10	8:30 AM	6:30 PM	10.00	600	0	0	Both pumps shutdown at 8:30 AM. Barge moved further out.
19-Jul-10	6:30 PM	6:45 PM	0.25	15	5000	75	Pumps back up at 6:30 PM; Flow at 5000 L/min
19-Jul-10	6:45 PM	12:00 AM	5.25	315	5500	1733	Flow increased to 5500 L/min
20-Jul-10	12:00 AM	12:00 AM	24.00	1440	5500	7920	
21-Jul-10	12:00 AM	12:00 AM	24.00	1440	5500	7920	
22-Jul-10	12:00 AM	3:30 PM	15.50	930	5500	5115	
22-Jul-10	3:30 PM	4:30 PM	1.00	60	0	0	IP Pump Down; Reason unknown
22-Jul-10	4:30 PM	12:00 AM	7.50	450	5500	2475	
23-Jul-10	12:00 AM	12:00 AM	24.00	1440	5500	7920	
24-Jul-10	12:00 AM	12:00 AM	24.00	1440	5500	7920	
25-Jul-10	12:00 AM	12:00 AM	24.00	1440	5500	7920	
26-Jul-10	12:00 AM	8:14 AM	8.23	494	5500	2717	
26-Jul-10	8:14 AM	12:00 AM	15.77	946	5460	5165	
27-Jul-10	12:00 AM	11:55 PM	23.92	1435	5460	7835	
27-Jul-10	11:55 PM	12:00 AM	0.08	5	0	0	
28-Jul-10	12:00 AM	7:15 AM	7.25	435	0	0	
28-Jul-10	7:15 AM	8:30 AM	1.25	75	5460	410	
28-Jul-10	8:30 AM	1:56 PM	5.43	326	0	0	
28-Jul-10	1:56 PM	12:00 AM	10.07	604	5460	3298	
29-Jul-10	12:00 AM	12:00 AM	24.00	1440	5460	7862	
30-Jul-10	12:00 AM	10:40 AM	10.67	640	5460	3494	
30-Jul-10	10:40 AM	12:00 AM	13.33	800	4500	3600	Flow turned down to 4500 L/min
31-Jul-10	12:00 AM	12:00 PM	12.00	720	4500	3240	
31-Jul-10	12:00 PM	12:00 AM	12.00	720	3700	2664	Flow turned down to 3700 L/min

Table B-17: Pumped Water Flow Rates and Volumes Intermediate Pond to Faro Treatment Plant

Date	Time		Total hrs	Total mins	Flow Rate (Litres/Min)	Total discharge for Day (m^3)	Comments
	start	finish					
1-Aug-10	12:00 AM	12:00 AM	24.00	1440	3700	5328	
2-Aug-10	12:00 AM	1:30 PM	13.50	810	3700	2997	
2-Aug-10	1:30 PM	12:00 AM	10.50	630	4000	2520	Flow increased to 4000 L/min
3-Aug-10	12:00 AM	12:00 AM	24.00	1440	4000	5760	
4-Aug-10	12:00 AM	12:00 AM	24.00	1440	4000	5760	
5-Aug-10	12:00 AM	12:00 AM	24.00	1440	4000	5760	
6-Aug-10	12:00 AM	12:00 AM	24.00	1440	4000	5760	
7-Aug-10	12:00 AM	12:00 AM	24.00	1440	4000	5760	
8-Aug-10	12:00 AM	12:00 AM	24.00	1440	4000	5760	
9-Aug-10	12:00 AM	11:12 AM	11.20	672	4000	2688	
9-Aug-10	11:12 AM	12:00 AM	12.80	768	5000	3840	2nd pump turned on and flow increased to 5000 L/min
10-Aug-10	12:00 AM	12:00 AM	24.00	1440	5000	7200	
11-Aug-10	12:00 AM	9:30 AM	9.50	570	5000	2850	
11-Aug-10	9:30 AM	12:00 AM	14.50	870	5500	4785	
12-Aug-10	12:00 AM	8:20 AM	8.33	500	5500	2750	
12-Aug-10	8:20 AM	12:00 AM	15.67	940	5000	4700	
13-Aug-10	12:00 AM	12:00 AM	24.00	1440	5000	7200	
14-Aug-10	12:00 AM	10:30 AM	10.50	630	5000	3150	
14-Aug-10	10:30 AM	12:00 AM	13.50	810	4000	3240	2nd pump turned off and flow on pump #1 increased to 4000 L/min
15-Aug-10	12:00 AM	12:00 AM	24.00	1440	4000	5760	
16-Aug-10	12:00 AM	12:00 AM	24.00	1440	4000	5760	
17-Aug-10	12:00 AM	12:00 AM	24.00	1440	4000	5760	
18-Aug-10	12:00 AM	12:00 PM	12.00	720	4000	2880	
18-Aug-10	12:00 PM	1:15 PM	1.25	75	4500	338	Both pumps on and flow increased to 4500 L/min
18-Aug-10	1:15 PM	3:04 PM	1.82	109	0	0	Power outage - IP pumps down from 1:15 PM to 3:04 PM
18-Aug-10	3:04 PM	12:00 AM	8.93	536	4500	2412	
19-Aug-10	12:00 AM	12:00 AM	24.00	1440	4500	6480	

Table B-17: Pumped Water Flow Rates and Volumes
Intermediate Pond to Faro Treatment Plant

Date	Time		Total hrs	Total mins	Flow Rate (Litres/Min)	Total discharge for Day (m^3)	Comments
	start	finish					
20-Aug-10	12:00 AM	12:00 AM	24.00	1440	4500	6480	
21-Aug-10	12:00 AM	12:00 AM	24.00	1440	4500	6480	
22-Aug-10	12:00 AM	12:00 AM	24.00	1440	4500	6480	
23-Aug-10	12:00 AM	10:10 AM	10.17	610	4500	2745	
23-Aug-10	10:10 AM	12:00 AM	13.83	830	5000	4150	Flow rate increased to 5000 L/min
24-Aug-10	12:00 AM	12:00 AM	24.00	1440	5000	7200	
25-Aug-10	12:00 AM	12:00 AM	24.00	1440	5000	7200	
26-Aug-10	12:00 AM	12:00 AM	24.00	1440	5000	7200	
27-Aug-10	12:00 AM	12:00 AM	24.00	1440	5000	7200	
28-Aug-10	12:00 AM	12:00 AM	24.00	1440	5000	7200	
29-Aug-10	12:00 AM	12:00 AM	24.00	1440	5000	7200	
30-Aug-10	12:00 AM	8:08 AM	8.13	488	5000	2440	
30-Aug-10	8:08 AM	12:00 AM	15.87	952	0	0	IP pumps shutdown for the season

Table B-18: Pumped Water Flow Rates and Volumes
Intermediate Pond Totalizer

Date	Time of Read	Totalizer (m^3)	Total since last read (m^3)	Comments
1-May-10		164500		
3-May-10		4649		Totalizer down from 1:30PM - 12:00 AM 3/5/10; flow at 7380 L/min; (May 3, 10.5 hrs @ 7380 L/min = 4649.4 m^3)
4-May-10		3764		Totalizer downfrom 12:00 AM - 8:30 AM 4/5/10; flow at 7380 L/min; (May 4, 8.5 hrs @ 7380 L/min = 3763.8 m^3)
1-Jun-10	9:16 AM	469292	313205	
1-Jul-10	1:10 PM	728837	259545	
1-Aug-10	9:55 AM	950339	221502	
1-Sep-10	9:32 AM	1158379	208040	
4-Oct-10	9:49 AM	1158379	0	IP Pumps shutdown for the season on August 30, 2010 at 8:08 AM
1-Nov-10	N/A	1158379	0	
1-Dec-10	N/A	1158379	0	
1-Jan-11	N/A	1158379	0	

Table B-19: Pumped Water Flow Rates and Volumes
X5 Discharge to Rose Creek

Date	Time		Total hrs	Total mins	Flow Rate (Litres/Min)	Total discharge for Day (m^3)	Comments
	start	finish					
22-Mar-10	4:30 PM	12:00 AM	7.50	450	2085	938	1/4 Open - 10" Siphon
23-Mar-10	12:00 AM	3:00 AM	3.00	180	2085	375	1/4 Open - 10" Siphon
23-Mar-10	3:00 AM	11:30 AM	8.50	510	0	0	10' Siphon Froze Over Night
23-Mar-10	11:30 AM	12:00 AM	12.50	750	6255	4691	3/4 Open - 10" Siphon
24-Mar-10	12:00 AM	3:19 PM	15.32	919	6255	5749	3/4 Open - 10" Siphon - Ultrasonic flow meter. 12 PM - Orange Test performed - resulted in a flow of 6573.339 L/m
24-Mar-10	3:19 PM	12:00 AM	8.68	521	3650	1902	1/3 Open - 10" Siphon
25-Mar-10	12:00 AM	12:00 AM	24.00	1440	3650	5256	1/3 Open - 10" Siphon
26-Mar-10	12:00 AM	12:00 AM	24.00	1440	3650	5256	1/3 Open - 10" Siphon
27-Mar-10	12:00 AM	12:00 AM	24.00	1440	3650	5256	1/3 Open - 10" Siphon
28-Mar-10	12:00 AM	12:00 AM	24.00	1440	3650	5256	1/3 Open - 10" Siphon
29-Mar-10	12:00 AM	8:42 AM	8.70	522	3650	1905	1/3 Open - 10" Siphon
29-Mar-10	8:42 AM	12:00 AM	15.30	918	4300	3947	1/3 Open - 10" Siphon - Ultrasonic flow meter
30-Mar-10	12:00 AM	12:00 AM	24.00	1440	4300	6192	1/3 Open - 10" Siphon
31-Mar-10	12:00 AM	12:00 AM	24.00	1440	4300	6192	1/3 Open - 10" Siphon
1-Apr-10	12:00 AM	6:30 PM	18.50	1110	4300	4773	1/3 Open - 10" Siphon
1-Apr-10	6:30 PM	12:00 AM	5.50	330	0	0	10" Siphon Closed
2-Apr-10	12:00 AM	12:00 AM	24.00	1440	0	0	10" Siphon Closed
3-Apr-10	12:00 AM	12:00 AM	24.00	1440	0	0	10" Siphon Closed
4-Apr-10	12:00 AM	12:00 AM	24.00	1440	0	0	10" Siphon Closed
5-Apr-10	12:00 AM	10:10 AM	10.17	610	0	0	10" Siphon Closed
5-Apr-10	10:10 AM	4:00 PM	5.83	350	4015	1405	1/3 Open - 10" Siphon - Ultrasonic flow meter
5-Apr-10	4:00 PM	12:00 AM	8.00	480	4460	2141	1/2 Open - 10" Siphon
6-Apr-10	12:00 AM	12:00 AM	24.00	1440	4460	6422	1/2 Open - 10" Siphon - Ultrasonic flow meter
7-Apr-10	12:00 AM	12:00 AM	24.00	1440	4460	6422	1/2 Open - 10" Siphon
8-Apr-10	12:00 AM	12:00 AM	24.00	1440	4460	6422	1/2 Open - 10" Siphon
9-Apr-10	12:00 AM	12:00 AM	24.00	1440	4460	6422	1/2 Open - 10" Siphon
10-Apr-10	12:00 AM	12:00 AM	24.00	1440	4460	6422	1/2 Open - 10" Siphon

Table B-19: Pumped Water Flow Rates and Volumes
X5 Discharge to Rose Creek

Date	Time		Total hrs	Total mins	Flow Rate (Litres/Min)	Total discharge for Day (m^3)	Comments
	start	finish					
11-Apr-10	12:00 AM	12:00 AM	24.00	1440	4460	6422	1/2 Open - 10" Siphon
12-Apr-10	12:00 AM	8:30 AM	8.50	510	4460	2275	1/2 Open - 10" Siphon
12-Apr-10	8:30 AM	12:00 AM	15.50	930	4634	4310	1/2 Open - 10" Siphon - Ultrasonic flow meter
13-Apr-10	12:00 AM	12:00 AM	24.00	1440	4634	6673	1/2 Open - 10" Siphon
14-Mar-10	12:00 AM	12:00 AM	24.00	1440	4634	6673	1/2 Open - 10" Siphon
15-Apr-10	12:00 AM	12:00 AM	24.00	1440	4634	6673	1/2 Open - 10" Siphon
16-Apr-10	12:00 AM	12:00 AM	24.00	1440	4634	6673	1/2 Open - 10" Siphon
17-Apr-10	12:00 AM	12:00 AM	24.00	1440	4634	6673	1/2 Open - 10" Siphon
18-Apr-10	12:00 AM	9:00 AM	9.00	540	4634	2502	1/2 Open - 10" Siphon
18-Apr-10	9:00 AM	12:00 AM	15.00	900	6700	6030	3/4 Open - 10" Siphon - Ultrasonic flow meter
19-Apr-10	12:00 AM	12:00 AM	24.00	1440	6700	9648	3/4 Open - 10" Siphon
20-Apr-10	12:00 AM	12:00 AM	24.00	1440	6700	9648	3/4 Open - 10" Siphon
21-Apr-10	12:00 AM	12:00 AM	24.00	1440	6700	9648	3/4 Open - 10" Siphon
22-Apr-10	12:00 AM	11:30 AM	11.50	690	6700	4623	3/4 Open - 10" Siphon
22-Apr-10	11:30 AM	12:00 AM	12.50	750	11400	8550	1/4 Open - 16" Siphon - 10" Siphon Closed - Ultrasonic flow meter
23-Apr-10	12:00 AM	8:14 AM	8.23	494	11400	5632	1/4 Open - 16" Siphon
23-Apr-10	8:14 AM	1:05 PM	4.85	291	0	0	16" Siphon Closed
23-Apr-10	1:05 PM	4:54 PM	3.82	229	5850	1340	1 Turn Open - 16" Siphon - Ultrasonic flow meter
23-Apr-10	4:54 PM	12:00 AM	7.10	426	0	0	16" Siphon Closed
24-Apr-10	12:00 AM	12:00 AM	24.00	1440	0	0	16" Siphon Closed
25-Apr-10	12:00 AM	7:10 AM	7.17	430	0	0	16" Siphon Closed
25-Apr-10	7:10 AM	12:00 AM	16.83	1010	7930	8009	1/2 Turns Open - 16" Siphon - Ultrasonic flow meter
26-Apr-10	12:00 AM	12:00 AM	24.00	1440	7930	11419	1 1/2 Turns Open - 16" Siphon
27-Apr-10	12:00 AM	1:48 PM	13.80	828	7930	6566	1 1/2 Turns Open - 16" Siphon
27-Apr-10	1:48 PM	12:00 AM	10.20	612	10920	6683	2 Turns Open - 16" Siphon - Ultrasonic flow meter
28-Apr-10	12:00 AM	9:00 AM	9.00	540	10920	5897	2 Turns Open - 16" Siphon

Table B-19: Pumped Water Flow Rates and Volumes
X5 Discharge to Rose Creek

Date	Time		Total hrs	Total mins	Flow Rate (Litres/Min)	Total discharge for Day (m^3)	Comments
	start	finish					
28-Apr-10	9:00 AM	12:00 AM	15.00	900	13760	12384	2 1/2 Turns Open - 16" Siphon - Ultrasonic flow meter
29-Apr-10	12:00 AM	3:30 PM	15.50	930	13760	12797	2 1/2 Turns Open - 16" Siphon
29-Apr-10	3:30 PM	12:00 AM	8.50	510	15700	8007	3 Turns Open - 16" Siphon - Ultrasonic flow meter
30-Apr-10	12:00 AM	12:00 AM	24.00	1440	15700	22608	3 Turns Open - 16" Siphon
1-May-10	12:00 AM	12:00 AM	24.00	1440	15700	22608	16" Siphon
2-May-10	12:00 AM	3:46 PM	15.77	946	17800	16839	16" Siphon
2-May-10	3:46 PM	12:00 AM	8.23	494	17800	8793	16" Siphon - Ultrasonic flow meter
3-May-10	12:00 AM	12:00 AM	24.00	1440	17800	25632	16" Siphon - Ultrasonic flow meter
4-May-10	12:00 AM	12:00 AM	24.00	1440	17800	25632	16" Siphon
5-May-10	12:00 AM	12:00 AM	24.00	1440	17800	25632	16" Siphon
6-May-10	12:00 AM	12:00 AM	24.00	1440	17800	25632	16" Siphon
7-May-10	12:00 AM	12:00 AM	24.00	1440	17800	25632	16" Siphon
8-May-10	12:00 AM	12:00 AM	24.00	1440	17800	25632	16" Siphon
9-May-10	12:00 AM	12:00 AM	24.00	1440	17800	25632	16" Siphon
10-May-10	12:00 AM	9:41 AM	9.68	581	17800	10342	16" Siphon - Ultrasonic flow meter
11-May-10	9:41 AM	12:00 AM	14.32	859	17900	15376	16" Siphon
12-May-10	12:00 AM	12:00 AM	24.00	1440	17900	25776	16" Siphon
13-May-10	12:00 AM	12:00 AM	24.00	1440	17900	25776	16" Siphon
14-May-10	12:00 AM	12:00 AM	24.00	1440	17900	25776	16" Siphon
15-May-10	12:00 AM	12:00 AM	24.00	1440	17900	25776	16" Siphon
16-May-10	12:00 AM	12:00 AM	24.00	1440	17900	25776	16" Siphon
17-May-10	12:00 AM	10:30 AM	10.50	630	17900	11277	16" Siphon
17-May-10	10:30 AM	12:00 AM	13.50	810	20000	16200	16" Siphon - Ultrasonic flow meter; Siphon opened 3 turns
18-May-10	12:00 AM	12:00 AM	24.00	1440	20000	28800	
19-May-10	12:00 AM	12:00 AM	24.00	1440	20000	28800	
20-May-10	12:00 AM	2:12 PM	14.20	852	22500	19170	16" Siphon - Ultrasonic flow meter; Siphon opened fully (2 turns)
20-May-10	2:12 PM	12:00 AM	9.80	588	22500	13230	
21-May-10	12:00 AM	12:00 AM	24.00	1440	22500	32400	

Table B-19: Pumped Water Flow Rates and Volumes
X5 Discharge to Rose Creek

Date	Time		Total hrs	Total mins	Flow Rate (Litres/Min)	Total discharge for Day (m^3)	Comments
	start	finish					
22-May-10	12:00 AM	12:00 AM	24.00	1440	22500	32400	
23-May-10	12:00 AM	12:00 AM	24.00	1440	22500	32400	
24-May-10	12:00 AM	9:13 AM	9.22	553	22300	12332	Ultrasonic flow meter; Weekly Flow Measurement
24-May-10	9:13 AM	12:00 AM	14.78	887	22300	19780	
25-May-10	12:00 AM	12:00 AM	24.00	1440	22300	32112	
26-May-10	12:00 AM	12:00 AM	24.00	1440	22300	32112	
27-May-10	12:00 AM	12:00 AM	24.00	1440	22300	32112	
28-May-10	12:00 AM	12:00 AM	24.00	1440	22300	32112	
29-May-10	12:00 AM	12:00 AM	24.00	1440	22300	32112	
30-May-10	12:00 AM	12:00 AM	24.00	1440	22300	32112	
31-May-10	12:00 AM	8:55 AM	8.92	535	22300	11931	
31-May-10	8:55 AM	12:00 AM	15.08	905	22764	20601	Ultrasonic flow meter; Weekly Flow Measurement
1-Jun-10	12:00 AM	12:00 AM	24.00	1440	22764	32780	
2-Jun-10	12:00 AM	12:00 AM	24.00	1440	22764	32780	
3-Jun-10	12:00 AM	12:00 AM	24.00	1440	22764	32780	
4-Jun-10	12:00 AM	12:00 AM	24.00	1440	22764	32780	
5-Jun-10	12:00 AM	12:00 AM	24.00	1440	22764	32780	
6-Jun-10	12:00 AM	12:00 AM	24.00	1440	22764	32780	
7-Jun-10	12:00 AM	9:10 AM	9.17	550	22764	12520	
7-Jun-10	9:10 AM		14.83	890	22508	20032	Ultrasonic flow meter; Weekly Flow Measurement
8-Jun-10	12:00 AM	12:00 AM	24.00	1440	22508	32412	
9-Jun-10	12:00 AM	12:00 AM	24.00	1440	22508	32412	
10-Jun-10	12:00 AM	12:00 AM	24.00	1440	22508	32412	
11-Jun-10	12:00 AM	12:00 AM	24.00	1440	22508	32412	
12-Jun-10	12:00 AM	12:00 AM	24.00	1440	22508	32412	
13-Jun-10	12:00 AM	12:00 AM	24.00	1440	22508	32412	
14-Jun-10	12:00 AM	9:47 AM	9.78	587	20800	12210	Ultrasonic flow meter; Weekly Flow Measurement
14-Jun-10	9:47 AM	10:35 AM	0.80	48	20800	998	
14-Jun-10	10:35 AM	4:47 PM	6.20	372	0	0	X5 Shutdown so that the 10" and 16" can be combined

Table B-19: Pumped Water Flow Rates and Volumes
X5 Discharge to Rose Creek

Date	Time		Total hrs	Total mins	Flow Rate (Litres/Min)	Total discharge for Day (m^3)	Comments
	start	finish					
14-Jun-10	4:47 PM	12:00 AM	7.22	433	27700	11994	X5 16" - 22500 L/min measured with Ultrasonic; X5 10" - measured with oranges on 16/06/2010 - 5200 L/min
15-Jun-10	12:00 AM	12:00 AM	24.00	1440	27700	39888	
16-Jun-10	12:00 AM	12:00 AM	24.00	1440	27700	39888	
17-Jun-10	12:00 AM	12:00 AM	24.00	1440	27700	39888	
18-Jun-10	12:00 AM	12:00 AM	24.00	1440	27700	39888	Tried Ultrasonic flow: unsuccessful read
19-Jun-10	12:00 AM	12:00 AM	24.00	1440	27700	39888	
20-Jun-10	12:00 AM	12:00 AM	24.00	1440	27700	39888	
21-Jun-10	12:00 AM	10:25 AM	10.42	625	27700	17313	
21-Jun-10	10:25 AM	12:00 AM	13.58	815	24890	20285	X5 16' - 20200 L/min measured with Ultrasonic; X5 10" - 4690 L/min measured with Ultrasonic
22-Jun-10	12:00 AM	12:00 AM	24.00	1440	24890	35842	
23-Jun-10	12:00 AM	12:00 AM	24.00	1440	24890	35842	
24-Jun-10	12:00 AM	12:00 AM	24.00	1440	24890	35842	
25-Jun-10	12:00 AM	12:00 AM	24.00	1440	24890	35842	
26-Jun-10	12:00 AM	12:00 AM	24.00	1440	24890	35842	
27-Jun-10	12:00 AM	12:00 AM	24.00	1440	24890	35842	
28-Jun-10	12:00 AM	9:06 AM	9.10	546	24890	13590	
28-Jun-10	9:06 AM	12:00 AM	24.00	1440	29166	41999	X5 16" 23856 L/min measured with Ultrasonic ; X5 10" - 5310 L/min measured with Ultrasonic.
29-Jun-10	12:00 AM	12:00 AM	24.00	1440	29166	41999	
30-Jun-10	12:00 AM	12:00 AM	24.00	1440	29166	41999	
1-Jul-10	12:00 AM	12:00 AM	24.00	1440	29166	41999	
2-Jul-10	12:00 AM	12:00 AM	24.00	1440	29166	41999	
3-Jul-10	12:00 AM	12:00 AM	24.00	1440	29166	41999	
4-Jul-10	12:00 AM	12:00 AM	24.00	1440	29166	41999	
5-Jul-10	12:00 AM	10:12 AM	10.20	612	29166	17850	
5-Jul-10	10:12 AM	12:00 AM	13.80	828	26560	21992	X5 16" 22300 L/min measured with Ultrasonic ; X5 10" - 4260 L/min measured with Ultrasonic.
6-Jul-10	12:00 AM	12:00 AM	24.00	1440	26560	38246	

Table B-19: Pumped Water Flow Rates and Volumes
X5 Discharge to Rose Creek

Date	Time		Total hrs	Total mins	Flow Rate (Litres/Min)	Total discharge for Day (m^3)	Comments
	start	finish					
7-Jul-10	12:00 AM	12:00 AM	24.00	1440	26560	38246	
8-Jul-10	12:00 AM	12:00 AM	24.00	1440	26560	38246	
9-Jul-10	12:00 AM	12:00 AM	24.00	1440	26560	38246	
10-Jul-10	12:00 AM	12:00 AM	24.00	1440	26560	38246	
11-Jul-10	12:00 AM	12:00 AM	24.00	1440	26560	38246	
12-Jul-10	12:00 AM	9:48 AM	9.80	588	26560	15617	
12-Jul-10	9:48 AM	12:00 AM	14.20	852	27070	23064	X5 16" 22800 L/min measured with Ultrasonic ; X5 10" - 4270 L/min measured with Ultrasonic.
13-Jul-10	12:00 AM	12:00 AM	24.00	1440	27070	38981	
14-Jul-10	12:00 AM	12:00 AM	24.00	1440	27070	38981	
15-Jul-10	12:00 AM	12:00 AM	24.00	1440	27070	38981	
16-Jul-10	12:00 AM	12:00 AM	24.00	1440	27070	38981	
17-Jul-10	12:00 AM	12:00 AM	24.00	1440	27070	38981	
18-Jul-10	12:00 AM	12:00 AM	24.00	1440	27070	38981	
19-Jul-10	12:00 AM	2:10 PM	14.17	850	27070	23010	
19-Jul-10	2:10 PM	12:00 AM	9.83	590	22671	13376	X5 16" 18720 L/min measured with Ultrasonic ; X5 10" - 3951 L/min measured with Ultrasonic.
20-Jul-10	12:00 AM	12:00 AM	24.00	1440	22671	32646	
21-Jul-10	12:00 AM	12:00 AM	24.00	1440	22671	32646	
22-Jul-10	12:00 AM	12:00 AM	24.00	1440	22671	32646	
23-Jul-10	12:00 AM	12:00 AM	24.00	1440	22671	32646	
24-Jul-10	12:00 AM	12:00 AM	24.00	1440	22671	32646	
25-Jul-10	12:00 AM	12:00 AM	24.00	1440	22671	32646	
26-Jul-10	12:00 AM	9:05 AM	9.08	545	22671	12356	
26-Jul-10	9:05 AM	12:00 AM	14.92	895	23845	21341	X5 16" 19250 L/min measured with Ultrasonic ; X5 10" - 4595 L/min measured with Ultrasonic.
27-Jul-10	12:00 AM	12:00 AM	24.00	1440	23845	34337	
28-Jul-10	12:00 AM	12:00 AM	24.00	1440	23845	34337	
29-Jul-10	12:00 AM	12:00 AM	24.00	1440	23845	34337	
30-Jul-10	12:00 AM	12:00 AM	24.00	1440	23845	34337	

Table B-19: Pumped Water Flow Rates and Volumes
X5 Discharge to Rose Creek

Date	Time		Total hrs	Total mins	Flow Rate (Litres/Min)	Total discharge for Day (m^3)	Comments
	start	finish					
31-Jul-10	12:00 AM	12:00 AM	24.00	1440	23845	34337	
1-Aug-10	12:00 AM	10:31 AM	10.52	631	23845	15046	
1-Aug-10	10:31 AM	12:00 AM	13.48	809	0	0	X5 10" & 16" siphons shutdown for CVP profile and water quality results
2-Aug-10	12:00 AM	12:00 AM	24.00	1440	0	0	
3-Aug-10	12:00 AM	12:00 AM	24.00	1440	0	0	
4-Aug-10	12:00 AM	12:00 AM	24.00	1440	0	0	
5-Aug-10	12:00 AM	12:00 AM	24.00	1440	0	0	
6-Aug-10	12:00 AM	12:00 AM	24.00	1440	0	0	
7-Aug-10	12:00 AM	12:00 AM	24.00	1440	0	0	
8-Aug-10	12:00 AM	12:00 AM	24.00	1440	0	0	
9-Aug-10	12:00 AM	9:30 AM	9.50	570	0	0	
9-Aug-10	9:30 AM	12:00 AM	14.50	870	18000	15660	X5 16" Siphon opened 1/2 way; Ultrasonic flow measurement taken
10-Aug-10	12:00 AM	12:00 AM	24.00	1440	18000	25920	
11-Aug-10	12:00 AM	12:00 AM	24.00	1440	18000	25920	
12-Aug-10	12:00 AM	10:45 AM	10.75	645	18000	11610	
12-Aug-10	10:45 AM	12:00 AM	13.25	795	21300	16934	X5 16" Siphon opened 3/4; Ultrasonic flow measurement taken
13-Aug-10	12:00 AM	1:43 PM	13.72	823	21300	17530	
13-Aug-10	1:43 PM	12:00 AM	10.28	617	21700	13389	X5 16" Siphon opened full; Ultrasonic flow measurement taken
14-Aug-10	12:00 AM	12:00 AM	24.00	1440	21700	31248	
15-Aug-10	12:00 AM	12:00 AM	24.00	1440	21700	31248	
16-Aug-10	12:00 AM	4:36 PM	16.60	996	21700	21613	
16-Aug-10	4:36 PM	12:00 AM	7.40	444	17065	7577	X5 16" Ultrasonic flow measurement taken
17-Aug-10	12:00 AM	12:00 AM	24.00	1440	17065	24574	
18-Aug-10	12:00 AM	12:00 AM	24.00	1440	17065	24574	
19-Aug-10	12:00 AM	12:00 AM	24.00	1440	17065	24574	
20-Aug-10	12:00 AM	12:00 AM	24.00	1440	17065	24574	
21-Aug-10	12:00 AM	12:00 AM	24.00	1440	17065	24574	

Table B-19: Pumped Water Flow Rates and Volumes
X5 Discharge to Rose Creek

Date	Time		Total hrs	Total mins	Flow Rate (Litres/Min)	Total discharge for Day (m^3)	Comments
	start	finish					
22-Aug-10	12:00 AM	12:00 AM	24.00	1440	17065	24574	
23-Aug-10	12:00 AM	4:15 PM	16.25	975	17065	16638	
23-Aug-10	4:15 PM	12:00 AM	7.75	465	16300	7580	X5 16" Ultrasonic flow measurement taken
24-Aug-10	12:00 AM	12:00 AM	24.00	1440	16300	23472	
25-Aug-10	12:00 AM	12:00 AM	24.00	1440	16300	23472	
26-Aug-10	12:00 AM	12:00 AM	24.00	1440	16300	23472	
27-Aug-10	12:00 AM	12:00 AM	24.00	1440	16300	23472	
28-Aug-10	12:00 AM	12:00 AM	24.00	1440	16300	23472	
29-Aug-10	12:00 AM	12:00 AM	24.00	1440	16300	23472	
30-Aug-10	12:00 AM	8:33 AM	8.55	513	16300	8362	X5 16" Ultrasonic flow measurement taken
30-Aug-10	8:33 AM	5:20 PM	8.78	527	15200	8010	
30-Aug-10	5:20 PM	12:00 AM	6.67	400	0	0	X5 16" siphons shutdown overnight pending CVP profile and water quality results
31-Aug-10	12:00 AM	1:00 PM	13.00	780	0	0	
31-Aug-10	1:00 PM	12:00 AM	11.00	660	19050	12573	X5 16" Siphon opened 1/2 way; Ultrasonic flow measurement taken
1-Sep-10	12:00 AM	12:00 AM	24.00	1440	19050	27432	
2-Sep-10	12:00 AM	12:00 AM	24.00	1440	19050	27432	
3-Sep-10	12:00 AM	12:00 AM	24.00	1440	19050	27432	
4-Sep-10	12:00 AM	12:00 AM	24.00	1440	19050	27432	
5-Sep-10	12:00 AM	12:00 AM	24.00	1440	19050	27432	
6-Sep-10	12:00 AM	12:00 AM	24.00	1440	19050	27432	
7-Sep-10	12:00 AM	9:15 AM	9.25	555	19050	10573	
7-Sep-10	9:15 AM	12:00 AM	14.75	885	14900	13187	X5 16" Ultrasonic flow measurement taken
8-Sep-10	12:00 AM	12:00 AM	24.00	1440	14900	21456	
9-Sep-10	12:00 AM	5:07 PM	17.12	1027	14900	15302	
9-Sep-10	5:07 PM	12:00 AM	6.88	413	0	0	X5 16" Siphon Shutdown
10-Sep-10	12:00 AM	12:00 AM	24.00	1440	0	0	
11-Sep-10	12:00 AM	12:00 AM	24.00	1440	0	0	

Table B-19: Pumped Water Flow Rates and Volumes
X5 Discharge to Rose Creek

Date	Time		Total hrs	Total mins	Flow Rate (Litres/Min)	Total discharge for Day (m^3)	Comments
	start	finish					
12-Sep-10	12:00 AM	12:00 AM	24.00	1440	0	0	
13-Sep-10	12:00 AM	12:00 AM	24.00	1440	0	0	
14-Sep-10	12:00 AM	12:00 AM	24.00	1440	0	0	
15-Sep-10	12:00 AM	12:00 AM	24.00	1440	0	0	
16-Sep-10	12:00 AM	12:00 AM	24.00	1440	0	0	
17-Sep-10	12:00 AM	12:00 AM	24.00	1440	0	0	
18-Sep-10	12:00 AM	12:00 AM	24.00	1440	0	0	
19-Sep-10	12:00 AM	12:00 AM	24.00	1440	0	0	
20-Sep-10	12:00 AM	12:00 AM	24.00	1440	0	0	
21-Sep-10	12:00 AM	12:00 AM	24.00	1440	0	0	
22-Sep-10	12:00 AM	12:00 AM	24.00	1440	0	0	
23-Sep-10	12:00 AM	12:00 AM	24.00	1440	0	0	
24-Sep-10	12:00 AM	12:00 AM	24.00	1440	0	0	
25-Sep-10	12:00 AM	12:00 AM	24.00	1440	0	0	
26-Sep-10	12:00 AM	12:00 AM	24.00	1440	0	0	
27-Sep-10	12:00 AM	12:00 AM	24.00	1440	0	0	
28-Sep-10	12:00 AM	12:00 AM	24.00	1440	0	0	
29-Sep-10	12:00 AM	12:00 AM	24.00	1440	0	0	
30-Sep-10	12:00 AM	12:00 AM	24.00	1440	0	0	
1-Oct-10	12:00 AM	12:00 AM	24.00	1440	0	0	
2-Oct-10	12:00 AM	12:00 AM	24.00	1440	0	0	
3-Oct-10	12:00 AM	12:00 AM	24.00	1440	0	0	
4-Oct-10	12:00 AM	12:00 AM	24.00	1440	0	0	
5-Oct-10	12:00 AM	12:00 AM	24.00	1440	0	0	
6-Oct-10	12:00 AM	12:00 AM	24.00	1440	0	0	
7-Oct-10	12:00 AM	12:00 AM	24.00	1440	0	0	
8-Oct-10	12:00 AM	12:00 AM	24.00	1440	0	0	
9-Oct-10	12:00 AM	12:00 AM	24.00	1440	0	0	
10-Oct-10	12:00 AM	12:00 AM	24.00	1440	0	0	
11-Oct-10	12:00 AM	12:00 AM	24.00	1440	0	0	
12-Oct-10	12:00 AM	12:00 AM	24.00	1440	0	0	
13-Oct-10	12:00 AM	12:00 AM	24.00	1440	0	0	

Table B-19: Pumped Water Flow Rates and Volumes
X5 Discharge to Rose Creek

Date	Time		Total hrs	Total mins	Flow Rate (Litres/Min)	Total discharge for Day (m^3)	Comments
	start	finish					
14-Oct-10	12:00 AM	12:00 AM	24.00	1440	0	0	
15-Oct-10	12:00 AM	12:00 AM	24.00	1440	0	0	
16-Oct-10	12:00 AM	12:00 AM	24.00	1440	0	0	
17-Oct-10	12:00 AM	12:00 AM	24.00	1440	0	0	
18-Oct-10	12:00 AM	12:00 AM	24.00	1440	0	0	
19-Oct-10	12:00 AM	12:00 AM	24.00	1440	0	0	
20-Oct-10	12:00 AM	12:00 AM	24.00	1440	0	0	
21-Oct-10	12:00 AM	12:00 AM	24.00	1440	0	0	
22-Oct-10	12:00 AM	12:00 AM	24.00	1440	0	0	
23-Oct-10	12:00 AM	12:00 AM	24.00	1440	0	0	
24-Oct-10	12:00 AM	12:00 AM	24.00	1440	0	0	
25-Oct-10	12:00 AM	12:00 AM	24.00	1440	0	0	
26-Oct-10	12:00 AM	12:00 AM	24.00	1440	0	0	
27-Oct-10	12:00 AM	12:00 AM	24.00	1440	0	0	
28-Oct-10	12:00 AM	12:00 AM	24.00	1440	0	0	
29-Oct-10	12:00 AM	12:00 AM	24.00	1440	0	0	
30-Oct-10	12:00 AM	12:00 AM	24.00	1440	0	0	
31-Oct-10	12:00 AM	12:00 AM	24.00	1440	0	0	
1-Nov-10	12:00 AM	12:00 AM	24.00	1440	0	0	
2-Nov-10	12:00 AM	12:00 AM	24.00	1440	0	0	
3-Nov-10	12:00 AM	12:00 AM	24.00	1440	0	0	
4-Nov-10	12:00 AM	12:00 AM	24.00	1440	0	0	
5-Nov-10	12:00 AM	12:00 AM	24.00	1440	0	0	
6-Nov-10	12:00 AM	12:00 AM	24.00	1440	0	0	
7-Nov-10	12:00 AM	12:00 AM	24.00	1440	0	0	
8-Nov-10	12:00 AM	12:00 AM	24.00	1440	0	0	
9-Nov-10	12:00 AM	12:00 AM	24.00	1440	0	0	
10-Nov-10	12:00 AM	12:00 AM	24.00	1440	0	0	
11-Nov-10	12:00 AM	12:00 AM	24.00	1440	0	0	
12-Nov-10	12:00 AM	12:00 AM	24.00	1440	0	0	
13-Nov-10	12:00 AM	12:00 AM	24.00	1440	0	0	
14-Nov-10	12:00 AM	12:00 AM	24.00	1440	0	0	

Table B-19: Pumped Water Flow Rates and Volumes
X5 Discharge to Rose Creek

Date	Time		Total hrs	Total mins	Flow Rate (Litres/Min)	Total discharge for Day (m^3)	Comments
	start	finish					
15-Nov-10	12:00 AM	12:00 AM	24.00	1440	0	0	
16-Nov-10	12:00 AM	11:20 AM	11.33	680	0	0	
16-Nov-10	11:20 AM	12:00 AM	12.67	760	16026	12180	Siphon opened 1/5 at 11:20am
17-Nov-10	12:00 AM	6:10 PM	18.17	1090	16026	17468	Ultrasonic Flow Measurement Taken
17-Nov-10	6:10 PM	12:00 AM	5.83	350	11700	4095	
18-Nov-10	12:00 AM	12:00 AM	24.00	1440	11700	16848	Ultrasonic Flow Measurement Taken
19-Nov-10	12:00 AM	12:00 AM	24.00	1440	11700	16848	
20-Nov-10	12:00 AM	12:00 AM	24.00	1440	11700	16848	
21-Nov-10	12:00 AM	12:00 AM	24.00	1440	11700	16848	
22-Nov-10	12:00 AM	12:00 AM	24.00	1440	11700	16848	
23-Nov-10	12:00 AM	12:00 AM	24.00	1440	11700	16848	
24-Nov-10	12:00 AM	12:00 AM	24.00	1440	11700	16848	
25-Nov-10	12:00 AM	12:00 AM	24.00	1440	11700	16848	
26-Nov-10	12:00 AM	12:00 AM	24.00	1440	11700	16848	
27-Nov-10	12:00 AM	12:00 AM	24.00	1440	11700	16848	
28-Nov-10	12:00 AM	12:00 AM	24.00	1440	11700	16848	
29-Nov-10	12:00 AM	10:16 AM	10.27	616	11700	7207	
29-Nov-10	10:16 AM	12:00 AM	13.73	824	10775	8879	Ultrasonic Flow Measurement Taken
30-Nov-10	12:00 AM	12:00 AM	24.00	1440	10775	15516	
1-Dec-10	12:00 AM	12:00 AM	24.00	1440	10775	15516	
2-Dec-10	12:00 AM	1:22 PM	13.37	802	10775	8642	
2-Dec-10	1:22 PM	12:00 AM	10.63	638	0	0	X5 16" Siphon Shutdown

Table B-20: Pumped Water Flow Rates and Volumes
Little Creek Dam Pond to Vangorda Pit

Date	Time		Total hrs	Total mins	Flow Rate (Litres/Min)	Total discharge for Day (m^3)	Comments
	start	finish					
5-May-10	11:20 AM	12:00 AM	12.67	760	1470	1117	
6-May-10	12:00 AM	12:00 AM	24.00	1440	1470	2117	
7-May-10	12:00 AM	12:00 AM	24.00	1440	1470	2117	Ultrasonic Flow Meter
8-May-10	12:00 AM	12:00 AM	24.00	1440	1470	2117	
9-May-10	12:00 AM	12:00 AM	24.00	1440	1470	2117	
10-May-10	12:00 AM	12:00 AM	24.00	1440	1470	2117	
11-May-10	12:00 AM	12:00 AM	24.00	1440	1470	2117	
12-May-10	12:00 AM	12:00 AM	24.00	1440	1470	2117	
13-May-10	12:00 AM	12:00 AM	24.00	1440	1470	2117	
14-May-10	12:00 AM	5:15 PM	17.25	1035	1470	1521	
14-May-10	5:15 PM	12:00 AM	6.75	405	0	0	
15-May-10	12:00 AM	12:00 AM	24.00	1440	0	0	
16-May-10	12:00 AM	12:00 AM	24.00	1440	0	0	
17-May-10	12:00 AM	12:00 AM	24.00	1440	0	0	
18-May-10	12:00 AM	12:00 AM	24.00	1440	0	0	
19-May-10	12:00 AM	12:00 AM	24.00	1440	0	0	
20-May-10	12:00 AM	12:00 AM	24.00	1440	0	0	
21-May-10	12:00 AM	12:00 AM	24.00	1440	0	0	
22-May-10	12:00 AM	12:00 AM	24.00	1440	0	0	
23-May-10	12:00 AM	12:00 AM	24.00	1440	0	0	
24-May-10	12:00 AM	12:00 AM	24.00	1440	0	0	
25-May-10	12:00 AM	2:00 PM	14.00	840	0	0	
25-May-10	2:00 PM	12:00 AM	10.00	600	1470	882	Started pumping from LCD at 2:00 PM
26-May-10	12:00 AM	12:00 AM	24.00	1440	1470	2117	
27-May-10	12:00 AM	12:00 AM	24.00	1440	1470	2117	
28-May-10	12:00 AM	11:00 AM	11.00	660	1470	970	LCD Pump Shut Off at 11:00 AM
29-May-10	12:00 AM	12:00 AM	24.00	1440	0	0	
30-May-10	12:00 AM	12:00 AM	24.00	1440	0	0	
31-May-10	12:00 AM	12:00 AM	24.00	1440	0	0	
1-Jun-10	12:00 AM	12:00 AM	24.00	1440	0	0	
2-Jun-10	12:00 AM	12:00 AM	24.00	1440	0	0	
3-Jun-10	12:00 AM	12:00 AM	24.00	1440	0	0	

Table B-20: Pumped Water Flow Rates and Volumes
Little Creek Dam Pond to Vangorda Pit

Date	Time		Total hrs	Total mins	Flow Rate (Litres/Min)	Total discharge for Day (m^3)	Comments
	start	finish					
4-Jun-10	12:00 AM	12:00 AM	24.00	1440	0	0	
5-Jun-10	12:00 AM	12:00 AM	24.00	1440	0	0	
6-Jun-10	12:00 AM	12:00 AM	24.00	1440	0	0	
7-Jun-10	12:00 AM	12:00 AM	24.00	1440	0	0	
8-Jun-10	12:00 AM	12:00 AM	24.00	1440	0	0	
9-Jun-10	12:00 AM	12:00 AM	24.00	1440	0	0	
10-Jun-10	12:00 AM	12:00 AM	24.00	1440	0	0	
11-Jun-10	12:00 AM	12:00 AM	24.00	1440	0	0	
12-Jun-10	12:00 AM	12:00 AM	24.00	1440	0	0	
13-Jun-10	12:00 AM	12:00 AM	24.00	1440	0	0	
14-Jun-10	12:00 AM	12:00 AM	24.00	1440	0	0	
15-Jun-10	12:00 AM	12:00 AM	24.00	1440	0	0	
16-Jun-10	12:00 AM	12:00 AM	24.00	1440	0	0	
17-Jun-10	12:00 AM	12:00 AM	24.00	1440	0	0	
18-Jun-10	12:00 AM	12:00 AM	24.00	1440	0	0	
19-Jun-10	12:00 AM	12:00 AM	24.00	1440	0	0	
20-Jun-10	12:00 AM	12:00 AM	24.00	1440	0	0	
21-Jun-10	12:00 AM	12:00 AM	24.00	1440	0	0	
22-Jun-10	12:00 AM	12:00 AM	24.00	1440	0	0	
23-Jun-10	12:00 AM	12:00 AM	24.00	1440	0	0	
24-Jun-10	12:00 AM	12:00 AM	24.00	1440	0	0	
25-Jun-10	12:00 AM	12:00 AM	24.00	1440	0	0	
26-Jun-10	12:00 AM	12:00 AM	24.00	1440	0	0	
27-Jun-10	12:00 AM	12:00 AM	24.00	1440	0	0	
28-Jun-10	12:00 AM	12:00 AM	24.00	1440	0	0	
29-Jun-10	12:00 AM	12:00 AM	24.00	1440	0	0	
30-Jun-10	12:00 AM	12:00 AM	24.00	1440	0	0	
1-Jul-10	12:00 AM	12:00 AM	24.00	1440	0	0	
2-Jul-10	12:00 AM	12:00 AM	24.00	1440	0	0	
3-Jul-10	12:00 AM	12:00 AM	24.00	1440	0	0	
4-Jul-10	12:00 AM	12:00 AM	24.00	1440	0	0	
5-Jul-10	12:00 AM	12:00 AM	24.00	1440	0	0	

Table B-20: Pumped Water Flow Rates and Volumes
Little Creek Dam Pond to Vangorda Pit

Date	Time		Total hrs	Total mins	Flow Rate (Litres/Min)	Total discharge for Day (m^3)	Comments
	start	finish					
6-Jul-10	12:00 AM	12:00 AM	24.00	1440	0	0	
7-Jul-10	12:00 AM	12:00 AM	24.00	1440	0	0	
8-Jul-10	12:00 AM	12:00 AM	24.00	1440	0	0	
9-Jul-10	12:00 AM	12:00 AM	24.00	1440	0	0	
10-Jul-10	12:00 AM	12:00 AM	24.00	1440	0	0	
11-Jul-10	12:00 AM	12:00 AM	24.00	1440	0	0	
12-Jul-10	12:00 AM	12:00 AM	24.00	1440	0	0	
13-Jul-10	12:00 AM	12:00 AM	24.00	1440	0	0	
14-Jul-10	12:00 AM	12:00 AM	24.00	1440	0	0	
15-Jul-10	12:00 AM	12:00 AM	24.00	1440	0	0	
16-Jul-10	12:00 AM	12:00 AM	24.00	1440	0	0	
17-Jul-10	12:00 AM	12:00 AM	24.00	1440	0	0	
18-Jul-10	12:00 AM	12:00 AM	24.00	1440	0	0	
19-Jul-10	12:00 AM	12:00 AM	24.00	1440	0	0	
20-Jul-10	12:00 AM	12:00 AM	24.00	1440	0	0	
21-Jul-10	12:00 AM	12:00 AM	24.00	1440	0	0	
22-Jul-10	12:00 AM	12:00 AM	24.00	1440	0	0	
23-Jul-10	12:00 AM	12:00 AM	24.00	1440	0	0	
24-Jul-10	12:00 AM	12:00 AM	24.00	1440	0	0	
25-Jul-10	12:00 AM	12:00 AM	24.00	1440	0	0	
26-Jul-10	12:00 AM	12:00 AM	24.00	1440	0	0	
27-Jul-10	12:00 AM	12:00 AM	24.00	1440	0	0	
28-Jul-10	12:00 AM	12:00 AM	24.00	1440	0	0	
29-Jul-10	12:00 AM	12:00 AM	24.00	1440	0	0	
30-Jul-10	12:00 AM	12:00 AM	24.00	1440	0	0	
31-Jul-10	12:00 AM	12:00 AM	24.00	1440	0	0	
1-Aug-10	12:00 AM	12:00 AM	24.00	1440	0	0	
2-Aug-10	12:00 AM	12:00 AM	24.00	1440	0	0	
3-Aug-10	12:00 AM	12:00 AM	24.00	1440	0	0	
4-Aug-10	12:00 AM	12:00 AM	24.00	1440	0	0	
5-Aug-10	12:00 AM	12:00 AM	24.00	1440	0	0	
6-Aug-10	12:00 AM	12:00 AM	24.00	1440	0	0	

Table B-20: Pumped Water Flow Rates and Volumes
Little Creek Dam Pond to Vangorda Pit

Date	Time		Total hrs	Total mins	Flow Rate (Litres/Min)	Total discharge for Day (m^3)	Comments
	start	finish					
7-Aug-10	12:00 AM	12:00 AM	24.00	1440	0	0	
8-Aug-10	12:00 AM	12:00 AM	24.00	1440	0	0	
9-Aug-10	12:00 AM	12:00 AM	24.00	1440	0	0	
10-Aug-10	12:00 AM	12:00 AM	24.00	1440	0	0	
11-Aug-10	12:00 AM	12:00 AM	24.00	1440	0	0	
12-Aug-10	12:00 AM	12:00 AM	24.00	1440	0	0	
13-Aug-10	12:00 AM	12:00 AM	24.00	1440	0	0	
14-Aug-10	12:00 AM	12:00 AM	24.00	1440	0	0	
15-Aug-10	12:00 AM	12:00 AM	24.00	1440	0	0	
16-Aug-10	12:00 AM	12:00 AM	24.00	1440	0	0	
17-Aug-10	12:00 AM	12:00 AM	24.00	1440	0	0	
18-Aug-10	12:00 AM	12:00 AM	24.00	1440	0	0	
19-Aug-10	12:00 AM	12:00 AM	24.00	1440	0	0	
20-Aug-10	12:00 AM	12:00 AM	24.00	1440	0	0	
21-Aug-10	12:00 AM	12:00 AM	24.00	1440	0	0	
22-Aug-10	12:00 AM	12:00 AM	24.00	1440	0	0	
23-Aug-10	12:00 AM	12:00 AM	24.00	1440	0	0	
24-Aug-10	12:00 AM	12:00 AM	24.00	1440	0	0	
25-Aug-10	12:00 AM	12:00 AM	24.00	1440	0	0	
26-Aug-10	12:00 AM	12:00 AM	24.00	1440	0	0	
27-Aug-10	12:00 AM	12:00 AM	24.00	1440	0	0	
28-Aug-10	12:00 AM	12:00 AM	24.00	1440	0	0	
29-Aug-10	12:00 AM	12:00 AM	24.00	1440	0	0	
30-Aug-10	12:00 AM	12:00 AM	24.00	1440	0	0	
31-Aug-10	12:00 AM	12:00 AM	24.00	1440	0	0	
1-Sep-10	12:00 AM	12:00 AM	24.00	1440	0	0	
2-Sep-10	12:00 AM	12:00 AM	24.00	1440	0	0	
3-Sep-10	12:00 AM	12:00 AM	24.00	1440	0	0	
4-Sep-10	12:00 AM	12:00 AM	24.00	1440	0	0	
5-Sep-10	12:00 AM	12:00 AM	24.00	1440	0	0	
6-Sep-10	12:00 AM	12:00 AM	24.00	1440	0	0	
7-Sep-10	12:00 AM	9:15 AM	9.25	555	0	0	

Table B-20: Pumped Water Flow Rates and Volumes
Little Creek Dam Pond to Vangorda Pit

Date	Time		Total hrs	Total mins	Flow Rate (Litres/Min)	Total discharge for Day (m^3)	Comments
	start	finish					
7-Sep-10	9:15 AM	12:00 AM	14.75	885	1470	1301	LCD pump started at 9:15 AM
8-Sep-10	12:00 AM	12:00 AM	24.00	1440	1470	2117	
9-Sep-10	12:00 AM	5:05 PM	17.08	1025	1470	1507	
9-Sep-10	5:05 PM	12:00 AM	6.92	415	0	0	LCD pump shutdown at 5:05 PM

Table B-21: Pumped Water Flow Rates and Volumes Vangorda Pit toVangorda Treatment Plant

Date	Time		Total hrs	Total mins	Flow Rate (Litres/Min)	Total discharge for Day (m^3)	Comments
	start	finish					
9-Jun-10	11:00 AM	12:00 AM	13.00	780	9904	7725	VG Barge and pump up at 11 AM
10-Jun-10	12:00 AM	12:00 AM	24.00	1440	9904	14262	Ultrasonic flow mesurement
11-Jun-10	12:00 AM	12:00 AM	24.00	1440	9904	14262	
12-Jun-10	12:00 AM	6:15 AM	6.25	375	9904	3714	VG Barge and pump shutdown at 6:15 AM
12-Jun-10	6:15 AM	12:00 AM	17.75	1065	0	0	
13-Jun-10	12:00 AM	12:00 AM	24.00	1440	0	0	
14-Jun-10	12:00 AM	12:00 AM	24.00	1440	0	0	
15-Jun-10	12:00 AM	12:00 AM	24.00	1440	0	0	
16-Jun-10	12:00 AM	12:00 AM	24.00	1440	0	0	
17-Jun-10	12:00 AM	12:00 AM	24.00	1440	0	0	
18-Jun-10	12:00 AM	12:00 AM	24.00	1440	0	0	
19-Jun-10	12:00 AM	12:00 AM	24.00	1440	0	0	
20-Jun-10	12:00 AM	12:00 AM	24.00	1440	0	0	
21-Jun-10	12:00 AM	9:45 AM	9.75	585	0	0	Pump on at 9:45 AM and water into mill at 10:00 AM
21-Jun-10	9:45 AM	12:00 AM	14.25	855	9941	8500	Ultrasonic flow mesurement; Weekly flow measurement
22-Jun-10	12:00 AM	12:00 AM	24.00	1440	9941	14315	
23-Jun-10	12:00 AM	12:00 AM	24.00	1440	9941	14315	
24-Jun-10	12:00 AM	12:00 AM	24.00	1440	9941	14315	
25-Jun-10	12:00 AM	12:00 AM	24.00	1440	9941	14315	
26-Jun-10	12:00 AM	12:00 AM	24.00	1440	9941	14315	
27-Jun-10	12:00 AM	12:00 AM	24.00	1440	9941	14315	
28-Jun-10	12:00 AM	3:20 PM	15.33	920	9941	9146	
28-Jun-10	3:20 PM	12:00 AM	8.67	520	10084	5244	Ultrasonic flow weekly measurement
29-Jun-10	12:00 AM	12:00 AM	24.00	1440	10084	14521	
30-Jun-10	12:00 AM	12:00 AM	24.00	1440	10084	14521	
1-Jul-10	12:00 AM	12:00 AM	24.00	1440	10084	14521	
2-Jul-10	12:00 AM	12:00 AM	24.00	1440	10084	14521	
3-Jul-10	12:00 AM	12:00 AM	24.00	1440	10084	14521	
4-Jul-10	12:00 AM	12:00 AM	24.00	1440	10084	14521	
5-Jul-10	12:00 AM	2:38 PM	14.63	878	10084	8854	

Table B-21: Pumped Water Flow Rates and Volumes
Vangorda Pit toVangorda Treatment Plant

Date	Time		Total hrs	Total mins	Flow Rate (Litres/Min)	Total discharge for Day (m^3)	Comments
	start	finish					
5-Jul-10	2:38 PM	12:00 AM	9.37	562	10200	5732	
6-Jul-10	12:00 AM	12:00 AM	24.00	1440	10200	14688	
7-Jul-10	12:00 AM	12:00 AM	24.00	1440	10200	14688	
8-Jul-10	12:00 AM	12:00 AM	24.00	1440	10200	14688	
9-Jul-10	12:00 AM	12:00 AM	24.00	1440	10200	14688	
10-Jul-10	12:00 AM	12:00 AM	24.00	1440	10200	14688	
11-Jul-10	12:00 AM	12:00 AM	24.00	1440	10200	14688	
12-Jul-10	12:00 AM	12:00 AM	24.00	1440	10200	14688	Ultrasonic flow measurement attempted but not taken
13-Jul-10	12:00 AM	12:00 AM	24.00	1440	10200	14688	Ultrasonic flow measurement attempted but not taken
14-Jul-10	12:00 AM	12:00 AM	24.00	1440	10200	14688	
15-Jul-10	12:00 AM	11:15 AM	11.25	675	10200	6885	
15-Jul-10	11:15 AM	12:00 AM	12.75	765	0	0	Vangorda Treatment Plant shutdown at 11:15 AM for the season

Table B-22: Pumped Water Flow Rates and Volumes Monthly Totals for Faro Mine Complex

Month	ETA to Mill (m^3)	ETA to I.P. (m^3)	X5 (m^3)	Faro Pit to Mill (m^3)	I.P. to Mill (m^3)	I.P. Totalizer (m^3)	Zone II Discharge (m^3)	L.C.D. to Van. Pit (m^3)	Van. Pit to V.T.P. (m^3)	SRK08-SPW3 (m^3)
January			0	0	0		0	0	0	6,602
February			0	0	0		0	0	0	5,736
March			52,916	0	0		0	0	0	5,477
April			238,793	108,835	160,505		0	0	0	6,415
May			854,255	369,464	313,205	313,205	41,030	25,659	0	6,220
June	6,916		1,080,467	592,519	259,545	259,545	2,866	0	177,785	6,013
July	14,051		1,113,189	529,051	221,502	221,502	9,227	0	211,748	6,085
August	13,500	715	575,131	414,332	208,040	208,040	66	0	0	6,169
September	0	8,946	225,110	0	0	0	5,658	4,925	0	6,444
October	0	0	0	0	0	0	8,313	0	0	5,207
November	0	0	235,157	0	0	0	0	0	0	5,459
December	0	0	24,158	0	0	0	0	0	0	5,852
Total for Year	34,467	9,661	4,399,175	2,014,201	1,162,797	1,002,292	67,158	30,583	389,533	71,680

Table B-23: Rose Creek Drainage
2010 Open Channel Flows

Site	Requested Flow Frequency		Date	Flow Rate	Flow Type	Staff Gauge at Site	Comments
	Jan-Sep	Sep-Dec					
A25	SF	-	5/31/2010	0.2 L/s	Estimate	N	
A30	2M	M	1/7/2010	-		N	Unsafe - No sample.
			1/21/2010	-			Unsafe - No sample.
			2/4/2010	1.3 L/s	Estimate		
			2/24/2010	1.3 L/s	Estimate		
			3/2/2010	1.0 L/s	Estimate		
			3/28/2010	2.0 L/s	Estimate		
			4/10/2010	1.2 L/s	Estimate		
			4/19/2010	2.0 L/s	Estimate		
			5/1/2010	0.2 L/s	Estimate		
			5/18/2010	0.4 L/s	Estimate		
			6/2/2010	2.3 L/s	Estimate		
			6/15/2010	2.3 L/s	Estimate		
			7/7/2010	1.0 L/s	Estimate		
			7/22/2010	-			Flow Not Measured.
			8/5/2010	0.5 L/s	Estimate		
			8/18/2010	0.3 L/s	Estimate		
			9/1/2010	0.2 L/s	Estimate		
			10/20/2010	1.0 L/s	Estimate		
			11/4/2010	0.4 L/s	Estimate		
			12/1/2010	0.5 L/s	Estimate		
ETA Comb'd	-	CONT	9/2/2010	6.0 L/s	Bucket	N	
			10/20/2010	3.0 L/s	Bucket		
			11/8/2010	3.4 L/s	Bucket		
			12/1/2010	3.2 L/s	Bucket		
FAROCR	M	M	1/11/2010	0.0 L/s		N	No Flow - No Sample.
			2/23/2010	0.0 L/s			No Flow - No Sample.
			3/10/2010	0.0 L/s			No Flow - No Sample.
			4/11/2010	0.0 L/s			No Flow - No Sample.
			5/2/2010	120.9 L/s	In Stream		
			6/5/2010	318.4 L/s	In Stream		
			7/8/2010	105.1 L/s	In Stream		
			8/3/2010	25.6 L/s	In Stream		
			9/1/2010	30.0 L/s	In Stream		
			10/19/2010	24.9 L/s	In Stream		
			11/10/2010	0.0 L/s			No Flow - No Sample.
			12/1/2010	0.0 L/s			No Flow - No Sample.
FCO	QL	M	3/4/2010	-		N	No Flow - No Sample.
			6/16/2010	1.6 L/s	V-Notch Weir		
			9/1/2010	1.1 L/s	V-Notch Weir		
			10/7/2010	1.5 L/s	V-Notch Weir		
			11/4/2010	0.8 L/s	V-Notch Weir		
			12/1/2010	-			Glaciated - No Flow Taken.

Table B-23: Rose Creek Drainage
2010 Open Channel Flows

Site	Requested Flow Frequency		Date	Flow Rate	Flow Type	Staff Gauge at Site	Comments
	Jan-Sep	Sep-Dec					
FCS-4	-	M	1/7/2010	4.1 L/s	V-Notch Weir	N	
			1/14/2010	3.5 L/s	V-Notch Weir		
			1/21/2010	3.3 L/s	V-Notch Weir		
			1/28/2010	3.3 L/s	V-Notch Weir		
			2/4/2010	3.3 L/s	V-Notch Weir		
			2/11/2010	3.1 L/s	V-Notch Weir		
			2/18/2010	2.8 L/s	V-Notch Weir		
			2/24/2010	2.7 L/s	V-Notch Weir		
			3/4/2010	2.5 L/s	V-Notch Weir		
			3/11/2010	2.4 L/s	V-Notch Weir		
			3/18/2010	2.2 L/s	V-Notch Weir		
			3/31/2010	2.7 L/s	V-Notch Weir		
			4/8/2010	2.9 L/s	V-Notch Weir		
			4/15/2010	2.2 L/s	V-Notch Weir		
			4/22/2010	12.9 L/s	V-Notch Weir		
			4/29/2010	12.9 L/s	V-Notch Weir		
			5/6/2010	6.1 L/s	V-Notch Weir		
			5/13/2010	4.9 L/s	V-Notch Weir		
			5/20/2010	4.6 L/s	V-Notch Weir		
			5/27/2010	3.2 L/s	V-Notch Weir		
			6/3/2010	3.3 L/s	V-Notch Weir		
			6/10/2010	4.1 L/s	V-Notch Weir		
			6/17/2010	0.7 L/s	V-Notch Weir		
			7/1/2010	0.8 L/s	V-Notch Weir		
			7/8/2010	1.1 L/s	V-Notch Weir		
			7/15/2010	0.7 L/s	V-Notch Weir		
			7/22/2010	0.5 L/s	V-Notch Weir		
			7/29/2010	0.6 L/s	V-Notch Weir		
			8/5/2010	0.8 L/s	V-Notch Weir		
			8/12/2010	0.2 L/s	V-Notch Weir		
			8/19/2010	0.9 L/s	V-Notch Weir		
			8/26/2010	0.7 L/s	V-Notch Weir		
			9/2/2010	0.7 L/s	V-Notch Weir		
			9/9/2010	0.6 L/s	V-Notch Weir		
			9/16/2010	1.0 L/s	V-Notch Weir		
			9/23/2010	0.6 L/s	V-Notch Weir		
			9/30/2010	0.3 L/s	V-Notch Weir		
			10/7/2010	4.7 L/s	V-Notch Weir		
			10/14/2010	2.9 L/s	V-Notch Weir		
			10/20/2010	3.6 L/s	V-Notch Weir		Significant sedimentation behind weir
			10/28/2010	3.5 L/s	V-Notch Weir		
			11/4/2010	2.7 L/s	V-Notch Weir		
			11/10/2010	3.0 L/s	V-Notch Weir		
			11/18/2010	3.0 L/s	V-Notch Weir		
			11/25/2010	2.7 L/s	V-Notch Weir		
			12/2/2010	0.9 L/s	V-Notch Weir		
			12/9/2010	2.5 L/s	V-Notch Weir		
			12/16/2010	2.6 L/s	V-Notch Weir		
GDHSECK	QL	3X	3/4/2010	-		N	Flow Not Measured.
			6/16/2010	3.0 L/s	Estimate		
			10/6/2010	3.5 L/s	Estimate		

Table B-23: Rose Creek Drainage
2010 Open Channel Flows

Site	Requested Flow Frequency		Date	Flow Rate	Flow Type	Staff Gauge at Site	Comments
	Jan-Sep	Sep-Dec					
NE1	SF	-	6/1/2010	0.2 L/s	Estimate	N	
NE2	SF	-	6/1/2010	-		N	Insufficient Water for Sample.
NE3	SF	-	6/1/2010	-		N	Could not find sampling location.
NF2	M	M	1/12/2010	-		N	Flow Not Measured.
			2/23/2010	-			Flow Taken 2X a Winter
			3/10/2010	-			Flow Not Measured.
			4/14/2010	163.2 L/s	In Stream		
			5/2/2010	-			Braided, ice shelves. No flow could be taken.
			6/4/2010	2712.9 L/s	In Stream		
			7/8/2010	1555.6 L/s	In Stream		
			8/3/2010	980.6 L/s	In Stream		
			9/1/2010	979.8 L/s	In Stream		
			10/18/2010	662.6 L/s	In Stream		
			11/9/2010	612.7 L/s	In Stream		
			12/1/2010	-			Flow Not Measured.
NFRC SC-1	M	-	1/12/2010	-		N	Flow Not Measured.
			2/23/2010	-			Flow Taken 2X a Winter
			3/10/2010	-			Flow Not Measured.
			4/14/2010	343.8 L/s	In Stream		
			5/2/2010	1293.3 L/s	In Stream		
			6/4/2010	2635.1 L/s	In Stream		
			7/8/2010	1464.9 L/s	In Stream		
			8/3/2010	739.5 L/s	In Stream		
			10/18/2010	616.7 L/s	In Stream		
NFRC SC-2	M	-	1/12/2010	-		N	Flow Not Measured.
			2/23/2010	-			Flow Taken 2X a Winter
			3/10/2010	-			Flow Not Measured.
			4/14/2010	393.6 L/s	In Stream		
			5/2/2010	785.0 L/s	In Stream		
			6/4/2010	-			Attempted flow measurement, but flow too fast.
			7/8/2010	1557.3 L/s	In Stream		
			8/3/2010	734.1 L/s	In Stream		
			10/18/2010	548.7 L/s	In Stream		
NFRC SC-3	M	-	1/12/2010	-		N	Flow Not Measured.
			2/23/2010	-			Flow Taken 2X a Winter
			3/10/2010	-			Flow Not Measured.
			4/14/2010	120.7 L/s	In Stream		
			5/2/2010	-			No Flow - Unsafe.
			6/4/2010	-			Attempted flow measurement, but flow too fast.
			7/8/2010	-			No Flow - Unsafe.
			8/3/2010	-			No Flow - Unsafe.
			10/18/2010	905.0 L/s	In Stream		
NFRC SC-4	M	-	1/12/2010	-		N	Flow Not Measured.
			2/23/2010	-			Flow Taken 2X a Winter
			3/10/2010	-			Flow Not Measured.
			4/14/2010	64.2 L/s	In Stream		
			5/2/2010	641.6 L/s	In Stream		
			6/4/2010	2528.3 L/s	In Stream		
			7/8/2010	1269.1 L/s	In Stream		
			8/3/2010	889.2 L/s	In Stream		
			10/18/2010	608.4 L/s	In Stream		

Table B-23: Rose Creek Drainage
2010 Open Channel Flows

Site	Requested Flow Frequency		Date	Flow Rate	Flow Type	Staff Gauge at Site	Comments
	Jan-Sep	Sep-Dec					
NWID	M	-	1/11/2010	0.0 L/s		N	No Flow - No Sample.
			2/22/2010	-			Flow Taken 2X a Winter
			3/10/2010	-			Flow Not Measured.
			4/15/2010	0.3 L/s	Estimate		
			5/3/2010	5.0 L/s	Estimate		
			6/4/2010	1.6 L/s	Estimate		
			7/10/2010	1.0 L/s	Estimate		
			8/3/2010	-			Flow Not Measured.
R10	M		1/11/2010	-		N	Flow Not Measured.
			2/23/2010	-			Flow Taken 2X a Winter
			3/10/2010	-			Flow Not Measured.
			4/11/2010	-			Water moving too slow for flow measurement.
			5/2/2010	1010.2 L/s	In Stream		
			6/5/2010	1964.2 L/s	In Stream		
			7/8/2010	1617.8 L/s	In Stream		
			8/3/2010	741.9 L/s	In Stream		
			9/1/2010	760.2 L/s	In Stream		
			10/19/2010	537.5 L/s	In Stream		
			11/10/2010	339.1 L/s	In Stream		
			12/1/2010	-			Flow Not Measured.
R7	CONT	CONT	4/11/2010	112.7 L/s	In Stream	Y	FLOW LOGGER HERE
			5/2/2010	836.9 L/s	In Stream		
			6/5/2010	1563.6 L/s	In Stream		
			7/8/2010	1145.9 L/s	In Stream		
			9/1/2010	601.7 L/s	In Stream		
			10/19/2010	375.9 L/s	In Stream		
			11/10/2010	320.0 L/s	In Stream		
			12/1/2010	276.3 L/s	In Stream		
R8	M		1/11/2010	-		N	Flow Not Measured.
			2/23/2010	-			Flow Taken 2X a Winter
			3/10/2010	-			Flow Not Measured.
			4/11/2010	157.1 L/s	In Stream		
			5/2/2010	1082.8 L/s	In Stream		
			6/5/2010	1018.5 L/s	In Stream		
			7/8/2010	1457.9 L/s	In Stream		
			8/3/2010	770.8 L/s	In Stream		
			9/1/2010	751.7 L/s	In Stream		
			10/19/2010	594.6 L/s	In Stream		
			11/10/2010	455.8 L/s	In Stream		Value corrected from data entry mistake
			12/1/2010	-			Flow Not Measured.
R9	M		1/11/2010	-		N	Flow Not Measured.
			2/23/2010	-			Flow Taken 2X a Winter
			3/10/2010	-			Flow Not Measured.
			4/11/2010	-			Water moving too slow for flow measurement.
			5/2/2010	1073.7 L/s	In Stream		
			6/5/2010	1096.9 L/s	In Stream		
			7/8/2010	1472.7 L/s	In Stream		
			8/3/2010	1063.5 L/s	In Stream		
			9/1/2010	1107.6 L/s	In Stream		
			10/19/2010	629.0 L/s	In Stream		
			11/10/2010	335.2 L/s	In Stream		
			12/1/2010	-			Flow Not Measured.

Table B-23: Rose Creek Drainage
2010 Open Channel Flows

Site	Requested Flow Frequency		Date	Flow Rate	Flow Type	Staff Gauge at Site	Comments
	Jan-Sep	Sep-Dec					
RCSG#4	-	-	6/4/2010	1857.9 L/s	In Stream	Y	
			7/8/2010	2247.6 L/s	In Stream		
SP5-6	SF	SF	7/10/2010	2.1 L/s	Estimate	N	
			9/1/2010	0.9 L/s	Estimate		
			10/6/2010	1.3 L/s	Estimate		
W10	M	-	1/11/2010	0.0 L/s		N	No Flow - No Sample.
			2/23/2010	0.0 L/s			No Flow - No Sample.
			3/10/2010	0.0 L/s			No Flow - No Sample.
			4/15/2010	0.0 L/s			No Flow - No Sample.
			5/3/2010	2.0 L/s	Estimate		
			6/5/2010	11.9 L/s	Estimate		
			7/10/2010	-			Flow Not Measured. Water not flowing fast enough.
			8/3/2010	0.0 L/s			No Flow - No Sample.
W5	SF	-	6/1/2010	-		N	Flow Not Measured.
W8	QL	-	3/4/2010	0.0 L/s		N	No Flow - No Sample.
			6/17/2010	2.0 L/s	Estimate		
Weir 3	W	W	1/7/2010	2.5 L/s	V-Notch Weir	Y	
			1/14/2010	2.5 L/s	V-Notch Weir		
			1/21/2010	2.5 L/s	V-Notch Weir		
			1/28/2010	2.5 L/s	V-Notch Weir		
			2/4/2010	3.3 L/s	V-Notch Weir		
			2/11/2010	3.3 L/s	V-Notch Weir		
			2/18/2010	3.2 L/s	V-Notch Weir		
			2/24/2010	3.2 L/s	V-Notch Weir		
			3/4/2010	2.9 L/s	V-Notch Weir		
			3/11/2010	2.2 L/s	V-Notch Weir		
			3/18/2010	2.2 L/s	V-Notch Weir		
			3/31/2010	3.1 L/s	V-Notch Weir		
			4/1/2010	3.1 L/s	V-Notch Weir		
			4/8/2010	2.6 L/s	V-Notch Weir		
			4/15/2010	2.1 L/s	V-Notch Weir		
			4/22/2010	2.5 L/s	V-Notch Weir		
			4/29/2010	2.8 L/s	V-Notch Weir		
			5/6/2010	3.22 L/s	V-Notch Weir		Flow rate: monthly.
			5/13/2010	-			
			5/20/2010	-			
			5/27/2010	-			
			6/3/2010	-			
			6/10/2010	-			
			6/17/2010	3.22 L/s	V-Notch Weir		Flow rate: 2 x / monthly.
			6/24/2010	-			
			7/1/2010	2.9 L/s	V-Notch Weir		Flow rate: 2 x / monthly.
			7/1/2010	-			
			7/15/2010	2.8 L/s	V-Notch Weir		Flow rate: 2 x / monthly.
			7/22/2010	2.1 L/s	V-Notch Weir		
			7/29/2010	-			
			8/5/2010	2.0 L/s	V-Notch Weir		Flow rate: 2 x / monthly.
			8/12/2010	-			
			8/19/2010	2.1 L/s	V-Notch Weir		Flow rate: 2 x / monthly.
			8/26/2010	-			
			9/2/2010	1.8 L/s	V-Notch Weir		Flow rate: 2 x / monthly.
			9/9/2010	-			
			9/16/2010	1.7 L/s	V-Notch Weir		Flow rate: 2 x / monthly.
			9/23/2010	-			
			9/30/2010	-			
			10/7/2010	1.9 L/s	V-Notch Weir		Flow rate: 2 x / monthly.
			10/14/2010	-			
			10/20/2010	1.9 L/s	V-Notch Weir		Flow rate: 2 x / monthly.
			10/28/2010	-			
			11/4/2010	2.0 L/s	V-Notch Weir		Flow rate: 2 x / monthly.
			11/11/2010	-			
			11/18/2010	2.3 L/s	V-Notch Weir		Flow rate: 2 x / monthly.
			11/25/2010	-			
			12/2/2010	2.0 L/s	V-Notch Weir		Flow rate: 2 x / monthly.
			12/9/2010	-			
			12/16/2010	-			
			12/23/2010	-			
			12/30/2010	-			

Table B-23: Rose Creek Drainage
2010 Open Channel Flows

Site	Requested Flow Frequency		Date	Flow Rate	Flow Type	Staff Gauge at Site	Comments
	Jan-Sep	Sep-Dec					
X10	M	M	1/11/2010	-		N	Flow Not Measured.
			2/22/2010	-			Flow Taken 2X a Winter
			3/10/2010	-			Flow Not Measured.
			4/13/2010	111.2 L/s	In Stream		
			5/2/2010	2084.3 L/s	In Stream		
			6/4/2010	4268.3 L/s	In Stream		
			7/8/2010	2744.1 L/s	In Stream		
			8/3/2010	1579.5 L/s	In Stream		
			9/2/2010	1868.1 L/s	In Stream		
			10/21/2010	526.1 L/s	In Stream		
			11/9/2010	-			Flow Not Measured. Flow Meter Malfunction.
			12/1/2010	-			Flow Not Measured.
X11	W	W	1/7/2010	7.1 L/s	V-Notch Weir	Y	
			1/14/2010	6.8 L/s	V-Notch Weir		
			1/21/2010	7.1 L/s	V-Notch Weir		
			1/28/2010	7.5 L/s	V-Notch Weir		
			2/4/2010	8.0 L/s	V-Notch Weir		
			2/11/2010	9.5 L/s	V-Notch Weir		
			2/18/2010	10.2 L/s	V-Notch Weir		
			2/24/2010	10.7 L/s	V-Notch Weir		
			3/4/2010	11.5 L/s	V-Notch Weir		
			3/11/2010	12.5 L/s	V-Notch Weir		
			3/18/2010	13.3 L/s	V-Notch Weir		
			3/31/2010	16.2 L/s	V-Notch Weir		
			4/1/2010	17.7 L/s	V-Notch Weir		
			4/8/2010	15.8 L/s	V-Notch Weir		
			4/15/2010	17.5 L/s	V-Notch Weir		
			4/22/2010	15.8 L/s	V-Notch Weir		
			4/29/2010	17.2 L/s	V-Notch Weir		
			5/6/2010	20.9 L/s	V-Notch Weir		Flow rate: monthly.
			5/13/2010	-			
			5/20/2010	-			
			5/27/2010	-			
			6/3/2010	16.2 L/s	V-Notch Weir		Flow rate: monthly.
			6/10/2010	-			
			6/17/2010	-			
			6/24/2010	-			
			7/1/2010	6.8 L/s	V-Notch Weir		Flow rate: monthly.
			7/8/2010	-			
			7/15/2010	4.9 L/s	V-Notch Weir		Flow rate: monthly.
			7/22/2010	5.9 L/s	V-Notch Weir		
			7/29/2010	-			
			8/5/2010	3.8 L/s	V-Notch Weir		Flow rate: monthly.
			8/12/2010	-			
			8/19/2010	-			
			8/26/2010	-			
			9/2/2010	5.0 L/s	V-Notch Weir		Flow rate: monthly.
			9/9/2010	-			
			9/16/2010	-			
			9/23/2010	-			
			9/30/2010	-			
			10/7/2010	4.9 L/s	V-Notch Weir		Flow rate: monthly.
			10/14/2010	-			
			10/21/2010	-			
			10/28/2010	-			
			11/4/2010	5.9 L/s	V-Notch Weir		Flow rate: monthly.
			11/11/2010	-			
			11/18/2010	-			
			11/25/2010	-			
			12/2/2010	6.3 L/s	V-Notch Weir		Flow rate: monthly.
			12/9/2010	-			
			12/16/2010	-			
			12/23/2010	-			
			12/30/2010	-			

Table B-23: Rose Creek Drainage
2010 Open Channel Flows

Site	Requested Flow Frequency		Date	Flow Rate	Flow Type	Staff Gauge at Site	Comments
	Jan-Sep	Sep-Dec					
X12	W	W	1/7/2010	0.3 L/s	V-Notch Weir		
			1/14/2010	0.3 L/s	V-Notch Weir		
			1/21/2010	0.3 L/s	V-Notch Weir		
			1/28/2010	0.3 L/s	V-Notch Weir		
			2/4/2010	0.2 L/s	V-Notch Weir		
			2/11/2010	0.2 L/s	V-Notch Weir		
			2/18/2010	0.3 L/s	V-Notch Weir		
			2/24/2010	0.2 L/s	V-Notch Weir		
			3/4/2010	0.1 L/s	V-Notch Weir		
			3/11/2010	0.1 L/s	V-Notch Weir		
			3/18/2010	0.1 L/s	V-Notch Weir		
			3/31/2010	0.0 L/s	V-Notch Weir		
			4/1/2010	0.0 L/s	V-Notch Weir		
			4/8/2010	0.0 L/s	V-Notch Weir		
			4/15/2010	0.1 L/s	V-Notch Weir		
			4/22/2010	0.2 L/s	V-Notch Weir		
			4/29/2010	0.3 L/s	V-Notch Weir		
			5/6/2010	0.3 L/s	V-Notch Weir		Flow rate: monthly.
			5/13/2010	-			
			5/20/2010	-			
			5/27/2010	-			
			6/3/2010	-			
			6/10/2010	-			
			6/17/2010	0.4 L/s	V-Notch Weir		Flow rate: monthly.
			6/24/2010	-			
			7/1/2010	0.2 L/s	V-Notch Weir		
			7/8/2010	-		Y	
			7/15/2010	0.2 L/s	V-Notch Weir		Flow rate: monthly.
			7/22/2010	-			QC removed incorrect measurement.
			7/29/2010	-			
			8/5/2010	0.2 L/s	V-Notch Weir		Flow rate: monthly.
			8/12/2010	-			
			8/19/2010	-			
			8/26/2010	-			
			9/2/2010	0.3 L/s	V-Notch Weir		Flow rate: monthly.
			9/9/2010	-			
			9/16/2010	-			
			9/23/2010	-			
			9/30/2010	-			
			10/7/2010	0.1 L/s	V-Notch Weir		Flow rate: monthly.
			10/14/2010	-			
			10/21/2010	-			
			10/28/2010	-			
			11/4/2010	0.1 L/s	V-Notch Weir		Flow rate: monthly.
			11/11/2010	-			
			11/18/2010	-			
			11/25/2010	-			
			12/2/2010	0.1 L/s	V-Notch Weir		Flow rate: monthly.
			12/9/2010	-			
			12/16/2010	-			
			12/23/2010	-			
			12/30/2010	-			

Table B-23: Rose Creek Drainage
2010 Open Channel Flows

Site	Requested Flow Frequency		Date	Flow Rate	Flow Type	Staff Gauge at Site	Comments
	Jan-Sep	Sep-Dec					
			1/7/2010	18.8 L/s	Broad-Crested Weir		
			1/14/2010	19.9 L/s	Broad-Crested Weir		
			1/21/2010	19.9 L/s	Broad-Crested Weir		
			1/28/2010	20.5 L/s	Broad-Crested Weir		
			2/4/2010	19.4 L/s	Broad-Crested Weir		
			2/11/2010	19.4 L/s	Broad-Crested Weir		
			2/18/2010	22.9 L/s	Broad-Crested Weir		
			2/24/2010	22.9 L/s	Broad-Crested Weir		
			3/4/2010	24.1 L/s	Broad-Crested Weir		
			3/11/2010	25.3 L/s	Broad-Crested Weir		
			3/18/2010	25.9 L/s	Broad-Crested Weir		
			3/31/2010	30.5 L/s	Broad-Crested Weir		
			4/1/2010	30.5 L/s	Broad-Crested Weir		
			4/8/2010	29.8 L/s	Broad-Crested Weir		
			4/15/2010	29.8 L/s	Broad-Crested Weir		
			4/22/2010	29.8 L/s	Broad-Crested Weir		
			4/29/2010	31.8 L/s	Broad-Crested Weir		
			5/6/2010	44.6 L/s	Broad-Crested Weir		
			5/13/2010	35.9 L/s	Broad-Crested Weir		
			5/20/2010	40.9 L/s	Broad-Crested Weir		
			5/27/2010	36.6 L/s	Broad-Crested Weir		
			6/3/2010	43.9 L/s	Broad-Crested Weir		
			6/10/2010	31.1 L/s	Broad-Crested Weir		
			6/17/2010	22.3 L/s	Broad-Crested Weir		
			6/24/2010	-			Flow Not Measured.
			7/1/2010				QC removed incorrect measurement.
X13	W	W	7/8/2010	18.2 L/s	Broad-Crested Weir	Y	
			7/11/2010	19.9 L/s	Broad-Crested Weir		
			7/15/2010	17.1 L/s	Broad-Crested Weir		
			7/22/2010	19.4 L/s	Broad-Crested Weir		
			7/29/2010	14.0 L/s	Broad-Crested Weir		
			8/5/2010	14.5 L/s	Broad-Crested Weir		
			8/12/2010	13.4 L/s	Broad-Crested Weir		
			8/19/2010	13.4 L/s	Broad-Crested Weir		
			8/26/2010	16.7 L/s	Broad-Crested Weir		
			9/2/2010	14.0 L/s	Broad-Crested Weir		
			9/9/2010	12.5 L/s	Broad-Crested Weir		
			9/16/2010	14.0 L/s	Broad-Crested Weir		
			9/23/2010	12.5 L/s	Broad-Crested Weir		
			9/30/2010	10.1 L/s	Broad-Crested Weir		
			10/7/2010	15.5 L/s	Broad-Crested Weir		
			10/14/2010	12.9 L/s	Broad-Crested Weir		
			10/20/2010	14.0 L/s	Broad-Crested Weir		
			10/28/2010	19.9 L/s	Broad-Crested Weir		
			11/4/2010	14.5 L/s	Broad-Crested Weir		
			11/10/2010	14.0 L/s	Broad-Crested Weir		
			11/18/2010	16.6 L/s	Broad-Crested Weir		
			11/25/2010	12.0 L/s	Broad-Crested Weir		
			12/2/2010	14.0 L/s	Broad-Crested Weir		
			12/9/2010	9.62 L/s	Broad-Crested Weir		
			12/16/2010	18.2 L/s	Broad-Crested Weir		
			12/23/2010	-			Flow not measured - site shut down.
			12/30/2010	-			Flow not measured - site shut down.

Table B-23: Rose Creek Drainage
2010 Open Channel Flows

Site	Requested Flow Frequency		Date	Flow Rate	Flow Type	Staff Gauge at Site	Comments
	Jan-Sep	Sep-Dec					
X14	CONT	CONT	4/6/2010	247.7 L/s	Staff Gauge		
			4/13/2010	270.6 L/s	Staff Gauge		
			4/20/2010	558.4 L/s	Staff Gauge		
			4/27/2010	1415.7 L/s	Staff Gauge		
			5/2/2010	2010.8 L/s	In Stream		
			5/11/2010	1431.6 L/s	Staff Gauge		
			5/18/2010	2184.2 L/s	Staff Gauge		
			5/25/2010	4666.1 L/s	Staff Gauge		FLOW LOGGER HERE
			6/1/2010	3472.5 L/s	Staff Gauge		
			6/8/2010	2700.0 L/s	Staff Gauge		
			6/15/2010	2105.4 L/s	In Stream	Y	
			6/22/2010	2387.8 L/s	Staff Gauge		
			6/29/2010	2037.7 L/s	Staff Gauge		
			7/6/2010	3236.2 L/s	Staff Gauge		
			7/13/2010	2009.0 L/s	Staff Gauge		
			7/20/2010	1604.3 L/s	Staff Gauge		
			7/27/2010	1471.8 L/s	Staff Gauge		
			8/3/2010	1262.5 L/s	In Stream		
			9/7/2010	1548.3 L/s	Staff Gauge		
			10/21/2010	492.4 L/s	In Stream		
			12/2/2010	639.0 L/s	In Stream		
X2	CONT	CONT	1/11/2010	-		Y	Continuous Datalogger removed January 11, 2010.
			2/22/2010	-			Logger removed and sent to BGC 11/01/2010.
			3/10/2010	-			Flow Not Measured.
			4/14/2010	206.6 L/s	In Stream		
			5/2/2010	977.9 L/s	In Stream		
			6/4/2010	-			Flow Not Measured. Water flowing too fast.
			7/8/2010	1537.9 L/s	In Stream		
			8/3/2010	808.5 L/s	In Stream		
			9/2/2010	1056.2 L/s	In Stream		
			10/18/2010	533.8 L/s	In Stream		
			11/9/2010	344.2 L/s	In Stream		
			12/1/2010	-			Flow Not Measured.

Table B-23: Rose Creek Drainage
2010 Open Channel Flows

Site	Requested Flow Frequency		Date	Flow Rate	Flow Type	Staff Gauge at Site	Comments
	Jan-Sep	Sep-Dec					
			1/7/2010	0.0 L/s			No Flow - Frozen
			1/14/2010	1.2 L/s	Estimate		
			1/21/2010	0.7 L/s	Estimate		
			1/28/2010	0.0 L/s			No Flow - Frozen
			2/4/2010	0.0 L/s			No Flow - Frozen
			2/11/2010	0.0 L/s			No Flow - Frozen
			2/18/2010	0.0 L/s			No Flow - Frozen
			2/24/2010	0.0 L/s			No Flow - Frozen
			3/4/2010	0.0 L/s			No Flow - Frozen
			3/11/2010	0.0 L/s			No Flow - Frozen
			3/18/2010	0.0 L/s			No Flow - Frozen
			3/31/2010	0.0 L/s			No Flow - Frozen
			4/1/2010	0.0 L/s			No Flow - Frozen
			4/8/2010	0.0 L/s			No Flow - Frozen
			4/15/2010	0.0 L/s			No Flow - Frozen
			4/22/2010	0.9 L/s	V-Notch Weir		Staff Gauge Frozen. Weir Measurement taken.
			4/29/2010	0.6 L/s	V-Notch Weir		Staff Gauge Frozen. Weir Measurement taken.
			5/6/2010	0.04 L/s	V-Notch Weir		Measured at weir for accuracy.
			5/13/2010	0.04 L/s	V-Notch Weir		
			5/20/2010	0.13 L/s	V-Notch Weir		
			5/27/2010	0.1 L/s	V-Notch Weir		
			6/3/2010	0.1 L/s	V-Notch Weir		
			6/10/2010	0.1 L/s	V-Notch Weir		
X23	W	W	6/17/2010	0.3 L/s	V-Notch Weir	Y	
			6/24/2010	-			Flow Not Measured.
			7/1/2010	0.3 L/s	V-Notch Weir		
			7/8/2010	0.3 L/s	V-Notch Weir		
			7/15/2010	0.3 L/s	V-Notch Weir		
			7/22/2010	0.2 L/s	V-Notch Weir		
			7/29/2010	0.3 L/s	V-Notch Weir		
			8/5/2010	0.4 L/s	V-Notch Weir		
			8/12/2010	0.2 L/s	V-Notch Weir		
			8/19/2010	0.3 L/s	V-Notch Weir		
			8/26/2010	0.4 L/s	V-Notch Weir		
			9/2/2010	0.4 L/s	V-Notch Weir		
			9/9/2010	0.4 L/s	V-Notch Weir		
			9/16/2010	0.3 L/s	V-Notch Weir		
			9/23/2010	0.4 L/s	V-Notch Weir		
			9/30/2010	0.3 L/s	V-Notch Weir		
			10/7/2010	0.3 L/s	V-Notch Weir		
			10/14/2010	0.3 L/s	V-Notch Weir		
			10/20/2010	0.2 L/s	V-Notch Weir		
			10/28/2010	0.3 L/s	V-Notch Weir		
			11/4/2010	0.1 L/s	V-Notch Weir		
			11/10/2010	0.2 L/s	V-Notch Weir		
			11/18/2010	0.0 L/s			No Flow - Frozen
			11/25/2010	0.0 L/s			No Flow - Frozen
			12/2/2010	0.0 L/s			No Flow - Frozen
			12/9/2010	0.0 L/s			No Flow - Frozen
			12/16/2010	0.0 L/s			No Flow - Frozen

Table B-23: Rose Creek Drainage
2010 Open Channel Flows

Site	Requested Flow Frequency		Date	Flow Rate	Flow Type	Staff Gauge at Site	Comments
	Jan-Sep	Sep-Dec					
X3	M	M	1/11/2010	-		N	Flow Not Measured.
			2/22/2010	-			Flow Taken 2X a Winter
			3/9/2010	-			Flow Not Measured.
			4/14/2010	276.2 L/s	In Stream		
			5/2/2010	1942.4 L/s	In Stream		
			6/4/2010	3952.3 L/s	In Stream		
			7/8/2010	2169.0 L/s	In Stream		
			8/3/2010	1171.1 L/s	In Stream		
			9/2/2010	1744.2 L/s	In Stream		
			10/21/2010	783.1 L/s	In Stream		
			11/9/2010	765.8 L/s	In Stream		
			12/1/2010	-			Flow Not Measured.
X3A	-	M	9/2/2010	2241.0 L/s	In Stream	N	
			10/21/2010	444.5 L/s	In Stream		
			11/9/2010	-			Flow Not Measured. Flow Meter Malfunction.
			12/1/2010	-			Flow Not Measured.
X7	SF	SF	6/1/2010	-		N	Flow Not Measured.
			10/6/2010	1.5 L/s	Estimate		

Table B-24: Vangorda Creek Drainage
2010 Open Channel Flows

Site	Requested Flow Frequency		Date	Flow	Flow Type	Staff Gauge at Site	Comments
	Jan-Sep	Sep-Dec					
MOOSE SEEP	2M/M	2M/M	1/7/2010	1.2 L/s	Estimate	N	QC removed poor estimate.
			2/3/2010	0.25 L/s	Estimate		
			3/2/2010	0.1 L/s	Estimate		
			4/7/2010	0.1 L/s	Estimate		
			5/1/2010	0.1 L/s	Estimate		
			5/18/2010	0.1 L/s	Estimate		
			6/2/2010				
			6/20/2010	0.8 L/s	Estimate		
			7/7/2010	0.3 L/s	Estimate		
			7/22/2010	0.2 L/s	Estimate		
			8/5/2010	0.3 L/s	Estimate		
			8/18/2010	0.3 L/s	Estimate		
			9/7/2010	0.9 L/s	Estimate		
			9/23/2010	0.2 L/s	Estimate		
			10/7/2010	0.5 L/s	Estimate		
			10/21/2010	0.5 L/s	Estimate		
			11/4/2010	0.3 L/s	Estimate		
			12/2/2010	0.2 L/s	Estimate		
SRK GD01	-		12/1/2010	1.0 L/s	Estimate	N	
V1	CONT	CONT	4/20/2010	53.8 L/s	In Stream	N	FLOW LOGGER HERE
			5/12/2010	126.5 L/s	In Stream		
			6/16/2010	401.0 L/s	In Stream		
			7/14/2010	464.8 L/s	In Stream		
			9/7/2010	334.2 L/s	In Stream		
			10/5/2010	128.2 L/s	In Stream		
			11/1/2010	112.0 L/s	In Stream		
			12/1/2010	46.8 L/s	In Stream		
V14	SF	SF	6/1/2010	-		N	Low flow - Flow not measured.
			10/6/2010	0.0 L/s			No Flow - Frozen.

Table B-24: Vangorda Creek Drainage
2010 Open Channel Flows

Site	Requested Flow Frequency		Date	Flow	Flow Type	Staff Gauge at Site	Comments
	Jan-Sep	Sep-Dec					
V15	2M	2M	1/7/2010	3.3 L/s	Estimate	N	
			1/21/2010	1.0 L/s	Estimate		
			2/3/2010	1.0 L/s	Estimate		
			2/18/2010	1.1 L/s	Estimate		
			3/2/2010	0.5 L/s	Estimate		
			3/23/2010	0.5 L/s	Estimate		
			4/7/2010	0.8 L/s	Estimate		
			4/19/2010	2.0 L/s	Estimate		
			5/1/2010	0.8 L/s	Estimate		
			5/18/2010	0.1 L/s	Estimate		
			6/2/2010	2.5 L/s	Estimate		
			6/15/2010	2.7 L/s	Estimate		
			7/7/2010	0.8 L/s	Estimate		
			7/22/2010	-			Flow Not Measured.
			8/5/2010	0.8 L/s	Estimate		
			8/18/2010	1.0 L/s	Estimate		
			9/7/2010	1.3 L/s	Estimate		
			9/23/2010	1.0 L/s	Estimate		
			10/7/2010	1.1 L/s	Estimate		
			10/21/2010	1.0 L/s	Estimate		
			11/4/2010	0.7 L/s	Estimate		
			11/18/2010	0.5 L/s	Estimate		
			12/1/2010	0.2 L/s	Estimate		
			12/16/2010	0.8 L/s	Estimate		
V16	SF	SF	6/1/2010	0.0 L/s		N	No Flow - No Sample.
			10/6/2010	0.2 L/s	Estimate		
V17A	QL	-	3/4/2010	0.0 L/s		N	No Flow - No Sample.
			6/16/2010	36.5 L/s	In Stream		
V19	SF	-	6/1/2010	0.0 L/s		N	No Flow - No Sample.
V20	SF	-	6/1/2010	-		N	Flow Not Measured.
V2	2M/M	2M/M	1/7/2010	4 L/s	Estimate	N	
			2/3/2010	1.4 L/s	Estimate		
			3/2/2010	0.3 L/s	Estimate		
			4/7/2010	0.3 L/s	Estimate		
			5/1/2010	0.3 L/s	Estimate		
			5/18/2010	0.2 L/s	Estimate		
			6/2/2010	0.1 L/s	Estimate		
			6/20/2010	2.5 L/s	Estimate		
			7/7/2010	1.0 L/s	Estimate		
			7/22/2010	-			Flow Not Measured.
			8/5/2010	0.5 L/s	Estimate		
			8/18/2010	0.5 L/s	Estimate		
			9/7/2010	1.1 L/s	Estimate		
			9/7/2010	0.6 L/s	Estimate		
			9/23/2010	0.5 L/s	Estimate		
			10/7/2010	2.0 L/s	Estimate		
			10/21/2010	1.0 L/s	Estimate		
			11/4/2010	0.4 L/s	Estimate		
			12/2/2010	0.5 L/s	Estimate		

Table B-24: Vangorda Creek Drainage
2010 Open Channel Flows

Site	Requested Flow Frequency		Date	Flow	Flow Type	Staff Gauge at Site	Comments
	Jan-Sep	Sep-Dec					
V25	WD	WD	6/22/2010	134.8 L/s	In Stream	N	
			6/29/2010	112.0 L/s	In Stream		
			7/6/2010	148.2 L/s	In Stream		
			7/13/2010	113.5 L/s	In Stream		
V25BSP	WD/M	WD/M	1/7/2010	0.0 L/s		N	No Flow - No Sample.
			2/18/2010	0.0 L/s			No Flow - No Sample.
			3/29/2010	0.0 L/s			No Flow - No Sample.
			4/27/2010	0.1 L/s	V-Notch Weir		
			5/11/2010	10.2 L/s	V-Notch Weir		
			6/22/2010	61.7 L/s	V-Notch Weir		
			6/29/2010	100.9 L/s	V-Notch Weir		
			7/6/2010	219.6 L/s	V-Notch Weir		
			7/13/2010	113.2 L/s	V-Notch Weir		
			8/5/2010	0.4 L/s	V-Notch Weir		
			8/12/2010	14.6 L/s	V-Notch Weir		Draining VTP Clarification Pond.
			9/7/2010	0.7 L/s	V-Notch Weir		
			9/7/2010	0.6 L/s	V-Notch Weir		
			10/5/2010	0.3 L/s	V-Notch Weir		
			11/1/2010	0.1 L/s	V-Notch Weir		
			12/2/2010	0.1 L/s	V-Notch Weir		
V27	CONT	CONT	5/12/2010	233.7 L/s	In Stream	N	
			6/16/2010	687.8 L/s	In Stream		FLOW LOGGER HERE
			7/14/2010	702.8 L/s	In Stream		
			9/7/2010	166.8 L/s	In Stream		
			10/5/2010	128.4 L/s	In Stream		
			11/1/2010	121.8 L/s	In Stream		Value corrected from data entry mistake
			12/1/2010	70.2 L/s	In Stream		
V2A	2M/M	2M/M	1/7/2010	0.0 L/s		N	No Flow - No Sample.
			2/3/2010	<2.0 L/s	Estimate		
			3/2/2010	0.8 L/s	Estimate		
			4/7/2010	1.3 L/s	Estimate		
			5/1/2010	0.5 L/s	Estimate		
			5/18/2010	0.3 L/s	Estimate		
			6/2/2010	0.1 L/s	Estimate		
			6/15/2010	-			Error Measuring Flow. Inaccurate Representation.
			7/7/2010	2.1 L/s	Estimate		
			7/22/2010	-			Flow Not Measured.
			8/5/2010	0.5 L/s	Estimate		
			8/18/2010	0.5 L/s	Estimate		
			9/7/2010	2.2 L/s	Estimate		
			9/23/2010	0.6 L/s	Estimate		
			10/7/2010	2.2 L/s	Estimate		
			10/21/2010	0.1 L/s	Estimate		
			11/4/2010	0.2 L/s	Estimate		
			12/1/2010	0.0 L/s			No Flow - Frozen

Table B-24: Vangorda Creek Drainage
2010 Open Channel Flows

Site	Requested Flow Frequency		Date	Flow	Flow Type	Staff Gauge at Site	Comments
	Jan-Sep	Sep-Dec					
V29	SF	SF	6/1/2010 10/6/2010	0.0 L/s 0.0 L/s		N	No Flow - No Sample. No Flow - No Sample.
V30	SF	SF	6/1/2010 10/6/2010	- 0.02 L/s	 Estimate	N	Flow Not Measured.
V31	SF	SF	6/1/2010 10/6/2010	0.0 L/s 0.0 L/s		N	No Flow - No Sample. No Flow - No Sample.
V32	SF	SF	6/1/2010 10/6/2010	0.0 L/s 0.0 L/s		N	No Flow - No Sample. No Flow - No Sample.
V33	SF	SF	6/1/2010 1/6/2010	- 1.4 L/s	 V-Notch Weir	N	Flow Not Measured.
V4	M	M	1/18/2010 2/24/2010 3/29/2010 4/20/2010 5/12/2010 6/16/2010 7/14/2010 8/4/2010 9/7/2010 10/5/2010 11/1/2010 12/1/2010	- 4.0 L/s 4.5 L/s - 125.0 L/s 175.5 L/s 23.9 L/s 39.6 L/s 53.2 L/s 25.4 L/s 25.0 L/s 20.0 L/s	 Estimate Estimate In Stream In Stream In Stream In Stream In Stream In Stream In Stream In Stream	N	Flow too slow for Flow Meter. Estimated Flow. Estimated Flow. Flow Not Measured. Significant Overflow.
V5	M	M	1/6/2010 2/18/2010 3/30/2010 4/20/2010 5/12/2010 6/17/2010 7/14/2010 8/4/2010 9/7/2010 10/5/2010 11/2/2010 12/1/2010	- - 14.2 L/s - 158.4 L/s 136.4 L/s 240.6 L/s 108.0 L/s 139.8 L/s 128.4 L/s 120.0 L/s -	 In Stream/Estimate In Stream In Stream In Stream In Stream In Stream In Stream In Stream 	N	Flow Not Measured. Flow Taken 2X a Winter Flow Not Measured. Significant Overflow. Flow Not Measured.
V8	CONT	CONT	3/30/2010 5/12/2010 6/17/2010 7/14/2010 9/7/2010 10/5/2010 11/2/2010 12/1/2010	221.9 L/s 518.1 L/s 604.5 L/s 638.5 L/s 497.1 L/s 278.5 L/s 250.0 L/s 147.4 L/s	In Stream In Stream In Stream In Stream In Stream In Stream In Stream In Stream	N	FLOW LOGGER HERE