Osoyoos

Canada's warmest welcome

Water System Report 2009

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System Description

The Town of Osoyoos has a Class II Water Distribution System. The source of water comes from five different wells with three reservoirs. The water is untreated with one well equipped with a standby chlorinator if necessary. A cross connection program is in effect.

Operator Certification

The Town of Osoyoos has **five certified** operators:

Mike Thomas	Certificate #3219
Frank Zandvliet	Certificate #5657
Karl Fichter	Certificate #6840
Leigh Lougheed	Certificate #6846
David Stene	Certificate #6851

The Town of Osoyoos also has an Irrigation System with two lake inlets and one well that provide domestic water in the non-irrigation season; all irrigation water sources are treated. Chlorinator residual testing is done daily during the irrigation season and well testing during the non-irrigation season is done a minimum of twice a week.

Bacteriological Summary

The Town of Osoyoos collected 96 Coliform Samples for the Irrigation system. None of the samples tested positive for fecal coliforms.

The Town of Osoyoos collected 48 Coliform Samples for the Town System. None of the samples tested positive for fecal coliforms.

The irrigation system also had Trihalomethane analysis done. Results are enclosed in the following reports from Caro. Attached for your perusal is various water reports taken for the Town of Osoyoos Water System.

Proposed Projects

The 2010 **proposed** Capital Projects for the Town of Osoyoos Water System include the following:

- Well #6 and new Well #7 Chlorination/UV System
- SCADA Upgrades
- Water Metering

Water Consumption Summary

Water Consumption - Town System

Well #	2009	2008	2007
1	81,746 m^3	74,724 m^3	163,534 m^3
3	399,375 m^3	154,958 m^3	123,402 m^3
4	613,735 m^3	224,424 m^3	506,922 m^3
5	666,174 m^3	1,128,591 m^3	1,013,443 m^3
6	140,065 m^3	144,496 m^3	200,852 m^3
8	601,205 m^3	516,769 m^3	508,962 m^3
Total	2,502,300 m^3	2,243,962 m^3	2,517,115 m^3

Water Consumption - Irrigation System

	2009	2008	2007
System 8	4,356,220 m^3	3,914,030 m^3	4,279,655 m^3
System 9	3,102,082 m^3	3,469,958 m^3	7,571,521 m^3
Well #6	254,054 m^3	199,263 m^3	152,846 m^3
Total	7,712,356 m^3	7,583,251 m^3	12,004,022 m^3

Total Chlorine Used = 14185.9kg

Well #6 - Water Consumption 2009

Month	Hrs Ran	In Min	x gpm	m^3
January	288	17,280	530	34,711
February	225	13,500	518	26,489
March	312	18,720	526	37,269
April	258	15,480	455	26,699
May	6	360	663	905
June	178	10,680	673	27,245
July	368	22,080	672	56,185
August	459	27,540	671	70,040
September	91	5,460	669	13,840
October	194	11,640	579	25,543
November	324	19,440	543	39,960
December	291	17,460	533	35,234
Total	2,994	179,640	7,033	394,119

To Town Water System July and August and September = 140,065 m^3

To Irrigation System All Other Months = 254,054 m^3

System 8
Water Consumption 2009

Month	m^3
January	2,170
February	2,155
March	1,663
April	180,129
May	492,557
June	877,996
July	925,470
August	918,492
September	686,655
October	265,008
November	2,398
December	1,527
Total	4,356,220m^3

System 9
Water Consumption 2009

Month	m^3
January	-
February	-
March	-
April	121,718
May	322,924
June	611,509
July	640,821
August	583,601
September	455,182
October	366,327
November	-
December	-
Total	3,102,082 m^3

Well Monthly Summary

Water Well #1 Consumption 2009

Month	m^3	Hrs Ran
January	3,576	51
February	2,471	41
March	3,497	50
April	7,369	105
May	10,069	144
June	26,763	398
July	15,000	234
August	8,758	125
September	3,108	47
October	871	12
November	134	2
December	128	2
Total	**81,746 m^3**	**1,211**

Water Well #3 Consumption 2009

Month	m3	Hrs Ran
January	0	0
February	0	0
March	0	0
April	0	0
May	0	0
June	0	0
July	87,761	751
August	137,208	535
September	97,277	711
October	38,799	299
November	22,231	157
December	16,098	394
Total	**399,375 m^3**	**2,847**

Water Well #4 Consumption 2009

Month	m^3	Hrs Ran
January	37,437	172
February	50,724	253
March	152	1
April	17,336	80
May	65,452	284
June	103,101	504
July	122,203	540
August	102,973	549
September	78,070	423
October	36,286	194
November	1	0
December	-	0
Total	**613,735 m^3**	**3,000**

Water Well #5 Consumption 2009

Month	m^3	Hrs Ran
January	35,826	194
February	0	0
March	0	0
April	75,527	285
May	147,909	721
June	136,530	712
July	87,845	512
August	61,758	394
September	32,723	219
October	56,159	280
November	31,898	191
December	0	0
Total	**666,174 m^3**	**3,508**

Well #8 Water Consumption 2009

Month	m^3	Hrs Ran
January	1,337	9
February	14,735	91
March	66,674	463
April	41,477	316
May	81,008	546
June	97,341	666
July	101,898	683
August	96,242	670
September	92,261	644
October	633	27
November	2,678	18
December	4,920	32
Total	**601,205 m^3**	**4,165**

Monthly Chlorine Consumption

Station 8 Chlorine Consumption

Month	kg
January	0.0
February	0.0
March	6.8
April	343.2
May	1067.7
June	1590.9
July	1709.1
August	1663.6
September	1534.5
October	477.3
November	4.5
December	0.0
Total	**8397.7 kg**

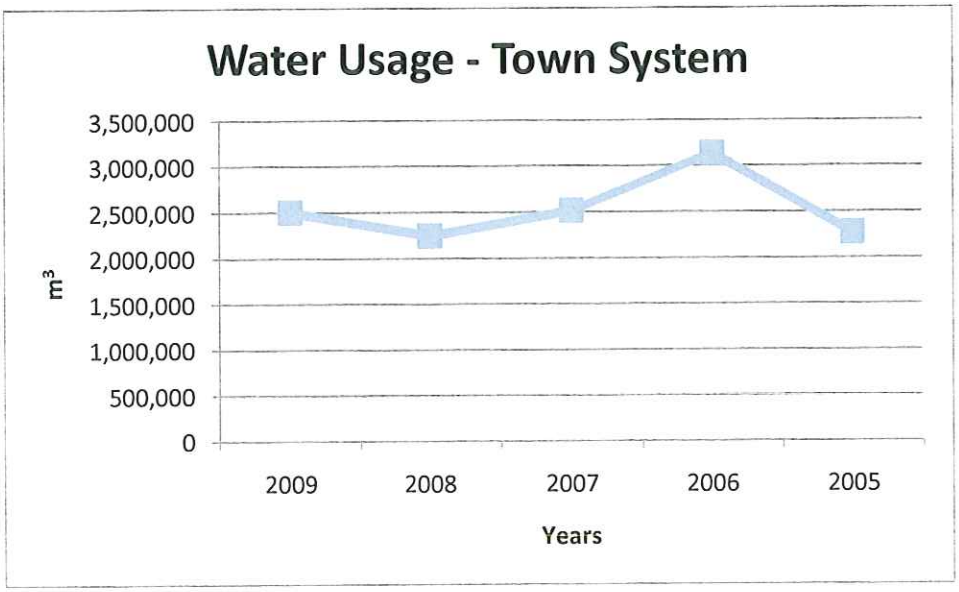
Station 9 Chlorine Consumption

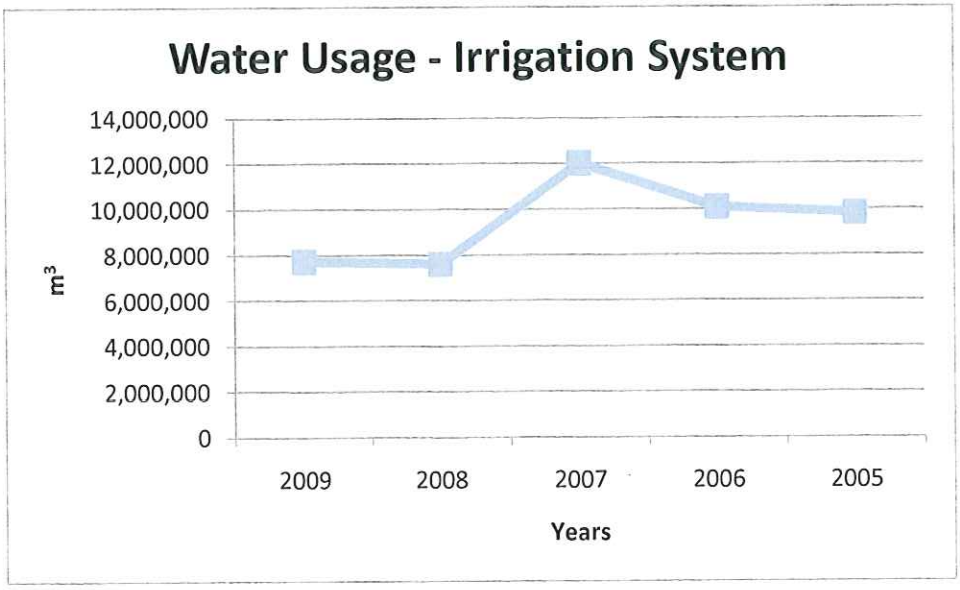
Month	kg
January	0.0
February	0.0
March	0.0
April	231.8
May	700.0
June	1031.8
July	1027.3
August	1145.5
September	800.0
October	386.4
November	0.0
December	0.0
Total	**5322.7 kg**

Water Well #6 Chlorine Consumption

Month	kg
January	64
February	54
March	61
April	13
May	0
June	17
July	33
August	45
September	11
October	43
November	70
December	54
Total	**465 kg**

Charts


Water Usage - Town System
3,500,000
3,000,000
2,500,000
2,000,000
1,500,000
1,000,000
500,000
0
m³
2009
2008
2007
2006
2005
Years


Water Usage - Irrigation System
14,000,000
12,000,000
10,000,000
8,000,000
6,000,000
4,000,000
2,000,000
0
m³
2009
2008
2007
2006
2005
Years

Chemical Analysis

SAMPLE DATA

CARO ANALYTICAL SERVICES

CLIENT	Osoyoos, Town of	**WORK ORDER #**	K9L0310
PROJECT FILE	Drinking Water	**REPORTED**	Dec-16-09

Analyte	Result	Canadian DW Guidelines (May 08)	RDL	Units	Analyzed	Method	Lab	Notes
General Parameters								
Well #6 (K9L0310-01) Matrix: Water Sampled: Dec-08-09 08:05								
Hardness (as CaCO3)	**305**		0.41	mg/L	Dec-14-09	APHA 2340 B	RMD	
Nitrogen, Nitrate as N	**1.90**	MAC = 10	0.01	mg/L	Dec-09-09	APHA 4110 B	KEL	
Nitrogen, Nitrite as N	<0.01	MAC = 1	0.01	mg/L	Dec-09-09	APHA 4110 B	KEL	
Total Recoverable Metals by ICPMS								
Well #6 (K9L0310-01) Matrix: Water Sampled: Dec-08-09 08:05								
Calcium	**70.6**		1.0	mg/L	Dec-14-09	EPA 6020A	RMD	
Magnesium	**31.3**		0.10	mg/L	Dec-14-09	EPA 6020A	RMD	
Manganese	**0.121**	AO ≤ 0.05	0.0020	mg/L	Dec-14-09	EPA 6020A	RMD	

SAMPLE DATA

CARO ANALYTICAL SERVICES

CLIENT	Osoyoos, Town of	**WORK ORDER #**	K9L0307
PROJECT FILE	Drinking Water	**REPORTED**	Dec-16-09

Analyte	Result	Canadian DW Guidelines (May 08)	RDL	Units	Analyzed	Method	Lab	Notes
General Parameters								
Well #3 Town System (K9L0307-01) Matrix: Water Sampled: Dec-08-09 09:25								
Hardness (as CaCO3)	**330**		0.41	mg/L	Dec-14-09	APHA 2340 B	RMD	
Nitrogen, Nitrate as N	**3.44**	MAC = 10	0.01	mg/L	Dec-09-09	APHA 4110 B	KEL	
Nitrogen, Nitrite as N	<0.01	MAC = 1	0.01	mg/L	Dec-09-09	APHA 4110 B	KEL	
Total Recoverable Metals by ICPMS								
Well #3 Town System (K9L0307-01) Matrix: Water Sampled: Dec-08-09 09:25								
Calcium	**91.1**		1.0	mg/L	Dec-14-09	EPA 6020A	RMD	
Magnesium	**24.9**		0.10	mg/L	Dec-14-09	EPA 6020A	RMD	
Manganese	<0.0020	AO ≤ 0.05	0.0020	mg/L	Dec-14-09	EPA 6020A	RMD	

SAMPLE DATA

CARO ANALYTICAL SERVICES

CLIENT	Osoyoos, Town of	**WORK ORDER #**	K9L0311
PROJECT FILE	THM Analysis	**REPORTED**	Dec-11-09

Analyte	Result	Canadian DW Guidelines (May 08)	RDL	Units	Analyzed	Method	Lab	Notes
Volatile Organic Compounds by PT-GCMS								
System #9 - 5001 107th St (K9L0311-01) Matrix: Water Sampled: Dec-08-09 08:45								
Bromodichloromethane	**0.005**	MAC = 0.016	0.001	mg/L	Dec-10-09	EPA 5030B/8260B	RMD	
Bromoform	<0.001		0.001	mg/L	Dec-10-09	EPA 5030B/8260B	RMD	
Chloroform	**0.014**		0.001	mg/L	Dec-10-09	EPA 5030B/8260B	RMD	
Dibromochloromethane	**0.001**		0.001	mg/L	Dec-10-09	EPA 5030B/8260B	RMD	
Trihalomethanes (total)	**0.021**	MAC = 0.1	0.004	mg/L	Dec-10-09	EPA 5030B/8260B	RMD	
Surrogate: 4-Bromofluorobenzene	*99 %*		*80-120*		*Dec-10-09*			

SAMPLE DATA

CARO ANALYTICAL SERVICES

CLIENT	Osoyoos, Town of	**WORK ORDER #**	K9L0312
PROJECT FILE	THM Analysis	**REPORTED**	Dec-11-09

Analyte	Result	Canadian DW Guidelines (May 08)	RDL	Units	Analyzed	Method	Lab	Notes
Volatile Organic Compounds by PT-GCMS								
System #8 - 9103 100th Ave (K9L0312-01) Matrix: Water Sampled: Dec-08-09 08:20								
Bromodichloromethane	**0.004**	MAC = 0.016	0.001	mg/L	Dec-10-09	EPA 5030B/8260B	RMD	
Bromoform	<0.001		0.001	mg/L	Dec-10-09	EPA 5030B/8260B	RMD	
Chloroform	**0.012**		0.001	mg/L	Dec-10-09	EPA 5030B/8260B	RMD	
Dibromochloromethane	**0.001**		0.001	mg/L	Dec-10-09	EPA 5030B/8260B	RMD	
Trihalomethanes (total)	**0.017**	MAC = 0.1	0.004	mg/L	Dec-10-09	EPA 5030B/8260B	RMD	
Surrogate: 4-Bromofluorobenzene	*94 %*		*80-120*		*Dec-10-09*			

SAMPLE DATA

CARO ANALYTICAL SERVICES

CLIENT	Osoyoos, Town of	**WORK ORDER #**	K9I0580
PROJECT FILE	Comprehensive Analysis	**REPORTED**	Sep-24-09

Analyte	Result	Canadian DW Guidelines (May 08)	RDL	Units	Analyzed	Method	Lab	Notes
General Parameters								
Well #3 (K9I0580-01) Matrix: Water Sampled: Sep-15-09 09:10								
Alkalinity, Total as CaCO3	**283**		1.0	mg/L	Sep-16-09	APHA 2320 B	KEL	
Chloride	**14.3**	AO ≤ 250	0.10	mg/L	Sep-17-09	APHA 4110 B	KEL	
Colour, True	<5	AO ≤ 15	5	Color Unit	Sep-17-09	APHA 2120 B	KEL	
Conductivity (EC)	**708**		5	uS/cm	Sep-16-09	APHA 2510 B	KEL	
Cyanide (total)	<0.01	MAC = 0.2	0.01	mg/L	Sep-22-09	APHA 4500-CN	KEL	
Fluoride	**0.42**	MAC = 1.5	0.10	mg/L	Sep-17-09	APHA 4110 B	KEL	
Hardness, Total (Total as CaCO3)	**339**		2.91	mg/L	Sep-23-09	APHA 2340 B	RMD	
Nitrogen, Nitrate as N	**4.09**	MAC = 10	0.01	mg/L	Sep-17-09	APHA 4110 B	KEL	
Nitrogen, Nitrite as N	<0.01	MAC = 1	0.01	mg/L	Sep-17-09	APHA 4110 B	KEL	
pH	**7.78**	AO = 6.5 - 8.5	0.10	pH Units	Sep-16-09	APHA 4500-H+	KEL	
Solids, Total Dissolved	**437**	AO ≤ 500	5	mg/L	Sep-17-09	APHA 2540 C	KEL	
Sulfate	**66.0**	AO ≤ 500	1.0	mg/L	Sep-17-09	APHA 4110 B	KEL	
Transmissivity @ 254nm	**89.0**		0.1	%	Sep-17-09	APHA 5910B	KEL	
Turbidity	**0.1**	Varies, See Guidelines	0.1	NTU	Sep-16-09	APHA 2130 B	KEL	
Total Recoverable Metals by ICPMS								
Well #3 (K9I0580-01) Matrix: Water Sampled: Sep-15-09 09:10								
Aluminum	<0.050	AO ≤ 0.1	0.050	mg/L	Sep-23-09	EPA 6020A	RMD	
Antimony	<0.0010	MAC = 0.006	0.0010	mg/L	Sep-23-09	EPA 6020A	RMD	
Arsenic	<0.0050	MAC = 0.01	0.0050	mg/L	Sep-23-09	EPA 6020A	RMD	
Barium	**0.0893**	MAC = 1	0.0050	mg/L	Sep-23-09	EPA 6020A	RMD	
Beryllium	<0.0010		0.0010	mg/L	Sep-23-09	EPA 6020A	RMD	
Boron	**0.080**	MAC = 5	0.020	mg/L	Sep-23-09	EPA 6020A	RMD	
Cadmium	<0.00010	MAC = 0.005	0.00010	mg/L	Sep-23-09	EPA 6020A	RMD	
Calcium	**93.7**		1.0	mg/L	Sep-23-09	EPA 6020A	RMD	
Chromium	<0.0050	MAC = 0.05	0.0050	mg/L	Sep-23-09	EPA 6020A	RMD	
Cobalt	<0.00050		0.00050	mg/L	Sep-23-09	EPA 6020A	RMD	
Copper	**0.0108**	AO ≤ 1	0.0010	mg/L	Sep-23-09	EPA 6020A	RMD	
Iron	<0.10	AO ≤ 0.3	0.10	mg/L	Sep-23-09	EPA 6020A	RMD	
Lead	<0.0010	MAC = 0.01	0.0010	mg/L	Sep-23-09	EPA 6020A	RMD	
Magnesium	**25.4**		0.10	mg/L	Sep-23-09	EPA 6020A	RMD	
Manganese	<0.0020	AO ≤ 0.05	0.0020	mg/L	Sep-23-09	EPA 6020A	RMD	
Mercury	<0.00050	MAC = 0.001	0.00050	mg/L	Sep-23-09	EPA 6020A	RMD	
Molybdenum	**0.0070**		0.0010	mg/L	Sep-23-09	EPA 6020A	RMD	
Nickel	**0.0025**		0.0020	mg/L	Sep-23-09	EPA 6020A	RMD	
Phosphorus	<0.20		0.20	mg/L	Sep-23-09	EPA 6020A	RMD	
Potassium	**6.71**		0.10	mg/L	Sep-23-09	EPA 6020A	RMD	
Selenium	<0.0030	MAC = 0.01	0.0030	mg/L	Sep-23-09	EPA 6020A	RMD	
Silicon	**13.3**		2.0	mg/L	Sep-23-09	EPA 6020A	RMD	
Silver	<0.00050		0.00050	mg/L	Sep-23-09	EPA 6020A	RMD	
Sodium	**21.0**	AO ≤ 200	0.10	mg/L	Sep-23-09	EPA 6020A	RMD	
Uranium	**0.0120**	MAC = 0.02	0.00020	mg/L	Sep-23-09	EPA 6020A	RMD	
Zinc	<0.010	AO ≤ 5	0.010	mg/L	Sep-23-09	EPA 6020A	RMD	
Microbiological Parameters								

SAMPLE DATA

CLIENT	Osoyoos, Town of	**WORK ORDER #**	K9I0569
PROJECT FILE	Drinking Water	**REPORTED**	Sep-24-09

Analyte	Result	Canadian DW Guidelines (May 08)	RDL	Units	Analyzed	Method	Lab	Notes
General Parameters								
Well #8 (K9I0569-01) Matrix: Water Sampled: Sep-15-09 08:35								
Hardness (as CaCO3)	**163**		0.41	mg/L	Sep-23-09	APHA 2340 B	RMD	
Nitrogen, Nitrate as N	**0.34**	MAC = 10	0.01	mg/L	Sep-17-09	APHA 4110 B	KEL	
Nitrogen, Nitrite as N	<0.01	MAC = 1	0.01	mg/L	Sep-17-09	APHA 4110 B	KEL	
Total Recoverable Metals by ICPMS								
Well #8 (K9I0569-01) Matrix: Water Sampled: Sep-15-09 08:35								
Calcium	**44.0**		1.0	mg/L	Sep-23-09	EPA 6020A	RMD	
Magnesium	**12.8**		0.10	mg/L	Sep-23-09	EPA 6020A	RMD	
Manganese	**0.113**	AO ≤ 0.05	0.0020	mg/L	Sep-23-09	EPA 6020A	RMD	

SAMPLE DATA

CLIENT	Osoyoos, Town of	**WORK ORDER #**	K9I0568
PROJECT FILE	Drinking Water	**REPORTED**	Sep-24-09

Analyte	Result	Canadian DW Guidelines (May 08)	RDL	Units	Analyzed	Method	Lab	Notes
General Parameters								
Well #6 (K9I0568-01) Matrix: Water Sampled: Sep-15-09 09:53								
Hardness (as CaCO3)	**293**		0.41	mg/L	Sep-23-09	APHA 2340 B	RMD	
Nitrogen, Nitrate as N	**2.03**	MAC = 10	0.01	mg/L	Sep-17-09	APHA 4110 B	KEL	
Nitrogen, Nitrite as N	<0.01	MAC = 1	0.01	mg/L	Sep-17-09	APHA 4110 B	KEL	
Total Recoverable Metals by ICPMS								
Well #6 (K9I0568-01) Matrix: Water Sampled: Sep-15-09 09:53								
Calcium	**69.0**		1.0	mg/L	Sep-23-09	EPA 6020A	RMD	
Magnesium	**29.4**		0.10	mg/L	Sep-23-09	EPA 6020A	RMD	
Manganese	**0.0971**	AO ≤ 0.05	0.0020	mg/L	Sep-23-09	EPA 6020A	RMD	

SAMPLE DATA

CARO ANALYTICAL SERVICES

CLIENT	Osoyoos, Town of	**WORK ORDER #**	K9I0566
PROJECT FILE	Drinking Water	**REPORTED**	Sep-24-09

Analyte	Result	Canadian DW Guidelines (May 08)	RDL	Units	Analyzed	Method	Lab	Notes
General Parameters								
Well #5 (K9I0566-01) Matrix: Water Sampled: Sep-15-09 09:25								
Hardness (as CaCO3)	**294**		0.41	mg/L	Sep-23-09	APHA 2340 B	RMD	
Nitrogen, Nitrate as N	**1.04**	MAC = 10	0.01	mg/L	Sep-17-09	APHA 4110 B	KEL	
Nitrogen, Nitrite as N	**0.02**	MAC = 1	0.01	mg/L	Sep-17-09	APHA 4110 B	KEL	
Total Recoverable Metals by ICPMS								
Well #5 (K9I0566-01) Matrix: Water Sampled: Sep-15-09 09:25								
Calcium	**75.1**		1.0	mg/L	Sep-23-09	EPA 6020A	RMD	
Magnesium	**25.9**		0.10	mg/L	Sep-23-09	EPA 6020A	RMD	
Manganese	**0.140**	AO ≤ 0.05	0.0020	mg/L	Sep-23-09	EPA 6020A	RMD	

SAMPLE DATA

CLIENT	Osoyoos, Town of	**WORK ORDER #**	K9I0580
PROJECT FILE	Comprehensive Analysis	**REPORTED**	Sep-24-09

Analyte	Result	Canadian DW Guidelines (May 08)	RDL	Units	Analyzed	Method	Lab	Notes
Microbiological Parameters, Continued								
Well #3 (K9I0580-01) Matrix: Water Sampled: Sep-15-09 09:10								
Coliforms, Total	<1	MAC < 1	1	CFU/100mL	Sep-16-09	APHA 9222	KEL	
E. coli	<1	MAC < 1	1	CFU/100mL	Sep-16-09	APHA 9223	KEL	

SAMPLE DATA

CARO ANALYTICAL SERVICES

CLIENT	Osoyoos, Town of	**WORK ORDER #**	K9I0563
PROJECT FILE	Drinking Water	**REPORTED**	Sep-23-09

Analyte	Result	Canadian DW Guidelines (May 08)	RDL	Units	Analyzed	Method	Lab	Notes
General Parameters								
Well #1 (K9I0563-01) Matrix: Water Sampled: Sep-15-09 08:20								
Hardness (as CaCO3)	**321**		0.41	mg/L	Sep-18-09	APHA 2340 B	RMD	
Nitrogen, Nitrate as N	**4.76**	MAC = 10	0.01	mg/L	Sep-17-09	APHA 4110 B	KEL	
Nitrogen, Nitrite as N	<0.01	MAC = 1	0.01	mg/L	Sep-17-09	APHA 4110 B	KEL	
Total Recoverable Metals by ICPMS								
Well #1 (K9I0563-01) Matrix: Water Sampled: Sep-15-09 08:20								
Calcium	**96.7**		1.0	mg/L	Sep-18-09	EPA 6020A	RMD	
Magnesium	**19.2**		0.10	mg/L	Sep-18-09	EPA 6020A	RMD	
Manganese	**0.0039**	AO ≤ 0.05	0.0020	mg/L	Sep-18-09	EPA 6020A	RMD	

SAMPLE DATA

CLIENT	Osoyoos, Town of	**WORK ORDER #**	K9H0331
PROJECT FILE	THM Analysis	**REPORTED**	Aug-19-09

Analyte	Result	Canadian DW Guidelines (May 08)	RDL	Units	Analyzed	Method	Lab	Notes
Volatile Organic Compounds by PT-GCMS								
System #9 - 5001 107th St (K9H0331-01) Matrix: Water Sampled: Aug-11-09 08:30								
Bromodichloromethane	**0.003**	MAC = 0.016	0.001	mg/L	Aug-16-09	EPA 5030B/8260B	RMD	
Bromoform	<0.001		0.001	mg/L	Aug-16-09	EPA 5030B/8260B	RMD	
Chloroform	**0.040**		0.001	mg/L	Aug-16-09	EPA 5030B/8260B	RMD	
Dibromochloromethane	<0.001		0.001	mg/L	Aug-16-09	EPA 5030B/8260B	RMD	
Trihalomethanes (total)	**0.044**	MAC = 0.1	0.004	mg/L	Aug-16-09	EPA 5030B/8260B	RMD	
Surrogate: Toluene-d8	*87 %*		*80-120*		*Aug-16-09*			
Surrogate: 1,4-Dichlorobenzene-d4	*92 %*		*80-120*		*Aug-16-09*			

SAMPLE DATA

CARO ANALYTICAL SERVICES

CLIENT	Osoyoos, Town of	**WORK ORDER #**	K9H0329
PROJECT FILE	THM Analysis	**REPORTED**	Aug-19-09

Analyte	Result	Canadian DW Guidelines (May 08)	RDL	Units	Analyzed	Method	Lab	Notes
Volatile Organic Compounds by PT-GCMS								
System #8 - 9103 100th Ave (K9H0329-01) Matrix: Water Sampled: Aug-11-09 09:05								
Bromodichloromethane	**0.002**	MAC = 0.016	0.001	mg/L	Aug-15-09	EPA 5030B/8260B	RMD	
Bromoform	<0.001		0.001	mg/L	Aug-15-09	EPA 5030B/8260B	RMD	
Chloroform	**0.033**		0.001	mg/L	Aug-15-09	EPA 5030B/8260B	RMD	
Dibromochloromethane	<0.001		0.001	mg/L	Aug-15-09	EPA 5030B/8260B	RMD	
Trihalomethanes (total)	**0.035**	MAC = 0.1	0.004	mg/L	Aug-15-09	EPA 5030B/8260B	RMD	
Surrogate: Toluene-d8	*86 %*		*80-120*		*Aug-15-09*			
Surrogate: 1,4-Dichlorobenzene-d4	*93 %*		*80-120*		*Aug-15-09*			

SAMPLE DATA

CARO ANALYTICAL SERVICES

CLIENT	Osoyoos, Town of	**WORK ORDER #**	K9H0340
PROJECT FILE	Comprehensive Analysis	**REPORTED**	Aug-19-09

Analyte	Result	Canadian DW Guidelines (May 08)	RDL	Units	Analyzed	Method	Lab	Notes
General Parameters								
Water Well #6 (K9H0340-01) Matrix: Water Sampled: Aug-11-09 09:30								
Alkalinity, Total as CaCO3	**285**		1.0	mg/L	Aug-12-09	APHA 2320 B	KEL	
Chloride	**10.3**	AO ≤ 250	0.10	mg/L	Aug-13-09	APHA 4110 B	KEL	
Colour, True	<5	AO ≤ 15	5	Color Unit	Aug-13-09	APHA 2120 B	KEL	
Conductivity (EC)	**643**		5	uS/cm	Aug-12-09	APHA 2510 B	KEL	
Cyanide (total)	<0.01	MAC = 0.2	0.01	mg/L	Aug-13-09	APHA 4500-CN	KEL	
Fluoride	**0.46**	MAC = 1.5	0.10	mg/L	Aug-13-09	APHA 4110 B	KEL	
Hardness, Total (Total as CaCO3)	**306**		2.91	mg/L	Aug-17-09	APHA 2340 B	RMD	
Nitrogen, Nitrate as N	**1.57**	MAC = 10	0.01	mg/L	Aug-13-09	APHA 4110 B	KEL	
Nitrogen, Nitrite as N	<0.01	MAC = 1	0.01	mg/L	Aug-13-09	APHA 4110 B	KEL	
pH	**7.95**	AO = 6.5 - 8.5	0.10	pH Units	Aug-12-09	APHA 4500-H+	KEL	
Solids, Total Dissolved	**398**	AO ≤ 500	5	mg/L	Aug-13-09	APHA 2540 C	KEL	
Sulfate	**54.5**	AO ≤ 500	1.0	mg/L	Aug-13-09	APHA 4110 B	KEL	
Transmissivity @ 254nm	**91.4**		0.1	%	Aug-13-09	APHA 5910B	KEL	
Turbidity	**0.2**	Varies, See Guidelines	0.1	NTU	Aug-12-09	APHA 2130 B	KEL	
Total Recoverable Metals by ICPMS								
Water Well #6 (K9H0340-01) Matrix: Water Sampled: Aug-11-09 09:30								
Aluminum	<0.050	AO ≤ 0.1	0.050	mg/L	Aug-17-09	EPA 6020A	RMD	
Antimony	<0.0010	MAC = 0.006	0.0010	mg/L	Aug-17-09	EPA 6020A	RMD	
Arsenic	<0.0050	MAC = 0.01	0.0050	mg/L	Aug-17-09	EPA 6020A	RMD	
Barium	**0.0697**	MAC = 1	0.0050	mg/L	Aug-17-09	EPA 6020A	RMD	
Beryllium	<0.0010		0.0010	mg/L	Aug-17-09	EPA 6020A	RMD	
Boron	**0.037**	MAC = 5	0.020	mg/L	Aug-17-09	EPA 6020A	RMD	
Cadmium	<0.00010	MAC = 0.005	0.00010	mg/L	Aug-17-09	EPA 6020A	RMD	
Calcium	**69.0**		1.0	mg/L	Aug-17-09	EPA 6020A	RMD	
Chromium	<0.0050	MAC = 0.05	0.0050	mg/L	Aug-17-09	EPA 6020A	RMD	
Cobalt	<0.00050		0.00050	mg/L	Aug-17-09	EPA 6020A	RMD	
Copper	**0.0066**	AO ≤ 1	0.0010	mg/L	Aug-17-09	EPA 6020A	RMD	
Iron	<0.10	AO ≤ 0.3	0.10	mg/L	Aug-17-09	EPA 6020A	RMD	
Lead	<0.0010	MAC = 0.01	0.0010	mg/L	Aug-17-09	EPA 6020A	RMD	
Magnesium	**32.5**		0.10	mg/L	Aug-17-09	EPA 6020A	RMD	
Manganese	**0.122**	AO ≤ 0.05	0.0020	mg/L	Aug-17-09	EPA 6020A	RMD	
Mercury	<0.00050	MAC = 0.001	0.00050	mg/L	Aug-17-09	EPA 6020A	RMD	
Molybdenum	**0.0115**		0.0010	mg/L	Aug-17-09	EPA 6020A	RMD	
Nickel	**0.0022**		0.0020	mg/L	Aug-17-09	EPA 6020A	RMD	
Phosphorus	<0.20		0.20	mg/L	Aug-17-09	EPA 6020A	RMD	
Potassium	**6.37**		0.10	mg/L	Aug-17-09	EPA 6020A	RMD	
Selenium	<0.0030	MAC = 0.01	0.0030	mg/L	Aug-17-09	EPA 6020A	RMD	
Silicon	**11.2**		2.0	mg/L	Aug-17-09	EPA 6020A	RMD	
Silver	<0.00050		0.00050	mg/L	Aug-17-09	EPA 6020A	RMD	
Sodium	**32.7**	AO ≤ 200	0.10	mg/L	Aug-17-09	EPA 6020A	RMD	
Uranium	**0.00540**	MAC = 0.02	0.00020	mg/L	Aug-17-09	EPA 6020A	RMD	
Zinc	**0.082**	AO ≤ 5	0.010	mg/L	Aug-17-09	EPA 6020A	RMD	
Microbiological Parameters								

SAMPLE DATA

CLIENT	Osoyoos, Town of	**WORK ORDER #**	K9H0340
PROJECT FILE	Comprehensive Analysis	**REPORTED**	Aug-19-09

Analyte	Result	Canadian DW Guidelines (May 08)	RDL	Units	Analyzed	Method	Lab	Notes
Microbiological Parameters, Continued								
Water Well #6 (K9H0340-01) Matrix: Water Sampled: Aug-11-09 09:30								
Coliforms, Total	<1	MAC < 1	1	CFU/100mL	Aug-12-09	APHA 9222	KEL	
E. coli	<1	MAC < 1	1	CFU/100mL	Aug-12-09	APHA 9223	KEL	

SAMPLE DATA

CARO ANALYTICAL SERVICES

CLIENT	Osoyoos, Town of	**WORK ORDER #**	K9F0663
PROJECT FILE	Drinking Water	**REPORTED**	Jun-25-09

Analyte	Result	Canadian DW Guidelines (May 08)	RDL	Units	Analyzed	Method	Lab	Notes
General Parameters								
Well #6 (K9F0663-01) Matrix: Water Sampled: Jun-16-09 09:00								
Hardness (as CaCO3)	**326**		0.41	mg/L	Jun-22-09	APHA 2340 B	RMD	
Nitrogen, Nitrate as N	**1.62**	MAC = 10	0.01	mg/L	Jun-18-09	APHA 4110 B	KEL	
Nitrogen, Nitrite as N	<0.01	MAC = 1	0.01	mg/L	Jun-18-09	APHA 4110 B	KEL	
Total Recoverable Metals by ICPMS								
Well #6 (K9F0663-01) Matrix: Water Sampled: Jun-16-09 09:00								
Calcium	**74.2**		1.0	mg/L	Jun-22-09	EPA 6020A	RMD	
Magnesium	**34.2**		0.10	mg/L	Jun-22-09	EPA 6020A	RMD	
Manganese	**0.118**	AO ≤ 0.05	0.0020	mg/L	Jun-22-09	EPA 6020A	RMD	

SAMPLE DATA

CLIENT	Osoyoos, Town of	**WORK ORDER #**	K9G0714
PROJECT FILE	Drinking Water	**REPORTED**	Jul-23-09

Analyte	Result	Canadian DW Guidelines (May 08)	RDL	Units	Analyzed	Method	Lab	Notes
General Parameters								
Well #6 (K9G0714-01) Matrix: Water Sampled: Jul-21-09 10:50								
Transmissivity @ 254nm	**91.7**		0.1	%	Jul-23-09	APHA 5910B	KEL	

SAMPLE DATA

CARO ANALYTICAL SERVICES

CLIENT	Osoyoos, Town of	**WORK ORDER #**	K9F1094
PROJECT FILE	Drinking Water	**REPORTED**	Jun-30-09

Analyte	Result	Canadian DW Guidelines (May 08)	RDL	Units	Analyzed	Method	Lab	Notes
General Parameters								
Well #6 (K9F1094-01) Matrix: Water Sampled: Jun-23-09 11:20								
Transmissivity @ 254nm	**93.0**		0.1	%	Jun-30-09	APHA 5910B	KEL	

SAMPLE DATA

CARO ANALYTICAL SERVICES

CLIENT	Osoyoos, Town of	**WORK ORDER #**	K9F0665
PROJECT FILE	Drinking Water	**REPORTED**	Jun-25-09

Analyte	Result	Canadian DW Guidelines (May 08)	RDL	Units	Analyzed	Method	Lab	Notes
General Parameters								
Well #8 (K9F0665-01) Matrix: Water Sampled: Jun-16-09 09:10								
Hardness (as CaCO3)	**170**		0.41	mg/L	Jun-22-09	APHA 2340 B	RMD	
Nitrogen, Nitrate as N	**0.34**	MAC = 10	0.01	mg/L	Jun-18-09	APHA 4110 B	KEL	
Nitrogen, Nitrite as N	<0.01	MAC = 1	0.01	mg/L	Jun-18-09	APHA 4110 B	KEL	
Total Recoverable Metals by ICPMS								
Well #8 (K9F0665-01) Matrix: Water Sampled: Jun-16-09 09:10								
Calcium	**46.3**		1.0	mg/L	Jun-22-09	EPA 6020A	RMD	
Magnesium	**13.2**		0.10	mg/L	Jun-22-09	EPA 6020A	RMD	
Manganese	**0.0994**	AO ≤ 0.05	0.0020	mg/L	Jun-22-09	EPA 6020A	RMD	

SAMPLE DATA

CARO ANALYTICAL SERVICES

CLIENT	Osoyoos, Town of	**WORK ORDER #**	K9F0662
PROJECT FILE	Drinking Water	**REPORTED**	Jun-25-09

Analyte	Result	Canadian DW Guidelines (May 08)	RDL	Units	Analyzed	Method	Lab	Notes
General Parameters								
Well #5 (K9F0662-01) Matrix: Water Sampled: Jun-16-09 08:40								
Hardness (as CaCO3)	**310**		0.41	mg/L	Jun-22-09	APHA 2340 B	RMD	
Nitrogen, Nitrate as N	**1.81**	MAC = 10	0.01	mg/L	Jun-18-09	APHA 4110 B	KEL	
Nitrogen, Nitrite as N	<0.01	MAC = 1	0.01	mg/L	Jun-18-09	APHA 4110 B	KEL	
Total Recoverable Metals by ICPMS								
Well #5 (K9F0662-01) Matrix: Water Sampled: Jun-16-09 08:40								
Calcium	**79.2**		1.0	mg/L	Jun-22-09	EPA 6020A	RMD	
Magnesium	**27.3**		0.10	mg/L	Jun-22-09	EPA 6020A	RMD	
Manganese	**0.151**	AO ≤ 0.05	0.0020	mg/L	Jun-22-09	EPA 6020A	RMD	

SAMPLE DATA

CARO ANALYTICAL SERVICES

CLIENT	Osoyoos, Town of	**WORK ORDER #**	K9F0660
PROJECT FILE	Drinking Water	**REPORTED**	Jun-25-09

Analyte	Result	Canadian DW Guidelines (May 08)	RDL	Units	Analyzed	Method	Lab	Notes
General Parameters								
Well #1 (K9F0660-01) Matrix: Water Sampled: Jun-16-09 09:20								
Hardness (as CaCO3)	**368**		0.41	mg/L	Jun-22-09	APHA 2340 B	RMD	
Nitrogen, Nitrate as N	**3.87**	MAC = 10	0.01	mg/L	Jun-18-09	APHA 4110 B	KEL	
Nitrogen, Nitrite as N	<0.01	MAC = 1	0.01	mg/L	Jun-18-09	APHA 4110 B	KEL	
Total Recoverable Metals by ICPMS								
Well #1 (K9F0660-01) Matrix: Water Sampled: Jun-16-09 09:20								
Calcium	**108**		1.0	mg/L	Jun-22-09	EPA 6020A	RMD	
Magnesium	**23.6**		0.10	mg/L	Jun-22-09	EPA 6020A	RMD	
Manganese	<0.0020	AO ≤ 0.05	0.0020	mg/L	Jun-22-09	EPA 6020A	RMD	