INFORME DE ENSAYO

SE1101614

Informe para	:	**COMPAÑÍA MINERA CASALE**
Dirección	:	Avda. Apoquindo 3846, piso 15 - Las Condes Santiago
Atención	:	**Oscar Muñoz**
Fecha de Informe	:	30-Dec-11
Fecha de Recepción	:	03-Dec-11
Muestreado por	:	COMPAÑÍA MINERA CASALE
Referencia	:	SAE-378-10
Proyecto	:	---

ALS ENVIRONMENTAL

Rodrigo.Parra
Laboratory Manager

Los Ebanistas 8521 La Reina Santiago Chile
Tel.: (56 2) 6546109

SE1101614

RESULTADOS DE ANALISIS

Identificación				SW-12	SWN-07-09	SWN-08-09
Fecha de Muestreo				02-Dec-11	02-Dec-11	02-Dec-11
Hora de Muestreo				16:00	14:35	13:05
Código ALS				SE1101614-001	SE1101614-002	SE1101614-003
Tipo de Muestra				AS	AS	AS
Parámetro / LD	Analito	Unidades	Fecha de Análisis			
PARAMETROS FISICOQUIMICOS						
Fisicoquímicos						
Fisicoquímicos						
EALCT-VOL304 / 1	Alc Total	mg/L CaCO3	09-Dec-11	2	145	130
ECE-POT401 / 2	CE	µS/cm	03-Dec-11	3	1328	1534
EDURT-CAL756 / 0.5	Dur Total	mg/L	23-Dec-11	<0.5	462.4	565.9
EPH-POT403 / 0.01	pH		03-Dec-11	6.41	8.17	7.18
ESTD-GRA203 / 10	STD	mg/L	15-Dec-11	<10	807	927
ESTS-GRA203 / 3	STS	mg/L	05-Dec-11	<3	310	10
PARAMETROS INORGANICOS						
Aniones						
ECL-VOL309 / 0.5	Cl	mg/L	06-Dec-11	0.6	76.6	81.7
EF-POT405 / 0.02	F	mg/L	05-Dec-11	<0.02	0.52	0.28
ESO4-GRA205c / 10	SO4	mg/L	05-Dec-11	12	458	624
Cianuros						
ECNT-COL101 / 0.002	CN-T	mg/L	13-Dec-11	<0.002	<0.002	<0.002
Fosfatos						
EP-COL142 / 0.1	P-Total	mg/L	14-Dec-11	<0.1	<0.1	<0.1
Nitrógeno						
ENH3-COL143 / 0.01	N-NH3	mg/L	07-Dec-11	<0.01	<0.01	<0.01
ENO2-COL115 / 0.01	N-NO2	mg/L	07-Dec-11	<0.01	<0.01	<0.01
ENO3-COL123 / 0.1	N-NO3	mg/L	06-Dec-11	0.2	1.2	0.3
PARAMETROS ORGANICOS						
Parámetros Orgánicos Individual						
EFEN-COL107 / 0.001	Fenoles	mg/L	21-Dec-11	<0.001	<0.001	<0.001
PARAMETROS SUB CONTRATADOS						
ESUBC-513 / 1.8	Colif Fec	NMP/100 mL	03-Dec-11	<1.8	240.0	11.0
ESUBC-514 / 1.8	Colif Tot	NMP/100 mL	03-Dec-11	<1.8	240.0	11.0

<= Menor que el límite de detección Indicado
AS (Agua Superficial)
NA: No Analizada, IM: Insuficiente Muestra

SE1101614

RESULTADOS DE ANALISIS

Identificación				SW-12	SWN-07-09	SWN-08-09
Fecha de Muestreo				02-Dec-11	02-Dec-11	02-Dec-11
Hora de Muestreo				16:00	14:35	13:05
Código ALS				SE1101614-001	SE1101614-002	SE1101614-003
Tipo de Muestra				AS	AS	AS
Parámetro / LD	Analito	Unidades	Fecha de Análisis			
METALES DISUELTOS						
EHG-VF81 / 0.00005	Hg	mg/L	20-Dec-11	<0.00005	<0.00005	<0.00005
EMA-MS680Ag / 0.000050	Ag	mg/L	20-Dec-11	<0.000050	<0.000050	<0.000050
EMA-MS680Al / 0.0050	Al	mg/L	20-Dec-11	<0.0050	0.0209	<0.0050
EMA-MS680As / 0.00050	As	mg/L	20-Dec-11	<0.00050	0.0926	0.0197
EMA-MS680B / 0.050	B	mg/L	20-Dec-11	<0.050	1.63	2.10
EMA-MS680Ba / 0.00025	Ba	mg/L	20-Dec-11	<0.00025	0.0262	0.0118
EMA-MS680Be / 0.0025	Be	mg/L	20-Dec-11	<0.0025	<0.0025	<0.0025
EMA-MS680Bi / 0.0025	Bi	mg/L	20-Dec-11	<0.0025	<0.0025	<0.0025
EMA-MS680Ca / 0.050	Ca	mg/L	20-Dec-11	<0.050	139	178
EMA-MS680Cd / 0.00025	Cd	mg/L	20-Dec-11	<0.00025	<0.00025	<0.00025
EMA-MS680Co / 0.00050	Co	mg/L	20-Dec-11	<0.00050	<0.00050	<0.00050
EMA-MS680Cr / 0.0025	Cr	mg/L	20-Dec-11	<0.0025	<0.0025	<0.0025
EMA-MS680Cu / 0.00050	Cu	mg/L	20-Dec-11	<0.00050	0.00176	<0.00050
EMA-MS680Fe / 0.030	Fe	mg/L	20-Dec-11	<0.030	<0.030	<0.030
EMA-MS680K / 2.0	K	mg/L	20-Dec-11	<2.0	4.5	3.3
EMA-MS680Li / 0.0050	Li	mg/L	20-Dec-11	<0.0050	0.264	0.301
EMA-MS680Mg / 0.10	Mg	mg/L	20-Dec-11	<0.10	28.0	29.5
EMA-MS680Mn / 0.00025	Mn	mg/L	20-Dec-11	<0.00025	0.00065	0.00049
EMA-MS680Mo / 0.00025	Mo	mg/L	20-Dec-11	<0.00025	0.00460	0.00412
EMA-MS680Na / 2.0	Na	mg/L	20-Dec-11	<2.0	91.6	94.2
EMA-MS680Ni / 0.0025	Ni	mg/L	20-Dec-11	<0.0025	<0.0025	<0.0025
EMA-MS680P / 0.30	P	mg/L	20-Dec-11	<0.30	<0.30	<0.30
EMA-MS680Pb / 0.00025	Pb	mg/L	20-Dec-11	<0.00025	<0.00025	<0.00025
EMA-MS680Sb / 0.00050	Sb	mg/L	20-Dec-11	<0.00050	<0.00050	<0.00050
EMA-MS680Se / 0.0050	Se	mg/L	20-Dec-11	<0.0050	<0.0050	<0.0050
EMA-MS680Si / 0.050	Si	mg/L	20-Dec-11	<0.050	10.0	8.43
EMA-MS680Sn / 0.00050	Sn	mg/L	20-Dec-11	<0.00050	<0.00050	<0.00050
EMA-MS680Sr / 0.00050	Sr	mg/L	20-Dec-11	<0.00050	1.44	1.99
EMA-MS680Ti / 0.010	Ti	mg/L	20-Dec-11	<0.010	<0.010	<0.010
EMA-MS680Tl / 0.00050	Tl	mg/L	20-Dec-11	<0.00050	<0.00050	<0.00050
EMA-MS680U / 0.000050	U	mg/L	20-Dec-11	<0.000050	0.00396	0.00168
EMA-MS680V / 0.0050	V	mg/L	20-Dec-11	<0.0050	<0.0050	0.0075
EMA-MS680Zn / 0.0050	Zn	mg/L	20-Dec-11	0.0083	<0.0050	<0.0050

<= Menor que el límite de detección indicado
AS (Agua Superficial)
NA: No Analizada, IM: Insuficiente Muestra

SE1101614

RESULTADOS DE ANALISIS

Identificación				SW-12	SWN-07-09	SWN-08-09
Fecha de Muestreo				02-Dec-11	02-Dec-11	02-Dec-11
Hora de Muestreo				16:00	14:35	13:05
Código ALS				SE1101614-001	SE1101614-002	SE1101614-003
Tipo de Muestra				AS	AS	AS
Parámetro / LD	Analito	Unidades	Fecha de Análisis			
METALES TOTALES						
EHG-VF82 / 0.00005	Hg	mg/L	20-Dec-11	<0.00005	<0.00005	<0.00005
EMA-MS681Ag / 0.000050	Ag	mg/L	20-Dec-11	<0.000050	<0.000050	<0.000050
EMA-MS681Al / 0.0050	Al	mg/L	20-Dec-11	<0.0050	8.47	<0.0050
EMA-MS681As / 0.00050	As	mg/L	20-Dec-11	<0.00050	0.138	0.0199
EMA-MS681B / 0.050	B	mg/L	20-Dec-11	<0.050	1.93	2.14
EMA-MS681Ba / 0.00025	Ba	mg/L	20-Dec-11	<0.00025	0.0681	0.0122
EMA-MS681Be / 0.0025	Be	mg/L	20-Dec-11	<0.0025	<0.0025	<0.0025
EMA-MS681Bi / 0.0025	Bi	mg/L	20-Dec-11	<0.0025	<0.0025	<0.0025
EMA-MS681Ca / 0.050	Ca	mg/L	20-Dec-11	<0.050	150	202
EMA-MS681Cd / 0.00025	Cd	mg/L	20-Dec-11	<0.00025	<0.00025	<0.00025
EMA-MS681Co / 0.00050	Co	mg/L	20-Dec-11	<0.00050	0.00393	<0.00050
EMA-MS681Cr / 0.0025	Cr	mg/L	20-Dec-11	<0.0025	<0.0025	<0.0025
EMA-MS681Cu / 0.00050	Cu	mg/L	20-Dec-11	<0.00050	0.0285	<0.00050
EMA-MS681Fe / 0.030	Fe	mg/L	20-Dec-11	<0.030	9.10	0.055
EMA-MS681K / 2.0	K	mg/L	20-Dec-11	<2.0	6.5	4.2
EMA-MS681Li / 0.0050	Li	mg/L	20-Dec-11	<0.0050	0.267	0.301
EMA-MS681Mg / 0.10	Mg	mg/L	20-Dec-11	<0.10	33.8	33.4
EMA-MS681Mn / 0.00025	Mn	mg/L	20-Dec-11	<0.00025	0.421	0.00771
EMA-MS681Mo / 0.00025	Mo	mg/L	20-Dec-11	<0.00025	0.00487	0.00440
EMA-MS681Na / 2.0	Na	mg/L	20-Dec-11	<2.0	96.0	107
EMA-MS681Ni / 0.0025	Ni	mg/L	20-Dec-11	<0.0025	<0.0025	<0.0025
EMA-MS681P / 0.30	P	mg/L	20-Dec-11	<0.30	<0.30	<0.30
EMA-MS681Pb / 0.00025	Pb	mg/L	20-Dec-11	<0.00025	0.00620	<0.00025
EMA-MS681Sb / 0.00050	Sb	mg/L	20-Dec-11	<0.00050	0.00092	0.00063
EMA-MS681Se / 0.0050	Se	mg/L	20-Dec-11	<0.0050	<0.0050	<0.0050
EMA-MS681Si / 0.050	Si	mg/L	20-Dec-11	<0.050	30.0	9.76
EMA-MS681Sn / 0.00050	Sn	mg/L	20-Dec-11	<0.00050	<0.00050	<0.00050
EMA-MS681Sr / 0.00050	Sr	mg/L	20-Dec-11	<0.00050	1.47	2.10
EMA-MS681Ti / 0.010	Ti	mg/L	20-Dec-11	<0.010	0.045	<0.010
EMA-MS681Tl / 0.00050	Tl	mg/L	20-Dec-11	<0.00050	<0.00050	<0.00050
EMA-MS681U / 0.000050	U	mg/L	20-Dec-11	<0.000050	0.00420	0.00188
EMA-MS681V / 0.0050	V	mg/L	20-Dec-11	<0.0050	0.0168	0.0075
EMA-MS681Zn / 0.0050	Zn	mg/L	20-Dec-11	0.0084	0.0536	<0.0050

<= Menor que el límite de detección Indicado
AS (Agua Superficial)
NA: No Analizada, IM: Insuficiente Muestra

SE1101614

RESULTADOS DE ANALISIS

Identificación				SW-6	SW-7	SW-11
Fecha de Muestreo				02-Dec-11	02-Dec-11	02-Dec-11
Hora de Muestreo				09:55	09:20	10:30
Código ALS				SE1101614-004	SE1101614-005	SE1101614-006
Tipo de Muestra				AS	AS	AS
Parámetro / LD	Analito	Unidades	Fecha de Análisis			
PARAMETROS FISICOQUIMICOS						
Fisicoquímicos						
EALCT-VOL304 / 1	Alc Total	mg/L CaCO3	09-Dec-11	46	153	50
ECE-POT401 / 2	CE	µS/cm	03-Dec-11	284	740	287
EDURT-CAL756 / 0.5	Dur Total	mg/L	23-Dec-11	61.9	155.6	61.3
EPH-POT403 / 0.01	pH		03-Dec-11	6.52	8.38	6.70
ESTD-GRA203 / 10	STD	mg/L	15-Dec-11	168	476	175
ESTS-GRA203 / 3	STS	mg/L	05-Dec-11	428	22	321
PARAMETROS INORGANICOS						
Aniones						
ECL-VOL309 / 0.5	Cl	mg/L	06-Dec-11	19.9	83.7	23.5
EF-POT405 / 0.02	F	mg/L	05-Dec-11	0.24	1.61	0.23
ESO4-GRA205c / 10	SO4	mg/L	05-Dec-11	56	93	61
Cianuros						
ECNT-COL101 / 0.002	CN-T	mg/L	13-Dec-11	<0.002	<0.002	<0.002
Fosfatos						
EP-COL142 / 0.1	P-Total	mg/L	14-Dec-11	0.8	<0.1	<0.1
Nitrógeno						
ENH3-COL143 / 0.01	N-NH3	mg/L	07-Dec-11	<0.01	<0.01	<0.01
ENO2-COL115 / 0.01	N-NO2	mg/L	07-Dec-11	<0.01	<0.01	<0.01
ENO3-COL123 / 0.1	N-NO3	mg/L	06-Dec-11	1.4	1.2	1.5
PARAMETROS ORGANICOS						
Parámetros Orgánicos Individual						
EFEN-COL107 / 0.001	Fenoles	mg/L	21-Dec-11	<0.001	<0.001	<0.001
PARAMETROS SUB CONTRATADOS						
ESUBC-513 / 1.8	Colif Fec	NMP/100 mL	03-Dec-11	<1.8	11.0	<1.8
ESUBC-514 / 1.8	Colif Tot	NMP/100 mL	03-Dec-11	<1.8	22.0	<1.8

<= Menor que el límite de detección Indicado
AS (Agua Superficial)
NA: No Analizada, IM: Insuficiente Muestra

SE1101614

RESULTADOS DE ANALISIS

Identificación				SW-6	SW-7	SW-11
Fecha de Muestreo				02-Dec-11	02-Dec-11	02-Dec-11
Hora de Muestreo				09:55	09:20	10:30
Código ALS				SE1101614-004	SE1101614-005	SE1101614-006
Tipo de Muestra				AS	AS	AS
Parámetro / LD	Analito	Unidades	Fecha de Análisis			
METALES DISUELTOS						
EHG-VF81 / 0.00005	Hg	mg/L	20-Dec-11	<0.00005	<0.00005	<0.00005
EMA-MS680Ag / 0.000050	Ag	mg/L	20-Dec-11	<0.000050	<0.000050	<0.000050
EMA-MS680Al / 0.0050	Al	mg/L	20-Dec-11	0.0214	0.0105	0.0210
EMA-MS680As / 0.00050	As	mg/L	20-Dec-11	0.0479	0.488	0.0455
EMA-MS680B / 0.050	B	mg/L	20-Dec-11	0.390	2.99	0.395
EMA-MS680Ba / 0.00025	Ba	mg/L	20-Dec-11	0.0123	0.00878	0.0125
EMA-MS680Be / 0.0025	Be	mg/L	20-Dec-11	<0.0025	<0.0025	<0.0025
EMA-MS680Bi / 0.0025	Bi	mg/L	20-Dec-11	<0.0025	<0.0025	<0.0025
EMA-MS680Ca / 0.050	Ca	mg/L	20-Dec-11	18.0	46.6	17.7
EMA-MS680Cd / 0.00025	Cd	mg/L	20-Dec-11	<0.00025	<0.00025	<0.00025
EMA-MS680Co / 0.00050	Co	mg/L	20-Dec-11	<0.00050	<0.00050	<0.00050
EMA-MS680Cr / 0.0025	Cr	mg/L	20-Dec-11	<0.0025	<0.0025	<0.0025
EMA-MS680Cu / 0.00050	Cu	mg/L	20-Dec-11	<0.00050	<0.00050	<0.00050
EMA-MS680Fe / 0.030	Fe	mg/L	20-Dec-11	<0.030	<0.030	<0.030
EMA-MS680K / 2.0	K	mg/L	20-Dec-11	2.0	2.9	2.1
EMA-MS680Li / 0.0050	Li	mg/L	20-Dec-11	0.0508	0.284	0.0486
EMA-MS680Mg / 0.10	Mg	mg/L	20-Dec-11	4.11	9.52	4.15
EMA-MS680Mn / 0.00025	Mn	mg/L	20-Dec-11	<0.00025	0.00049	<0.00025
EMA-MS680Mo / 0.00025	Mo	mg/L	20-Dec-11	0.00291	0.0145	0.00281
EMA-MS680Na / 2.0	Na	mg/L	20-Dec-11	33.0	84.2	32.7
EMA-MS680Ni / 0.0025	Ni	mg/L	20-Dec-11	<0.0025	<0.0025	<0.0025
EMA-MS680P / 0.30	P	mg/L	20-Dec-11	<0.30	<0.30	<0.30
EMA-MS680Pb / 0.00025	Pb	mg/L	20-Dec-11	<0.00025	<0.00025	<0.00025
EMA-MS680Sb / 0.00050	Sb	mg/L	20-Dec-11	<0.00050	<0.00050	<0.00050
EMA-MS680Se / 0.0050	Se	mg/L	20-Dec-11	<0.0050	<0.0050	<0.0050
EMA-MS680Si / 0.050	Si	mg/L	20-Dec-11	13.0	9.69	13.2
EMA-MS680Sn / 0.00050	Sn	mg/L	20-Dec-11	<0.00050	<0.00050	<0.00050
EMA-MS680Sr / 0.00050	Sr	mg/L	20-Dec-11	0.0920	0.231	0.0893
EMA-MS680Ti / 0.010	Ti	mg/L	20-Dec-11	<0.010	<0.010	<0.010
EMA-MS680Tl / 0.00050	Tl	mg/L	20-Dec-11	<0.00050	<0.00050	<0.00050
EMA-MS680U / 0.000050	U	mg/L	20-Dec-11	0.00176	0.0148	0.00177
EMA-MS680V / 0.0050	V	mg/L	20-Dec-11	0.0094	<0.0050	0.0092
EMA-MS680Zn / 0.0050	Zn	mg/L	20-Dec-11	<0.0050	<0.0050	<0.0050

<= Menor que el límite de detección Indicado
AS (Agua Superficial)
NA: No Analizada, IM: Insuficiente Muestra

SE1101614

RESULTADOS DE ANALISIS

Identificación				SW-6	SW-7	SW-11
Fecha de Muestreo				02-Dec-11	02-Dec-11	02-Dec-11
Hora de Muestreo				09:55	09:20	10:30
Código ALS				SE1101614-004	SE1101614-005	SE1101614-006
Tipo de Muestra				AS	AS	AS
Parámetro / LD	Analito	Unidades	Fecha de Análisis			
METALES TOTALES						
EHG-VF82 / 0.00005	Hg	mg/L	20-Dec-11	<0.00005	<0.00005	<0.00005
EMA-MS681Ag / 0.000050	Ag	mg/L	20-Dec-11	<0.000050	<0.000050	<0.000050
EMA-MS681Al / 0.0050	Al	mg/L	20-Dec-11	3.22	0.209	2.80
EMA-MS681As / 0.00050	As	mg/L	20-Dec-11	0.0479	0.524	0.0460
EMA-MS681B / 0.050	B	mg/L	20-Dec-11	0.393	3.11	0.397
EMA-MS681Ba / 0.00025	Ba	mg/L	20-Dec-11	0.0457	0.0106	0.0398
EMA-MS681Be / 0.0025	Be	mg/L	20-Dec-11	<0.0025	<0.0025	<0.0025
EMA-MS681Bi / 0.0025	Bi	mg/L	20-Dec-11	<0.0025	<0.0025	<0.0025
EMA-MS681Ca / 0.050	Ca	mg/L	20-Dec-11	19.3	50.2	19.3
EMA-MS681Cd / 0.00025	Cd	mg/L	20-Dec-11	<0.00025	<0.00025	<0.00025
EMA-MS681Co / 0.00050	Co	mg/L	20-Dec-11	0.00112	<0.00050	0.00093
EMA-MS681Cr / 0.0025	Cr	mg/L	20-Dec-11	<0.0025	<0.0025	<0.0025
EMA-MS681Cu / 0.00050	Cu	mg/L	20-Dec-11	0.00785	0.00102	0.00686
EMA-MS681Fe / 0.030	Fe	mg/L	20-Dec-11	1.83	0.423	1.59
EMA-MS681K / 2.0	K	mg/L	20-Dec-11	3.1	3.3	3.0
EMA-MS681Li / 0.0050	Li	mg/L	20-Dec-11	0.0511	0.288	0.0495
EMA-MS681Mg / 0.10	Mg	mg/L	20-Dec-11	5.35	10.1	5.15
EMA-MS681Mn / 0.00025	Mn	mg/L	20-Dec-11	0.0948	0.0179	0.0816
EMA-MS681Mo / 0.00025	Mo	mg/L	20-Dec-11	0.00297	0.0149	0.00285
EMA-MS681Na / 2.0	Na	mg/L	20-Dec-11	33.4	88.0	33.0
EMA-MS681Ni / 0.0025	Ni	mg/L	20-Dec-11	<0.0025	<0.0025	<0.0025
EMA-MS681P / 0.30	P	mg/L	20-Dec-11	<0.30	<0.30	<0.30
EMA-MS681Pb / 0.00025	Pb	mg/L	20-Dec-11	0.00156	0.00048	0.00138
EMA-MS681Sb / 0.00050	Sb	mg/L	20-Dec-11	<0.00050	<0.00050	<0.00050
EMA-MS681Se / 0.0050	Se	mg/L	20-Dec-11	<0.0050	<0.0050	<0.0050
EMA-MS681Si / 0.050	Si	mg/L	20-Dec-11	19.4	11.1	18.6
EMA-MS681Sn / 0.00050	Sn	mg/L	20-Dec-11	<0.00050	<0.00050	<0.00050
EMA-MS681Sr / 0.00050	Sr	mg/L	20-Dec-11	0.108	0.261	0.103
EMA-MS681Ti / 0.010	Ti	mg/L	20-Dec-11	0.084	<0.010	0.072
EMA-MS681Tl / 0.00050	Tl	mg/L	20-Dec-11	<0.00050	<0.00050	<0.00050
EMA-MS681U / 0.000050	U	mg/L	20-Dec-11	0.00193	0.0171	0.00187
EMA-MS681V / 0.0050	V	mg/L	20-Dec-11	0.0121	<0.0050	0.0117
EMA-MS681Zn / 0.0050	Zn	mg/L	20-Dec-11	0.0152	0.0059	0.0142

<= Menor que el límite de detección Indicado
AS (Agua Superficial)
NA: No Analizada, IM: Insuficiente Muestra

SE1101614

RESULTADOS DE ANALISIS

Identificación				SW-13	SW-10	SW-9
Fecha de Muestreo				02-Dec-11	02-Dec-11	02-Dec-11
Hora de Muestreo				10:40	11:40	11:30
Código ALS				SE1101614-007	SE1101614-008	SE1101614-009
Tipo de Muestra				AS	AS	AS
Parámetro / LD	Analito	Unidades	Fecha de Análisis			
PARAMETROS FISICOQUIMICOS						
Fisicoquímicos						
EALCT-VOL304 / 1	Alc Total	mg/L CaCO3	09-Dec-11	119	134	138
ECE-POT401 / 2	CE	µS/cm	03-Dec-11	1614	986	551
EDURT-CAL756 / 0.5	Dur Total	mg/L	23-Dec-11	764.8	324.6	179.6
EPH-POT403 / 0.01	pH		03-Dec-11	8.19	7.80	8.94
ESTD-GRA203 / 10	STD	mg/L	15-Dec-11	977	586	347
ESTS-GRA203 / 3	STS	mg/L	05-Dec-11	896	506	<3
PARAMETROS INORGANICOS						
Aniones						
ECL-VOL309 / 0.5	Cl	mg/L	06-Dec-11	13.5	64.3	32.3
EF-POT405 / 0.02	F	mg/L	05-Dec-11	0.39	0.56	0.38
ESO4-GRA205c / 10	SO4	mg/L	05-Dec-11	882	346	127
Cianuros						
ECNT-COL101 / 0.002	CN-T	mg/L	13-Dec-11	<0.002	<0.002	<0.002
Fosfatos						
EP-COL142 / 0.1	P-Total	mg/L	14-Dec-11	0.6	0.2	<0.1
Nitrógeno						
ENH3-COL143 / 0.01	N-NH3	mg/L	07-Dec-11	<0.01	<0.01	<0.01
ENO2-COL115 / 0.01	N-NO2	mg/L	07-Dec-11	<0.01	<0.01	<0.01
ENO3-COL123 / 0.1	N-NO3	mg/L	06-Dec-11	3.0	1.7	0.3
PARAMETROS ORGANICOS						
Parámetros Orgánicos Individual						
EFEN-COL107 / 0.001	Fenoles	mg/L	21-Dec-11	<0.001	<0.001	<0.001
PARAMETROS SUB CONTRATADOS						
ESUBC-513 / 1.8	Colif Fec	NMP/100 mL	03-Dec-11	4.5	14.0	<1.8
ESUBC-514 / 1.8	Colif Tot	NMP/100 mL	03-Dec-11	6.8	130.0	<1.8

<= Menor que el límite de detección Indicado
AS (Agua Superficial)
NA: No Analizada, IM: Insuficiente Muestra

SE1101614

RESULTADOS DE ANALISIS

Identificación				SW-13	SW-10	SW-9
Fecha de Muestreo				02-Dec-11	02-Dec-11	02-Dec-11
Hora de Muestreo				10:40	11:40	11:30
Código ALS				SE1101614-007	SE1101614-008	SE1101614-009
Tipo de Muestra				AS	AS	AS
Parámetro / LD	Analito	Unidades	Fecha de Análisis			
METALES DISUELTOS						
EHG-VF81 / 0.00005	Hg	mg/L	20-Dec-11	<0.00005	<0.00005	<0.00005
EMA-MS680Ag / 0.000050	Ag	mg/L	20-Dec-11	<0.000050	<0.000050	<0.000050
EMA-MS680Al / 0.0050	Al	mg/L	20-Dec-11	0.0143	0.0138	<0.0050
EMA-MS680As / 0.00050	As	mg/L	20-Dec-11	0.0361	0.145	0.0274
EMA-MS680B / 0.050	B	mg/L	20-Dec-11	0.846	1.51	0.547
EMA-MS680Ba / 0.00025	Ba	mg/L	20-Dec-11	0.0570	0.0281	0.0182
EMA-MS680Be / 0.0025	Be	mg/L	20-Dec-11	<0.0025	<0.0025	<0.0025
EMA-MS680Bi / 0.0025	Bi	mg/L	20-Dec-11	<0.0025	<0.0025	<0.0025
EMA-MS680Ca / 0.050	Ca	mg/L	20-Dec-11	222	93.4	39.1
EMA-MS680Cd / 0.00025	Cd	mg/L	20-Dec-11	<0.00025	<0.00025	<0.00025
EMA-MS680Co / 0.00050	Co	mg/L	20-Dec-11	<0.00050	<0.00050	<0.00050
EMA-MS680Cr / 0.0025	Cr	mg/L	20-Dec-11	<0.0025	<0.0025	<0.0025
EMA-MS680Cu / 0.00050	Cu	mg/L	20-Dec-11	0.00064	0.00217	0.00063
EMA-MS680Fe / 0.030	Fe	mg/L	20-Dec-11	<0.030	<0.030	<0.030
EMA-MS680K / 2.0	K	mg/L	20-Dec-11	5.8	4.6	2.7
EMA-MS680Li / 0.0050	Li	mg/L	20-Dec-11	0.142	0.190	0.115
EMA-MS680Mg / 0.10	Mg	mg/L	20-Dec-11	51.1	22.2	19.9
EMA-MS680Mn / 0.00025	Mn	mg/L	20-Dec-11	0.00155	0.00034	<0.00025
EMA-MS680Mo / 0.00025	Mo	mg/L	20-Dec-11	0.00124	0.00344	0.00164
EMA-MS680Na / 2.0	Na	mg/L	20-Dec-11	55.4	72.8	42.0
EMA-MS680Ni / 0.0025	Ni	mg/L	20-Dec-11	<0.0025	<0.0025	<0.0025
EMA-MS680P / 0.30	P	mg/L	20-Dec-11	<0.30	<0.30	<0.30
EMA-MS680Pb / 0.00025	Pb	mg/L	20-Dec-11	<0.00025	<0.00025	<0.00025
EMA-MS680Sb / 0.00050	Sb	mg/L	20-Dec-11	<0.00050	<0.00050	<0.00050
EMA-MS680Se / 0.0050	Se	mg/L	20-Dec-11	<0.0050	<0.0050	<0.0050
EMA-MS680Si / 0.050	Si	mg/L	20-Dec-11	11.6	11.2	5.99
EMA-MS680Sn / 0.00050	Sn	mg/L	20-Dec-11	<0.00050	<0.00050	<0.00050
EMA-MS680Sr / 0.00050	Sr	mg/L	20-Dec-11	2.04	0.670	0.216
EMA-MS680Ti / 0.010	Ti	mg/L	20-Dec-11	<0.010	<0.010	<0.010
EMA-MS680Tl / 0.00050	Tl	mg/L	20-Dec-11	<0.00050	<0.00050	<0.00050
EMA-MS680U / 0.000050	U	mg/L	20-Dec-11	0.000426	0.00392	0.00273
EMA-MS680V / 0.0050	V	mg/L	20-Dec-11	<0.0050	0.0050	0.0053
EMA-MS680Zn / 0.0050	Zn	mg/L	20-Dec-11	<0.0050	<0.0050	<0.0050

<= Menor que el límite de detección Indicado
AS (Agua Superficial)
NA: No Analizada, IM: Insuficiente Muestra

SE1101614

RESULTADOS DE ANALISIS

Identificación				SW-13	SW-10	SW-9
Fecha de Muestreo				02-Dec-11	02-Dec-11	02-Dec-11
Hora de Muestreo				10:40	11:40	11:30
Código ALS				SE1101614-007	SE1101614-008	SE1101614-009
Tipo de Muestra				AS	AS	AS
Parámetro / LD	Analito	Unidades	Fecha de Análisis			
METALES TOTALES						
EHG-VF82 / 0.00005	Hg	mg/L	20-Dec-11	<0.00005	<0.00005	<0.00005
EMA-MS681Ag / 0.000050	Ag	mg/L	20-Dec-11	<0.000050	<0.000050	<0.000050
EMA-MS681Al / 0.0050	Al	mg/L	20-Dec-11	18.7	7.99	<0.0050
EMA-MS681As / 0.00050	As	mg/L	20-Dec-11	0.0832	0.146	0.0281
EMA-MS681B / 0.050	B	mg/L	20-Dec-11	0.888	1.52	0.565
EMA-MS681Ba / 0.00025	Ba	mg/L	20-Dec-11	0.236	0.0721	0.0188
EMA-MS681Be / 0.0025	Be	mg/L	20-Dec-11	<0.0025	<0.0025	<0.0025
EMA-MS681Bi / 0.0025	Bi	mg/L	20-Dec-11	<0.0025	<0.0025	<0.0025
EMA-MS681Ca / 0.050	Ca	mg/L	20-Dec-11	231	94.2	42.3
EMA-MS681Cd / 0.00025	Cd	mg/L	20-Dec-11	0.00048	<0.00025	<0.00025
EMA-MS681Co / 0.00050	Co	mg/L	20-Dec-11	0.0134	0.00388	<0.00050
EMA-MS681Cr / 0.0025	Cr	mg/L	20-Dec-11	0.0039	<0.0025	<0.0025
EMA-MS681Cu / 0.00050	Cu	mg/L	20-Dec-11	0.0807	0.0334	0.00067
EMA-MS681Fe / 0.030	Fe	mg/L	20-Dec-11	18.8	8.28	<0.030
EMA-MS681K / 2.0	K	mg/L	20-Dec-11	7.0	6.2	3.2
EMA-MS681Li / 0.0050	Li	mg/L	20-Dec-11	0.146	0.191	0.121
EMA-MS681Mg / 0.10	Mg	mg/L	20-Dec-11	52.8	25.7	21.4
EMA-MS681Mn / 0.00025	Mn	mg/L	20-Dec-11	1.52	0.365	0.00120
EMA-MS681Mo / 0.00025	Mo	mg/L	20-Dec-11	0.00169	0.00363	0.00177
EMA-MS681Na / 2.0	Na	mg/L	20-Dec-11	56.7	73.8	45.9
EMA-MS681Ni / 0.0025	Ni	mg/L	20-Dec-11	0.0064	<0.0025	<0.0025
EMA-MS681P / 0.30	P	mg/L	20-Dec-11	1.37	<0.30	<0.30
EMA-MS681Pb / 0.00025	Pb	mg/L	20-Dec-11	0.0194	0.00624	<0.00025
EMA-MS681Sb / 0.00050	Sb	mg/L	20-Dec-11	<0.00050	<0.00050	<0.00050
EMA-MS681Se / 0.0050	Se	mg/L	20-Dec-11	<0.0050	<0.0050	<0.0050
EMA-MS681Si / 0.050	Si	mg/L	20-Dec-11	34.6	29.1	6.58
EMA-MS681Sn / 0.00050	Sn	mg/L	20-Dec-11	<0.00050	<0.00050	<0.00050
EMA-MS681Sr / 0.00050	Sr	mg/L	20-Dec-11	2.20	0.694	0.223
EMA-MS681Ti / 0.010	Ti	mg/L	20-Dec-11	0.046	0.037	<0.010
EMA-MS681Tl / 0.00050	Tl	mg/L	20-Dec-11	<0.00050	<0.00050	<0.00050
EMA-MS681U / 0.000050	U	mg/L	20-Dec-11	0.000775	0.00397	0.00276
EMA-MS681V / 0.0050	V	mg/L	20-Dec-11	0.0281	0.0150	0.0053
EMA-MS681Zn / 0.0050	Zn	mg/L	20-Dec-11	0.137	0.0527	<0.0050

<= Menor que el límite de detección Indicado
AS (Agua Superficial)
NA: No Analizada, IM: Insuficiente Muestra

SE1101614

RESULTADOS DE ANALISIS

Identificación				SWN-09-09	SW-8	SW-4
Fecha de Muestreo				02-Dec-11	02-Dec-11	01-Dec-11
Hora de Muestreo				12:35	11:05	15:05
Código ALS				SE1101614-010	SE1101614-011	SE1101614-012
Tipo de Muestra				AS	AS	AS
Parámetro / LD	Analito	Unidades	Fecha de Análisis			
PARAMETROS FISICOQUIMICOS						
Fisicoquímicos						
EALCT-VOL304 / 1	Alc Total	mg/L CaCO3	09-Dec-11	128	130	107
ECE-POT401 / 2	CE	µS/cm	03-Dec-11	1020	988	1629
EDURT-CAL756 / 0.5	Dur Total	mg/L	23-Dec-11	291.0	300.2	704.3
EPH-POT403 / 0.01	pH		03-Dec-11	8.13	7.38	7.15
ESTD-GRA203 / 10	STD	mg/L	15-Dec-11	620	590	963
ESTS-GRA203 / 3	STS	mg/L	05-Dec-11	212	1395	876
PARAMETROS INORGANICOS						
Aniones						
ECL-VOL309 / 0.5	Cl	mg/L	06-Dec-11	69.8	69.4	12.9
EF-POT405 / 0.02	F	mg/L	05-Dec-11	0.61	0.56	0.44
ESO4-GRA205c / 10	SO4	mg/L	05-Dec-11	313	288	809
Cianuros						
ECNT-COL101 / 0.002	CN-T	mg/L	13-Dec-11	<0.002	<0.002	<0.002
Fosfatos						
EP-COL142 / 0.1	P-Total	mg/L	14-Dec-11	<0.1	0.9	0.4
Nitrógeno						
ENH3-COL143 / 0.01	N-NH3	mg/L	07-Dec-11	<0.01	<0.01	<0.01
ENO2-COL115 / 0.01	N-NO2	mg/L	07-Dec-11	<0.01	<0.01	<0.01
ENO3-COL123 / 0.1	N-NO3	mg/L	06-Dec-11	0.8	2.7	1.9
PARAMETROS ORGANICOS						
Parámetros Orgánicos Individual						
EFEN-COL107 / 0.001	Fenoles	mg/L	21-Dec-11	<0.001	<0.001	<0.001
PARAMETROS SUB CONTRATADOS						
ESUBC-513 / 1.8	Colif Fec	NMP/100 mL	03-Dec-11	33.0	7.8	<1.8
ESUBC-514 / 1.8	Colif Tot	NMP/100 mL	03-Dec-11	49.0	7.8	<1.8

<= Menor que el límite de detección Indicado
AS (Agua Superficial)
NA: No Analizada, IM: Insuficiente Muestra

SE1101614

RESULTADOS DE ANALISIS

Identificación				SWN-09-09	SW-8	SW-4
Fecha de Muestreo				02-Dec-11	02-Dec-11	01-Dec-11
Hora de Muestreo				12:35	11:05	15:05
Código ALS				SE1101614-010	SE1101614-011	SE1101614-012
Tipo de Muestra				AS	AS	AS
Parámetro / LD	Analito	Unidades	Fecha de Análisis			
METALES DISUELTOS						
EHG-VF81 / 0.00005	Hg	mg/L	20-Dec-11	<0.00005	<0.00005	<0.00005
EMA-MS680Ag / 0.000050	Ag	mg/L	20-Dec-11	<0.000050	<0.000050	<0.000050
EMA-MS680Al / 0.0050	Al	mg/L	20-Dec-11	0.0087	0.0086	0.0079
EMA-MS680As / 0.00050	As	mg/L	20-Dec-11	0.149	0.141	0.0409
EMA-MS680B / 0.050	B	mg/L	20-Dec-11	1.61	1.64	0.895
EMA-MS680Ba / 0.00025	Ba	mg/L	20-Dec-11	0.0231	0.0285	0.0514
EMA-MS680Be / 0.0025	Be	mg/L	20-Dec-11	<0.0025	<0.0025	<0.0025
EMA-MS680Bi / 0.0025	Bi	mg/L	20-Dec-11	<0.0025	<0.0025	<0.0025
EMA-MS680Ca / 0.050	Ca	mg/L	20-Dec-11	80.6	89.7	209
EMA-MS680Cd / 0.00025	Cd	mg/L	20-Dec-11	<0.00025	<0.00025	<0.00025
EMA-MS680Co / 0.00050	Co	mg/L	20-Dec-11	<0.00050	<0.00050	<0.00050
EMA-MS680Cr / 0.0025	Cr	mg/L	20-Dec-11	<0.0025	<0.0025	<0.0025
EMA-MS680Cu / 0.00050	Cu	mg/L	20-Dec-11	0.00152	0.00155	<0.00050
EMA-MS680Fe / 0.030	Fe	mg/L	20-Dec-11	0.090	<0.030	<0.030
EMA-MS680K / 2.0	K	mg/L	20-Dec-11	4.5	4.6	5.6
EMA-MS680Li / 0.0050	Li	mg/L	20-Dec-11	0.210	0.218	0.143
EMA-MS680Mg / 0.10	Mg	mg/L	20-Dec-11	21.8	18.5	44.3
EMA-MS680Mn / 0.00025	Mn	mg/L	20-Dec-11	0.00036	0.00040	0.00046
EMA-MS680Mo / 0.00025	Mo	mg/L	20-Dec-11	0.00456	0.00401	0.00110
EMA-MS680Na / 2.0	Na	mg/L	20-Dec-11	74.8	68.1	53.1
EMA-MS680Ni / 0.0025	Ni	mg/L	20-Dec-11	<0.0025	<0.0025	<0.0025
EMA-MS680P / 0.30	P	mg/L	20-Dec-11	<0.30	<0.30	<0.30
EMA-MS680Pb / 0.00025	Pb	mg/L	20-Dec-11	<0.00025	<0.00025	<0.00025
EMA-MS680Sb / 0.00050	Sb	mg/L	20-Dec-11	<0.00050	<0.00050	<0.00050
EMA-MS680Se / 0.0050	Se	mg/L	20-Dec-11	<0.0050	<0.0050	<0.0050
EMA-MS680Si / 0.050	Si	mg/L	20-Dec-11	11.1	11.7	11.0
EMA-MS680Sn / 0.00050	Sn	mg/L	20-Dec-11	<0.00050	<0.00050	<0.00050
EMA-MS680Sr / 0.00050	Sr	mg/L	20-Dec-11	0.695	0.671	2.00
EMA-MS680Ti / 0.010	Ti	mg/L	20-Dec-11	<0.010	<0.010	<0.010
EMA-MS680Tl / 0.00050	Tl	mg/L	20-Dec-11	<0.00050	<0.00050	<0.00050
EMA-MS680U / 0.000050	U	mg/L	20-Dec-11	0.00441	0.00411	0.000392
EMA-MS680V / 0.0050	V	mg/L	20-Dec-11	0.0061	<0.0050	<0.0050
EMA-MS680Zn / 0.0050	Zn	mg/L	20-Dec-11	<0.0050	<0.0050	<0.0050

<= Menor que el límite de detección Indicado
AS (Agua Superficial)
NA: No Analizada, IM: Insuficiente Muestra

SE1101614

RESULTADOS DE ANALISIS

Identificación				SWN-09-09	SW-8	SW-4
Fecha de Muestreo				02-Dec-11	02-Dec-11	01-Dec-11
Hora de Muestreo				12:35	11:05	15:05
Código ALS				SE1101614-010	SE1101614-011	SE1101614-012
Tipo de Muestra				AS	AS	AS
Parámetro / LD	Analito	Unidades	Fecha de Análisis			
METALES TOTALES						
EHG-VF82 / 0.00005	Hg	mg/L	20-Dec-11	<0.00005	<0.00005	<0.00005
EMA-MS681Ag / 0.000050	Ag	mg/L	20-Dec-11	<0.000050	<0.000050	<0.000050
EMA-MS681Al / 0.0050	Al	mg/L	20-Dec-11	3.49	20.5	6.80
EMA-MS681As / 0.00050	As	mg/L	20-Dec-11	0.149	0.203	0.0632
EMA-MS681B / 0.050	B	mg/L	20-Dec-11	1.63	1.73	0.927
EMA-MS681Ba / 0.00025	Ba	mg/L	20-Dec-11	0.0417	0.145	0.116
EMA-MS681Be / 0.0025	Be	mg/L	20-Dec-11	<0.0025	<0.0025	<0.0025
EMA-MS681Bi / 0.0025	Bi	mg/L	20-Dec-11	<0.0025	<0.0025	<0.0025
EMA-MS681Ca / 0.050	Ca	mg/L	20-Dec-11	84.9	90.2	213
EMA-MS681Cd / 0.00025	Cd	mg/L	20-Dec-11	<0.00025	<0.00025	<0.00025
EMA-MS681Co / 0.00050	Co	mg/L	20-Dec-11	0.00162	0.0109	0.00411
EMA-MS681Cr / 0.0025	Cr	mg/L	20-Dec-11	<0.0025	0.0041	<0.0025
EMA-MS681Cu / 0.00050	Cu	mg/L	20-Dec-11	0.0126	0.0767	0.0284
EMA-MS681Fe / 0.030	Fe	mg/L	20-Dec-11	3.39	17.1	6.04
EMA-MS681K / 2.0	K	mg/L	20-Dec-11	5.2	6.8	6.1
EMA-MS681Li / 0.0050	Li	mg/L	20-Dec-11	0.212	0.220	0.145
EMA-MS681Mg / 0.10	Mg	mg/L	20-Dec-11	22.1	26.1	45.4
EMA-MS681Mn / 0.00025	Mn	mg/L	20-Dec-11	0.156	0.863	0.541
EMA-MS681Mo / 0.00025	Mo	mg/L	20-Dec-11	0.00482	0.00415	0.00175
EMA-MS681Na / 2.0	Na	mg/L	20-Dec-11	75.7	69.7	54.7
EMA-MS681Ni / 0.0025	Ni	mg/L	20-Dec-11	<0.0025	0.0064	<0.0025
EMA-MS681P / 0.30	P	mg/L	20-Dec-11	<0.30	0.61	0.40
EMA-MS681Pb / 0.00025	Pb	mg/L	20-Dec-11	0.00303	0.0149	0.00727
EMA-MS681Sb / 0.00050	Sb	mg/L	20-Dec-11	<0.00050	<0.00050	<0.00050
EMA-MS681Se / 0.0050	Se	mg/L	20-Dec-11	<0.0050	<0.0050	<0.0050
EMA-MS681Si / 0.050	Si	mg/L	20-Dec-11	18.6	39.9	20.9
EMA-MS681Sn / 0.00050	Sn	mg/L	20-Dec-11	<0.00050	<0.00050	<0.00050
EMA-MS681Sr / 0.00050	Sr	mg/L	20-Dec-11	0.714	0.866	2.26
EMA-MS681Ti / 0.010	Ti	mg/L	20-Dec-11	0.030	0.051	0.030
EMA-MS681Tl / 0.00050	Tl	mg/L	20-Dec-11	<0.00050	<0.00050	<0.00050
EMA-MS681U / 0.000050	U	mg/L	20-Dec-11	0.00454	0.00468	0.000512
EMA-MS681V / 0.0050	V	mg/L	20-Dec-11	0.0103	0.0299	0.0115
EMA-MS681Zn / 0.0050	Zn	mg/L	20-Dec-11	0.0270	0.116	0.0577

<= Menor que el límite de detección Indicado
AS (Agua Superficial)
NA: No Analizada, IM: Insuficiente Muestra

SE1101614

RESULTADOS DE ANALISIS

Identificación				SW-5	SW-15	SW-SR-2
Fecha de Muestreo				01-Dec-11	01-Dec-11	01-Dec-11
Hora de Muestreo				15:35	14:45	14:20
Código ALS				SE1101614-013	SE1101614-014	SE1101614-015
Tipo de Muestra				AS	AS	AS
Parámetro / LD	**Analito**	**Unidades**	**Fecha de Análisis**			
PARAMETROS FISICOQUIMICOS						
Fisicoquímicos						
EALCT-VOL304 / 1	Alc Total	mg/L CaCO3	09-Dec-11	51	110	105
ECE-POT401 / 2	CE	µS/cm	03-Dec-11	279	1632	1633
EDURT-CAL756 / 0.5	Dur Total	mg/L	23-Dec-11	57.6	749.0	814.7
EPH-POT403 / 0.01	pH		03-Dec-11	6.98	7.19	7.65
ESTD-GRA203 / 10	STD	mg/L	15-Dec-11	170	967	970
ESTS-GRA203 / 3	STS	mg/L	05-Dec-11	672	846	524
PARAMETROS INORGANICOS						
Aniones						
ECL-VOL309 / 0.5	Cl	mg/L	06-Dec-11	20.0	13.5	9.7
EF-POT405 / 0.02	F	mg/L	05-Dec-11	0.22	0.45	0.39
ESO4-GRA205c / 10	SO4	mg/L	05-Dec-11	61	848	867
Cianuros						
ECNT-COL101 / 0.002	CN-T	mg/L	13-Dec-11	<0.002	<0.002	<0.002
Fosfatos						
EP-COL142 / 0.1	P-Total	mg/L	14-Dec-11	<0.1	0.6	<0.1
Nitrógeno						
ENH3-COL143 / 0.01	N-NH3	mg/L	07-Dec-11	<0.01	<0.01	<0.01
ENO2-COL115 / 0.01	N-NO2	mg/L	07-Dec-11	<0.01	<0.01	<0.01
ENO3-COL123 / 0.1	N-NO3	mg/L	06-Dec-11	1.6	2.3	1.6
PARAMETROS ORGANICOS						
Parámetros Orgánicos Individual						
EFEN-COL107 / 0.001	Fenoles	mg/L	21-Dec-11	<0.001	<0.001	<0.001
PARAMETROS SUB CONTRATADOS						
ESUBC-513 / 1.8	Colif Fec	NMP/100 mL	03-Dec-11	<1.8	4.5	<1.8
ESUBC-514 / 1.8	Colif Tot	NMP/100 mL	03-Dec-11	<1.8	110.0	4.0

<= Menor que el límite de detección Indicado
AS (Agua Superficial)
NA: No Analizada, IM: Insuficiente Muestra

SE1101614

RESULTADOS DE ANALISIS

Identificación				SW-5	SW-15	SW-SR-2
Fecha de Muestreo				01-Dec-11	01-Dec-11	01-Dec-11
Hora de Muestreo				15:35	14:45	14:20
Código ALS				SE1101614-013	SE1101614-014	SE1101614-015
Tipo de Muestra				AS	AS	AS
Parámetro / LD	Analito	Unidades	Fecha de Análisis			
METALES DISUELTOS						
EHG-VF81 / 0.00005	Hg	mg/L	20-Dec-11	<0.00005	<0.00005	<0.00005
EMA-MS680Ag / 0.000050	Ag	mg/L	20-Dec-11	<0.000050	<0.000050	<0.000050
EMA-MS680Al / 0.0050	Al	mg/L	20-Dec-11	0.0172	0.0071	0.0222
EMA-MS680As / 0.00050	As	mg/L	20-Dec-11	0.0486	0.0441	0.0275
EMA-MS680B / 0.050	B	mg/L	20-Dec-11	0.384	0.849	0.515
EMA-MS680Ba / 0.00025	Ba	mg/L	20-Dec-11	0.0149	0.0550	0.0507
EMA-MS680Be / 0.0025	Be	mg/L	20-Dec-11	<0.0025	<0.0025	<0.0025
EMA-MS680Bi / 0.0025	Bi	mg/L	20-Dec-11	<0.0025	<0.0025	<0.0025
EMA-MS680Ca / 0.050	Ca	mg/L	20-Dec-11	16.7	218	243
EMA-MS680Cd / 0.00025	Cd	mg/L	20-Dec-11	<0.00025	<0.00025	<0.00025
EMA-MS680Co / 0.00050	Co	mg/L	20-Dec-11	<0.00050	<0.00050	<0.00050
EMA-MS680Cr / 0.0025	Cr	mg/L	20-Dec-11	<0.0025	<0.0025	<0.0025
EMA-MS680Cu / 0.00050	Cu	mg/L	20-Dec-11	<0.00050	<0.00050	<0.00050
EMA-MS680Fe / 0.030	Fe	mg/L	20-Dec-11	<0.030	<0.030	<0.030
EMA-MS680K / 2.0	K	mg/L	20-Dec-11	2.2	5.9	4.9
EMA-MS680Li / 0.0050	Li	mg/L	20-Dec-11	0.0517	0.137	0.0962
EMA-MS680Mg / 0.10	Mg	mg/L	20-Dec-11	3.87	49.7	50.5
EMA-MS680Mn / 0.00025	Mn	mg/L	20-Dec-11	<0.00025	0.00069	0.0513
EMA-MS680Mo / 0.00025	Mo	mg/L	20-Dec-11	0.00272	0.00142	0.00120
EMA-MS680Na / 2.0	Na	mg/L	20-Dec-11	30.9	56.0	55.8
EMA-MS680Ni / 0.0025	Ni	mg/L	20-Dec-11	<0.0025	<0.0025	<0.0025
EMA-MS680P / 0.30	P	mg/L	20-Dec-11	<0.30	<0.30	<0.30
EMA-MS680Pb / 0.00025	Pb	mg/L	20-Dec-11	<0.00025	<0.00025	<0.00025
EMA-MS680Sb / 0.00050	Sb	mg/L	20-Dec-11	<0.00050	<0.00050	<0.00050
EMA-MS680Se / 0.0050	Se	mg/L	20-Dec-11	<0.0050	<0.0050	<0.0050
EMA-MS680Si / 0.050	Si	mg/L	20-Dec-11	13.0	11.3	10.9
EMA-MS680Sn / 0.00050	Sn	mg/L	20-Dec-11	<0.00050	<0.00050	<0.00050
EMA-MS680Sr / 0.00050	Sr	mg/L	20-Dec-11	0.0886	2.13	2.07
EMA-MS680Ti / 0.010	Ti	mg/L	20-Dec-11	<0.010	<0.010	<0.010
EMA-MS680Tl / 0.00050	Tl	mg/L	20-Dec-11	<0.00050	<0.00050	<0.00050
EMA-MS680U / 0.000050	U	mg/L	20-Dec-11	0.00166	0.000442	0.000313
EMA-MS680V / 0.0050	V	mg/L	20-Dec-11	0.0107	<0.0050	<0.0050
EMA-MS680Zn / 0.0050	Zn	mg/L	20-Dec-11	<0.0050	<0.0050	<0.0050

<= Menor que el límite de detección Indicado
AS (Agua Superficial)
NA: No Analizada, IM: Insuficiente Muestra

SE1101614

RESULTADOS DE ANALISIS

Identificación				SW-5	SW-15	SW-SR-2
Fecha de Muestreo				01-Dec-11	01-Dec-11	01-Dec-11
Hora de Muestreo				15:35	14:45	14:20
Código ALS				SE1101614-013	SE1101614-014	SE1101614-015
Tipo de Muestra				AS	AS	AS
Parámetro / LD	**Analito**	**Unidades**	**Fecha de Análisis**			
METALES TOTALES						
EHG-VF82 / 0.00005	Hg	mg/L	20-Dec-11	<0.00005	0.00007	<0.00005
EMA-MS681Ag / 0.000050	Ag	mg/L	20-Dec-11	<0.000050	<0.000050	<0.000050
EMA-MS681Al / 0.0050	Al	mg/L	20-Dec-11	4.61	11.1	4.01
EMA-MS681As / 0.00050	As	mg/L	20-Dec-11	0.0494	0.0743	0.0367
EMA-MS681B / 0.050	B	mg/L	20-Dec-11	0.394	0.867	0.568
EMA-MS681Ba / 0.00025	Ba	mg/L	20-Dec-11	0.0610	0.160	0.0846
EMA-MS681Be / 0.0025	Be	mg/L	20-Dec-11	<0.0025	<0.0025	<0.0025
EMA-MS681Bi / 0.0025	Bi	mg/L	20-Dec-11	<0.0025	<0.0025	<0.0025
EMA-MS681Ca / 0.050	Ca	mg/L	20-Dec-11	18.4	228	247
EMA-MS681Cd / 0.00025	Cd	mg/L	20-Dec-11	<0.00025	<0.00025	<0.00025
EMA-MS681Co / 0.00050	Co	mg/L	20-Dec-11	0.00168	0.00713	0.00275
EMA-MS681Cr / 0.0025	Cr	mg/L	20-Dec-11	<0.0025	<0.0025	<0.0025
EMA-MS681Cu / 0.00050	Cu	mg/L	20-Dec-11	0.0127	0.0467	0.0171
EMA-MS681Fe / 0.030	Fe	mg/L	20-Dec-11	2.60	11.6	4.59
EMA-MS681K / 2.0	K	mg/L	20-Dec-11	3.4	7.1	6.0
EMA-MS681Li / 0.0050	Li	mg/L	20-Dec-11	0.0522	0.139	0.0985
EMA-MS681Mg / 0.10	Mg	mg/L	20-Dec-11	5.52	50.0	50.5
EMA-MS681Mn / 0.00025	Mn	mg/L	20-Dec-11	0.142	0.914	0.468
EMA-MS681Mo / 0.00025	Mo	mg/L	20-Dec-11	0.00276	0.00172	0.00128
EMA-MS681Na / 2.0	Na	mg/L	20-Dec-11	31.7	58.3	56.2
EMA-MS681Ni / 0.0025	Ni	mg/L	20-Dec-11	<0.0025	0.0037	<0.0025
EMA-MS681P / 0.30	P	mg/L	20-Dec-11	<0.30	0.85	<0.30
EMA-MS681Pb / 0.00025	Pb	mg/L	20-Dec-11	0.00226	0.0114	0.00503
EMA-MS681Sb / 0.00050	Sb	mg/L	20-Dec-11	<0.00050	<0.00050	<0.00050
EMA-MS681Se / 0.0050	Se	mg/L	20-Dec-11	<0.0050	<0.0050	<0.0050
EMA-MS681Si / 0.050	Si	mg/L	20-Dec-11	21.7	29.6	19.5
EMA-MS681Sn / 0.00050	Sn	mg/L	20-Dec-11	<0.00050	<0.00050	<0.00050
EMA-MS681Sr / 0.00050	Sr	mg/L	20-Dec-11	0.115	2.15	2.09
EMA-MS681Ti / 0.010	Ti	mg/L	20-Dec-11	0.091	0.041	0.028
EMA-MS681Tl / 0.00050	Tl	mg/L	20-Dec-11	<0.00050	<0.00050	<0.00050
EMA-MS681U / 0.000050	U	mg/L	20-Dec-11	0.00182	0.000562	0.000361
EMA-MS681V / 0.0050	V	mg/L	20-Dec-11	0.0158	0.0187	0.0072
EMA-MS681Zn / 0.0050	Zn	mg/L	20-Dec-11	0.0210	0.0881	0.0404

<= Menor que el límite de detección Indicado
AS (Agua Superficial)
NA: No Analizada, IM: Insuficiente Muestra

SE1101614

RESULTADOS DE ANALISIS

Identificación				SW-1	SW-2	SW-14
Fecha de Muestreo				01-Dec-11	01-Dec-11	01-Dec-11
Hora de Muestreo				12:05	12:40	14:00
Código ALS				SE1101614-016	SE1101614-017	SE1101614-018
Tipo de Muestra				AS	AS	AS
Parámetro / LD	Analito	Unidades	Fecha de Análisis			
PARAMETROS FISICOQUIMICOS						
Fisicoquímicos						
EALCT-VOL304 / 1	Alc Total	mg/L CaCO3	09-Dec-11	26	54	97
ECE-POT401 / 2	CE	µS/cm	03-Dec-11	2240	1874	1627
EDURT-CAL756 / 0.5	Dur Total	mg/L	23-Dec-11	1040.1	912.9	766.2
EPH-POT403 / 0.01	pH		03-Dec-11	6.54	7.18	7.42
ESTD-GRA203 / 10	STD	mg/L	15-Dec-11	1347	1190	1000
ESTS-GRA203 / 3	STS	mg/L	05-Dec-11	1415	372	542
PARAMETROS INORGANICOS						
Aniones						
ECL-VOL309 / 0.5	Cl	mg/L	06-Dec-11	8.5	10.1	10.0
EF-POT405 / 0.02	F	mg/L	05-Dec-11	0.88	0.42	0.39
ESO4-GRA205c / 10	SO4	mg/L	05-Dec-11	1454	1115	833
Cianuros						
ECNT-COL101 / 0.002	CN-T	mg/L	13-Dec-11	<0.002	<0.002	<0.002
Fosfatos						
EP-COL142 / 0.1	P-Total	mg/L	14-Dec-11	1.0	<0.1	0.2
Nitrógeno						
ENH3-COL143 / 0.01	N-NH3	mg/L	07-Dec-11	<0.01	<0.01	<0.01
ENO2-COL115 / 0.01	N-NO2	mg/L	07-Dec-11	<0.01	<0.01	<0.01
ENO3-COL123 / 0.1	N-NO3	mg/L	06-Dec-11	10.8	1.8	2.0
PARAMETROS ORGANICOS						
Parámetros Orgánicos Individual						
EFEN-COL107 / 0.001	Fenoles	mg/L	21-Dec-11	<0.001	<0.001	<0.001
PARAMETROS SUB CONTRATADOS						
ESUBC-513 / 1.8	Colif Fec	NMP/100 mL	03-Dec-11	<1.8	<1.8	<1.8
ESUBC-514 / 1.8	Colif Tot	NMP/100 mL	03-Dec-11	<1.8	<1.8	<1.8

<= Menor que el límite de detección Indicado
AS (Agua Superficial)
NA: No Analizada, IM: Insuficiente Muestra

SE1101614

RESULTADOS DE ANALISIS

Identificación				SW-1	SW-2	SW-14
Fecha de Muestreo				01-Dec-11	01-Dec-11	01-Dec-11
Hora de Muestreo				12:05	12:40	14:00
Código ALS				SE1101614-016	SE1101614-017	SE1101614-018
Tipo de Muestra				AS	AS	AS
Parámetro / LD	Analito	Unidades	Fecha de Análisis			
METALES DISUELTOS						
EHG-VF81 / 0.00005	Hg	mg/L	20-Dec-11	<0.00005	<0.00005	<0.00005
EMA-MS680Ag / 0.000050	Ag	mg/L	20-Dec-11	<0.000050	<0.000050	<0.000050
EMA-MS680Al / 0.0050	Al	mg/L	20-Dec-11	0.0142	0.0147	0.0051
EMA-MS680As / 0.00050	As	mg/L	20-Dec-11	0.00149	0.00498	0.0225
EMA-MS680B / 0.050	B	mg/L	20-Dec-11	0.736	0.505	0.456
EMA-MS680Ba / 0.00025	Ba	mg/L	20-Dec-11	0.0195	0.0216	0.0448
EMA-MS680Be / 0.0025	Be	mg/L	20-Dec-11	<0.0025	<0.0025	<0.0025
EMA-MS680Bi / 0.0025	Bi	mg/L	20-Dec-11	<0.0025	<0.0025	<0.0025
EMA-MS680Ca / 0.050	Ca	mg/L	20-Dec-11	309	281	230
EMA-MS680Cd / 0.00025	Cd	mg/L	20-Dec-11	0.00074	<0.00025	<0.00025
EMA-MS680Co / 0.00050	Co	mg/L	20-Dec-11	0.00391	0.00101	<0.00050
EMA-MS680Cr / 0.0025	Cr	mg/L	20-Dec-11	<0.0025	<0.0025	<0.0025
EMA-MS680Cu / 0.00050	Cu	mg/L	20-Dec-11	0.00219	0.00159	<0.00050
EMA-MS680Fe / 0.030	Fe	mg/L	20-Dec-11	<0.030	<0.030	<0.030
EMA-MS680K / 2.0	K	mg/L	20-Dec-11	6.3	4.0	4.4
EMA-MS680Li / 0.0050	Li	mg/L	20-Dec-11	0.131	0.0774	0.0861
EMA-MS680Mg / 0.10	Mg	mg/L	20-Dec-11	65.2	51.3	46.6
EMA-MS680Mn / 0.00025	Mn	mg/L	20-Dec-11	2.36	0.592	0.0102
EMA-MS680Mo / 0.00025	Mo	mg/L	20-Dec-11	0.00493	0.00215	0.00093
EMA-MS680Na / 2.0	Na	mg/L	20-Dec-11	49.6	49.4	51.0
EMA-MS680Ni / 0.0025	Ni	mg/L	20-Dec-11	<0.0025	<0.0025	<0.0025
EMA-MS680P / 0.30	P	mg/L	20-Dec-11	<0.30	<0.30	<0.30
EMA-MS680Pb / 0.00025	Pb	mg/L	20-Dec-11	<0.00025	0.00073	<0.00025
EMA-MS680Sb / 0.00050	Sb	mg/L	20-Dec-11	<0.00050	<0.00050	<0.00050
EMA-MS680Se / 0.0050	Se	mg/L	20-Dec-11	<0.0050	<0.0050	<0.0050
EMA-MS680Si / 0.050	Si	mg/L	20-Dec-11	8.32	9.89	10.3
EMA-MS680Sn / 0.00050	Sn	mg/L	20-Dec-11	<0.00050	<0.00050	<0.00050
EMA-MS680Sr / 0.00050	Sr	mg/L	20-Dec-11	1.57	1.44	1.85
EMA-MS680Ti / 0.010	Ti	mg/L	20-Dec-11	<0.010	<0.010	<0.010
EMA-MS680Tl / 0.00050	Tl	mg/L	20-Dec-11	<0.00050	<0.00050	<0.00050
EMA-MS680U / 0.000050	U	mg/L	20-Dec-11	<0.000050	0.000150	0.000347
EMA-MS680V / 0.0050	V	mg/L	20-Dec-11	<0.0050	<0.0050	<0.0050
EMA-MS680Zn / 0.0050	Zn	mg/L	20-Dec-11	0.0208	0.0077	0.0056

<= Menor que el límite de detección Indicado
AS (Agua Superficial)
NA: No Analizada, IM: Insuficiente Muestra

SE1101614

RESULTADOS DE ANALISIS

Identificación				SW-1	SW-2	SW-14
Fecha de Muestreo				01-Dec-11	01-Dec-11	01-Dec-11
Hora de Muestreo				12:05	12:40	14:00
Código ALS				SE1101614-016	SE1101614-017	SE1101614-018
Tipo de Muestra				AS	AS	AS
Parámetro / LD	Analito	Unidades	Fecha de Análisis			
METALES TOTALES						
EHG-VF82 / 0.00005	Hg	mg/L	20-Dec-11	0.00021	<0.00005	<0.00005
EMA-MS681Ag / 0.000050	Ag	mg/L	20-Dec-11	0.000294	<0.000050	<0.000050
EMA-MS681Al / 0.0050	Al	mg/L	20-Dec-11	15.9	7.23	4.76
EMA-MS681As / 0.00050	As	mg/L	20-Dec-11	0.135	0.0546	0.0339
EMA-MS681B / 0.050	B	mg/L	20-Dec-11	0.758	0.520	0.475
EMA-MS681Ba / 0.00025	Ba	mg/L	20-Dec-11	0.0834	0.0622	0.0861
EMA-MS681Be / 0.0025	Be	mg/L	20-Dec-11	<0.0025	<0.0025	<0.0025
EMA-MS681Bi / 0.0025	Bi	mg/L	20-Dec-11	<0.0025	<0.0025	<0.0025
EMA-MS681Ca / 0.050	Ca	mg/L	20-Dec-11	318	281	230
EMA-MS681Cd / 0.00025	Cd	mg/L	20-Dec-11	0.00141	0.00054	<0.00025
EMA-MS681Co / 0.00050	Co	mg/L	20-Dec-11	0.0153	0.00776	0.00313
EMA-MS681Cr / 0.0025	Cr	mg/L	20-Dec-11	0.0030	<0.0025	<0.0025
EMA-MS681Cu / 0.00050	Cu	mg/L	20-Dec-11	0.793	0.262	0.0205
EMA-MS681Fe / 0.030	Fe	mg/L	20-Dec-11	29.7	12.6	5.58
EMA-MS681K / 2.0	K	mg/L	20-Dec-11	6.6	5.1	5.7
EMA-MS681Li / 0.0050	Li	mg/L	20-Dec-11	0.155	0.0804	0.0898
EMA-MS681Mg / 0.10	Mg	mg/L	20-Dec-11	66.1	52.4	47.2
EMA-MS681Mn / 0.00025	Mn	mg/L	20-Dec-11	3.01	1.11	0.501
EMA-MS681Mo / 0.00025	Mo	mg/L	20-Dec-11	0.00609	0.00347	0.00128
EMA-MS681Na / 2.0	Na	mg/L	20-Dec-11	50.4	52.1	51.6
EMA-MS681Ni / 0.0025	Ni	mg/L	20-Dec-11	0.0124	0.0052	<0.0025
EMA-MS681P / 0.30	P	mg/L	20-Dec-11	0.61	0.40	0.38
EMA-MS681Pb / 0.00025	Pb	mg/L	20-Dec-11	0.0293	0.0134	0.00604
EMA-MS681Sb / 0.00050	Sb	mg/L	20-Dec-11	<0.00050	<0.00050	<0.00050
EMA-MS681Se / 0.0050	Se	mg/L	20-Dec-11	<0.0050	<0.0050	<0.0050
EMA-MS681Si / 0.050	Si	mg/L	20-Dec-11	27.6	20.8	20.5
EMA-MS681Sn / 0.00050	Sn	mg/L	20-Dec-11	<0.00050	<0.00050	<0.00050
EMA-MS681Sr / 0.00050	Sr	mg/L	20-Dec-11	1.62	1.55	1.86
EMA-MS681Ti / 0.010	Ti	mg/L	20-Dec-11	0.026	0.023	0.031
EMA-MS681Tl / 0.00050	Tl	mg/L	20-Dec-11	<0.00050	<0.00050	<0.00050
EMA-MS681U / 0.000050	U	mg/L	20-Dec-11	0.000221	0.000242	0.000364
EMA-MS681V / 0.0050	V	mg/L	20-Dec-11	0.0247	0.0133	0.0082
EMA-MS681Zn / 0.0050	Zn	mg/L	20-Dec-11	0.286	0.118	0.0447

<= Menor que el límite de detección Indicado
AS (Agua Superficial)
NA: No Analizada, IM: Insuficiente Muestra

SE1101614

RESULTADOS DE ANALISIS

Identificación				SWN-11-09
Fecha de Muestreo				01-Dec-11
Hora de Muestreo				11:35
Código ALS				SE1101614-019
Tipo de Muestra				AS
Parámetro / LD	**Analito**	**Unidades**	**Fecha de Análisis**	
PARAMETROS FISICOQUIMICOS				
Fisicoquímicos				
EALCT-VOL304 / 1	Alc Total	mg/L CaCO3	09-Dec-11	20
ECE-POT401 / 2	CE	µS/cm	03-Dec-11	2150
EDURT-CAL756 / 0.5	Dur Total	mg/L	23-Dec-11	1063.6
EPH-POT403 / 0.01	pH		03-Dec-11	6.49
ESTD-GRA203 / 10	STD	mg/L	15-Dec-11	1280
ESTS-GRA203 / 3	STS	mg/L	05-Dec-11	1350
PARAMETROS INORGANICOS				
Aniones				
ECL-VOL309 / 0.5	Cl	mg/L	06-Dec-11	9.2
EF-POT405 / 0.02	F	mg/L	05-Dec-11	0.77
ESO4-GRA205c / 10	SO4	mg/L	05-Dec-11	1292
Cianuros				
ECNT-COL101 / 0.002	CN-T	mg/L	13-Dec-11	<0.002
Fosfatos				
EP-COL142 / 0.1	P-Total	mg/L	14-Dec-11	1.2
Nitrógeno				
ENH3-COL143 / 0.01	N-NH3	mg/L	07-Dec-11	<0.01
ENO2-COL115 / 0.01	N-NO2	mg/L	07-Dec-11	<0.01
ENO3-COL123 / 0.1	N-NO3	mg/L	06-Dec-11	8.9
PARAMETROS ORGANICOS				
Parámetros Orgánicos Individual				
EFEN-COL107 / 0.001	Fenoles	mg/L	21-Dec-11	<0.001
PARAMETROS SUB CONTRATADOS				
ESUBC-513 / 1.8	Colif Fec	NMP/100 mL	03-Dec-11	<1.8
ESUBC-514 / 1.8	Colif Tot	NMP/100 mL	03-Dec-11	<1.8
PARAMETROS CRITICOS				
Nitrógeno Nitrito	Hora análisis: 16:45			
Nitrógeno Nitrato	Hora análisis: 11:20			

<= Menor que el límite de detección Indicado
AS (Agua Superficial)
NA: No Analizada, IM: Insuficiente Muestra

SE1101614

RESULTADOS DE ANALISIS

Identificación				SWN-11-09
Fecha de Muestreo				01-Dec-11
Hora de Muestreo				11:35
Código ALS				SE1101614-019
Tipo de Muestra				AS
Parámetro / LD	Analito	Unidades	Fecha de Análisis	
METALES DISUELTOS				
EHG-VF81 / 0.00005	Hg	mg/L	20-Dec-11	<0.00005
EMA-MS680Ag / 0.000050	Ag	mg/L	20-Dec-11	<0.000050
EMA-MS680Al / 0.0050	Al	mg/L	20-Dec-11	0.0063
EMA-MS680As / 0.00050	As	mg/L	20-Dec-11	<0.00050
EMA-MS680B / 0.050	B	mg/L	20-Dec-11	0.723
EMA-MS680Ba / 0.00025	Ba	mg/L	20-Dec-11	0.0206
EMA-MS680Be / 0.0025	Be	mg/L	20-Dec-11	<0.0025
EMA-MS680Bi / 0.0025	Bi	mg/L	20-Dec-11	<0.0025
EMA-MS680Ca / 0.050	Ca	mg/L	20-Dec-11	327
EMA-MS680Cd / 0.00025	Cd	mg/L	20-Dec-11	0.00101
EMA-MS680Co / 0.00050	Co	mg/L	20-Dec-11	0.0120
EMA-MS680Cr / 0.0025	Cr	mg/L	20-Dec-11	<0.0025
EMA-MS680Cu / 0.00050	Cu	mg/L	20-Dec-11	0.00321
EMA-MS680Fe / 0.030	Fe	mg/L	20-Dec-11	<0.030
EMA-MS680K / 2.0	K	mg/L	20-Dec-11	5.6
EMA-MS680Li / 0.0050	Li	mg/L	20-Dec-11	0.0842
EMA-MS680Mg / 0.10	Mg	mg/L	20-Dec-11	60.0
EMA-MS680Mn / 0.00025	Mn	mg/L	20-Dec-11	3.03
EMA-MS680Mo / 0.00025	Mo	mg/L	20-Dec-11	0.00291
EMA-MS680Na / 2.0	Na	mg/L	20-Dec-11	53.4
EMA-MS680Ni / 0.0025	Ni	mg/L	20-Dec-11	0.0028
EMA-MS680P / 0.30	P	mg/L	20-Dec-11	<0.30
EMA-MS680Pb / 0.00025	Pb	mg/L	20-Dec-11	<0.00025
EMA-MS680Sb / 0.00050	Sb	mg/L	20-Dec-11	<0.00050
EMA-MS680Se / 0.0050	Se	mg/L	20-Dec-11	<0.0050
EMA-MS680Si / 0.050	Si	mg/L	20-Dec-11	7.97
EMA-MS680Sn / 0.00050	Sn	mg/L	20-Dec-11	<0.00050
EMA-MS680Sr / 0.00050	Sr	mg/L	20-Dec-11	1.37
EMA-MS680Ti / 0.010	Ti	mg/L	20-Dec-11	<0.010
EMA-MS680Tl / 0.00050	Tl	mg/L	20-Dec-11	<0.00050
EMA-MS680U / 0.000050	U	mg/L	20-Dec-11	<0.000050
EMA-MS680V / 0.0050	V	mg/L	20-Dec-11	<0.0050
EMA-MS680Zn / 0.0050	Zn	mg/L	20-Dec-11	0.0372

<= Menor que el límite de detección Indicado
AS (Agua Superficial)
NA: No Analizada, IM: Insuficiente Muestra

SE1101614

RESULTADOS DE ANALISIS

Identificación				SWN-11-09
Fecha de Muestreo				01-Dec-11
Hora de Muestreo				11:35
Código ALS				SE1101614-019
Tipo de Muestra				AS
Parámetro / LD	**Analito**	**Unidades**	**Fecha de Análisis**	
METALES TOTALES				
EHG-VF82 / 0.00005	Hg	mg/L	20-Dec-11	0.00012
EMA-MS681Ag / 0.000050	Ag	mg/L	20-Dec-11	0.000360
EMA-MS681Al / 0.0050	Al	mg/L	20-Dec-11	20.2
EMA-MS681As / 0.00050	As	mg/L	20-Dec-11	0.139
EMA-MS681B / 0.050	B	mg/L	20-Dec-11	0.727
EMA-MS681Ba / 0.00025	Ba	mg/L	20-Dec-11	0.100
EMA-MS681Be / 0.0025	Be	mg/L	20-Dec-11	<0.0025
EMA-MS681Bi / 0.0025	Bi	mg/L	20-Dec-11	<0.0025
EMA-MS681Ca / 0.050	Ca	mg/L	20-Dec-11	328
EMA-MS681Cd / 0.00025	Cd	mg/L	20-Dec-11	0.00159
EMA-MS681Co / 0.00050	Co	mg/L	20-Dec-11	0.0322
EMA-MS681Cr / 0.0025	Cr	mg/L	20-Dec-11	0.0027
EMA-MS681Cu / 0.00050	Cu	mg/L	20-Dec-11	0.935
EMA-MS681Fe / 0.030	Fe	mg/L	20-Dec-11	37.6
EMA-MS681K / 2.0	K	mg/L	20-Dec-11	6.2
EMA-MS681Li / 0.0050	Li	mg/L	20-Dec-11	0.151
EMA-MS681Mg / 0.10	Mg	mg/L	20-Dec-11	64.0
EMA-MS681Mn / 0.00025	Mn	mg/L	20-Dec-11	3.18
EMA-MS681Mo / 0.00025	Mo	mg/L	20-Dec-11	0.00653
EMA-MS681Na / 2.0	Na	mg/L	20-Dec-11	54.1
EMA-MS681Ni / 0.0025	Ni	mg/L	20-Dec-11	0.0182
EMA-MS681P / 0.30	P	mg/L	20-Dec-11	0.62
EMA-MS681Pb / 0.00025	Pb	mg/L	20-Dec-11	0.0358
EMA-MS681Sb / 0.00050	Sb	mg/L	20-Dec-11	<0.00050
EMA-MS681Se / 0.0050	Se	mg/L	20-Dec-11	<0.0050
EMA-MS681Si / 0.050	Si	mg/L	20-Dec-11	29.1
EMA-MS681Sn / 0.00050	Sn	mg/L	20-Dec-11	<0.00050
EMA-MS681Sr / 0.00050	Sr	mg/L	20-Dec-11	1.69
EMA-MS681Ti / 0.010	Ti	mg/L	20-Dec-11	0.024
EMA-MS681Tl / 0.00050	Tl	mg/L	20-Dec-11	<0.00050
EMA-MS681U / 0.000050	U	mg/L	20-Dec-11	0.000289
EMA-MS681V / 0.0050	V	mg/L	20-Dec-11	0.0287
EMA-MS681Zn / 0.0050	Zn	mg/L	20-Dec-11	0.329

<= Menor que el límite de detección Indicado
AS (Agua Superficial)
NA: No Analizada, IM: Insuficiente Muestra

SE1101614

Anexo 1 - COMENTARIOS

Condiciones de Recepción de Muestras

- Se recibieron 19 muestras.
- La muestra fue tomada por el cliente quien se responsabiliza por su correcta identificación y preservación.
- Muestra(s) recibida(s) en buena(s) condiciones, en el tipo de recipiente adecuado y fría.
- Medida del parámetro pH y Conductividad fue realizado en ALS Environmental a 25ºC.
- Medida del parámetro Metales Totales y Metales Disueltos fue realizado en ALS Environmental Externo.
- Medida del parámetro Coliformes Fecales y Coliformes Totales fue Subcontratado en Laboratorio Acreditado.
- La información contenida en este informe no podrá ser reproducida total o parcialmente para usos publicitarios sin la autorización previa de ALS Patagonia S.A.
- Los resultados contenidos en este Informe de ensayo sólo son válidos para las muestras analizadas.

Referencias de Métodos

- **EALCT-VOL304 (Alc Total) :** Titration Method. APHA 2320-B, page 2-27 to 2-29, 21st ed.
- **ECE-POT401 (CE) :** Laboratory Method. APHA 2510-B, page 2-47 to 2-48, 21st ed.
- **ECL-VOL309 (Cl) :** Argentometric Method. APHA 4500-Cl-B, page.4-70 to 4-71, 21st ed.2005.
- **EDURT-CAL756 (Dur Total) :** Hardness by Calculation. APHA 2340-B, page 2-37, 21st ed.
- **EF-POT405 (F) :** Ion-Selective Electrode Method. APHA 4500-F-C, page 4-84 to 4-85, 21st ed.
- **EFEN-COL107 (Fenoles) :** Cloroform Extraction Method, APHA 5530-C, page 5-45 to 5-46, 21st ed. 2005.
- **ENH3-COL143 (N-NH3) :** Nitrógeno Amoniacal. APHA 4500-NH3-H, page 4-116 to 4-117, 21 st ed. 2005.
- **EP-COL142 (P-Total) :** Método Espectrofotometría de Absorción Molecular UV-VIS, previa Digestión, NCh 2313/15, Oficial 1997., Fósforo Total. APHA 4500-P-H, page 4-158, 21 st ed. 2005. APHA 4500-P-B4: Preliminary Distillation Step.
- **EPH-POT403 (pH) :** Electrometric Method. APHA 4500-H-B, page 4-90 to 4-94, 21st ed.
- **ESO4-GRA205c (SO4) :** Método Gravimétrico con Secado de Residuos, SISS ME-30-2007, pág. 222 - 227, 2da versión 2007., Gravimetric Method with Drying of Residue. APHA 4500-SO4-D, page 4-187 to 4-188, 21st ed.2005.
- **ESTD-GRA203 (STD) :** Total Dissolved Solids Dried at 180 ºC. APHA 2540-C, page 2-57, 21st ed.
- **ESTS-GRA203 (STS) :** Total Suspended Solids Dried at 103-105 ºC. APHA 2540-D, page 2-58 to 2-59, 21st ed.

Referencias de Métodos - Parámetros Subcontratados

- **ESUBC-513 (Colif Fec) :** Fecal Coliform Procedure. APHA 9221-E, page 9-56 to 9-57, 21st ed.2005..
- **ESUBC-514 (Colif Tot) :** Standard Total Coliform Fermentation Technique, APHA 9221-B, page 9-49 to 9-52, 21st ed. 2005.

SE1101614

Anexo 2

Procedimientos Analíticos

CODIGO METODO	DESCRIPCION
EALCT-VOL304	Alcalinidad Total, volumetría
ECE-POT401	Conductividad electrica, potenciometría
ECL-VOL309	Cloruro por Volumetria
EDURT-CAL756	Dureza Total, calculo
EF-POT405	Fluoruro por Potenciometria
EFEN-COL107	Fenoles por Colorimetria
ENH3-COL143	Nitrógeno Amoniacal
EP-COL142	Fósforo Total
EPH-POT403	pH por potenciometria
ESO4-GRA205c	Sulfato por gravimetria
ESTD-GRA203	Sólidos Disueltos Totales, Gravimetría
ESTS-GRA203	Sólidos Totales Suspendidos, gravimetria
ESUBC-513	Coliformes Fecales por Tubos Multiples
ESUBC-514	Coliformes Totales por Tubos Multiples

**** FIN DEL REPORTE ****