TABLE C-1
LONG TERM TREND GROUNDWATER MONITOR DETAILS

DUNTROON QUARRY - 2017 AMP SUMMARY REPORT
111-53312.00 A61

DESIGNATION	NAD 27 NORTHING	NAD 27 EASTING	TYPE	DIAMETER (mm)	MEASURING POINT ELEVATION (m ASL)	GROUND ELEVATION (m ASL)	SCREENED INTERVAL (m ASL or Depth)	GEOLOGIC FORMATION MONITORED	MONITORING PROGRAM
DUNTROON EXPANSION LANDS MONITORS									
BH02-1	4915021	560321	O	102	523.3	522.6	Open Hole 39.5 m	Amabel/Fossil Hill	LTT
BH02-2	4915314	559904	O	102	523.2	522.5	Open Hole 39.5 m	Amabel/Fossil Hill	LTT
BH02-3	4915082	559869	O	102	530.6	529.6	Open Hole 9.5 m *	Amabel/Fossil Hill	LTT
BH02-4	4915100	559862	O	102	530.7	530.0	Open Hole 50.1 m	Amabel/Fossil Hill	LTT
BH02-5	4915356	559577	O	102	513.9	513.2	Open Hole 31.9 m	Amabel/Fossil Hill	LTT
BH02-5 (mid)	4915356	559577	O	102	514.2	513.2	Open Hole 12.4 m	Amabel	LTT
BH02-6	4914782	559692	O	102	530.3	529.5	Open Hole 48.5 m	Amabel/Fossil Hill	LTT
BH03-7-I	4915281	559331	O	102	511.0	510.3	502.9 - 501.1	Amabel	LTT
BH03-7-II	4915283	559331	O	102	511.0	510.3	508.7 - 504.8	Overburden	LTT
BH03-7-III	4915293	559354	O	102	511.7	510.6	Open Hole 30.7 m	Amabel/Fossil Hill	LTT
BH03-8	4915099	558963	O	102	520.8	520.2	Open Hole 37.9 m	Amabel/Fossil Hill	LTT
BH03-9	4914674	559088	O	102	518.9	518.5	Open Hole 39.5 m	Amabel/Fossil Hill	LTT
BRIDSON DP	4915303	560360	S	38	511.3	510.4	509.6 - 508.8	Overburden	PITM
TW04-1	4914910	559084	O	152	517.5	517.1	Open Hole 34.1 m	Amabel/Fossil Hill	LTT
TW04-2	4914934	559082	O	152	518.1	517.5	Open Hole 34.1 m	Amabel/Fossil Hill	LTT
TW04-3	4914909	559098	O	152	518.6	518.0	Open Hole 37.5 m	Amabel/Fossil Hill	LTT
DP5	4915342	559086	S	51	510.5	509.7	509.57 - 508.67	Overburden	PITM
DP6	4915513	559774	S	51	512.2	511.5	510.96 - 510.06	Overburden	PITM
BH08-1	4915197	560471	O	102	512.3	511.5	Open Hole 27.4 m	Amabel/Fossil Hill	LTT
BH08-2	4915175	560484	O	102	512.0	511.2	Open Hole 25.8 m	Amabel/Fossil Hill	LTT
BH08-3	4915198	560447	O	102	513.4	512.6	Open Hole 28.8 m	Amabel/Fossil Hill	LTT

NOTE:

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- N/A indicates information not available

* Open hole depth changed to 9.49 mbg from 12 mbg based on measurement by TKC November 10, 2010.

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DUNTROON EXPANSION LANDS MONITORS									
IW1	4915051	560555	O	152	512.1	511.5	Open Hole 27.3 m	Amabel/Fossil Hill	LTT
IW1a	4915052	560552	O	152	512.0	511.4	Open Hole 27.3 m	Amabel/Fossil Hill	N/A
IW2	4915272	560522	O	152	509.2	508.7	Open Hole 24 m	Amabel/Fossil Hill	LTT
IW3	4915702	560215	O	152	519.1	518.5	Open Hole 33.7 m	Amabel/Fossil Hill	LTT
IW4	4915999	560024	O	152	511.0	510.4	Open Hole 25.4 m	Amabel/Fossil Hill	LTT
NW1	4914907	560060	O	152	526.2	525.7	Open Hole 42.7 m	Amabel/Fossil Hill	LTT
NW2	4915094	560110	O	152	532.0	531.4	Open Hole 54.7 m	Amabel/Fossil Hill	LTT
NW3	4915248	560219	O	152	515.1	514.4	Open Hole 29.6 m	Amabel/Fossil Hill	LTT
NW4	4915011	559675	O	152	529.9	529.0	Open Hole 48.9 m	Amabel/Fossil Hill	LTT
NW5	4915189	559642	O	152	521.7	521.0	Open Hole 39.7 m	Amabel/Fossil Hill	LTT
NW6	4915137	559516	O	102	522.0	520.7	Open Hole 41.2 m	Amabel/Fossil Hill	LTT
NW7	4914958	559467	O	152	523.9	523.2	Open Hole 42.1 m	Amabel/Fossil Hill	LTT
NW8	4914792	559246	O	152	531.9	531.1	Open Hole 43 m	Amabel/Fossil Hill	LTT
NW9	4914749	559032	O	152	521.5	520.9	Open Hole 41.7 m	Amabel/Fossil Hill	LTT
NW10-DP	-	-	S	152	511.2	509.7	509.6 - 509.1	Overburden	LTT
NW10-Shallow	-	-	O	152	510.3	509.7	Open Hole 3.8 m	Amabel	LTT
NW10-Deep	4915376	558940	O	152	510.5	509.7	Open Hole 29.5 m	Amabel/Fossil Hill	LTT
DP7	4915351	559345	S	51	509.9	509.2	507.4 - 506.9	Overburden	PITM
DP8	4914360	559094	S	51	511.9	511.1	510.9 - 510.5	Overburden	PITM
DP9	4915407	560273	S	51	508.9	507.7	507.2 - 506.6	Overburden	PITM

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DESIGNATION	NAD 27 NORTHING	NAD 27 EASTING	TYPE	DIAMETER (mm)	MEASURING POINT ELEVATION (m ASL)	GROUND ELEVATION (m ASL)	SCREENED INTERVAL (m ASL or Depth)	GEOLOGIC FORMATION MONITORED	MONITORING PROGRAM
DUNTROON EXISTING QUARRY MONITORS									
98-8	4914120	559613	O	102	517.3	516.5	Open Hole 35.1 m	Amabel/Fossil Hill	LTT
98-9	4914583	559358	O	102	526.4	525.9	Open Hole 48.5 m	Amabel/Fossil Hill	LTT
98-10	4914492	559752	O	102	519.6	519.4	Open Hole 37.9 m	Amabel/Fossil Hill	Historical
98-11	4914574	560010	O	102	522.6	522.2	Open Hole 41.2 m	Amabel/Fossil Hill	Historical
98-12	4914863	560341	O	102	527.2	526.7	Open Hole 42.4 m	Amabel/Fossil Hill	LTT
98-13	4914597	560372	O	102	522.4	522.3	Open Hole 38.0 m	Amabel/Fossil Hill	Historical
DP1	4914116	559465	S	51	513.1	511.8	511.3 - 510.8	Overburden	LTT
DP2	4914373	559287	S	51	512.9	512.1	511.3 - 510.8	Overburden	PITM
DP3	4914013	560290	S	51	514.7	513.6	511.9 - 511.4	Overburden	LTT
DP4	4914013	559067	S	51	512.1	511.4	510.4 - 509.9	Overburden	PITM
E2	4914561	559937	O	203	521.0	521.0	Open Hole	Amabel	Historical
MW2	4914171	559742	O	102	524.9	523.2	Open Hole 20.8 m	Amabel	Historical
MW3 (R)	4914369	560327	O	102	515.0	514.4	Open Hole 15.4 m	Amabel	Historical
MW4	4914697	560216	O	102	522.5	521.9	Open Hole 39.9 m	Amabel/Fossil Hill	Historical
MW5	4914857	560257	O	102	529.4	529.4	Open Hole 46.1 m	Amabel/Fossil Hill	Historical
MW6	4914673	559635	O	102	534.9	533.6	Open Hole 36.4 m	Amabel	LTT
OW99-1	4914564	559559	O	102	519.4	519.1	Open Hole 29.5 m	Amabel	Historical
OW99-2	N/A	N/A	O	102	500.8	500.6	Open Hole 19.7 m	Amabel/Fossil Hill	Historical
PW99-1	4914157	559609	O	152	514.0	513.9	Open Hole 32.9 m	Amabel/Fossil Hill	LTT

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PW99-2	4914568	559532	O	152	519.3	519.2	Open Hole 34.4 m	Amabel	Historical
PW99-3	N/A	N/A	O	152	501.1	500.9	Open Hole 21.4m	Amabel/Fossil Hill	Historical
QUARRY HOUSE	4915096	560251	O	102	529.4	528.7	Open Hole 14.6m	Amabel	Historical
SHOP WELL	4914801	560018	O	102	523.5	522.5	Not Measured	Amabel	Historical
OFFICE WELL	4915061	560149	O	152	532.5	532.4	Open Hole 24.7m	Amabel/Fossil Hill	Historical
OFFICE WELL (NEW	4915083	560156	O	152	532.0	531.4	Open Hole 37.2m	Amabel	Historical
OSPREY QUARRY PROPERTY MONITORS									
101-B	4913891	557900	O	152	503.0	502.5	Open Hole 6.1 m	Amabel	LTT
102-C	4914250	558331	O	102	511.4	510.5	Open Hole 7.0 m	Amabel	LTT
103-D	4913962	558506	O	152	513.4	513.2	Open Hole 7.9 m	Amabel	LTT
104-A	4913796	558198	O	152	517.7	516.9	Open Hole 9.6 m	Amabel	LTT
OW1-4	4914034	558465	O	102	514.4	513.2	Open Hole 28.6 m	Amabel/Fossil Hill	LTT
OW1-6	4913928	558508	O	102	515.0	513.9	Open Hole 30.0 m	Amabel/Fossil Hill	N/A
OW3-1	4913737	558085	O	102	508.8	508.0	Open Hole 29.3 m	Amabel/Fossil Hill	LTT
OW5-2	4914015	557876	O	102	504.2	502.8	Open Hole 27.9 m	Amabel/Fossil Hill	LTT
OW6-3	4914244	558346	O	102	511.1	510.6	Open Hole 5.3 m	Amabel	LTT
CARMARTHEN LAKE FARMS MONITORS									
CLF1	4913728	559343	DW	152	521.1	520.8	Open Hole 36.6 m	Amabel/Fossil Hill	LTT
CLF2	4913713	559284	DW	152	519.2	519.6	Open Hole 49.4 m	Amabel/Fossil Hill	LTT
CLF3	4912910	559144	DW	152	517.6	517.1	Open Hole ND	Amabel	LTT

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CLF4	4913050	559369	DW	152	510.0	509.5	Open Hole 15.2 m	Amabel	LTT
CLF5	4913128	559517	DW	152	509.2	508.8	Open Hole ND	Amabel	LTT
RESIDENTIAL WELLS									
RW8	4916820	560662	DW	Dug 750	431.0	431.0	Depth: 3.5 m	Overburden	LTT
RW15	4914844	560194	DW	Drilled 152	529.7	529.2	Depth: 24.4 m	Amabel	Historical
RW16	4915178	560459	DW	Drilled 152	513.3	512.5	Depth: 16.2 m	Amabel	LTT
RW10	4916387	560013	DW	Dug 750	494.5	Not surveyed	N/A	N/A	Historical
RW1	4915265	560619	DW	Drilled 152	508.8	508.6	Depth: 16.1 m	Amabel	LTT
RW2	4915112	560930	DW	Drilled 152	505.2	504.5	Depth: 29.0 m	Amabel	LTT
RW11	4914464	561761	DW	Drilled 152	453.1	453.0	Depth: 48.8 m	Overburden/Shale	Historical
RW11 DUG	4914468	561763	DW	Dug 750	453.0	453.0	Depth: 6.0 m	Overburden	Historical
RW9	4914687	558916	DW	Drilled 152	524.0	524.0	Depth: 27.4 m	Amabel	LTT
RW17	4915446	558987	DW	Drilled 127	Not Surveyed	Not surveyed	Depth: 8.5 m	N/A	LTT
RW18	4915299	560150	DW	Dug 1000	513.8	513.0	Depth: 2.7 m	Overburden/Amabel	LTT
RW19	4915355	560221	DW	Drilled 152	Not Surveyed	Not Surveyed	Depth: 36.3 m	Amabel	LTT
RW6	4914852	561652	DW	Dug 800	451.0	451.0	Depth: 8.2 m	Overburden	LTT
RW7	4914725	561691	DW	Drilled 152	453.0	452.3	Depth: 10.1 m	Overburden/Shale	LTT
RW5	4915152	561404	DW	Drilled 152	478.6	478.0	Depth: 35.0 m	Manitoulin/Shale	LTT
RW3	4915977	559243	DW	Drilled 152	519.0	518.7	Depth: 16.5 m	Amabel	LTT
RW12	4958180	561821	DW	Dug	Not Surveyed	Not surveyed	Depth 3.7 m	Overburden	Historical

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RW13	4958180	561821	DW	Dug	Not Surveyed	Not surveyed	Depth 3.7 m	Overburden	Historical
RW4	4915918	559593	DW	Drilled 152	510.5	509.8	Depth: 55.5 m	Amabel/Fossil Hill/ Cabot Head/Manitoulin	LTT

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TABLE C-2
GROUNDWATER ELEVATIONS
DUNTROON QUARRY - 2017 AMP SUMMARY REPORT
EXISTING QUARRY PROPERTY
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DATE	MW6	BH98-8	BH98-9	BH98-12	PW99-1
18-May-95	520.2				
25-May-95	520.0				
22-May-96	520.7				
08-Jul-96	519.8				
06-Sep-96	519.1				
23-Dec-96	520.9				
26-Feb-97	522.2				
08-May-97	520.8				
26-Aug-97	519.2				
19-Dec-97	520.0				
27-Feb-98	519.8				
08-Apr-98	522.3				
10-May-98	519.0				
29-Dec-98	519.4				
24-Feb-99	520.7		519.9	511.2	
28-Apr-99	520.4		520.4	511.1	
26-May-99	519.7		519.5	510.1	
29-Jun-99	519.0		518.8	509.1	
26-Jul-99	518.9	511.7	518.4	508.2	511.9
17-Aug-99	518.7	511.6	518.2	507.6	511.5
27-Sep-99	518.3	511.3	517.6	507.0	511.5
25-Oct-99	518.3	511.4	517.6	507.0	511.2
21-Nov-99	519.2	511.5	519.0	508.3	511.6
21-Dec-99	520.1	511.9	519.1	508.5	511.7

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TABLE C-2
GROUNDWATER ELEVATIONS
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DATE	MW6	BH98-8	BH98-9	BH98-12	PW99-1
25-Jan-00	520.3	511.2	520.4	510.3	511.0
29-Feb-00	520.3	511.7	520.6	510.4	511.8
31-Mar-00	520.3	511.1	520.3	511.2	511.2
02-Jun-00	520.8	510.0	520.8	513.1	510.1
07-Jul-00	520.8	509.4	520.4	511.3	509.5
27-Aug-00	519.7	509.0	519.0	509.9	509.1
28-Sep-00	519.6	508.9	519.3	510.1	509.0
03-Nov-00	519.1	507.8	518.7	509.0	507.9
22-Feb-01	521.0	508.1	Frozen	512.1	508.2
22-Mar-01	520.2	506.6	Frozen	511.1	506.7
26-Apr-01	521.4	509.6	521.3	513.4	509.7
31-May-01	519.6	506.3	519.3	510.6	506.4
28-Jun-01	519.1	507.2	518.7	509.9	507.3
01-Aug-01	518.6	506.9	518.0	508.9	507.0
04-Oct-01	518.1	505.7	517.3	508.4	505.9
01-Nov-01	519.4	507.6	519.3	510.2	507.7
14-Dec-01	520.1	506.8	519.7	510.9	506.9
10-Jan-02	519.5	506.0	519.2	510.8	506.1
14-Mar-02	521.4	508.6	520.8	512.2	508.7
16-May-02	519.9	508.5	519.7	511.8	508.6
20-Jun-02	519.0	508.1	518.6	510.7	508.3
11-Jul-02	518.1	507.6	520.6	509.7	507.8
13-Sep-02	515.6	505.8	516.0	508.0	505.9
01-Nov-02	513.1	508.8	514.6	507.2	508.9

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DATE	MW6	BH98-8	BH98-9	BH98-12	PW99-1
16-Jan-03	510.9	507.2	Frozen	507.1	507.3
28-Mar-03	512.7	510.5	516.6	513.3	510.6
15-May-03	513.4	508.1	516.0	511.1	508.2
23-Jun-03	511.9	509.0	514.7	510.4	508.1
22-Jul-03	510.7		513.2	509.8	508.0
20-Aug-03	509.8	507.9	512.2	508.8	508.0
25-Sep-03	509.1	507.3	511.7	507.7	507.4
22-Oct-03	508.7	507.3	511.4	508.7	507.4
25-Nov-03	508.9	508.6	512.4	510.7	508.8
22-Dec-03	510.2	508.6	513.6	511.0	508.7
09-Feb-04	511.0	506.7	513.6	510.6	506.8
16-Mar-04	510.6	507.6	Frozen	512.0	507.7
20-Apr-04	514.4	509.4	517.8	512.9	509.5
18-May-04	512.4	508.4	515.5	511.4	508.5
22-Jun-04	511.2	506.8	514.3	510.9	506.9
28-Jul-04	508.9	506.9	511.7	509.6	507.0
25-Aug-04	508.2	506.5	511.0	508.3	506.6
22-Sep-04	507.8	506.2	510.5	507.4	505.9
19-Oct-04	507.4	507.4	510.2	506.8	507.5
16-Nov-04	507.1	506.3	509.8	506.6	506.4
16-Dec-04	506.8	509.5	509.6	506.7	509.6
31-Jan-05	508.5	508.2	512.0	510.7	508.3
24-Feb-05	508.5	507.4	511.8	510.0	507.5
22-Mar-05	508.1	506.9	511.4	509.4	507.0

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111-53312-00 A61

DATE	MW6	BH98-8	BH98-9	BH98-12	PW99-1
20-Apr-05	511.6	511.9	516.6	515.0	512.0
25-May-05	512.4	511.6	516.3	510.8	511.7
29-Jun-05	509.9	511.5	513.6	508.5	511.6
13-Jul-05	509.3	511.4	512.9	506.8	511.5
23-Aug-05	508.2	510.6	511.7	504.1	510.8
26-Sep-05	507.7	510.9	511.2	502.7	511.0
26-Oct-05	507.5	510.9	510.9	501.9	511.0
16-Nov-05	507.4	511.3	510.9	501.5	511.5
14-Dec-05	507.2	510.5	510.5	501.4	510.7
20-Jan-06	507.2	510.8	511.1	501.8	510.9
14-Feb-06	508.8	510.5	513.0	502.1	510.7
19-Mar-06	511.9	511.8	516.3	505.2	511.9
17-Apr-06	512.9	511.7	517.6	504.5	511.8
19-May-06	511.3	510.0	515.5	502.0	510.2
19-Jun-06	509.5	508.8	513.4	500.7	508.9
10-Jul-06	508.6	509.3	512.3	500.5	509.5
21-Aug-06	507.6	509.1	510.9	500.4	509.2
18-Sep-06	507.1	509.0	510.3	500.4	509.1
17-Oct-06	506.8	509.2	509.9	500.4	509.3
20-Nov-06	507.1	509.8	511.2	500.5	510.0
15-Dec-06	508.4	510.2	512.8	500.8	510.3
22-Jan-07	509.3	509.2	513.3	500.9	509.3
19-Feb-07	508.8	508.5	512.4	500.7	Frozen
18-Mar-07	508.4	509.8	512.2	501.0	509.9

NOTE:
- Frozen/buried indicates monitor frozen and/or snow covered.
- Dry indicates no water detected in monitor.
- N/A indicates water level not available.

TABLE C-2
GROUNDWATER ELEVATIONS
DUNTROON QUARRY - 2017 AMP SUMMARY REPORT
EXISTING QUARRY PROPERTY
111-53312-00 A61

DATE	MW6	BH98-8	BH98-9	BH98-12	PW99-1
17-Apr-07	511.9	510.8	516.2	501.1	510.9
17-May-07	510.2	509.4	514.1	N/A	509.5
21-Jun-07	508.6	507.8	512.3	502.2	507.9
17-Jul-07	508.0	508.4	511.4	502.1	508.6
21-Aug-07	507.4	508.6	510.5	502.0	508.7
16-Sep-07	506.9	508.9	510.0	502.1	509.0
14-Oct-07	506.6	508.9	509.6	502.0	509.0
18-Nov-07	506.5	508.8	509.4	502.1	509.0
13-Dec-07	506.4	508.8	509.5	502.1	508.8
20-Jan-08	510.1	511.3	Frozen	502.6	511.2
17-Feb-08	510.2	510.6	514.3	502.6	510.7
16-Mar-08	510.3	510.4	514.5	502.4	510.8
6-Apr-08	511.6	510.6	515.8	502.4	511.7
20-Apr-08	514.1	511.8	518.8	502.8	512.0
18-May-08	511.9	510.6	516.3	502.5	510.6
15-Jun-08	509.9	509.8	514.4	502.3	509.9
13-Jul-08	509.3	510.0	513.6	502.1	510.1
17-Aug-08	508.1	510.2	512.2	502.0	510.2
14-Sep-08	N/A	509.9	512.1	502.1	510.0
19-Oct-08	507.9	509.7	511.6	502.0	509.8
16-Nov-08	N/A	510.1	N/A	N/A	510.2
23-Nov-08	508.6	N/A	513.4	502.3	N/A
14-Dec-08	509.3	510.3	513.9	502.5	510.6
18-Jan-09	N/A	510.7	514.2	502.3	Frozen

NOTE:
- Frozen/buried indicates monitor frozen and/or snow covered.
- Dry indicates no water detected in monitor.
- N/A indicates water level not available.

TABLE C-2
GROUNDWATER ELEVATIONS
DUNTROON QUARRY - 2017 AMP SUMMARY REPORT
EXISTING QUARRY PROPERTY
111-53312-00 A61

DATE	MW6	BH98-8	BH98-9	BH98-12	PW99-1
08-Feb-09	510.6	510.6	514.3	502.7	510.9
15-Mar-09	510.7	510.5	514.4	502.6	510.6
12-Apr-09	512.3	510.9	516.1	502.6	511.0
17-May-09	512.0	510.5	516.2	502.4	510.6
14-Jun-09	511.2	509.8	514.2	502.2	509.9
12-Jul-09	510.8	509.4	513.1	502.1	509.5
9-Aug-09	509.8	509.5	512.1	502.2	508.6
13-Sep-09	507.4	509.6	510.6	501.9	508.7
11-Oct-09	508.1	509.9	510.9	502.1	508.9
15-Nov-09	509.4	510.2	510.7	501.9	509.0
13-Dec-09	510.2	510.2	510.9	502.0	509.1
17-Jan-10	510.5	510.1	511.0	501.5	508.8
7-Feb-10	510.9	510.2	511.3	502.2	509.3
14-Mar-10	511.4	510.6	N/A	502.6	510.0
18-Apr-10	510.9	511.0	515.1	502.7	511.1
16-May-10	509.3	510.7	513.9	502.2	511.0
8-Jun-10	N/A	N/A	N/A	N/A	N/A
13-Jun-10	508.6	510.6	513.1	501.2	510.9
21-Jul-10	508.4	510.9	512.9	501.0	511.2
16-Aug-10	508.5	510.8	512.8	500.9	511.1
12-Sep-10	508.4	511.0	512.1	501.9	511.3
26-Sep-10	N/A	N/A	N/A	N/A	N/A
17-Oct-10	507.8	510.3	511.4	501.9	510.4
14-Nov-10	508.0	510.4	511.3	501.9	510.5
19-Dec-10	Buried	Buried	511.5	502.3	510.9

NOTE:
- Frozen/buried indicates monitor frozen and/or snow covered.
- Dry indicates no water detected in monitor.
- N/A indicates water level not available.

TABLE C-2
GROUNDWATER ELEVATIONS
DUNTROON QUARRY - 2017 AMP SUMMARY REPORT
EXISTING QUARRY PROPERTY
111-53312-00 A61

DATE	MW6	BH98-8	BH98-9	BH98-12	PW99-1
16-Jan-11	N/A	Buried	512.4	502.4	511.1
20-Feb-11	N/A	510.8	512.4	502.3	510.9
13-Mar-11	510.7	510.9	512.5	502.4	511.0
17-Apr-11	512.9	511.4	517.7	503.0	511.1
15-May-11	513.0	511.8	518.0	502.6	512.0
13-Jun-11	512.1	511.2	516.2	502.4	510.8
17-Jul-11	511.8	510.3	515.9	502.3	509.5
14-Aug-11	511.5	509.8	515.1	501.9	510.0
18-Sep-11	511.3	509.7	515.0	501.3	510.0
16-Oct-11	507.2	509.5	513.9	502.1	509.7
20-Nov-11	508.1	510.3	514.1	501.7	510.5
18-Dec-11	508.6	510.4	514.2	502.1	510.5
15-Jan-12	508.8	510.5	514.3	502.2	510.6
19-Feb-12	508.7	510.0	514.0	502.2	510.2
26-Feb-12	-	-	-	502.0	-
18-Mar-12	N/A	512.5	515.6	N/A	511.0
15-Apr-12	507.6	514.1	516.8	502.3	507.8
13-May-12	509.7	514.0	516.5	502.2	507.6
17-Jun-12	509.1	513.9	516.4	502.0	507.5
15-Jul-12	509.0	513.7	516.1	502.0	507.3
12-Aug-12	507.6	513.6	516.6	502.3	507.9
16-Sep-12	507.4	510.2	511.0	501.9	510.3
7-Oct-12				501.9	
14-Oct-12	507.8	510.0	511.0	501.8	510.3
18-Nov-12	508.6	510.4	512.1	502.3	511.0
16-Dec-12	508.9	510.5	512.4	502.3	511.1

NOTE:
- Frozen/buried indicates monitor frozen and/or snow covered.
- Dry indicates no water detected in monitor.
- N/A indicates water level not available.

TABLE C-2
GROUNDWATER ELEVATIONS
DUNTROON QUARRY - 2017 AMP SUMMARY REPORT
EXISTING QUARRY PROPERTY
111-53312-00 A61

DATE	MW6	BH98-8	BH98-9	BH98-12	PW99-1
13-Jan-13	509.9	511.7	513.7	503.1	511.6
17-Feb-13	510.3	512.0	514.1	503.0	511.6
17-Mar-13	509.9	511.9	513.9	503.0	511.6
31-Mar-13	-	-	-	503.3	-
14-Apr-13	510.0	512.3	514.0	502.6	511.7
12-May-13	512.0	513.4	516.3	502.4	511.1
2-Jun-13	-	-	-	502.3	-
16-Jun-13	511.8	513.2	516.2	501.1	510.7
14-Jul-13	511.5	512.8	516.1	502.3	510.6
18-Aug-13	508.9	511.7	516.0	501.9	510.8
15-Sep-13	508.9	511.6	515.9	501.9	510.6
13-Oct-13	508.8	511.0	515.9	502.0	510.7
17-Nov-13	508.3	511.4	516.1	502.0	510.8
16-Dec-13	508.4	511.3	516.0	502.0	510.7
19-Jan-14	508.6	511.5	516.1	502.0	510.6
16-Feb-14	508.6	511.6	Buried	502.1	510.4
17-Mar-14	508.6	511.7	Buried	502.0	510.5
13-Apr-14	510.6	513.5	Buried	503.0	511.4
11-May-14	509.1	511.5	517.2	502.5	510.2
15-Jun-14	-	511.0	516.1	502.1	509.7
13-Jul-14	509.1	510.6	515.0	502.0	509.6
17-Aug-14	509.2	509.6	514.9	502.0	507.3
7-Sep-14	509.6	511.1	515.0	502.0	511.2
12-Sep-14	-	-	-	502.0	-
19-Oct-14	509.7	509.6	515.0	502.1	511.3
16-Nov-14	507.7	511.0	512.0	502.0	511.5

NOTE:
- Frozen/buried indicates monitor frozen and/or snow covered.
- Dry indicates no water detected in monitor.
- N/A indicates water level not available.

TABLE C-2
GROUNDWATER ELEVATIONS
DUNTROON QUARRY - 2017 AMP SUMMARY REPORT
EXISTING QUARRY PROPERTY
111-53312-00 A61

DATE	MW6	BH98-8	BH98-9	BH98-12	PW99-1
14-Dec-14	507.7	511.0	512.0	501.9	511.4
18-Jan-15	507.8	511.4	512.1	501.9	510.7
15-Feb-15	N/A	N/A	N/A	N/A	N/A
15-Mar-15	507.9	511.6	511.7	502.3	511.7
19-Apr-15	511.6	511.9	514.7	502.6	512.0
17-May-15	509.4	511.7	513.7	502.2	511.8
14-Jun-15	509.8	511.8	512.3	502.2	511.9
19-Jul-15	507.6	511.7	512.3	502.1	511.8
9-Aug-15	507.2	511.6	511.6	502.2	511.7
6-Sep-15	507.1	511.5	511.0	501.9	511.6
11-Oct-15	507.0	511.2	510.4	501.9	511.3
15-Nov-15	506.6	511.6	510.2	502.0	511.8
6-Dec-15	506.4	511.6	510.1	501.9	511.7
17-Jan-16	506.4	511.6	510.5	502.0	511.7
14-Feb-16	507.2	511.5	511.6	502.1	511.8
13-Mar-16	509.6	512.0	515.5	502.8	512.1
17-Apr-16	511.7	511.9	517.3	502.7	512.0
1-May-16	-	-	-	-	-
15-May-16	509.6	511.8	514.6	502.3	511.9
5-Jun-16	-	-	-	-	-
19-Jun-16	508.1	511.6	512.6	502.1	511.8
3-Jul-16	-	-	-	-	-
17-Jul-16	507.2	511.5	511.3	501.9	511.6
24-Jul-16	-	-	-	501.9	-
7-Aug-16	-	-	-	-	-
21-Aug-16	506.5	511.6	510.2	501.9	511.7
18-Sep-16	506.2	511.6	509.9	501.9	511.7

NOTE:
- Frozen/buried indicates monitor frozen and/or snow covered.
- Dry indicates no water detected in monitor.
- N/A indicates water level not available.

TABLE C-2
GROUNDWATER ELEVATIONS
DUNTROON QUARRY - 2017 AMP SUMMARY REPORT
EXISTING QUARRY PROPERTY
111-53312-00 A61

DATE	MW6	BH98-8	BH98-9	BH98-12	PW99-1
16-Oct-16	506.0	511.6	509.6	501.9	511.7
13-Nov-16	505.8	511.5	509.4	501.8	511.6
27-Nov-16	-	-	-	501.9	-
11-Dec-16	505.7	511.5	509.3	501.9	511.6
15-Jan-17	505.8	511.8	510.1	502.2	511.9
12-Feb-17	506.5	511.6	511.0	502.1	511.7
19-Mar-17	509.1	511.7	514.4	502.4	511.8
9-Apr-17	-	-	-	502.7	-
16-Apr-17	509.9	511.9	515.6	502.6	512.0
11-May-17	511.6	511.9	517.2	502.7	512.0
21-May-17	-	-	-	502.6	-
13-Jun-17	-	-	-	502.3	
25-Jun-17	509.5	511.9	515.1	502.4	512.0
19-Jul-17	509.5	511.9	515.1	502.4	512.0
03-Aug-17	-	-	-	503.2	-
17-Aug-17	508.2	511.7	513.2	502.1	511.8
29-Aug-17	-	-	-	-	-
17-Sep-17	507.4	511.7	511.4	502.1	511.8
26-Sep-17	-	-	-	502.0	-
15-Oct-17	506.9	511.7	510.9	502.1	511.9
14-Nov-17	506.8	511.6	511.1	502.1	511.8
11-Dec-17	507.6	511.6	512.1	502.2	511.8

NOTE:
- Frozen indicates monitor frozen and/or snow covered.
- Destroyed indicates monitor removed/destroyed by extraction/quarry activit
- Dry indicates no water detected in monitor.
- N/A indicates water level not available.

FIGURE C-1

GROUNDWATER HYDROGRAPH
MW6

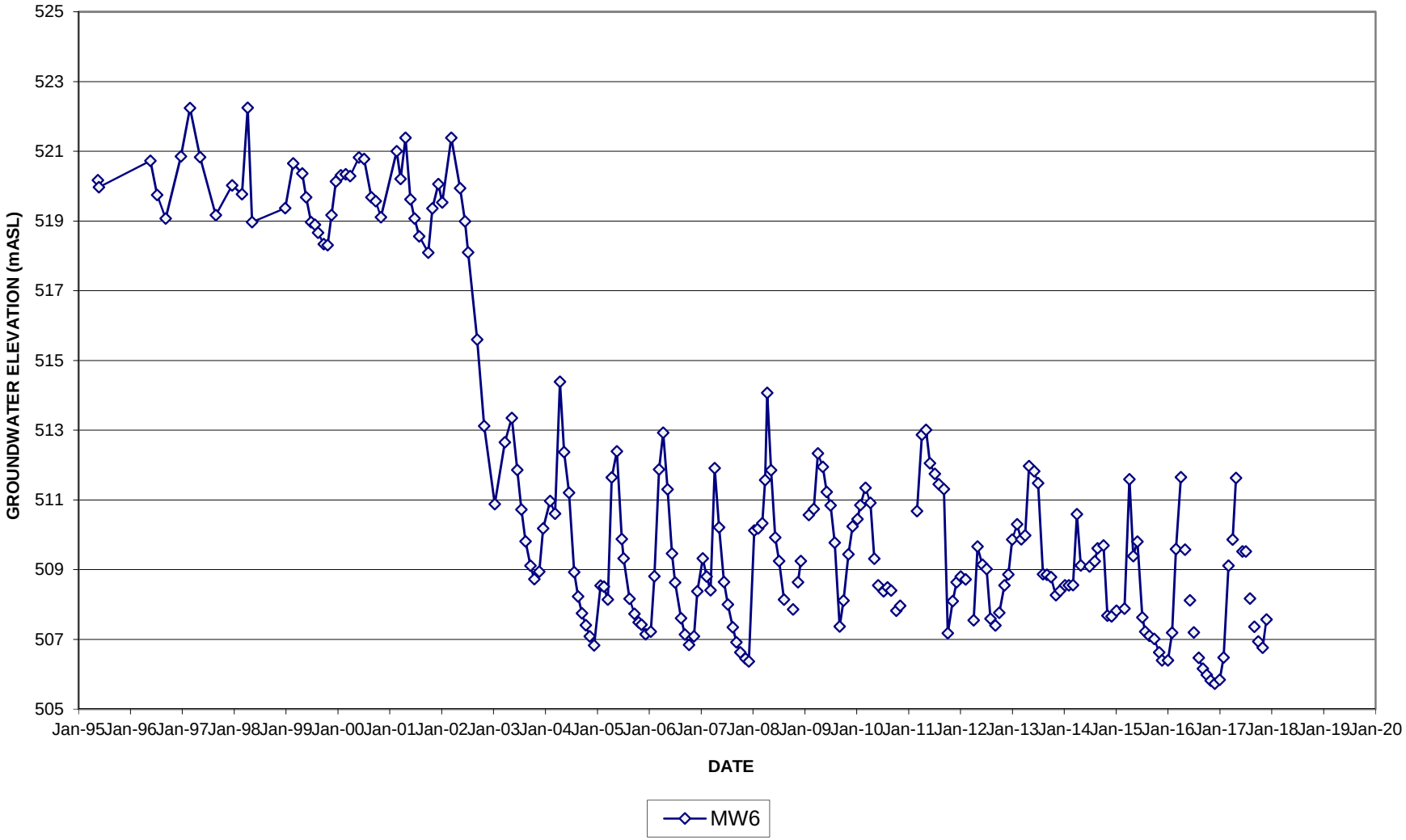


FIGURE C-2

GROUNDWATER HYDROGRAPH
BH98-8

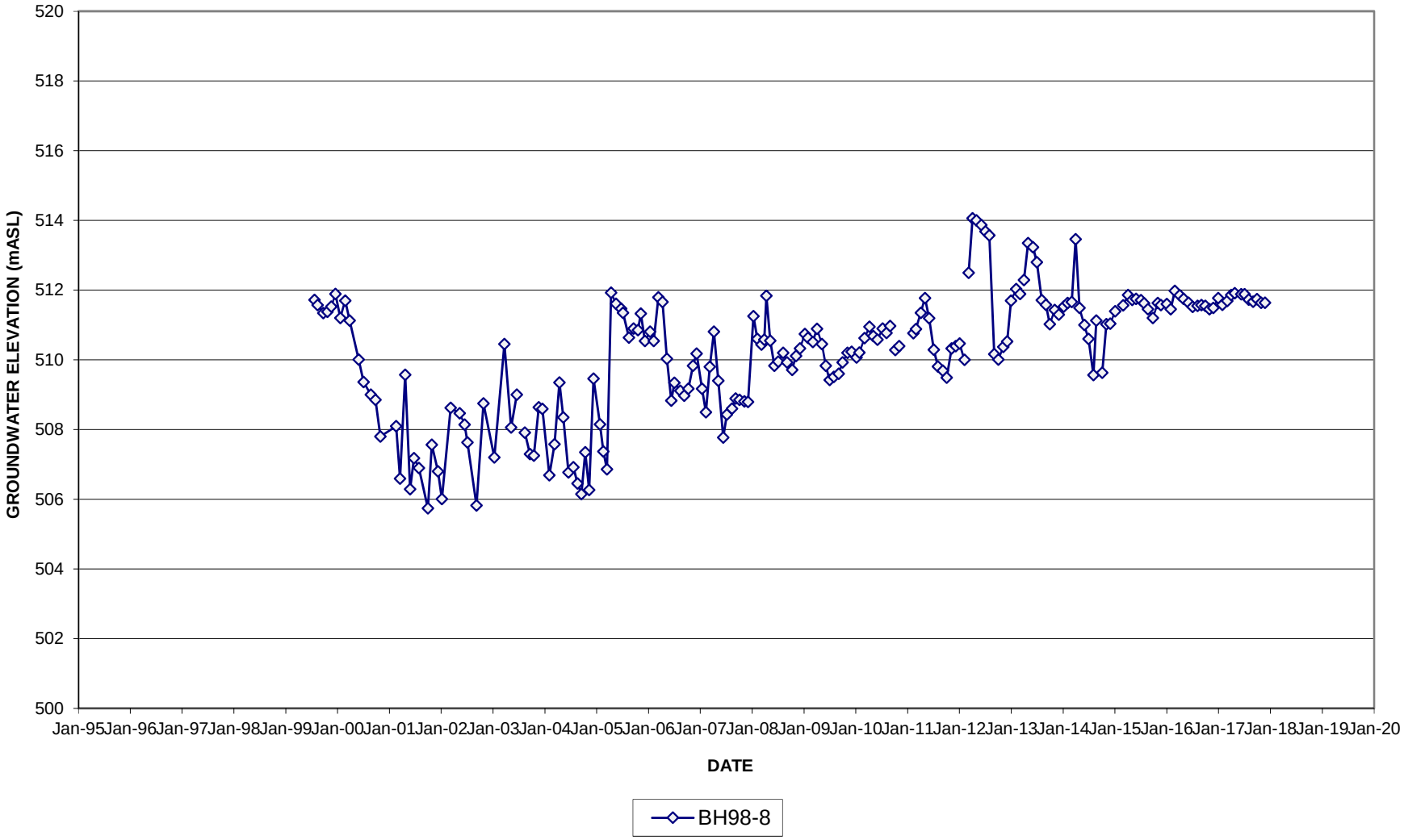


FIGURE C-3

GROUNDWATER HYDROGRAPH
BH98-9

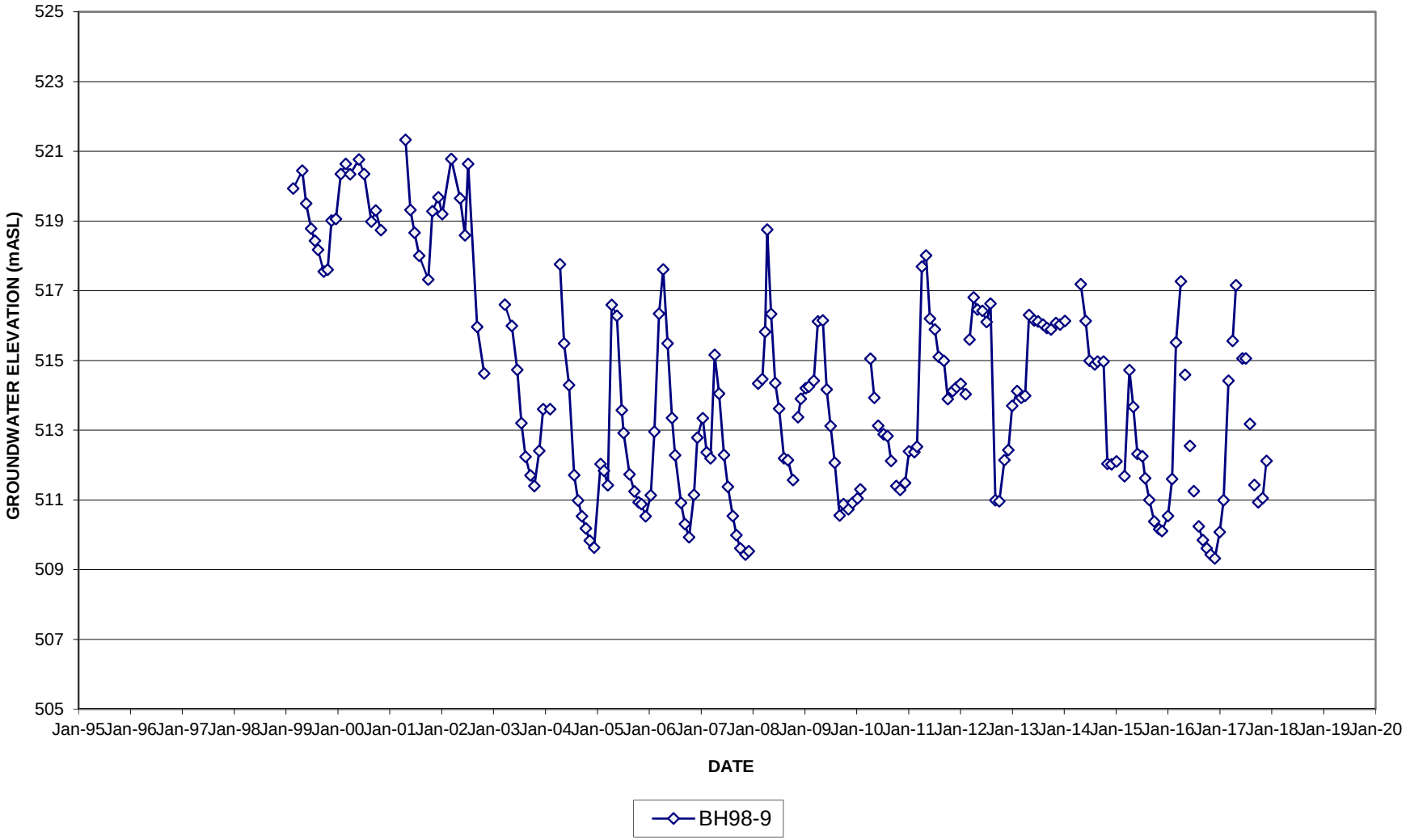


FIGURE C-4

GROUNDWATER HYDROGRAPH
BH98-12

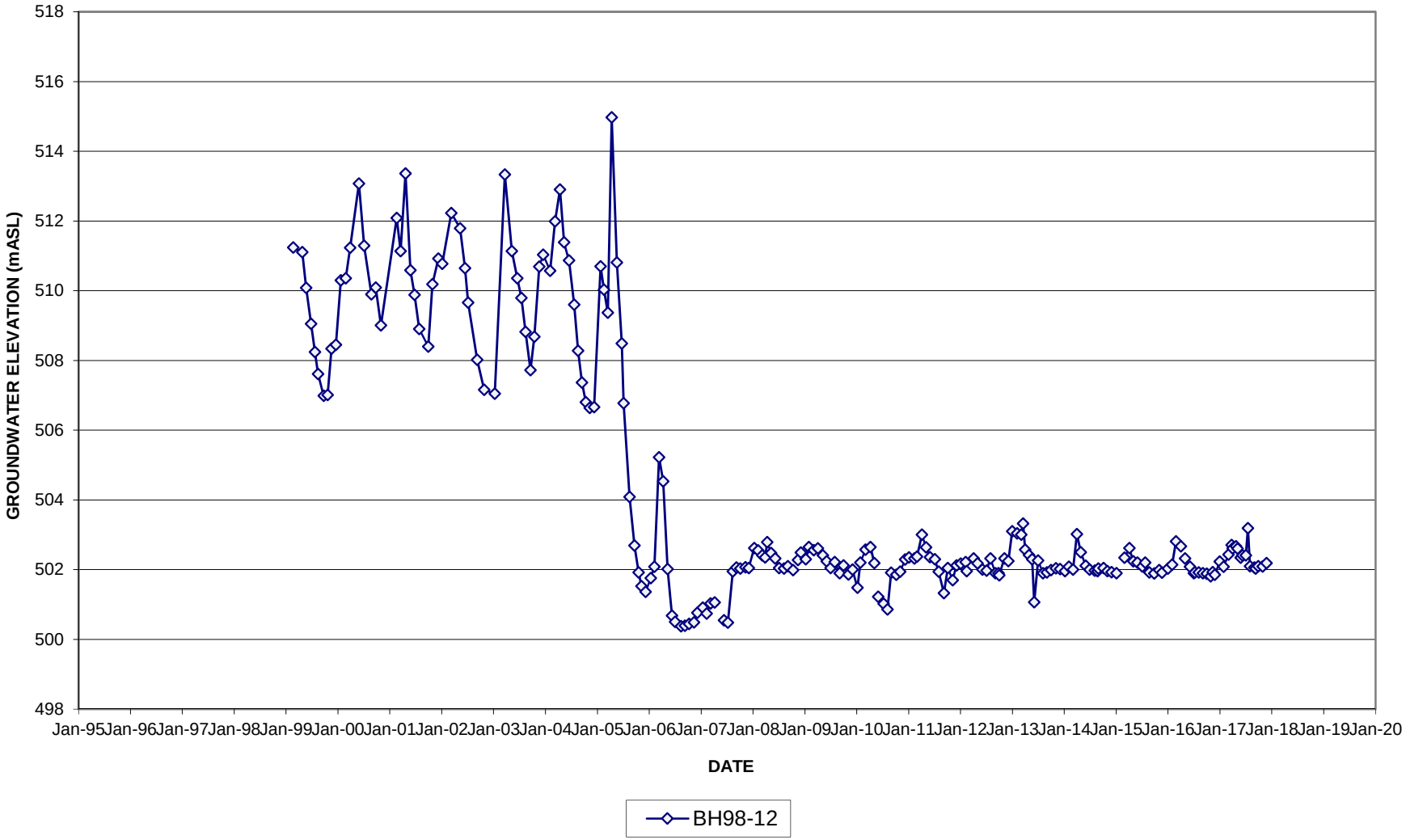


FIGURE C-5

GROUNDWATER HYDROGRAPH
PW99-1

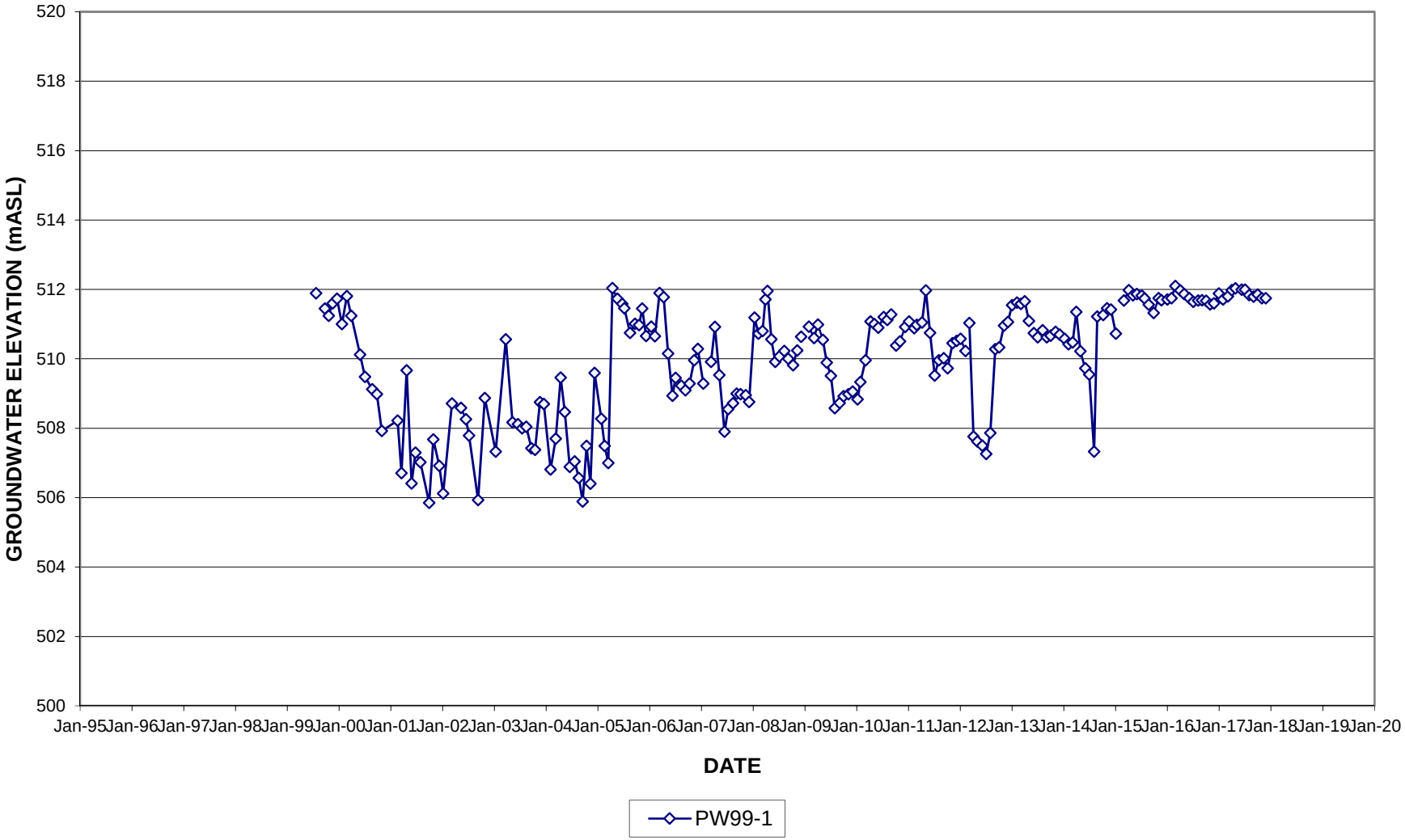


TABLE C-3
GROUNDWATER ELEVATIONS
DUNTROON QUARRY - 2017 AMP SUMMARY REPORT
QUARRY EXPANSION LANDS - INJECTION WELLS
111-53312.00 A61

DATE	IW1	IW2	IW3	IW4
19-Oct-14				
2-Nov-14	505.2	508.1	505.7	496.1
16-Nov-14				
14-Dec-14				
18-Jan-15				
15-Feb-15				
15-Mar-15				
19-Apr-15				
17-May-15				
14-Jun-15				
19-Jul-15				
9-Aug-15				
6-Sep-15	502.2	506.1	502.6	495.4
11-Oct-15	501.3	505.5	501.8	495.1
15-Nov-15	501.7	506.4	501.7	495.0
9-Dec-15	502.8	507.4	502.8	495.4
17-Jan-16	505.2	508.0	504.9	496.0
14-Feb-16	506.8	508.3	506.6	496.8
13-Mar-16	510.5	508.9	511.5	499.2
17-Apr-16	510.1	508.7	508.9	498.6
1-May-16				
15-May-16	508.0	508.4	506.0	497.0
5-Jun-16				
19-Jun-16	504.5	507.3	504.4	496.6
3-Jul-16				
17-Jul-16	502.3	506.2	502.9	495.8
24-Jul-16	502.0	506.0	502.6	495.9
7-Aug-16				
21-Aug-16	501.4	505.4	502.0	495.4
18-Sep-16	502.0	505.1	501.8	495.2
29-Sep-16				
16-Oct-16	500.8	504.9	501.4	495.1
13-Nov-16	500.7	504.9	501.5	495.1
27-Nov-16	500.6	505.0	501.4	495.0
11-Dec-16	500.5	505.6	502.0	495.1

NOTE:
- Dry indicates no water detected in monitor.
- Frozen indicates monitor lid frozen and or snow covered.
- NA indicates water elevation not available

TABLE C-3
GROUNDWATER ELEVATIONS
DUNTROON QUARRY - 2017 AMP SUMMARY REPORT
QUARRY EXPANSION LANDS - INJECTION WELLS
111-53312.00 A61

DATE	IW1	IW2	IW3	IW4
15-Jan-17	504.4	508.2	505.7	496.6
12-Feb-17	505.37	508.1	506.2	497.3
19-Mar-17	508.81	508.7	507.5	496.7
9-Apr-17	509.97	508.9	510.0	498.3
16-Apr-17	509.53	508.7	509.2	498.3
11-May-17	510.10	508.6	509.6	498.8
21-May-17	509.37	508.6	507.7	497.9
13-Jun-17	507.74	-	507.5	497.5
25-Jun-17	508.31	508.4	507.5	497.5
19-Jul-17	506.30	507.9	505.9	496.9
3-Aug-17	504.68	507.4	504.7	496.5
17-Aug-17	503.61	507.0	503.8	496.2
29-Aug-17	502.76	-	503.1	496.0
17-Sep-17	502.05	506.5	502.6	495.7
26-Sep-17	502.01	-	502.5	495.6
15-Oct-17	502.03	507.4	503.2	495.7
14-Nov-17	503.59	507.9	504.5	496.2
11-Dec-17	506.27	508.1	505.1	498.2

NOTE:
- Dry indicates no water detected in monitor.
- Frozen indicates monitor lid frozen and or snow covered.
- NA indicates water elevation not available

FIGURE C-6

GROUNDWATER HYDROGRAPH
IW1



FIGURE C-7

GROUNDWATER HYDROGRAPH
IW2



FIGURE C-8

GROUNDWATER HYDROGRAPH
IW3



FIGURE C-9

GROUNDWATER HYDROGRAPH
IW4



TABLE C-4
GROUNDWATER ELEVATIONS
DUNTROON QUARRY - 2017 AMP SUMMARY REPORT
QUARRY EXPANSION LANDS- MONITORING WELLS
111-53312.01 A61

DATE	BH02-1	BH02-2	BH02-3	BH02-4	BH02-5 (deep)	BH02-5 (mid)	BH02-5 (shallow)	BH02-6	BH03-7-I	BH03-7-II	BH03-7-III	BH03-8	BH08-1	BH08-2	BH08-3
28-Mar-03		521.1	526.3	526.4	511.1			521.8							
02-May-03	514.5	517.8	Dry	521.9	510.6			519.5	510.3	510.1		514.9			
16-May-03	514.3	517.3	521.2	521.0	510.4			519.1	510.2	510.0		514.7			
25-Jun-03	515.0	517.1	Dry	520.4	509.1			518.6	510.0	509.9		514.4			
22-Jul-03	514.7	516.8	Dry	519.6	509.7			517.8	510.7	510.7					
20-Aug-03	513.2	516.3	Dry	518.8	509.1			517.3	509.2	509.4		513.9			
25-Sep-03	511.6	515.8	Dry	518.2	508.7			516.8	508.7	508.9		513.6			
22-Oct-03	512.8	515.5	Dry	517.9	509.2			516.9	509.2	509.6		513.7			
25-Nov-03	514.4	518.0	522.9	522.6	510.5			519.6	510.2	510.1		514.4			
22-Dec-03	514.5	518.0	522.5	522.2	510.5			519.1	510.2	510.1		514.8			
09-Feb-04	514.2	517.3	521.0	520.8	510.2			518.4	Frozen	509.9		514.7			
16-Mar-04	514.8	518.2	523.1	522.9	510.7			519.8	Frozen	510.1		515.2			
20-Apr-04	515.3	518.5	523.5	523.4	511.0			520.5	510.5	510.1		515.9			
18-May-04	515.8	517.6	522.0	521.7	510.5			520.7	510.2	510.0		515.1			
22-Jun-04	514.3	517.3	521.3	521.1	510.2			518.6	510.2	510.1		514.7			
28-Jul-04	513.6	516.7	Dry	519.4	509.8			517.6	509.7	509.8		514.2			
25-Aug-04	512.5	516.2	Dry	517.8	508.9			517.1	509.1	509.2		513.9			
22-Sep-04	512.5	515.8	Dry	518.2	508.8			516.6	508.8	509.0		513.7			
19-Oct-04	512.2	515.5	Dry	517.9	508.5			516.3	508.5	508.8		513.5			
16-Nov-04	512.1	515.2	Dry	517.6	508.6			516.0	508.6	509.0		Frozen			
16-Dec-04	512.0	515.1	Dry	517.5	509.1			515.9	509.1	509.5		513.3			
31-Jan-05	514.4	517.5	521.7	521.4	510.4			518.5	Frozen	510.0		514.6			
24-Feb-05	514.1	517.3	520.8	520.5	510.2			518.0	509.8	510.0		514.7			
22-Mar-05	Frozen	517.2	520.6	520.4	510.2			Frozen	509.9	510.0		514.5			
20-Apr-05	517.7	521.5	526.3	526.1	511.5			522.0	510.8	510.2		Frozen			
25-May-05	514.3	517.5	521.9	521.7	510.4			519.0	510.2	510.0		515.0			
29-Jun-05	513.6	517.0	520.0	519.8	510.0			517.9	509.9	509.9		514.4			
13-Jul-05	513.3	516.8	520.3	519.4	509.6			517.5	509.5	509.6		514.2			
23-Aug-05	512.2	516.0	Dry	518.4	508.9			516.6	508.9	509.0		513.8			
26-Sep-05	511.7	515.6	Dry	517.9	508.4			516.0	508.4	508.5		513.6			
26-Oct-05	511.3	515.2	Dry	517.6	508.2			515.7	508.3	508.5		513.4			
16-Nov-05	511.2	515.1	Dry	517.4	508.3			515.6	508.4	509.3		513.3			
14-Dec-05	510.7	515.1	Dry	517.7	509.0			515.9	509.1	509.4		513.3			
20-Jan-06	510.7	517.7	521.8	523.1	510.1			517.8	510.0	509.9		514.1			
14-Feb-06	Frozen	517.8	522.2	521.9	510.4			517.8	510.2	510.1		514.7			
19-Mar-06	515.4	519.4	524.3	524.3	511.0			520.4	Frozen	510.1		515.6			
17-Apr-06	515.4	518.6	523.6	523.4	511.1			520.7	510.1	510.1		516.0			
19-May-06	513.4	517.3	521.5	521.3	510.4			518.8	510.2	510.1		514.9			
19-Jun-06	511.5	516.9	Dry	519.7	510.0			517.8	509.9	509.9		514.4			
10-Jul-06	510.6	516.5	Dry	519.0	509.5			517.2	509.5	509.5		514.1			
22-Aug-06	509.8	515.7	Dry	518.1	508.7			516.1	508.7	508.7		513.7			
18-Sep-06	509.3	515.4	Dry	517.7	508.4			515.7	508.4	508.5		513.6			
17-Oct-06	508.8	515.1	Dry	517.4	508.5			515.5	508.5	509.0		513.5			
20-Nov-06	509.2	517.7	522.2	523.3	510.3			518.8	510.2	510.0		514.2			
15-Dec-06	511.7	518.7	523.4	523.7	510.7			520.3	510.4	510.1		514.9			
22-Jan-07	512.1	517.5	521.6	521.4	510.4			518.6	510.2	510.0		514.9			
19-Feb-07	Frozen	516.6	520.3	520.1	510.2			517.7	510.0	510.0		514.5			
18-Mar-07	512.1	518.8	523.7	523.3	510.7			519.9	Frozen	510.1		515.1			
17-Apr-07	513.2	518.3	523.0	522.8	510.8			520.1	510.2	510.1		515.6			
17-May-07	512.2	517.2	521.0	520.7	510.3			518.4	510.2	510.0		514.7			
21-Jun-07	510.0	516.9	Dry	519.5	509.8			517.6	509.8	509.8		514.3			
17-Jul-07	508.8	516.3	Dry	518.7	509.3			516.8	509.2	509.3		514.0			
21-Aug-07	508.0	515.6	Dry	518.0	508.6			515.9	508.6	508.6		513.7			
12-Sep-07	507.6	N/A	N/A	517.6	N/A			N/A	N/A	508.5		513.6			
18-Sep-07	507.5	515.2	Dry	517.5	508.3			515.6	508.3	508.4		513.5			
14-Oct-07	507.1	514.9	Dry	517.2	508.1			515.1	508.2	508.3		513.3			
18-Nov-07	506.7	514.8	Dry	517.1	508.5			514.8	508.6	508.3		513.2			
9-Dec-07	506.5	514.7	Dry	517.2	509.0			514.7	509.1	509.5		513.4			

NOTE:
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- NA indicates water elevation not available

TABLE C-4
GROUNDWATER ELEVATIONS
DUNTROON QUARRY - 2017 AMP SUMMARY REPORT
QUARRY EXPANSION LANDS- MONITORING WELLS
111-53312.01 A61

DATE	BH02-1	BH02-2	BH02-3	BH02-4	BH02-5 (deep)	BH02-5 (mid)	BH02-5 (shallow)	BH02-6	BH03-7-I	BH03-7-II	BH03-7-III	BH03-8	BH08-1	BH08-2	BH08-3
20-Jan-08	513.9	518.5	523.2	523.0	510.7			519.8	Frozen	510.1		514.9			
21-Feb-08	512.7	518.3	522.2	522.0	510.5			518.7	Frozen	510.1		514.9			
19-Mar-08	512.5	518.0	522.0	521.9	510.3			519.8	Frozen	510.1		515.0			
7-Apr-08	513.8	522.0	526.4	526.3	510.7			520.8	510.4	510.2		515.7			
20-Apr-08	515.6	519.3	524.5	524.4	511.2			522.2	510.7	510.2		516.1			
20-May-08	513.1	517.4	521.8	520.8	510.5			519.1	510.2	510.0		515.1			
16-Jun-08	511.1	517.0	Dry	519.9	509.8			517.8	510.0	509.9		514.5			
14-Jul-08	509.2	516.8	521.5	519.6	509.6			516.9	509.8	509.8		514.2			
18-Aug-08	508.1	516.2	Dry	518.7	509.9			517.3	509.9	509.8		514.3			
4-Sep-08	507.6	516.0	N/A	518.4	N/A			516.9	N/A	N/A		514.2			
14-Sep-08	507.5	515.9	Dry	518.3	509.7			516.8	509.8	509.8		514.1			
19-Oct-08	507.5	517.0	Dry	520.0	510.6			517.3	509.8	509.8		514.4			
23-Nov-08	508.7	N/A	Dry	523.1	510.9			520.1	510.0	509.9		515.4			
14-Dec-08	N/A	516.3	524.6	523.4	511.3			520.5	510.3	510.3		514.1			
18-Jan-09	516.5	515.9	522.6	522.4	510.2			519.4	Frozen	Frozen		Frozen	508.9	508.9	509.4
08-Feb-09	516.4	N/A	520.8	520.7	510.5			518.1	510.2	510.2		514.7	508.1	508.0	508.5
15-Mar-09	514.3	516.6	524.5	524.3	511.0			520.8	510.6	510.1		515.9	509.2	509.3	509.8
12-Apr-09	513.8	517.2	524.7	524.7	511.1			520.8	510.7	510.7		515.7	510.4	510.4	510.7
17-May-09	513.0	517.3	525.0	524.9	511.3			521.1	510.6	510.7		515.2	509.7	509.6	510.0
14-Jun-09	510.9	517.1	520.5	520.3	510.1			518.1	510.0	510.1		514.4	508.4	508.4	508.6
12-Jul-09	509.1	516.8	Dry	519.1	509.5			517.2	509.7	509.8		514.2	507.3	507.1	507.4
09-Aug-09	507.5	516.6	520.0	519.1	509.3			516.3	509.7	509.7		513.9	506.4	506.2	506.6
13-Sep-09	506.6	515.4	Dry	517.6	508.9			515.4	508.8	509.0		513.7	505.9	505.6	506.1
11-Oct-09	506.4	515.0	520.2	517.4	509.1			515.6	509.2	509.6		513.5	506.4	506.0	506.6
15-Nov-09	506.1	515.2	520.3	517.5	509.2			515.2	509.4	509.7		513.5	507.1	506.8	507.2
29-Nov-09	506.0	N/A	N/A	518.2	N/A			N/A	N/A	509.6		514.0	N/A	N/A	N/A
13-Dec-09	506.0	515.3	Dry	519.1	509.7			515.9	509.7	509.8		513.8	507.6	507.5	507.7
17-Jan-10	506.0	516.6	Dry	519.3	509.8			516.4	509.8	509.8		514.1	507.8	507.6	507.7
07-Feb-10	506.2	517.0	520.4	520.1	509.9			516.8	509.8	509.9		514.3	507.7	507.6	507.8
14-Mar-10	509.3	519.2	521.5	520.4	510.9			520.7	510.6	510.5		514.8	509.6	509.6	509.5
18-Apr-10	513.4	518.1	522.3	522.0	510.7			520.1	510.1	510.4		515.6	510.1	510.0	510.4
16-May-10	511.3	517.7	521.7	521.4	510.9			519.8	510.1	510.4		515.2	508.9	508.9	509.1
8-Jun-10	510.8	N/A	N/A	520.8	N/A			N/A	510.1	510.4		515.0	509.0	N/A	N/A
13-Jun-10	510.6	516.9	520.3	521.0	509.6			518.9	510.0	510.3		515.3	508.8	508.7	508.9
21-Jul-10	509.9	517.0	520.4	520.3	510.3			518.4	510.0	510.3		514.6	508.3	508.1	508.4
16-Aug-10	509.1	516.9	520.2	520.0	509.6			517.8	510.0	510.2		514.4	507.4	507.3	507.5
12-Sep-10	507.5	N/A	Dry	518.8	509.5			516.8	509.4	509.6		514.1	506.5	506.3	506.6
26-Sep-10	507.0	N/A	N/A	518.5	N/A			N/A	N/A	509.7		514.0	506.4	N/A	N/A
17-Oct-10	506.8	516.8	520.2	519.5	509.9			517.0	509.8	509.8		514.0	507.0	506.7	507.3
14-Nov-10	506.8	516.9	Dry	519.5	510.1			518.6	509.9	509.9		514.6	508.4	508.3	508.5
19-Dec-10	507.4	517.0	521.5	521.2	510.4			518.5	510.2	510.0		514.9	508.8	508.7	508.9
16-Jan-11	N/A	517.3	522.2	521.0	510.6			519.3	Frozen	Frozen		515.4	509.3	509.2	509.4
20-Feb-11	507.2	517.2	522.3	522.1	510.5			518.8	Frozen	Frozen		515.1	508.8	508.8	508.9
13-Mar-11	507.0	517.9	522.5	522.2	510.6			519.4	510.0	510.1		515.3	509.1	509.1	509.2
20-Mar-11	N/A	N/A	N/A	N/A	N/A			N/A	N/A	510.1		N/A	510.4	N/A	N/A
17-Apr-11	514.3	518.2	523.4	523.2	511.1			520.7	510.6	510.1		515.9	510.7	510.7	511.0
15-May-11	513.4	518.3	523.5	523.5	511.0			521.3	510.6	510.1		515.8	510.4	510.3	510.6
13-Jun-11	512.6	517.0	522.1	521.9	510.5			519.5	510.6	510.0		515.0	509.5	509.4	509.7
17-Jul-11	509.7	516.9	Dry	520.2	509.8			517.8	509.7	509.7		514.4	507.5	507.4	507.6
14-Aug-11	507.7	N/A	Dry	518.7	509.4			517.7	509.6	509.6		514.1	506.5	506.3	506.6
18-Sep-11	507.3	516.7	Dry	516.1	507.3			517.5	507.5	507.5		513.8	505.8	505.5	506.9
17-Oct-11	507.1	515.9	Dry	516.1	507.1			515.0	507.7	507.7		513.6	506.2	505.8	506.8
20-Nov-11	505.9	515.8	Dry	518.6	509.7			516.0	509.7	509.8		513.8	507.3	507.1	507.4
18-Dec-11	505.9	516.0	522.1	521.8	509.8			515.6	510.3	510.0		514.8	509.1	509.0	509.2
15-Jan-12	506.2	516.0	521.7	520.9	510.8			518.4	510.2	510.0		514.9	508.6	508.6	508.9
19-Feb-12	505.2	516.0	521.4	521.2	510.3			518.4	510.2	510.0		514.6	508.3	508.2	508.4
26-Feb-12	509.7	-	-	520.5	-			-	-	510.0		514.6	508.2	-	-
18-Mar-12	511.8	519.9	525.1	524.7	511.3			521.4	510.8	510.2		515.8	510.8	510.6	511.1
15-Apr-12	512.7	518.0	521.4	521.3	510.3			518.7	510.0	510.1		514.9	509.4	509.4	509.6

NOTE:
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TABLE C-4
GROUNDWATER ELEVATIONS
DUNTROON QUARRY - 2017 AMP SUMMARY REPORT
QUARRY EXPANSION LANDS- MONITORING WELLS
111-53312.01 A61

DATE	BH02-1	BH02-2	BH02-3	BH02-4	BH02-5 (deep)	BH02-5 (mid)	BH02-5 (shallow)	BH02-6	BH03-7-I	BH03-7-II	BH03-7-III	BH03-8	BH08-1	BH08-2	BH08-3
13-May-12	510.0	517.6	520.4	520.1	510.2			518.3	510.0	510.1		514.7	508.5	508.4	508.6
17-Jun-12	508.1	517.3	Dry	519.0	509.1			517.3	509.8	509.8		514.3	507.3	507.2	507.4
1-Jul-12	507.2	-	-	515.8	-			-	-	509.5		514.1	506.6	-	-
15-Jul-12	506.7	516.5	Dry	518.1	509.3			516.4	509.4	509.4		514.0	506.3	506.1	506.4
12-Aug-12	507.8	517.5	Dry	518.1	509.8			516.3	509.9	509.9		513.9	507.1	507.2	507.2
16-Sep-12	505.9	515.8	Dry	518.4	509.3			516.2	509.3	509.5		514.1	506.4	506.8	506.6
9-Oct-12	505.7			518.3						509.4		515.1	506.4		
14-Oct-12	506.3	515.7	Dry	518.2	509.3			516.1	509.5	509.4		514.2	506.7	506.5	506.9
18-Nov-12	509.4	516.3	522.9	523.1	510.8			520.4	510.0	510.6		515.2	509.4	509.3	509.5
16-Dec-12	510.2	517.7	523.8	523.9	511.0			519.2	510.2	510.7		515.0	509.0	508.9	509.1
13-Jan-13	511.2	519.7	524.5	524.0	511.3			520.9	510.6	510.1		515.1	509.6	509.6	509.5
17-Feb-13	510.7	518.9	524.6	524.1	511.1			521.6	510.6	510.1		515.3	509.4	509.3	509.6
17-Mar-13	510.8	518.9	524.6	524.1	511.0			521.6	510.6	510.1		515.3	509.3	509.3	509.4
31-Mar-13	510.8	-	-	521.5	-			-	-	510.1		515.0	509.0	-	-
14-Apr-13	513.2	519.3	524.8	522.1	511.2			521.3	510.7	510.1		515.9	510.2	510.1	510.4
12-May-13	513.5	517.6	522.2	522.1	511.0			519.5	510.0	510.3		515.5	509.7	509.7	510.0
2-Jun-13	511.4	-	-	521.7	-			-	-	510.1		514.9	509.2	-	-
16-Jun-13	510.8	517.4	525.6	521.2	510.7			518.9	510.0	510.1		514.8	508.8	508.7	508.9
14-Jul-13	509.1	516.9	522.3	520.4	510.6			518.2	509.8	508.9		514.4	508.0	508.0	508.1
18-Aug-13	507.5	516.8	522.2	520.4	510.5			517.2	509.8	509.8		514.2	507.1	507.0	507.2
15-Sep-13	506.7	516.7	522.1	518.2	510.4			516.4	509.7	509.8		514.0	506.5	506.3	506.6
13-Oct-13	506.9	516.5	520.2	520.6	510.2			518.1	510.1	510.0		514.6	508.1	508.0	508.2
17-Nov-13	507.3	518.0	520.3	520.9	510.2			518.3	510.3	510.2		515.3	509.1	509.0	509.2
15-Dec-13	507.2	517.8	520.3	520.8	510.2			518.3	510.4	510.3		515.1	509.0	508.9	509.1
19-Jan-14	507.2	517.8	520.2	520.8	510.2			518.4	Frozen	Frozen		514.8	508.4	508.3	508.5
16-Feb-14	507.4	517.9	520.3	522.1	510.3			518.5	Frozen	Frozen		514.5	507.7	507.5	507.8
17-Mar-14	507.5	517.9	520.4	522.0	510.4			518.5	Frozen	Frozen		514.3	507.4	507.2	507.5
13-Apr-14	515.9	522.2	527.4	526.7	512.0			522.6	510.6	510.7		516.0	511.3	511.2	511.8
11-May-14	513.2	516.9	522.6	521.9	510.4			519.7	510.3	510.3		515.8	510.1	510.0	510.4
15-Jun-14	509.8	516.8	Dry	520.0	509.8			517.6	509.9	510.0		514.6	508.1	508.0	508.2
13-Jul-14	510.0	516.7	520.1	519.9	509.7			517.0	510.0	510.0		514.3	507.2	507.0	507.3
17-Aug-14	506.1	516.2	DRY	517.5	509.6			515.5	509.5	509.7		514.0	506.6	506.3	506.7
7-Sep-14	505.5	515.0	DRY	517.2	509.5			515.2	509.5	509.6		513.9	506.3	506.1	506.4
12-Sep-14	505.6	-	-	517.2	-			-	-	509.7		514.0	506.7	-	-
19-Sep-14	-	-	-	-	-			-	-	-		514.1	-	-	-
19-Oct-14	505.3	515.3	Dry	518.0	509.5			514.9	510.2	510.2		514.4	507.4	507.3	507.5
2-Nov-14	505.5	-	-	-	-			-	-	-		-	-	-	-
16-Nov-14	506.3	516.5	521.7	520.9	510.5			518.1	510.0	510.3		515.1	508.8	508.8	508.9
14-Dec-14	506.4	516.5	522	521.0	510.6			518.1	510.3	510.4		514.9	509.0	508.9	509.1
18-Jan-15	508.7	516.7	521.3	521.1	510.4			517.8	Frozen	Frozen		Frozen	Frozen	Frozen	Frozen
15-Feb-15	N/A	N/A	N/A	N/A	N/A			N/A	N/A	N/A		N/A	N/A	N/A	N/A
15-Mar-15	507.0	516.2	Dry	518.5	510.0	510.2	510.1	516.0	510.0	509.8		514.4	507.5	507.2	507.6
19-Apr-15	513.8	518.4	522.2	521.8	511.0	511.1		520.2	510.1	510.6	511.0	515.8	510.2	510.2	510.5
17-May-15	510.2	517.0	Dry	520.0	510.3	510.4	510.4	517.7	510.0	510.1	510.6	514.8	508.8	508.7	509.0
14-Jun-15	508.1	517.1	Dry	519.0	510.2	510.3		516.5	510.0	510.1		-	507.9	507.7	508.0
19-Jul-15	507.3	517.1	520.4	520.2	510.8	510.4		517.4	510.0	510.1		-	507.8	507.7	507.9
9-Aug-15	506.4	516.9	Dry	519.0	509.9	510.0		516.2	509.8	509.9		-	506.9	506.7	507.0
6-Sep-15	505.7	515.8	Dry	518.0	509.5	509.6	509.6	515.2	509.5	509.5	509.9	-	506.2	506.0	506.3
11-Oct-15	505.1	514.8	Dry	517.1	509.0	509.2	509.1	512.8	509.1	509.0	509.5	513.8	505.6	505.4	505.7
15-Nov-15	504.9	514.6	Dry	516.9	509.5	509.7	509.5	511.3	509.7	509.6	510.0	513.7	505.3	505.9	507.3
9-Dec-15	504.7	515.8	Dry	517.7	509.8	510.0	509.9	510.5	509.8	509.8	510.2	513.7	507.3	507.1	507.4
17-Jan-16	505.4	517.2	520.5	520.1	510.3	510.4	510.4	509.6	510.1	510.0	510.6	514.5	508.2	508.1	508.2
14-Feb-16	507.6	517.5	520.9	520.6	510.4	510.6	510.5	509.7	510.2	510.1	510.7	515.0	508.9	508.6	508.7
13-Mar-16	514.8	520.2	523.4	523.3	511.5	511.6	511.7	516.0	510.9	510.2	511.4	516.0	510.9	511.0	512.2
17-Apr-16	514.0	518.6	523.1	523.0	511.0	511.2	511.2	514.5	510.6	510.3	510.8	516.0	510.3	510.3	510.6
1-May-16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15-May-16	511.5	517.2	520.5	520.3	510.2	510.8	510.6	512.6	510.2	510.1	510.7	514.8	509.2	509.1	509.3
5-Jun-16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19-Jun-16	508.8	516.7	Dry	518.3	509.9	510.1	510.0	511.0	509.9	509.9	510.3	514.4	507.5	507.4	507.6

NOTE:
- Dry indicates no water detected in monitor.
- Frozen indicates monitor lid frozen and or snow covered.
- NA indicates water elevation not available

TABLE C-4
GROUNDWATER ELEVATIONS
DUNTROON QUARRY - 2017 AMP SUMMARY REPORT
QUARRY EXPANSION LANDS- MONITORING WELLS
111-53312.01 A61

DATE	BH02-1	BH02-2	BH02-3	BH02-4	BH02-5 (deep)	BH02-5 (mid)	BH02-5 (shallow)	BH02-6	BH03-7-I	BH03-7-II	BH03-7-III	BH03-8	BH08-1	BH08-2	BH08-3
3-Jul-16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17-Jul-16	506.7	515.3	DRY	516.8	509.4	509.6	509.5	509.8	509.4	509.4	509.8	514.0	506.3	506.1	506.4
24-Jul-16	506.3	-	-	516.6	-	-	-	-	-	509.2	-	514.0	506.1	-	-
7-Aug-16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21-Aug-16	505.2	514.5	DRY	516.0	508.9	509.1	509.0	509.2	508.9	509.1	509.4	513.7	505.5	505.3	505.7
18-Sep-16	504.7	514.2	DRY	515.5	508.6	508.8	508.7	508.9	508.6	508.8	509.1	513.5	505.2	505.0	505.4
29-Sep-16	504.6	-	-	515.3	-	-	-	-	-	508.7	-	513.4	-	-	-
16-Oct-16	504.5	513.8	DRY	514.9	508.4	508.5	508.5	508.6	508.4	508.6	508.9	513.3	505.1	504.8	505.2
13-Nov-16	504.2	513.5	DRY	514.4	508.4	508.6	508.5	508.3	508.4	508.8	508.9	513.3	505.0	504.7	505.2
27-Nov-16	504.1	-	-	514.2	-	-	-	-	-	509.3	-	513.2	505.0	-	-
11-Dec-16	504.0	513.3	Dry	514.1	508.8	508.9	508.8	508.1	508.8	509.3	509.3	513.1	505.5	505.1	505.7
15-Jan-17	504.0	517.2	Dry	518.9	510.4	510.5	510.5	510.1	510.2	510.0	510.7	513.8	508.1	508.0	508.2
12-Feb-17	505.2	517.1	Dry	517.4	510.3	510.5	510.5	509.8	510.2	510.0	510.6	514.4	508.3	508.2	508.3
19-Mar-17	511.9	517.5	Dry	519.6	510.6	510.8	510.8	510.3	510.1	510.1	510.8	515.2	509.7	509.6	509.9
9-Apr-17	512.7	-	-	523.4	-	-	-	-	-	510.2	-	515.6	510.2	-	-
16-Apr-17	512.8	518.3	521.2	521.0	511.0	511.1	511.2	511.8	510.5	510.1	510.9	515.6	510.0	509.9	510.2
11-May-17	513.3	517.9	521.4	521.2	510.7	511.0	511.1	513.6	510.4	510.1	510.9	515.9	510.2	510.1	510.5
21-May-17	513.0	-	-	520.7	-	-	-	-	-	510.1	-	515.4	509.8	-	-
13-Jun-17	511.1	518.6	-	-	-	-	-	-	-	-	-	-	-	-	-
25-Jun-17	510.5	517.4	Dry	518.8	510.7	510.9	510.9	513.2	510.4	510.1	510.8	515.2	509.1	509.1	509.2
19-Jul-17	510.5	517.4	Dry	518.8	510.7	510.5	510.5	513.2	510.4	510.1	510.6	515.2	508.3	508.2	508.4
3-Aug-17	509.0	-	-	516.3	-	-	-	-	-	510.3	-	514.4	507.6	-	-
17-Aug-17	508.1	514.9	Dry	515.4	509.9	510.0	510.0	511.3	509.9	509.9	510.3	514.2	507.1	507.0	507.2
29-Aug-17	507.2	-	-	514.5	-	-	-	-	-	509.8	-	514.1	506.7	-	-
17-Sep-17	506.3	513.6	Dry	513.6	509.6	509.8	509.7	510.1	509.6	509.7	510.1	513.9	506.5	506.2	506.6
26-Sep-17	-	-	-	-	-	-	-	-	-	509.7	-	-	506.4	-	-
15-Oct-17	505.3	513.2	Dry	512.8	509.9	510.0	509.9	509.1	509.9	509.9	510.3	514.1	507.2	506.9	507.3
14-Nov-17	505.2	514.8	Dry	512.9	510.2	510.3	510.2	513.2	510.1	510.0	510.5	514.6	506.8	507.6	507.8
11-Dec-17	507.6	515.9	Dry	513.5	510.3	510.4	510.4	509.8	510.1	510.0	510.6	514.9	508.4	508.3	508.5

NOTE:
- Bridson DP elevations estimated based on site plan ground elevation and monitor stick-up.
- Dry indicates no water detected in monitor.
- Frozen indicates monitor lid frozen and or snow covered.

TABLE C-4
GROUNDWATER ELEVATIONS
DUNTROON QUARRY - 2017 AMP SUMMARY REPORT
QUARRY EXPANSION LANDS- MONITORING WELLS
111-53312.01 A61

DATE	NW1	NW2	NW3	NW4	NW5	NW6	NW7	NW8	NW9	NW10DP	NW10-I (shallow)	NW10-II (deep)
28-Mar-03												
02-May-03												
16-May-03												
25-Jun-03												
22-Jul-03												
20-Aug-03												
25-Sep-03												
22-Oct-03												
25-Nov-03												
22-Dec-03												
09-Feb-04												
16-Mar-04												
20-Apr-04												
18-May-04												
22-Jun-04												
28-Jul-04												
25-Aug-04												
22-Sep-04												
19-Oct-04												
16-Nov-04												
16-Dec-04												
31-Jan-05												
24-Feb-05												
22-Mar-05												
20-Apr-05												
25-May-05												
29-Jun-05												
13-Jul-05												
23-Aug-05												
26-Sep-05												
26-Oct-05												
16-Nov-05												
14-Dec-05												
20-Jan-06												
14-Feb-06												
19-Mar-06												
17-Apr-06												
19-May-06												
19-Jun-06												
10-Jul-06												
22-Aug-06												
18-Sep-06												
17-Oct-06												
20-Nov-06												
15-Dec-06												
22-Jan-07												
19-Feb-07												
18-Mar-07												
17-Apr-07												
17-May-07												
21-Jun-07												
17-Jul-07												
21-Aug-07												
12-Sep-07												
18-Sep-07												
14-Oct-07												
18-Nov-07												
9-Dec-07												

NO DATA

NOTE:
- Dry indicates no water detected in monitor.
- Frozen indicates monitor lid frozen and or snow covered.
- NA indicates water elevation not available

TABLE C-4
GROUNDWATER ELEVATIONS
DUNTROON QUARRY - 2017 AMP SUMMARY REPORT
QUARRY EXPANSION LANDS- MONITORING WELLS
111-53312.01 A61

DATE	NW1	NW2	NW3	NW4	NW5	NW6	NW7	NW8	NW9	NW10DP	NW10-I (shallow)	NW10-II (deep)
20-Jan-08												
21-Feb-08												
19-Mar-08												
7-Apr-08												
20-Apr-08												
20-May-08												
16-Jun-08												
14-Jul-08												
18-Aug-08												
4-Sep-08												
14-Sep-08												
19-Oct-08												
23-Nov-08												
14-Dec-08												
18-Jan-09												
08-Feb-09												
15-Mar-09												
12-Apr-09												
17-May-09												
14-Jun-09												
12-Jul-09												
09-Aug-09												
13-Sep-09												
11-Oct-09												
15-Nov-09												
29-Nov-09												
13-Dec-09												
17-Jan-10												
07-Feb-10												
14-Mar-10												
18-Apr-10												
16-May-10												
8-Jun-10												
13-Jun-10												
21-Jul-10												
16-Aug-10												
12-Sep-10												
26-Sep-10												
17-Oct-10												
14-Nov-10												
19-Dec-10												
16-Jan-11												
20-Feb-11												
13-Mar-11												
20-Mar-11												
17-Apr-11												
15-May-11												
13-Jun-11												
17-Jul-11												
14-Aug-11												
18-Sep-11												
17-Oct-11												
20-Nov-11												
18-Dec-11												
15-Jan-12												
19-Feb-12												
26-Feb-12												
18-Mar-12												
15-Apr-12												

NO DATA

NOTE:
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- Frozen indicates monitor lid frozen and or snow covered.
- NA indicates water elevation not available

TABLE C-4
GROUNDWATER ELEVATIONS
DUNTROON QUARRY - 2017 AMP SUMMARY REPORT
QUARRY EXPANSION LANDS- MONITORING WELLS
111-53312.01 A61

DATE	NW1	NW2	NW3	NW4	NW5	NW6	NW7	NW8	NW9	NW10DP	NW10-I (shallow)	NW10-II (deep)
13-May-12												
17-Jun-12												
1-Jul-12												
15-Jul-12												
12-Aug-12												
16-Sep-12												
9-Oct-12												
14-Oct-12												
18-Nov-12												
16-Dec-12												
13-Jan-13												
17-Feb-13												
17-Mar-13												
31-Mar-13												
14-Apr-13												
12-May-13												
2-Jun-13												
16-Jun-13												
14-Jul-13												
18-Aug-13												
15-Sep-13												
13-Oct-13												
17-Nov-13												
15-Dec-13												
19-Jan-14												
16-Feb-14												
17-Mar-14												
13-Apr-14												
11-May-14												
15-Jun-14												
13-Jul-14												
17-Aug-14												
7-Sep-14												
12-Sep-14												
19-Sep-14												
19-Oct-14												
2-Nov-14	-	-	-	520.3	516.1	515.4	-	527.9	516.5	510.0	-	-
16-Nov-14												
14-Dec-14												
18-Jan-15												
15-Feb-15												
15-Mar-15												
19-Apr-15			512.1						517.2			
17-May-15			511.9						516.4			
14-Jun-15												
19-Jul-15												
9-Aug-15	-	-	-	-	-	-	-	-	-	-	-	-
6-Sep-15	513.3	505.1	510.0	518.9	516.1	514.3	517.6	527.5	515.9	509.1	508.8	508.9
11-Oct-15	512.5	N/A	509.5	518.2	515.3	513.8	516.7	527.2	515.7	509.0	508.2	508.3
15-Nov-15	512.0	N/A	509.6	517.4	515.1	513.9	515.5	527.0	516.0	509.1	508.9	509.1
9-Dec-15	511.8	504.4	510.6	517.6	515.3	514.5	515.4	527.1	516.0	509.1	508.9	509.1
17-Jan-16	512.2	505.2	511.7	519.1	516.4	515.5	515.7	527.7	516.3	509.2	509.3	509.5
14-Feb-16	513.1	507.1	512.2	519.4	517.2	515.6	515.6	527.8	516.5	509.4	509.4	509.5
13-Mar-16	516.4	513.0	514.4	522.7	519.1	519.3	517.7	528.1	517.4	509.5	509.7	509.6
17-Apr-16	516.7	514.3	513.6	520.9	520.2	517.7	516.4	528.0	517.0	509.4	509.4	509.6
1-May-16	-	-	-	-	-	-	-	-	-			-
15-May-16	514.3	509.9	512.1	519.1	518.2	515.9	515.8	527.8	516.4	509.3	509.3	509.5
5-Jun-16	-	-	-	-	-	-	-	-	-	-	-	-
19-Jun-16	512.3	506.8	511.2	517.8	516.7	514.6	515.4	527.6	516.0	509.1	508.8	508.9

NO DATA

NOTE:
- Dry indicates no water detected in monitor.
- Frozen indicates monitor lid frozen and or snow covered.
- NA indicates water elevation not available

TABLE C-4
GROUNDWATER ELEVATIONS
DUNTROON QUARRY - 2017 AMP SUMMARY REPORT
QUARRY EXPANSION LANDS- MONITORING WELLS
111-53312.01 A61

DATE	NW1	NW2	NW3	NW4	NW5	NW6	NW7	NW8	NW9	NW10DP	NW10-I (shallow)	NW10-II (deep)
3-Jul-16	-	-	-	-	-	-	-	-	-	-	-	-
17-Jul-16	511.2	505.3	510.2	516.6	515.5	513.9	515.3	527.1	515.7	509.1	508.5	508.6
24-Jul-16	510.9	505.0	509.9	516.4	515.3	513.8	515.3	527.0	515.6	509.0	508.3	508.4
7-Aug-16	-	-	-	-	-	-	-	-	-	-	-	-
21-Aug-16	510.0	504.6	509.3	515.7	514.8	513.5	515.2	526.6	515.4	509.0	508.0	508.2
18-Sep-16	509.1	504.2	509.0	515.1	514.5	513.2	515.1	526.4	515.2	509.0	507.7	507.9
29-Sep-16	508.9	-	508.9	-	-	-	-	-	-	-	-	-
16-Oct-16	508.5	504.1	508.8	514.6	514.3	513.0	515.1	526.2	515.1	509.1	507.6	507.7
13-Nov-16	507.9	503.9	508.7	514.1	514.1	512.9	515.0	526.0	515.0	509.1	507.7	507.8
27-Nov-16	507.5	503.8	508.6	513.9	514.0	512.9	514.9	526.0	515.1	509.1	507.9	508.0
11-Dec-16	507.1	503.7	508.7	513.8	514.0	513.0	514.9	525.9	515.1	509.1	508.1	508.3
15-Jan-17	507.5	504.6	511.3	522.3	514.8	516.4	516.1	527.7	516.4	509.1	509.1	509.3
12-Feb-17	506.8	503.5	511.7	521.0	515.5	515.3	515.5	527.7	516.3	509.4	509.4	509.5
19-Mar-17	509.5	508.7	512.4	518.2	516.9	516.1	515.7	527.9	516.7	509.4	509.4	509.5
9-Apr-17	517.0	509.3	513.1	523.7	517.5	518.5	517.1	528.2	517.4	509.5	509.5	509.7
16-Apr-17	510.5	509.9	512.8	519.0	517.6	517.5	515.8	527.9	517.0	509.4	509.4	509.6
11-May-17	509.9	512.5	513.5	519.0	518.6	517.0	515.7	527.9	516.8	509.4	509.4	509.6
21-May-17	-	511.0	512.6	518.6	518.5	516.0	515.7	527.9	516.7	509.5	509.5	509.6
13-Jun-17	-	508.5	-	516.9	-	-	-	-	-	509.4	509.5	509.6
25-Jun-17	504.9	508.5	514.3	517.9	517.3	516.8	516.0	527.9	516.7	509.3	509.5	509.6
19-Jul-17	504.0	506.8	511.7	516.6	516.6	515.1	515.4	527.8	516.3	509.2	509.2	509.4
3-Aug-17	-	505.5	511.2	515.6	516.0	514.6	515.3	527.7	516.1	509.1	508.9	509.0
17-Aug-17	503.3	504.8	510.7	514.9	515.3	514.2	515.3	527.6	516.1	509.1	509.1	509.2
29-Aug-17	-	504.3	510.3	514.4	514.7	513.7	-	527.4	515.9	509.1	508.8	508.9
17-Sep-17	502.7	503.9	509.8	513.8	514.3	513.6	515.2	527.3	515.9	509.1	508.9	509.0
26-Sep-17	-	503.9	509.8	513.6	514.1	513.4	515.1	527.2	515.8	-	508.7	508.9
15-Oct-17	-	508.9	510.0	513.6	514.0	514.1	515.4	527.6	516.2	509.2	509.2	509.4
14-Nov-17	502.3	503.8	511.1	516.0	514.0	514.7	515.6	527.8	516.3	509.2	509.2	509.4
11-Dec-17	502.3	504.4	511.8	514.7	514.3	514.6	515.4	527.8	516.2	509.3	509.3	509.5

NOTE:
- Bridson DP elevations estimated based on site plan ground elevation and monitor stick-up.
- Dry indicates no water detected in monitor.
- Frozen indicates monitor lid frozen and or snow covered.

TABLE C-4
GROUNDWATER ELEVATIONS
DUNTROON QUARRY - 2017 AMP SUMMARY REPORT
QUARRY EXPANSION LANDS- MONITORING WELLS
111-53312.01 A61

DATE	BH03-9	TW04-1	TW04-2	TW04-3
28-Mar-03				
02-May-03	515.9			
16-May-03	515.8			
25-Jun-03	515.8			
22-Jul-03	515.8			
20-Aug-03	515.8			
25-Sep-03	515.7			
22-Oct-03	515.8			
25-Nov-03	515.9			
22-Dec-03	515.9			
09-Feb-04	515.8			
16-Mar-04	515.9			
20-Apr-04	515.9			
18-May-04	515.8			
22-Jun-04	515.8			
28-Jul-04	515.7			
25-Aug-04	515.7			
22-Sep-04	515.7			
19-Oct-04	515.7			
16-Nov-04	Frozen	515.7	515.7	515.7
16-Dec-04	Frozen	516.0	515.9	515.8
31-Jan-05	Frozen	515.9	515.9	515.8
24-Feb-05	Frozen	515.9	515.9	515.8
22-Mar-05	Frozen	516.9	516.7	516.2
20-Apr-05	Frozen	516.1	515.9	515.8
25-May-05	515.8	515.9	515.8	515.8
29-Jun-05	515.8	515.8	515.8	515.8
13-Jul-05	515.7	515.8	515.7	516.7
23-Aug-05	515.7	515.7	515.7	515.7
16-Mar-07	516.0	516.3	516.1	516.0
19-Mar-07	515.9	516.3	515.9	515.9
5-Apr-07	516.1	516.7	516.3	516.1
13-Apr-07	515.9	516.3	516.0	515.9
17-Apr-07	515.9	516.3	516.0	515.9
20-Apr-07	515.0	516.2	515.9	515.9
27-Apr-07	515.8	516.2	515.9	515.8
4-May-07	515.8	516.0	515.8	515.8
11-May-07	515.8	516.0	515.8	515.8
18-May-07	515.8	516.0	515.8	515.8
25-May-07	515.8	515.9	515.8	515.8
1-Jun-07	515.7	515.9	515.8	515.8
8-Jun-07	515.8	515.9	515.8	515.8
14-Jun-07	515.7	515.9	515.8	515.7
21-Jun-07	515.7	515.8	515.8	515.7
29-Jun-07	515.7	515.8	515.7	515.7
6-Jul-07	515.7	515.8	515.7	515.7
17-Jul-07	515.7	515.8	515.7	515.7
20-Jul-07	515.7	515.8	515.7	515.7
27-Jul-07	515.7	515.7	515.7	515.7
3-Aug-07	515.7	515.7	515.7	515.7
10-Aug-07	515.7	515.7	515.7	515.7
17-Aug-07	515.7	515.7	515.7	515.7
21-Aug-07	515.7	515.7	515.7	515.7
30-Aug-07	515.7	515.7	515.7	515.7
7-Sep-07	515.7	515.7	515.7	515.7
14-Sep-07	515.7	515.7	515.7	515.7
18-Sep-07	515.7	515.6	515.7	515.7
28-Sep-07	515.7	515.7	515.7	515.7

DATE	BH03-9	TW04-1	TW04-2	TW04-3
26-Sep-05	515.7	515.7	515.7	515.7
26-Oct-05	515.7	515.8	515.8	515.7
16-Nov-05	515.7	515.7	515.8	515.7
14-Dec-05	515.7	516.1	516.0	515.9
20-Jan-06	515.8	516.1	515.9	515.9
14-Feb-06	Frozen	Frozen	Frozen	Frozen
19-Mar-06	Frozen	516.5	516.2	516.0
17-Apr-06	516.0	516.0	515.9	515.8
19-May-06	515.8	515.8	515.8	515.8
19-Jun-06	515.8	515.8	515.8	515.7
10-Jul-06	515.7	515.7	515.7	515.7
22-Aug-06	515.7	515.7	515.7	515.7
18-Sep-06	515.7	515.7	515.7	515.7
17-Oct-06	515.7	516.1	516.0	515.9
20-Nov-06	515.9	516.3	516.1	516.0
15-Dec-06	515.9	516.1	515.9	515.8
28-Dec-06	515.8	516.1	515.9	515.8
5-Jan-07	515.8	516.1	515.9	515.8
12-Jan-07	515.8	516.1	515.9	515.8
19-Jan-07	515.8	516.0	515.9	515.8
22-Jan-07	515.8	516.0	515.9	515.8
26-Jan-07	515.3	516.0	515.8	515.8
2-Feb-07	515.8	515.9	515.8	515.7
9-Feb-07	515.7	515.9	515.8	515.7
16-Feb-07	515.7	515.9	515.8	515.8
19-Feb-07	515.8	515.9	515.8	515.7
22-Feb-07	515.7	Frozen	515.8	515.7
2-Mar-07	515.7	Frozen	515.8	515.7
9-Mar-07	515.7	Frozen	515.8	515.7
5-Oct-07	515.6	515.6	515.6	515.6
12-Oct-07	515.7	515.7	515.7	515.7
19-Oct-07	515.7	515.9	515.7	515.7
26-Oct-07	515.7	515.6	515.6	515.6
2-Nov-07	515.7	515.6	515.6	515.6
9-Nov-07	515.7	515.6	515.7	515.7
16-Nov-07	515.7	515.6	515.7	515.7
22-Nov-07	515.7	515.7	515.7	515.7
2-Dec-07	515.7	515.7	515.7	515.7
13-Dec-07	515.7	515.7	515.7	516.3
28-Dec-07	515.7	515.9	515.8	515.8
4-Jan-08	515.7	515.8	515.8	515.7
11-Jan-08	516.4	517.0	516.8	516.4
18-Jan-08	516.0	516.5	516.2	516.0
24-Jan-08	515.7	516.3	516.8	515.4
4-Feb-08	515.8	516.1	515.9	515.8
8-Feb-08	516.1	516.1	515.9	515.5
15-Feb-08	515.8	516.0	515.8	515.8
21-Feb-08	515.5	516.1	515.8	515.8
29-Feb-08	515.8	516.1	515.9	515.8
7-Mar-08	515.8	516.2	515.9	515.8
14-Mar-08	515.9	516.2	516.0	515.9
19-Mar-08	515.8	516.0	515.7	515.8
28-Mar-08	Frozen	516.0	515.8	515.8
4-Apr-08	516.2	516.8	516.6	516.3
11-Apr-08	516.3	517.0	516.7	516.4
18-Apr-08	516.1	516.8	516.4	516.2
21-Apr-08	516.0	516.6	516.2	516.1
3-May-08	515.8	516.2	515.9	515.9

NOTE:
- Dry indicates no water detected in monitor.
- Frozen indicates monitor lid frozen and or snow covered.
- N/A indicates water elevation not available

TABLE C-4
GROUNDWATER ELEVATIONS
DUNTROON QUARRY - 2017 AMP SUMMARY REPORT
QUARRY EXPANSION LANDS- MONITORING WELLS
111-53312.01 A61

DATE	BH03-9	TW04-1	TW04-2	TW04-3
8-May-08	515.9	516.2	515.9	515.9
20-May-08	515.8	516.1	515.9	515.8
25-May-08	515.8	516.0	515.8	515.8
6-Jun-08	515.8	515.9	515.8	515.8
13-Jun-08	515.8	515.9	515.8	515.8
16-Jun-08	515.9	515.9	515.7	515.7
20-Jun-08	515.7	515.9	515.8	515.7
27-Jun-08	515.7	515.8	515.8	515.7
4-Jul-08	515.7	515.8	515.8	515.7
11-Jul-08	515.7	515.8	515.8	515.7
14-Jul-08	515.7	515.8	515.8	515.7
25-Jul-08	515.7	515.8	515.7	515.7
1-Aug-08	515.9	515.8	515.8	515.7
3-Aug-08	515.8	515.9	515.8	515.8
15-Aug-08	515.7	515.9	515.8	515.7
18-Aug-08	515.7	515.9	515.8	515.7
5-Sep-08	515.7	515.8	515.8	515.7
12-Sep-08	515.7	515.8	515.8	515.7
15-Sep-08	515.7	515.8	515.8	515.7
3-Oct-08	515.8	515.9	515.9	515.8
10-Oct-08	515.8	515.9	515.8	515.8
20-Oct-08	515.8	515.9	515.8	515.8
16-Nov-08	515.9	516.1	516.0	515.9
23-Nov-08	515.8	515.9	515.8	515.8
30-Nov-08	515.9	516.1	516.0	Frozen
7-Dec-08	515.5	516.1	515.9	515.8
14-Dec-08	N/A	Frozen	515.8	Frozen
28-Dec-08	N/A	N/A	N/A	N/A
04-Jan-09	515.9	516.4	516.1	516.4
18-Apr-10	515.9	516.2	515.9	516.0
16-May-10	515.9	516.1	515.9	516.1
8-Jun-10	N/A	N/A	N/A	N/A
13-Jun-10	515.8	516.1	515.9	515.6
21-Jul-10	515.8	516.0	515.8	515.2
16-Aug-10	515.8	515.9	515.8	515.7
12-Sep-10	515.7	515.8	515.8	515.7
26-Sep-10	N/A	N/A	N/A	N/A
17-Oct-10	515.8	515.9	515.7	515.7
14-Nov-10	515.8	515.9	515.8	515.8
19-Dec-10	515.9	516.0	515.9	515.9
16-Jan-11	516.1	516.1	515.9	516.0
20-Feb-11	516.0	516.1	515.9	516.0
13-Mar-11	516.1	516.2	516.0	516.0
17-Apr-11	515.9	516.5	516.1	516.0
15-May-11	516.0	516.6	516.1	516.1
13-Jun-11	515.8	516.1	515.8	516.1
17-Jul-11	515.7	515.8	515.7	515.7
14-Aug-11	N/A	515.8	515.7	515.7
18-Sep-11	515.6	515.9	515.8	515.7
17-Oct-11	515.6	515.7	515.5	515.6
20-Nov-11	515.7	515.8	515.7	515.7
18-Dec-11	515.7	515.8	515.8	515.7
15-Jan-12	515.8	515.9	515.8	515.8
19-Feb-12	515.8	516.0	515.8	515.7
26-Feb-12	-	-	-	-
18-Mar-12	516.0	516.7	517.3	516.0
15-Apr-12	516.1	516.0	515.8	515.7
13-May-12	515.7	515.9	515.8	515.8

DATE	BH03-9	TW04-1	TW04-2	TW04-3
18-Jan-09	515.3	516.1	515.9	515.9
8-Feb-09	515.9	516.0	515.9	515.7
15-Feb-09	515.9	516.4	516.1	515.9
1-Mar-09	515.9	516.2	516.0	515.9
15-Mar-09	516.0	516.5	516.1	515.9
26-Mar-09	516.0	516.5	516.1	516.0
29-Mar-09	515.9	516.3	516.0	515.9
26-Apr-09	515.9	516.4	516.1	516.0
03-May-09	515.9	515.4	516.9	515.9
10-May-09	515.8	516.2	515.9	515.8
17-May-09	515.8	516.1	515.9	515.8
24-May-09	515.8	516.1	515.9	515.8
07-Jun-09	515.7	515.9	515.8	515.8
14-Jun-09	515.7	515.9	515.8	515.8
21-Jun-09	515.7	515.9	515.8	515.7
28-Jun-09	515.7	515.9	515.8	515.7
12-Jul-09	515.7	515.8	515.8	515.7
19-Jul-09	515.7	515.8	515.8	515.7
09-Aug-09	515.7	515.6	515.8	515.7
16-Aug-09	515.7	515.8	515.8	515.7
23-Aug-09	515.7	515.7	515.7	515.7
13-Sep-09	515.7	515.7	515.7	515.7
20-Sep-09	515.8	515.8	515.7	515.7
11-Oct-09	515.7	515.8	515.8	515.7
15-Nov-09	515.7	515.7	515.7	515.7
13-Dec-09	515.9	516.0	515.7	515.8
17-Jan-10	515.7	515.8	515.6	515.8
07-Feb-10	515.8	515.9	515.8	515.7
14-Mar-10	516.2	516.5	516.3	516.1
17-Jun-12	515.6	515.8	515.7	515.6
15-Jul-12	515.5	515.8	515.7	515.5
12-Aug-12	515.9	515.9	515.7	515.4
16-Sep-12	515.7	515.8	515.7	515.7
9-Oct-12				
14-Oct-12	515.6	516.0	515.8	515.8
18-Nov-12	515.8	516.4	516.2	515.8
16-Dec-12	515.8	516.0	516.3	515.8
13-Jan-13	516.2	516.4	516.2	516.2
17-Feb-13	516.3	516.5	516.3	516.3
17-Mar-13	516.2	516.5	516.3	516.2
31-Mar-13	-	-	-	-
14-Apr-13	516.0	516.6	516.2	516.0
12-May-13	516.3	516.5	516.1	516.0
2-Jun-13	-	-	-	-
16-Jun-13	516.1	516.0	515.8	515.7
14-Jul-13	515.7	516.0	515.8	515.7
18-Aug-13	515.6	515.9	515.7	515.6
15-Sep-13	515.4	515.8	515.8	515.3
13-Oct-13	515.4	515.8	515.8	515.3
17-Nov-13	515.7	516.0	515.9	515.4
15-Dec-13	515.5	515.9	515.8	515.4
19-Jan-14	515.6	516.0	515.8	515.3
16-Feb-14	515.6	516.0	515.8	515.4
17-Mar-14	515.6	515.0	515.7	515.4
13-Apr-14	516.8	516.2	517.7	516.5
11-May-14	515.5	516.1	515.7	515.3
15-Jun-14	515.7	515.5	515.7	515.6
13-Jul-14	515.7	515.8	515.7	515.4

NOTE:
- Dry indicates no water detected in monitor.
- Frozen indicates monitor lid frozen and or snow covered.
- N/A indicates water elevation not available

TABLE C-4
GROUNDWATER ELEVATIONS
DUNTROON QUARRY - 2017 AMP SUMMARY REPORT
QUARRY EXPANSION LANDS- MONITORING WELLS
111-53312.01 A61

DATE	BH03-9	TW04-1	TW04-2	TW04-3
17-Aug-14	515.7	515.7	515.7	515.6
7-Sep-14	515.7	515.5	515.7	515.6
12-Sep-14	-	-	-	-
19-Sep-14	-	-	-	-
19-Oct-14	515.8	515.7	515.7	515.6
16-Nov-14	515.8	516.0	515.9	515.5
14-Dec-14	515.8	515.9	515.8	515.7
18-Jan-15	515.9	515.9	515.8	515.7
15-Feb-15	N/A	N/A	N/A	N/A
15-Mar-15	515.8	515.8	515.8	515.7
19-Apr-15	515.8	516.2	515.9	515.8
17-May-15	515.7	515.9	515.8	515.7
14-Jun-15	515.7	515.8	515.8	515.7
19-Jul-15	515.7	515.8	515.8	515.7
9-Aug-15	515.7	515.8	515.7	515.7
6-Sep-15	515.7	515.7	515.7	515.7
11-Oct-15	515.5	515.1	515.5	515.5
15-Nov-15	515.7	515.7	515.7	515.7
9-Dec-15	515.7	515.7	515.7	515.7
17-Jan-16	515.7	515.8	515.8	515.7
14-Feb-16	515.7	515.9	515.8	515.7
13-Mar-16	515.9	516.3	516.0	515.9
17-Apr-16	515.8	516.2	515.9	515.8
1-May-16	-	-	-	-
15-May-16	515.8	515.9	515.8	515.8
5-Jun-16	-	-	-	-
19-Jun-16	515.7	515.7	515.7	515.7
3-Jul-16	-	-	-	-
17-Jul-16	515.5	515.5	515.5	515.5
24-Jul-16	-	-	-	-
7-Aug-16	-	-	-	-
21-Aug-16	515.2	515.2	515.2	515.2
18-Sep-16	515.0	515.0	515.0	515.0
29-Sep-16	-	-	-	-

DATE	BH03-9	TW04-1	TW04-2	TW04-3
16-Oct-16	514.8	514.9	514.9	514.8
13-Nov-16	514.7	514.7	514.8	514.7
27-Nov-16	-	-	-	-
11-Dec-16	514.9	514.8	514.9	514.8
15-Jan-17	515.8	516.0	515.9	515.8
12-Feb-17	515.8	515.9	515.8	515.8
19-Mar-17	515.8	516.1	515.9	515.8
9-Apr-17	-	-	-	-
16-Apr-17	515.8	516.2	515.9	515.8
11-May-17	515.8	516.2	515.9	515.8
25-Jun-17	515.8	516.1	515.9	515.8
19-Jul-17	515.8	516.1	515.9	515.8
17-Aug-17	515.7	515.8	515.7	515.7
17-Sep-17	515.7	515.7	515.7	515.7
15-Oct-17	515.8	515.8	515.8	515.8
14-Nov-17	515.8	515.9	515.8	515.8
11-Dec-17	515.8	515.9	515.8	515.8

NOTE:
- Dry indicates no water detected in monitor.
- Frozen indicates monitor lid frozen and or snow covered.
- N/A indicates water elevation not available

FIGURE C-10

GROUNDWATER HYDROGRAPH
BH02-1

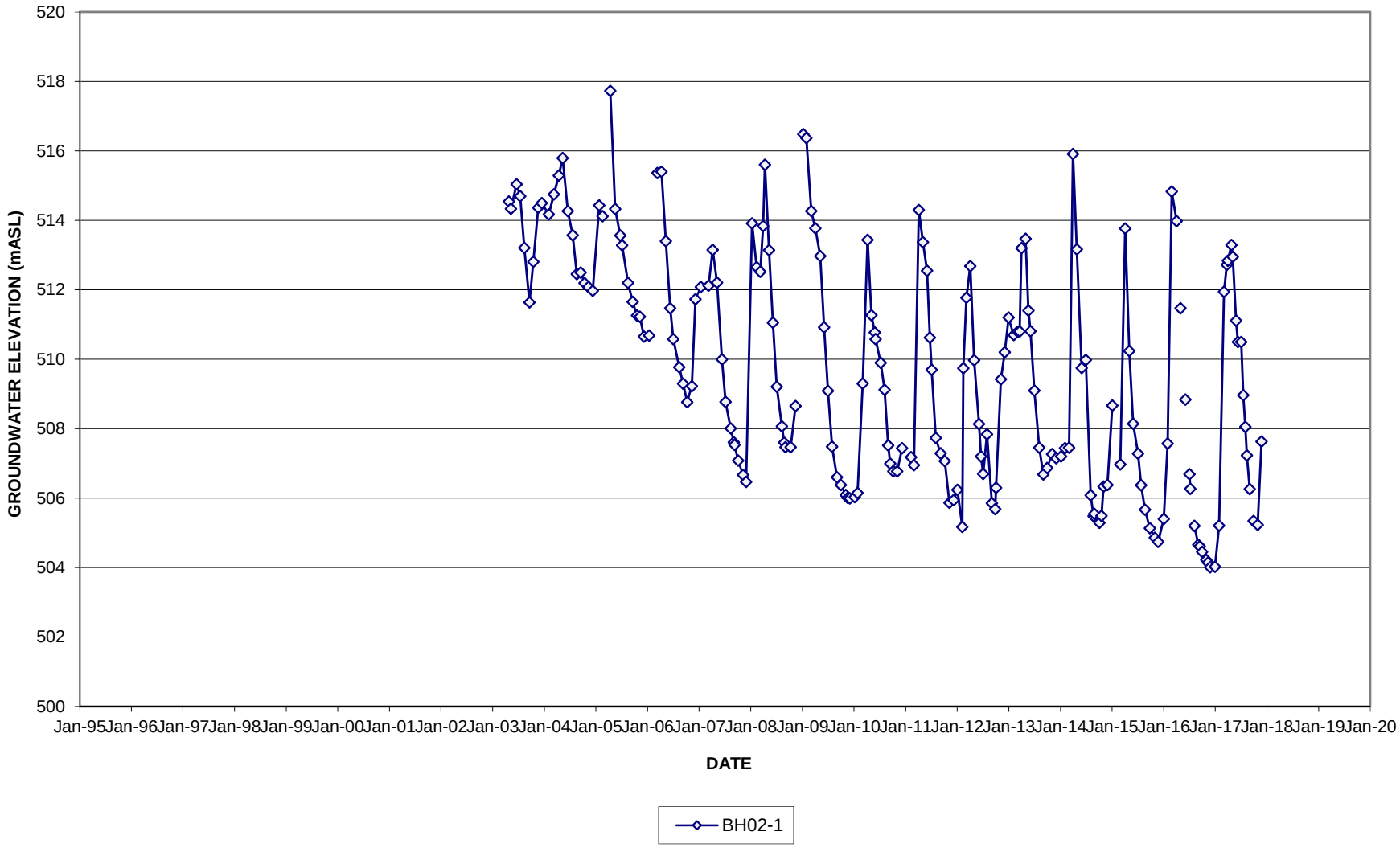


FIGURE C-11

GROUNDWATER HYDROGRAPH
BH02-2

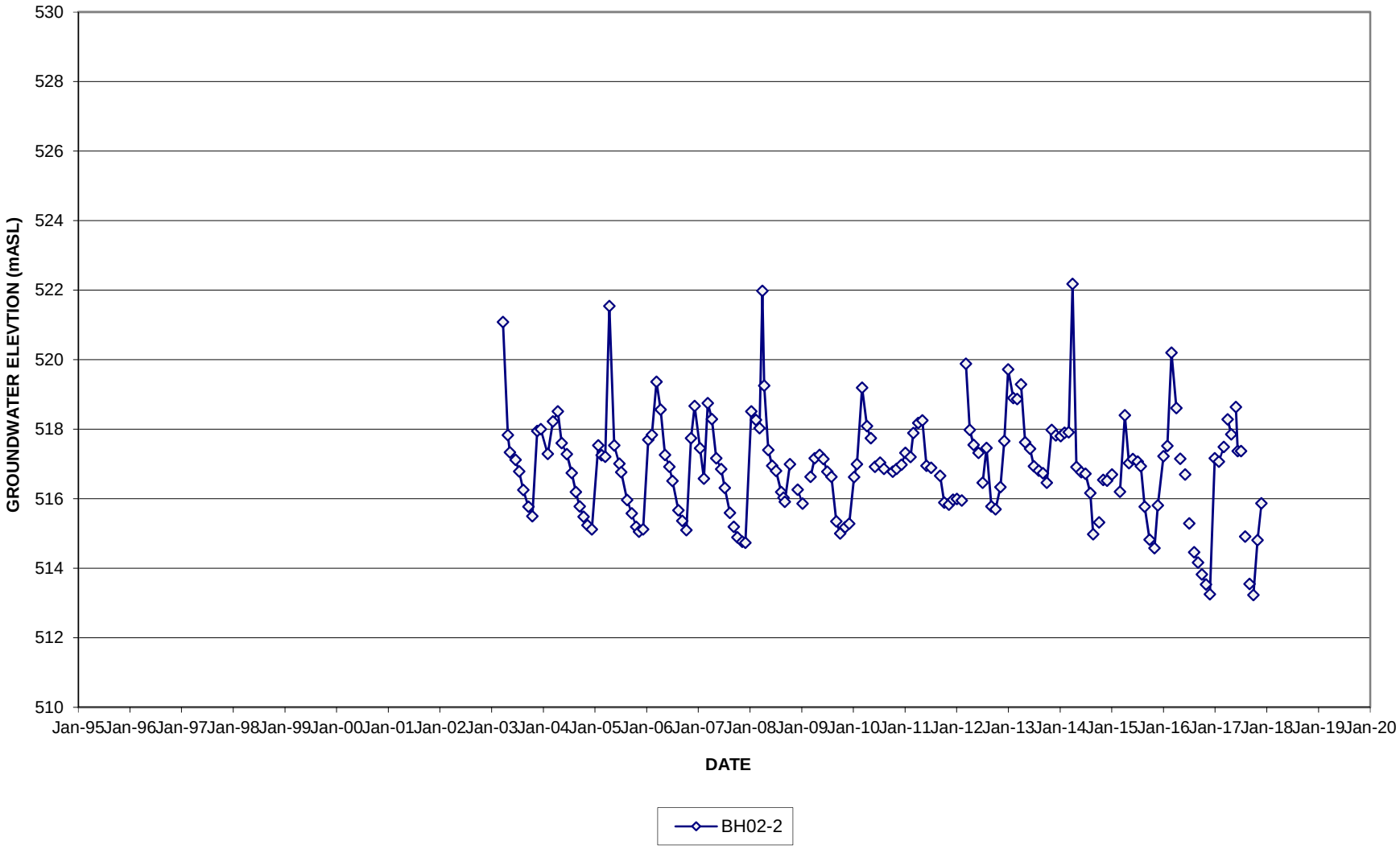


FIGURE C-12

GROUNDWATER HYDROGRAPH
BH02-3

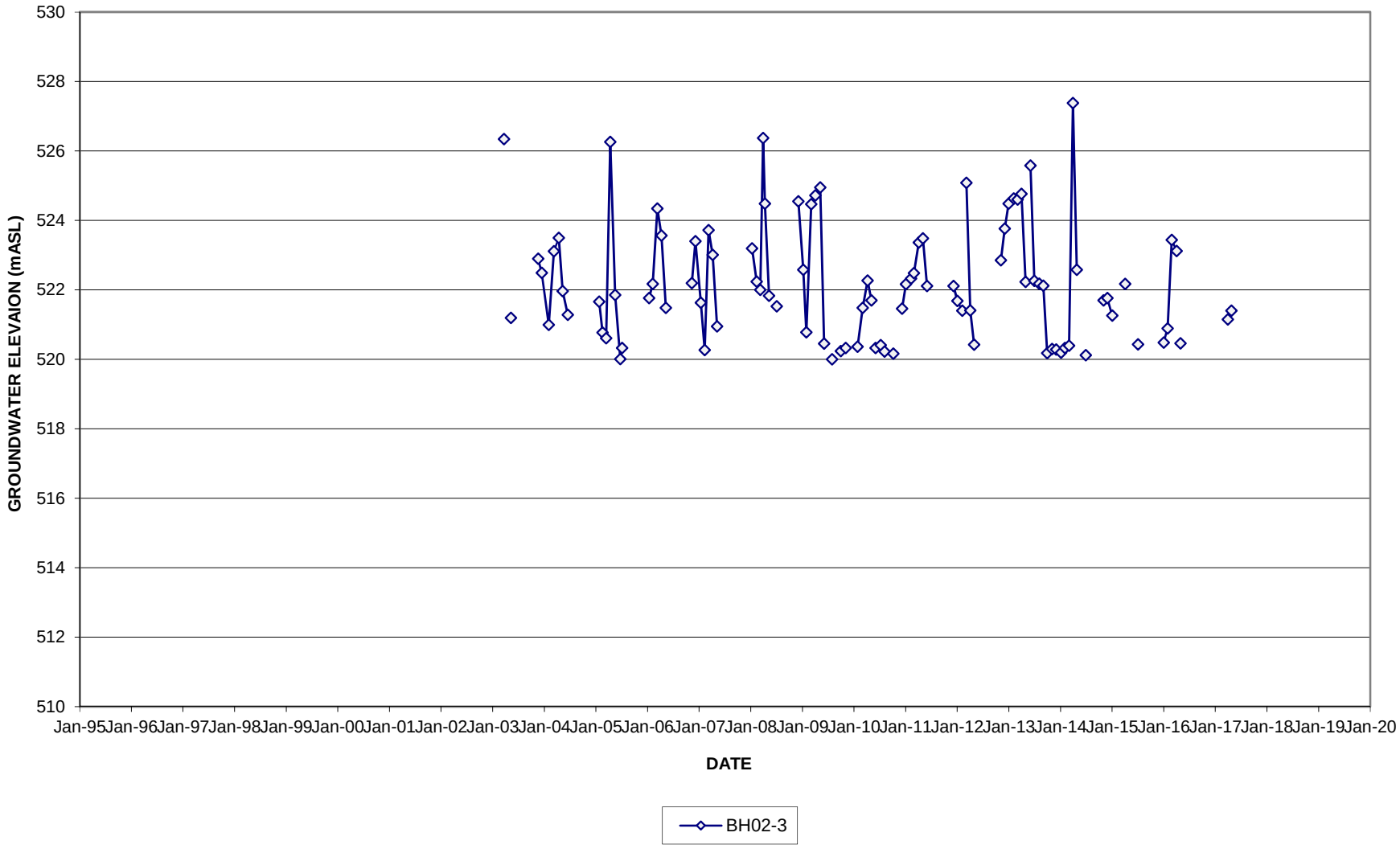


FIGURE C-13

GROUNDWATER HYDROGRAPH
BH02-4

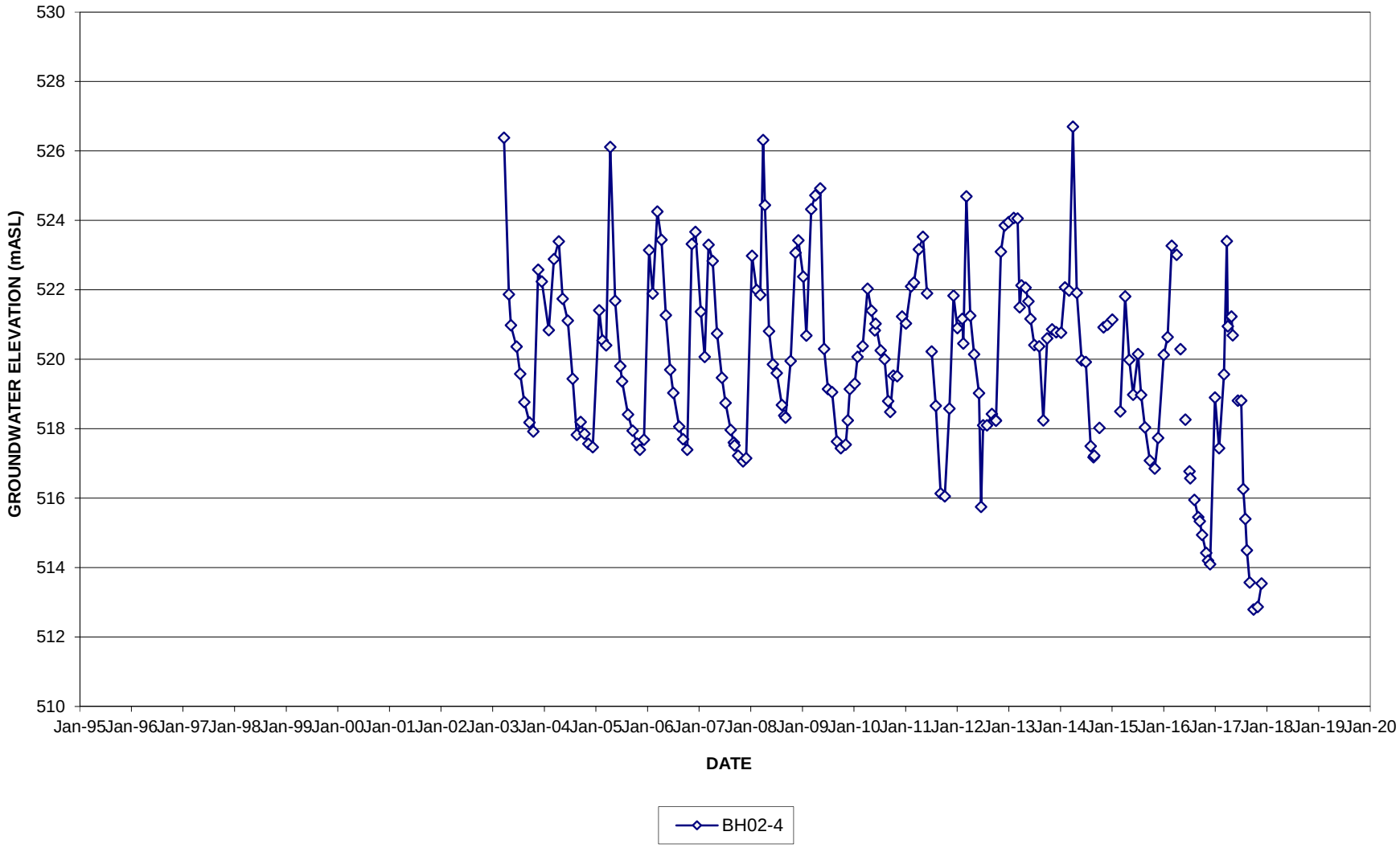


FIGURE C-14

GROUNDWATER HYDROGRAPH
BH02-5, BH02-5-II and BH02-5-III

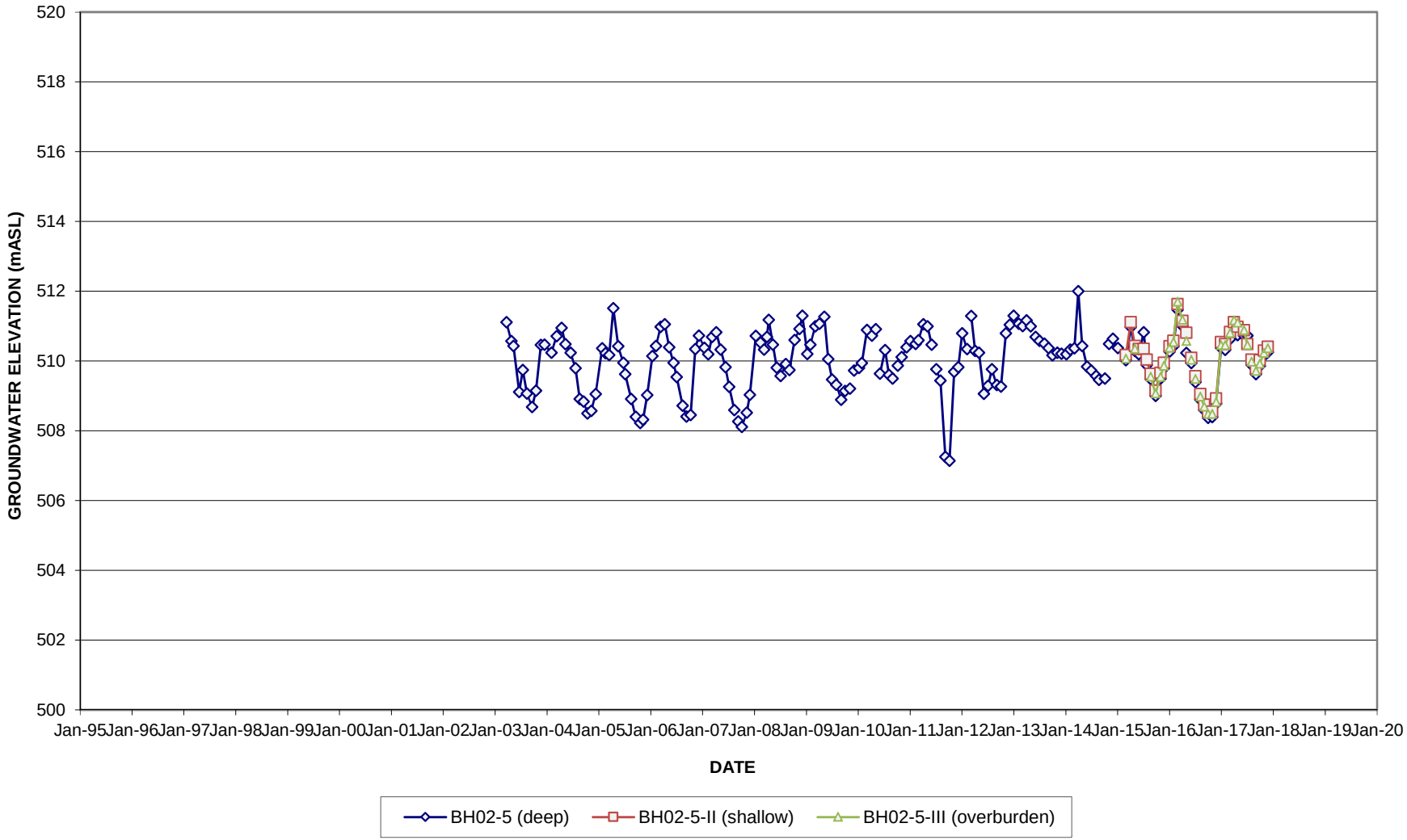


FIGURE C-15

GROUNDWATER HYDROGRAPH
BH02-6

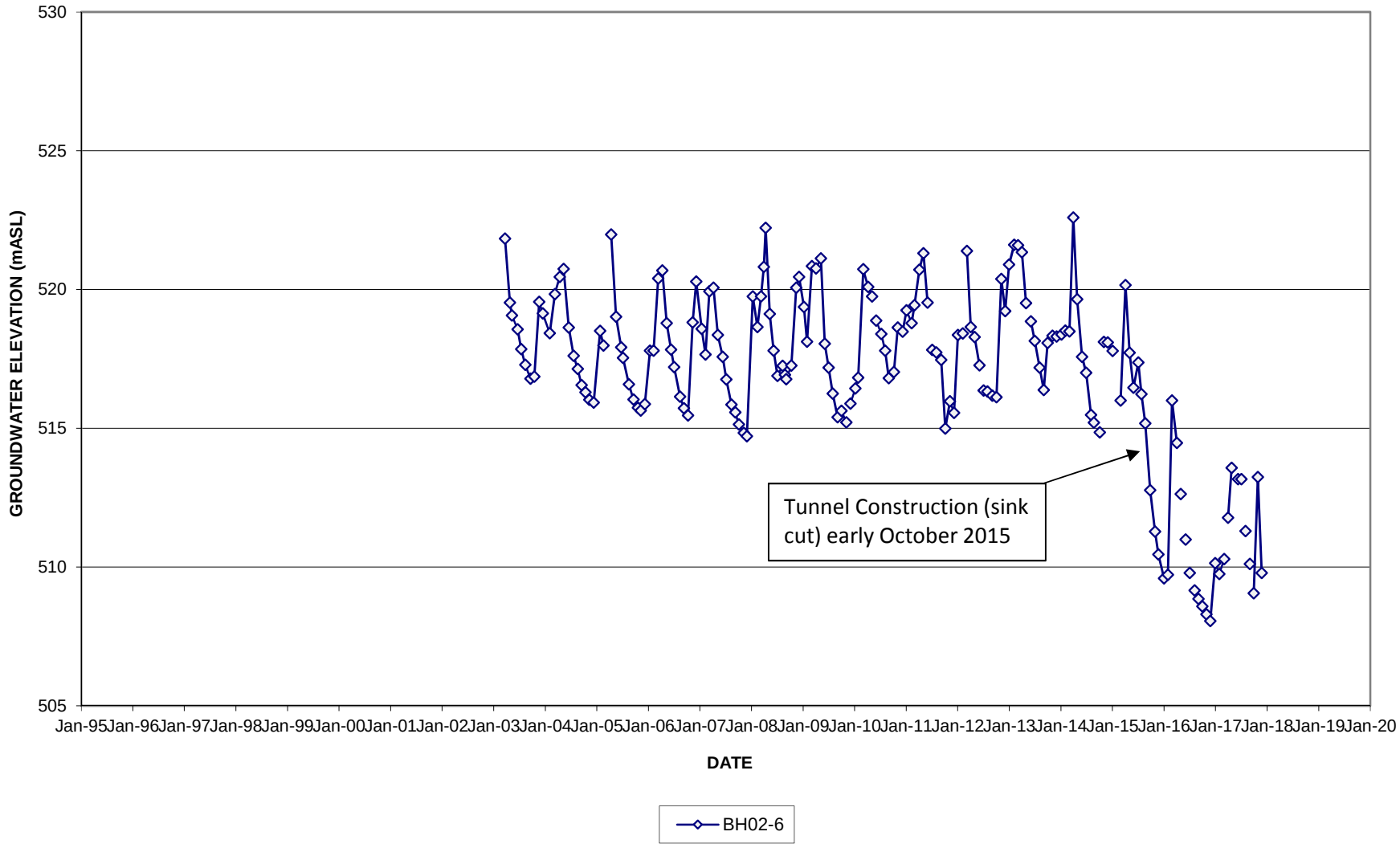


FIGURE C-16

GROUNDWATER HYDROGRAPH
BH03-7-I, BH03-7-II and BH03-7-III

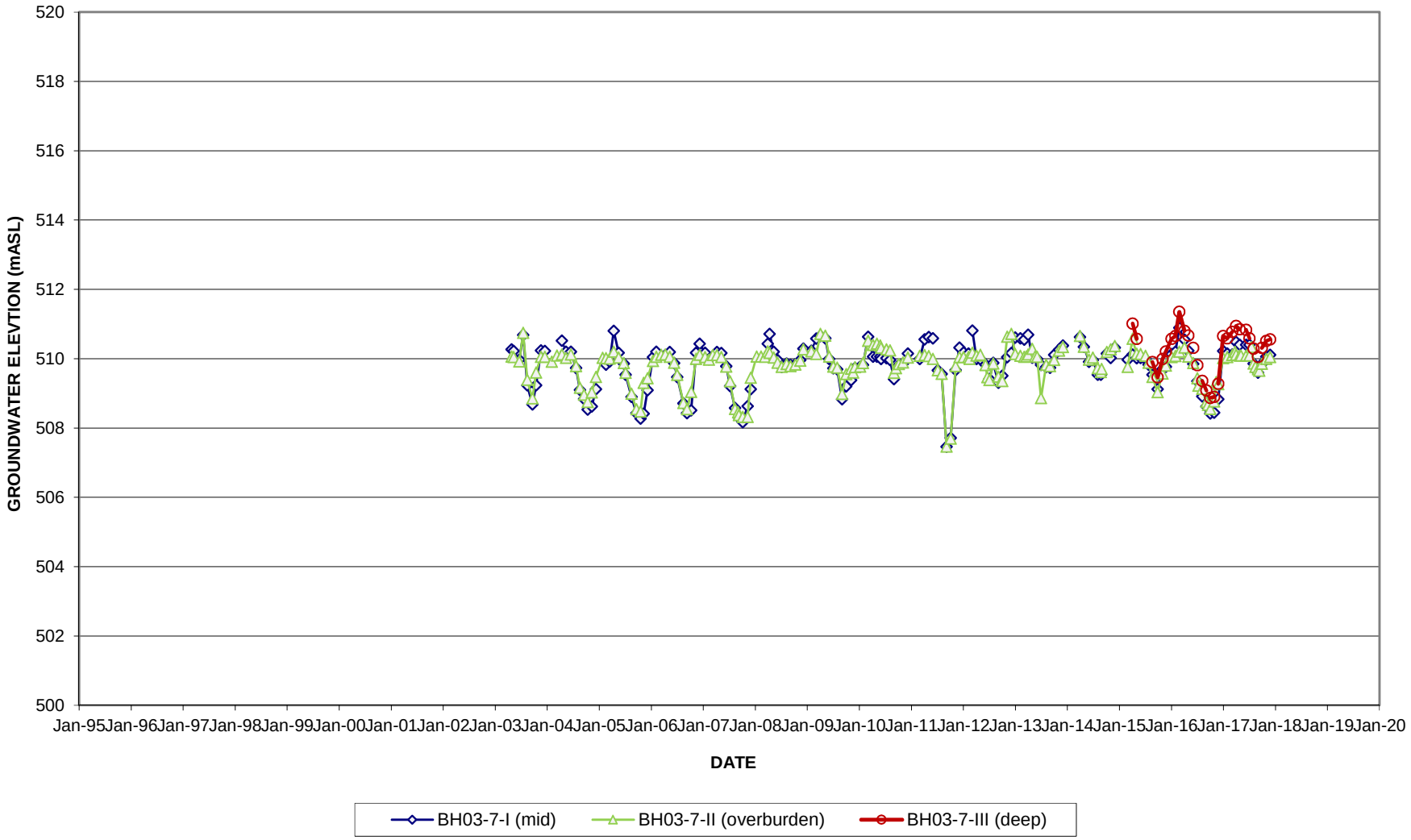


FIGURE C-17

GROUNDWATER HYDROGRAPH
BH03-8

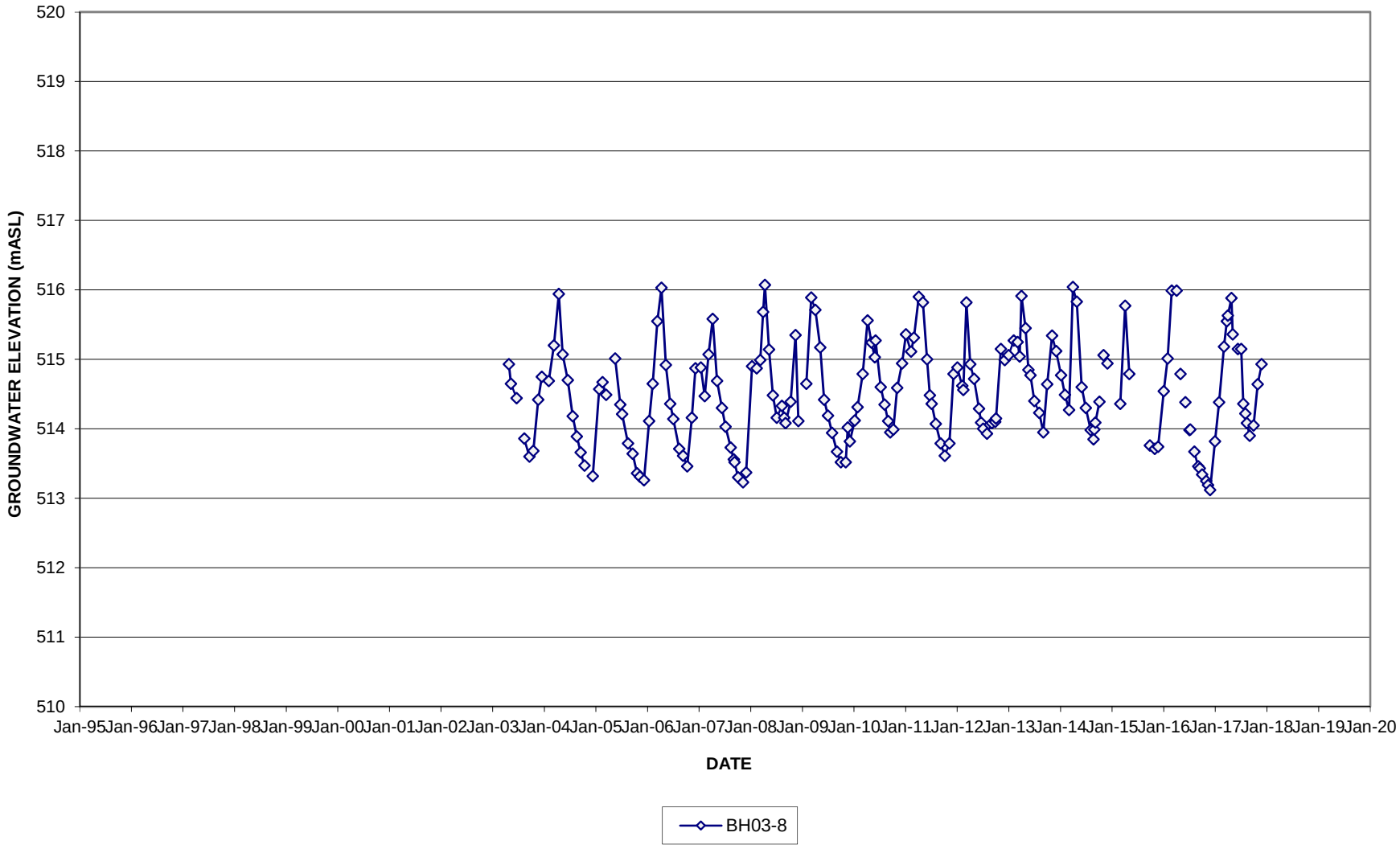


FIGURE C-18

GROUNDWATER HYDROGRAPH
BH08-1

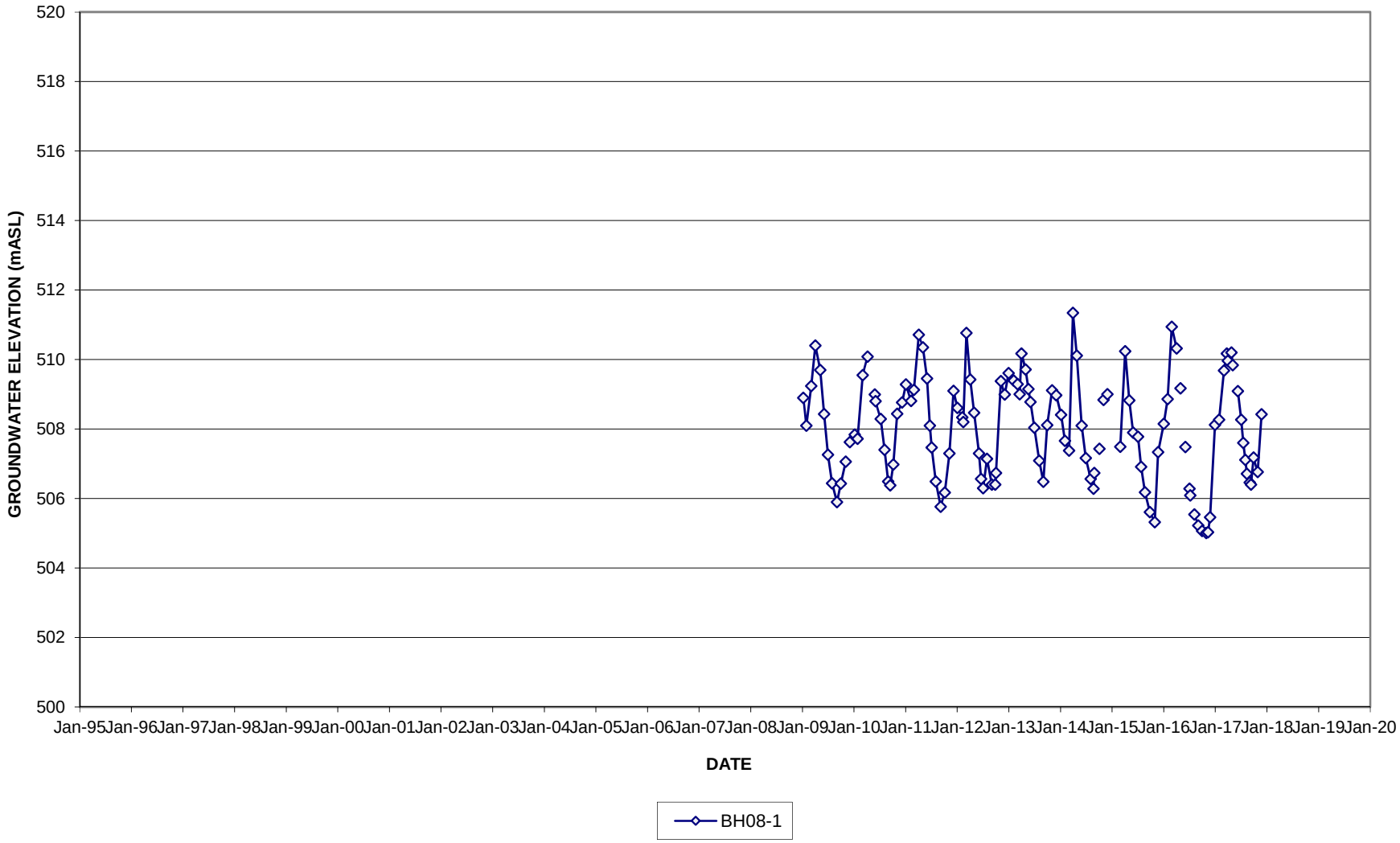


FIGURE C-19

GROUNDWATER HYDROGRAPH
BH08-2

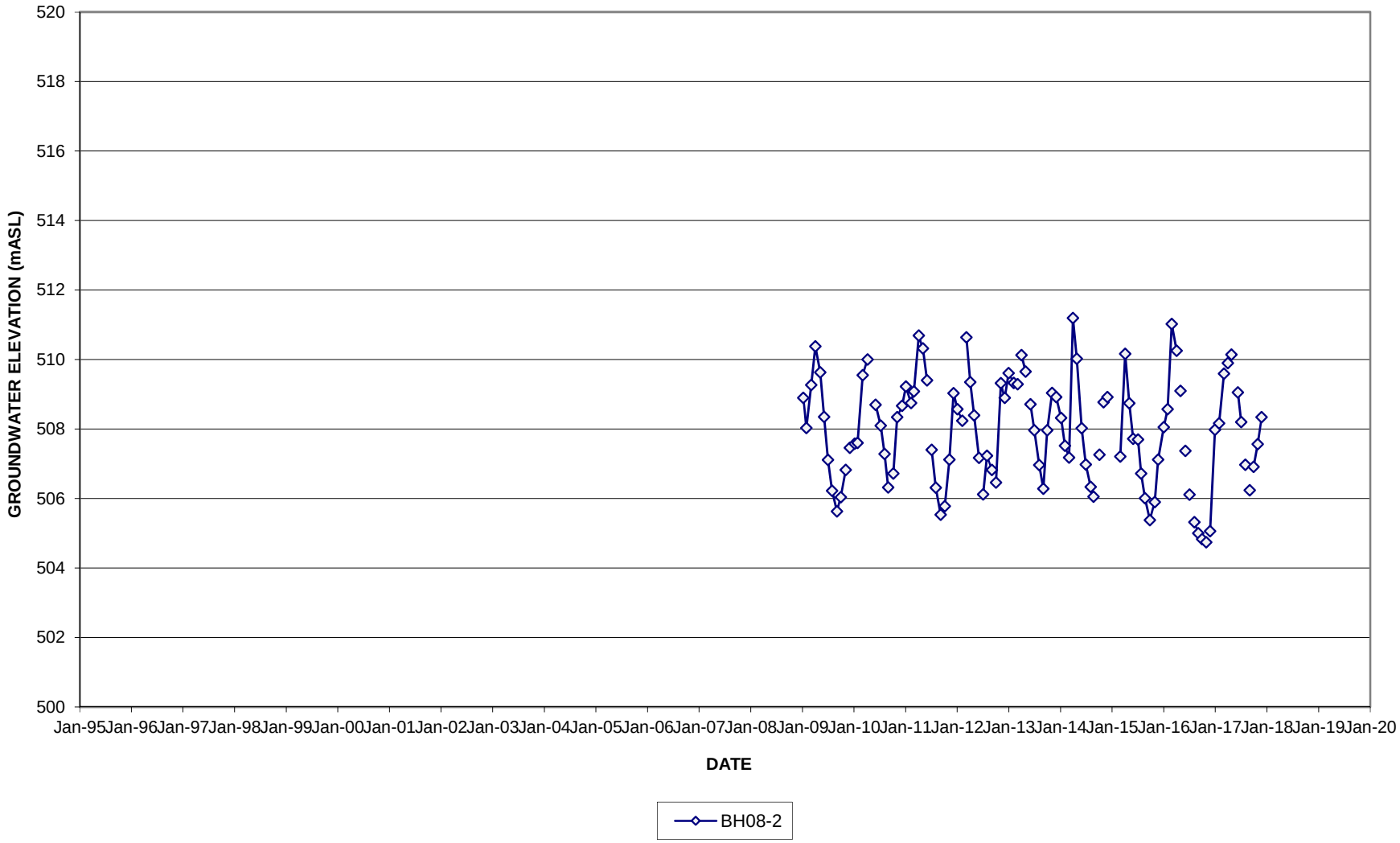


FIGURE C-20

GROUNDWATER HYDROGRAPH
BH08-3

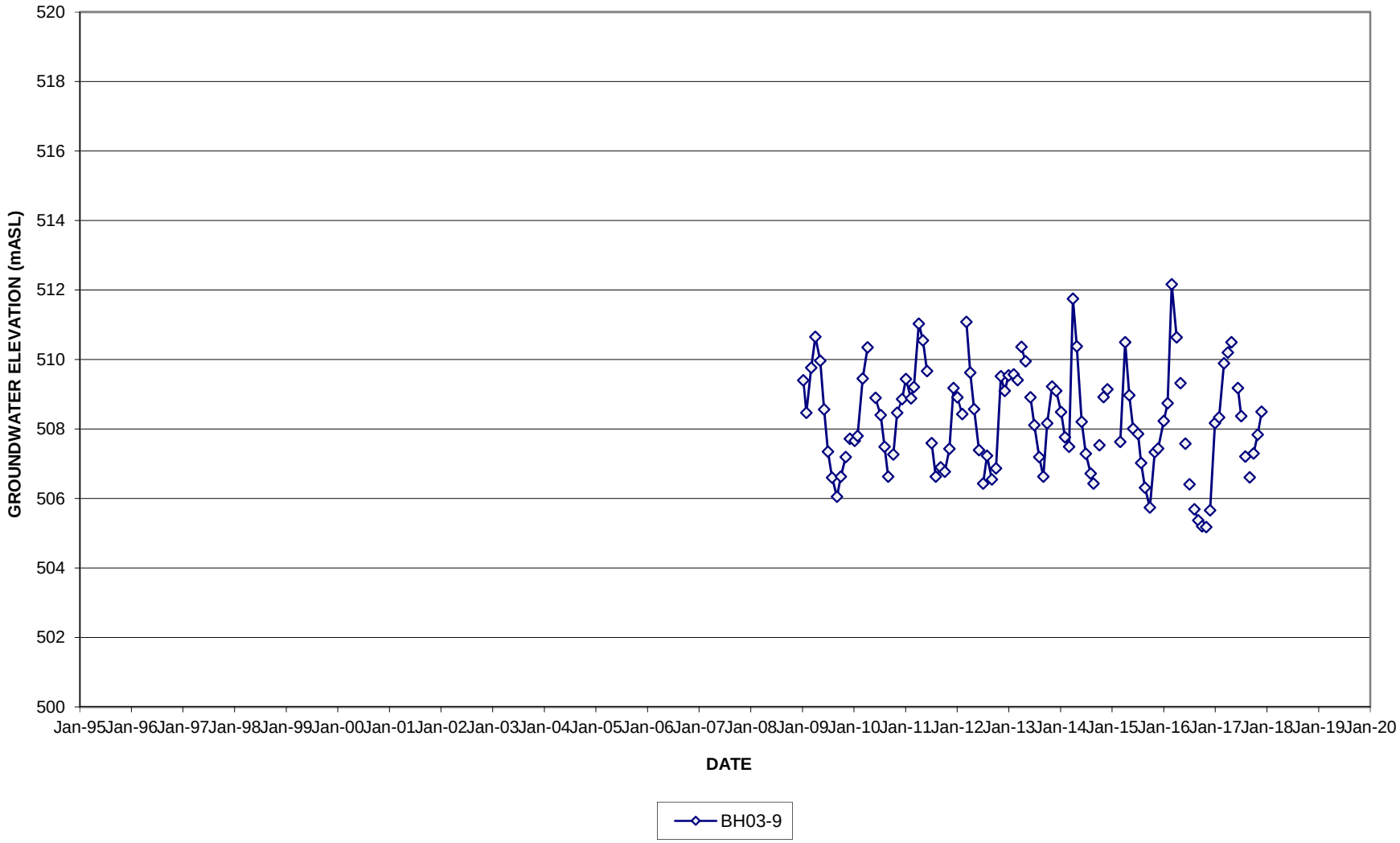


FIGURE C-21

GROUNDWATER HYDROGRAPH
NW1



FIGURE C-22

GROUNDWATER HYDROGRAPH
NW2



FIGURE C-23

GROUNDWATER HYDROGRAPH
NW3



FIGURE C-24

GROUNDWATER HYDROGRAPH
NW4

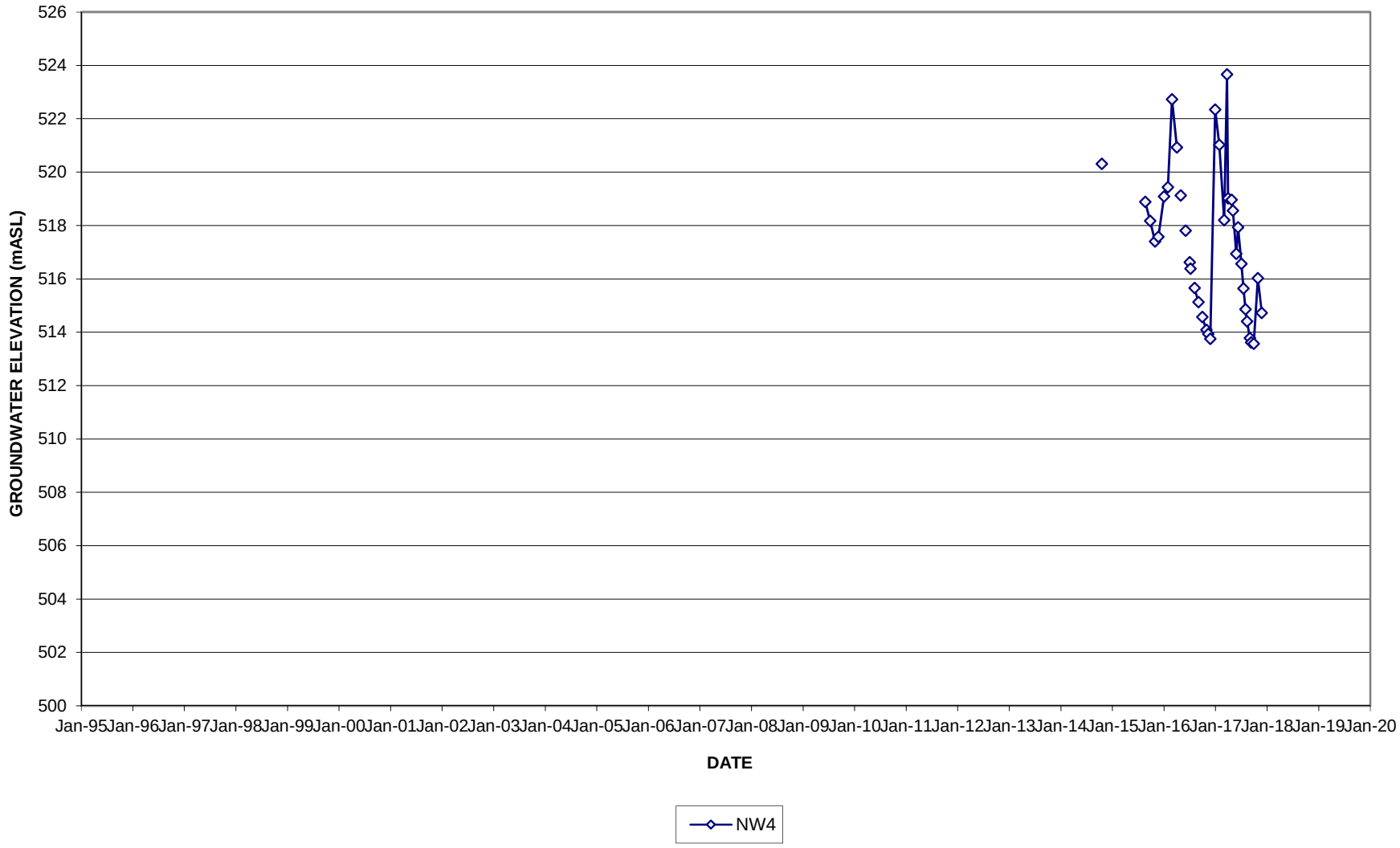


FIGURE C-25

GROUNDWATER HYDROGRAPH
NW5

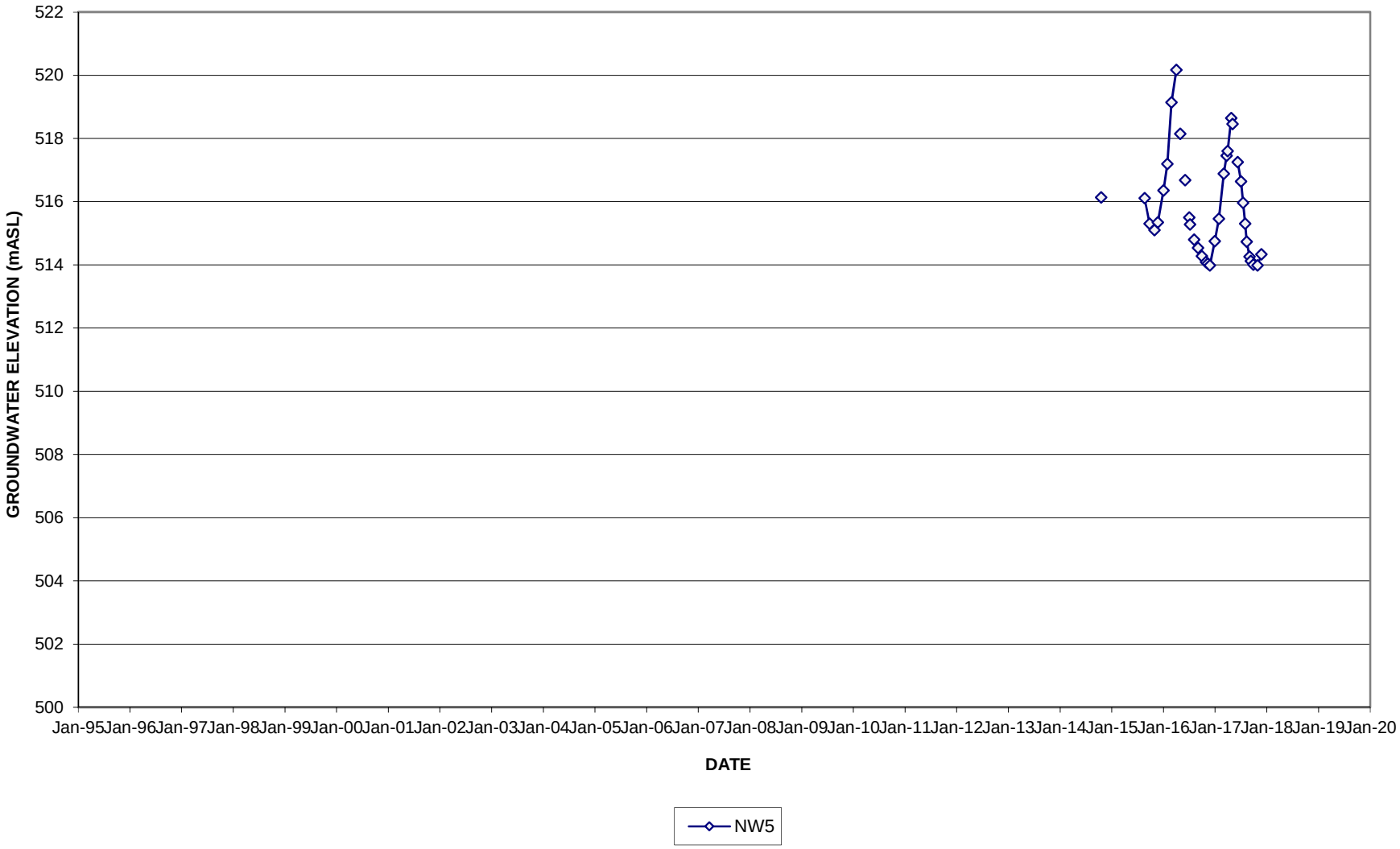


FIGURE C-26

GROUNDWATER HYDROGRAPH
NW6



FIGURE C-27

GROUNDWATER HYDROGRAPH
NW7

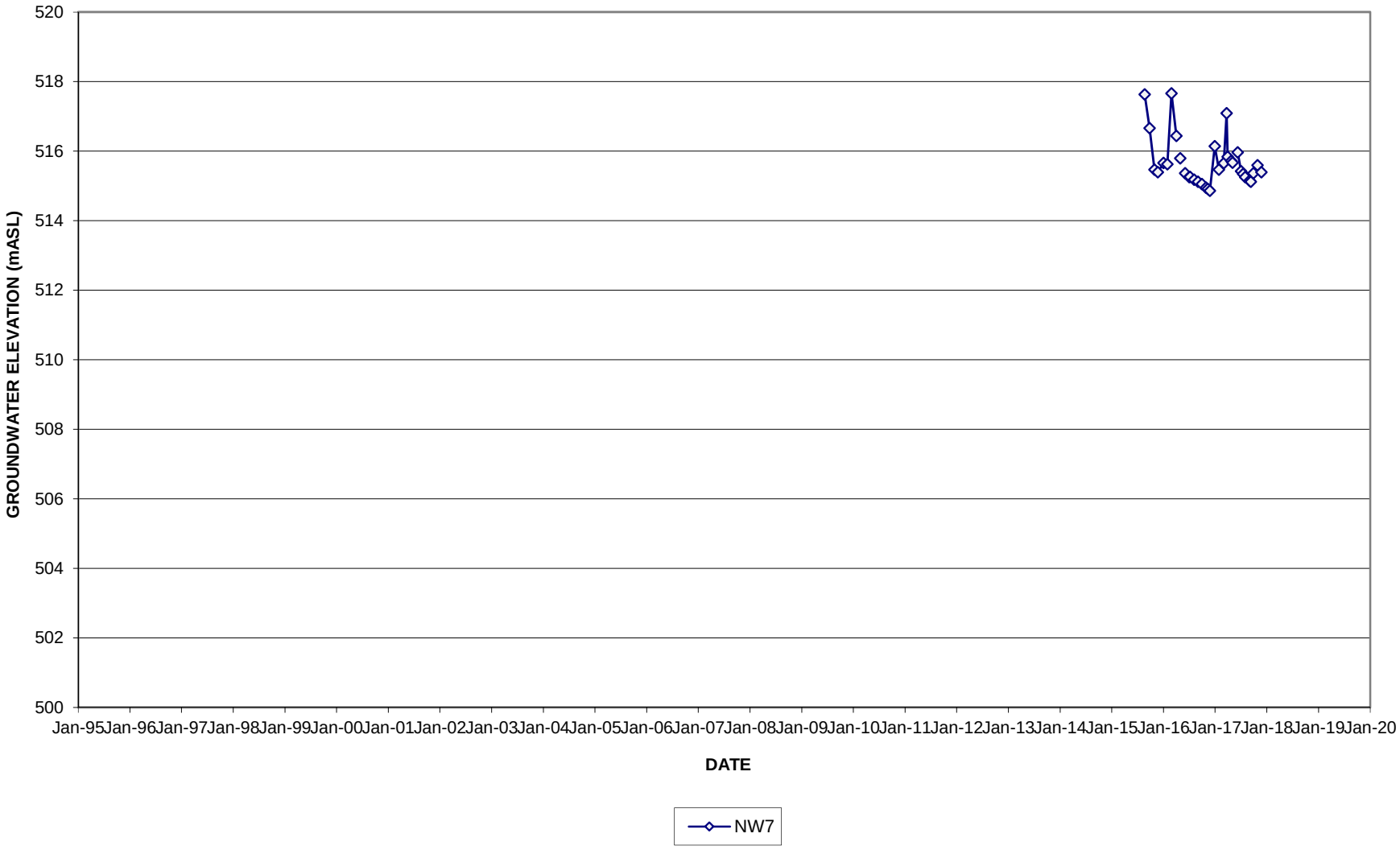


FIGURE C-28

GROUNDWATER HYDROGRAPH
NW8

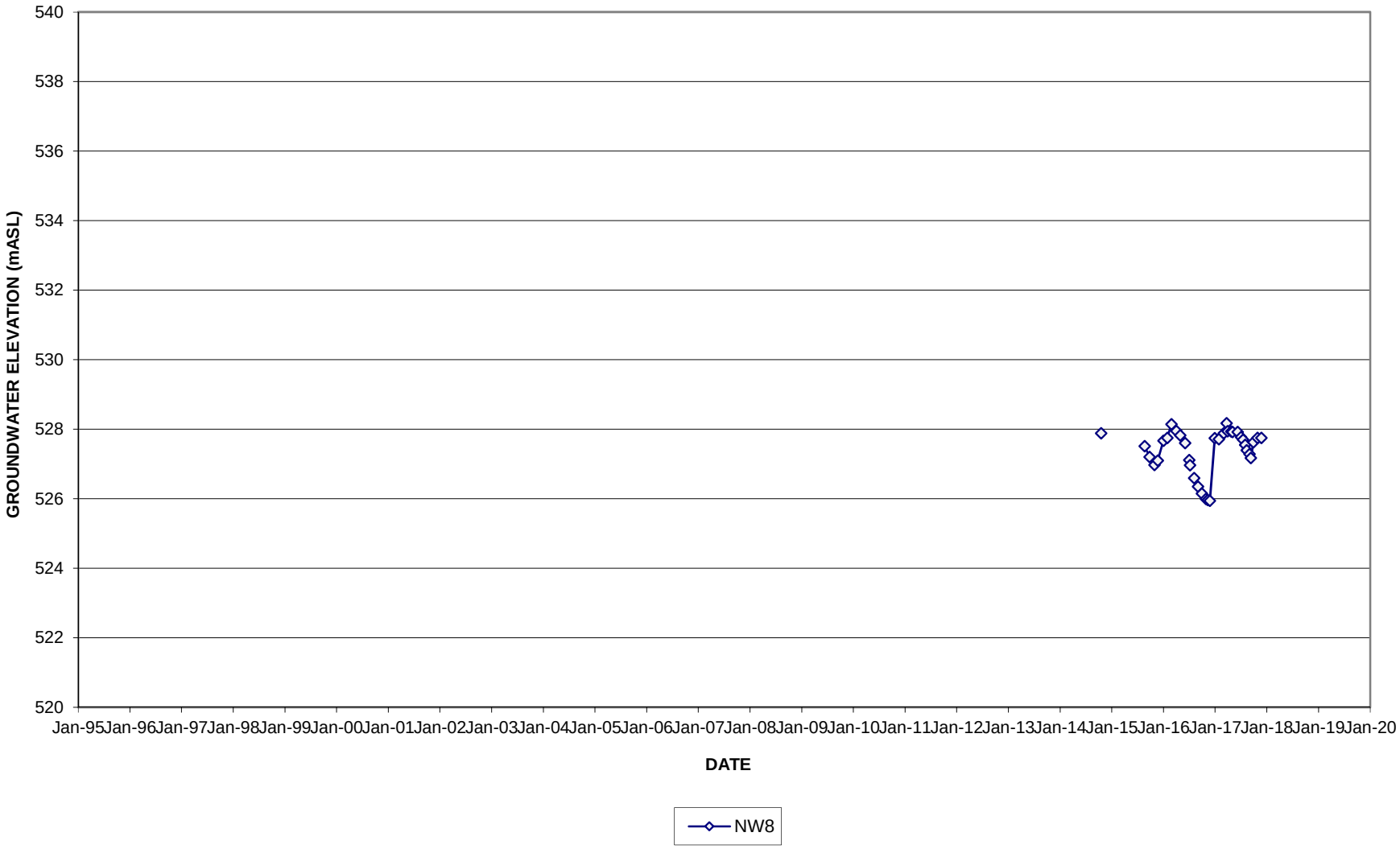


FIGURE C-29

GROUNDWATER HYDROGRAPH
NW9



FIGURE C-30

GROUNDWATER HYDROGRAPH
NW10DP, NW10 shallow and NW10 deep

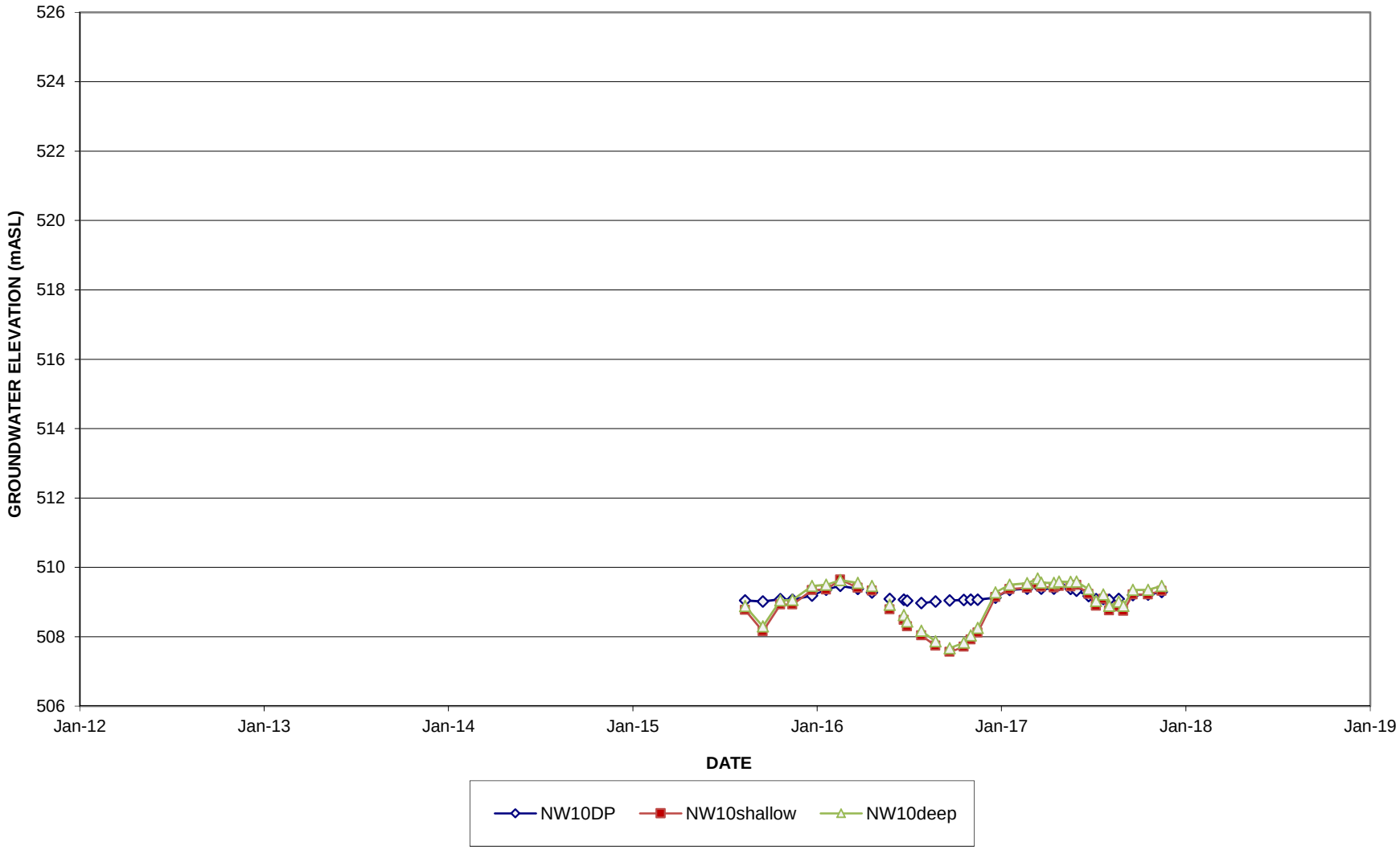


FIGURE C-31

GROUNDWATER HYDROGRAPH
BH03-9

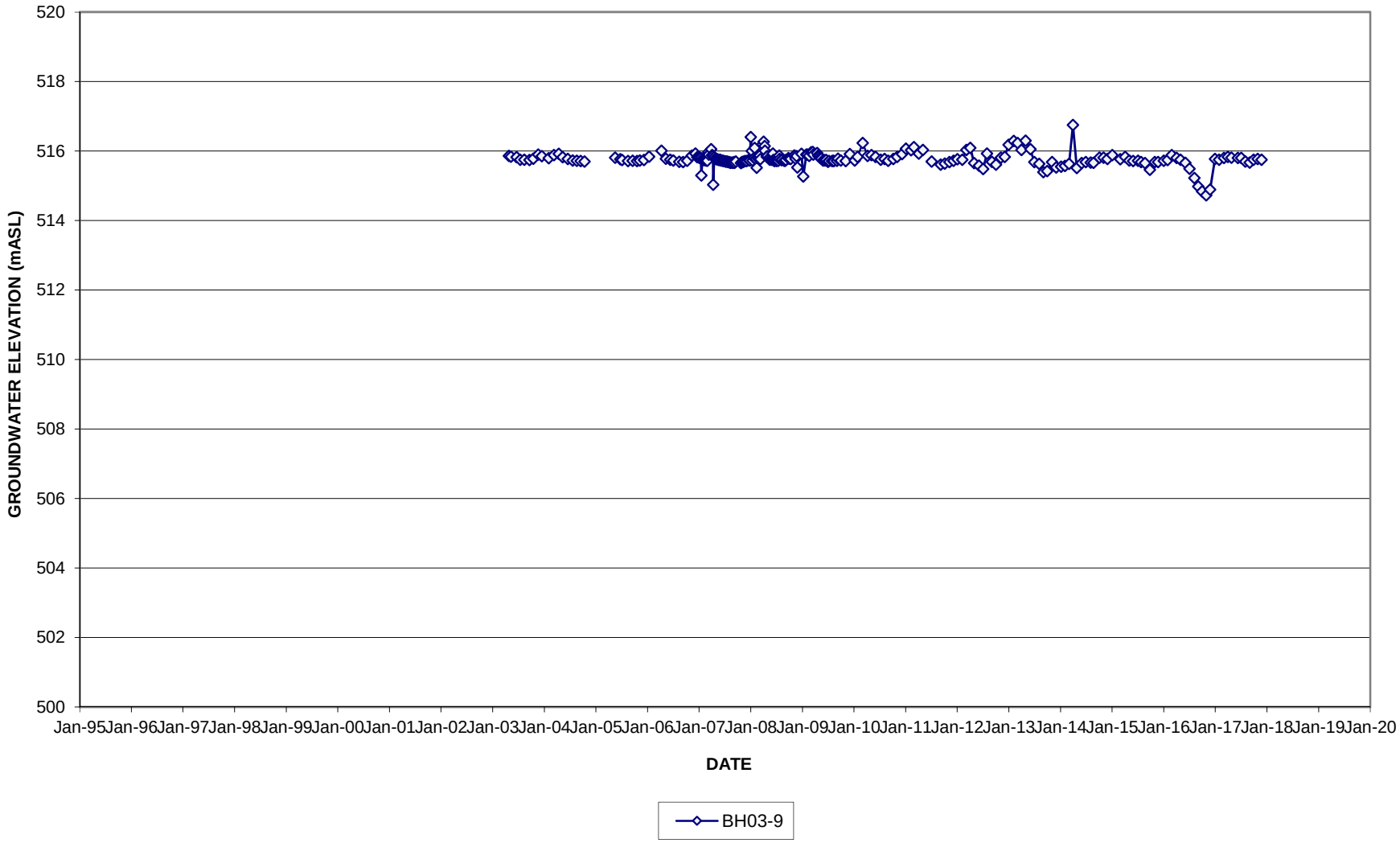


FIGURE C-32

GROUND WATER HYDROGRAPH
TW04-1

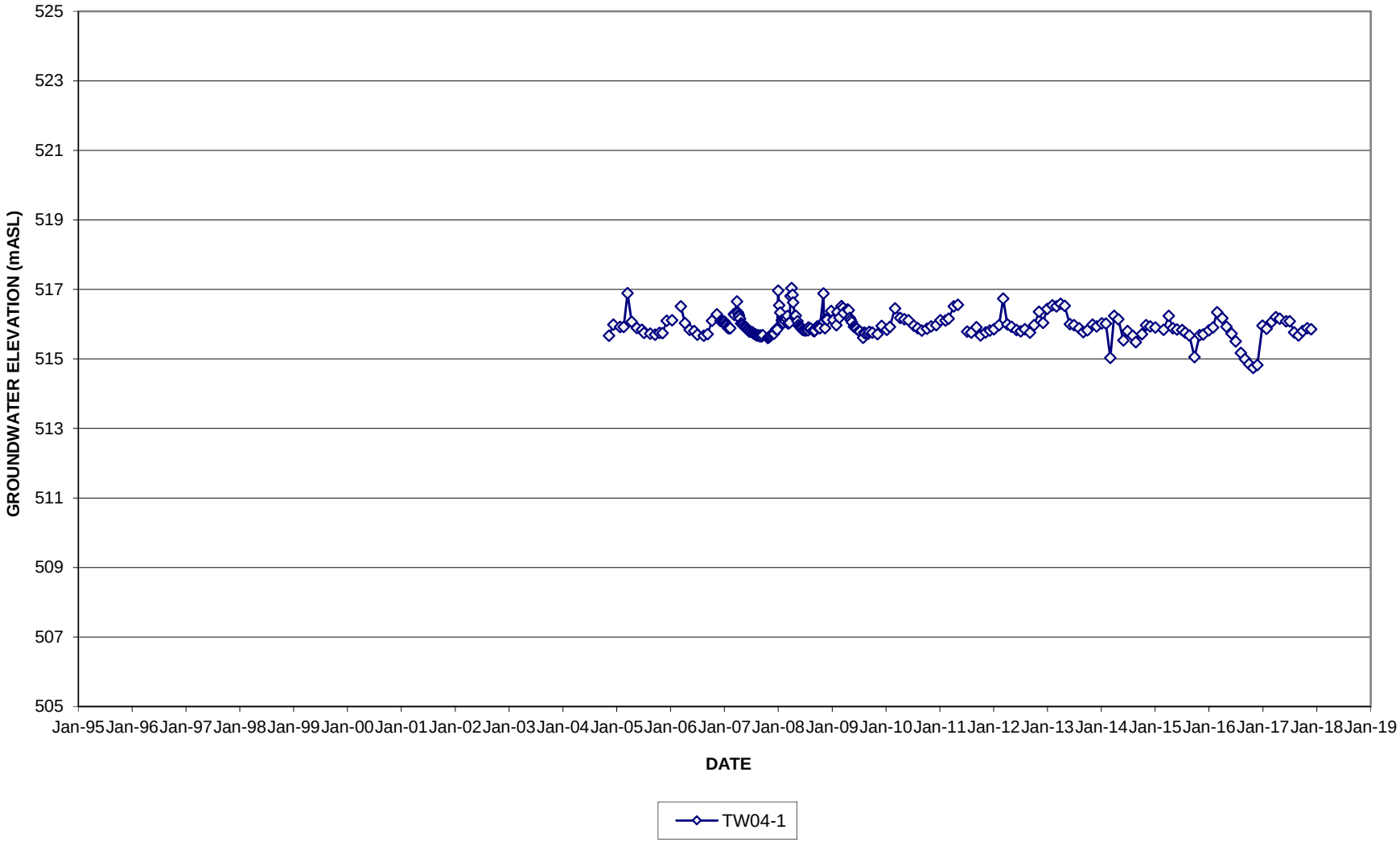


FIGURE C-33

GROUND WATER HYDROGRAPH
TW04-2

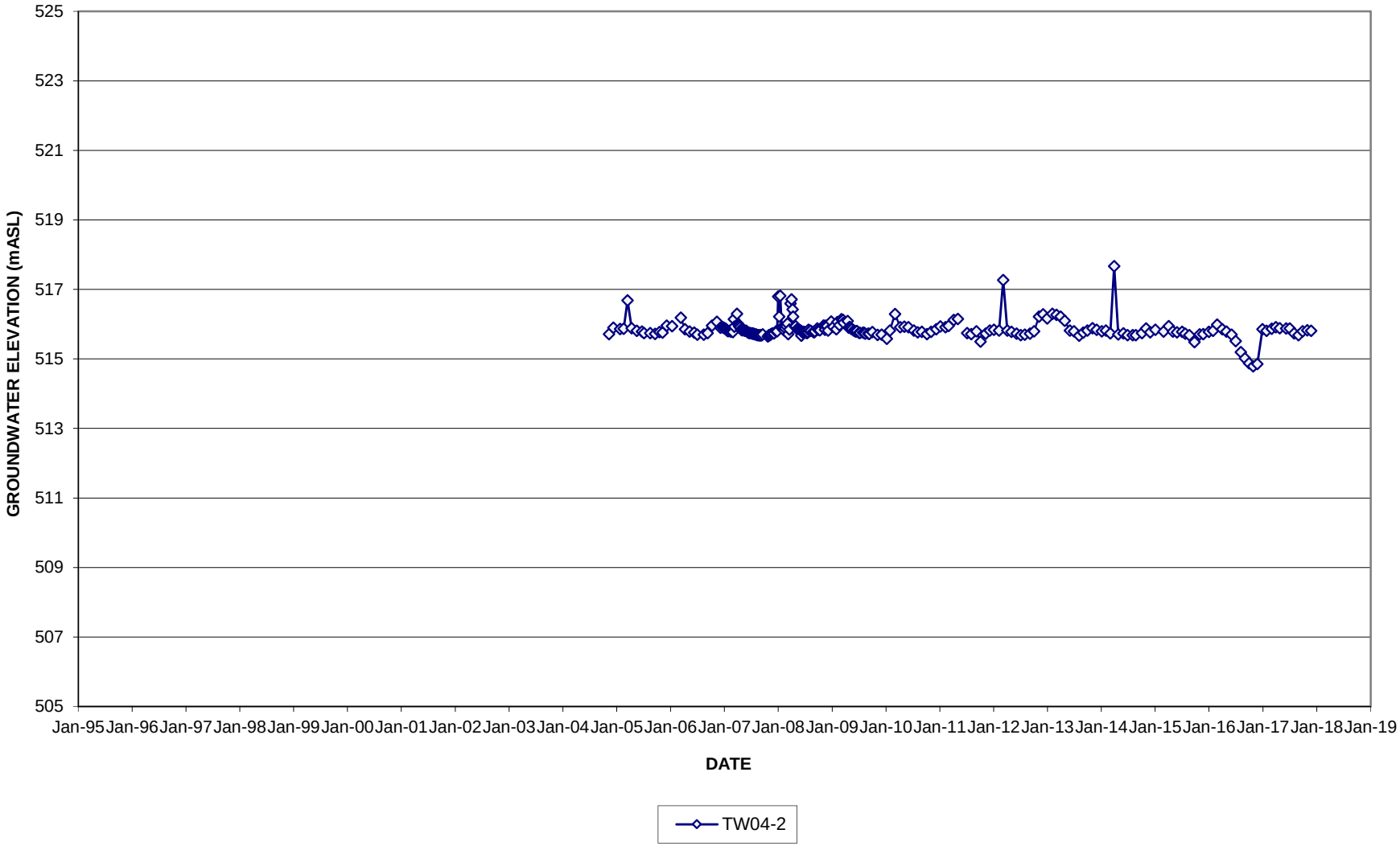


FIGURE C-34

GROUND WATER HYDROGRAPH
TW04-3

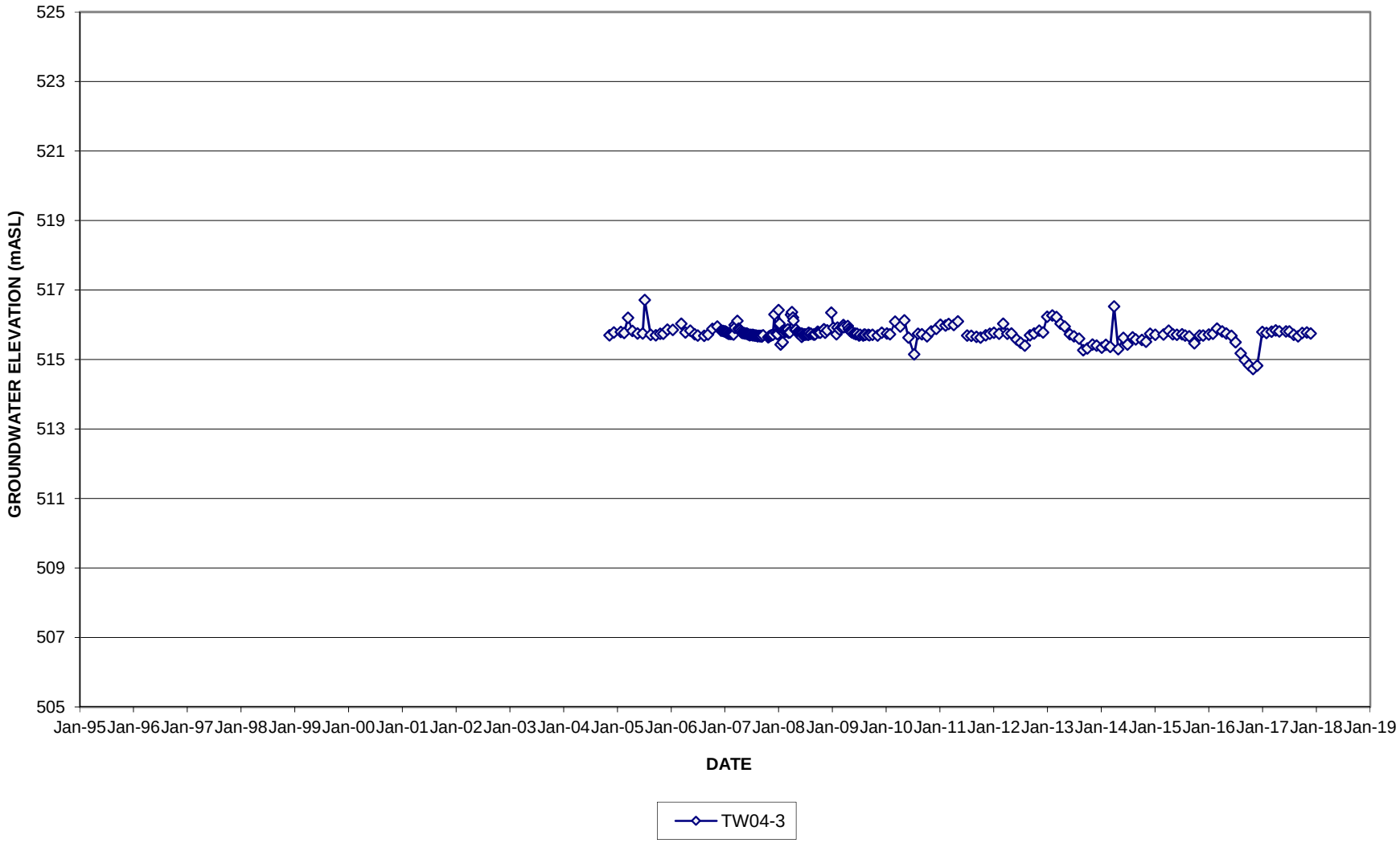


TABLE C-5
GROUNDWATER ELEVATIONS

DUNTROON QUARRY - 2017 AMP SUMMARY REPORT

OSPREY PROPERTY MONITORS

111-53312-01 A61

DATE	101-B	102-C	103-D	104-A	OW1-4	OW3-1	OW5-2	OW6-3
17-Apr-99	500.9	510.3	512.0	513.6	511.8	505.3	502.2	510.5
28-Apr-99	500.5	509.9	512.0	513.1	511.6	504.8	501.8	510.2
26-May-99	500.3	510.2	512.0	512.6	511.7	504.8	501.5	510.4
29-Jun-99	500.1	509.9	511.7	511.9	511.4	504.7	501.3	510.1
26-Jul-99	500.0	509.7	511.4	511.4	511.2	504.4	501.2	510.0
17-Aug-99	499.9	509.7	511.4	511.2	511.2	504.3	501.1	510.0
17-Sep-99	499.7	509.5	511.2	510.8	511.0	503.9	500.9	509.9
21-Nov-99	500.7	510.2	511.6	511.0	511.4	505.0	502.0	510.4
29-Feb-00	500.9	510.3	511.9	511.7	511.5	505.2	502.1	510.5
31-Mar-00	500.8	510.3	511.8	513.3	511.5	505.2	502.0	510.5
2-Jun-00	500.8	510.2	511.8	513.7	511.3	505.2	502.0	510.3
7-Jul-00	500.8	510.0	511.6	513.4	511.1	505.3	502.0	510.2
29-Aug-00	500.4	509.9	510.9	512.0	510.7	504.8	501.6	510.1
9-Nov-00	500.3	509.9	510.5	511.3	510.3	504.6	501.5	510.0
26-Apr-01	501.1	510.2	512.0	514.3	511.7	505.2	502.3	510.4
5-Jul-01	500.3	509.8	510.3	511.7	510.3	504.8	501.5	509.9
1-Aug-01	500.1	509.5	510.1	511.0	510.0	504.2	501.2	509.6
11-Oct-01	500.2	510.0	510.0	510.1	510.0	504.1	501.5	510.1
14-Dec-01	500.8	510.1	510.9	512.6	510.7	505.1	502.0	510.2
7-Feb-02	500.7	510.0	510.7	512.6	510.5	505.1	501.9	510.1
18-Apr-02	501.3	510.3	512.0	513.0	511.5	505.3	502.5	510.4
13-Jun-02	500.6	509.7	511.0	511.6	510.4	505.1	501.8	509.6
8-Aug-02	500.0	509.3	510.0	510.2	509.9	504.4	501.2	509.5
11-Oct-02	499.8	509.4	509.8	509.9	509.7	505.1	500.9	509.5
9-Dec-02	500.0	509.9	Frozen	509.8	509.7	Frozen	501.2	510.0

NOTE:
- Frozen indicates monitor frozen and/or snow covered.
- N/A indicates water level not available

TABLE C-5
GROUNDWATER ELEVATIONS

DUNTROON QUARRY - 2017 AMP SUMMARY REPORT

OSPREY PROPERTY MONITORS

111-53312-01 A61

DATE	101-B	102-C	103-D	104-A	OW1-4	OW3-1	OW5-2	OW6-3
14-Feb-03	Frozen	509.8	Frozen	513.6	509.9	506.6	501.4	510.0
9-Apr-03	501.3	510.1	Frozen	513.4	511.3	Frozen	Frozen	510.3
15-May-03	500.7	510.1	Frozen	512.9	511.0	506.5	502.0	510.3
17-Jun-03	500.7	509.8	N/A	N/A	510.9	506.3	501.8	510.1
25-Jun-03	500.5	509.7	510.9	512.7	510.7	506.2	501.6	510.0
22-Jul-03	500.3	509.7	510.5	511.9	510.5	506.0	501.4	509.8
20-Aug-03	500.0	509.4	510.0	511.1	510.0	505.4	500.9	509.4
25-Sep-03	499.9	509.5	509.6	510.4	509.6	505.1	501.1	509.6
22-Oct-03	500.2	510.2	510.0	510.0	510.0	506.1	501.5	510.3
25-Nov-03	501.2	510.3	511.6	511.9	511.2	506.4	502.5	510.4
22-Dec-03	501.0	510.2	511.6	512.9	511.0	505.6	502.2	510.4
9-Feb-04	500.5	510.0	Frozen	512.9	510.5	505.4	501.7	510.1
16-Mar-04	501.4	510.2	511.5	513.6	510.7	505.5	502.6	510.3
20-Apr-04	501.1	510.2	512.0	514.3	511.5	505.6	502.3	510.4
18-May-04	500.8	510.0	511.4	513.7	510.7	505.5	501.9	510.2
22-Jun-04	500.5	509.8	510.8	513.2	510.7	505.5	501.6	509.9
28-Jul-04	500.2	509.6	510.3	511.9	510.2	505.2	501.3	509.8
25-Aug-04	500.0	509.2	509.6	511.0	509.5	504.6	501.2	509.3
22-Sep-04	499.9	509.2	509.2	510.3	509.1	504.3	501.1	509.8
19-Oct-04	499.9	509.3	509.0	509.8	509.0	504.2	501.1	509.4
16-Nov-04	500.0	509.3	508.6	509.6	508.6	504.1	501.1	509.3
16-Dec-04	500.4	510.1	Frozen	509.5	510.0	505.6	501.7	510.3
31-Jan-05	501.0	510.0	511.2	512.4	510.7	505.5	Frozen	510.2
24-Feb-05	500.7	510.0	510.6	512.3	510.3	505.6	501.8	509.6
22-Mar-05	500.6	509.9	510.3	512.1	510.0	505.5	501.7	510.0

NOTE:
- Frozen indicates monitor frozen and/or snow covered.
- N/A indicates water level not available

TABLE C-5
GROUNDWATER ELEVATIONS

DUNTROON QUARRY - 2017 AMP SUMMARY REPORT

OSPREY PROPERTY MONITORS

111-53312-01 A61

DATE	101-B	102-C	103-D	104-A	OW1-4	OW3-1	OW5-2	OW6-3
20-Apr-05	502.2	510.3	512.0	515.0	511.8	507.0	502.9	510.5
25-May-05	500.7	509.9	512.0	513.9	511.4	505.6	501.8	510.2
29-Jun-05	500.3	509.7	511.7	512.7	511.1	505.4	501.4	509.9
13-Jul-05	500.2	509.5	511.5	512.3	510.9	505.3	501.3	509.8
23-Aug-05	499.9	509.4	511.1	511.3	510.8	505.0	500.5	509.7
26-Sep-05	499.7	509.5	511.1	510.8	510.9	504.6	500.7	509.8
26-Oct-05	499.8	509.7	511.1	510.4	511.1	504.4	500.9	510.0
16-Nov-05	499.9	510.2	511.3	510.2	511.2	504.8	501.0	510.3
14-Dec-05	500.4	510.1	511.2	510.3	511.0	505.4	501.6	510.2
20-Jan-06	501.4	510.3	511.9	512.3	511.4	505.9	502.6	510.4
14-Feb-06	501.1	510.2	Frozen	512.8	511.3	505.6	502.3	510.3
19-Mar-06	501.6	510.2	512.0	514.3	511.6	505.6	Frozen	510.4
17-Apr-06	501.2	510.2	512.0	514.3	511.6	505.5	502.5	510.4
19-May-06	500.6	510.2	512.0	513.6	511.3	505.5	501.8	510.3
19-Jun-06	500.4	509.8	511.2	512.6	510.7	505.4	501.5	510.0
10-Jul-06	500.2	509.6	511.0	511.9	510.7	505.3	501.3	509.8
21-Aug-06	499.9	509.4	510.4	510.9	510.2	504.9	501.0	509.5
18-Sep-06	499.9	509.6	510.4	510.4	510.2	504.7	501.1	509.7
17-Oct-06	500.0	510.2	510.3	510.0	510.2	504.6	501.2	510.2
20-Nov-06	501.2	510.2	511.8	511.8	511.2	505.7	502.5	510.4
15-Dec-06	501.5	510.4	512.0	514.1	511.7	506.1	502.7	510.5
22-Jan-07	500.8	510.1	511.7	513.1	510.9	505.6	502.0	510.3
19-Feb-07	Frozen	510.0	511.2	512.3	510.7	505.5	501.6	509.2
18-Mar-07	501.9	510.2	512.0	513.3	511.5	505.9	Frozen	510.4
15-Apr-07	501.3	510.3	512.0	514.3	511.6	505.7	502.5	510.4

NOTE:
- Frozen indicates monitor frozen and/or snow covered.
- N/A indicates water level not available

TABLE C-5
GROUNDWATER ELEVATIONS

DUNTROON QUARRY - 2017 AMP SUMMARY REPORT

OSPREY PROPERTY MONITORS

111-53312-01 A61

DATE	101-B	102-C	103-D	104-A	OW1-4	OW3-1	OW5-2	OW6-3
17-May-07	500.6	510.3	511.7	513.2	511.1	505.6	501.7	510.4
21-Jun-07	500.3	509.5	510.6	512.1	510.2	505.3	501.4	509.5
17-Jul-07	500.0	509.3	510.5	511.4	510.3	505.2	500.4	509.5
21-Aug-07	499.7	508.7	510.2	510.6	509.9	504.5	500.7	508.8
18-Sep-07	499.8	509.5	510.3	510.2	510.2	504.4	500.9	509.6
19-Oct-07	499.9	509.7	510.3	510.0	510.2	504.3	501.0	509.8
22-Nov-07	500.1	510.2	510.7	510.0	510.5	505.2	501.4	510.3
13-Dec-07	500.6	510.1	511.0	510.2	510.7	505.6	501.8	510.3
24-Jan-08	501.2	510.1	512.0	513.6	511.4	505.5	502.4	510.3
21-Feb-08	501.3	510.3	512.0	513.7	511.6	505.7	502.4	510.4
19-Mar-08	Frozen	510.3	512.0	513.6	511.5	505.8	502.2	510.2
7-Apr-08	502.4	510.4	512.0	515.1	512.0	507.4	503.0	510.5
21-Apr-08	501.4	510.2	512.0	514.8	511.6	505.5	502.5	510.4
20-May-08	500.7	510.0	512.0	513.9	511.4	505.6	501.9	510.3
16-Jun-08	500.5	509.9	511.7	Obstructed	511.1	505.5	501.6	510.2
14-Jul-08	500.3	509.6	511.1	Obstructed	510.7	505.3	501.3	509.8
18-Aug-08	500.3	509.8	511.5	511.5	511.0	505.3	501.4	510.0
15-Sep-08	500.1	510.3	511.2	511.1	511.1	505.3	501.3	510.3
20-Oct-08	500.5	509.8	511.3	511.0	510.9	505.3	501.5	510.0
16-Nov-08	501.4	510.3	511.8	Obstructed	511.6	506.0	502.6	510.4
23-Nov-08	Frozen	510.3	Frozen	Obstructed	511.5	505.8	502.5	Frozen
14-Dec-08	501.5	510.0	511.7	513.1	510.5	505.0	502.5	510.5
18-Jan-09	500.9	510.1	512.0	514.0	511.4	505.6	502.1	510.4
8-Feb-09	500.8	510.3	512.0	513.4	511.4	505.8	502.0	510.4
15-Mar-09	501.7	510.3	512.0	514.7	511.6	505.7	Frozen	510.4

NOTE:
- Frozen indicates monitor frozen and/or snow covered.
- N/A indicates water level not available
- Broken indicates that the PVC casing was broken off at ground level.

TABLE C-5
GROUNDWATER ELEVATIONS

DUNTROON QUARRY - 2017 AMP SUMMARY REPORT

OSPREY PROPERTY MONITORS

111-53312-01 A61

DATE	101-B	102-C	103-D	104-A	OW1-4	OW3-1	OW5-2	OW6-3
12-Apr-09	501.4	510.3	512.0	514.6	511.7	505.9	502.6	510.4
17-May-09	500.8	509.9	512.0	513.8	511.3	505.6	502.0	510.2
14-Jun-09	500.4	509.8	511.7	512.9	511.0	505.4	501.5	510.0
12-Jul-09	500.2	509.6	511.2	512.1	510.7	505.2	501.3	509.8
9-Aug-09	500.1	510.0	511.1	511.5	510.8	505.0	501.2	510.2
13-Sep-09	500.0	509.6	510.9	510.8	510.7	504.6	501.1	509.8
11-Oct-09	500.2	510.1	511.3	510.8	511.0	504.9	501.4	510.2
15-Nov-09	500.5	509.8	511.0	510.6	510.7	505.4	501.5	510.0
13-Dec-09	500.6	510.1	511.3	510.8	511.0	505.5	501.8	510.3
17-Jan-10	500.6	510.2	511.3	511.2	510.9	505.6	501.7	510.2
7-Feb-10	500.7	510.0	511.3	511.7	510.7	505.5	501.8	510.1
14-Mar-10	502.4	510.3	512.0	514.6	511.9	507.2	503.0	510.5
18-Apr-10	500.9	510.0	511.9	513.5	511.3	505.5	502.1	510.3
16-May-10	501.0	509.9	511.9	513.4	511.1	506.4	502.0	510.1
8-Jun-10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
13-Jun-10	500.7	510.1	511.9	512.9	511.3	505.7	501.9	510.3
21-Jul-10	500.6	510.0	511.9	512.5	511.3	505.7	501.8	510.2
16-Aug-10	500.4	509.8	511.5	512.1	511.0	505.4	501.4	510.0
12-Sep-10	500.2	509.7	511.2	511.5	510.8	505.2	501.2	509.9
17-Oct-10	500.5	509.9	511.3	511.4	511.0	505.3	501.5	510.1
14-Nov-10	500.9	510.1	511.8	512.0	511.3	505.6	502.1	510.3
19-Dec-10	500.8	510.2	512.0	512.9	511.4	505.7	502.0	510.4
16-Jan-11	501.0	510.2	512.0	513.6	511.4	505.6	502.2	510.4
20-Feb-11	501.5	510.2	512.0	513.4	511.5	506.0	Frozen	510.4

NOTE:
- Frozen indicates monitor frozen and/or snow covered.
- N/A indicates water level not available

TABLE C-5
GROUNDWATER ELEVATIONS

DUNTROON QUARRY - 2017 AMP SUMMARY REPORT

OSPREY PROPERTY MONITORS

111-53312-01 A61

DATE	101-B	102-C	103-D	104-A	OW1-4	OW3-1	OW5-2	OW6-3
13-Mar-11	501.3	510.3	512.0	513.8	511.5	505.7	502.5	510.4
17-Apr-11	501.2	510.3	512.0	514.3	511.6	505.6	502.5	510.5
15-May-11	501.4	510.3	512.0	514.4	511.8	506.1	502.7	510.5
13-Jun-11	500.8	510.0	512.0	513.8	511.4	505.7	502.0	510.3
17-Jul-11	500.3	509.6	511.4	512.7	510.7	505.3	501.4	509.9
14-Aug-11	500.1	509.6	511.0	511.9	510.7	505.1	501.2	509.8
18-Sep-11	500.0	509.5	510.6	511.0	510.4	504.7	501.1	509.7
17-Oct-11	500.4	510.2	511.0	510.8	511.2	505.6	501.5	510.2
20-Nov-11	500.4	510.0	511.2	510.9	510.9	505.4	501.5	510.2
18-Dec-11	501.1	510.3	512.0	512.3	511.4	505.8	502.3	510.4
15-Jan-12	500.8	510.1	511.8	512.6	511.1	505.6	502.0	510.3
19-Feb-12	500.7	509.8	511.6	512.7	511.0	505.3	501.6	510.0
18-Mar-12	501.8	510.3	512.0	514.5	511.7	506.0	502.8	510.5
15-Apr-12	500.6	509.9	512.0	513.5	511.3	505.5	501.7	510.2
13-May-12	500.7	509.9	511.8	513.0	511.2	505.6	501.8	510.1
17-Jun-12	500.3	509.7	511.3	512.1	510.8	505.4	501.4	509.9
15-Jul-12	500.4	509.5	510.9	511.4	510.7	504.9	501.1	509.7
12-Aug-12	500.1	510.1	511.3	510.9	511.1	505.4	501.4	510.2
16-Sep-12	500.1	509.8	510.9	510.6	510.7	504.7	501.2	509.9
14-Oct-12	500.4	510.2	511.3	510.9	511.1	505.5	501.6	510.3
18-Nov-12	501.1	510.1	511.9	512.7	511.4	505.6	502.4	510.3
16-Dec-12	500.8	510.3	512.0	513.0	511.4	505.8	502.1	510.4
13-Jan-13	502.2	510.3	512.0	514.4	511.8	506.4	502.9	510.5
17-Feb-13	500.8	510.1	512.0	513.8	511.4	505.6	502.0	510.3
17-Mar-13	501.5	510.2	512.0	512.8	511.6	505.7	502.8	510.4
14-Apr-13	502.1	510.4	512.0	513.8	511.7	506.2	502.9	510.5
12-May-13	500.8	510.1	512.0	513.9	511.5	505.6	502.0	510.3
16-Jun-13	500.7	510.0	512.0	513.4	511.3	505.6	501.7	510.2
14-Jul-13	500.6	509.9	511.8	512.7	511.2	505.5	501.7	510.1

NOTE:
- Frozen indicates monitor frozen and/or snow covered.
- N/A indicates water level not available

TABLE C-5
GROUNDWATER ELEVATIONS

DUNTROON QUARRY - 2017 AMP SUMMARY REPORT

OSPREY PROPERTY MONITORS

111-53312-01 A61

DATE	101-B	102-C	103-D	104-A	OW1-4	OW3-1	OW5-2	OW6-3
18-Aug-13	500.3	509.8	511.5	512.0	511.1	505.3	501.6	510.0
15-Sep-13	500.3	509.6	511.3	511.4	511.0	505.2	501.4	509.6
13-Oct-13	500.8	510.1	511.8	512.1	511.3	505.5	501.9	510.3
17-Nov-13	501.0	510.4	512.0	513.5	511.7	506.1	502.4	510.5
16-Dec-13	500.9	510.1	512.0	513.7	511.4	505.7	502.1	510.3
19-Jan-14	500.9	510.2	512.0	513.4	511.4	505.7	502.0	510.4
16-Feb-14	Buried	510.0	511.8	512.5	511.2	Buried	501.5	510.2
16-Mar-14	buried	510.1	511.7	512.1	511.2	Buried	501.5	510.3
13-Apr-14	502.4	510.4	512.0	515.1	512.0	508.0	503.0	510.6
11-May-14	501.1	510.1	512.0	514.2	511.5	505.7	502.3	510.3
15-Jun-14	500.4	509.8	511.8	513.1	511.2	505.5	501.5	510.0
13-Jul-14	500.3	509.8	511.7	512.2	511.2	505.3	501.4	510.1
17-Aug-14	500.1	510.0	511.5	511.5	511.2	505.1	501.2	510.1
7-Sep-14	500.1	509.9	511.3	511.1	511.1	505.0	501.3	510.1
19-Oct-14	500.7	510.3	511.8	511.1	511.4	505.6	501.9	510.4
16-Nov-14	501.0	510.1	512.0	512.2	511.4	505.5	502.2	510.3
14-Dec-14	500.7	510.1	511.9	512.9	511.4	505.5	501.9	510.3
18-Jan-15	500.6	510.0	511.9	513.3	511.4	505.5	501.8	510.3
15-Mar-15	500.5	510.3	512.0	512.6	511.6	506.0	501.7	510.4
19-Apr-15	501.4	510.3	512.0	514.1	511.6	505.7	502.7	510.5
17-May-15	500.6	509.8	511.9	513.0	511.4	505.5	501.6	510.1
14-Jun-15	500.3	510.1	511.7	512.3	511.3	505.4	501.4	510.2
19-Jul-15	500.5	509.8	511.7	512.3	511.3	505.4	501.6	510.0
9-Aug-15	500.2	509.7	511.6	511.8	511.2	505.3	501.3	510.0
6-Sep-15	500.1	509.8	511.4	511.4	511.3	505.0	501.2	510.1
11-Oct-15	500.0	509.7	511.3	511.0	511.3	504.8	501.7	509.9
15-Nov-15	500.8	510.1	511.6	510.7	511.3	Destroyed	501.8	510.3
6-Dec-15	500.7	510.0	511.6	510.8	511.3		501.8	510.1

NOTE:
- Frozen / buried indicates monitor frozen and/or snow covered.
- N/A indicates water level not available
- Destroyed indicates that the monitor is no longer accessible for monitoring

TABLE C-5
GROUNDWATER ELEVATIONS

DUNTROON QUARRY - 2017 AMP SUMMARY REPORT

OSPREY PROPERTY MONITORS

111-53312-01 A61

DATE	101-B	102-C	103-D	104-A	OW1-4	OW3-1	OW5-2	OW6-3
17-Jan-16	500.8	510.0	511.8	511.9	511.3		502.0	510.2
14-Feb-16	501.0	510.1	512.0	512.8	511.4		502.2	510.3
13-Mar-16	502.1	510.4	512.0	515.0	511.8		502.9	510.5
17-Apr-16	501.6	510.5	512.0	514.7	511.6		502.3	510.4
15-May-16	500.7	510.0	512.0	513.7	511.4		501.9	510.2
19-Jun-16	500.4	509.6	511.7	512.6	511.2		501.4	509.9
17-Jul-16	500.1	509.5	511.4	511.8	511.1		501.1	509.8
21-Aug-16	499.9		511.3	511.1	511.1		501.0	
18-Sep-16	499.9	509.7	511.3	510.8	511.1		501.0	509.9
16-Oct-16	500.0	509.9	511.2	510.6	511.2		501.1	510.0
13-Nov-16	500.0	509.8	511.2	510.4	511.1		501.2	510.0
11-Dec-16	500.4	510.0	511.4	510.3	511.2		501.5	510.1
15-Jan-17	501.3	510.3	512.0	512.1	511.5		502.5	510.4
12-Feb-17	500.8	510.0	512.0	512.5	511.4		502.0	510.3
19-Mar-17	500.9	510.1	512.0	513.8	511.5		502.1	510.3
16-Apr-17	501.4	510.2	512.0	514.3	511.6		502.6	510.4
11-May-17	501.4	510.1	512.0	514.7	511.6		502.5	510.4
25-Jun-17	501.3	510.1	512.0	514.0	511.6		502.5	510.4
19-Jul-17	501.6	509.8	512.0	513.2	511.4		501.7	510.1
17-Aug-17	500.4	509.9	511.8	512.4	511.3		501.5	510.0
17-Sep-17	500.3	510.0	511.7	511.8	511.3		501.3	510.2
15-Oct-17	500.9	510.2	511.9		511.5		502.0	510.3
14-Nov-17	500.8	510.3	512.0				502.1	510.4
11-Dec-17	501.8	509.7	511.9	513.0	511.4		501.9	510.2

NOTE:
- Frozen indicates monitor frozen and/or snow covered.
- N/A indicates water level not available

FIGURE C-35

GROUNDWATER HYDROGRAPH
101-B

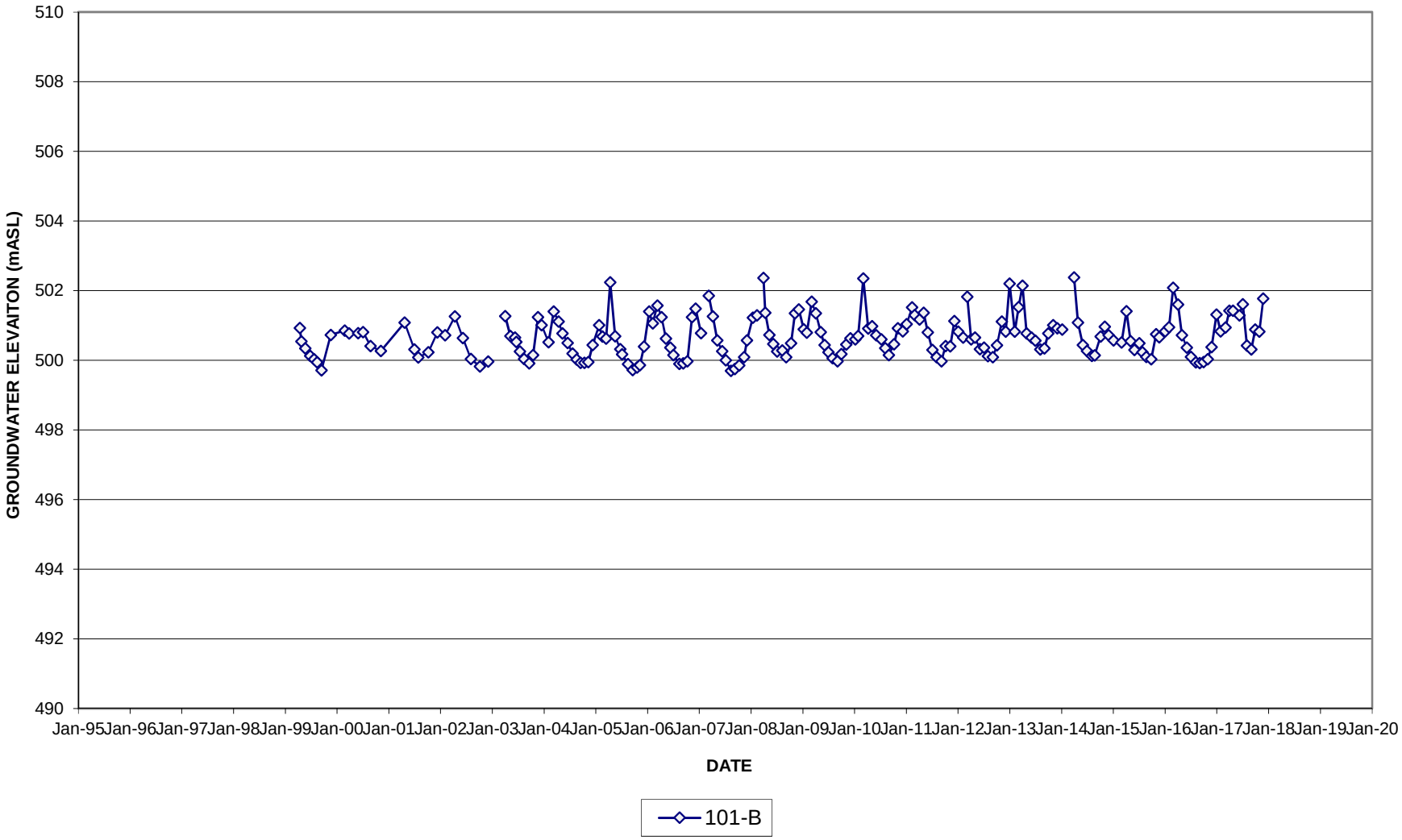


FIGURE C-36

GROUNDWATER HYDROGRAPH
102-C

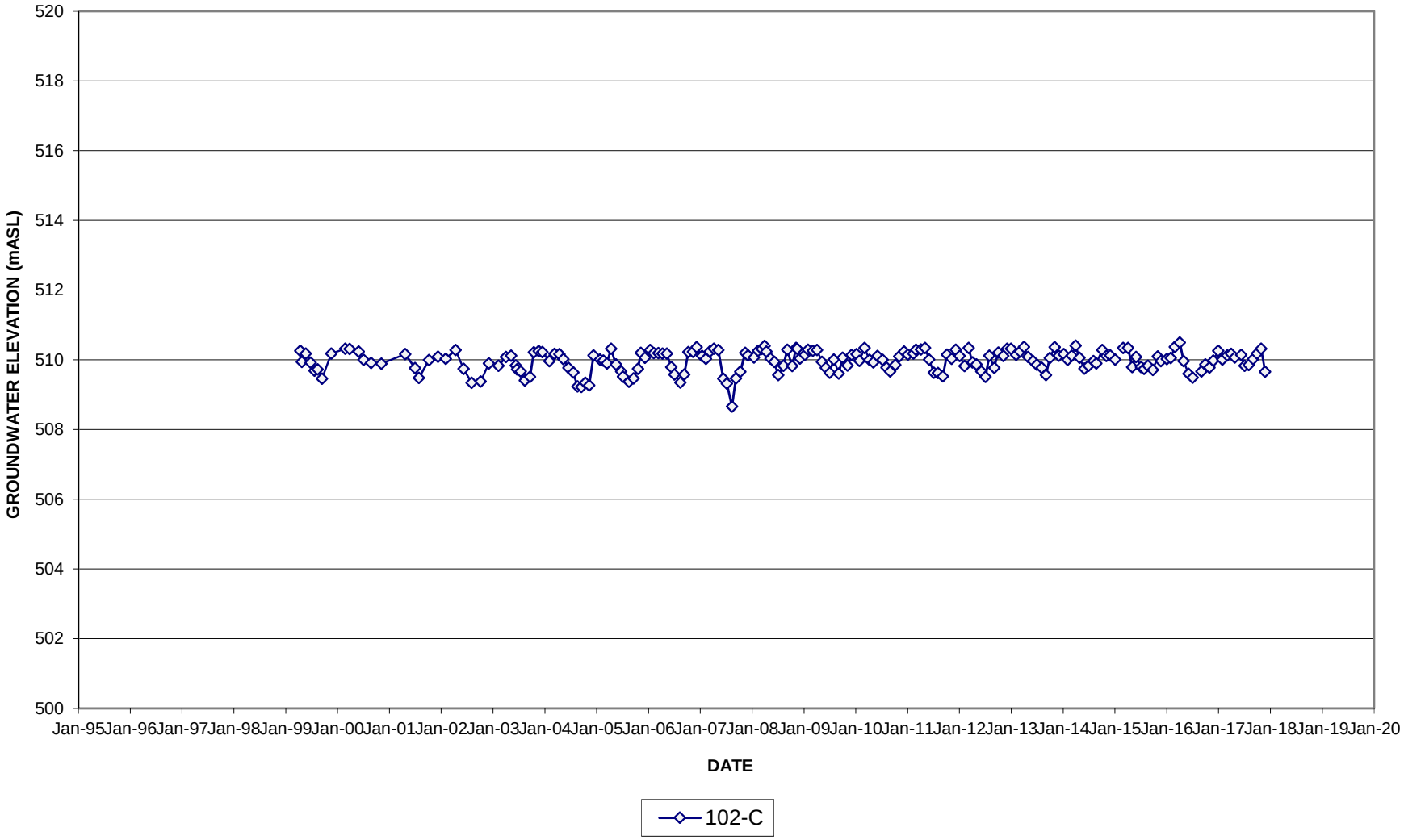


FIGURE C-37

GROUNDWATER HYDROGRAPH
103-D

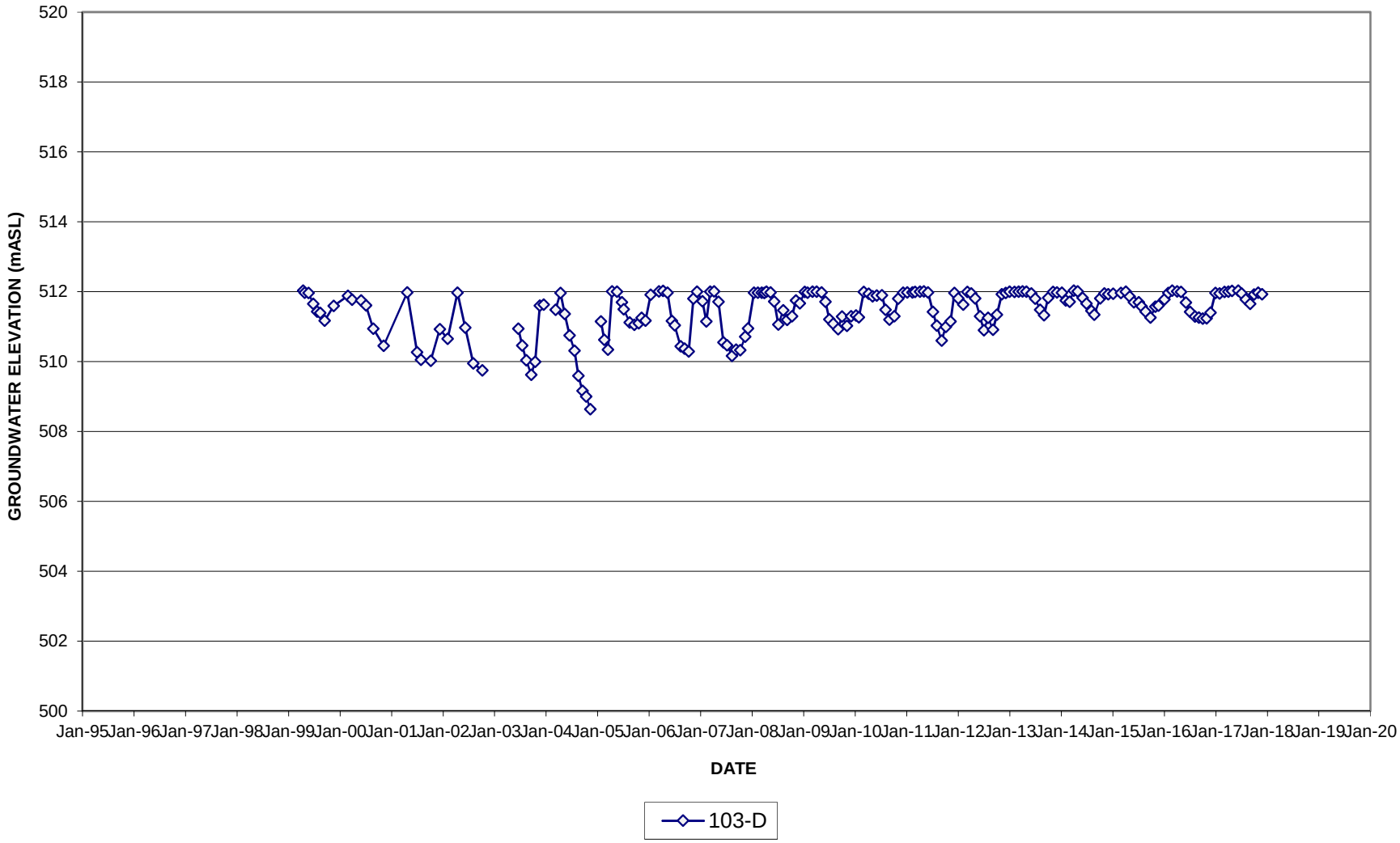


FIGURE C-38

GROUNDWATER HYDROGRAPH
104-A

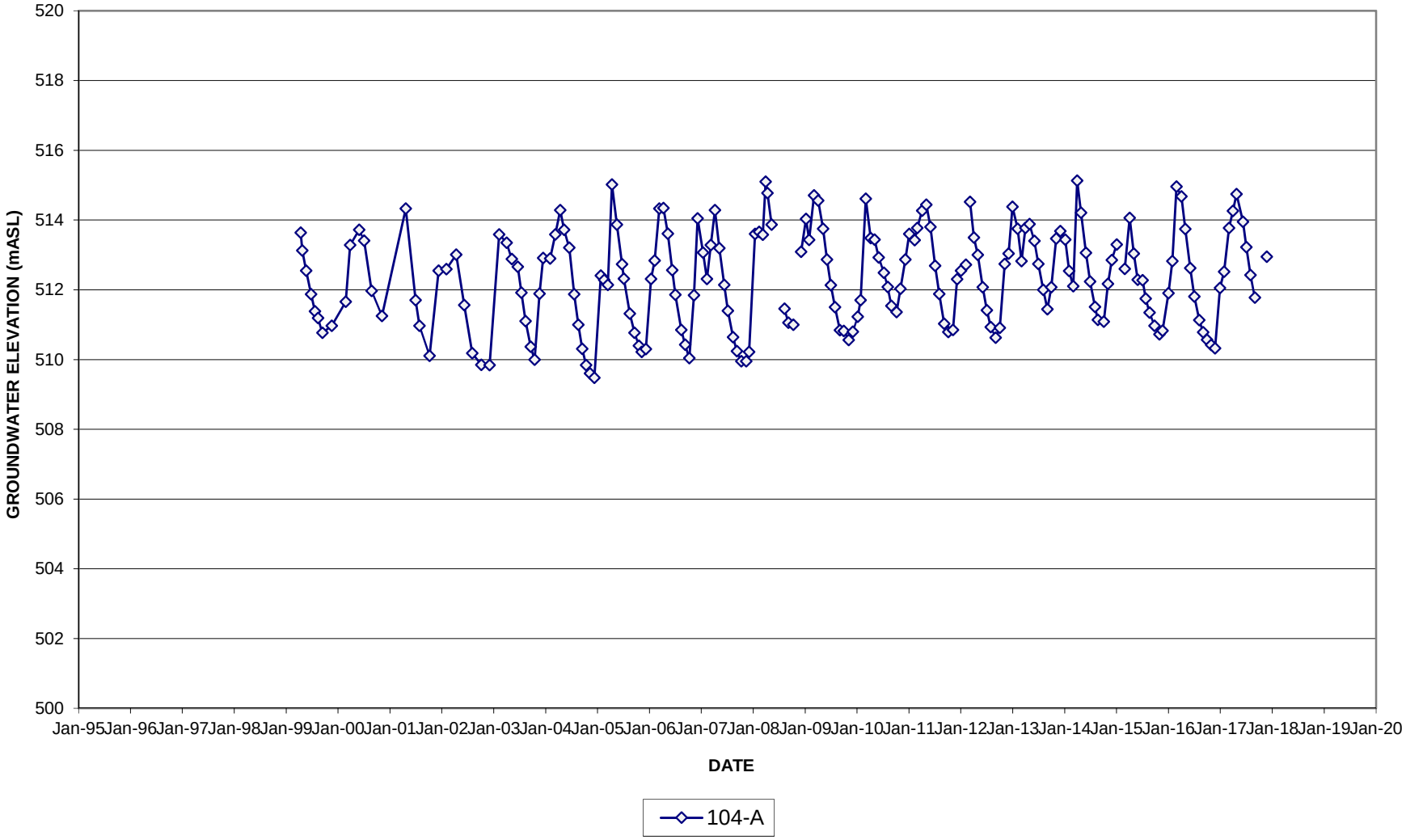


FIGURE C-39

GROUNDWATER HYDROGRAPH
OW1-4

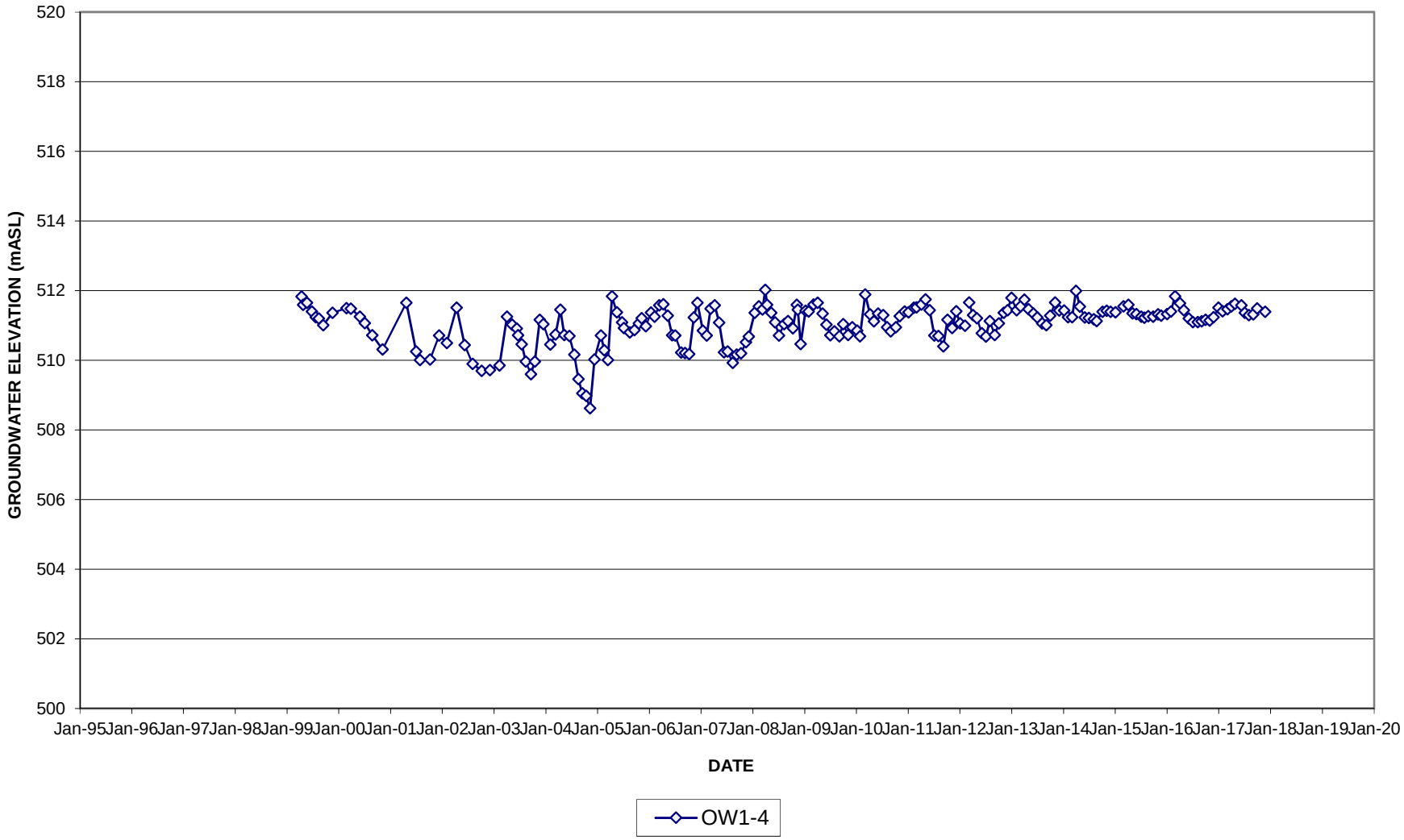


FIGURE C-40

GROUNDWATER HYDROGRAPH
OW3-1

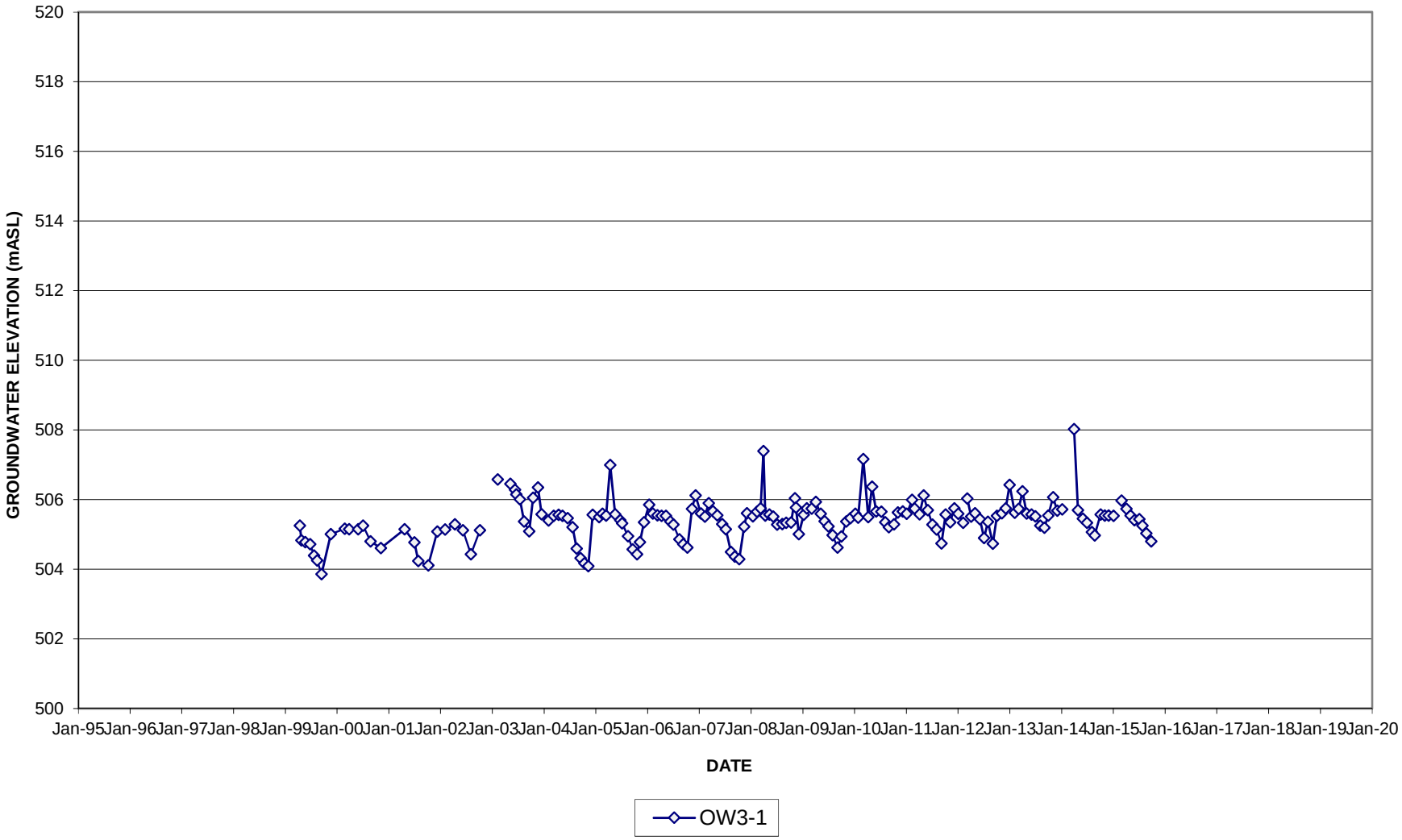


FIGURE C-41

GROUNDWATER HYDROGRAPH
OW5-2

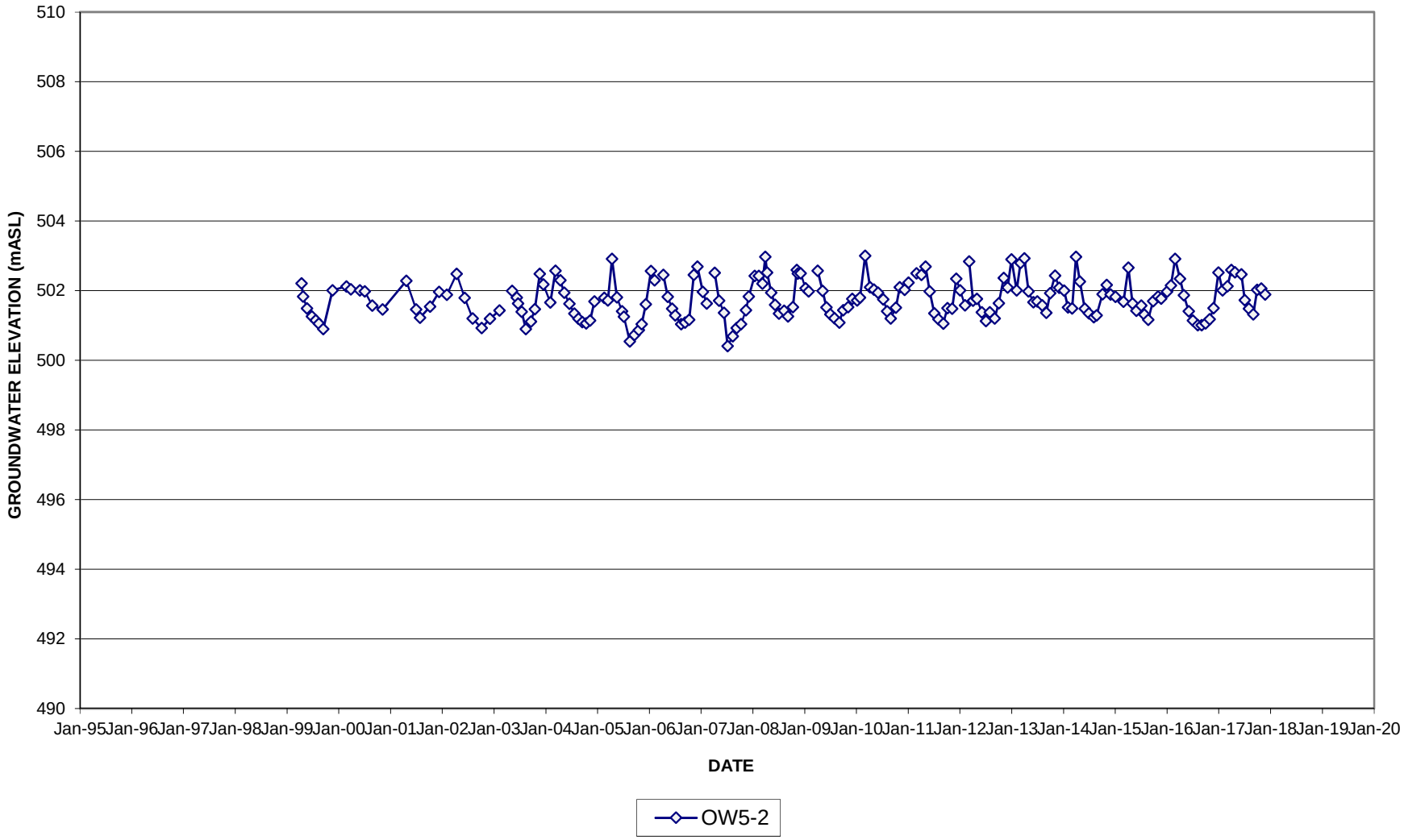


FIGURE C-42

GROUNDWATER HYDROGRAPH
OW6-3

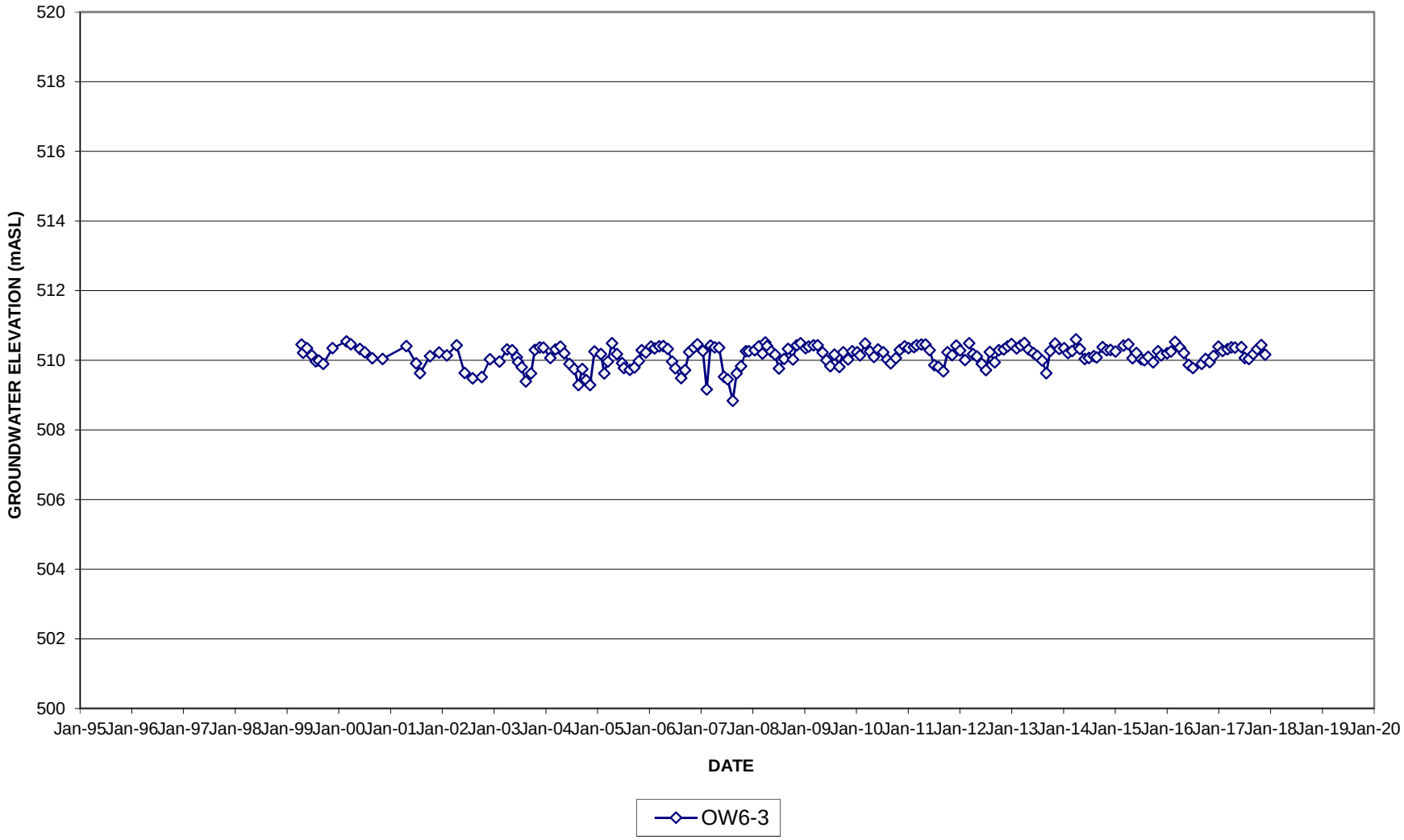


TABLE C-6
GROUNDWATER ELEVATIONS
DUNTROON QUARRY - 2017 AMP SUMMARY REPORT
CARMARTHEN LAKE FARMS WELLS
111-53312-01 A61

DATE	CLF1	CLF2	CLF3	CLF4	CLF5
08-Jun-96	511.8	N/A	507.5	507.5	507.5
06-Sep-96	511.7	511.7	507.2	507.2	507.3
23-Dec-96	512.0	512.1	508.3	508.1	507.9
26-Feb-97	512.1	512.1	Frozen	509.1	508.4
08-May-97	512.0	512.0	508.3	509.1	508.1
26-Aug-97	511.9	511.9	507.5	508.7	507.5
19-Dec-97	511.9	511.9	507.8	509.0	507.7
27-Feb-98	Frozen	514.8	Frozen	509.0	Frozen
08-Apr-98	N/A	510.3	509.5	509.1	508.7
10-May-98	511.6	511.6	507.3	507.3	507.3
29-Dec-98	Frozen	Frozen	Frozen	508.7	Frozen
24-Feb-99	Frozen	Frozen	Frozen	508.8	Frozen
28-Apr-99	511.8	510.6	507.7	508.6	506.9
26-May-99	512.0	510.1	507.5	508.4	507.5
29-Jun-99	N/A	510.3	507.4	507.4	507.4
26-Jul-99	N/A	N/A	507.3	507.3	507.4
17-Aug-99	510.3	511.5	507.2	507.3	507.7
27-Sep-99	511.8	511.2	507.1	507.2	507.3
25-Oct-99	510.8	511.0	507.2	507.2	507.3
21-Nov-99	511.1	511.3	507.4	507.4	507.4
21-Dec-99	511.2	511.4	507.5	507.7	507.5
25-Jan-00	Frozen	Frozen	507.8	508.6	507.6
29-Feb-00	Frozen	Frozen	509.5	509.0	508.6
31-Mar-00	Frozen	Frozen	507.9	509.0	507.8
02-Jun-00	511.0	511.2	508.0	508.7	507.8
07-Jul-00	510.7	510.8	507.8	508.8	507.7
27-Aug-00	510.6	510.6	507.4	508.4	507.4
28-Sep-00	510.9	510.9	507.6	508.7	507.5
03-Nov-00	511.0	511.0	507.7	508.8	507.6
22-Feb-01	Frozen	Frozen	Frozen	Frozen	Frozen
22-Mar-01	Frozen	Frozen	Frozen	Frozen	Frozen
02-May-01	510.5	N/A	508.3	508.7	N/A
07-Jun-01	N/A	N/A	507.5	508.6	507.5
12-Jul-01	509.2	N/A	507.3	507.6	506.9
01-Aug-01	509.7	N/A	507.3	507.3	507.3
04-Oct-01	509.8	509.8	507.3	507.4	507.3
01-Nov-01	510.6	510.8	508.2	509.0	507.9
14-Dec-01	510.4	510.5	508.0	508.9	507.8

NOTE:
- Frozen / Buried indicates well lid frozen or well buried in snow.
- N/A indicates water elevation not available

TABLE C-6
GROUNDWATER ELEVATIONS
DUNTROON QUARRY - 2017 AMP SUMMARY REPORT
CARMARTHEN LAKE FARMS WELLS
111-53312-01 A61

DATE	CLF1	CLF2	CLF3	CLF4	CLF5
10-Jan-02	510.4	510.4	507.8	509.0	507.6
14-Mar-02	Frozen	Frozen	Frozen	509.0	Frozen
16-May-02	510.7	510.9	508.1	509.2	507.8
20-Jun-02	509.9	510.5	507.7	508.7	507.6
11-Jul-02	506.5	509.5	507.8	507.7	507.5
13-Sep-02	508.9	509.6	507.2	507.2	507.3
01-Nov-02	510.9	510.3	507.0	507.1	507.2
16-Jan-03	Frozen	Frozen	507.3	508.5	Frozen
11-Apr-03	510.8	511.1	Frozen	509.2	Frozen
15-May-03	510.5	513.7	507.8	508.9	507.6
24-Jun-03	510.4	510.6	507.5	508.4	507.4
22-Jul-03	510.1	510.3	507.4	507.3	507.4
20-Aug-03	509.8	509.9	507.3	507.3	507.4
25-Sep-03	509.3	509.6	507.2	507.2	506.8
22-Oct-03	509.3	508.3	507.3	508.7	507.4
25-Nov-03	510.4	509.7	508.3	509.0	508.0
11-Dec-03	510.5	510.2	Frozen	Frozen	Frozen
22-Dec-03	510.6	510.7	508.3	509.0	508.0
09-Feb-04	509.5	509.5	Frozen	508.8	Frozen
16-Mar-04	510.3	510.5	508.4	509.0	508.0
02-Apr-04	512.0	512.4	Frozen	Frozen	Frozen
20-Apr-04	510.9	511.1	508.9	509.0	508.2
18-May-04	510.2	510.4	507.9	508.9	507.7
22-Jun-04	509.6	510.0	507.7	508.8	507.6
28-Jul-04	509.4	509.7	507.4	508.4	507.4
25-Aug-04	509.2	509.6	507.0	507.3	507.3
22-Sep-04	509.5	509.6	507.2	507.2	507.3
19-Oct-04	509.4	509.6	507.1	507.2	507.2
16-Nov-04	508.2	508.3	507.2	507.2	507.3
16-Dec-04	Frozen	509.2	507.3	508.7	507.4
31-Jan-05	Frozen	509.2	507.8	508.7	Frozen
24-Feb-05	Frozen	508.9	507.6	508.9	507.5
22-Mar-05	508.8	508.5	Frozen	508.8	Frozen
22-Apr-05	511.4	511.9	510.2	509.2	508.8
25-May-05	510.7	510.9	508.0	508.7	507.7
29-Jun-05	510.2	510.5	507.5	508.4	506.3
13-Jul-05	510.3	510.4	507.4	507.5	507.4
23-Aug-05	510.2	510.3	507.3	507.3	507.3

NOTE:
- Frozen / Buried indicates well lid frozen or well buried in snow.
- N/A indicates water elevation not available

TABLE C-6
GROUNDWATER ELEVATIONS
DUNTROON QUARRY - 2017 AMP SUMMARY REPORT
CARMARTHEN LAKE FARMS WELLS
111-53312-01 A61

DATE	CLF1	CLF2	CLF3	CLF4	CLF5
26-Sep-05	510.2	510.3	507.2	507.2	507.3
26-Oct-05	510.4	510.4	507.2	507.2	507.3
16-Nov-05	510.6	510.6	507.2	507.2	507.3
14-Dec-05	Frozen	510.3	507.4	508.5	507.4
20-Jan-06	510.5	510.6	508.1	509.0	507.9
12-Feb-06	510.5	510.6	508.0	508.9	507.8
19-Mar-06	511.2	511.3	509.0	509.0	508.3
16-Apr-06	511.0	511.1	509.2	509.0	508.5
14-May-06	510.3	510.5	507.8	508.9	507.3
18-Jun-06	509.7	509.8	507.4	507.7	506.6
09-Jul-06	509.8	509.7	507.3	507.3	506.3
20-Aug-06	509.5	509.6	507.2	507.2	506.3
17-Sep-06	509.4	509.6	507.1	507.1	507.2
15-Oct-06	509.3	509.2	507.2	507.2	507.3
19-Nov-06	510.4	510.5	508.1	508.9	507.8
10-Dec-06	510.6	510.7	510.4	509.2	508.0
21-Jan-07	511.9	Frozen	507.8	508.9	507.6
18-Feb-07	Frozen	Frozen	507.5	508.7	507.5
18-Mar-07	510.3	510.6	508.7	509.1	508.0
15-Apr-07	511.3	510.8	508.5	509.2	508.0
17-May-07	509.9	509.9	507.7	509.0	507.6
21-Jun-07	509.1	509.2	507.4	508.2	507.4
17-Jul-07	509.2	508.4	507.3	507.3	507.3
21-Aug-07	509.2	509.4	507.1	507.2	507.2
18-Sep-07	509.6	509.7	507.0	507.1	507.2
22-Oct-07	509.6	509.7	507.0	507.1	507.2
23-Nov-07	509.7	509.8	507.3	507.5	507.3
13-Dec-07	509.6	509.8	Frozen	508.8	Frozen
24-Jan-08	509.7	509.8	507.3	508.8	507.9
21-Feb-08	509.5	509.6	507.5	509.1	508.3
18-Mar-08	510.5	510.7	Frozen	509.0	Frozen
7-Apr-08	511.6	511.8	Frozen	509.4	508.8
21-Apr-08	510.5	511.2	509.5	509.1	508.5
20-May-08	510.7	510.8	507.9	508.9	508.3
16-Jun-08	510.3	510.3	507.5	508.7	507.8
14-Jul-08	509.6	509.9	505.0	507.7	507.0
18-Aug-08	509.5	510.5	507.1	508.4	507.8
15-Sep-08	509.0	510.3	507.5	508.4	507.7

NOTE:
- Frozen / Buried indicates well lid frozen or well buried in snow.
- N/A indicates water elevation not available

TABLE C-6
GROUNDWATER ELEVATIONS
DUNTROON QUARRY - 2017 AMP SUMMARY REPORT
CARMARTHEN LAKE FARMS WELLS
111-53312-01 A61

DATE	CLF1	CLF2	CLF3	CLF4	CLF5
20-Oct-08	509.8	509.4	507.4	N/A	507.8
23-Nov-08	510.4	510.2	507.6	508.7	508.3
14-Dec-08	512.7	511.5	507.6	509.4	Frozen
18-Jan-09	512.0	510.8	507.0	509.0	Frozen
8-Feb-09	510.1	508.4	507.2	509.1	Frozen
15-Mar-09	510.8	510.9	507.3	509.2	N/A
12-Apr-09	510.8	510.5	507.3	509.2	N/A
17-May-09	510.6	510.5	508.0	508.8	507.7
14-Jun-09	510.4	510.3	507.9	508.8	507.5
12-Jul-09	509.7	508.8	507.4	507.4	506.7
9-Aug-09	509.8	509.0	507.1	507.3	506.5
13-Sep-09	509.8	509.9	507.2	507.3	506.5
11-Oct-09	510.2	510.3	507.4	508.8	507.9
15-Nov-09	509.8	510.0	507.4	508.7	507.9
13-Dec-09	509.9	510.2	507.5	509.1	508.3
17-Jan-10	509.9	510.1	507.5	509.1	508.2
07-Feb-10	510.0	510.1	507.7	509.1	508.3
14-Mar-10	511.5	511.5	509.0	509.5	508.6
18-Apr-10	N/A	510.8	508.3	509.0	507.9
16-May-10	510.6	510.9	507.9	508.9	507.7
13-Jun-10	511.1	510.8	507.6	508.9	507.8
21-Jul-10	510.5	510.7	507.4	509.0	508.0
16-Aug-10	510.2	510.3	507.5	508.9	507.7
12-Sep-10	510.2	510.3	507.2	507.3	507.4
17-Oct-10	510.3	510.4	507.5	508.5	507.4
14-Nov-10	510.3	510.5	507.5	508.6	507.6
19-Dec-10	510.4	510.7	508.2	509.1	508.0
16-Jan-11	510.6	510.6	508.2	509.3	508.2
20-Feb-11	510.5	510.4	508.1	509.1	508.2
13-Mar-11	510.7	510.7	N/A	509.2	508.3
17-Apr-11	511.1	511.1	509.0	509.2	508.2
15-May-11	511.2	511.3	508.6	509.2	508.2
13-Jun-11	511.0	511.0	508.2	508.9	507.8
17-Jul-11	510.0	510.1	507.4	507.5	506.6
14-Aug-11	509.4	509.4	507.3	508.1	506.2
18-Sep-11	509.1	509.3	507.2	508.0	506.1
17-Oct-11	508.6	508.8	507.3	507.8	506.5

NOTE:
- Frozen / Buried indicates well lid frozen or well buried in snow.
- N/A indicates water elevation not available

TABLE C-6
GROUNDWATER ELEVATIONS
DUNTROON QUARRY - 2017 AMP SUMMARY REPORT
CARMARTHEN LAKE FARMS WELLS
111-53312-01 A61

DATE	CLF1	CLF2	CLF3	CLF4	CLF5
20-Nov-11	510.2	509.2	507.3	508.6	507.3
18-Dec-11	510.3	509.3	507.4	508.8	507.5
15-Jan-12	510.4	509.5	507.6	509.0	507.8
19-Feb-12	510.5	509.6	buried	508.9	508.0
18-Mar-12	512.1	511.3	509.7	509.0	508.0
15-Apr-12	510.6	510.7	507.8	508.9	507.9
13-May-12	510.5	510.5	507.7	508.8	507.8
17-Jun-12	510.02	510.13	507.39	508.54	507.54
15-Jul-12	509.8	510.0	507.3	508.5	507.5
12-Aug-12	510.5	510.9	507.5	508.5	507.5
16-Sep-12	510.0	510.1	507.3	507.3	507.3
14-Oct-12	510.2	510.7	507.5	507.8	507.8
18-Nov-12	510.5	511.1	508.1	508.4	508.6
16-Dec-12	510.7	510.8	507.6	508.7	508.3
13-Jan-13	511.1	511.1	508.3	509.2	508.6
17-Feb-13	511.3	511.2	508.3	509.3	508.7
17-Mar-13	511.0	510.8	508.2	509.0	508.4
14-Apr-13	511.3	510.0	509.0	509.2	508.5
12-May-13	510.5	508.9	508.1	508.9	508.2
16-Jun-13	BLOCKED	510.9	507.9	508.8	508.1
14-Jul-13		510.9	507.6	508.7	507.9
18-Aug-13		510.4	507.4	508.2	507.6
15-Sep-13		510.4	507.4	508.3	507.6
13-Oct-13		509.9	507.5	508.6	508.0
17-Nov-13		510.3	507.7	509.5	508.7
16-Dec-13		510.2	507.6	509.5	508.7
19-Jan-14		510.2	507.6	509.4	508.6
16-Feb-14		510.3	507.6	509.5	508.7
17-Mar-14		510.7	Buried	509.4	508.7
13-Apr-14		510.8	Buried	509.3	508.5
11-May-14		510.6	508.5	508.9	508.1
18-Jun-14		510.6	507.6	507.6	506.8
13-Jul-14		510.7	507.3	508.3	507.6
17-Aug-14		510.7	507.3	508.5	507.7
7-Sep-14		510.6	507.2	507.4	507.4
19-Oct-14		510.8	507.5	509.4	508.5
16-Nov-14		511.1	508.1	509.1	508.2

NOTE:
- Frozen / Buried indicates well lid frozen or well buried in snow.
- N/A indicates water elevation not available

TABLE C-6
GROUNDWATER ELEVATIONS
DUNTROON QUARRY - 2017 AMP SUMMARY REPORT
CARMARTHEN LAKE FARMS WELLS
111-53312-01 A61

DATE	CLF1	CLF2	CLF3	CLF4	CLF5
14-Dec-14		511.0		509.1	508.3
18-Jan-15		511.0	508.9	509.1	508.3
15-Feb-15		Frozen	Buried	Buried	Buried
15-Mar-15		Buried	Buried	509.2	Buried
19-Apr-15		510.8	509.0	509.3	508.4
17-May-15		510.9	507.7	508.6	507.6
14-Jun-15		510.8	507.5	508.8	507.5
19-Jul-15		510.8	507.5	508.4	507.5
9-Aug-15		510.8	507.4	507.4	507.2
6-Sep-15		510.7	507.3	507.3	507.0
11-Oct-15		510.6	507.2	507.3	507.3
15-Nov-15		510.8	507.4	508.6	507.4
6-Dec-15		510.7	507.5	508.6	507.5
17-Jan-16		510.5	507.8	508.9	507.7
14-Feb-16		510.8	507.9	509.0	507.7
13-Mar-16		511.3	509.6	509.3	508.6
17-Apr-16		510.9	508.9	509.0	508.3
15-May-16		510.9	507.8	508.9	507.7
19-Jun-16		510.6	507.5	507.5	507.4
17-Jul-16		510.7	507.3	507.4	507.4
21-Aug-16		510.7	507.2	507.3	507.3
18-Sep-16		510.7	507.2	507.3	507.3
16-Oct-16		510.7	507.2	507.2	507.3
13-Nov-16		510.7	507.2	507.3	507.3
11-Dec-16		Frozen	507.3	507.3	Buried
15-Jan-17		510.8	508.1	509.2	507.9
12-Feb-17		510.9	Buried	Buried	Buried
19-Mar-17		510.7	508.1	508.8	507.9
16-Apr-17		511.1	508.9	509.1	508.2
19-May-17		511.1	508.7	509.0	508.0
25-Jun-17		511.2	508.3	509.1	508.0
19-Jul-17		510.9	507.9	508.9	507.7
17-Aug-17		510.8	507.6	508.8	507.6
17-Sep-17		509.5	507.5	508.4	507.4
15-Oct-17		511.0	507.5	509.1	507.5
14-Nov-17		511.0	507.8	509.3	507.7
11-Dec-17		510.9	507.8	509.1	507.6

NOTE:
- Frozen / Buried indicates well lid frozen or well buried in snow.
- N/A indicates water elevation not available

FIGURE C-43

GROUNDWATER HYDROGRAPH
CLF1

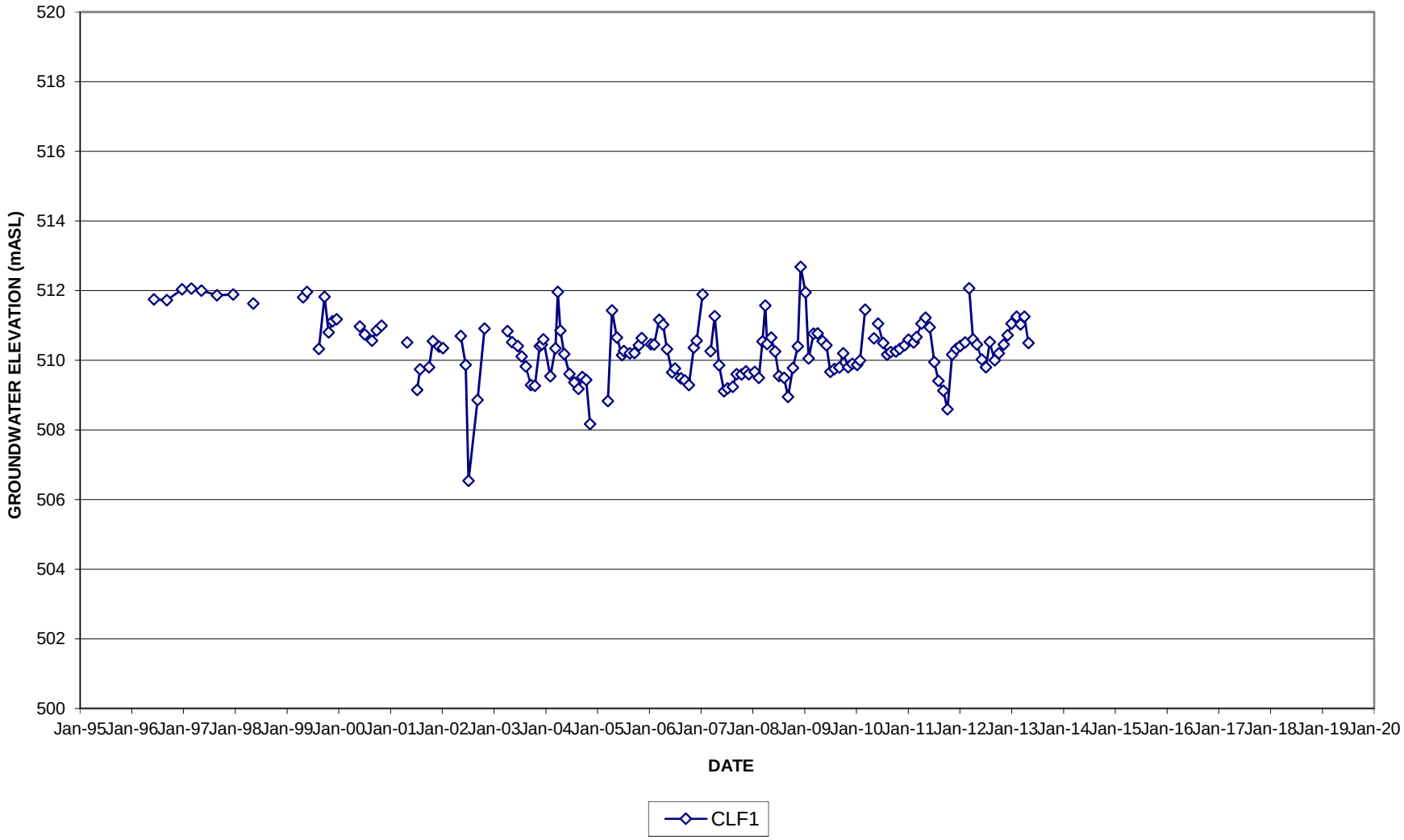


FIGURE C-44

GROUNDWATER HYDROGRAPH
CLF2

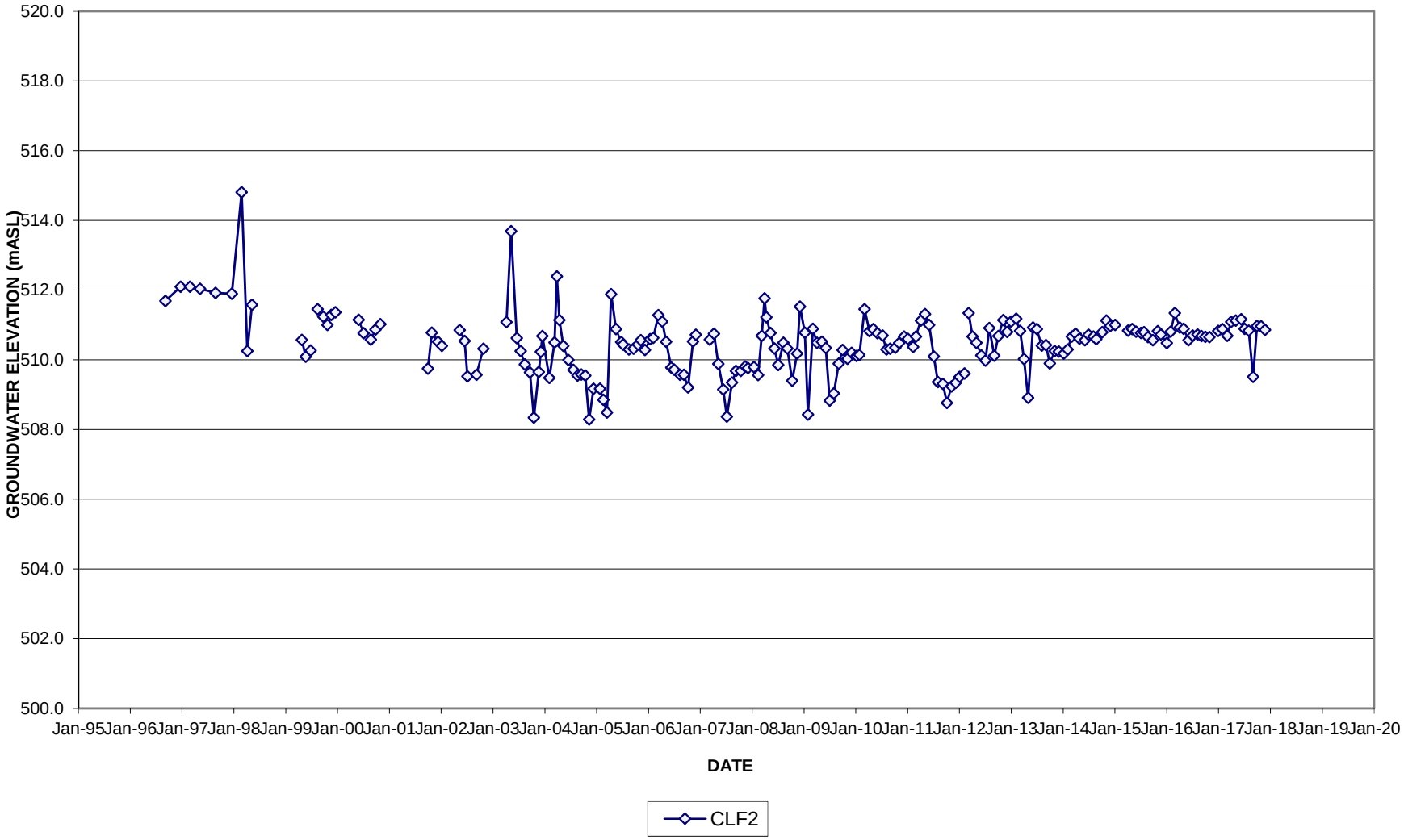


FIGURE C-45

GROUNDWATER HYDROGRAPH
CLF3

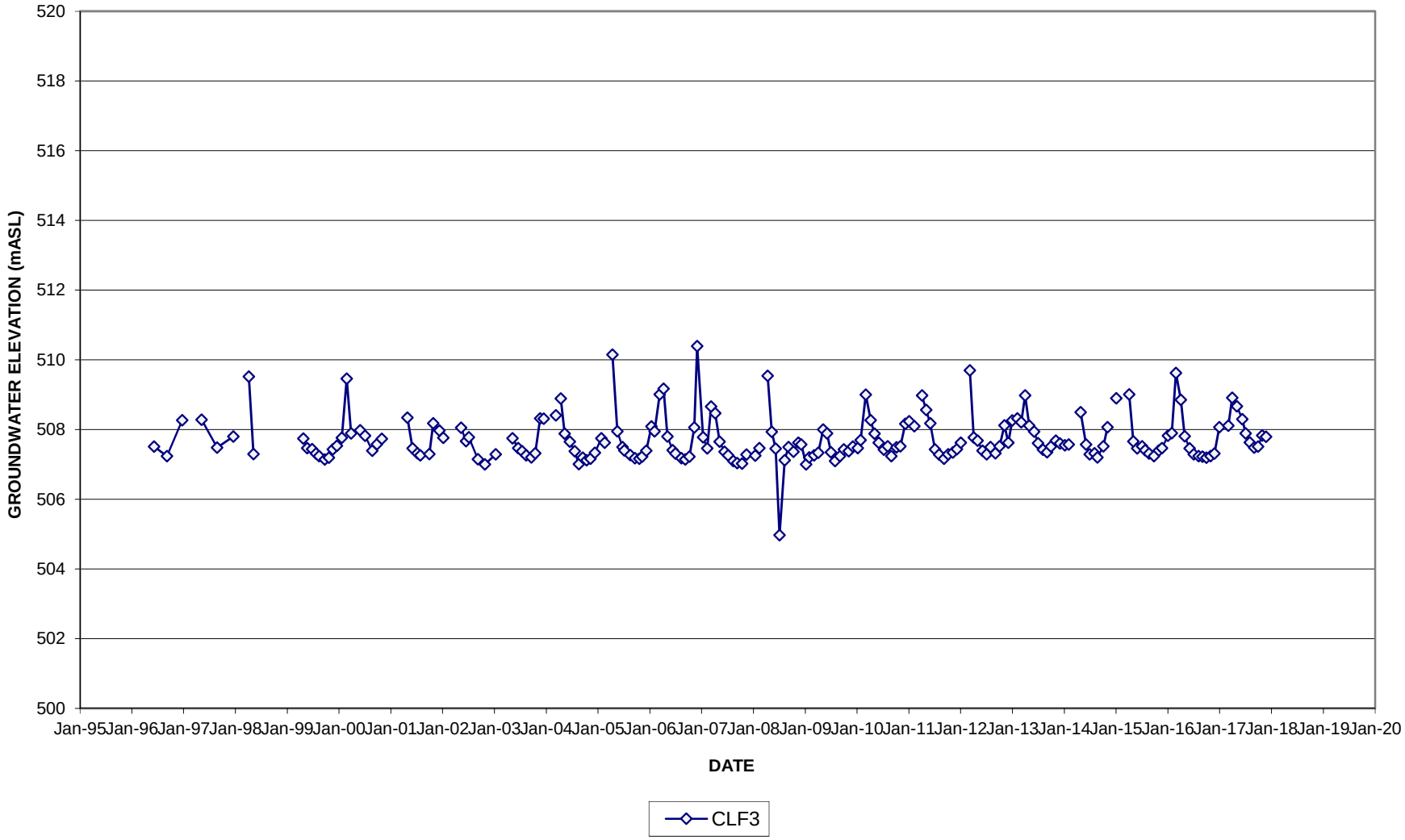


FIGURE C-46

GROUNDWATER HYDROGRAPH
CLF4

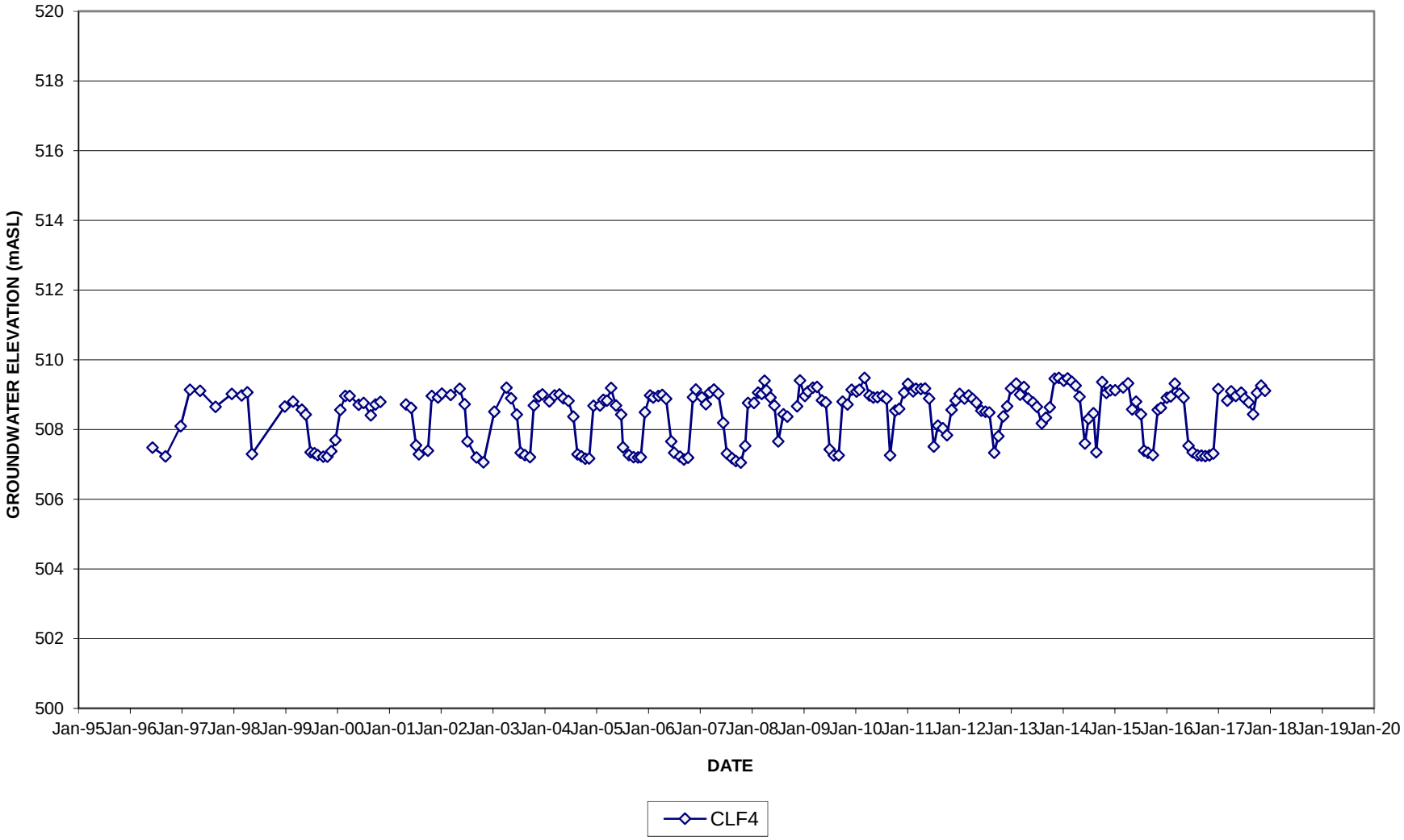


FIGURE C-47

GROUNDWATER HYDROGRAPH
CLF5

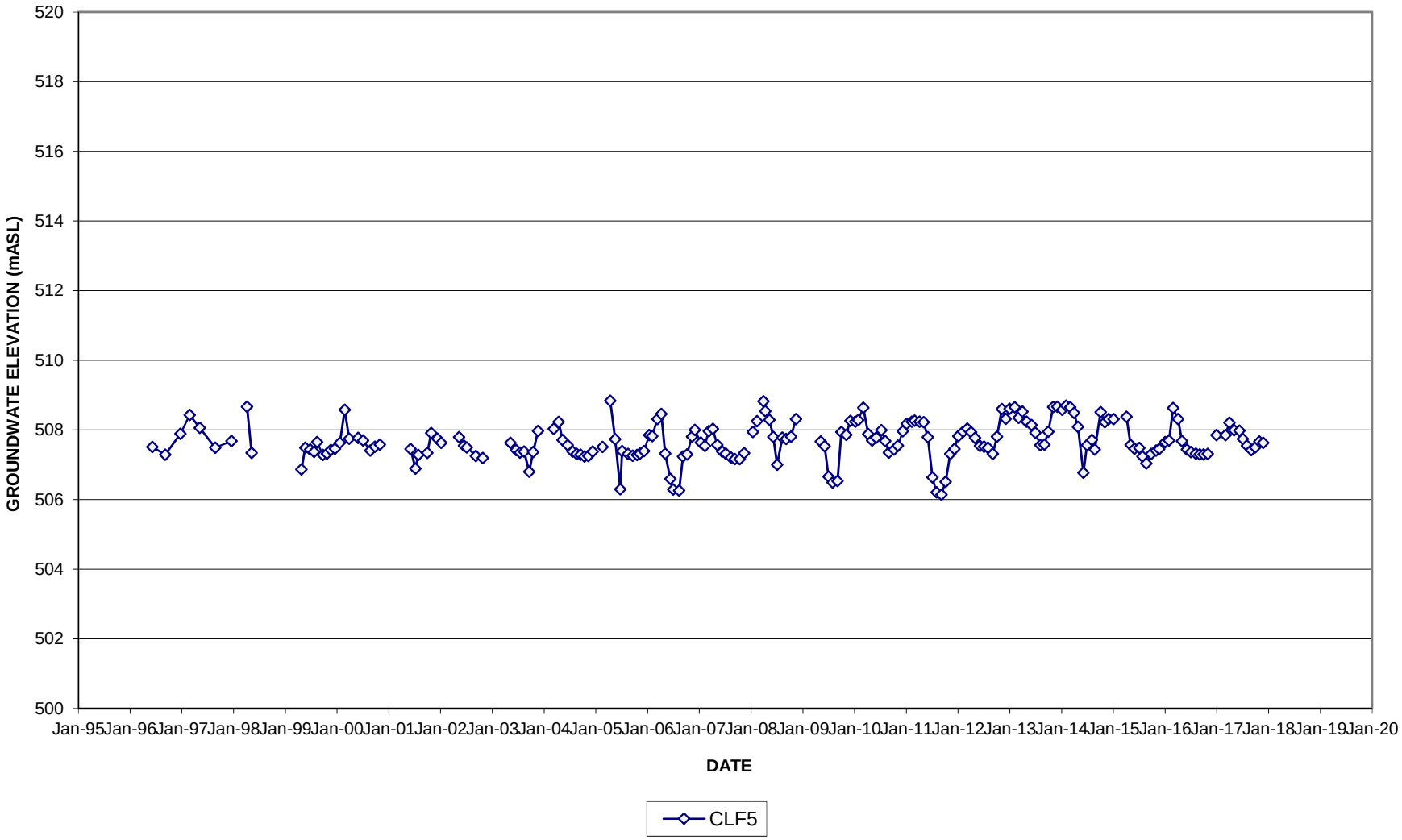


TABLE C-7
GROUNDWATER ELEVATIONS
DUNTROON QUARRY - 2017 AMP SUMMARY REPORT

RESIDENTIAL WELLS

111-53312-01 A61

DATE	RW1	RW2	RW3	RW4	RW5
16-May-03					
26-Jun-03			512.5		
24-Jul-03			511.9		459.9
21-Aug-03	502.2		511.4		459.6
25-Sep-03	501.5		510.7		459.0
22-Oct-03	502.9	485.1	510.8	508.8	459.6
25-Nov-03	506.0	485.7	512.1	509.8	460.4
22-Dec-03	505.7	485.9	512.5	509.7	460.8 (*)
09-Feb-04	Buried	486.7	Frozen	509.3	Frozen
16-Mar-04	506.0	485.9	Frozen	509.8	Frozen
21-Apr-04	506.3	486.1	513.8	510.0	461.1
18-May-04	505.3	486.0	513.2	507.9 (**)	461.0
22-Jun-04	504.1	485.9	512.7	508.9	460.7
28-Jul-04	503.2	485.3	511.9	508.6	460.3
25-Aug-04	502.1	485.0	511.3	508.0	459.7
24-Sep-04	501.1	484.9	510.9	507.6	459.6
19-Oct-04	501.3	485.0	510.5	507.4	459.5
16-Nov-04	501.3	485.0	510.4	507.8	458.7
16-Dec-04	502.4	485.2	510.6	508.7	Frozen
31-Jan-05	505.0	485.4	512.2	509.6	Frozen
24-Feb-05	504.9	485.6	512.1	509.5	Frozen
22-Mar-05	504.6	485.7	512.0	509.5	Frozen
20-Apr-05	506.9	486.1	513.8	510.3	461.1
25-May-05	505.1	486.0	513.2	509.4	461.0
29-Jun-05	503.6	486.2	512.2	508.8	460.5
13-Jul-05	502.9	486.6	511.9	507.2	459.0
23-Aug-05	501.8	485.8	511.0	507.5	459.5
26-Sep-05	501.9	485.0	510.4	507.1	459.5
26-Oct-05	500.5	484.9	510.2	507.1	459.2
16-Nov-05	501.8	485.2	510.1	507.6	459.3
14-Dec-05	501.7	484.5	510.3	508.3	
20-Jan-06	505.8	485.7	510.6	509.8	
14-Feb-06	505.0	486.4	512.1	509.6	
19-Mar-06	506.2	486.0	513.3	509.9	
17-Apr-06	505.7	486.0	514.0	510.0	461.0
19-May-06	504.8	485.9	513.0	509.4	460.8
19-Jun-06	503.1	485.6	512.2	507.0	460.4
10-Jul-06	502.1	485.3	511.7	507.4	460.0

NOTE:
- Frozen / Buried indicates well lid frozen or buried in snow.
- N/A indicates well unaccessible.
- ** Indicates water level is based on OBM map elevations and not surveyed.

TABLE C-7
GROUNDWATER ELEVATIONS
DUNTROON QUARRY - 2017 AMP SUMMARY REPORT

RESIDENTIAL WELLS

111-53312-01 A61

DATE	RW1	RW2	RW3	RW4	RW5
23-Aug-06	501.2	485.0	510.8	506.9	459.6
18-Sep-06	501.0	485.0	510.4	507.2	459.4
17-Oct-06	501.5	485.4	510.3	508.0	459.4
22-Nov-06	505.4	485.6	511.6	509.0	460.3
15-Dec-06	506.3	486.1	512.4	510.0	460.7
22-Jan-07	504.4	485.8	512.5	509.4	460.1
19-Feb-07	503.2	487.0	512.1	509.1	Frozen
18-Mar-07	505.9	485.7	512.4	509.8	Frozen
15-Apr-07	506.0	485.9	513.5	509.9	461.0
17-May-07	504.4	485.8	512.8	509.3	460.5
17-Jun-07	502.5	485.5	511.9	508.5	460.4
15-Jul-07	501.7	485.2	511.4	507.9	460.0
19-Aug-07	501.0	485.0	510.7	507.2	459.6
10-Sep-07	500.8	N/A	N/A	N/A	N/A
16-Sep-07	500.8	485.0	510.3	506.2	459.4
14-Oct-07	500.7	485.1	510.0	506.3	459.3
18-Nov-07	501.3	485.2	510.1	508.0	459.6
9-Dec-08	Frozen	485.5	510.3	Frozen	Buried
20-Jan-08	N/A	486.7	513.0	Frozen	Buried
17-Feb-08	Frozen	485.7	512.7	509.9	Buried
16-Mar-08	Frozen	485.8	512.7	Buried	Buried
6-Apr-08	502.2	486.0	513.6	510.3	Frozen
20-Apr-08	506.3	486.1	514.4	509.9	461.2
18-May-08	505.1	486.0	513.3	509.5	461.0
15-Jun-08	503.6	486.7	512.5	508.1	459.9
13-Jul-08	502.1	485.8	511.9	508.4	460.4
17-Aug-08	502.2	485.2	511.7	508.2	460.2
31-Aug-08	N/A	N/A	N/A	N/A	N/A
14-Sep-08	502.9	485.1	511.4	508.7	459.3
19-Oct-08	502.8	485.3	511.7	508.9	460.3
23-Nov-08	Frozen	485.6	512.7	Frozen	Buried
14-Dec-08	Frozen	Buried	511.6	Frozen	Buried
18-Jan-09	505.5	485.9	513.1	Frozen	Buried
8-Feb-09	Frozen	485.8	512.6	509.6	Buried
15-Mar-09	506.4	486.6	513.5	510.0	460.9
12-Apr-09	506.4	486.1	513.7	509.4	460.4
17-May-09	505.1	486.2	513.3	509.2	461.2
14-Jun-09	503.3	485.9	512.5	507.8	460.3

NOTE:
- Frozen / Buried indicates well lid frozen or buried in snow.
- N/A indicates well unaccessible.

TABLE C-7
GROUNDWATER ELEVATIONS
DUNTROON QUARRY - 2017 AMP SUMMARY REPORT

RESIDENTIAL WELLS

111-53312-01 A61

DATE	RW1	RW2	RW3	RW4	RW5
12-Jul-09	502.0	485.5	511.9	508.4	460.3
9-Aug-09	502.1	485.3	511.4	507.9	460.1
13-Sep-09	501.0	485.1	510.9	507.4	459.8
11-Oct-09	501.9	485.3	510.7	508.4	459.8
15-Nov-09	502.1	485.3	510.8	508.7	460.2
29-Nov-09	N/A	487.1	N/A	N/A	N/A
13-Dec-09	503.1	486.4	511.0	509.1	Buried
12-Jan-10	503.5	486.9	N/A	N/A	N/A
17-Jan-10	N/A	486.3	511.2	509.0	Buried
07-Feb-10	503.4	486.9	511.4	509.2	Buried
14-Mar-10	506.1	485.7	512.0	510.3	460.5
18-Apr-10	505.9	486.0	513.4	509.9	461.0
16-May-10	506.6	486.2	513.0	509.1	460.9
8-Jun-10	506.8	485.6	N/A	N/A	N/A
13-Jun-10	505.8	485.5	513.1	509.7	460.9
21-Jul-10	504.8	485.5	512.6	509.3	460.6
16-Aug-10	503.2	485.3	512.1	508.7	460.6
12-Sep-10	501.8	485.9	511.5	508.2	460.2
26-Sep-10	503.4		N/A	N/A	N/A
17-Oct-10	N/A	485.1	511.6	508.1	460.3
14-Nov-10	505.1	485.3	512.1	509.7	460.7
19-Dec-10	505.2	485.5	512.6	Frozen	Buried
16-Jan-11	505.6	485.6	512.9	Frozen	Buried
20-Feb-11	505.9	486.9	Frozen	Frozen	Buried
13-Mar-11	Frozen	485.6	512.7	509.8	Buried
17-Apr-11	506.9	485.8	514.1	510.0	461.0
15-May-11	507.2	485.9	513.7	509.7	461.0
13-Jun-11	505.4	485.8	513.1	509.4	461.2
3-Jul-11		485.54			
17-Jul-11	503.1	485.3	511.9	508.3	460.1
14-Aug-11	502.2	485.0	511.3	507.7	459.8
18-Sep-11	501.7	484.8	510.7	507.1	459.7
17-Oct-11	502.2	485.0	510.6	508.3	459.8
20-Nov-11	502.7	485.1	511.1	508.9	460.3
18-Dec-11	502.9	485.4	512.3	509.0	460.7

NOTE:
- Frozen / Buried indicates well lid frozen or buried in snow.
- N/A indicates well unaccessible.

TABLE C-7
GROUNDWATER ELEVATIONS
DUNTROON QUARRY - 2017 AMP SUMMARY REPORT

RESIDENTIAL WELLS

111-53312-01 A61

DATE	RW1	RW2	RW3	RW4	RW5
15-Jan-12	Frozen	485.4	512.5	N/A	Buried
19-Feb-12	Frozen	485.4	512.2	N/A	Buried
26-Feb-12	Frozen	487.0			
18-Mar-12	505.9	484.6	514.0	510.2	460.5
15-Apr-12	504.6	485.7	512.9	509.4	460.9
13-May-12	504.8	485.6	512.6	509.3	460.8
17-Jun-12	504.1	485.2	511.9	507.9	460.6
1-Jul-12	502.3	485.0			
15-Jul-12	502.1	486.6	511.3	507.4	460.3
12-Aug-12	504.1	486.6	511.1	507.6	460.3
16-Sep-12		485.0	510.9	506.1	460.3
7-Oct-12		487.3			
14-Oct-12	502.6	485.0	510.8	507.5	460.3
18-Nov-12	506.0	485.5	512.7	509.8	460.9
16-Dec-12	506.0	486.7	512.6	509.7	461.0
13-Jan-13	507.5	485.6	512.9	510.0	461.0
17-Feb-13	505.6	486.0	513.0	509.6	461.3
17-Mar-13	505.4	485.8	512.9	509.9	460.2
31-Mar-13	505.2	485.7			
14-Apr-13	507.4	485.9	513.5	510.0	461.4
12-May-13	505.6	485.9	513.3	509.6	461.4
2-Jun-13	505.4	485.8			
16-Jun-13	505.0	485.6	512.7	508.7	461.2
14-Jul-13	503.9	485.5	512.2	509.0	460.7
18-Aug-13	502.5	485.2	511.7	508.5	460.5
15-Sep-13	502.3	485.1	511.3	508.2	460.2
13-Oct-13	504.3	486.2	511.9	509.4	460.3
17-Nov-13	505.7	487.1	512.7	509.8	461.0
16-Dec-13	505.72	485.79	512.71	509.57	460.68
19-Jan-14	Frozen	485.9	512.3	509.4	Buried
16-Feb-14	Frozen	485.3	Buried	508.9	Buried
17-Mar-14	Frozen	485.2	Buried	508.3	Buried
13-Apr-14	507.8	486.3	514.0	510.4	461.1
11-May-14	506.6	487.4	513.6	509.9	460.4
15-Jun-14	503.3	485.6	512.4	508.8	460.8

NOTE:
- Frozen / Buried indicates well lid frozen or buried in snow.
- N/A indicates well unaccessible.

TABLE C-7
GROUNDWATER ELEVATIONS
DUNTROON QUARRY - 2017 AMP SUMMARY REPORT

RESIDENTIAL WELLS

111-53312-01 A61

DATE	RW1	RW2	RW3	RW4	RW5
13-Jul-14	503.2	487.1	511.9	508.5	460.5
17-Aug-14	502.8	486.8	511.4	508.1	460.3
7-Sep-14	502.5	486.2	511.1	508.0	460.3
12-Sep-14		485.2			
19-Sep-14	503.3				
19-Oct-14	502.9	486.3	511.2	508.9	460.6
2-Nov-14	504.7	485.3			460.8
16-Nov-14	505.6	485.5	512.0	509.7	461.0
14-Dec-14	505.3	485.6	512.5	509.6	461.1
18-Jan-15		485.7	512.6		
15-Feb-15		485.4	512.0		
15-Mar-15		485.4	511.7		
19-Apr-15	506.7	485.8	513.6	509.7	461.1
17-May-15	504.7	486.4	512.7	509.1	459.1
14-Jun-15	503.6	485.4	512.2	508.5	460.4
19-Jul-15	503.6	485.5	512.2	508.9	460.7
9-Aug-15	502.6	485.3	511.6	508.4	460.3
6-Sep-15	502.4	485.2	511.2	507.7	458.5
11-Oct-15	501.9	487.2	510.7	507.5	458.4
15-Nov-15	501.8	487.3	510.7	508.4	459.6
6-Dec-15	502.5	487.1	510.9	508.2	460.0
17-Jan-16	504.2	487.8	511.7	509.5	460.6
14-Feb-16	Frozen	487.1	512.2	509.6	460.9
13-Mar-16	505.6	488.1	513.8	510.2	461.3
17-Apr-16	506.5	486.1	513.8	509.7	461.3
15-May-16	506.2	486.7	513.0	509.2	460.9
19-Jun-16	502.3	487.3	512.1	508.7	460.2
17-Jul-16	502.0	487.1	511.4	508.0	459.6
24-Jul-16	502.2	487.3			
21-Aug-16	502.2	485.1	510.3	506.8	459.8
18-Sep-16	500.7	485.0	510.4	507.3	459.5
29-Sep-16					
16-Oct-16	501.4	486.0	510.2	507.3	459.5
13-Nov-16	500.2	485.1	510.2	507.8	459.4
27-Nov-16	501.5	486.1			
11-Dec-16	501.5	485.7	510.3	508.4	459.7

NOTE:
- Frozen / Buried indicates well lid frozen or buried in snow.
- N/A indicates well unaccessible.

TABLE C-7
GROUNDWATER ELEVATIONS
DUNTROON QUARRY - 2017 AMP SUMMARY REPORT

RESIDENTIAL WELLS

111-53312-01 A61

DATE	RW1	RW2	RW3	RW4	RW5
15-Jan-17	Frozen	485.4	511.1	509.7	460.4
12-Feb-17	504.6	486.6	511.8	509.6	459.7
19-Mar-17	Frozen	485.8	513.1	509.8	460.9
9-Apr-17	507.2	485.9			
16-Apr-17	506.5	485.9	513.6	509.9	461.1
11-May-17		485.9	513.9	509.9	459.7
21-May-17	506.7				
25-Jun-17			513.2	509.6	461.1
19-Jul-17			512.7	507.8	460.6
3-Aug-17					
17-Aug-17	505.7		512.1	503.5	460.5
29-Aug-17					
17-Sep-17			511.6	508.7	459.4
26-Sep-17					
15-Oct-17			511.5	509.0	460.1
14-Nov-17	Frozen		511.9	509.1	460.2
11-Dec-17	Frozen		512.4	509.5	460.8

NOTE:
- Frozen / Buried indicates well lid frozen or buried in snow.
- N/A indicates well unaccessible.

TABLE C-7
GROUNDWATER ELEVATIONS
DUNTROON QUARRY - 2017 AMP SUMMARY REPORT

RESIDENTIAL WELLS

111-53312-01 A61

DATE	RW6	RW7	RW8	RW9	RW12
16-May-03					
26-Jun-03	444.7			517.8	
24-Jul-03	444.5			517.3	
21-Aug-03	444.2	446.2	428.6	517.1	
25-Sep-03	443.9	445.9	428.4	516.7	
22-Oct-03	443.9	445.9	428.2	516.9	
25-Nov-03	444.9	446.8	Frozen	519.3	
22-Dec-03	445.0	447.0	Frozen	518.8	
09-Feb-04	Frozen	Frozen	Frozen	517.8	
16-Mar-04	Frozen	447.3	430.2	519.5	
21-Apr-04	445.7	447.6	430.3	519.7	
18-May-04	445.1	447.1	429.9	518.5	
22-Jun-04	444.9	447.1	429.6	517.9	
28-Jul-04	444.5	446.5	428.7	517.3	
25-Aug-04	444.3	446.3	428.6	517.0	
24-Sep-04	444.2	446.2	428.4	516.7	
19-Oct-04	444.0	446.0	428.1	516.5	
16-Nov-04	443.8	446.0	427.9	516.4	
16-Dec-04	Frozen	Frozen	Frozen	516.4	
31-Jan-05	Frozen	446.9	Frozen	518.4	
24-Feb-05	Frozen	447.0	Frozen	517.9	
22-Mar-05	Frozen	446.6	Frozen	517.9	
20-Apr-05	446.1	448.2	430.7	521.8	
25-May-05	445.1	446.8	429.9	518.2	
29-Jun-05	444.6	446.7	429.1	517.6	
13-Jul-05	444.5	446.5	428.9	517.4	
23-Aug-05	444.2	446.2	428.6	516.9	
26-Sep-05	443.9	445.9	428.2	516.6	
26-Oct-05	443.8	445.8	427.9	516.4	
16-Nov-05	443.7	445.7	427.8	516.3	
14-Dec-05	443.7	445.7	Frozen	516.9	
20-Jan-06	444.5	446.5	Frozen	518.8	
14-Feb-06	444.8	446.8	Frozen	518.7	
19-Mar-06	445.6	447.7	Frozen	520.4	
17-Apr-06	445.6	447.6	430.5	520.1	
19-May-06	444.9	446.9	429.7	517.7	
19-Jun-06	444.5	446.5	429.1	517.5	
10-Jul-06	444.4	446.4	428.7	517.2	

NOTE: • Frozen / Buried indicates well lid frozen or buried in snow.

TABLE C-7
GROUNDWATER ELEVATIONS
DUNTROON QUARRY - 2017 AMP SUMMARY REPORT

RESIDENTIAL WELLS

111-53312-01 A61

DATE	RW6	RW7	RW8	RW9	RW12
23-Aug-06	444.0	446.0	428.5	516.7	
18-Sep-06	443.8	445.8	428.2	516.5	
17-Oct-06	443.8	445.8	428.1	516.5	
22-Nov-06	444.6	446.6	429.2	518.7	
15-Dec-06	445.0	447.0	429.7	519.6	
22-Jan-07	Frozen	446.8	Frozen	518.2	
19-Feb-07	Frozen	Frozen	Frozen	517.6	
18-Mar-07	Frozen	447.1	Frozen	519.6	
15-Apr-07	445.5	447.3	430.1	519.5	
17-May-07	444.8	446.8	429.5	517.8	
17-Jun-07	444.5	446.5	428.9	517.3	
15-Jul-07	444.3	446.2	428.6	517.0	
19-Aug-07	444.0	446.0	428.4	516.6	
10-Sep-07	N/A	N/A	N/A	N/A	
16-Sep-07	443.8	445.8	428.4	516.4	
14-Oct-07	443.6	445.6	427.9	516.2	
18-Nov-07	Buried	445.6	427.8	516.3	
9-Dec-08	Buried	445.7	Buried	516.9	
20-Jan-08	Buried	447.5	Buried	519.6	
17-Feb-08	Buried	447.1	Buried	518.8	
16-Mar-08	Buried	446.9	Buried	518.7	
6-Apr-08	446.2	448.2	430.6	521.5	
20-Apr-08	445.9	449.0	430.6	520.6	424.0
18-May-08	445.1	447.1	430.0	518.3	423.2
15-Jun-08	444.7	446.7	429.3	517.6	424.4
13-Jul-08	444.5	446.4	428.7	517.2	423.9
17-Aug-08	444.3	446.3	428.8	517.5	424.0
31-Aug-08	N/A	N/A	N/A	N/A	N/A
14-Sep-08	444.2	446.1	428.7	517.2	422.8
19-Oct-08	444.5	446.4	428.9	517.6	424.5
23-Nov-08	Buried	447.1	Buried	519.4	Buried
14-Dec-08	Buried	447.3	Buried	Frozen	Buried
18-Jan-09	Buried	447.2	N/A	Frozen	Frozen
8-Feb-09	Buried	446.8	N/A	Frozen	Frozen
15-Mar-09	445.7	447.7	430.4	519.6	424.1
12-Apr-09	445.5	447.5	430.4	519.7	425.0
17-May-09	445.2	447.2	430.1	518.6	424.6
14-Jun-09	444.8	446.7	429.3	517.6	423.1

NOTE:
- Frozen / Buried indicates well lid frozen or buried in snow.
- N/A indicates well unaccessible.

TABLE C-7
GROUNDWATER ELEVATIONS
DUNTROON QUARRY - 2017 AMP SUMMARY REPORT

RESIDENTIAL WELLS

111-53312-01 A61

DATE	RW6	RW7	RW8	RW9	RW12
12-Jul-09	444.6	446.5	428.8	517.3	423.9
9-Aug-09	444.4	446.3	428.7	517.1	423.7
13-Sep-09	444.2	446.1	428.5	516.3	422.6
11-Oct-09	444.1	446.1	428.3	516.1	423.1
15-Nov-09	444.3	446.2	428.4	517.2	422.6
29-Nov-09	N/A	N/A	N/A	N/A	N/A
13-Dec-09	Buried	446.3	Frozen	517.5	Frozen
12-Jan-10	N/A	N/A	N/A	N/A	N/A
17-Jan-10	N/A	446.4	N/A	517.4	N/A
07-Feb-10	N/A	446.5	N/A	517.5	N/A
14-Mar-10	445.4	447.4	429.5	520.3	424.6
18-Apr-10	445.3	447.2	430.2	519.1	423.1
16-May-10	445.4	447.5	430.2	519.0	424.1
8-Jun-10	N/A	N/A	N/A	N/A	N/A
13-Jun-10	444.8	446.7	430.1	518.6	423.7
21-Jul-10	444.7	446.6	429.5	518.0	423.9
16-Aug-10	444.5	446.5	429.0	517.6	423.0
12-Sep-10	444.3	446.3	428.7	517.3	422.8
26-Sep-10	N/A	N/A	N/A	N/A	N/A
17-Oct-10	444.4	446.3	428.7	517.5	424.6
14-Nov-10	444.7	446.7	429.4	518.5	424.0
19-Dec-10	Buried	446.8	Buried	518.2	Buried
16-Jan-11	Buried	447.1	Buried	Frozen	Buried
20-Feb-11	Buried	447.0	Buried	Frozen	Buried
13-Mar-11	Buried	447.0	Buried	N/A	Buried
17-Apr-11	445.5	447.5	430.5	520.4	N/A
15-May-11	445.7	447.6	430.6	520.0	N/A
13-Jun-11	445.2	447.1	429.9	518.6	N/A
3-Jul-11					
17-Jul-11	444.6	446.56	428.79	517.5	N/A
14-Aug-11	444.4	446.3	428.7	517.1	N/A
18-Sep-11	444.2	446.1	428.4	516.3	N/A
17-Oct-11	444.1	446.1	428.2	516.8	423.0
20-Nov-11	444.4	446.3	428.7	517.2	423.8
18-Dec-11	445.0	446.9	429.6	519.1	N/A

NOTE:
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- N/A indicates well unaccessible.

TABLE C-7
GROUNDWATER ELEVATIONS
DUNTROON QUARRY - 2017 AMP SUMMARY REPORT
RESIDENTIAL WELLS
111-53312-01 A61

DATE	RW6	RW7	RW8	RW9	RW12
15-Jan-12	Buried	446.9		N/A	N/A
19-Feb-12	Buried	446.8		N/A	N/A
26-Feb-12					
18-Mar-12	445.9	447.9	430.6	521.2	425.1
15-Apr-12	445.0	446.9	429.6	518.2	424.4
13-May-12	444.7	446.7	429.4	518.1	424.6
17-Jun-12	444.5	446.4	428.9	517.5	423.0
1-Jul-12					
15-Jul-12	444.3	446.2	428.7	517.1	423.6
12-Aug-12	444.4	446.3	428.6	517.4	424.1
16-Sep-12	444.3	446.2	428.7	517.1	423.6
7-Oct-12					
14-Oct-12	444.2	446.1	428.6	517.3	423.8
18-Nov-12	445.2	447.1	429.8	519.7	424.5
16-Dec-12	444.9	446.9	429.6	518.7	424.4
13-Jan-13	445.3	447.3	Frozen	519.8	424.8
17-Feb-13	445.0	447.0	429.7	518.7	Frozen
17-Mar-13	445.2	447.3	Frozen	519.4	Frozen
31-Mar-13					
14-Apr-13	445.7	447.7	430.4	520.9	424.8
12-May-13	445.2	447.2	429.9	518.7	423.6
2-Jun-13					
16-Jun-13	444.9	446.9	429.6	518.3	423.7
14-Jul-13	444.7	446.6	429.0	518.1	424.1
18-Aug-13	444.5	446.4	428.8	517.6	424.0
15-Sep-13	444.3	446.3	428.7	517.4	422.9
13-Oct-13	444.7	446.7	428.8	518.3	423.8
17-Nov-13	445.0	447.0	429.5	519.0	423.9
16-Dec-13	444.94	446.97	Frozen	518.6	423.5
19-Jan-14	Buried	446.66	Frozen	518.1	Frozen
16-Feb-14	Buried	Buried	Frozen	517.5	Frozen
17-Mar-14	Buried	Buried	Frozen	517.3	Frozen
13-Apr-14	446.5	448.6	430.8	521.4	424.5
11-May-14	445.5	447.5	430.2	519.4	424.1
15-Jun-14	444.8	446.7	429.2	517.6	422.9

NOTE:
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TABLE C-7
GROUNDWATER ELEVATIONS
DUNTROON QUARRY - 2017 AMP SUMMARY REPORT

RESIDENTIAL WELLS

111-53312-01 A61

DATE	RW6	RW7	RW8	RW9	RW12
13-Jul-14	444.5	446.5	428.8	517.3	423.8
17-Aug-14	444.3	446.3	428.6	516.4	423.1
7-Sep-14	444.3	446.2	428.5	516.8	423.2
12-Sep-14					
19-Sep-14					
19-Oct-14	444.4	446.4	428.5	517.2	423.4
2-Nov-14		-			
16-Nov-14		446.9			
14-Dec-14		446.9			
18-Jan-15		446.9			
15-Feb-15		-			
15-Mar-15		446.5			
19-Apr-15	445.4	447.4	430.3		424.0
17-May-15	444.9	446.8	429.6		423.7
14-Jun-15	444.5	446.5	429.1		423.7
19-Jul-15	444.5	446.5	429.1		N/A
9-Aug-15	444.4	446.3	428.8		N/A
6-Sep-15	444.0	446.1	428.7		N/A
11-Oct-15	443.8	445.8	428.3		423.0
15-Nov-15	443.8	446.8	428.1		422.9
6-Dec-15	443.9	445.9	428.2		423.4
17-Jan-16	444.5	446.5	Frozen		Frozen
14-Feb-16	444.9	446.9	Frozen		Frozen
13-Mar-16	446.0	447.9	430.6		425.1
17-Apr-16	445.7	447.7	430.3		424.8
15-May-16	445.1	447.0	430.0		423.7
19-Jun-16	444.7	446.6	429.0		422.8
17-Jul-16	444.4	446.4	428.7		422.6
24-Jul-16					
21-Aug-16	444.2	446.1	428.5		422.9
18-Sep-16	444.0	446.0	428.2		422.9
29-Sep-16					
16-Oct-16	443.8	445.8	428.0		422.9
13-Nov-16	443.8	445.8	427.9		422.9
27-Nov-16					
11-Dec-16	443.7	445.7	Frozen		Frozen

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TABLE C-7
GROUNDWATER ELEVATIONS
DUNTROON QUARRY - 2017 AMP SUMMARY REPORT

RESIDENTIAL WELLS

111-53312-01 A61

DATE	RW6	RW7	RW8	RW9	RW12
15-Jan-17	444.4	446.4	Frozen		Frozen
12-Feb-17	Buried	Buried	Frozen		Frozen
19-Mar-17	445.2	447.2	Frozen		Frozen
9-Apr-17					
16-Apr-17	445.5	447.5	430.4		425.0
11-May-17	445.8	447.8	430.4		424.2
21-May-17					
25-Jun-17	445.0	447.0	430.0		424.1
19-Jul-17	444.8	446.8	429.5		423.4
3-Aug-17					
17-Aug-17	444.5	446.5	428.7		422.8
29-Aug-17					
17-Sep-17	444.4	446.4	428.8		422.7
26-Sep-17					
15-Oct-17	444.3	446.3	428.7		422.8
14-Nov-17	444.5	446.5	N/A		423.5
11-Dec-17	444.8	446.8	Frozen		Frozen

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TABLE C-7
GROUNDWATER ELEVATIONS
DUNTROON QUARRY - 2017 AMP SUMMARY REPORT

RESIDENTIAL WELLS

111-53312-01 A61

DATE	RW13	RW16	RW17	RW18 (Dug)	RW19 (Drilled)
16-May-03				512.8	
26-Jun-03				512.7	
24-Jul-03				512.6	
21-Aug-03		508.2		512.2	
25-Sep-03		507.6		511.9	
22-Oct-03		508.8		512.4	
25-Nov-03		510.1		Frozen	
22-Dec-03		510.4		512.8	
09-Feb-04		Frozen		Frozen	
16-Mar-04		Frozen		Frozen	
21-Apr-04		511.6		512.9	
18-May-04		510.6		512.7	
22-Jun-04		510.2		512.7	
28-Jul-04		509.2		512.5	
25-Aug-04		508.2		512.2	
24-Sep-04		507.6		511.8	
19-Oct-04		507.2		511.5	
16-Nov-04		507.4		511.7	
16-Dec-04		Frozen		Frozen	
31-Jan-05		Frozen		Frozen	
24-Feb-05		Frozen		Frozen	
22-Mar-05		Frozen		Frozen	
20-Apr-05		511.6		512.9	
25-May-05		510.7		512.6	
29-Jun-05		509.6		512.6	
13-Jul-05		508.9		512.6	
23-Aug-05		507.4		512.1	
26-Sep-05		506.8		511.3	
26-Oct-05		506.6		511.3	
16-Nov-05		506.9		511.9	
14-Dec-05		507.5		Frozen	
20-Jan-06		509.0		Frozen	
14-Feb-06		509.5		Frozen	
19-Mar-06		511.3		Frozen	
17-Apr-06		511.6		512.8	
19-May-06		510.1		512.6	
19-Jun-06		508.5		512.5	
10-Jul-06		N/A		512.5	

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TABLE C-7
GROUNDWATER ELEVATIONS
DUNTROON QUARRY - 2017 AMP SUMMARY REPORT

RESIDENTIAL WELLS

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DATE	RW13	RW16	RW17	RW18 (Dug)	RW19 (Drilled)
23-Aug-06		506.4		511.3	
18-Sep-06		506.2		511.2	
17-Oct-06		506.2		511.5	
22-Nov-06		509.1		512.6	
15-Dec-06		509.9		512.7	
22-Jan-07		Frozen		Frozen	
19-Feb-07		Frozen		Frozen	
18-Mar-07		Frozen		Frozen	
15-Apr-07		511.1		512.7	
17-May-07		509.6		512.5	
17-Jun-07		507.9		512.4	
15-Jul-07		506.8		N/A	
19-Aug-07		506.0		510.9	
10-Sep-07		N/A		N/A	
16-Sep-07		505.8		-	
14-Oct-07		505.6		-	
18-Nov-07		506.1		-	
9-Dec-08		Buried		-	
20-Jan-08		Buried		-	
17-Feb-08		Buried	511.2	-	
16-Mar-08		Buried	511.2	-	
6-Apr-08		Buried	511.6	512.9	
20-Apr-08	424.0	511.6	511.5	512.9	
18-May-08	423.2	510.2	511.1	512.8	
15-Jun-08	424.3	508.8	510.9	512.4	
13-Jul-08	423.9	507.5	510.7	512.3	
17-Aug-08	423.9	507.4	510.8	512.1	
31-Aug-08	N/A	N/A	N/A	511.7	
14-Sep-08	422.7	506.5	510.8	511.9	
19-Oct-08	424.5	507.8	510.8	512.5	518.8
23-Nov-08	Buried	Buried	Frozen	513.0	Frozen
14-Dec-08	Buried	Buried	510.2	Buried	Frozen
18-Jan-09	Frozen	Buried	Frozen	Buried	Buried
8-Feb-09	Frozen	509.4	511.1	Buried	Buried
15-Mar-09	424.1	510.7	511.3	513.4	Buried
12-Apr-09	424.9	510.8	511.3	512.7	515.1
17-May-09	424.5	510.0	511.1	512.8	514.6
14-Jun-09	423.0	508.6	510.9	512.4	N/A

NOTE:
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- Dry indicates that water level is not measurable in the well.

TABLE C-7
GROUNDWATER ELEVATIONS
DUNTROON QUARRY - 2017 AMP SUMMARY REPORT

RESIDENTIAL WELLS

111-53312-01 A61

DATE	RW13	RW16	RW17	RW18 (Dug)	RW19 (Drilled)
12-Jul-09	423.9	507.3	510.7	512.2	511.2
9-Aug-09	423.6	506.5	510.5	512.4	510.4
13-Sep-09	422.4	506.0	509.8	512.8	507.5
11-Oct-09	423.0	506.5	510.4	513.1	508.9
15-Nov-09	422.6	507.1	510.5	513.1	508.4
29-Nov-09	N/A	507.1	N/A	N/A	N/A
13-Dec-09	Frozen	507.7	Frozen	513.0	509.6
12-Jan-10	N/A	507.5	N/A	N/A	N/A
17-Jan-10	N/A	508.3	510.8	Frozen	509.3
07-Feb-10	N/A	N/A	510.8	Frozen	508.8
14-Mar-10	424.5	509.6	511.6	512.9	509.0
18-Apr-10	423.1	510.4	511.2	513.0	509.7
16-May-10	424.0	509.6	511.1	512.6	N/A
8-Jun-10	N/A	508.9	N/A	N/A	N/A
13-Jun-10	423.7	508.9	511.2	512.2	512.2
21-Jul-10	N/A	508.4	511.1	512.3	511.7
16-Aug-10	423.0	507.5	510.8	512.2	509.0
12-Sep-10	422.8	506.6	510.6	512.4	509.1
26-Sep-10	N/A	506.5	N/A	N/A	N/A
17-Oct-10	424.6	507.0	510.8	512.8	508.8
14-Nov-10	423.8	508.5	511.1	512.8	508.6
19-Dec-10	Buried	N/A	Frozen	512.4	508.8
16-Jan-11	Buried	N/A	Frozen	Frozen	509.5
20-Feb-11	Buried	508.9	511.2	Frozen	508.3
13-Mar-11	Buried	509.2	511.2	Frozen	509.2
17-Apr-11	423.4	511.2	511.4	Frozen	509.9
15-May-11	424.3	510.6	511.5	512.9	509.2
13-Jun-11	423.3	509.7	511.1	512.5	507.9
3-Jul-11		508.22	-	-	-
17-Jul-11	423.4	507.58	510.6	511.84	507.8
14-Aug-11	423.0	506.6	510.3	511.9	508.2
18-Sep-11	N/A	505.8	509.7	511.8	509.0
17-Oct-11	N/A	506.2	510.3	511.8	508.2
20-Nov-11	N/A	507.3	510.7	512.0	508.6
18-Dec-11	N/A	509.2	511.2	512.4	508.9

NOTE:
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TABLE C-7
GROUNDWATER ELEVATIONS
DUNTROON QUARRY - 2017 AMP SUMMARY REPORT
RESIDENTIAL WELLS
111-53312-01 A61

DATE	RW13	RW16	RW17	RW18 (Dug)	RW19 (Drilled)
15-Jan-12	N/A	508.9	511.1	N/A	N/A
19-Feb-12	N/A	508.6	510.8	512.6	509.2
26-Feb-12		508.2			
18-Mar-12	425.1	511.2	511.5	512.9	510.7
15-Apr-12	424.4	509.7	511.1	512.4	507.8
13-May-12	424.6	508.6	511.0	512.3	508.9
17-Jun-12	423.0	507.4	510.8	512.2	508.5
1-Jul-12		506.6			
15-Jul-12	423.6	506.4	510.3	511.9	508.3
12-Aug-12	424.1	507.1	510.9	512.3	509.0
16-Sep-12	423.5	506.5	510.4	510.9	507.8
7-Oct-12		506.3			
14-Oct-12	423.8	506.8	510.6	511.0	509.2
18-Nov-12	424.5	509.6	511.2	512.8	510.0
16-Dec-12	424.4	509.1	511.2	513.1	509.0
13-Jan-13	424.8	509.7	511.5	513.2	510.1
17-Feb-13	Frozen	509.3	511.2	Frozen	508.2
17-Mar-13	Frozen	509.5	511.2	Frozen	508.7
31-Mar-13		509.1			
14-Apr-13	424.8	510.5	511.4	512.9	509.3
12-May-13	423.6	510.0	511.2	512.7	508.6
2-Jun-13		509.3			
16-Jun-13	423.7	508.9	511.0	512.5	508.8
14-Jul-13	424.0	508.1	510.9	512.0	508.9
18-Aug-13	424.0	507.2	510.7	512.0	508.6
15-Sep-13	422.8	506.5	510.6	512.2	509.6
13-Oct-13	423.7	508.2	511.2	512.4	509.6
17-Nov-13	423.9	509.2	511.3	512.5	508.8
16-Dec-13	Frozen	509.12	511.2	Frozen	508.8
19-Jan-14	Frozen	508.47	511.1	Frozen	509.5
16-Feb-14	Frozen	507.7	510.9	Frozen	509.6
17-Mar-14	Frozen	507.4	510.9	Frozen	509.4
13-Apr-14	Frozen	511.9	512.2	Frozen	512.2
11-May-14	424.1	510.5	511.3	512.6	509.4
15-Jun-14	422.9	508.2	510.9	511.9	509.3

NOTE:
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- N/A indicates well unaccessible.

TABLE C-7
GROUNDWATER ELEVATIONS
DUNTROON QUARRY - 2017 AMP SUMMARY REPORT
RESIDENTIAL WELLS
111-53312-01 A61

DATE	RW13	RW16	RW17	RW18 (Dug)	RW19 (Drilled)
13-Jul-14	423.8	507.2	510.8	512.0	509.3
17-Aug-14	423.1	506.6	510.6	511.9	509.2
7-Sep-14	423.2	506.3	510.5	512.0	509.2
12-Sep-14		506.8			
19-Sep-14					
19-Oct-14	423.3	507.5	510.8	512.9	509.2
2-Nov-14		508.2			507.7
16-Nov-14		508.9	511.2	512.9	509.2
14-Dec-14		509.2	511.1	512.8	509.2
18-Jan-15					
15-Feb-15					
15-Mar-15					507.9
19-Apr-15	424.0	510.6	511.4	512.9	513.1
17-May-15	423.7	509.0	511.0	512.6	509.8
14-Jun-15	423.7	507.9	511.0	512.3	508.5
19-Jul-15	N/A	507.9	510.9	512.1	508.0
9-Aug-15	N/A	507.0	510.8	511.6	507.2
6-Sep-15	N/A	506.2	510.5	511.0	506.5
11-Oct-15	423.0	505.6	509.9	Dry	506.0
15-Nov-15	422.8	506.3	510.6	510.8	506.4
6-Dec-15	423.3	507.3	510.8	511.0	506.4
17-Jan-16	424.7	Frozen	511.0	Frozen	507.6
14-Feb-16	Frozen	508.7	511.1	Frozen	508.9
13-Mar-16	425.1	512.5	511.7	513.0	514.9
17-Apr-16	424.8	510.7	511.3	512.9	514.4
15-May-16	423.7	509.4	511.1	512.6	511.0
19-Jun-16	422.8	507.6	510.7	512.2	508.9
17-Jul-16	422.6	506.3	510.3	511.2	507.2
24-Jul-16		506.1			
21-Aug-16	422.9	505.6	509.7	Dry	506.0
18-Sep-16	422.9	505.3	509.4	Dry	505.6
29-Sep-16		505.2			
16-Oct-16	422.9	505.1	509.2	Dry	505.3
13-Nov-16	422.9	505.1	509.3	Dry	505.2
27-Nov-16		505.1			
11-Dec-16	Frozen	506.0	509.8	Frozen	505.2

NOTE:
- Frozen / Buried indicates well lid frozen or buried in snow.
- N/A indicates well unaccessible.

TABLE C-7
GROUNDWATER ELEVATIONS
DUNTROON QUARRY - 2017 AMP SUMMARY REPORT

RESIDENTIAL WELLS

111-53312-01 A61

DATE	RW13	RW16	RW17	RW18 (Dug)	RW19 (Drilled)
15-Jan-17	Frozen	508.1	510.9	Frozen	507.8
12-Feb-17	Frozen	508.3	510.9	Frozen	507.5
19-Mar-17	Frozen	509.9	511.2	Frozen	510.7
9-Apr-17		510.4			
16-Apr-17	425.0	510.3	511.3	512.7	512.0
11-May-17	424.2	510.6	511.3	512.7	512.8
21-May-17		510.1			
25-Jun-17	424.1	509.2	511.4	512.6	510.9
19-Jul-17	423.3	508.4	511.0	512.5	509.7
3-Aug-17		507.7			
17-Aug-17	422.8	507.2	510.8	511.7	507.9
29-Aug-17		506.8			
17-Sep-17	422.7	506.5	510.6	511.0	506.8
26-Sep-17		506.5			
15-Oct-17	422.8	507.2	510.8	511.3	506.7
14-Nov-17	423.5	507.8	511.0	511.5	507.0
11-Dec-17	Frozen	512.5	Frozen Lid	Frozen Lid	510.3

NOTE:
- Frozen / Buried indicates well lid frozen or buried in snow.
- N/A indicates well unaccessible.

FIGURE C-48

GROUNDWATER HYDROGRAPH
RW1

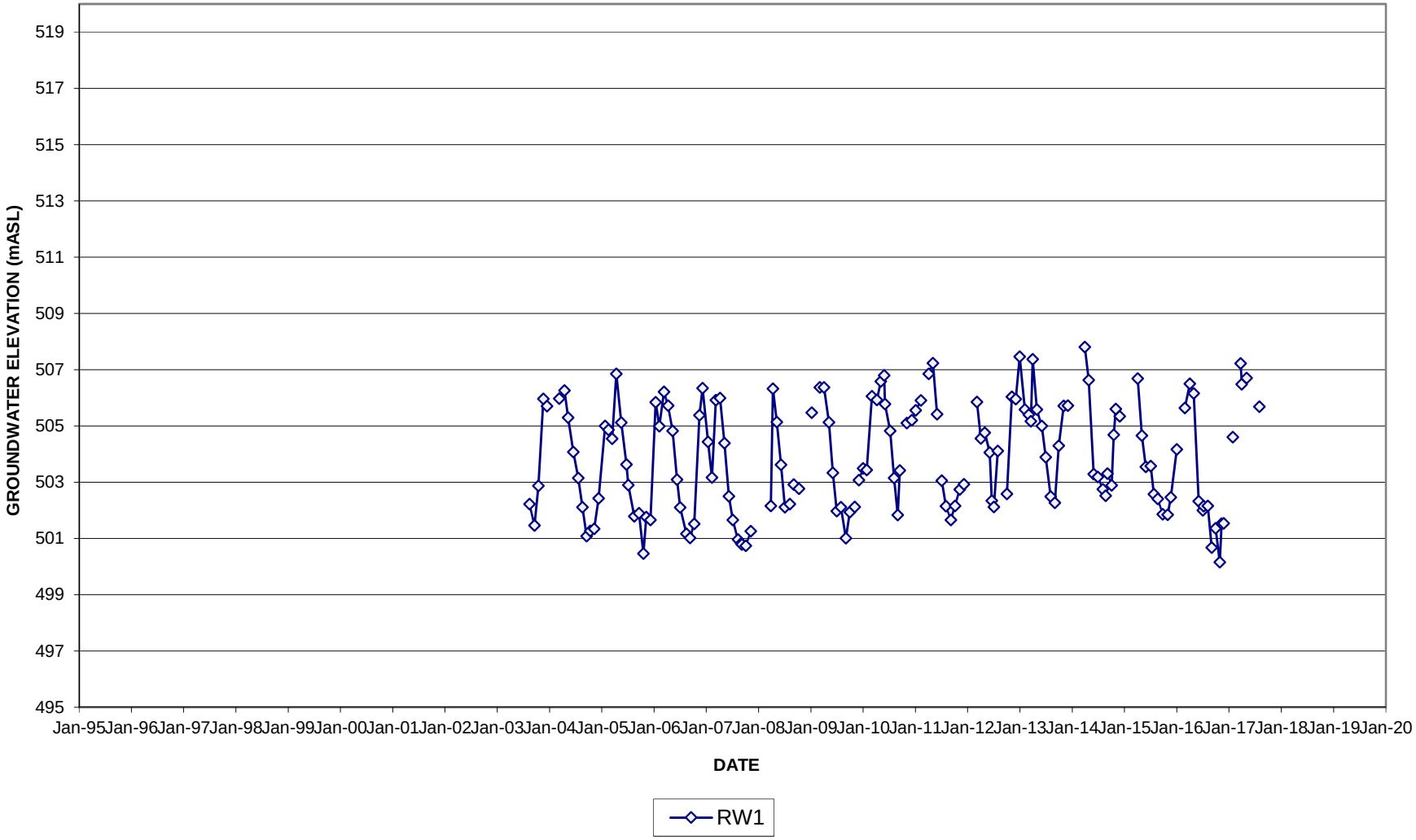


FIGURE C-49

GROUNDWATER HYDROGRAPH
RW2

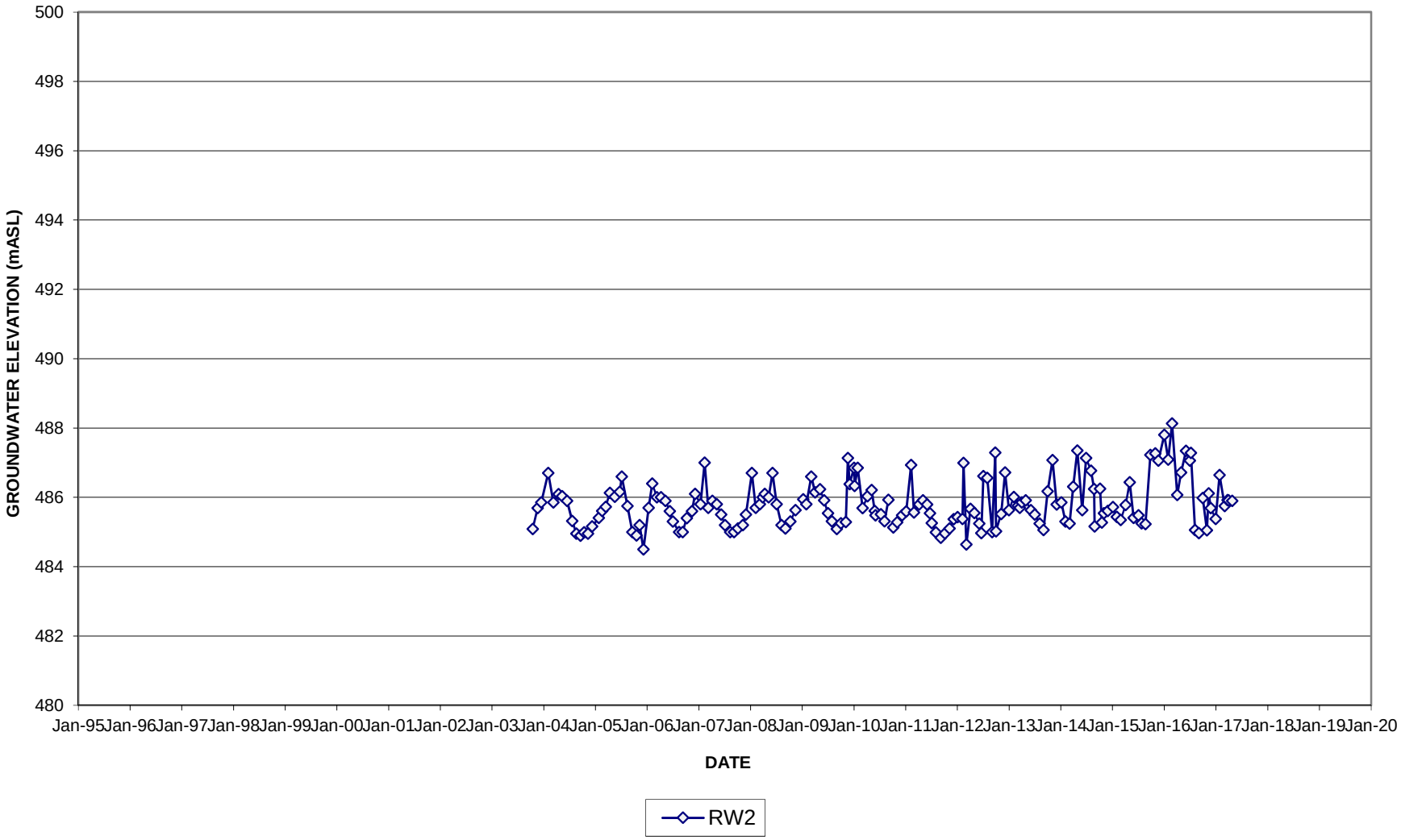


FIGURE C-50

GROUNDWATER HYDROGRAPH
RW3

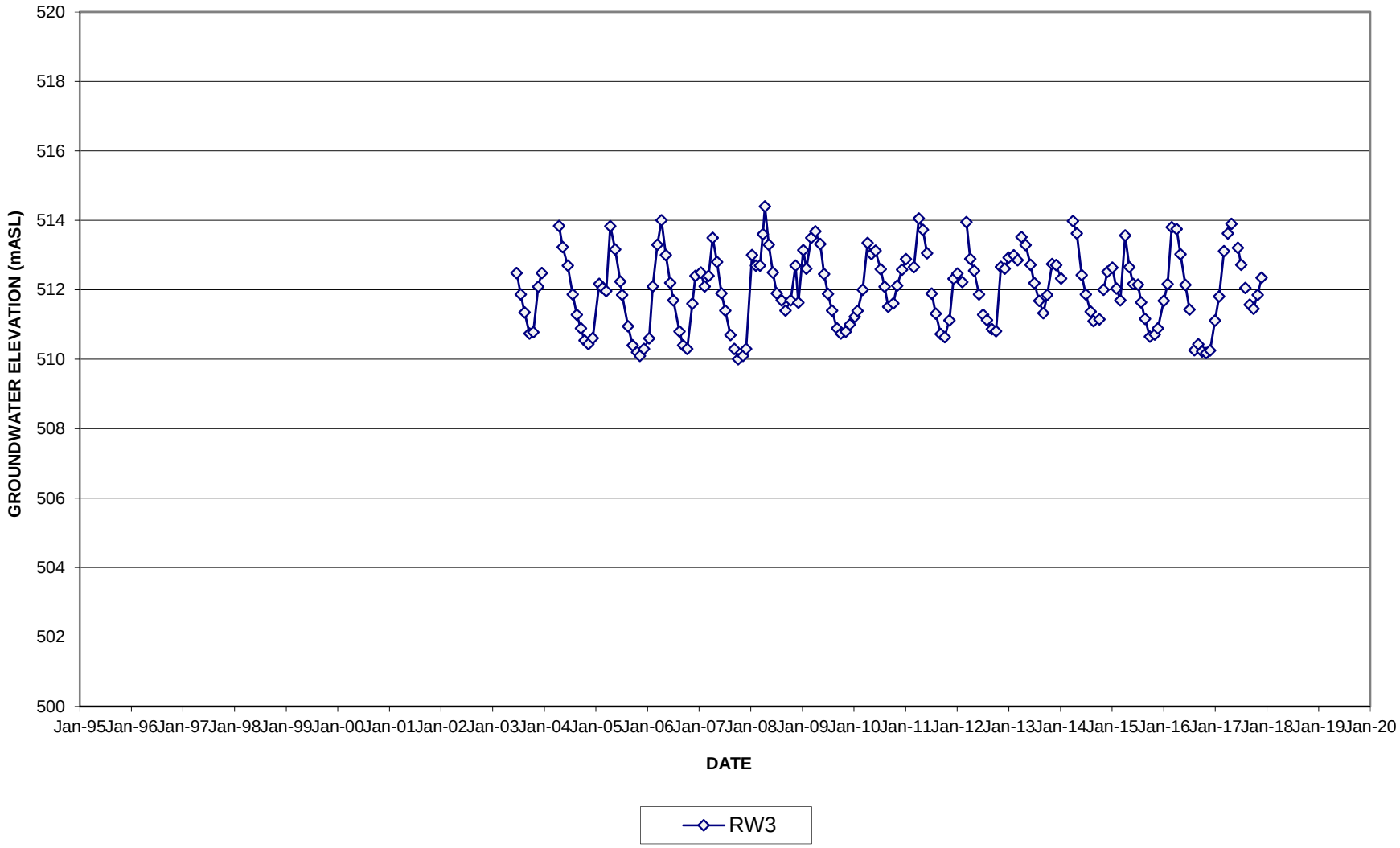


FIGURE C-51

GROUNDWATER HYDROGRAPH
RW4

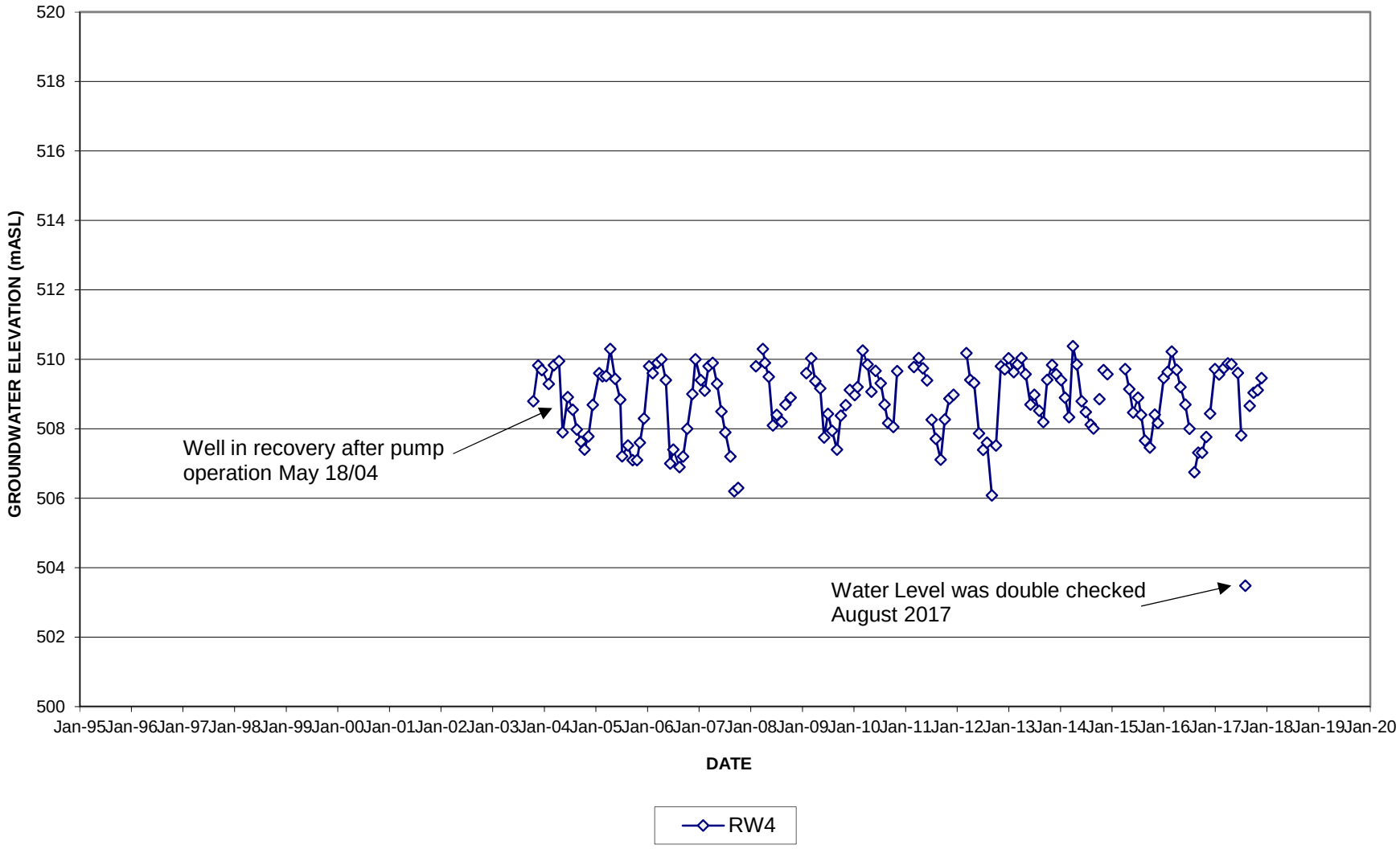


FIGURE C-52

GROUNDWATER HYDROGRAPH
RW5

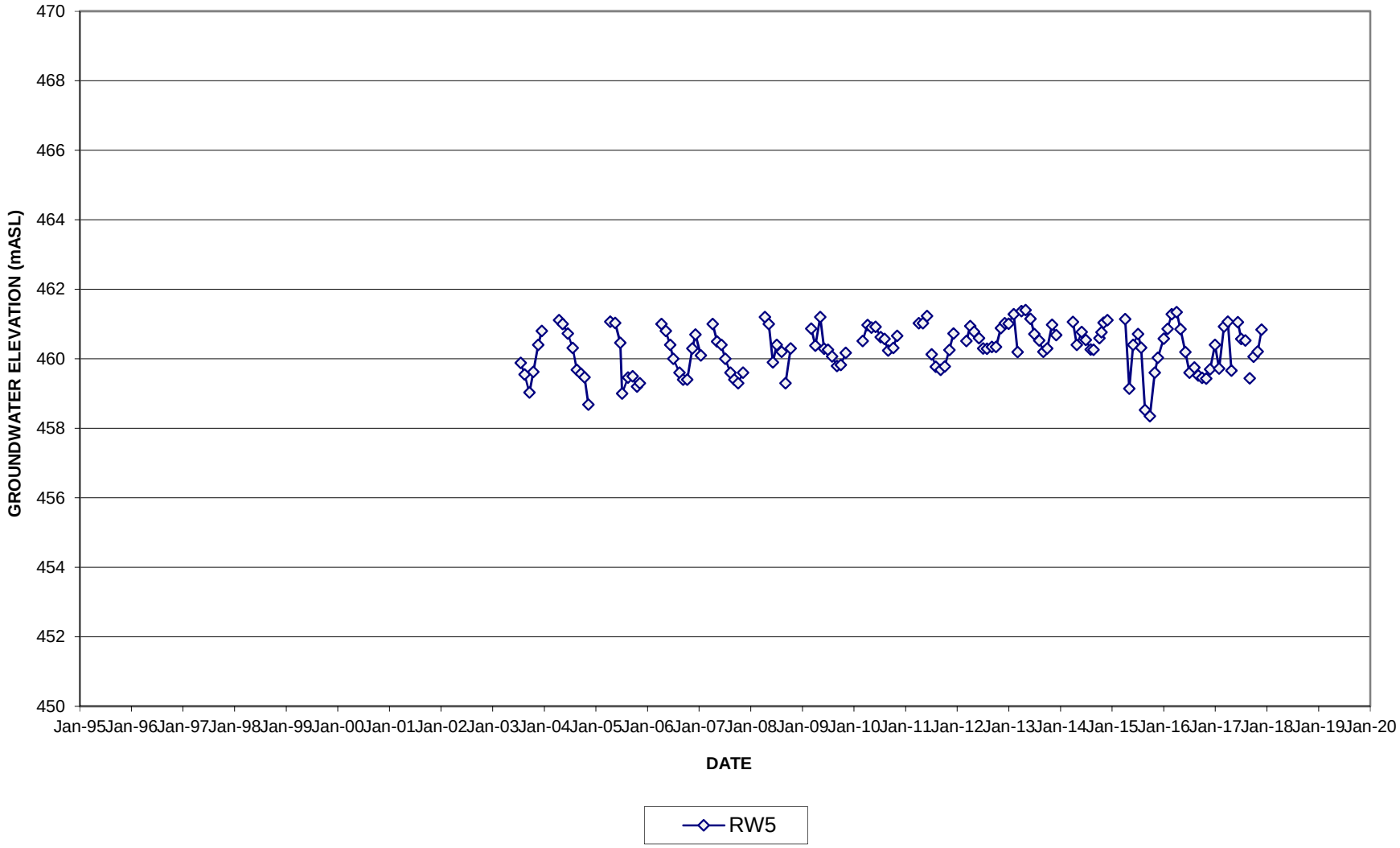


FIGURE C-53

GROUNDWATER HYDROGRAPH
RW6

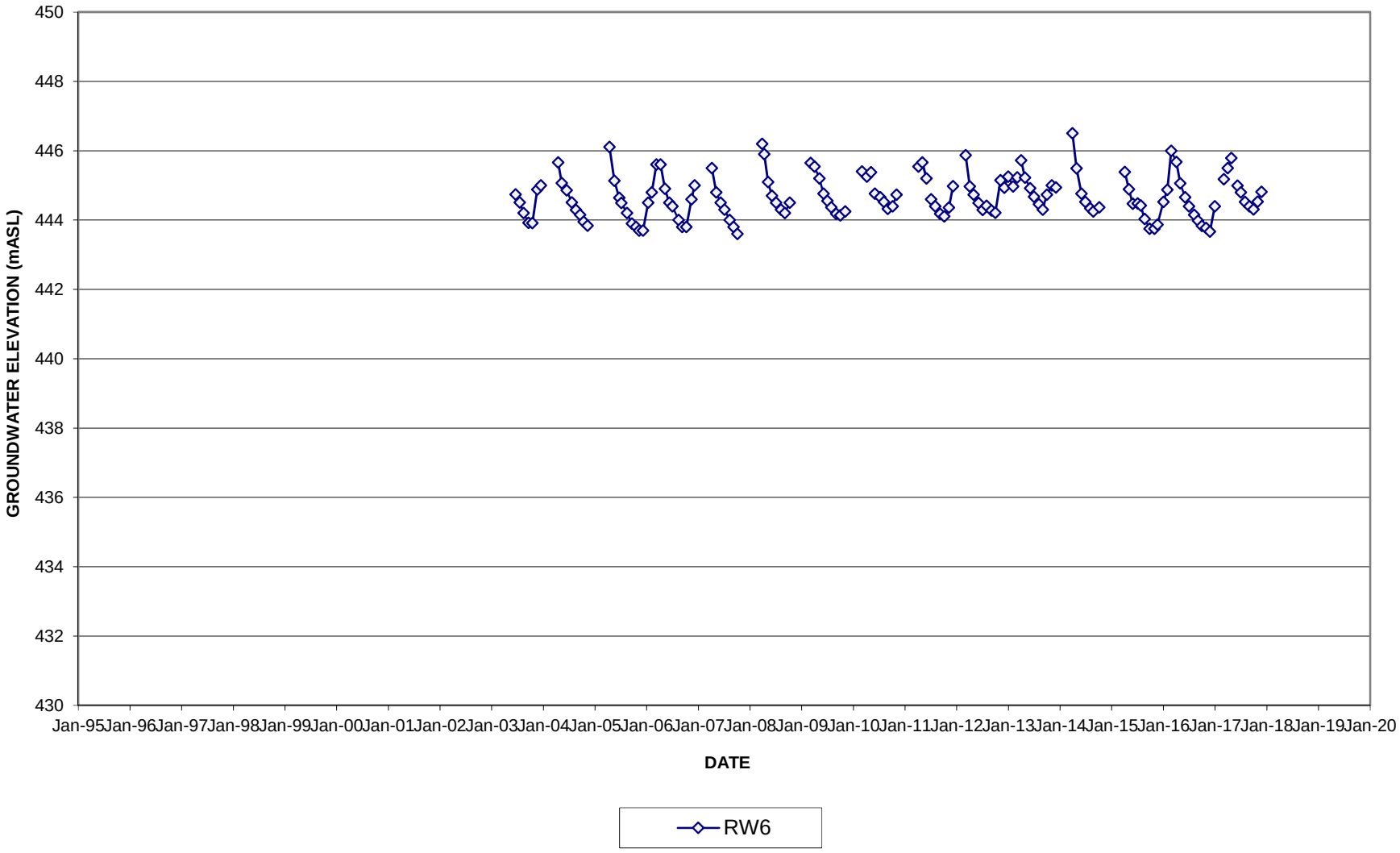


FIGURE C-54

GROUNDWATER HYDROGRAPH
RW7

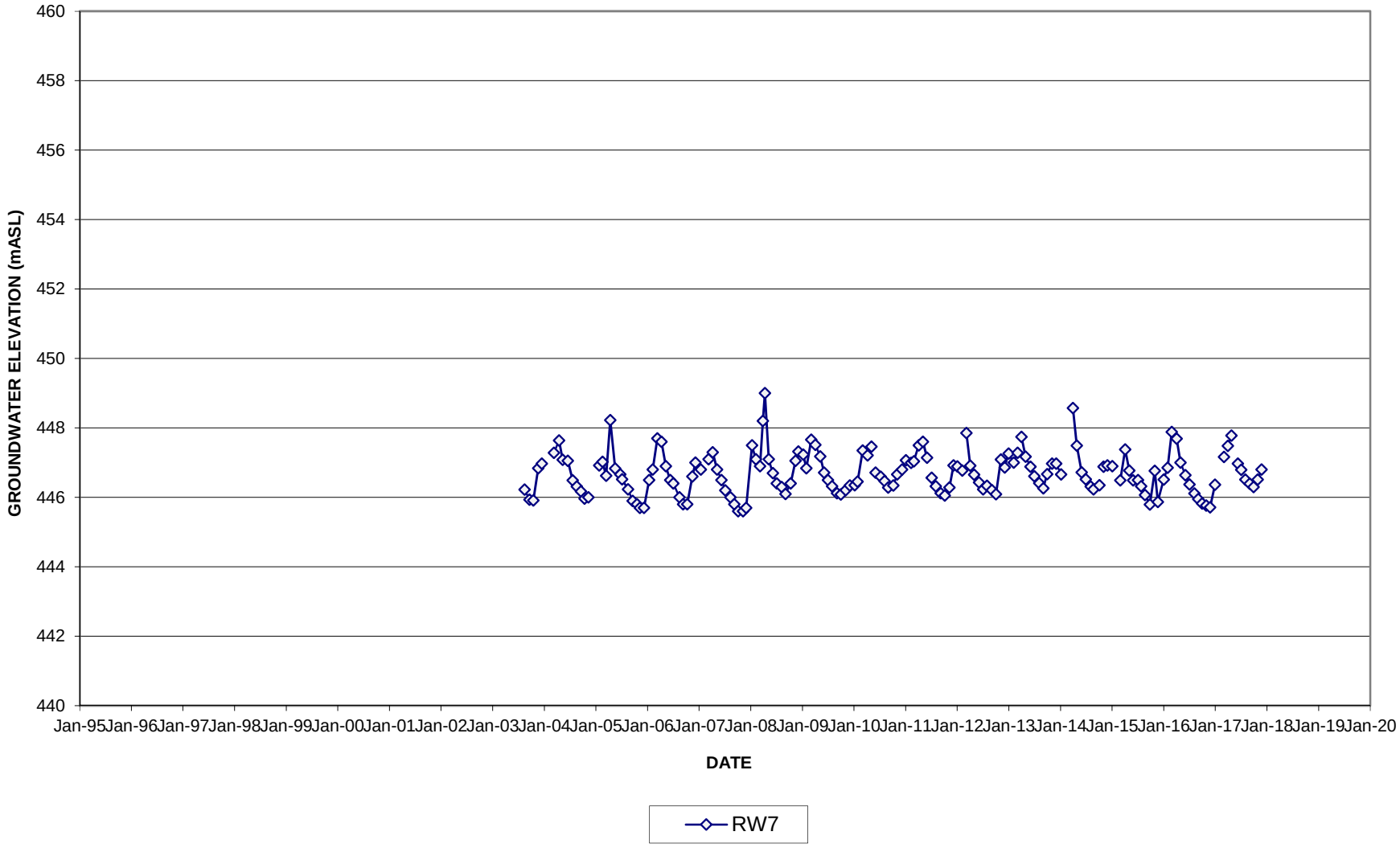


FIGURE C-55

GROUNDWATER HYDROGRAPH
RW8

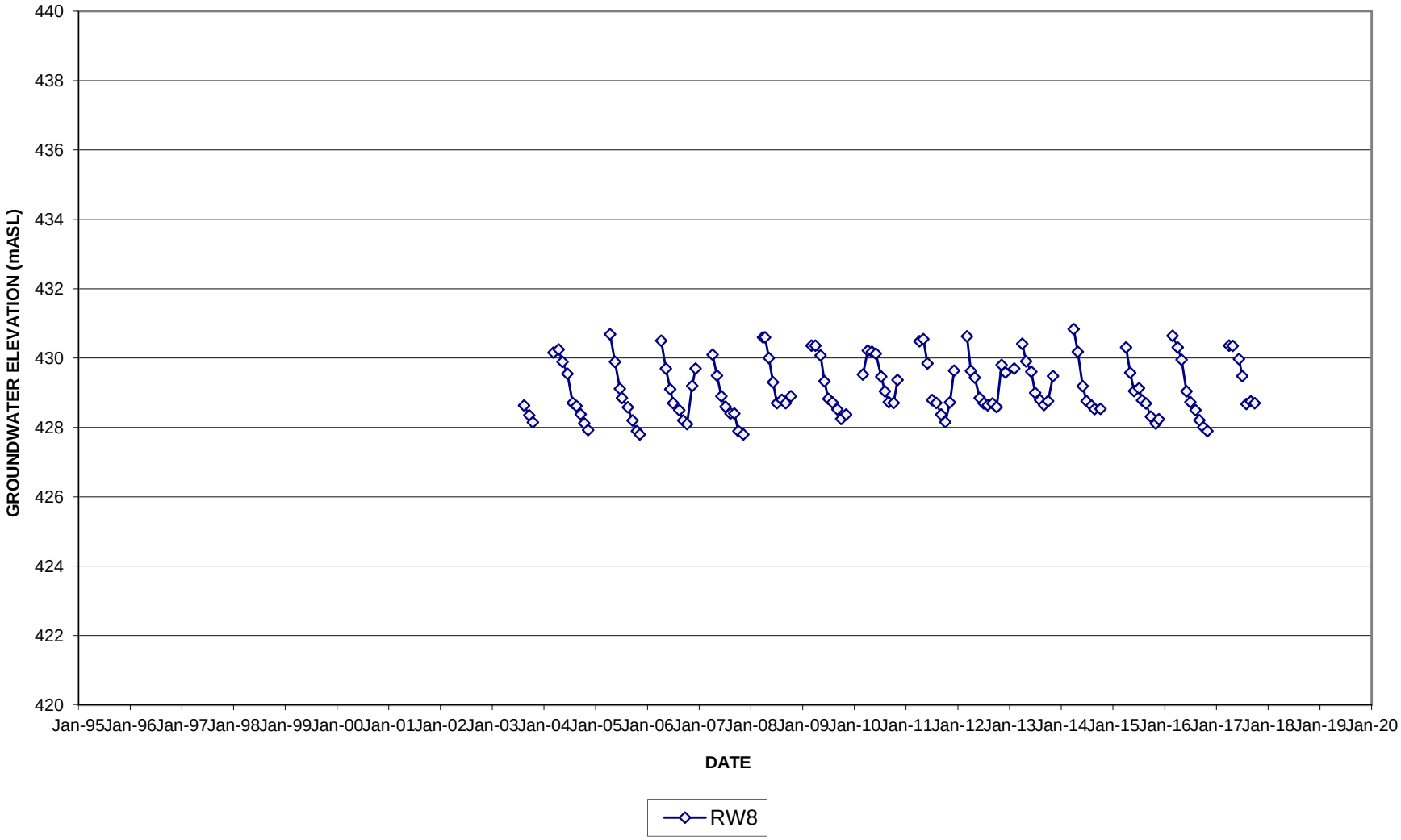


FIGURE C-56

GROUNDWATER HYDROGRAPH
RW9

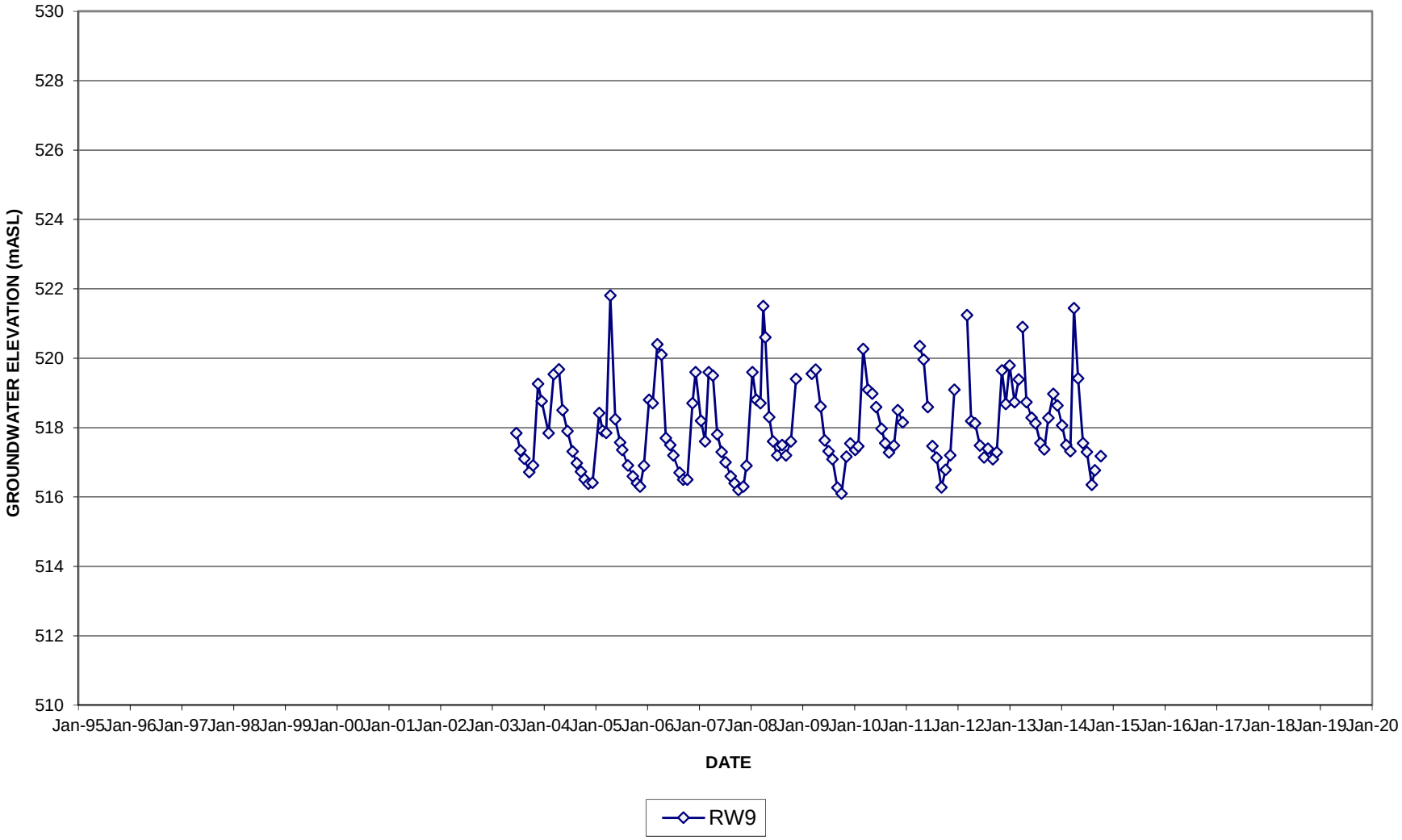


FIGURE C-57

GROUNDWATER HYDROGRAPH
RW12 (NORTH WELL)

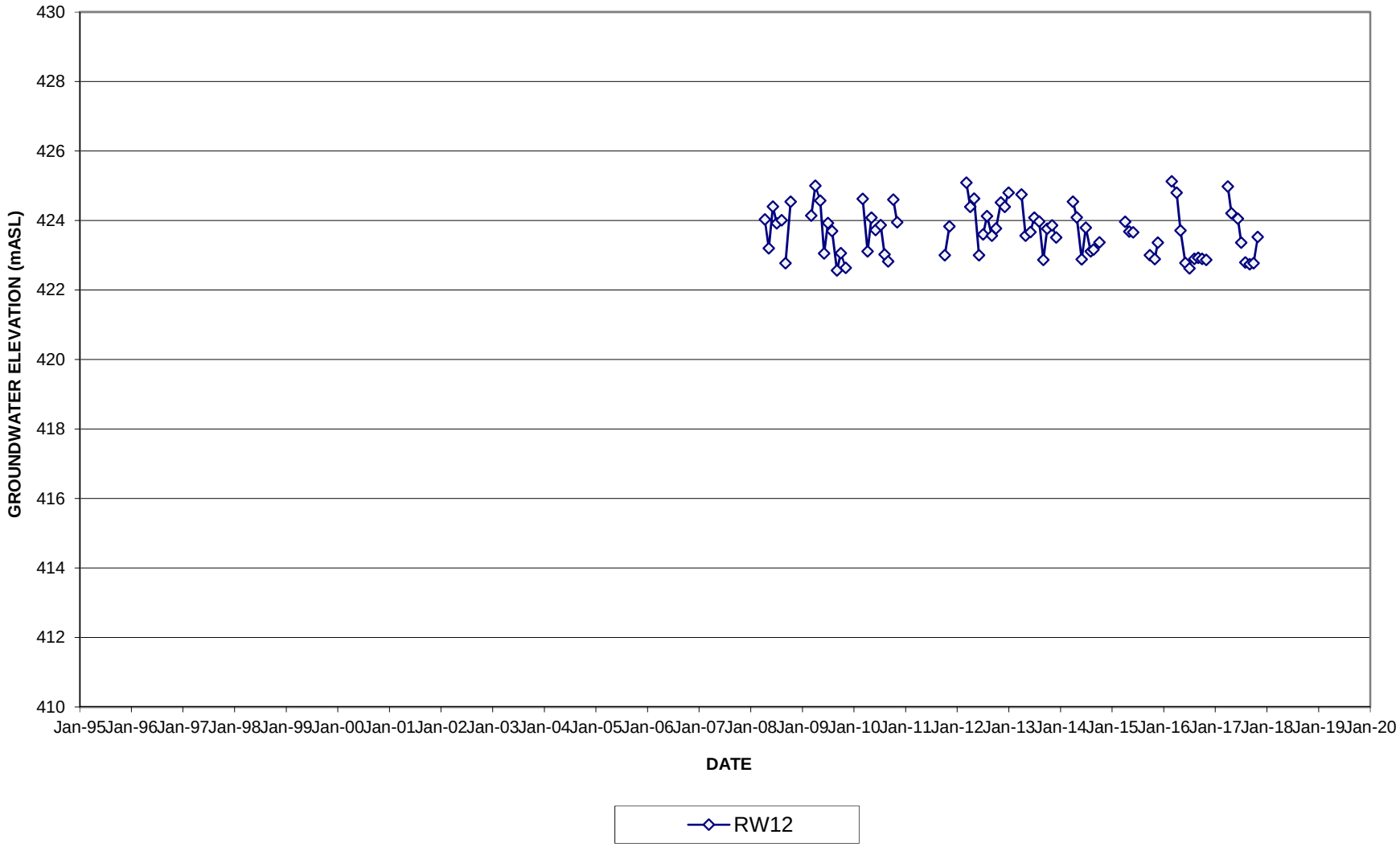


FIGURE C-58

GROUNDWATER HYDROGRAPH
RW13 (SOUTH WELL)

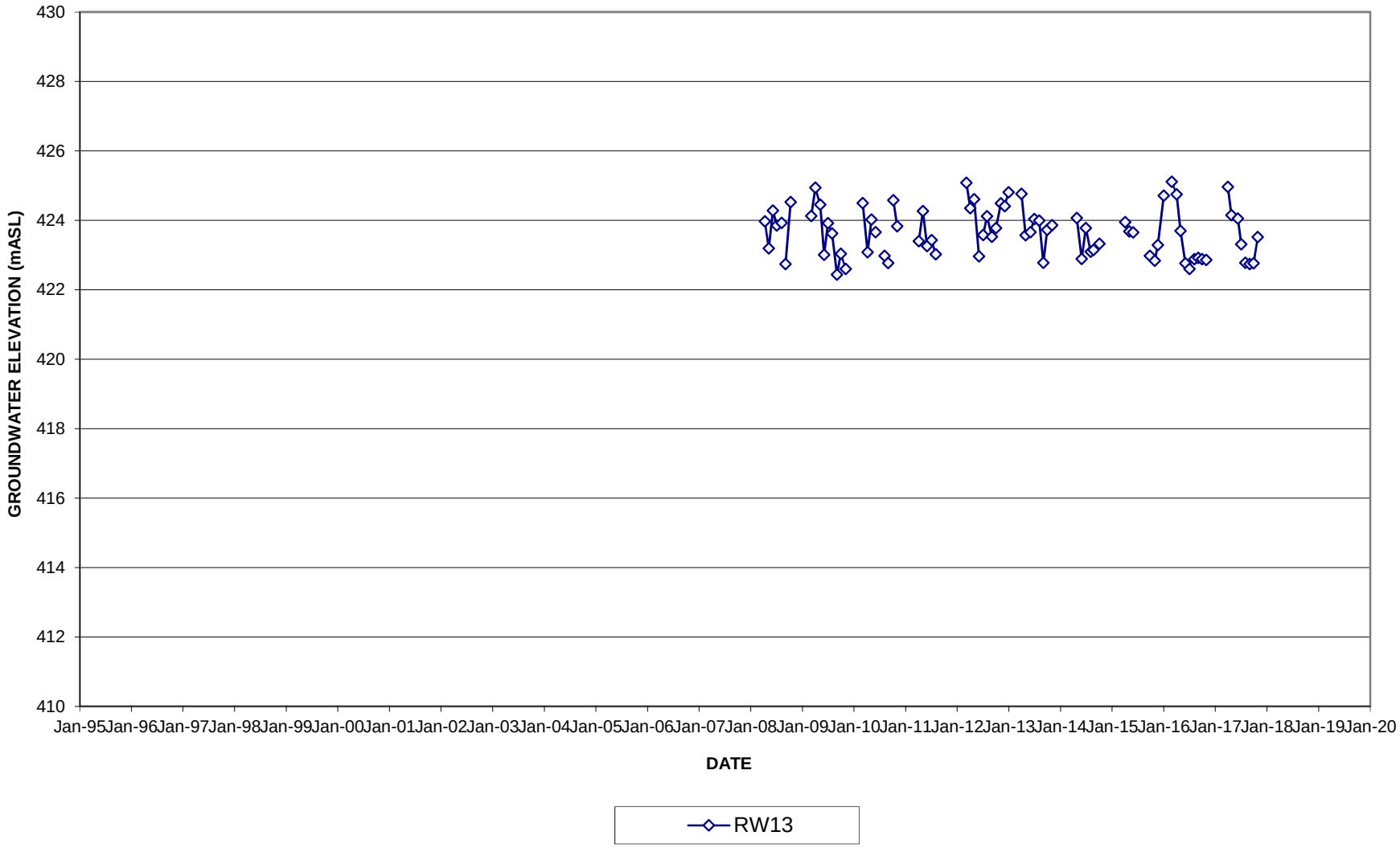


FIGURE C-59

GROUNDWATER HYDROGRAPH
RW16

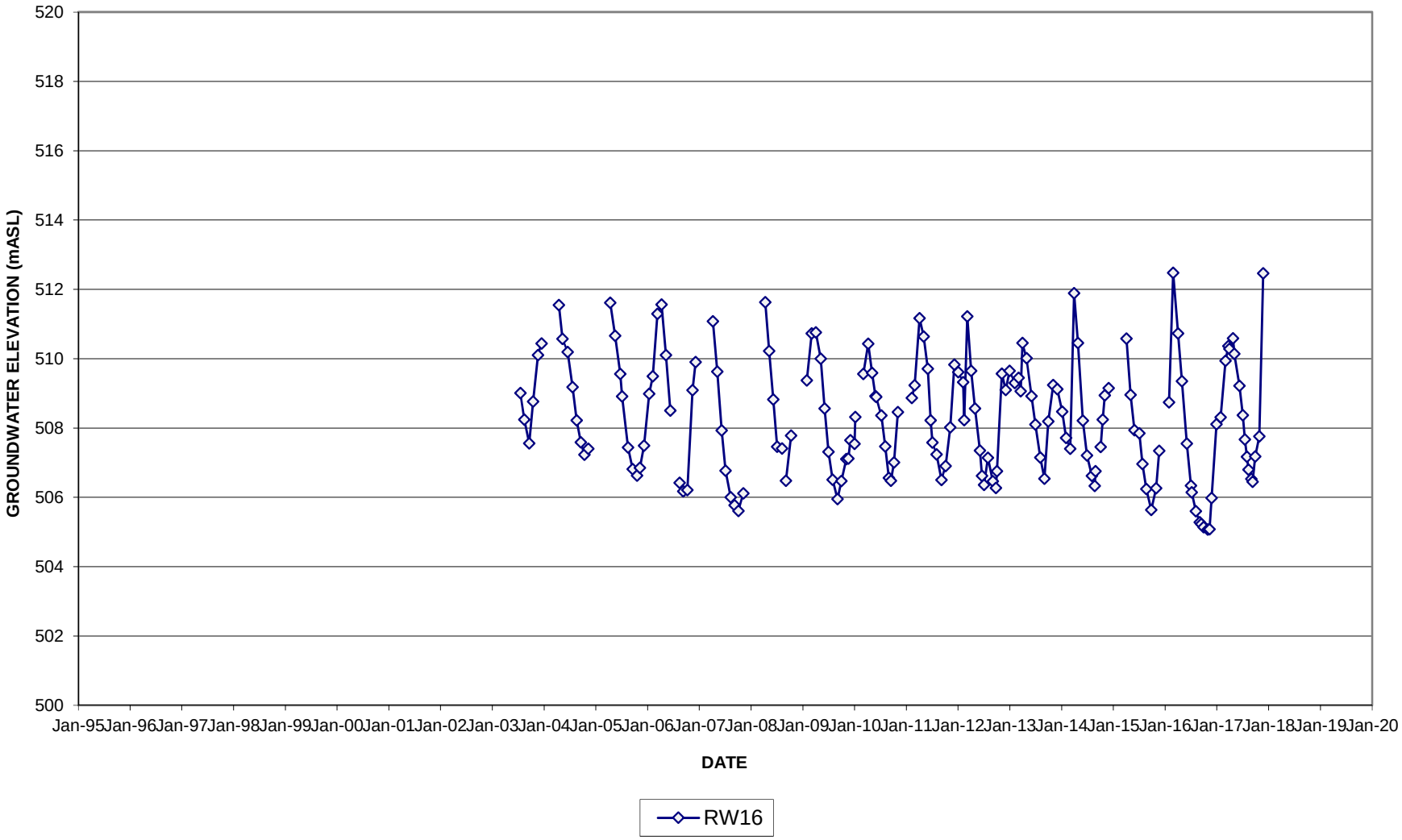


FIGURE C-60

GROUNDWATER HYDROGRAPH
RW17

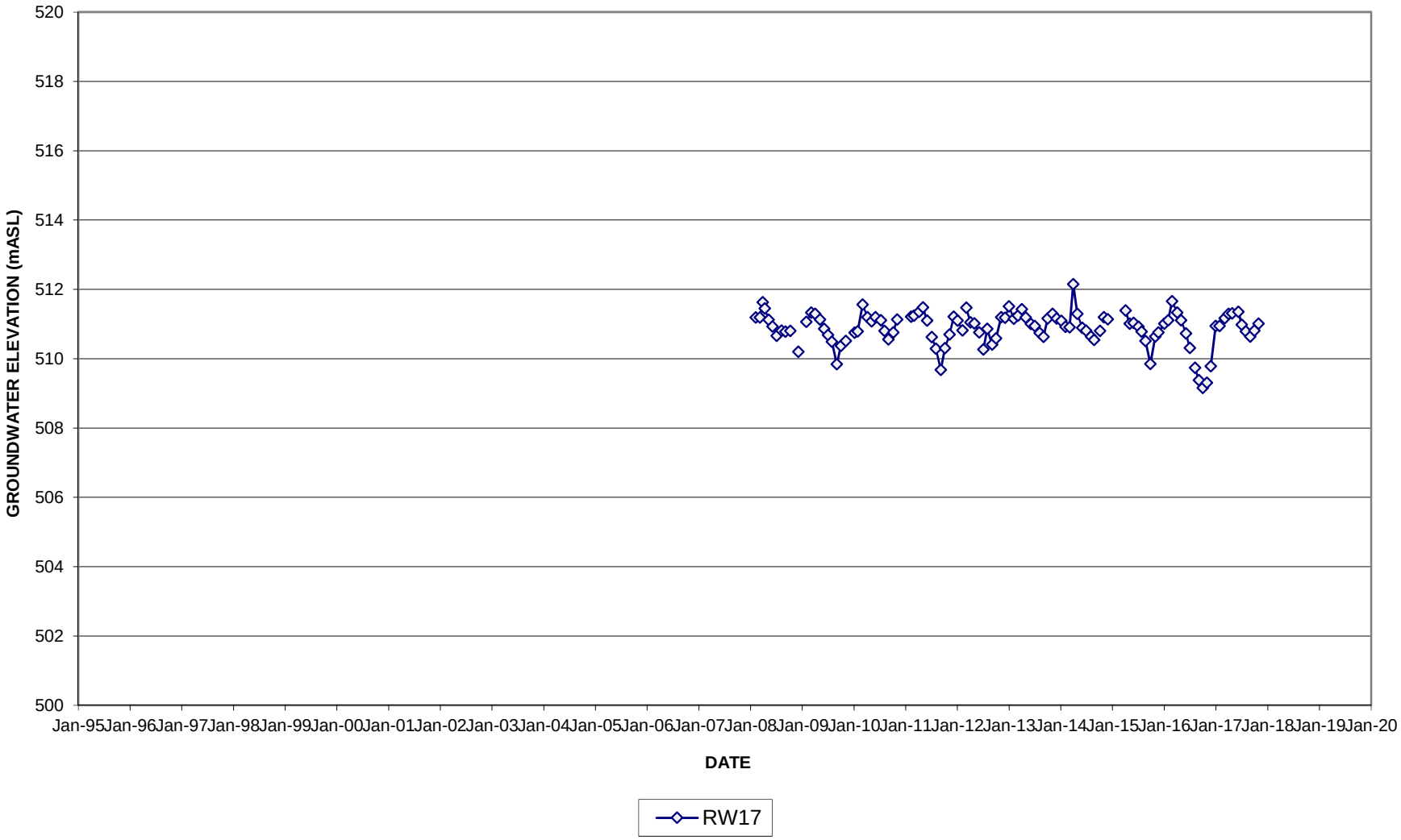


FIGURE C-61

GROUNDWATER HYDROGRAPH
RW18 (Dug)

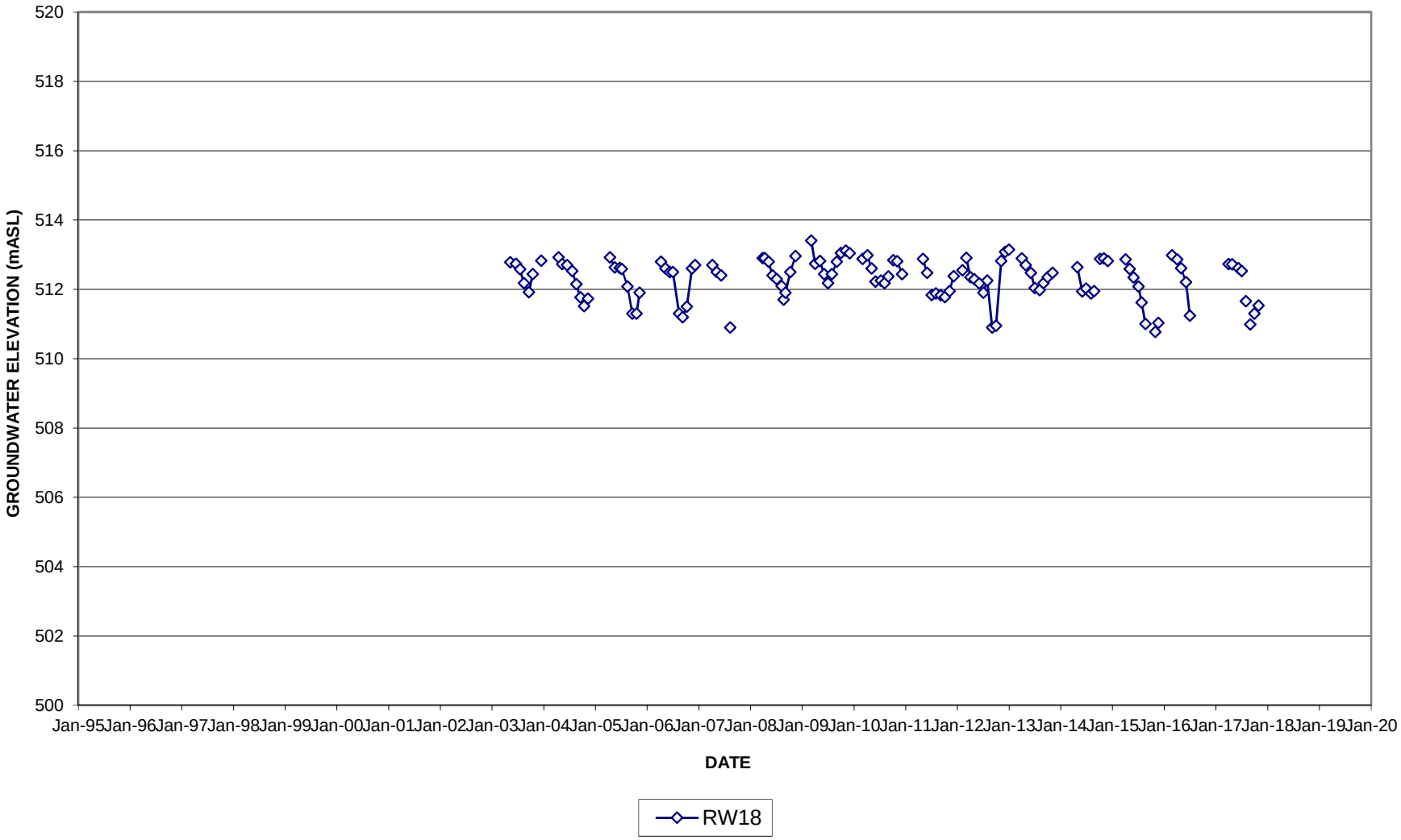


FIGURE C-62

GROUNDWATER HYDROGRAPH
RW19 (Drilled)

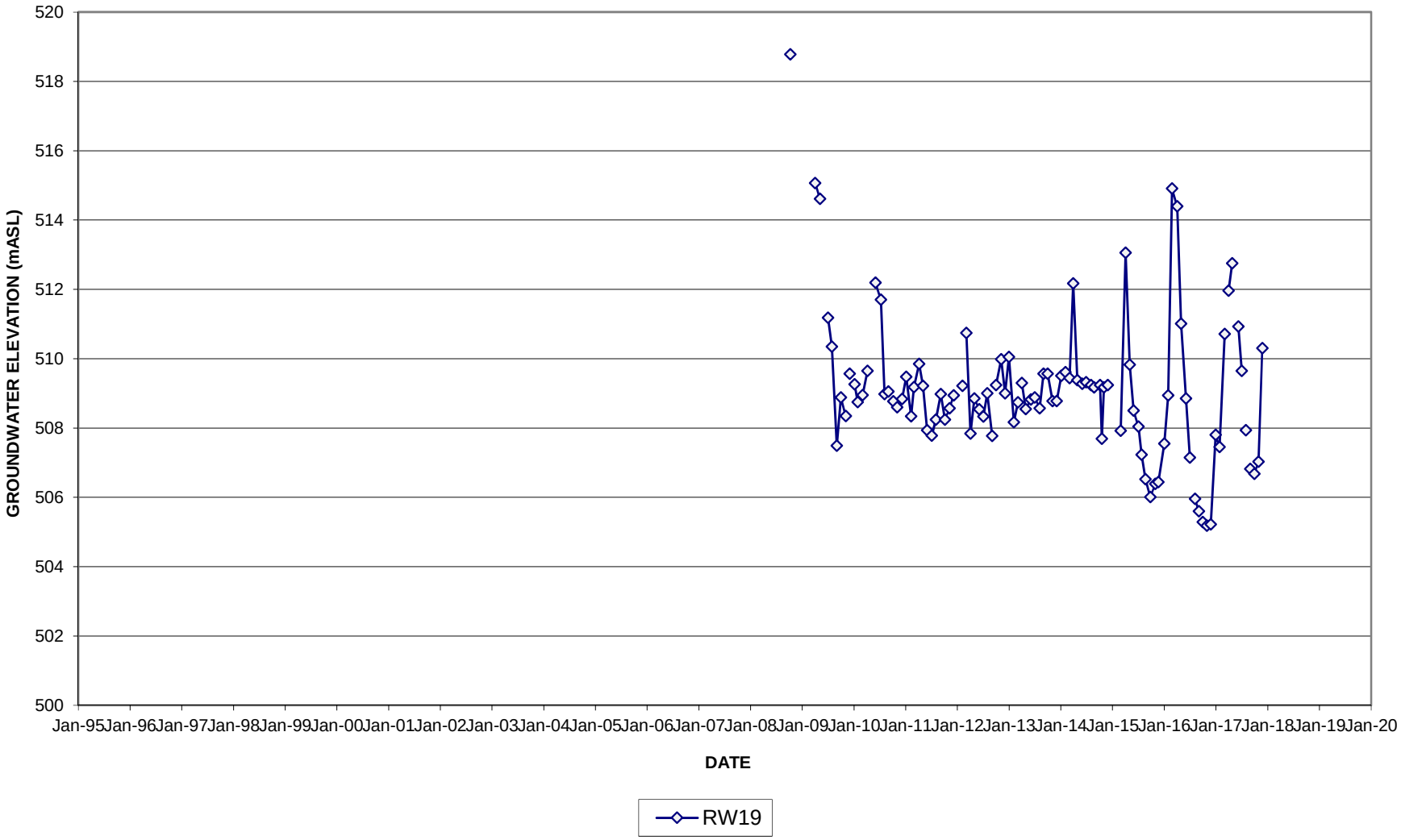


TABLE C-8
GROUNDWATER / SURFACE WATER ELEVATIONS
DUNTROON QUARRY - 2017 AMP SUMMARY REPORT

DRIVEPOINTS

111-53312-01 A61

DATE	DP1 (in)	DP1 (out)	DP2 (in)	DP2 (out)	DP3 (in)	DP3 (out)
26-Jul-99	511.7		511.8		514.0	
17-Aug-99						
27-Sep-99	511.2		511.4		512.5	
25-Oct-99	511.9		512.1		512.7	
21-Nov-99	512.0		512.1		512.7	
21-Dec-99	512.0		512.1		512.8	
25-Jan-00	512.0		512.0		512.8	
29-Feb-00	512.1		512.1		513.5	
31-Mar-00	512.0		512.1		513.5	
02-Jun-00	512.0		512.2		513.4	
07-Jul-00	512.0		512.2		513.1	
27-Aug-00	511.8		512.1		512.8	
28-Sep-00	511.5		512.0		512.7	
03-Nov-00	511.3		512.1		512.8	
22-Feb-01	Frozen		Frozen		Frozen	
22-Mar-01	Frozen		Frozen		Frozen	
26-Apr-01	Frozen		512.1			
31-May-01	511.3		511.8		513.6	
28-Jun-01	511.3		511.3		513.5	
01-Aug-01	511.4		Dry		513.0	
04-Oct-01	510.9		510.9		513.3	
01-Nov-01	511.2		511.2		513.5	
14-Dec-01	511.1		510.9		513.4	
10-Jan-02	510.9		510.8		513.4	
14-Mar-02	511.3		512.0		513.6	
16-May-02	511.3		512.2		513.6	
20-Jun-02	511.1		512.1		513.5	
11-Jul-02	511.5		512.1		513.1	
13-Sep-02	511.0		Dry		512.5	
01-Nov-02	511.4		512.1		512.5	
16-Jan-03	Frozen		Frozen		Frozen	
28-Mar-03	512.1		512.0		Frozen	
15-May-03	510.9		512.1		513.2	
23-Jun-03	511.7		Dry		513.2	
22-Jul-03	511.7		Dry		513.1	
20-Aug-03	511.1		Dry		513.0	
25-Sep-03	Dry		Dry		512.8	
22-Oct-03	511.0		510.8		513.2	
25-Nov-03	512.1		511.0		513.4	
22-Dec-03	511.0		512.1		513.4	
09-Feb-04	510.9		Frozen		513.3	
16-Mar-04	510.9		Frozen		513.5	
20-Apr-04	511.9		511.8		513.6	
18-May-04	512.0		Dry		513.4	
22-Jun-04	510.9		Dry		513.2	

NOTE:
- Frozen / snow indicates monitor frozen and/or snow covered.
- Dry indicates no water detected in monitor.
- N/A indicates water level not available.

TABLE C-8
GROUNDWATER / SURFACE WATER ELEVATIONS
DUNTROON QUARRY - 2017 AMP SUMMARY REPORT

DRIVEPOINTS

111-53312-01 A61

DATE	DP1 (in)	DP1 (out)	DP2 (in)	DP2 (out)	DP3 (in)	DP3 (out)
28-Jul-04	510.9		Dry		513.2	
25-Aug-04	510.9		Dry		512.3	
22-Sep-04	510.9		Dry		512.7	
19-Oct-04	510.9	Dry	Dry	Dry	513.6	Dry
16-Nov-04	Dry	Dry	Dry	Dry	513.0	Dry
16-Dec-04	Dry		Dry		513.3	
31-Jan-05	Frozen	Frozen	Frozen	Frozen/Snow	513.3	Frozen/Snow
24-Feb-05	Frozen	Frozen	Frozen	Frozen/Snow	513.4	Frozen/Snow
22-Mar-05	Frozen	Frozen	Frozen	Frozen/Snow	513.3	Frozen/Snow
20-Apr-05	511.2	Snow	512.2	512.2	513.5	Snow Cover
25-May-05	512.1	512.2	512.2	512.2	513.2	Moist Ground
29-Jun-05	512.3	Dry	512.0	512.0	513.1	Dry
13-Jul-05	512.0	512.1	512.2	Dry	512.9	Dry
23-Aug-05	510.9	Dry	511.3	Dry	512.6	Dry
26-Sep-05	511.6	Dry	511.1	Dry	512.4	Dry
26-Oct-05	511.0		511.7		512.4	
16-Nov-05	512.0	512.0	511.9	Dry	512.8	Dry
14-Dec-05	510.9	Frozen	511.9	Frozen	512.6	Frozen
20-Jan-06	Frozen	Frozen	Frozen	Frozen	513.3	Frozen
14-Feb-06	Frozen	Frozen	510.8	Frozen	513.3	Frozen
19-Mar-06	512.1	512.1	512.0	Frozen	513.5	Frozen
17-Apr-06	512.0	512.0	512.0	512.0	513.5	513.6
19-May-06	511.0	Moist Ground	511.2	Moist Ground	513.4	Moist Ground
19-Jun-06	510.9	Dry	510.8	Moist Ground	513.1	Dry
10-Jul-06	510.9	Moist Ground	510.8	Moist Ground	512.5	Moist Ground
21-Aug-06	510.9	Dry	510.8	Dry	512.4	Dry
18-Sep-06	510.9	Dry	510.8	Dry	512.5	Dry
17-Oct-06	511.0		510.8		512.9	
20-Nov-06	510.9		511.1		513.3	
15-Dec-06	511.1		511.4		513.3	
22-Jan-07	510.9		510.8		513.3	
19-Feb-07	Frozen	Frozen	Frozen	Frozen	Frozen	Frozen
18-Mar-07	510.9	Frozen	510.9	Frozen	513.3	Frozen
17-Apr-07	511.0	Moist Ground	511.8	Moist Ground	513.5	Frozen
17-May-07	Dry	Moist Ground	Dry	Dry	513.4	Moist Ground
21-Jun-07	Dry	Dry	Dry	Dry	513.1	Dry
17-Jul-07	Dry	Dry	Dry	Dry	512.7	Dry
21-Aug-07	Dry	Dry	Dry	Dry	512.4	Dry
16-Sep-07	Dry	Dry	Dry	Dry	512.3	Dry
14-Oct-07	Dry	Dry	Dry	Dry	512.4	Dry
18-Nov-07	Frozen	Snow	Frozen	Snow	Frozen	Snow
13-Dec-07	Dry	Snow	Frozen	Snow	Frozen	Snow
20-Jan-08	511.1	Snow	Frozen	Frozen	513.4	Snow
17-Feb-08	511.1	Snow	511.5	Snow	513.4	Snow

NOTE:
- Frozen / snow indicates monitor frozen and/or snow covered.
- Dry indicates no water detected in monitor.
- Moist ground indicates that ground has moisture but no standing water.
- N/A indicates water level not available.

TABLE C-8
GROUNDWATER / SURFACE WATER ELEVATIONS
DUNTROON QUARRY - 2017 AMP SUMMARY REPORT

DRIVEPOINTS

111-53312-01 A61

DATE	DP1 (in)	DP1 (out)	DP2 (in)	DP2 (out)	DP3 (in)	DP3 (out)
16-Mar-08	511.2	Snow	511.4	Snow	Frozen	
6-Apr-08	511.3	Snow	512.1	Snow	Frozen	Snow
20-Apr-08	512.1	512.1	512.1	512.1	513.6	Snow
18-May-08	511.2	Dry	511.5	Dry	513.4	Dry
15-Jun-08	Dry	Dry	511.1	Moist Ground	513.3	Dry
13-Jul-08	Dry	Dry	Dry	Dry	512.9	Dry
17-Aug-08	511.4	Dry	511.2	Dry	512.9	Dry
14-Sep-08	511.4	Dry	511.5	Dry	512.9	Dry
19-Oct-08	Dry	Dry	Dry	Dry	512.4	Dry
16-Nov-08	Frozen	Snow	Frozen	Snow	N/A	
23-Nov-08	Frozen		Frozen	Snow	512.6	Snow
14-Dec-08	Frozen	Snow	Frozen	Snow	Frozen	Snow
18-Jan-09	Frozen	Buried	Frozen	Snow	Frozen	Buried
08-Feb-09	512.5	Snow	Frozen	Snow	Frozen	
15-Mar-09	Frozen	Snow	Frozen	Snow	Frozen	Snow
12-Apr-09	511.0	Snow	511.9	Snow	512.6	Snow
17-May-09	Dry	Dry	511.6	Dry	512.8	513.5
14-Jun-09	511.0	Dry	511.4	Dry	512.4	513.5
12-Jul-09	Dry	Dry	510.8	Dry	512.3	513.5
9-Aug-09	510.9	Dry	Dry	Dry	512.9	513.5
13-Sep-09	511.1	Dry	511.2	Moist Ground	513.0	513.5
11-Oct-09	Dry	Dry	511.5	Moist Ground	513.2	Dry
15-Nov-09	511.4	Dry	511.3	Moist Ground	513.3	513.5
13-Dec-09	511.6	Snow	Frozen	Snow	513.4	Snow
17-Jan-10	511.7	512.7	Frozen	Snow	513.5	514.1
7-Feb-10	Frozen	Snow	Frozen	Snow	Frozen	Snow
14-Mar-10	512.1	512.5	512.1	Snow	513.5	Snow
18-Apr-10	511.0	511.9	512.0	512.0	513.5	Dry
16-May-10	511.0	Dry	512.0	512.0	513.5	Dry
13-Jun-10	510.9	Dry	512.0	512.0	513.4	Dry
21-Jul-10	511.0	Dry	512.0	512.0	513.5	Dry
16-Aug-10	510.9	Dry	511.9	Moist ground	513.4	Dry
12-Sep-10	Dry	Dry	511.7	Dry	513.5	Dry
17-Oct-10	Dry	Dry	512.0	512.0	513.2	513.5
14-Nov-10	511.4	511.2	512.0	512.0	513.2	Dry
19-Dec-10	Frozen	Snow	Frozen	Snow	513.4	Snow
16-Jan-11	Frozen	Snow	Frozen	Snow	Frozen	Snow
20-Feb-11	Frozen	Snow	Frozen	Snow	Frozen	Snow
13-Mar-11	510.9	Snow	Frozen	Snow	Frozen	Frozen
17-Apr-11	511.2	Dry	512.1	512.1	Frozen	Dry
15-May-11	512.0	512.0	512.1	512.1	513.2	513.5
13-Jun-11	511.6	Dry	512.1	512.1	513.1	Dry
17-Jul-11	511.2	Dry	512.0	Dry	512.7	Dry
14-Aug-11	Dry	Dry	512.0	512.0	512.2	Dry

NOTE:
- Frozen / snow indicates monitor frozen and/or snow covered.
- Dry indicates no water detected in monitor.
- Moist ground indicates that ground has moisture but no standing water.
- N/A indicates water level not available.

TABLE C-8
GROUNDWATER / SURFACE WATER ELEVATIONS
DUNTROON QUARRY - 2017 AMP SUMMARY REPORT

DRIVEPOINTS

111-53312-01 A61

DATE	DP1 (in)	DP1 (out)	DP2 (in)	DP2 (out)	DP3 (in)	DP3 (out)
18-Sep-11	511.1	Dry	512.0	512.0	512.2	Dry
16-Oct-11	511.2	Dry	512.1	512.0	512.2	Dry
20-Nov-11	Dry	Dry	512.1	512.1	512.2	Dry
18-Dec-11	511.3	Snow	Frozen	Frozen	512.5	Snow
15-Jan-12	Frozen	Snow	Frozen	Frozen	Frozen	Snow
19-Feb-12	Frozen	Snow	Frozen	Snow	Frozen	Snow
26-Feb-12	512.2	Moist ground	N/A		513.5	Dry
18-Mar-12	511.8	Dry	N/A		513.3	Dry
15-Apr-12	511.8	Dry	512.1	512.1	513.3	Dry
13-May-12	511.8	Dry	512.1	512.1	513.3	Dry
17-Jun-12	511.6	Dry	512.0	512.1	513.2	Dry
15-Jul-12	511.1	Dry	512.1	512.1	512.6	Dry
12-Aug-12	511.3	Dry	512.1	512.1	512.8	Dry
16-Sep-12	Dry	Dry	512.1	512.1	513.0	Moist Ground
14-Oct-12	511.2	Dry	512.0	512.0	513.0	Dry
18-Nov-12	511.6	Dry	512.08	512.1	513.3	Dry
16-Dec-12	512.0	Dry	512.10	512.1	513.4	Dry
13-Jan-13	Frozen	Snow	512.1	512.1	Frozen	Snow
17-Feb-13	Frozen	Snow	Frozen	Frozen	Frozen	Snow
17-Mar-13	Frozen	Snow	Frozen	Frozen	Frozen	Snow
14-Apr-13	511.83	Dry	512.25	512.3	513.50	513.45
12-May-13	511.89	Dry	512.12	512.1	513.43	Dry
16-Jun-13	511.9	Dry	512.1	512.1	513.4	Dry
14-Jul-13	511.8	511.8	512.2	512.1	513.4	Dry
18-Aug-13	511.8	Dry	512.2	512.2	513.3	Dry
15-Sep-13	511.8	Dry	512.2	512.1	513.4	Dry
13-Oct-13	511.9	Dry	512.2	512.2	513.7	Dry
17-Nov-13	512.1	511.7	512.1	512.1	513.9	Dry
16-Dec-13	Frozen	Snow	Frozen	Frozen	Frozen	Snow
19-Jan-14	Frozen	Frozen	Frozen	Frozen	Frozen	Frozen
16-Feb-14	Frozen	Frozen	Frozen	Frozen	Frozen	Frozen
17-Mar-14	Frozen	Frozen	Frozen	Frozen	Frozen	Frozen
13-Apr-14	Frozen	Frozen	512.3	Frozen	Frozen	Frozen
11-May-14	511.7	Dry	512.2	512.2	513.5	Dry
15-Jun-14	511.6	Dry	512.1	512.1	513.4	Dry
13-Jul-14	511.6	Dry	512.1	512.1	513.5	Dry
17-Aug-14	511.4	Dry	512.1	512.1	512.7	Dry
7-Sep-14	511.4	Dry	512.1	512.1	512.6	Dry
12-Sep-14				512.1		
19-Oct-14	511.4	Dry	512.1	512.1	512.8	Dry
16-Nov-14	Frozen	Frozen	Frozen	Frozen	Frozen	Frozen

NOTE:
- Frozen / snow indicates monitor frozen and/or snow covered.
- Dry indicates no water detected in monitor.
- Moist ground indicates that ground has moisture but no standing water.
- N/A indicates water level not available.

TABLE C-8
GROUNDWATER / SURFACE WATER ELEVATIONS
DUNTROON QUARRY - 2017 AMP SUMMARY REPORT

DRIVEPOINTS

111-53312-01 A61

DATE	DP1 (in)	DP1 (out)	DP2 (in)	DP2 (out)	DP3 (in)	DP3 (out)
14-Dec-14	Frozen	Frozen	Frozen	Frozen	Frozen	Frozen
18-Jan-15	Frozen	Frozen	Frozen	Frozen	Frozen	Frozen
15-Feb-15	Frozen	Frozen	Frozen	Frozen	Frozen	Frozen
15-Mar-15	512.2	Frozen	Frozen	Frozen	513.2	Frozen
19-Apr-15	511.8	512.2	N/A	N/A	513.6	513.6
17-May-15	512.1	512.1	512.1	512.1	513.3	Dry
14-Jun-15	512.1	512.1	512.2	512.2	513.3	Dry
19-Jul-15	512.1	512.1	512.3	512.3	513.2	513.2
9-Aug-15	512.0	512.1	512.1	512.1	513.1	Dry
6-Sep-15	511.8	511.8	512.1	512.1	512.8	Dry
11-Oct-15	511.3	Dry	512.1	512.1	512.7	Dry
15-Nov-15	512.1	512.1	512.2	512.2	513.2	Dry
6-Dec-15	Frozen	Frozen	512.2	512.2	513.2	Dry
17-Jan-16	Frozen	Frozen	Frozen	Frozen	513.3	Frozen
14-Feb-16	Frozen	Frozen	Frozen	Frozen	513.3	Frozen
13-Mar-16	512.1	512.2	511.9	512.2	513.5	513.6
17-Apr-16	512.2	512.2	511.9	512.3	513.3	513.5
1-May-16			512.2	512.2		
15-May-16	512.1	512.2	512.2	512.2	513.6	513.6
5-Jun-16			512.2	512.2		
19-Jun-16	512.1	512.1	512.1	512.1	513.8	Dry
3-Jul-16			512.1	512.1		
17-Jul-16	512.0	512.1	512.1	512.1	512.7	Dry
24-Jul-16				512.1		
7-Aug-16			512.1	512.1		
21-Aug-16	512.1	512.1	512.2	512.1	512.7	Dry
18-Sep-16	512.1	512.1	512.2	512.2	512.7	Dry
16-Oct-16	512.1	512.1	512.2	512.2	512.5	Dry
13-Nov-16	512.1	512.1	512.2	512.2	512.8	Dry
11-Dec-16	Frozen	Frozen	512.2	Frozen	513.0	Frozen
23-Jan-17	Frozen	Frozen	Frozen	Frozen	Frozen	Frozen
12-Feb-17	Frozen	Frozen	Frozen	Frozen	Frozen	Frozen
19-Mar-17	Frozen	Frozen	Frozen	Frozen	513.4	Frozen
09-Apr-17						
16-Apr-17	512.2	512.2	512.2	512.2	513.5	
10-May-17			512.3	512.3		
14-May-17	512.2	512.2			513.5	
21-May-17			512.3	512.3		
23-May-17						
25-May-17			512.3	512.3		
1-Jun-17			512.2	512.2		
22-Jun-17			512.2	512.2		
26-Jun-17	512.2	512.2	512.3	512.3	513.5	Dry
7-Jul-17			512.2	512.2		
17-Jul-17	512.2	512.2	512.3	512.3	513.4	Dry
3-Aug-17						
17-Aug-17	512.2	512.2	512.3	512.3	513.2	Dry
29-Aug-17						
18-Sep-17	512.2	512.2	512.2	512.2	513.1	Dry
26-Sep-17						
15-Oct-17	512.2	512.2	512.2	512.3	513.3	Dry
14-Nov-17	512.2	512.3	512.3	512.3	513.3	Dry
11-Dec-17	512.2	Frozen	N/A	N/A	513.3	Dry

NOTE:
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TABLE C-8
GROUNDWATER / SURFACE WATER ELEVATIONS
DUNTROON QUARRY - 2017 AMP SUMMARY REPORT

DRIVEPOINTS

111-53312-01 A61

DATE	DP4 (in)	DP4 (out)	BRIDSON DP (in)	BRIDSON DP (out)	DP5 (in)	DP5 (out)
26-Jul-99						
17-Aug-99						
27-Sep-99	511.0					
25-Oct-99	511.2					
21-Nov-99	511.3					
21-Dec-99	511.3					
25-Jan-00	Frozen					
29-Feb-00	511.7					
31-Mar-00	511.6					
02-Jun-00	511.6					
07-Jul-00	511.6					
27-Aug-00	511.5					
28-Sep-00	511.5					
03-Nov-00	511.6					
22-Feb-01	Frozen					
22-Mar-01	Frozen	511.6				
26-Apr-01	511.4	511.7				
31-May-01	511.5					
28-Jun-01	511.3					
01-Aug-01	511.3					
04-Oct-01	511.3					
01-Nov-01	511.5	511.6				
14-Dec-01	511.4	511.6				
10-Jan-02	511.4	511.6				
14-Mar-02	511.5	511.6				
16-May-02	511.5	511.6				
20-Jun-02	511.4					
11-Jul-02	511.4	511.6				
13-Sep-02	511.1	511.6				
01-Nov-02	511.2	511.6				
16-Jan-03	511.2	511.6				
28-Mar-03	511.6	511.6				
15-May-03	511.5	511.6				
23-Jun-03	N/A					
22-Jul-03	510.8	511.5				
20-Aug-03	510.7	511.5				
25-Sep-03	510.2					
22-Oct-03	511.2	511.5	510.4			
25-Nov-03	511.5	511.6	510.5			
22-Dec-03	511.5	511.6	510.5			
09-Feb-04	511.2	511.6	510.5			
16-Mar-04	511.4	511.6	510.5			
20-Apr-04	511.6	511.6	510.5			
18-May-04	511.4	511.6	510.5	510.5		
22-Jun-04	511.2	511.5	510.5	510.5		

NOTE:
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TABLE C-8
GROUNDWATER / SURFACE WATER ELEVATIONS
DUNTROON QUARRY - 2017 AMP SUMMARY REPORT

DRIVEPOINTS

111-53312-01 A61

DATE	DP4 (in)	DP4 (out)	BRIDSON DP (in)	BRIDSON DP (out)	DP5 (in)	DP5 (out)
28-Jul-04	511.3	511.5	510.3			
25-Aug-04	511.2	511.5	509.9			
22-Sep-04	511.1		509.7			
19-Oct-04	511.0	511.5	510.0			
16-Nov-04	510.9	511.3	510.2			
16-Dec-04	511.3	511.5	Frozen			
31-Jan-05	511.3	511.6	510.4			
24-Feb-05	511.2	511.6	Frozen			
22-Mar-05	511.1	511.5	Frozen			
20-Apr-05	511.6	511.6	510.5	510.51		
25-May-05	511.6	511.6	510.5	510.49		
29-Jun-05	511.5	511.5	510.3			
13-Jul-05	511.4	511.4	509.9			
23-Aug-05	511.0	Dry	509.6			
26-Sep-05	510.9	Dry	509.3			
26-Oct-05	511.2		509.9			
16-Nov-05	511.3	511.4	510.3			
14-Dec-05	511.5	511.6	510.3			
20-Jan-06	511.5	511.6	510.4			
14-Feb-06	511.5	511.6	510.4			
19-Mar-06	511.6	511.6	Frozen			
17-Apr-06	511.6	511.6	510.5	510.5		
19-May-06	511.3	511.4	510.5	510.5		
19-Jun-06	511.1	511.4	510.3			
10-Jul-06	511.2	511.4	509.9			
21-Aug-06	511.1	511.4	509.0			
18-Sep-06	511.1	511.4	509.1			
17-Oct-06	511.1	511.4	510.1			
20-Nov-06	511.5	511.6	510.4			
15-Dec-06	511.5	511.6	510.5			
22-Jan-07	511.3	511.6	510.2			
19-Feb-07	511.1	511.6	510.5			
18-Mar-07	512.0	511.6	Frozen			
17-Apr-07	511.6	511.5	510.5	510.5		
17-May-07	511.4	511.6	510.5			
21-Jun-07	511.7	Moist Ground	510.1			
17-Jul-07	511.1	Dry	509.4	Dry	509.2	
21-Aug-07	511.0	511.4	Dry	Dry	N/A	Dry
16-Sep-07	511.2	511.5	Dry		N/A	Dry
14-Oct-07	511.2	511.5	Dry		Dry	Dry
18-Nov-07	511.3	511.6	Dry	Dry	Frozen	Snow
13-Dec-07	511.2	511.6	Frozen		509.4	Snow
20-Jan-08	Frozen	511.6	Frozen		Frozen	Frozen
17-Feb-08	511.6	511.6	510.5	Snow	Frozen	Frozen

NOTE:
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TABLE C-8
GROUNDWATER / SURFACE WATER ELEVATIONS
DUNTROON QUARRY - 2017 AMP SUMMARY REPORT

DRIVEPOINTS

111-53312-01 A61

DATE	DP4 (in)	DP4 (out)	BRIDSON DP (in)	BRIDSON DP (out)	DP5 (in)	DP5 (out)
16-Mar-08	511.5	511.6	510.0		Frozen	Frozen
6-Apr-08	511.6	511.6	510.7		510.1	510.1
20-Apr-08	511.6	511.6	510.5		510.1	510.0
18-May-08	511.6	511.6	510.5		510.1	510.0
15-Jun-08	511.4	511.6	510.4		510.0	510.1
13-Jul-08	511.0	Moist Ground	510.1		509.7	510.0
17-Aug-08	511.4	511.5	510.2		509.8	509.7
14-Sep-08	511.4	511.5	510.2		509.7	509.7
19-Oct-08	511.3	511.5	510.2		509.8	509.8
16-Nov-08	N/A		N/A			
23-Nov-08	511.5	511.6	510.3		Frozen	Ice
14-Dec-08	Frozen	Frozen	Frozen		Frozen	Frozen
18-Jan-09	N/A		Frozen		Frozen	Frozen
08-Feb-09	511.6	511.6	510.5		Frozen	Frozen
15-Mar-09	511.6	511.6	510.5		Frozen	Frozen
12-Apr-09	511.6	511.6	510.5		509.9	510.0
17-May-09	511.5	511.6	510.5		510.0	510.0
14-Jun-09	511.4	511.5	510.4		509.9	510.0
12-Jul-09	N/A		510.7		509.8	509.8
9-Aug-09	511.4	511.5	510.2		509.5	509.6
13-Sep-09	511.2	511.5	509.2		509.9	Moist Ground
11-Oct-09	511.4	511.6	510.3		509.5	Moist Ground
15-Nov-09	511.3	511.5	510.2		509.5	Moist Ground
13-Dec-09	N/A		510.3		Frozen	Snow
17-Jan-10	N/A		510.3		Frozen	Snow
7-Feb-10	511.2	511.6	Frozen		Frozen	Snow
14-Mar-10	511.6	511.6	510.5		510.0	Snow
18-Apr-10	N/A		510.4		510.0	510.1
16-May-10	511.6	511.6	510.4		510.0	510.0
13-Jun-10	N/A		510.4		510.0	510.0
21-Jul-10	511.5	511.5	510.4		510.0	510.0
16-Aug-10	511.4	511.5	510.2		509.9	509.9
12-Sep-10	511.3	511.4	509.8		509.6	509.6
17-Oct-10	511.5	511.6	N/A		509.9	509.9
14-Nov-10	511.6	511.6	510.4		510.0	510.0
19-Dec-10	Frozen	511.6	510.4		Frozen	Snow
16-Jan-11	Frozen	Frozen	510.5		Frozen	Frozen
20-Feb-11	Frozen	Frozen	Frozen		Frozen	Frozen
13-Mar-11	511.6	511.6	Frozen		Frozen	Frozen
17-Apr-11	511.7	511.6	510.5		Frozen	Frozen
15-May-11	511.6	511.6	510.5		510.0	510.0
13-Jun-11	511.6	511.6	510.5		510.0	510.0
17-Jul-11	511.6	511.6	509.9		509.7	509.7
14-Aug-11	511.5	511.5	509.6		509.4	Moist Ground

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TABLE C-8
GROUNDWATER / SURFACE WATER ELEVATIONS
DUNTROON QUARRY - 2017 AMP SUMMARY REPORT

DRIVEPOINTS

111-53312-01 A61

DATE	DP4 (in)	DP4 (out)	BRIDSON DP (in)	BRIDSON DP (out)	DP5 (in)	DP5 (out)
18-Sep-11	511.6	511.6	Dry		508.8	Moist Ground
16-Oct-11	511.6	511.6	510.3		509.5	Moist Ground
20-Nov-11	511.6	511.6	510.3		509.7	509.7
18-Dec-11	511.6	511.6	510.4		Frozen	Frozen
15-Jan-12	511.6	511.6	510.3		Frozen	Snow
19-Feb-12	Frozen	Snow	510.5		Frozen	Snow
26-Feb-12					Frozen	
18-Mar-12	Frozen	511.6	510.5		509.7	510.0
15-Apr-12	511.5	511.6	510.5	Moist Ground	510.0	510.0
13-May-12	511.6	511.6	510.4		510.0	510.0
17-Jun-12	511.6	511.6	510.1		509.9	509.8
15-Jul-12	511.6	511.6	509.3		509.4	Dry
12-Aug-12	511.6	511.6	510.4		509.8	509.8
16-Sep-12	511.5	511.5	509.3		509.5	Moist Ground
14-Oct-12			510.3		509.6	Shallow Ponding
18-Nov-12	511.6	511.6	510.4		510.1	510.0
16-Dec-12	511.6	511.6	510.5		Frozen	Frozen
13-Jan-13	511.6	511.6	Frozen		510.1	Frozen
17-Feb-13	511.6	511.6	Frozen		Frozen at 0.43	Frozen
17-Mar-13	511.6	511.6	Frozen		Frozen at 0.41	Frozen
14-Apr-13	511.7	511.7	510.5	510.47	510.1	510.1
12-May-13	511.7	511.6	510.5		510.1	510.0
16-Jun-13	511.6	511.6	510.5		510.0	510.0
14-Jul-13	511.6	511.6	509.8		509.9	509.9
18-Aug-13	511.4	511.3	510.1		509.9	509.9
15-Sep-13		511.5	510.1		509.7	509.7
13-Oct-13	511.6	511.6	510.3		509.9	509.8
17-Nov-13	511.7	511.6	510.5		510.1	510.1
16-Dec-13	511.6	511.6	Frozen		Frozen	Frozen
19-Jan-14	Frozen	511.6	Frozen		Frozen	Frozen
16-Feb-14	Frozen	511.6	Frozen		Frozen	Frozen
17-Mar-14	Frozen		Frozen		Frozen	Frozen
13-Apr-14	511.7	511.7	Frozen		510.1	Frozen
11-May-14	511.6	511.6	510.5	510.47	510.1	510.1
15-Jun-14	511.6	511.6	510.4		509.9	509.9
13-Jul-14	511.6	511.6	510.3		509.9	509.9
17-Aug-14	511.6	511.6	510.3		509.7	509.7
7-Sep-14	511.5	511.5	510.2		509.6	509.6
12-Sep-14			N/A		509.7	509.6
19-Oct-14	511.6		510.4		509.7	509.7
16-Nov-14	Frozen		510.4		Frozen	Frozen

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TABLE C-8
GROUNDWATER / SURFACE WATER ELEVATIONS
DUNTROON QUARRY - 2017 AMP SUMMARY REPORT

DRIVEPOINTS

111-53312-01 A61

DATE	DP4 (in)	DP4 (out)	BRIDSON DP (in)	BRIDSON DP (out)	DP5 (in)	DP5 (out)
14-Dec-14	Frozen		510.4		Frozen	Frozen
18-Jan-15	Frozen		Frozen		Frozen	Frozen
15-Feb-15	Frozen		N/A		Frozen	Frozen
15-Mar-15	Frozen		Frozen		Frozen	Frozen
19-Apr-15			510.5		N/A	N/A
17-May-15	511.5	511.5	510.4		510.1	510.0
14-Jun-15	511.6	511.6	510.4		510.0	510.0
19-Jul-15	511.5	511.5	510.2		510.0	510.0
9-Aug-15	511.5	511.5	510.2		509.9	509.9
6-Sep-15	511.5	511.5	510.0		509.6	509.6
11-Oct-15	511.5	511.5	509.0		509.2	Dry
15-Nov-15	511.6	511.6	510.3		509.7	509.7
6-Dec-15	511.5	511.5	510.3		509.7	509.7
17-Jan-16	Frozen		510.4		Frozen	Frozen
14-Feb-16	Frozen		Frozen		Frozen	Frozen
13-Mar-16	511.6	511.6	510.5		510.0	510.0
17-Apr-16	511.6	511.6	510.5		510.1	510.1
1-May-16	511.6	511.6	510.5		510.1	510.0
15-May-16	511.6	511.6	510.5		510.0	510.0
5-Jun-16	511.6	511.5	510.4	Dry	510.0	510.0
19-Jun-16	511.5	511.5	510.1		509.9	509.9
3-Jul-16	511.5	511.4	509.8	Dry	509.7	509.7
17-Jul-16	511.4	511.4	509.2		509.5	Dry
24-Jul-16					509.2	Dry
7-Aug-16	511.2		Dry		508.9	Dry
21-Aug-16	511.4	511.4	509.5		509.3	Dry
18-Sep-16	511.4	511.4	Dry		508.9	Dry
16-Oct-16	511.5	511.5	Dry		508.6	Dry
13-Nov-16	511.5	511.5	509.2		508.8	Dry
11-Dec-16	511.6		509.9		509.2	Dry
23-Jan-17	511.6	511.6	510.4		Frozen	Frozen
12-Feb-17	Frozen	Frozen	510.6	Frozen	Frozen	Frozen
19-Mar-17	511.7	Frozen	510.4	Frozen	Frozen	Frozen
09-Apr-17					510.1	510.1
16-Apr-17	511.6	511.6	510.5		510.1	509.9
10-May-17	511.7	511.7	510.4	510.4	510.1	510.1
14-May-17						
21-May-17	511.7	511.7	510.5	510.5	510.1	510.1
23-May-17	511.7	511.7			510.1	510.1
25-May-17	511.7	511.7	510.5	510.5	510.1	510.1
1-Jun-17	511.6	511.6	510.5	510.4	510.0	510.0
22-Jun-17	511.6	511.6	510.4	Dry	510.0	510.0
26-Jun-17	511.6	511.6	510.4		510.0	510.0
7-Jul-17	511.6	511.6	510.4	Dry	510.0	510.0
17-Jul-17			Dry	Dry	510.0	510.0
3-Aug-17					509.9	509.9
17-Aug-17			510.2	Dry	509.9	509.9
29-Aug-17					509.7	509.7
18-Sep-17			510.2	Dry	509.7	509.7
26-Sep-17					509.7	509.7
15-Oct-17			510.4	Dry	509.8	509.7
14-Nov-17			510.4		509.9	Frozen
11-Dec-17			510.4	Dry	Frozen	Frozen

NOTE:
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TABLE C-8
GROUNDWATER / SURFACE WATER ELEVATIONS
DUNTROON QUARRY - 2017 AMP SUMMARY REPORT

DRIVEPOINTS

111-53312-01 A61

DATE	DP6 (in)	DP6 (out)	DP7 (in)	DP7 (out)	DP8 (in)	DP8 (out)
26-Jul-99						
17-Aug-99						
27-Sep-99						
25-Oct-99						
21-Nov-99						
21-Dec-99						
25-Jan-00						
29-Feb-00						
31-Mar-00						
02-Jun-00						
07-Jul-00						
27-Aug-00						
28-Sep-00						
03-Nov-00						
22-Feb-01						
22-Mar-01						
26-Apr-01						
31-May-01						
28-Jun-01						
01-Aug-01						
04-Oct-01						
01-Nov-01						
14-Dec-01						
10-Jan-02						
14-Mar-02						
16-May-02						
20-Jun-02						
11-Jul-02						
13-Sep-02						
01-Nov-02						
16-Jan-03						
28-Mar-03						
15-May-03						
23-Jun-03						
22-Jul-03						
20-Aug-03						
25-Sep-03						
22-Oct-03						
25-Nov-03						
22-Dec-03						
09-Feb-04						
16-Mar-04						
20-Apr-04						
18-May-04						
22-Jun-04						

NO DATA

NOTE:

TABLE C-8
GROUNDWATER / SURFACE WATER ELEVATIONS
DUNTROON QUARRY - 2017 AMP SUMMARY REPORT

DRIVEPOINTS

111-53312-01 A61

DATE	DP6 (in)	DP6 (out)	DP7 (in)	DP7 (out)	DP8 (in)	DP8 (out)
28-Jul-04						
25-Aug-04						
22-Sep-04						
19-Oct-04						
16-Nov-04						
16-Dec-04						
31-Jan-05						
24-Feb-05						
22-Mar-05						
20-Apr-05						
25-May-05						
29-Jun-05						
13-Jul-05						
23-Aug-05						
26-Sep-05						
26-Oct-05						
16-Nov-05						
14-Dec-05						
20-Jan-06						
14-Feb-06						
19-Mar-06						
17-Apr-06						
19-May-06						
19-Jun-06						
10-Jul-06						
21-Aug-06						
18-Sep-06						
17-Oct-06						
20-Nov-06						
15-Dec-06						
22-Jan-07						
19-Feb-07						
18-Mar-07						
17-Apr-07						
17-May-07						
21-Jun-07						
17-Jul-07	N/A					
21-Aug-07	N/A	Dry				
16-Sep-07	Dry	Dry				
14-Oct-07	Dry	Dry				
18-Nov-07	Dry	Snow				
13-Dec-07	Frozen	Buried				
20-Jan-08	Frozen	Buried				
17-Feb-08	Frozen	Buried				

NO DATA

NOTE:
- Frozen / snow indicates monitor frozen and/or snow covered.
- Dry indicates no water detected in monitor.
- N/A indicates water level not available.

TABLE C-8
GROUNDWATER / SURFACE WATER ELEVATIONS
DUNTROON QUARRY - 2017 AMP SUMMARY REPORT

DRIVEPOINTS

111-53312-01 A61

DATE	DP6 (in)	DP6 (out)	DP7 (in)	DP7 (out)	DP8 (in)	DP8 (out)
16-Mar-08	Frozen	Buried				
6-Apr-08	Frozen	Snow				
20-Apr-08	511.8	511.8				
18-May-08	511.8	511.8				
15-Jun-08	511.9	511.9				
13-Jul-08	511.4	Dry				
17-Aug-08	511.3	Ponded				
14-Sep-08	510.5	Dry				
19-Oct-08	511.4	511.4				
16-Nov-08						
23-Nov-08	511.7	Snow				
14-Dec-08	511.8	Snow				
18-Jan-09	Frozen	Buried				
08-Feb-09	Frozen					
15-Mar-09	Frozen	Frozen				
12-Apr-09	511.9	511.9				
17-May-09	511.7	511.7				
14-Jun-09	511.6	511.7				
12-Jul-09	511.5	511.6				
9-Aug-09	511.5	511.5				
13-Sep-09	511.0	511.4				
11-Oct-09	510.7	Dry				
15-Nov-09	510.8	Dry				
13-Dec-09	511.2	Snow				
17-Jan-10	511.3	512.0				
7-Feb-10	511.5	Snow				
14-Mar-10	511.8	511.9				
18-Apr-10	511.8	511.9				
16-May-10	511.8	511.8				
13-Jun-10	511.8	511.8				
21-Jul-10	511.8	511.8				
16-Aug-10	511.8	511.7				
12-Sep-10	511.8	511.8				
17-Oct-10	511.3	511.4				
14-Nov-10	511.3	Dry				
19-Dec-10	511.7	Snow				
16-Jan-11	Frozen	Snow				
20-Feb-11	Frozen	Frozen				
13-Mar-11	Frozen	Frozen				
17-Apr-11	511.6	511.8				
15-May-11	511.8	511.9				
13-Jun-11	511.7	511.8				
17-Jul-11	510.9	Dry				
14-Aug-11	510.4	Dry				

NOTE:
- Frozen / snow indicates monitor frozen and/or snow covered.
- Dry indicates no water detected in monitor.
- N/A indicates water level not available.

TABLE C-8
GROUNDWATER / SURFACE WATER ELEVATIONS
DUNTROON QUARRY - 2017 AMP SUMMARY REPORT

DRIVEPOINTS

111-53312-01 A61

DATE	DP6 (in)	DP6 (out)	DP7 (in)	DP7 (out)	DP8 (in)	DP8 (out)
18-Sep-11	Dry	Dry				
16-Oct-11	510.4	Dry				
20-Nov-11	511.2	Dry				
18-Dec-11	511.4	Snow				
15-Jan-12	Frozen	Snow				
19-Feb-12	Frozen	Snow				
26-Feb-12	Frozen					
18-Mar-12	511.8	511.8				
15-Apr-12	511.8	511.7				
13-May-12	511.7	511.7				
17-Jun-12	511.7	511.7				
15-Jul-12	510.4	Dry				
12-Aug-12	511.5	Dry				
16-Sep-12	510.6	Moist Ground				
14-Oct-12	510.4	Dry				
18-Nov-12	511.0	511.7				
16-Dec-12	511.8	511.8				
13-Jan-13	Frozen	Frozen				
17-Feb-13	Frozen	Snow				
17-Mar-13	Frozen	Snow				
14-Apr-13	511.9	511.9				
12-May-13	511.9	511.9				
16-Jun-13	511.9	511.9				
14-Jul-13	511.9	511.9				
18-Aug-13	511.6	Dry				
15-Sep-13	510.9	Dry				
13-Oct-13	511.3	511.9				
17-Nov-13	511.5	512.0				
16-Dec-13	Frozen	Snow				
19-Jan-14	Frozen	Frozen				
16-Feb-14	Frozen	Frozen				
17-Mar-14	Frozen	Frozen				
13-Apr-14	511.9	511.8				
11-May-14	511.6	511.9				
15-Jun-14	511.8	Dry				
13-Jul-14	511.8	Dry				
17-Aug-14	511.7	Dry				
7-Sep-14	511.6	Dry				
12-Sep-14	510.7	Dry				
19-Oct-14	510.8	511.9				
16-Nov-14	Frozen	Frozen				

NOTE:
- Frozen / snow indicates monitor frozen and/or snow covered.
- Dry indicates no water detected in monitor.
- N/A indicates water level not available.

TABLE C-8
GROUNDWATER / SURFACE WATER ELEVATIONS
DUNTROON QUARRY - 2017 AMP SUMMARY REPORT

DRIVEPOINTS

111-53312-01 A61

DATE	DP6 (in)	DP6 (out)	DP7 (in)	DP7 (out)	DP8 (in)	DP8 (out)
14-Dec-14	Frozen	Frozen				
18-Jan-15	Frozen	Frozen				
15-Feb-15	Frozen	Frozen				
15-Mar-15	Frozen	511.8				
19-Apr-15	N/A	N/A				
17-May-15	N/A	N/A				
14-Jun-15	N/A	N/A				
19-Jul-15	N/A	N/A				
9-Aug-15	N/A	N/A				
6-Sep-15	N/A	N/A	N/A		N/A	
11-Oct-15	510.1	Dry	N/A		N/A	
15-Nov-15	511.0	Dry	509.0		N/A	
6-Dec-15	511.3	Dry	509.0		511.2	
17-Jan-16	Frozen	Frozen	Frozen		Frozen	
14-Feb-16	Frozen	Frozen	Frozen		Frozen	
13-Mar-16	512.0	512.0	509.4		511.3	
17-Apr-16	512.0	512.0	509.3		511.3	
1-May-16	511.8		509.3		511.3	
15-May-16	512.0	512.0	509.3		511.3	
5-Jun-16	511.7	511.7	509.3		511.3	
19-Jun-16	511.4	511.6	509.2		511.2	
3-Jul-16	510.8	Dry	509.0		511.2	
17-Jul-16	510.6	Dry	508.8		511.2	
24-Jul-16	510.2	Dry				
7-Aug-16	Dry	Dry	508.4		511.2	
21-Aug-16	Dry	Dry	508.6		511.2	
18-Sep-16	Dry	Dry	508.2		511.2	
16-Oct-16	Dry	Dry	508.0		511.2	
13-Nov-16	Dry	Dry	508.4		511.3	
11-Dec-16	Dry	Dry	508.7	Dry	511.3	511.3
23-Jan-17	511.9	511.9	509.2	509.2	Frozen	Frozen
12-Feb-17	Buried	Buried/Frozen	Frozen	Frozen	Frozen	Frozen
19-Mar-17	Buried	Buried/Frozen	509.3	Frozen	Frozen	Frozen
09-Apr-17	511.9	511.9				
16-Apr-17	512.0	512.0	509.3	509.3	511.3	511.3
10-May-17	511.8	511.8	509.4	509.4	511.3	511.4
14-May-17						
21-May-17	511.8	511.8			511.3	511.3
23-May-17	511.8	511.8				
25-May-17	511.8	511.8			511.3	511.3
1-Jun-17	511.8	511.8	509.3	509.3	511.3	511.3
22-Jun-17	511.8	511.8	509.3	509.3	511.3	511.3
26-Jun-17	512.0	512.0	509.3	509.3	511.3	511.3
7-Jul-17	511.8	511.8	509.3	509.3	511.3	511.3
17-Jul-17	511.9	511.9	509.3	509.3	511.3	511.3
3-Aug-17	511.7	511.6				
17-Aug-17	511.5	Dry	509.2	509.2	511.3	511.3
29-Aug-17	510.9	Dry				
18-Sep-17	511.0	Dry	509.0	Dry	511.3	511.3
26-Sep-17	510.7	Dry				
15-Oct-17	511.4	Dry	509.1	Dry	511.3	511.3
14-Nov-17	511.8	511.8	509.2	509.2	511.3	511.3
11-Dec-17	Frozen	Frozen	Frozen	Frozen	Frozen	Frozen

NOTE:
- Frozen / snow indicates monitor frozen and/or snow covered.
- Dry indicates no water detected in monitor.
- N/A indicates water level not available.

TABLE C-8
GROUNDWATER / SURFACE WATER ELEVATIONS
DUNTROON QUARRY - 2017 AMP SUMMARY REPORT

DRIVEPOINTS

111-53312-01 A61

DATE	DP9 (in)	DP9(out)	DP10 (in)	DP10 (out)	BH03-7 SG1	BH03-7 SG2
26-Jul-99						
17-Aug-99						
27-Sep-99						
25-Oct-99						
21-Nov-99						
21-Dec-99						
25-Jan-00						
29-Feb-00						
31-Mar-00						
02-Jun-00						
07-Jul-00						
27-Aug-00						
28-Sep-00						
03-Nov-00						
22-Feb-01						
22-Mar-01						
26-Apr-01						
31-May-01						
28-Jun-01						
01-Aug-01						
04-Oct-01						
01-Nov-01						
14-Dec-01						
10-Jan-02						
14-Mar-02						
16-May-02						
20-Jun-02						
11-Jul-02						
13-Sep-02						
01-Nov-02						
16-Jan-03						
28-Mar-03						
15-May-03						
23-Jun-03						
22-Jul-03						
20-Aug-03						
25-Sep-03						
22-Oct-03						
25-Nov-03						
22-Dec-03						
09-Feb-04						
16-Mar-04						
20-Apr-04						
18-May-04						
22-Jun-04						

NO DATA

NOTE:

TABLE C-8
GROUNDWATER / SURFACE WATER ELEVATIONS
DUNTROON QUARRY - 2017 AMP SUMMARY REPORT

DRIVEPOINTS

111-53312-01 A61

DATE	DP9 (in)	DP9(out)	DP10 (in)	DP10 (out)	BH03-7 SG1	BH03-7 SG2
28-Jul-04						
25-Aug-04						
22-Sep-04						
19-Oct-04						
16-Nov-04						
16-Dec-04						
31-Jan-05						
24-Feb-05						
22-Mar-05						
20-Apr-05						
25-May-05						
29-Jun-05						
13-Jul-05						
23-Aug-05						
26-Sep-05						
26-Oct-05						
16-Nov-05						
14-Dec-05						
20-Jan-06						
14-Feb-06						
19-Mar-06						
17-Apr-06						
19-May-06						
19-Jun-06						
10-Jul-06						
21-Aug-06						
18-Sep-06						
17-Oct-06						
20-Nov-06						
15-Dec-06						
22-Jan-07						
19-Feb-07						
18-Mar-07						
17-Apr-07						
17-May-07						
21-Jun-07						
17-Jul-07						
21-Aug-07						
16-Sep-07						
14-Oct-07						
18-Nov-07						
13-Dec-07						
20-Jan-08						
17-Feb-08						

NO DATA

NOTE:

TABLE C-8
GROUNDWATER / SURFACE WATER ELEVATIONS
DUNTROON QUARRY - 2017 AMP SUMMARY REPORT

DRIVEPOINTS

111-53312-01 A61

DATE	DP9 (in)	DP9(out)	DP10 (in)	DP10 (out)	BH03-7 SG1	BH03-7 SG2
16-Mar-08						
6-Apr-08						
20-Apr-08						
18-May-08						
15-Jun-08						
13-Jul-08						
17-Aug-08						
14-Sep-08						
19-Oct-08						
16-Nov-08						
23-Nov-08						
14-Dec-08						
18-Jan-09						
08-Feb-09						
15-Mar-09						
12-Apr-09						
17-May-09						
14-Jun-09						
12-Jul-09						
9-Aug-09						
13-Sep-09						
11-Oct-09						
15-Nov-09						
13-Dec-09						
17-Jan-10						
7-Feb-10						
14-Mar-10						
18-Apr-10						
16-May-10						
13-Jun-10						
21-Jul-10						
16-Aug-10						
12-Sep-10						
17-Oct-10						
14-Nov-10						
19-Dec-10						
16-Jan-11						
20-Feb-11						
13-Mar-11						
17-Apr-11						
15-May-11						
13-Jun-11						
17-Jul-11						
14-Aug-11						

NO DATA

NOTE:

TABLE C-8
GROUNDWATER / SURFACE WATER ELEVATIONS
DUNTROON QUARRY - 2017 AMP SUMMARY REPORT

DRIVEPOINTS

111-53312-01 A61

DATE	DP9 (in)	DP9(out)	DP10 (in)	DP10 (out)	BH03-7 SG1	BH03-7 SG2
18-Sep-11						
16-Oct-11						
20-Nov-11						
18-Dec-11						
15-Jan-12						
19-Feb-12						
26-Feb-12						
18-Mar-12						
15-Apr-12						
13-May-12						
17-Jun-12						
15-Jul-12						
12-Aug-12						
16-Sep-12						
14-Oct-12						
18-Nov-12						
16-Dec-12						
13-Jan-13						
17-Feb-13						
17-Mar-13						
14-Apr-13						
12-May-13						
16-Jun-13						
14-Jul-13						
18-Aug-13						
15-Sep-13						
13-Oct-13						
17-Nov-13						
16-Dec-13						
19-Jan-14					Snow	
16-Feb-14					Snow	
17-Mar-14					Snow	
13-Apr-14					Snow	
11-May-14					Dry	
15-Jun-14					509.3	
13-Jul-14					509.3	
17-Aug-14					Dry	
7-Sep-14					N/A	
12-Sep-14					Dry	
19-Oct-14					509.4	
16-Nov-14					Snow	

NO DATA

NOTE:
- Frozen / snow indicates monitor frozen and/or snow covered.
- Dry indicates no water detected in monitor.
- N/A indicates water level not available.

TABLE C-8
GROUNDWATER / SURFACE WATER ELEVATIONS
DUNTROON QUARRY - 2017 AMP SUMMARY REPORT

DRIVEPOINTS

111-53312-01 A61

DATE	DP9 (in)	DP9(out)	DP10 (in)	DP10 (out)	BH03-7 SG1	BH03-7 SG2
14-Dec-14					Snow	
18-Jan-15					Snow	
15-Feb-15					N/A	
15-Mar-15					Snow	
19-Apr-15					509.4	
17-May-15					509.4	
14-Jun-15					509.4	
19-Jul-15					509.4	
9-Aug-15					Dry	
6-Sep-15	N/A		507.2		Dry	
11-Oct-15	N/A		507.1		Dry	
15-Nov-15	507.7		507.3		Dry	Dry
6-Dec-15	507.7		507.4		Snow	Snow
17-Jan-16	Frozen		507.4		Snow	Snow
14-Feb-16	Frozen		507.4		Frozen	Frozen
13-Mar-16	507.8		507.4		509.5	509.5
17-Apr-16	507.8		507.4		509.4	509.5
1-May-16	507.8		507.4			
15-May-16	507.8		507.4		509.4	509.4
5-Jun-16	507.8		507.4			
19-Jun-16	507.6		507.4		Dry	Dry
3-Jul-16	507.4		507.2			
17-Jul-16	507.1		507.1		Dry	Dry
24-Jul-16						
7-Aug-16	506.7		507.1			
21-Aug-16	507.2		507.0		Dry	Dry
18-Sep-16	506.7		507.1		Dry	Dry
16-Oct-16	Dry		507.1		Dry	Dry
13-Nov-16	506.9		507.1		Dry	Dry
11-Dec-16	Dry	Dry	507.1	Dry	Dry	Dry
23-Jan-17	507.7	507.7	507.3	507.3	509.3	Frozen
12-Feb-17	Frozen	Frozen	507.4	507.4	Buried	Frozen
19-Mar-17	Frozen	Frozen	507.4	507.4	Frozen	509.5
09-Apr-17						
16-Apr-17	507.8	507.8	507.4	507.4	509.4	509.4
10-May-17	507.8	507.8	507.4	507.4		
14-May-17					509.4	
21-May-17	507.8	507.8	507.4	507.4	509.5	509.5
23-May-17						
25-May-17	507.8	507.8	507.4	507.4		
1-Jun-17	507.8	507.8	507.4	507.4		
22-Jun-17	507.8	507.8	507.4	507.4		
26-Jun-17	507.8	507.8	507.4	507.4	509.4	509.5
7-Jul-17	507.8	507.8	507.4	507.4		
17-Jul-17	507.8	507.7	507.4	507.4	509.4	509.5
3-Aug-17						
17-Aug-17	507.7	507.7	507.4	507.4	Dry	509.3
29-Aug-17						
18-Sep-17	507.7	507.7	507.3	507.4	Dry	
26-Sep-17						
15-Oct-17	507.7	507.7	507.4	507.4	Dry	509.3
14-Nov-17	507.8	507.8	507.4	507.4	509.3	509.4
11-Dec-17	Frozen	Frozen	507.4	507.4	Buried	Buried

NOTE:
- Frozen / snow indicates monitor frozen and/or snow covered.
- Dry indicates no water detected in monitor.
- N/A indicates water level not available.

FIGURE C-63

GROUNDWATER/SURFACE WATER HYDROGRAPH
DP1 (in and out)

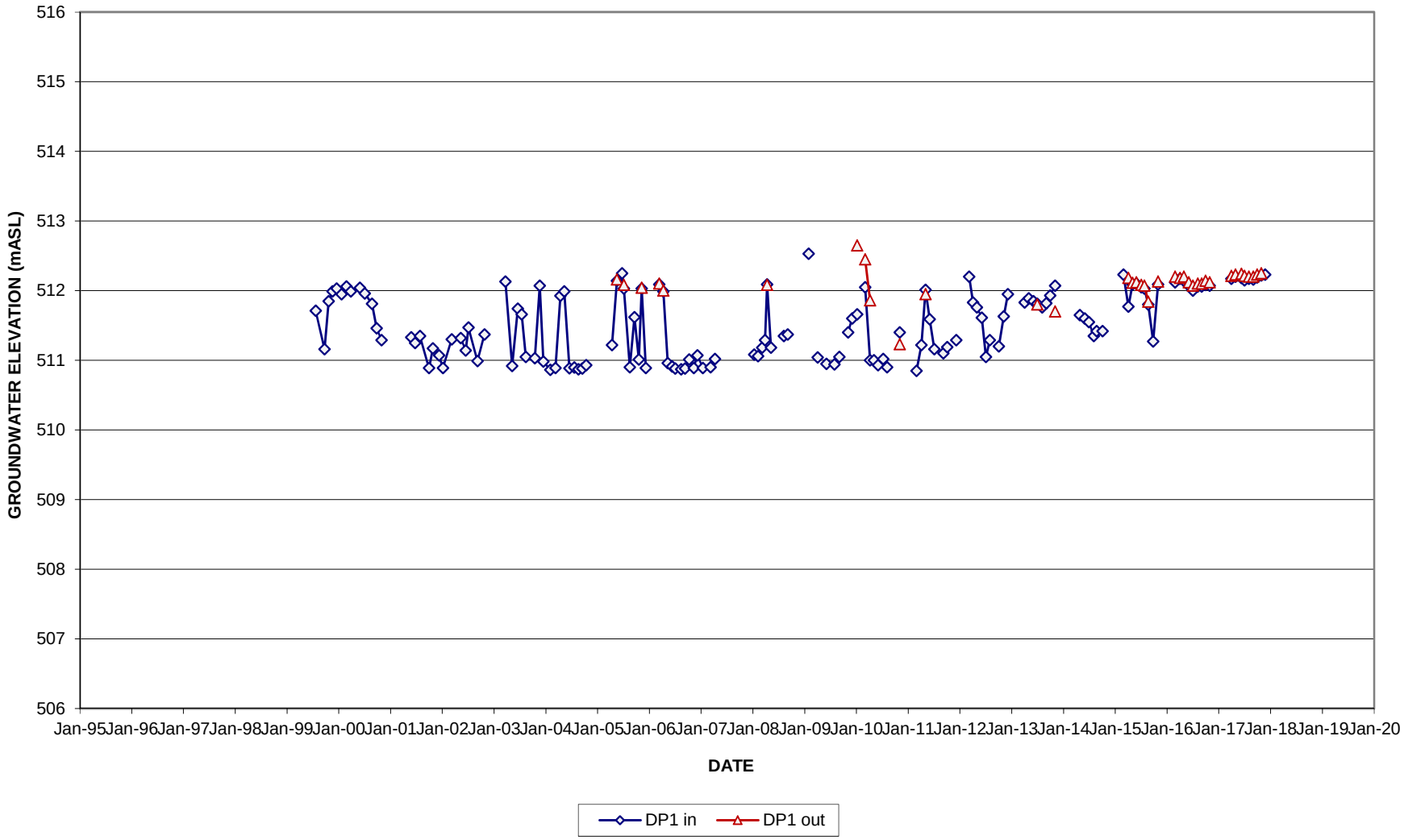


FIGURE C-64

GROUNDWATER/SURFACE WATER HYDROGRAPH
DP2 (in and out)

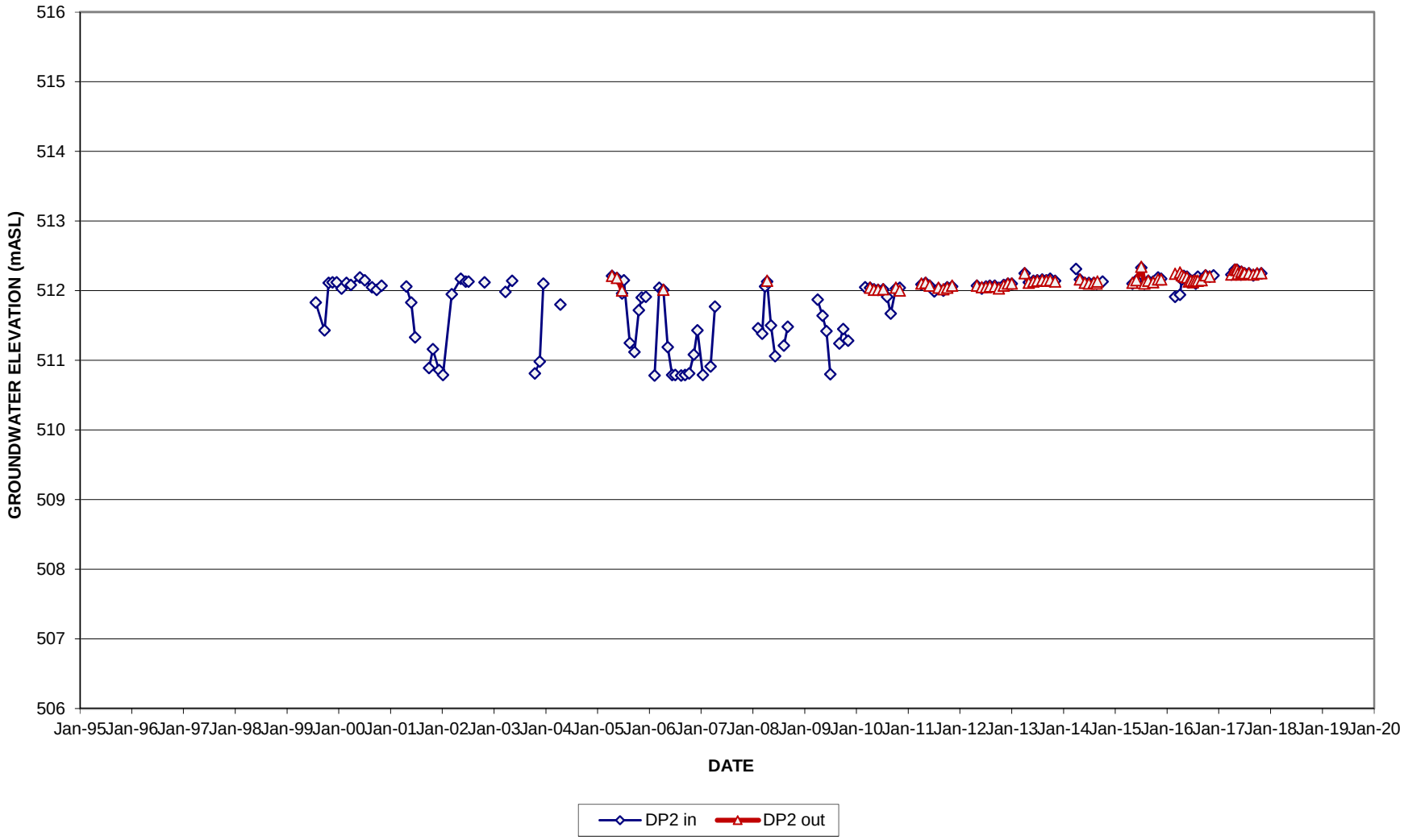


FIGURE C-65

GROUNDWATER/SURFACE WATER HYDROGRAPH
DP3 (in and out)

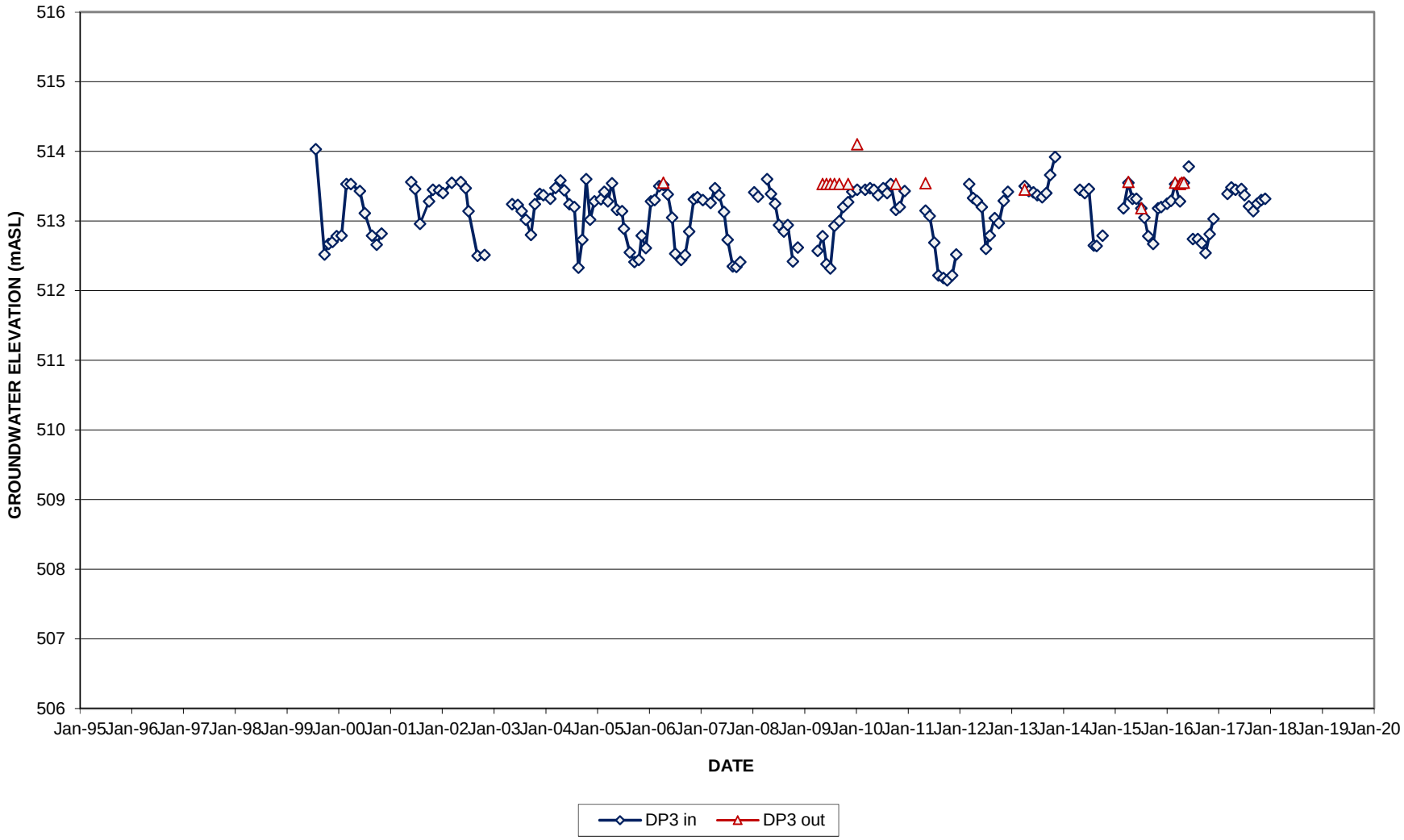


FIGURE C-66

GROUNDWATER/SURFACE WATER HYDROGRAPH
DP4 (in and out)

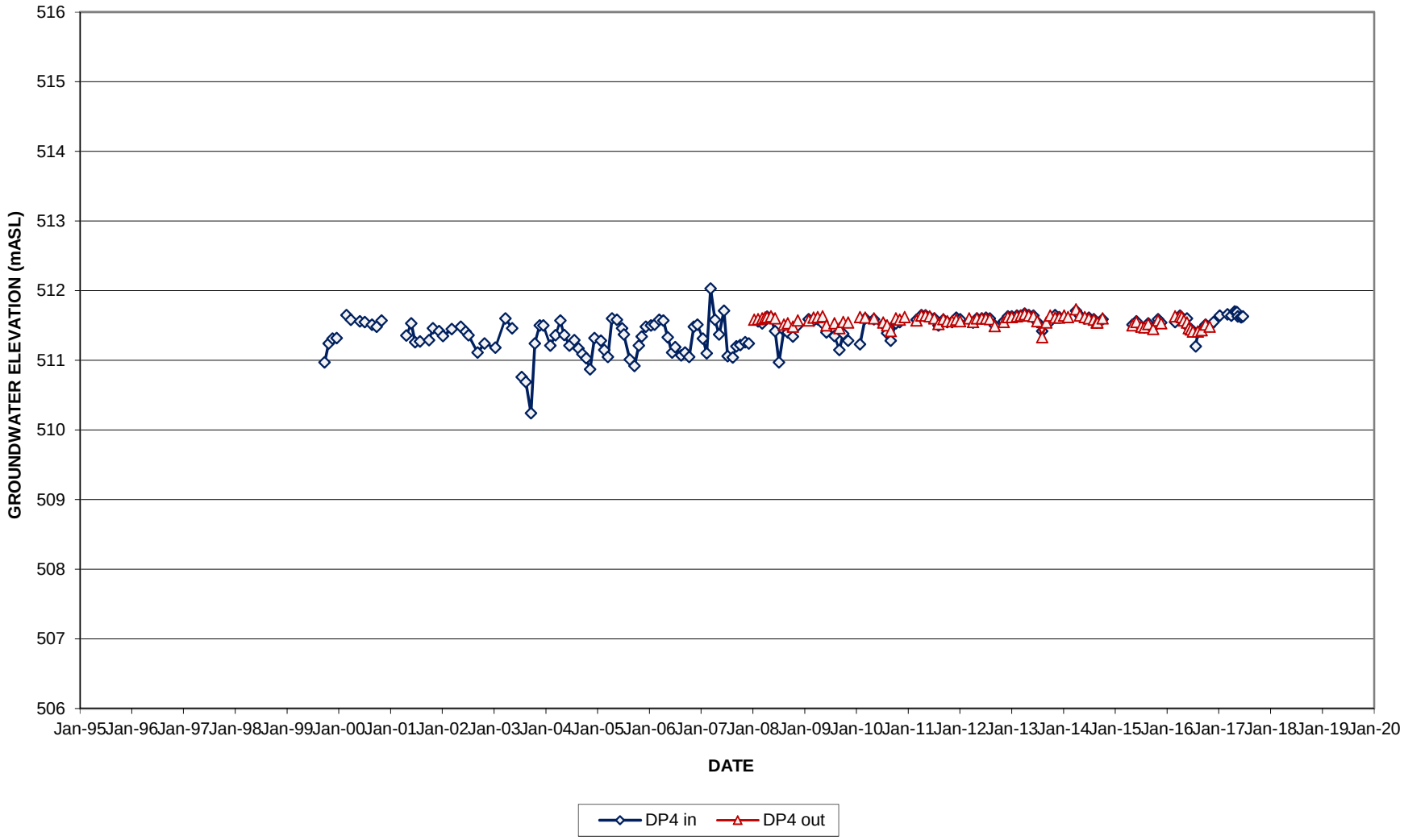


FIGURE C-67

GROUNDWATER/SURFACE WATER HYDROGRAPH
DP5 (in and out)

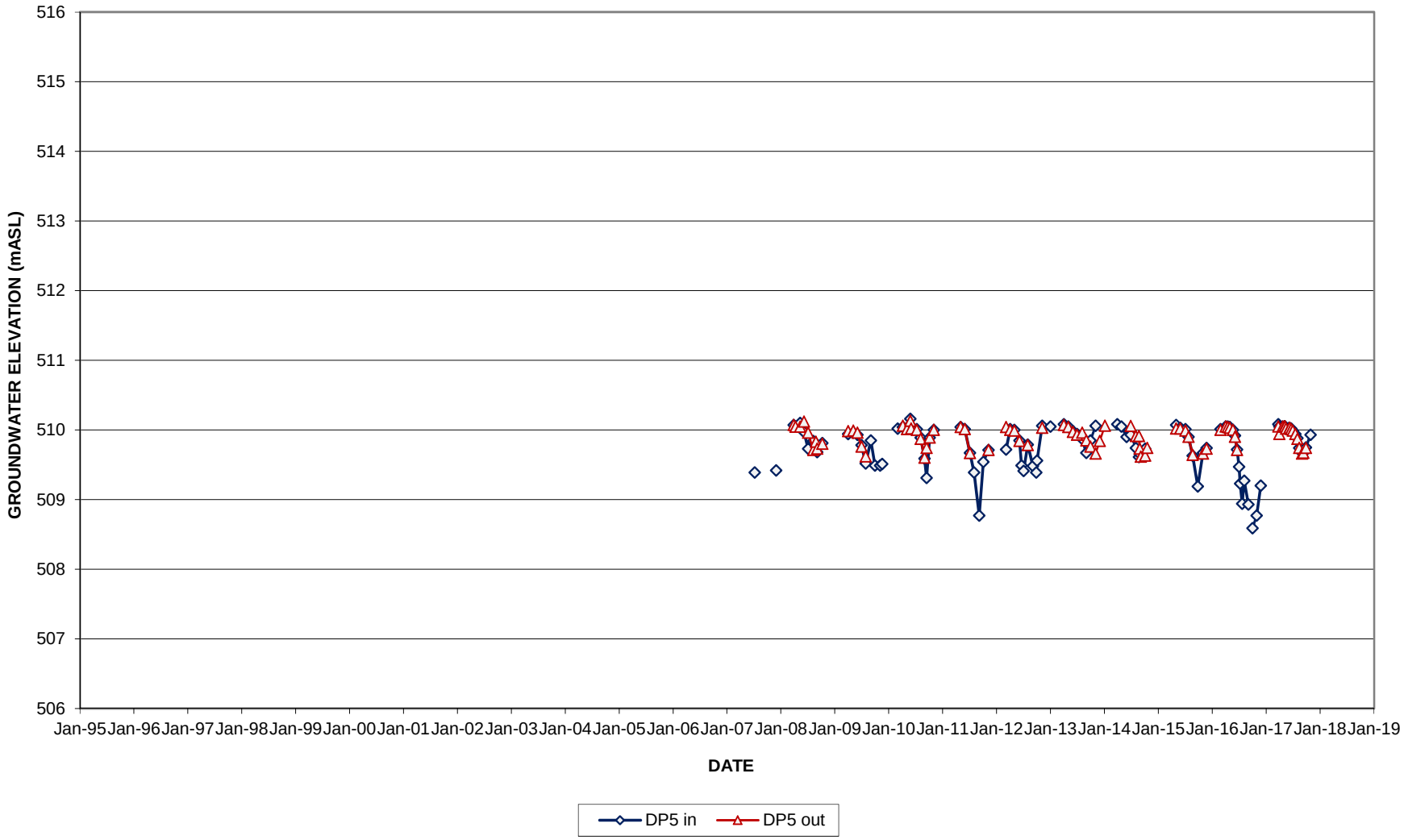


FIGURE C-68

GROUNDWATER/SURFACE WATER HYDROGRAPH
DP6 (in and out)

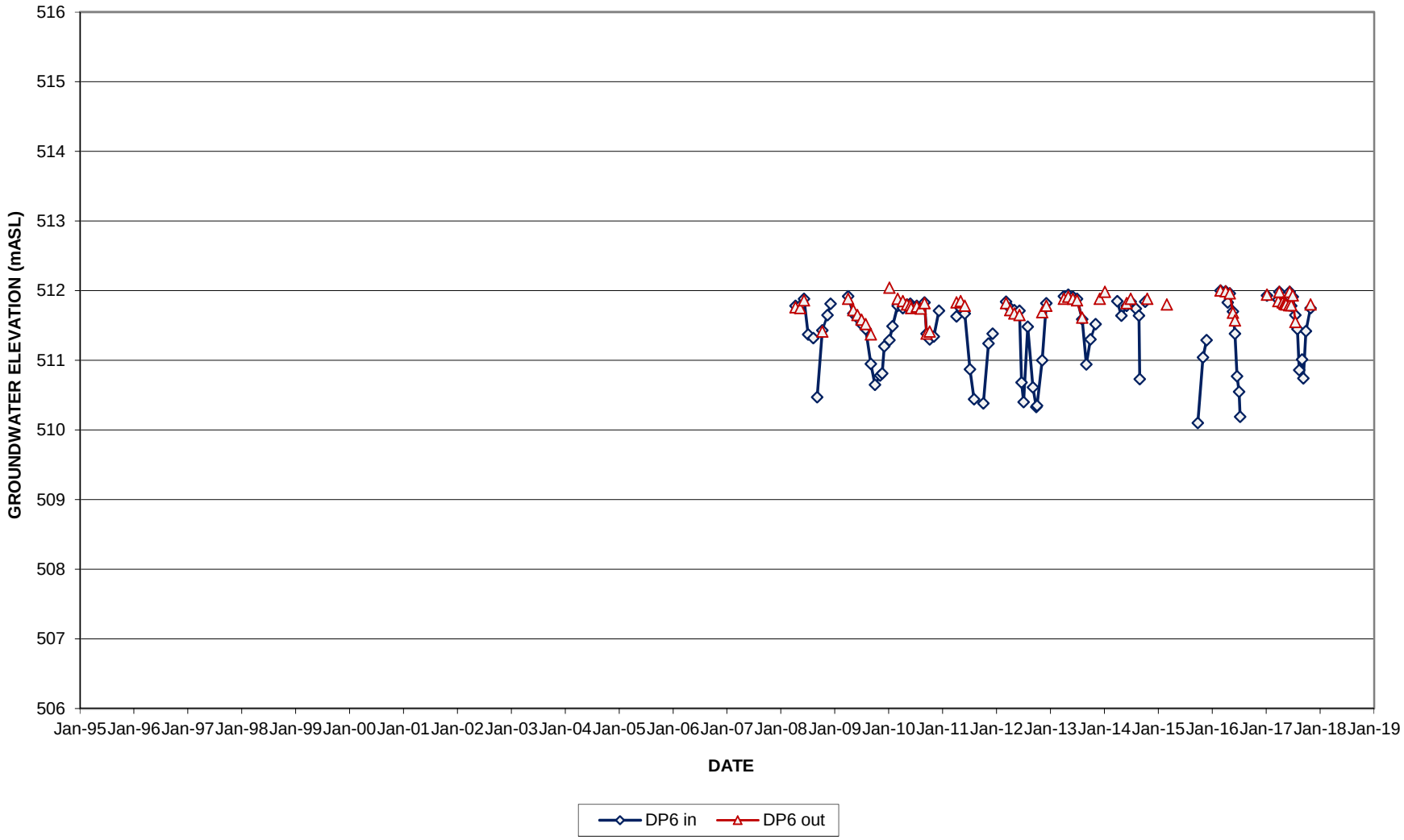


FIGURE C-69

GROUNDWATER/SURFACE WATER HYDROGRAPH
DP7 (in and out)



FIGURE C-70

GROUNDWATER/SURFACE WATER HYDROGRAPH
DP8 (in and out)



FIGURE C-71

GROUNDWATER/SURFACE WATER HYDROGRAPH
DP9 (in and out)



FIGURE C-72

GROUNDWATER/SURFACE WATER HYDROGRAPH
DP10 (in and out)



FIGURE C-73

GROUNDWATER/SURFACE WATER HYDROGRAPH
Bridson (in and out)

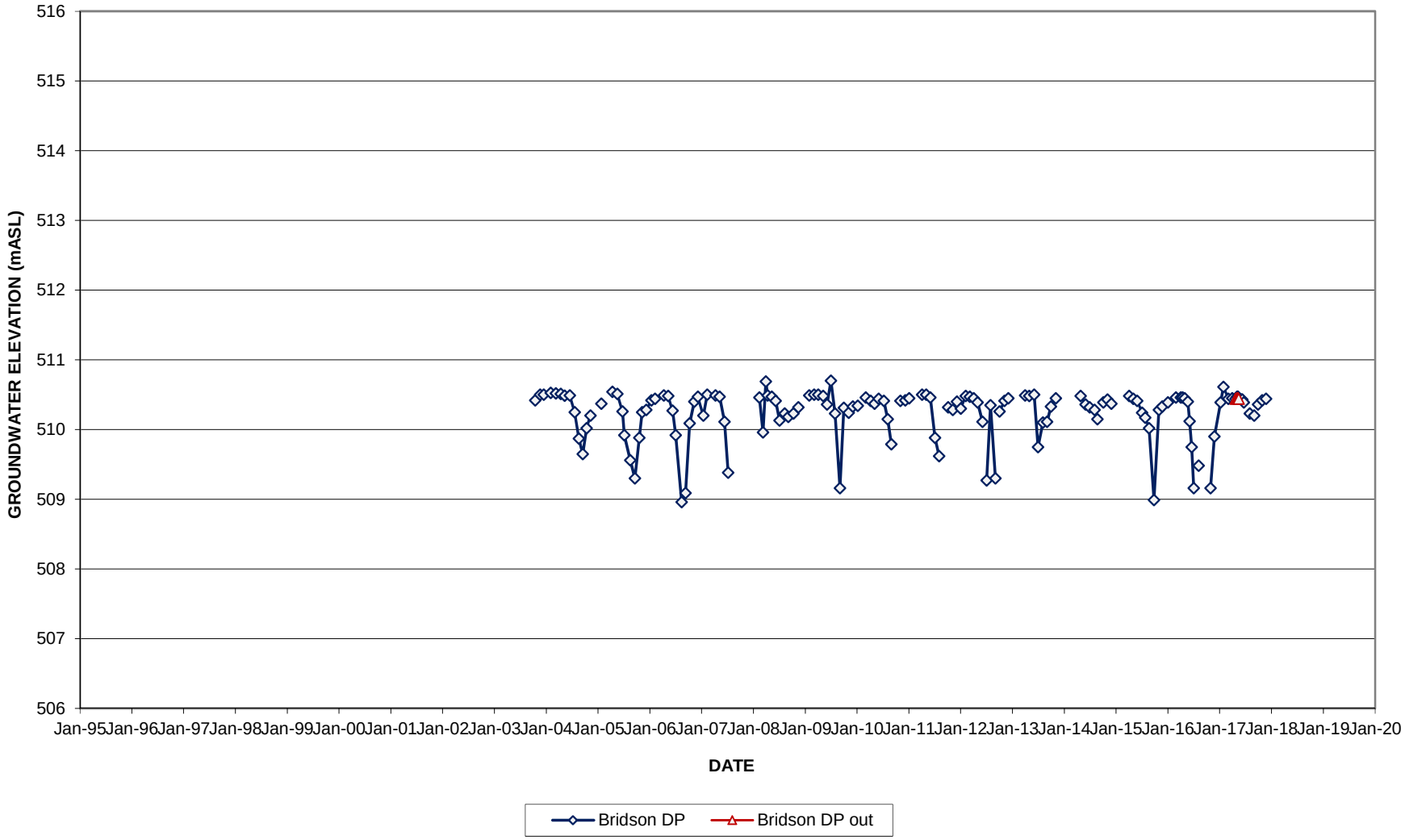


FIGURE C-74

SURFACE WATER DEPTH IN RR#2
STAFF GAUGE #1 and #2 at BH03-7 nest

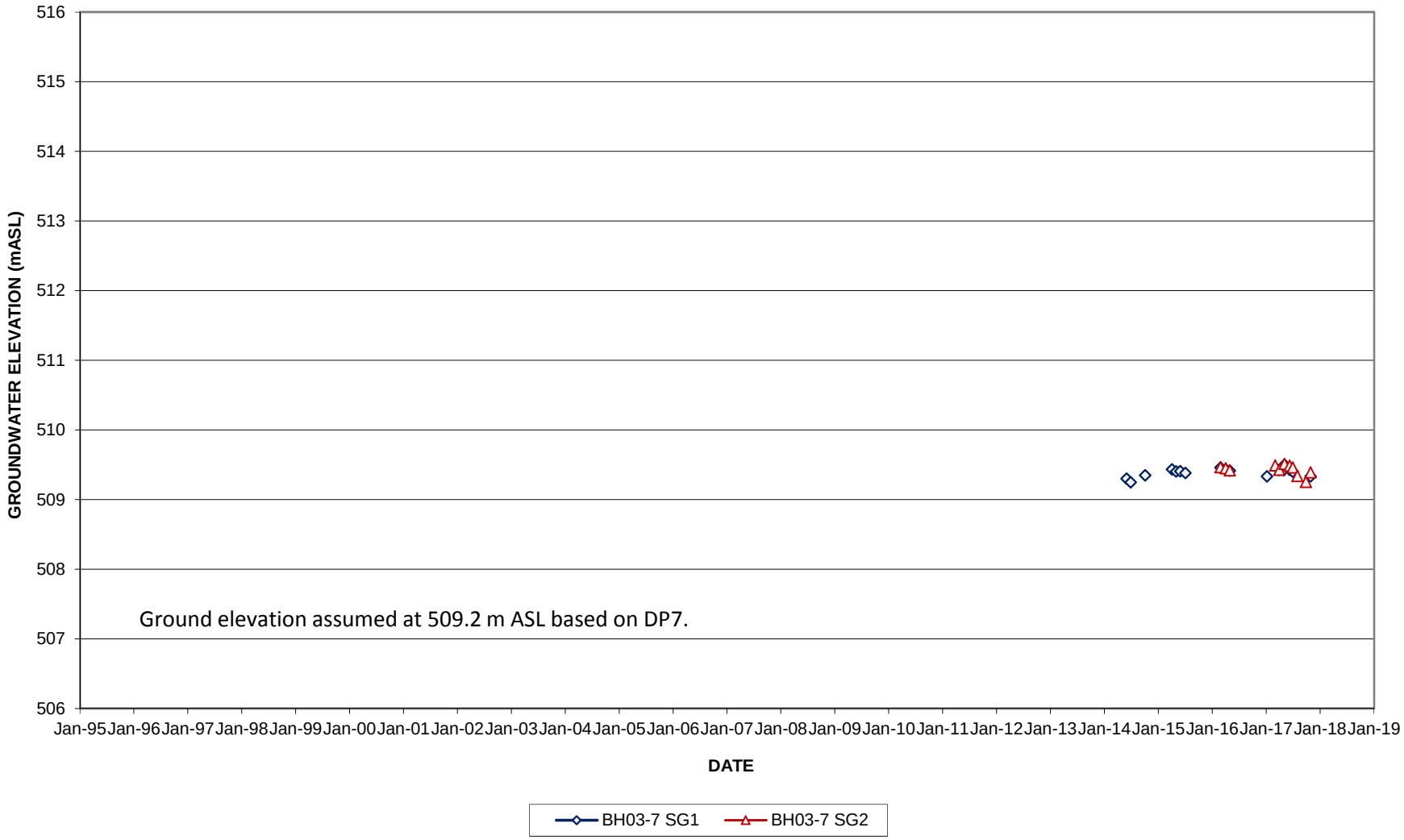


TABLE C-9
SURFACE WATER TEMPERATURE (°C)

DUNTROON QUARRY - 2017 AMP SUMMARY REPORT

PONDED WATER AT DRIVEPOINTS

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DATE	DP1	DP2	DP3	DP4	DP5	DP6	DP6 new	DP7	DP8	DP9	DP10	Bridson
16-Nov-16	7.4	7.7	Dry	5.6	Dry	Dry	Dry	Dry	4.7	Dry	Dry	Dry
11-Dec-16	1.1	Frozen	Dry	0.2	Dry	Dry	Dry	Dry	0.1	Dry	Frozen	Dry
23-Jan-17	Frozen	Frozen	Frozen	0.5	0.7	n/a	n/a	n/a	Frozen	0.03	5.7	Frozen
12-Feb-17	Frozen	Frozen	Frozen	Frozen	Frozen	n/a	n/a	Frozen	Frozen	Frozen	6.4	Frozen
19-Mar-17	Frozen	Frozen	Frozen	Frozen	Frozen	n/a	n/a	Frozen	Frozen	Frozen	4.2	Frozen
16-Apr-17	10.5	8.7	Dry	4.1	7.1	5.8	5.8	6.1	4.7	10.2	8.0	16.2
10-May-17		9.4		9.9	11.0	8.2		8.5	8.5	6.0	9.2	6.4
19-May-17	14.9		Dry									
25-May-17		12.1		12.2	12.6	10.1		12.9	12.2	12.0	9.9	14.1
1-Jun-17		11.8		12.1	14.1	11.4		13.6	11.4	12.2	9.5	11.5
22-Jun-17		15.1		14.9	15.2	15		15.1	14.9	15.1	11.9	15.4
26-Jun-17	21.7	12.9	Dry	12.1	13.6	13.8	13.8	13.9	12	14.8	11.8	
7-Jul-17		18.2		18.6	18.5	18.3		18.6	17.8	18.5	12.2	Dry
19-Jul-17	19.6	17.8	Dry	17.4	17.9	17.7	17.7	18.7	17.3	18.8	12.7	Dry
17-Aug-17	18.3	17.6	Dry	n/a	17.7	Dry	n/a	16.9	17.2	Dry	n/a	
18-Sep-17	20.5	22.4	Dry	17.9	18.7	Dry	Dry	Dry	18.1	Dry	18.3	Dry
15-Oct-17	8.1	11.9	Dry	n/a	9.8	Dry	Dry	Dry	10.0	n/a	12.2	Dry
14-Nov-17	0.7	1.8	Dry	n/a	2.2	1	1	1.3	1.6	2.5	8.8	Dry
11-Dec-17	Frozen	n/a	Dry	n/a	Frozen	Frozen	Frozen	Frozen	Frozen	Frozen		

TABLE C-10
GROUNDWATER LABORATORY ANALYSIS (2017)

DUNTROON QUARRY - AMP MONITORING REPORT (2017)
111-53312.01 A61

		ODWQS		RESIDENTIAL WELLS				
				RW1		RW2		
PARAMETERS	UNITS	Objective	Type	24-Oct-16	2-May-17	24-Oct-16	2-May-17	16-May-17
Total Coliform	cfu/100mL	0	MAC	<2	0	12	40	6
E.Coli	cfu/100mL	0	MAC	0	0	0	0	0
Heterotrophic Plate Count	cfu/mL			130	200	290	30	130
Temperature (field)	°C			19.1	20.3	11.6	9.4	
pH @25°C (lab)	pH units	6.5-8.5	OG	7.91	8.05	7.88	7.95	*Re-sample
pH (field)	pH units	6.5-8.5	OG	7.7	7.7	7.4	7.5	for Bacti
Conductivity @25°C (lab)	µS/cm			595	487	1260	760	only*
Conductivity (field)	µS/cm			581	449	992	708	
Dissolved Oxygen (field)	mg/L			6.7	-	11.2	-	
Alkalinity (CaCO3)	mg/L	30-500	0G	276	240	302	247	
Hardness (CaCO3)	mg/L	80-100	OG	<1	<1	348	255	
Chloride	mg/L	250	AO	17	6.4	204	81.5	
Fluoride	mg/L	1.5	MAC	0.1	<0.1	0.1	<0.1	
Nitrate (N)	mg/L	10.0	MAC	1.1	0.6	1.6	0.8	
Nitrite (N)	mg/L	1.0		<0.1	<0.1	<0.1	<0.1	
Sulphate	mg/L	500	AO	7	6	12	6	
Colour	TCU	5	AO	<2	-	7	-	
Total Suspended Solids	mg/L			3	<3	11	<3	
Ammonia (N) - Total	mg/L			0.01	<0.01	0.04	<0.01	
Unionized Ammonia as NH_3	mg/L			0.0002	<0.0002	0.0002	<0.0001	
Total Kjeldahl Nitrogen	mg/L			<0.1	0.2	0.3	0.2	
Phosphorus - Total	mg/L			<0.01	<0.01	0.01	0.01	
Calcium	mg/L			0.07	0.17	103	73.8	
Magnesium	mg/L			0.02	0.08	22.4	17.1	
Potassium	mg/L			<0.1	0.1	0.6	0.3	
Sodium	mg/L	200,20	AO,MAC	159	107	144	60.6	
Aluminum	mg/L			<0.01	<0.01	0.03	0.04	
Antimony	mg/L	0.006	MAC	0.0002	<0.0001	0.0001	<0.0001	
Arsenic	mg/L	0.025	MAC	0.0123	0.0007	0.0003	0.0005	
Barium	mg/L	1.0	MAC	<0.001	<0.001	0.015	0.008	
Beryllium	mg/L			<0.002	<0.002	<0.002	<0.002	
Cadmium	mg/L	0.005	MAC	<0.00002	<0.000014	<0.00002	<0.000014	
Chromium	mg/L	0.05	MAC	0.002	<0.001	<0.002	0.003	
Cobalt	mg/L			<0.0001	0.0001	0.0001	<0.0001	
Copper	mg/L			0.147	0.0263	0.011	0.0076	
Iron	mg/L	0.3	AO	<0.005	<0.005	0.009	0.073	
Lead	mg/L	0.01	MAC	0.00077	0.00017	0.00015	0.00026	
Manganese	mg/L	0.05	AO	<0.001	<0.001	<0.001	<0.001	
Molybdenum	mg/L			<0.0001	<0.0001	<0.0001	0.0001	
Nickel	mg/L			<0.01	<0.01	<0.01	<0.01	
Selenium	mg/L	0.05	MAC	<0.001	<0.001	<0.001	<0.001	
Silver	mg/L			<0.00002	<0.00002	<0.00002	<0.00002	
Strontium	mg/L			<0.001	<0.001	0.275	0.159	
Thallium	mg/L			<0.00005	<0.00005	<0.00005	<0.00005	
Titanium	mg/L			<0.005	<0.005	<0.005	<0.005	
Tungsten	mg/L			<0.01	<0.01	<0.01	<0.01	
Uranium	mg/L	0.02	MAC	0.00011	0.00010	0.00016	0.00013	

TABLE C-10
GROUNDWATER LABORATORY ANALYSIS (2017)

DUNTROON QUARRY - AMP MONITORING REPORT (2017)
111-53312.01 A61

PARAMETERS	UNITS	ODWQS		RESIDENTIAL WELLS				
				RW1		RW2		
		Objective	Type	24-Oct-16	2-May-17	24-Oct-16	2-May-17	16-May-17
Vanadium	mg/L			<0.005	<0.005	<0.005	<0.005	
Zinc	mg/L			<0.005	<0.005	<0.005	0.007	
Zirconium	mg/L			<0.003	<0.003	<0.003	<0.003	
Anion Sum	meq/L			6.23	5.13	12.2	7.14	
Cation Sum	meq/L			6.93	4.66	13.2	7.73	
Ion Ratio	AS/CS			0.9	1.1	0.919	0.958	
TDS (Calc)	mg/L			354	266	674	391	
Benzene	µg/L	0.001	MAC	<0.5	<0.5	<0.5	<0.5	
Toluene	µg/L	0.06	MAC	<0.5	<0.5	<0.5	<0.5	
Ethylbenzene	µg/L	0.14		<0.5	<0.5	<0.5	<0.5	
Xylene, m, p-	µg/L			<1.0	<1.0	<1.0	<1.0	
Xylene, o-	µg/L			<0.5	<0.5	<0.5	<0.5	
Xylene, total	µg/L	0.09	MAC	<1.1	<1.1	<1.1	<1.1	
PHC F1 (C6-C10)	µg/L			<50	<50	<50	<50	
PHC F2 (>C10-C16)	µg/L			<50	<50	<50	<50	
PHC F3 (>C16-C34)	µg/L			<400	<400	<400	<400	
PHC F4 (<C34-C50)	µg/L			<400	<400	<400	<400	