

# Independent Expert Engineering Investigation and Review Panel

## Report on Mount Polley Tailings Storage Facility Breach

### Appendix F: ATTACHMENTS

**Attachment F1:** Summary of Instrumentation Data – Entire TSF

**Attachment F2:** Summary of Instrumentation Data – Breach Area

- Summary of Inclinometers in Breach Area
- Summary of Piezometers in Breach Area
- Piezometer Plots for Section D
- Piezometer Plots for Section G

Appendix F  
Attachment 1  
Summary of Instrumentation Data – Entire TSF

### Mount Polly TSF - Summary Inclinerometers

Knight Piésold Inclinometer ID	El. Provided By Mine (m)	Top El. (m)	Bottom El. (m)	Northing	Easting	Date Installed / Date of First Rdg	Date of Last Rdg	Source				
								Top El.	Bottom El.	Coordinates	Install	Date of Last Rdg
SI-01-1		906.923	891.32	5818463.54	595666.536	Jul-01	Mar-06	MP00072	MP00072 (Est. from TH Log)	MP00072	MP00072	MP00031
SI-01-2	928.7	918.152	887.5	5818400.999	595588.808	Jul-01	Aug-14	MP00072	MP00044 (Measured off Plot)	MP00072	MP00072	MP10010
SI-06-01	926.4	917	874.8	5818399.6	595649.6	Aug-06	Aug-14	MP00031	MP00031 (Depth of Drill Hole)	Provided by Mine <sup>1</sup>	MP00031 (Date of First Rdg)	MP10010
SI-06-02	927	917	882.3	5818463	595734	Aug-06	Aug-14	MP00031	MP00031 (Depth of Drill Hole)	Provided by Mine <sup>1</sup>	MP00031 (Date of First Rdg)	MP10010
SI-06-03	926.1	918	877.4	5818520.7	595814.7	Aug-06	Jan-14	MP00031	MP00031 (Depth of Drill Hole)	Provided by Mine <sup>1</sup>	MP00031 (Date of First Rdg)	MP10010
SI-11-01	928	921.1	876.3	5818352.7	595526.8	Jan-12	Aug-14	MP00041	MP00041 (Depth of Drill Hole)	Provided by Mine <sup>1</sup>	MP00041 (Date of First Rdg)	MP10010
SI-11-02	932.2	928.3	878.9	5818715.6	595997.6	Jan-12	Aug-14	MP00041	MP00041 (Depth of Drill Hole)	Provided by Mine <sup>1</sup>	MP00041 (Date of First Rdg)	MP10010
SI-11-04	932.8	931.9	888.6	5819780.3	595408.6	Jan-12	Aug-14	MP00041	MP00041 (Depth of Drill Hole)	Provided by Mine <sup>1</sup>	MP00041 (Date of First Rdg)	MP10010
SI-12-01	932.5		891	5819787.7	595407.4	Mar-13	Aug-14		MP00044 (Measured off Dwg)	Provided by Mine <sup>1</sup>	MP10010 (Date of First Rdg)	MP10010
SI-12-02	937.1		894.5	5819420.6	595924.2	Mar-13	Aug-14		MP00044 (Measured off Dwg)	Provided by Mine <sup>1</sup>	MP10010 (Date of First Rdg)	MP10010

**Notes:**

- <sup>1</sup> "2014 07 24 - Compiled Functioning Piezo Coordinates" Spreadsheet provided September 18, 2014
- Information on orientation of inclinometers was not found
- Incremental data plots were not provided
- In Document No. MP00044, AMEC notes that SI-12-01 was installed to replace SI-11-04

**Mount Polly TSF - Summary of South Embankment Piezometers**

Section	Knight Piésold Piezometer ID	New AMEC ID <sup>1</sup>	Unit	Tip El. (m)	Northing	Easting	Date Installed	Date of Last Rdg	Source					Comments
									Unit	Tip El.	Coordinates	Install	Date of Last Rdg	
F	F0-PE2-01	F1	Tailings	950.2	5818565	594445	Oct-08	Jun-13	Provided by Mine <sup>2</sup>	Provided by Mine <sup>2</sup>	MP00034	MP00034 (Date of First Rdg)	MP10010	Coordinates were not provided and the piezometer does not appear on plan drawings. Coordinates were measured off Setting Out Line (S.O.L.) on instrumentation sections along the section line.
	F2-PE2-03	F2	Till Core - Starter Dam DS	940.07	5818528.575	594460.857	Jun-07	Aug-14	Provided by Mine <sup>2</sup>	MP00033	MP00033	MP00034 (Date of First Rdg)	MP10010	
	F2-PE2-02	F3	Till Core - Upper Narrow	948.13	5818544.75	594467.57	Jun-07	Aug-14	Provided by Mine <sup>2</sup>	MP00033	MP00033	MP00034 (Date of First Rdg)	MP10010	
	F1-PE1-01	F4	Filters	948.47	5818544.75	594467.57	Aug-08	Aug-14	Provided by Mine <sup>2</sup>	Provided by Mine <sup>2</sup>	Provided by Mine <sup>2</sup>	MP00034 (Date of First Rdg)	MP10010	
		F5	Foundation	934.0066	5818479.5	594462.875	Oct-11	Aug-14	Provided by Mine <sup>2</sup>	Provided by Mine <sup>2</sup>	Provided by Mine <sup>2</sup>	MP00041 (Date of First Rdg)	MP10010	Installed in VW11-01
	F2-PE2-01		Foundation	937	5818540.12	594450.92	Nov-00	Feb-05	MP00072	Provided by Mine <sup>2</sup>	MP00072	MP00038 (Date of First Rdg)	MP00038	Coordinates are estimated off Knight Piésold's Instrumentation Plan Drawing due to a typo in the coordinates provided in the instrumentation summary table
I	I2-PE2-02	I1	Till Core - Upper Narrow	948.08	5818408	594808.35	Oct-06	Jan-14	Provided by Mine <sup>2</sup>	MP00033	MP00033	MP00033 (Date of First Rdg)	MP10010	
	I2-PE2-03	I2	Foundation - GT	944.7	5818400	594805.8	Oct-06	Aug-14	Provided by Mine <sup>2</sup>	MP00033	MP00033	MP00033 (Date of First Rdg)	MP10010	
	I1-PE1-01	I3	Filters	948.99	5818395	594790	Jul-08	Aug-14	Provided by Mine <sup>2</sup>	Provided by Mine <sup>2</sup>	MP00034	MP00034 (Date of First Rdg)	MP10010	Coordinates were not provided and the piezometer does not appear on plan drawings. Coordinates were measured off Setting Out Line (S.O.L.) on instrumentation sections along the section line.
	I0-PE2-01	I4	Tailings	950.37	5818430	594810	Jul-08	Jan-14	Provided by Mine <sup>2</sup>	Provided by Mine <sup>2</sup>	MP00034	MP00034 (Date of First Rdg)	MP10010	Coordinates were not provided and the piezometer does not appear on plan drawings. Coordinates were measured off Setting Out Line (S.O.L.) on instrumentation sections along the section line.
		I5	Foundation	937.481	5818343	594786.063	Oct-11	Aug-14	Provided by Mine <sup>2</sup>	Provided by Mine <sup>2</sup>	Provided by Mine <sup>2</sup>	MP00041 (Date of First Rdg)	MP10010	Installed in VW11-02
		I6	Foundation	934.7378	5818343	594786.063	Oct-11	Aug-14	Provided by Mine <sup>2</sup>	Provided by Mine <sup>2</sup>	Provided by Mine <sup>2</sup>	MP00041 (Date of First Rdg)	MP10010	Installed in VW11-02
	I2-PE2-01			948	5818410	594805	Jul-08	Jan-09		MP00034 (Est. off Section Dwg.)	MP00034	MP00034 (Date of First Rdg)	MP00034	Coordinates were not provided and the piezometer does not appear on plan drawings. Coordinates were measured off Setting Out Line (S.O.L.) on instrumentation sections along the section line.

**Notes:**

<sup>1</sup> AMEC renamed existing Instrumentation in Document No. MP00041 (March 30, 2012 - 2011 construction period)

<sup>2</sup> "2014 07 24 - Compiled Functioning Piezo Coordinates" Spreadsheet provided September 18, 2014

- AMEC grouped individual piezometers under FX1, FX2, FX3, IX1, IX2 and IX3. TABLE 1: AMEC Piezometer Group ID's outlines the details of the groupings.

**Mount Polly TSF - Summary of Main Embankment Piezometers**

Section	Knight Piésold Piezometer ID	New AMEC ID <sup>1</sup>	Unit	Tip El. (m)	Northing	Easting	Date Installed	Date of Last Rdg	Source					Comments	
									Unit	Tip El.	Coordinates	Install	Date of Last Rdg		
E	E2-PE2-02	E1	Foundation	909.66	5818307.454	595435.983	Jun-98	Aug-14	MP00012	MP00034	MP00012	MP00012	MP10010		
	E2-PE2-04	E2	Till Core - Upper Narrow	948.26	5818352.405	595402.103	Oct-06	Aug-14	Provided by Mine <sup>2</sup>	MP00033	MP00033	MP00033 (Date of First Rdg)	MP10010		
	E1-PE1-01	E3	Filter	947.86	5818349.121	595401.967	Oct-06	Aug-14	Provided by Mine <sup>2</sup>	MP00033	MP00033	MP00033 (Date of First Rdg)	MP10010		
	E2-PE2-03	E4	Upstream Fill	947.63	5818360.555	595396.06	Oct-06	Feb-13	Provided by Mine <sup>2</sup>	MP00033	MP00033	MP00033 (Date of First Rdg)	MP10010		
	E0-PE2-01	E5	Tailings	944.59	5818370.695	595386.658	Oct-06	Mar-14	Provided by Mine <sup>2</sup>	MP00033	MP00033	MP00033 (Date of First Rdg)	MP10010		
		E6	Foundation	911.757	5818272	595467.063	Oct-11	Aug-14	Provided by Mine <sup>2</sup>	Provided by Mine <sup>2</sup>	Provided by Mine <sup>2</sup>	MP00041 (Date of First Rdg)	MP10010	Installed in VW11-03	
		E7	Foundation	908.0994	5818272	595467.063	Oct-11	Aug-14	Provided by Mine <sup>2</sup>	Provided by Mine <sup>2</sup>	Provided by Mine <sup>2</sup>	MP00041 (Date of First Rdg)	MP10010	Installed in VW11-03	
		E2-PE2-01		Foundation	914.21	5818307.454	595435.983	Jun-98	Jun-10	MP00012	MP00034	MP00012	MP00012	MP10010	
C	C2-PE2-05	C1	Till Core - Starter Dam US	924.84	5818402.343	595475.326	Feb-97	Aug-14	Provided by Mine <sup>2</sup>	MP00009	MP00009	MP00012	MP10010		
	C2-PE2-03	C2	Till Core - Starter Dam US	920.97	5818399.106	595478.824	Feb-97	Aug-14	Provided by Mine <sup>2</sup>	MP00009	MP00009	MP00012	MP10010		
	C2-PE1-02	C3	Till Core - Upper Narrow	939.26	5818404.117	595473.754	Feb-00	Aug-14	Provided by Mine <sup>2</sup>	MP00080	MP00080	MP00072	MP10010		
	C2-PE1-01	C4	Drain - DS	917	5818367.67	595508.9	Aug-98	Aug-14	Provided by Mine <sup>2</sup>	MP00012	MP00012	MP00012	MP10010		
	C2-PE2-02	C5	Foundation	910.5	5818392.41	595478.24	Jul-96	Aug-14	MP00009	MP00009	MP00009	MP00012	MP10010		
	C1-PE1-04	C6	Drain - Foundation	914.3	5818351.42	595509.06	Apr-98	Aug-14	MP00012	MP00080	MP00080	MP00012	MP10010		
	C2-PE2-08	C7	Drain - DS	914.03	5818367.087	595509.351	Jun-98	Aug-14	Provided by Mine <sup>2</sup>	MP00034	MP00012	MP00012	MP10010		
	C2-PE2-06	C8	Foundation	906.84	5818359.734	595513.664	Jun-98	Aug-14	MP00012	MP00034	MP00012	MP00012	MP10010		
	C2-PE2-09	C9	Upstream Fill	947.71	5818416.649	595465.403	Sep-06	Mar-14	Provided by Mine <sup>2</sup>	MP00033	MP00033	MP00033 (Date of First Rdg)	MP10010		
	C2-PE2-10	C10	Till Core - Upper Narrow	947.73	5818409.046	595471.034	Sep-06	Feb-14	Provided by Mine <sup>2</sup>	MP00033	MP00033	MP00033 (Date of First Rdg)	MP10010		
		C11	Foundation	909.0972	5818308.5	595532.813	Oct-11	Aug-14	Provided by Mine <sup>2</sup>		Provided by Mine <sup>2</sup>	MP00041 (Date of First Rdg)	MP10010	Installed in VW11-04	
		C12	Foundation	900.5628	5818308.5	595532.813	Oct-11	Aug-14	Provided by Mine <sup>2</sup>		Provided by Mine <sup>2</sup>	MP00041 (Date of First Rdg)	MP10010	Installed in VW11-04	
		C0-PE1-01		Cycloned Tailings	939.267	5818408.969	595469.75	Feb-00	Jun-06	MP00080	MP00080	MP00080	MP00072	MP10010	
		C0-PE2-01		Tailings	928	5818414.319	595471.099	Mar-98	Apr-99	MP00012	MP00012	MP00080	MP00012	MP00033	
		C0-PE2-02		Tailings	928	5818426.495	595463.101	Mar-98	Apr-99	MP00012	MP00012	MP00080	MP00012	MP00033	
		C0-PE2-03			944.96	5818422.35	595460.8	Sep-06	May-10		MP00033	MP00033	MP10033	MP00037	
		C1-PE1-01		Drain - Foundation	914.7	5818410.5	595496.07	Sep-96	Aug-05	MP00009	MP00009	MP00009	MP00012	MP00033	
		C1-PE1-02		Drain - Chimney	916.6	5818410.5	595496.07	Oct-96	Aug-05	MP00009	MP00009	MP00009	MP00012	MP00033	
	C2-PE1-03		Foundation	912.6	5818237.18	595530.51	Jul-00	Feb-05	MP00072	MP00072	MP00072	MP00072	MP00033		
	C2-PE2-01		Foundation	907.5	5818392.41	595478.24	Jul-96	Feb-98	MP00009	MP00009	MP00009	MP00012	MP00033		
	C2-PE2-07		Foundation	912.29	5818359.734	595513.663	Jun-98	Sep-05	MP00012	MP00034	MP00012	MP00012	MP00033		

**Notes:**

<sup>1</sup> AMEC renamed existing Instrumentation in Document No. MP00041 (March 30, 2012 - 2011 construction period)

<sup>2</sup> "2014 07 24 - Compiled Functioning Piezo Coordinates" Spreadsheet provided September 18, 2014

- AMEC grouped individual piezometers under CX1, CX2, CX3, CX4, EX1, EX2, EX3 and EX4. TABLE 1: AMEC Piezometer Group ID's outlines the details of the groupings.

**Mount Polly TSF - Summary of Main Embankment Piezometers**

Section	Knight Piésold Piezometer ID	New AMEC ID <sup>1</sup>	Unit	Tip El. (m)	Northing	Easting	Date Installed	Date of Last Rdg	Source					Comments
									Unit	Tip El.	Coordinates	Install	Date of Last Rdg	
A	A2-PE1-02	A1	Till Core - Upper Narrow	938.47	5818491.574	595592.678	Feb-00	Aug-14	MP00080	MP00080	MP00080	MP00072	MP10010	
	A0-PE2-01	A2	Tailings	928	5818512.85	595585.398	Mar-98	Aug-14	MP00012	MP00012	MP00080	MP00012	MP10010	
	A2-PE2-03	A3	Till Core - Starter Dam DS	919.43	5818484.196	595598.14	Feb-97	Aug-14	Provided by Mine <sup>2</sup>	MP00009	MP00009	MP00012	MP10010	
	A2-PE2-05	A4	Till Core - Starter Dam DS	921.87	5818475.061	595607.56	Feb-97	Aug-14	Provided by Mine <sup>2</sup>	MP00009	MP00009	MP00012	MP10010	
	A1-PE1-04	A5	Upstream Fill	936.5	5818495.773	595588.746	Nov-99	Aug-14	Provided by Mine <sup>2</sup>	MP00080	MP00072	MP00072	MP10010	
	A1-PE1-03	A6	Drain - Chimney	917.17	5818476.822	595602.38	Oct-96	Aug-14	MP00009	MP00009	MP00009	MP00012	MP10010	
	A1-PE1-02	A7	Drain - Foundation	912.14	5818456.42	595626.25	Aug-96	Aug-14	MP00009	MP00009	MP00009	MP00012	MP10010	
	A2-PE2-07	A8	Foundation	902.81	5818453.926	595648.458	Jun-98	Aug-14	MP00012	MP00034	MP00012	MP00012	MP10010	Last Reading was July 2009 (MP00037). Piezo was reinstated in October 2011 (MP00041).
	A2-PE2-08	A9	Foundation	907.56	5818447.045	595627.758	Jun-98	Aug-14	MP00012	MP00034	MP00012	MP00012	MP10010	Last Reading was August 2009 (MP00037). Piezo was reinstated in October 2011 (MP00041).
	A1-PE1-01	A10	Drain - Foundation	912.99	5818486.65	595595.06	Aug-96	Aug-14	MP00009	MP00009	MP00009	MP00012	MP10010	
	A2-PE1-01	A11	Drain - DS	912.9	5818446.55	595628.01	Aug-98	Aug-14	Provided by Mine <sup>2</sup>	MP00012	MP00012	MP00012	MP10010	
	A0-PE2-02	A12	Tailings	927.9	5818513.092	595578.418	Mar-98	Aug-14	MP00012	MP00012	MP00080	MP00012	MP10010	
	A1-PE1-05	A13	Filters	947.91	5818493.561	595594.842	Sep-06	Aug-14	Provided by Mine <sup>2</sup>	MP00033	MP00033	MP00037	MP10010	
	A2-PE2-10	A14	Till Core - Upper Narrow	948.02	5818495.798	595592.68	Sep-06	Aug-14	Provided by Mine <sup>2</sup>	MP00033	MP00033	MP00037	MP10010	
	A2-PE2-09	A15	Upstream Fill	947.85	5818496.433	595569.907	Sep-06	Nov-13	Provided by Mine <sup>2</sup>	MP00033	MP00033	MP00037	MP10010	
		A16	Foundation	908.409	5818410	595604.938	Oct-11	Aug-14	Provided by Mine <sup>2</sup>	Provided by Mine <sup>2</sup>	Provided by Mine <sup>2</sup>	MP00041 (Date of First Rdg)	MP10010	
		A17	Foundation	903.837	5818410	595604.938	Oct-11	Aug-14	Provided by Mine <sup>2</sup>	Provided by Mine <sup>2</sup>	Provided by Mine <sup>2</sup>	MP00041 (Date of First Rdg)	MP10010	
		A18	Foundation	896.217	5818410	595604.938	Oct-11	Aug-14	Provided by Mine <sup>2</sup>	Provided by Mine <sup>2</sup>	Provided by Mine <sup>2</sup>	MP00041 (Date of First Rdg)	MP10010	
		A19	Foundation	905.669	5818422.5	595686.438	Oct-11	Aug-14	Provided by Mine <sup>2</sup>	Provided by Mine <sup>2</sup>	Provided by Mine <sup>2</sup>	MP00041 (Date of First Rdg)	MP10010	
		A20	Foundation	901.097	5818422.5	595686.438	Oct-11	Aug-14	Provided by Mine <sup>2</sup>	Provided by Mine <sup>2</sup>	Provided by Mine <sup>2</sup>	MP00041 (Date of First Rdg)	MP10010	
		A21	Foundation	893.477	5818422.5	595686.438	Oct-11	Aug-14	Provided by Mine <sup>2</sup>	Provided by Mine <sup>2</sup>	Provided by Mine <sup>2</sup>	MP00041 (Date of First Rdg)	MP10010	
	A0-PE1-01		Cycloned Tailings	938.5	5818498.773	595588.746	Feb-00	Aug-05	MP00080	MP00080	MP00080	MP00072	MP00037	
	A0-PE2-03			944.2	5818518.84	595559.34	Sep-06	May-10		MP00033	MP00033	MP00037	MP00037	
	A2-PE1-03		Foundation	909.3	5818423.31	595663.2	Jul-00	Sep-00	MP00072	MP00072	MP00072	MP00072	MP00037	
	A2-PE2-01		Foundation	903.7	5818482.71	595598.14	Jul-96	May-06	MP00009	MP00009	MP00009	MP00012	MP00037	
	A2-PE2-02		Foundation	909.8	5818482.71	595598.14	Jul-96	Aug-05	MP00009	MP00009	MP00009	MP00012	MP00037	
	A2-PE2-04		Fill	926.07	5818487.51	595595.995	Feb-97	Feb-97	MP00009	MP00009	MP00009	MP00012		
	A2-PE2-06		Foundation	898.01	5818453.926	595648.458	Jun-98	Aug-05	MP00012	MP00034	MP00012	MP00012	MP00037	

**Notes:**

<sup>1</sup> AMEC renamed existing Instrumentation in Document No. MP00041 (March 30, 2012 - 2011 construction period)

<sup>2</sup> "2014 07 24 - Compiled Functioning Piezo Coordinates" Spreadsheet provided September 18, 2014

- AMEC grouped individual piezometers under AX1, AX2, AX3, AX4, AX5 and AX6. TABLE 1: AMEC Piezometer Group ID's outlines the details of the groupings.

**Mount Polly TSF - Summary of Main Embankment Piezometers**

Section	Knight Piésold Piezometer ID	New AMEC ID <sup>1</sup>	Unit	Tip El. (m)	Northing	Easting	Date Installed	Date of Last Rdg	Source					Comments	
									Unit	Tip El.	Coordinates	Install	Date of Last Rdg		
B	B1-PE1-03	B1	Drain - Chimney	918.69	5818622.78	595797.26	Oct-96	Aug-14	MP00009	MP00009	MP00009	MP00012	MP10010		
	B2-PE2-04	B2	Till Core - Starter Dam DS	921	5818626.94	595794.19	Oct-96	Aug-14	Provided by Mine <sup>2</sup>	MP00009	MP00009	MP00012	MP10010		
	B2-PE2-01	B3	Foundation	902	5818628.27	595787.88	Jul-96	Aug-14	MP00009	MP00009	MP00009	MP00012	MP10010		
	B2-PE2-02	B4	Foundation	909.5	5818627.47	595790.66	Jul-96	Aug-14	MP00009	MP00009	MP00009	MP00012	MP10010		
	B1-PE1-02	B5	Drain - Foundation	915.95	5818609.04	595806.77	Sep-96	Aug-14	MP00009	MP00009	MP00009	MP00012	MP10010		
	B2-PE1-03	B6	Foundation	914.1	5818572.78	595847.27	Jul-00	Aug-14	MP00072	MP00072	MP00072	MP00072	MP10010		
	B1-PE1-01	B7	Drain - Foundation	917.27	5818632.55	595787.91	Sep-96	Mar-13	MP00009	MP00009	MP00009	MP00012	MP10010		
	B2-PE1-01	B8	Drain - DS	935	5818594.94	595811.26	Aug-98	Aug-14	MP00012	MP00012	MP00012	MP00012	MP10010		
	B2-PE2-08	B9	Till Core - Upper Narrow	948.54	5818640.37	595784.21	Sep-06	Aug-14	Provided by Mine <sup>2</sup>	MP00033	MP00033	MP00033 (Date of First Rdg)	MP10010		
	B1-PE1-04	B10	Drain	948.19	5818637.03	595785.47	Sep-06	Aug-14	Provided by Mine	MP00033	MP00033	MP00033 (Date of First Rdg)	MP10010		
		B11	Foundation	906.063	5818553.5	595850.063	Oct-11	Aug-14	Provided by Mine <sup>2</sup>	Provided by Mine <sup>2</sup>	Provided by Mine <sup>2</sup>	MP00041 (Date of First Rdg)	MP10010	Installed in VW11-07	
		B12	Foundation	893.871	5818553.5	595850.063	Oct-11	Aug-14	Provided by Mine <sup>2</sup>	Provided by Mine <sup>2</sup>	Provided by Mine <sup>2</sup>	MP00041 (Date of First Rdg)	MP10010	Installed in VW11-07	
		B13	Foundation	888.6894	5818553.5	595850.063	Oct-11	Aug-14	Provided by Mine <sup>2</sup>	Provided by Mine <sup>2</sup>	Provided by Mine <sup>2</sup>	MP00041 (Date of First Rdg)	MP10010	Installed in VW11-07	
		BO-PE2-02	B14	Tailings	927.18	5818705	595830	Mar-98	Aug-14	MP00012	MP00080	MP00080	MP00080	MP10010	Coordinates are estimated off Knight Piésold's Instrumentation Plan Drawing due to a typo in the coordinates provided in the instrumentation summary table
		BO-PE1-01	B15	Cycloned Tailings	939.05	5818681.542	595831.874	Feb-00	Aug-14	MP00080	MP00072	MP00072	MP00072	MP10010	
		B2-PE1-02	B16	Glacial Till Fill	939.536	5818676.31	595836.05	Feb-00	Aug-14	MP00072	MP00072	MP00072	MP00072	MP10010	
	BO-PE2-03			944.22	5818660.1	595768.61	Sep-06	Jul-10		MP00033	MP00033	MP00033 (Date of First Rdg)	MP10010		
	B2-PE2-03		Fill	921	5818636.53	595786.97	Oct-96	Jun-05	MP00009	MP00009	MP00009	MP00012	MP00037		
	B2-PE2-05		Fill	921.7	5818619.014	595799.804	Mar-97	Aug-05	MP00009	MP00009	MP00009	MP00012	MP00037		
	B2-PE2-06		Foundation	914.6	5818595.767	595810.605	Jun-98	Sep-05	MP00012	MP00012	MP00012	MP00012	MP00037		
	B2-PE2-07			948.31	5818651.02	595777.6	Sep-06	Aug-10		MP00033	MP00033	MP00033 (Date of First Rdg)	MP00037		
	BO-PE2-01		Tailings	930	5818688.82	595832.067	Mar-98	Nov-08	MP00072	MP00072	MP00072	MP00072	MP00037		
K		K1	Foundation	912.414	5818697	596026.5	Oct-11	Aug-14	Provided by Mine <sup>2</sup>	Provided by Mine <sup>2</sup>	Provided by Mine <sup>2</sup>	MP00041 (Date of First Rdg)	MP10010	Installed in VW11-08	
		K2	Foundation	893.8212	5818697	596026.5	Oct-11	Aug-14	Provided by Mine <sup>2</sup>	Provided by Mine <sup>2</sup>	Provided by Mine <sup>2</sup>	MP00041 (Date of First Rdg)	MP10010	Installed in VW11-08	

**Notes:**

<sup>1</sup> AMEC renamed existing Instrumentation in Document No. MP00041 (March 30, 2012 - 2011 construction period)

<sup>2</sup> "2014 07 24 - Compiled Functioning Piezo Coordinates" Spreadsheet provided September 18, 2014

- AMEC grouped individual piezometers under BX1, BX2, BX3, BX4 and KX2. TABLE 1: AMEC Piezometer Group ID's outlines the details of the groupings.

**Mount Polly TSF - Summary of Perimeter Embankment Piezometers**

Section	Knight Piésold Piezometer ID	New AMEC ID <sup>1</sup>	Unit	Tip El. (m)	Northing	Easting	Date Installed	Date of Last Rdg	Source					Comments		
									Unit	Tip El.	Coordinates	Install	Date of Last Rdg			
J		J1	Foundation	917.2232	5819415	595927.938	Oct-11	Aug-14	Provided by Mine <sup>2</sup>	Provided by Mine <sup>2</sup>	Provided by Mine <sup>2</sup>	MP00041 (Date of First Rdg)	MP10010	Installed in VW11-09		
H	H0-PE2-01	H1	Tailings	946.959	5819513.042	595607.468	Jul-07	Oct-11	Provided by Mine <sup>2</sup>	MP00033	MP00033	MP10010 (Date of First Rdg)	MP10010			
	H2-PE2-01	H2	Upstream Fill	948.056	5819522.93	595614.082	May-08	Oct-11	Provided by Mine <sup>2</sup>	MP00033	MP00033	MP10010 (Date of First Rdg)	MP10010			
	H1-PE1-01		Zone F	936.8	5819517.62	595667.86	Jul-01	Oct-04		MP00072	MP00072	MP00072	MP00072			
	H2-PE2-02			948.48	5819530.83	595619.44	Jul-07	Jul-10		MP00033	MP00033	MP10010 (Date of First Rdg)	MP10010			
D	D2-PE2-02	D1	Foundation	927.32	5819791.103	595333.275	Jun-98	Aug-14		MP00080	MP00034	MP00080	MP00012	MP10010		
	D1-PE1-02	D2	Foundation - GT	928.76	5819742.03	595353.98	Jan-98	Aug-14	Provided by Mine <sup>2</sup>	MP00072	MP00072	MP00072	MP00072	MP10010		
	D1-PE1-04	D3	Filters	948.168	5819749.139	595303.727	Aug-07	Aug-14	Provided by Mine <sup>2</sup>	Provided by Mine <sup>2</sup>	Provided by Mine <sup>2</sup>	MP10010 (Date of First Rdg)	MP10010			
	D2-PE2-04	D4	Till Core - Upper Narrow	948.345	5819744.537	595300.292	Jul-07	Aug-14	Provided by Mine <sup>2</sup>	MP00033	MP00033	MP10010 (Date of First Rdg)	MP10010			
	D0-PE2-01	D5	Tailings	946.888	5819719.934	595288.147	Sep-07	Oct-12	Provided by Mine <sup>2</sup>	MP00033	MP00033	MP10010 (Date of First Rdg)	MP10010			
		D6	Foundation	913.4244	5819782.5	595410.313	Oct-11	Aug-14	Provided by Mine <sup>2</sup>	Provided by Mine <sup>2</sup>	Provided by Mine <sup>2</sup>	MP00041 (Date of First Rdg)	MP10010	Installed in VW11-10		
		D7	Foundation	907.43	5819782.5	595410.313	Oct-11	Aug-14	Provided by Mine <sup>2</sup>	Provided by Mine <sup>2</sup>	Provided by Mine <sup>2</sup>	MP00041 (Date of First Rdg)	MP10010	Installed in VW11-10		
		D0-PE1-01													Noted in MP00014 <sup>3</sup> - No Data found	
		D1-PE1-01													Noted in MP00009 <sup>4</sup> - No Data found	
		D1-PE1-03		Zone F	933.3	5819774.953	595307.851	Jul-01	Oct-01		MP00072	MP00072	MP00072	MP10010 (Date of First Rdg)	MP10010	
		D2-PE1-01		Zone T	930	5819775.449	595310.522	Aug-98	Sep-05		MP00012	MP00012	MP00012	MP00012	MP10010	
		D2-PE1-02			938.5											Noted in MP00014 <sup>3</sup> - No Data found
		D2-PE2-01		Fill	931	5818768.104	595506.055	Dec-96	Dec-02		MP0009	MP0009	MP0009	MP00012	MP10010	
	D2-PE2-03			948.64	5819737.37	595295.08	Jul-07	Feb-09		MP00033	MP00033	MP10010 (Date of First Rdg)	MP10010			
G	G2-PE2-01	G1	Upstream Fill	947.847	5819913.056	595036.51	Jul-07	Jul-14	Provided by Mine <sup>2</sup>	MP00033	MP00033	MP10010 (Date of First Rdg)	MP10010			
	G2-PE2-02	G2	Till Core - Upper Narrow	948.049	5819921.889	595039.64	Jul-07	Jul-14	Provided by Mine <sup>2</sup>	MP00033	MP00033	MP10010 (Date of First Rdg)	MP10010			
	G0-PE2-01	G3	Tailings	946.888	5819900.024	595023.316	Jul-07	May-14	Provided by Mine <sup>2</sup>	MP00033	MP00033	MP10010 (Date of First Rdg)	MP10010			
		G4	Foundation	934.78	5820030.5	594891.938	Oct-11	Aug-14	Provided by Mine <sup>2</sup>	Provided by Mine <sup>2</sup>	Provided by Mine <sup>2</sup>	MP00041 (Date of First Rdg)	MP10010	Installed in VW11-11		
		G5	Foundation	930.208	5820030.5	594891.938	Oct-11	Aug-14	Provided by Mine <sup>2</sup>	Provided by Mine <sup>2</sup>	Provided by Mine <sup>2</sup>	MP00041 (Date of First Rdg)	MP10010	Installed in VW11-11		
		G1-PE1-01		Zone F	933.19	5819956.68	595009.855	Jul-01	Aug-02		MP00072	MP00072	MP00072	MP10010	Coordinates are estimated off Knight Piésold's Instrumentation Plan Drawing due to a typo in the coordinates provided in the instrumentation summary table	

**Notes:**

<sup>1</sup> AMEC renamed existing Instrumentation in Document No. MP00041 (March 30, 2012 - 2011 construction period)

<sup>2</sup> "2014 07 24 - Compiled Functioning Piezo Coordinates" Spreadsheet provided September 18, 2014

<sup>3</sup> Mount Polley Mining Corporation, Mount Polley Project Tailings Storage Facility, Report on Cycloned Sand Construction of Stage 3 and On-Going Stages of the Tailings Storage Facility (Volume I of II) by Knight Piésold, dated December 13, 1999

<sup>4</sup> Mount Polley Mining Corporation, Mount Polley Project Tailings Storage Facility, Operation, Maintenance and Surveillance Manual for Stage 1B Embankment (El. 934m) by Knight Piésold, dated November 24, 1997

- AMEC grouped individual piezometers under DX1, DX2, DX3, DX4, GX1, GX2 and JX1. TABLE 1: AMEC Piezometer Group ID's outlines the details of the groupings.



**TABLE 1: AMEC Piezometer Group ID's**  
(From Document No. MP00047)

AMEC Group ID	AMEC Piezometer ID
AX1	A1
	A2
	A3
	A4
	A5
	A6
AX2	A7
	A8
	A9
	A10
	A11
	A12
AX3	A13
	A14
AX4	A15
AX5	A16
	A17
	A18
AX6	A19
	A20
	A21
BX1	B1
	B2
BX2	B3
	B4
	B5
	B6
	B7
	B8
BX3	B9
	B10
BX4	B11
	B12
	B13
CX1	C1
	C2
	C3
CX2	C4
	C5
	C6
	C7
	C8

AMEC Group ID	AMEC Piezometer ID
CX3	C9
	C10
CX4	C11
	C12
DX1	D1
	D2
DX2	D3
	D4
DX3	D5
DX4	D6
	D7
EX1	E1
EX2	E2
	E3
EX3	E4
	E5
EX4	E6
	E7
FX1	F1
FX2	F2
	F3
	F4
FX3	F5
GX1	G1
	G2
	G3
GX2	G4
	G5
HX1	H1
	H2
IX1	I1
	I2
	I3
IX21	I4
IX3	I5
	I6
JX1	J1
KX2	K1
	K2

Appendix F  
Attachment 2  
Summary of Instrumentation Data – Breach Area

SUMMARY OF INCLINOMETERS  
BREACH AREA

### Mount Polly TSF - Summary Inclinerometers in Breach Area

Knight Piésold Inclinometer ID	El. Provided By Mine (m)	Top El. (m)	Bottom El. (m)	Northing	Easting	Date Installed / Date of First Rdg	Date of Last Rdg	Source				
								Top El.	Bottom El.	Coordinates	Install	Date of Last Rdg
SI-11-04	932.8	931.9	888.6	5819780.3	595408.6	Jan-12	Aug-14	MP00041	MP00041 (Depth of Drill Hole)	Provided by Mine <sup>1</sup>	MP00041 (Date of First Rdg)	MP10010
SI-12-01	932.5		891	5819787.7	595407.4	Mar-13	Aug-14		MP00044 (Measured off Dwg)	Provided by Mine <sup>1</sup>	MP10010 (Date of First Rdg)	MP10010

**Notes:**

- <sup>1</sup> "2014 07 24 - Compiled Functioning Piezo Coordinates" Spreadsheet provided September 18, 2014
- Information on orientation of inclinometers was not found
- Incremental data plots were not provided
- In Document No. MP00044, AMEC notes that SI-12-01 was installed to replace SI-11-04
- Issues were noted with inclinometer plots in:
  - MP00044 for SI11-04 B-axis & AB-axis between Feb. 26, 2013 and Jan. 21, 2014
  - MP10010 for SI11-04 B-axis & AB-axis between Jan. 28, 2012 and Aug. 17, 2014

SUMMARY OF PIEZOMETERS  
BREACH AREA

### Mount Polly TSF - Summary of Piezometers in Breach Area

Section	Knight Piésold Piezometer ID	New AMEC ID <sup>1</sup>	Unit	Tip El. (m)	Northing	Easting	Date Installed	Date of Last Rdg	Source					Comments	
									Unit	Tip El.	Coordinates	Install	Date of Last Rdg		
G	G2-PE2-01	G1	Upstream Fill	947.847	5819913.056	595036.51	Jul-07	Jul-14	Provided by Mine <sup>2</sup>	MP00033	MP00033	MP10010 (Date of First Rdg)	MP10010		
	G2-PE2-02	G2	Till Core - Upper Narrow	948.049	5819921.889	595039.64	Jul-07	Jul-14	Provided by Mine <sup>2</sup>	MP00033	MP00033	MP10010 (Date of First Rdg)	MP10010		
	G0-PE2-01	G3	Tailings	946.888	5819900.024	595023.316	Jul-07	May-14	Provided by Mine <sup>2</sup>	MP00033	MP00033	MP10010 (Date of First Rdg)	MP10010		
		G4	Foundation	934.78	5820030.5	594891.938	Oct-11	Aug-14	Provided by Mine <sup>2</sup>	Provided by Mine <sup>2</sup>	Provided by Mine <sup>2</sup>	MP00041 (Date of First Rdg)	MP10010	Installed in VW11-11	
		G5	Foundation	930.208	5820030.5	594891.938	Oct-11	Aug-14	Provided by Mine <sup>2</sup>	Provided by Mine <sup>2</sup>	Provided by Mine <sup>2</sup>	MP00041 (Date of First Rdg)	MP10010	Installed in VW11-11	
		G1-PE1-01		Zone F	933.19	5819956.68	595009.855	Jul-01	Aug-02	MP00072	MP00072	MP00072	MP00072	MP10010	Coordinates are estimated off Knight Piésold's Instrumentation Plan Drawing due to a typo in the coordinates provided in the instrumentation summary table
D	D2-PE2-02	D1	Foundation	927.32	5819791.103	595333.275	Jun-98	Aug-14	MP00080	MP00034	MP00080	MP00012	MP10010		
	D1-PE1-02	D2	Foundation - GT	928.76	5819742.03	595353.98	Jan-98	Aug-14	Provided by Mine <sup>2</sup>	MP00072	MP00072	MP00072	MP10010		
	D1-PE1-04	D3	Filters	948.168	5819749.139	595303.727	Aug-07	Aug-14	Provided by Mine <sup>2</sup>	Provided by Mine <sup>2</sup>	Provided by Mine <sup>2</sup>	MP10010 (Date of First Rdg)	MP10010		
	D2-PE2-04	D4	Till Core - Upper Narrow	948.345	5819744.537	595300.292	Jul-07	Aug-14	Provided by Mine <sup>2</sup>	MP00033	MP00033	MP10010 (Date of First Rdg)	MP10010		
	D0-PE2-01	D5	Tailings	946.888	5819719.934	595288.147	Sep-07	Oct-12	Provided by Mine <sup>2</sup>	MP00033	MP00033	MP10010 (Date of First Rdg)	MP10010		
		D6	Foundation	913.4244	5819782.5	595410.313	Oct-11	Aug-14	Provided by Mine <sup>2</sup>	Provided by Mine <sup>2</sup>	Provided by Mine <sup>2</sup>	MP00041 (Date of First Rdg)	MP10010	Installed in VW11-10	
		D7	Foundation	907.43	5819782.5	595410.313	Oct-11	Aug-14	Provided by Mine <sup>2</sup>	Provided by Mine <sup>2</sup>	Provided by Mine <sup>2</sup>	MP00041 (Date of First Rdg)	MP10010	Installed in VW11-10	
		D0-PE1-01												Noted in MP00014 <sup>3</sup> - No Data found	
		D1-PE1-01												Noted in MP00009 <sup>4</sup> - No Data found	
		D1-PE1-03		Zone F	933.3	5819774.953	595307.851	Jul-01	Oct-01	MP00072	MP00072	MP00072	MP10010 (Date of First Rdg)	MP10010	
		D2-PE1-01		Zone T	930	5819775.449	595310.522	Aug-98	Sep-05	MP00012	MP00012	MP00012	MP00012	MP10010	
		D2-PE1-02			938.5									Noted in MP00014 <sup>3</sup> - No Data found	
		D2-PE2-01		Fill	931	5818768.104	595506.055	Dec-96	Dec-02	MP0009	MP0009	MP0009	MP00012	MP10010	
	D2-PE2-03			948.64	5819737.37	595295.08	Jul-07	Feb-09		MP00033	MP00033	MP10010 (Date of First Rdg)	MP10010		

**Notes:**

<sup>1</sup> AMEC renamed existing Instrumentation in Document No. MP00041 (March 30, 2012 - 2011 construction period)

<sup>2</sup> "2014 07 24 - Compiled Functioning Piezo Coordinates" Spreadsheet provided September 18, 2014

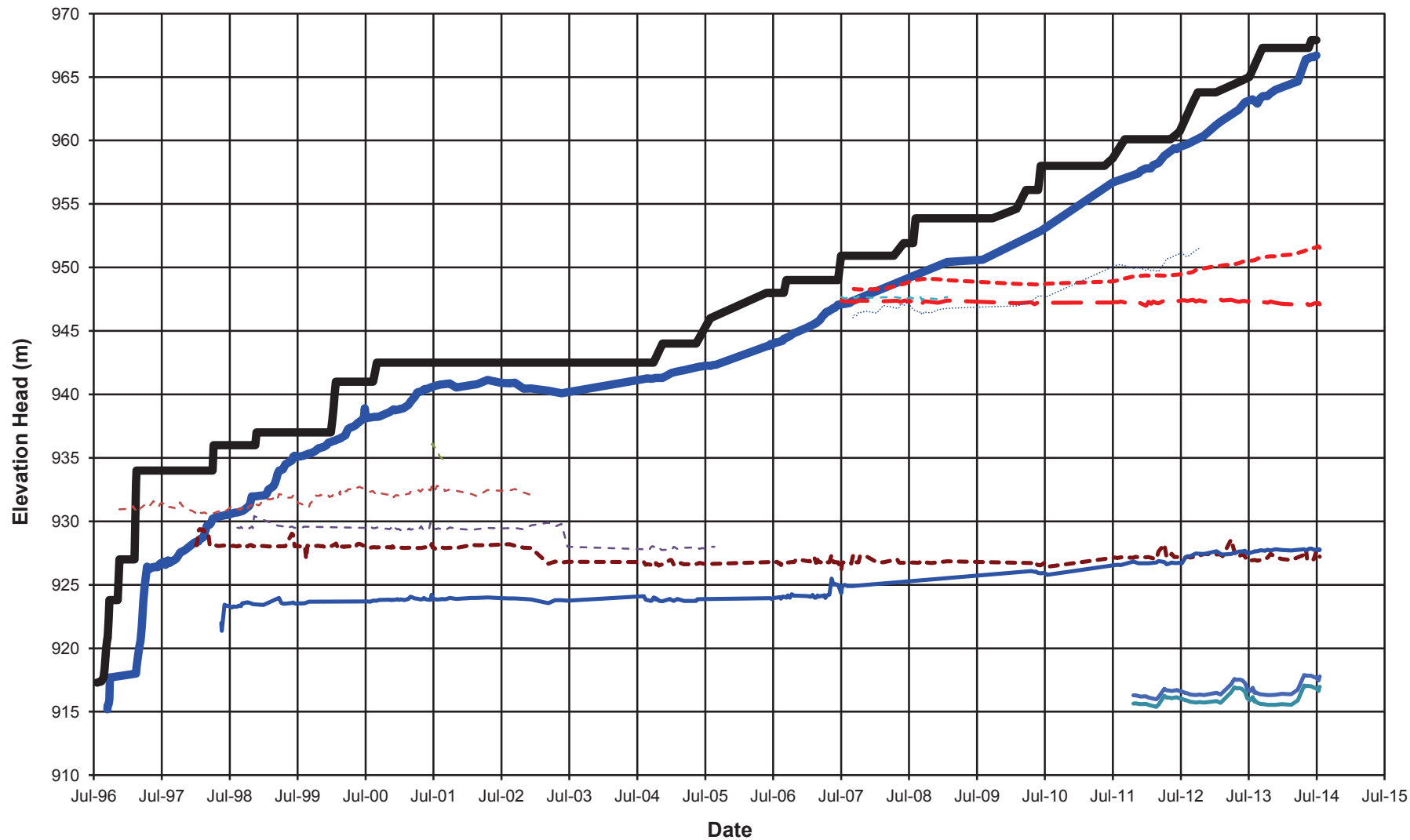
<sup>3</sup> Mount Polley Mining Corporation, Mount Polley Project Tailings Storage Facility, Report on Cycloned Sand Construction of Stage 3 and On-Going Stages of the Tailings Storage Facility (Volume I of II) by Knight Piésold, dated December 13, 1999

<sup>4</sup> Mount Polley Mining Corporation, Mount Polley Project Tailings Storage Facility, Operation, Maintenance and Surveillance Manual for Stage 1B Embankment (El. 934m) by Knight Piésold, dated November 24, 1997

- Historic plots for Sections D and G have been included due to inconsistencies with the data presented

- AMEC grouped individual piezometers under DX1, DX2, DX3, DX4, GX1 and GX2. TABLE 1: AMEC Piezometer Group ID's outlines the details of the groupings.

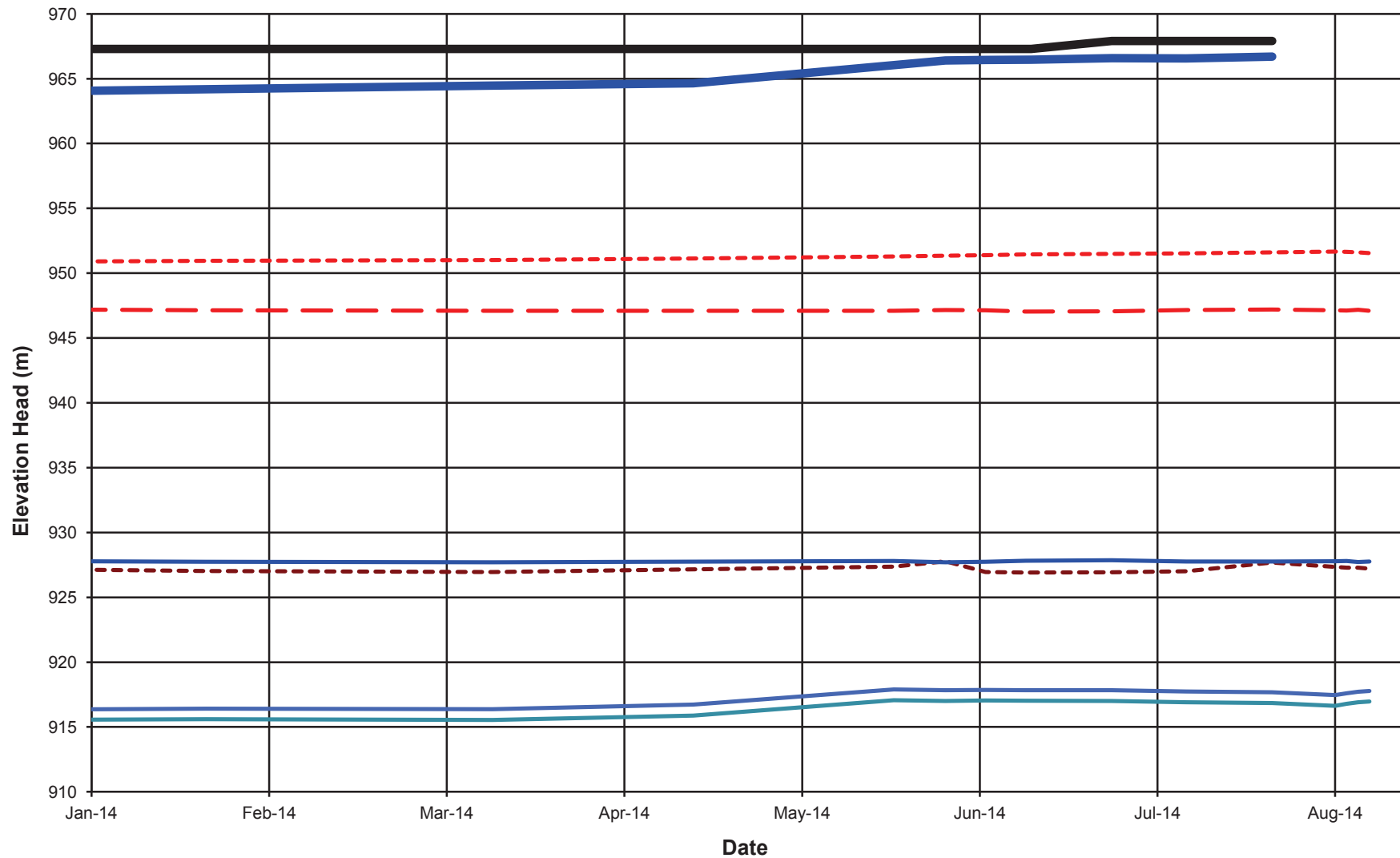
## Piezometer Plots for Section D




- Pond Level
- - - D3 Filter
- D6 Foundation
- - - DEAD (D1-PE1-03)
- - - DEAD (D2-PE2-03)
- Fill Elevation
- - - D4 Till Fill
- D7 Foundation
- - - DEAD (D2-PE1-01)
- - - D2 Drain
- D1 Foundation
- ..... (DEAD) D5 Tailings
- - - DEAD (D2-PE2-01)

MOUNT POLLEY MINING CORPORATION		
MOUNT POLLEY MINE		
<b>TAILINGS STORAGE FACILITY PLANE D PIEZOMETERS ELEVATION vs. TIME</b>		
	PROJECT NO. KX05414	Date. 13/08/14
	REV. A	FIGURE D

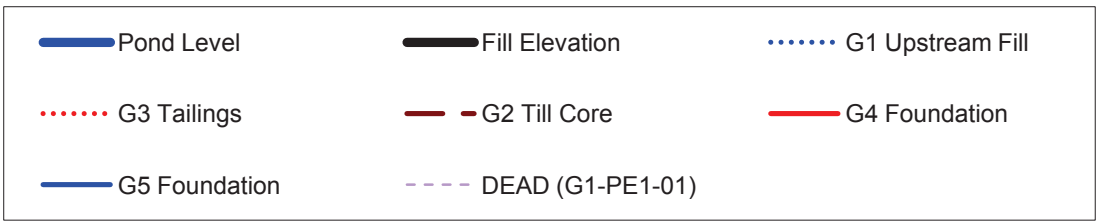
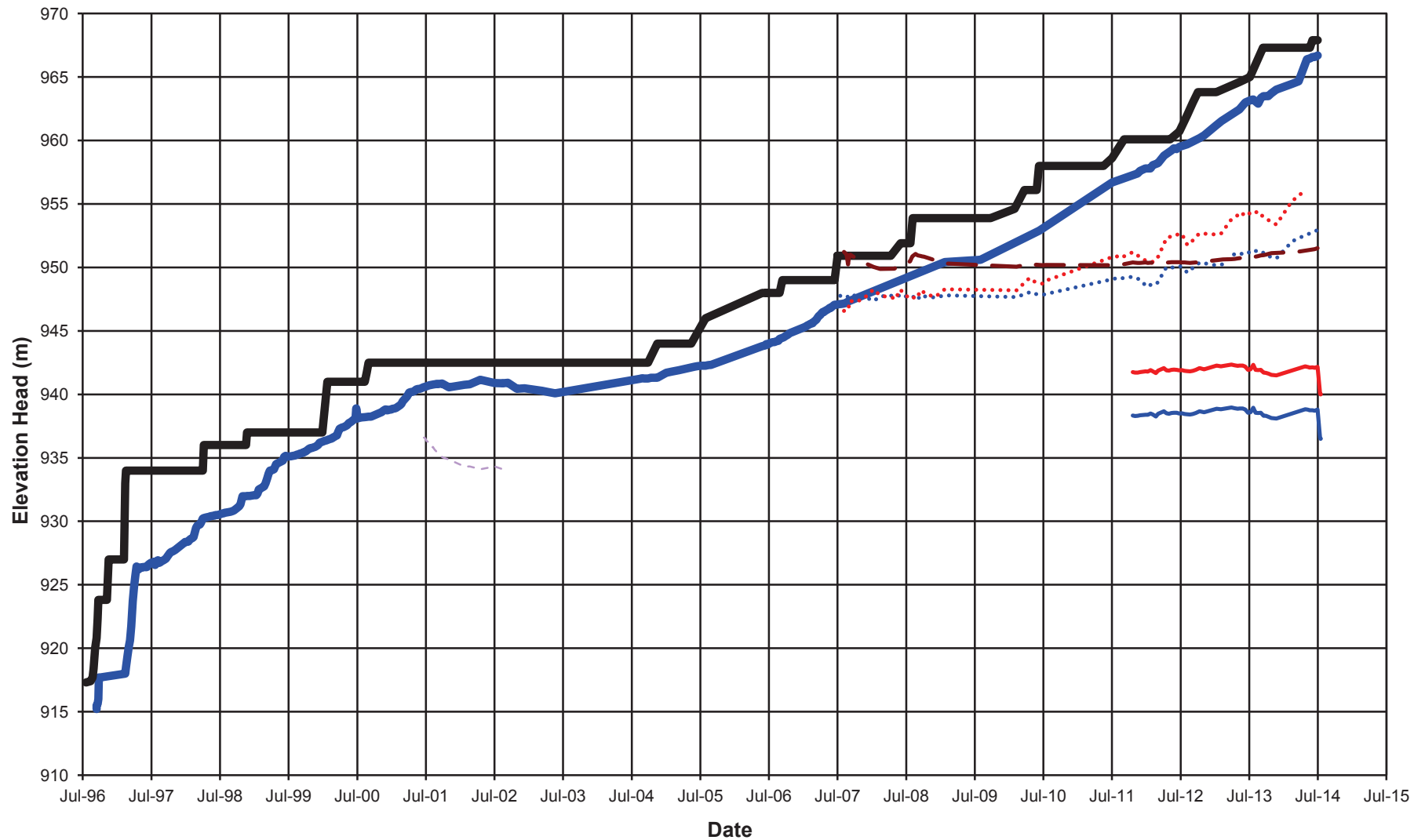




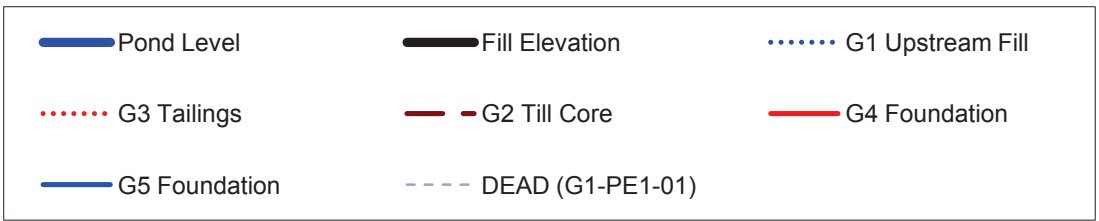
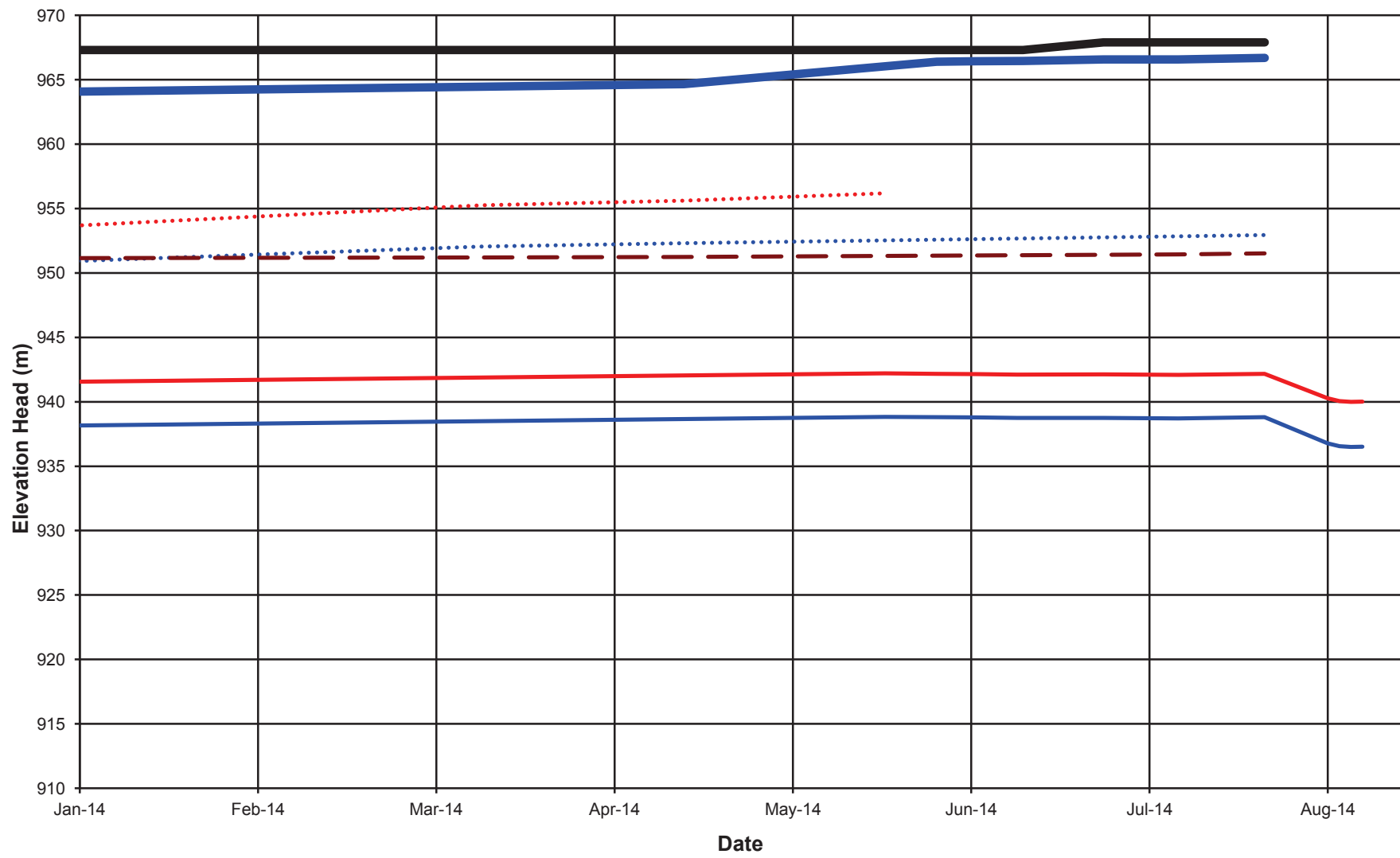
- Pond Level
- - - D3 Filter
- D6 Foundation
- - - DEAD (D1-PE1-03)
- - - DEAD (D2-PE2-03)
- Fill Elevation
- - - D4 Till Fill
- D7 Foundation
- - - DEAD (D2-PE1-01)
- - - D2 Drain
- D1 Foundation
- ..... (DEAD) D5 Tailings
- - - DEAD (D2-PE2-01)

MOUNT POLLEY MINING CORPORATION		
MOUNT POLLEY MINE		
<b>TAILINGS STORAGE FACILITY PLANE D PIEZOMETERS ELEVATION vs. TIME</b>		
	PROJECT NO. KX05414	Date. 13/08/14
	REV. A	FIGURE D

## Piezometer Plots for Section G



MOUNT POLLEY MINING CORPORATION		
MOUNT POLLEY MINE		
<b>TAILINGS STORAGE FACILITY PLANE G PIEZOMETERS ELEVATION vs. TIME</b>		
	PROJECT NO. KX05414	Date. 13/08/14
	REV. A	
FIGURE G		



MOUNT POLLEY MINING CORPORATION		
MOUNT POLLEY MINE		
<b>TAILINGS STORAGE FACILITY PLANE G PIEZOMETERS ELEVATION vs. TIME</b>		
	PROJECT NO. KX05414	Date. 13/08/14
	REV. A	
FIGURE G		