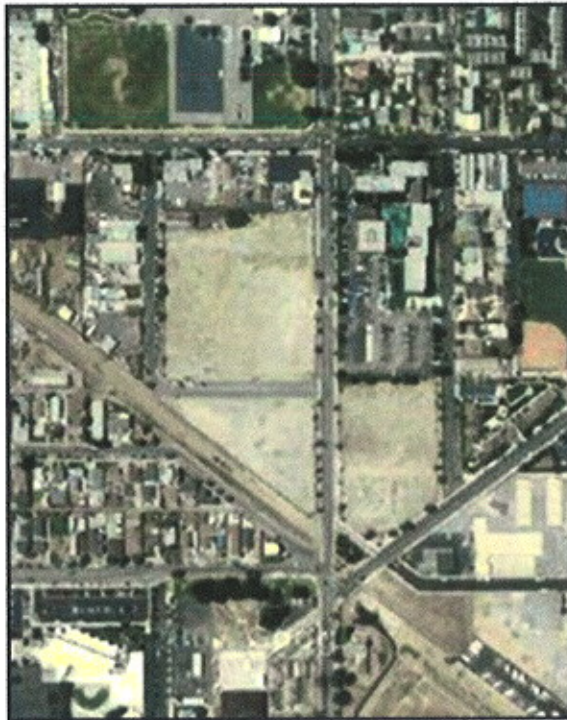


**REPORT ON PHASE III  
ADDITIONAL SITE CHARACTERIZATION  
June 2011  
FORMER CHEMOIL REFINERY  
SLIC No. 453A  
SIGNAL HILL, CALIFORNIA**



**VOLUME III  
Exhibits 5 through 6**

**Prepared for:**

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**TEC** EARTH SCIENCES AND  
ENVIRONMENTAL SPECIALISTS

REPORT ON PHASE III ADDITIONAL SITE CHARACTERIZATION  
JUNE 2011  
FORMER CHEMOIL REFINERY  
SIGNAL HILL, CALIFORNIA

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**EXHIBIT 5**

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**GROUNDWATER GAUGING DATA**



**EXHIBIT 5 – PART I**

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**TABULATION OF GAUGING DATA**

**TABLE Exhibit 5-1  
SUMMARY OF GAUGING DATA  
FORMER CHEMOIL REFINERY**

Well No.	Date	Well Diameter (inches)	Top of Casing Elevation(a)	Top of Screen Elevation	Total Well Depth(a)	Depth to LNAPL	Depth to Water	Groundwater Elevation	Apparent LNAPL Thickness(a)	Specific Gravity	Corrected Depth to Groundwater	Corrected Groundwater Elevation
MW-1	11/4/85	4	24.14	-7.87	62	NA(c)	27.64	-5.76	ND(c)	NA	27.64	-5.76
	6/2/86						27.02	-5.14		27.02	-5.14	
	12/2/86						26.83	-4.95		26.83	-4.95	
	2/12/87						NA	NA		NA	NA	
	6/11/87						26.25	-4.37		26.25	-4.37	
	9/24/87						26.5	-4.62		26.5	-4.62	
	4/12/88						26.5	-4.62		26.5	-4.62	
	9/22/88						26.16	-4.3		26.16	-4.3	
	3/30/89						29.34	-7.46		29.34	-7.46	
	9/26/89						26.02	-4.14		26.02	-4.14	
	4/2/90						NM(d)	NM		NM	NM	
	9/9/90						NM	NM		NM	NM	
	12/17/90						24.46	-0.33		24.46	-0.33	
	5/29/91						25.36	-1.22		25.36	-1.22	
	6/28/91						25.45	-1.31		25.45	-1.31	
	12/6/91						25.6	-1.46		25.6	-1.46	
	1/5/92						25.43	-1.29		NA	NA	
	3/5/92						25.72	-1.59	24.13	NA	NA	
	4/10/92						25.47	-1.34		NA	NA	
	5/4/92						25.34	-1.21		NA	NA	
	5/19/92						25.34	-1.21		NA	NA	
	6/18/92						25.32	-1.19		NA	NA	
	7/14/92	26.29	-1.16		NA	NA						
	8/7/92	26.23	-1.1		NA	NA						
	8/26/92	24.37	-1.24		NA	NA						
	9/22/92	25.28	-1.15		NA	NA						
	11/20/92	25.2	-1.07		NA	NA						
	12/30/92	25.19	-1.06		NA	NA						
	1/28/93	24.79	-0.66		NA	NA						
	3/12/93	24.4	-0.27		NA	NA						
	4/30/93	24	0.13		NA	NA						
	6/18/93	24.07	0.06		NA	NA						
	7/13/93	24.01	0.12		NA	NA						
8/11/93	23.78	0.35		NA	NA							
9/13/93	23.88	0.25		NA	NA							
10/19/93	23.87	0.26		NA	NA							
11/17/93	23.85	0.26		NA	NA							

**TABLE Exhibit 5-1  
SUMMARY OF GAUGING DATA  
FORMER CHEMOIL REFINERY**

Well No.	Date	Well Diameter (inches)	Top of Casing Elevation(a)	Top of Screen Elevation	Total Well Depth(a)	Depth to LNAPL	Depth to Water	Groundwater Elevation	Apparent LNAPL Thickness(a)	Specific Gravity	Corrected Depth to Groundwater	Corrected Groundwater Elevation
MW-1	11/24/93	4	24.13	-7.87	62	NA(b)	23.78	0.35	ND	NA	NA	NA
	1/21/94						23.01	0.29				
	4/28/94						23.4	0.73				
	5/17/94						23.34	0.70				
	6/9/94						23.28	0.86				
	7/19/94						23.34	0.79				
	8/16/94						22.43	0.91				
	9/14/94						22.43	0.91				
	10/20/94						23.37	0.76				
	11/17/94						23.31	0.82				
	12/14/94						23.32	0.81				
	1/19/95						22.81	1.32				
	2/7/95						22.86	1.47				
	3/13/95						22.56	1.57				
	4/26/95						22.12	2.01				
	5/26/95						22.06	2.07				
	6/29/95						21.93	2.2				
	7/31/95						21.89	2.24				
	8/22/95						21.84	2.29				
	9/6/95						21.9	2.23				
	1/3/96						21.96	2.18				
	2/26/96						21.7	2.43				
	3/27/96						21.53	2.6				
	4/20/96						21.45	2.60				
	6/17/96						21.55	2.50				
	7/10/96						21.63	2.5				
	8/20/96						21.63	2.5				
	9/11/96						21.66	2.48				
	10/16/96						21.77	2.36				
	11/23/96						21.77	2.36				
	1/20/97						21.36	2.77				
	2/19/97						21.17	2.96				
	3/12/97						21.07	3.06				
	5/1/98						17.75	6.36				
	6/28/98						22.8	1.33				
	6/6/02						20.43	4				
	9/5/02						19.63	4.5				
	12/4/02						20.46	3.65				
	3/5/03						20.23	3.9				



**TABLE Exhibit 5-1  
SUMMARY OF GAUGING DATA  
FORMER CHEMOIL REFINERY**

Well No.	Date	Well Diameter (inches)	Top of Casing Elevation <sup>(a)</sup>	Top of Screen Elevation	Total Well Depth(ft)	Depth to LNAPL	Depth to Water	Groundwater Elevation	Apparent LNAPL Thickness <sup>(a)</sup>	Specific Gravity	Corrected Depth to Groundwater	Corrected Groundwater Elevation
MW-1	5/30/03	4	24.13	-7.87	62	NA <sup>(b)</sup>	23.28	4.8	ND	NA	NA	NA
	9/4/03						19.73	4.4				
	12/5/03						20.65	3.6				
	3/9/04						19.33	4.8				
	6/3/04						19.65	4.48				
	9/15/04						19.89	4.24				
	12/9/04						19.63	4.5				
	3/11/05						18.44	5.69				
	6/2/05						17.93	6.2				
	9/7/05						18.02	6.11				
	12/7/05						17.72	6.41				
	3/6/06						17.25	6.88				
	6/6/06						17.35	6.78				
	9/6/06						17.97	6.16				
	12/1/06						17.43	6.7				
	3/5/07						16.93	7.2				
	6/4/07						18.11	6.02				
	9/6/07						19.61	4.52				
	12/5/07						19.71	4.42				
	3/5/08						19.31	4.82				
	6/5/08						19.31	4.82				
	9/5/08						19.41	4.72				
	12/9/08						19.41	4.72				
3/12/09	19.31	4.82										
9/11/09	19.91	4.22										
12/3/09	20.11	4.02										
3/18/10	17.3	4.92										
6/3/10	17.4	4.92										
9/8/10	17.8	4.42										
12/9/10	17.4	4.82										
12/9/10	15.7	6.52										

**TABLE Exhibit 5-1  
SUMMARY OF GAUGING DATA  
FORMER CHEMOIL REFINERY**

Well No.	Date	Well Diameter (inches)	Top of Casing Elevation(a)	Top of Screen Elevation	Total Well Depth(a)	Depth to LMAPL	Depth to Water	Groundwater Elevation	Apparent LMAPL Thickness(a)	Specific Gravity	Corrected Depth to Groundwater	Corrected Groundwater Elevation		
MW-1A	4/12/88	4	22.86	8.85	34	ND	25.1	-2.24	ND	NA	25.1	-2.24		
	9/21/88						24.84	-1.98			24.84	-1.98		
	3/30/89						24.7	-1.84			24.7	-1.84		
	9/25/89						26.64	-3.78			26.64	-3.78		
	3/26/90						NA	NA			NA	NA		
	9/10/90						NA	NA			NA	NA		
	12/17/90						25.97	25.98			-3.12	0.01	25.98	-3.12
	5/29/91						23.94	23.95			-1.09	0.01	23.95	-1.09
	5/28/91						ND	24			-1.14	ND	24	-1.14
	12/5/91						24.2	-1.34			24.2	-1.34		
	1/10/92						24.06	-1.2			NA	NA		
	3/5/92						24.87	-2.01						
	4/10/92						23.59	-0.73						
	5/4/92						34	23.54			-0.68			
	5/19/92						23.59	-0.73						
	6/18/92						23.64	-0.76						
	7/14/92						23.69	-0.63						
	8/7/92						23.69	-0.63						
	8/26/92						23.63	-0.67						
	9/22/92						23.74	-0.68						
	11/20/92						23.75	-0.89						
	12/30/92						23.73	-0.87						
	1/26/93						23.36	-0.5						
	3/12/93						22.82	0.04						
	4/30/93						22.51	0.35						
	6/18/93						22.52	0.34						
	7/13/93						22.54	0.35						
	8/11/93						22.42	0.44						
	9/13/93						22.43	0.43						
	10/19/93						35.35	22.41			0.45			
	11/17/93						22.42	0.44						
	11/24/93						22.37	0.35					0.35	
1/21/94	22.43	0.43			0.43									
4/26/94	23.09	-0.23			-0.23									
5/17/94	22.02	0.84			0.84									
6/5/94	21.97	0.89			0.89									
7/10/94	22.22	0.64												
8/15/94	21.95	0.91												
9/14/94	21.95	0.91												

**TABLE Exhibit 5-1  
SUMMARY OF GAUGING DATA  
FORMER CHEMOIL REFINERY**

Well No.	Date	Well Diameter (inches)	Top of Casing Elevation(a)	Top of Screen Elevation	Total Well Depth(a)	Depth to LNAPL	Depth to Water	Groundwater Elevation	Apparent LNAPL Thickness(a)	Specific Gravity	Corrected Depth to Groundwater	Corrected Groundwater Elevation
MW-1A	10/20/94	4	22.86	8.86	35.35	ND	22.04	0.82	ND	NA	0.89	NA
	11/17/94						21.97	0.89				
	12/14/94						22.05	0.81				
	1/19/95						21.52	1.34				
	2/7/95						21.27	1.59				
	3/13/95						21.09	1.77				
	4/26/95						20.7	2.16				
	5/26/95						20.66	2.2				
	6/29/95						20.57	2.29				
	7/31/95						20.52	2.34				
	8/22/95						20.52	2.34				
	9/6/95						20.55	2.31				
	1/3/96						20.55	2.31				
	2/26/96						21.97	2.59				
	3/27/96						20.06	2.78				
	4/28/96						20.09	2.77				
	6/17/96						20.18	2.66				
	7/10/96						20.23	2.63				
	8/20/96						20.24	2.62				
	9/11/96						20.27	2.59				
	10/16/96						20.37	2.49				
	11/23/96						20.35	2.51				
	7/19/94						22.22	0.64				
	8/15/94						21.96	0.91				
	9/14/94						21.96	0.91				
	10/20/94						22.04	0.82				
11/17/94	21.97	0.89										
12/14/94	22.05	0.81										
1/19/95	21.52	1.34										
2/7/95	21.27	1.59										
3/13/95	21.09	1.77										
4/26/95	20.7	2.16										
5/26/95	20.66	2.2										
6/29/95	20.57	2.29										
7/31/95	20.52	2.34										
8/22/95	20.52	2.34										
9/6/95	20.55	2.31										
1/3/96	20.55	2.31										
2/26/96	20.27	2.59										

**TABLE Exhibit 5-1  
SUMMARY OF GAUGING DATA  
FORMER CHEMOIL REFINERY**

Well No.	Date	Well Diameter (inches)	Top of Casing Elevation(a)	Top of Screen Elevation	Total Well Depth(a)	Depth to LNAPL	Depth to Water	Groundwater Elevation	Apparent LNAPL Thickness(a)	Specific Gravity	Corrected Depth to Groundwater	Corrected Groundwater Elevation
MW-1A	3/27/96	4	22.86	9.86	35.35	ND	20.08	2.78	ND	NA	0.89	NA
	4/26/96						20.09	2.77				
	6/17/96						20.16	2.68				
	7/10/96						20.23	2.63				
	8/20/96						20.24	2.62				
	9/11/96						20.27	2.59				
	10/16/96						20.37	2.49				
	11/23/96						20.35	2.51				
	1/20/97						19.6	3.06				
	2/19/97						19.42	3.44				
	3/12/97						19.54	3.32				
	3/1/98						18.65	4.21				
	6/29/99						21.97	3.33				
	6/6/02						2.38					
	9/5/02						2.22					
	12/4/02						2.01					
	3/5/03						2.06					
	5/30/03						2.77					
	9/4/03						2.78					
	12/9/03						2.48					
	3/9/04						2.53					
	6/3/04						2.68					
	9/15/04						2.56					
	12/9/04						2.6					
	3/11/05						4.14					
	6/2/05						4.45					
	9/7/05						4.43					
	12/7/05						4.38					
	3/5/06						4.77					
	6/6/06						4.01					
	9/6/06						3.73					
	12/1/06						4.83					
3/6/07	5.08											
6/4/07	4.77											
9/3/07	4.67											
12/5/07	5.07											
3/5/08	4.92											
6/5/08	4.92											
9/5/08	4.72											

**TABLE Exhibit 5-1  
SUMMARY OF GAUGING DATA  
FORMER CHEMOIL REFINERY**

Well No	Date	Well Diameter (inches)	Top of Casing Elevation(a)	Top of Screen Elevation	Total Well Depth(b)	Depth to LNAPL	Depth to Water	Groundwater Elevation	Apparent LNAPL Thickness(a)	Specific Gravity	Corrected Depth to Groundwater	Corrected Groundwater Elevation
MW-1A	12/9/08	4	22.86	8.66	35.35	ND	21.97	4.42	ND	NA	0.69	NA
	3/12/09						5.02					
	9/11/09						4.32					
	12/3/09						4.22					
	3/16/10						17.9	5.12				
	6/3/10						19.1	3.92				
	9/8/10						18.4	4.61				
	12/8/10						18.4	4.62				
	3/2/11						17.3	5.72				

**TABLE Exhibit 5-1  
SUMMARY OF GAUGING DATA  
FORMER CHEMOIL REFINERY**

Well No.	Date	Well Diameter (inches)	Top of Casing Elevation(a)	Top of Screen Elevation	Total Well Depth(a)	Depth to LNAPL	Depth to Water	Groundwater Elevation	Apparent LNAPL Thickness(a)	Specific Gravity	Corrected Depth to Groundwater	Corrected Groundwater Elevation
MW-2	11/4/85	4	31.81	1.81	60	ND	NA	NA	ND	NA	NA	NA
	6/2/86						NA	NA			NA	NA
	12/22/86						33.6	-1.79			33.6	-1.79
	3/12/86						33.5	-1.69			33.5	-1.69
	6/10/87						33.6	-1.79			33.6	-1.79
	9/22/87						34	-2.19			34	-2.19
	4/11/88						33.17	-1.36			33.17	-1.36
	9/21/88						33.05	-1.24			33.05	-1.24
	3/30/89						32.92	-1.11			32.92	-1.11
	9/25/89						32.8	-0.99			32.8	-0.99
	4/2/90						NA	NA			NA	NA
	12/17/90						32.63	-0.82			32.63	-0.82
	5/29/91						32.23	-0.42			32.23	-0.42
	8/28/91						32.3	-0.49			32.3	-0.49
	12/5/91						32.6	-0.79			32.6	-0.79
	1/10/92						32.46	-0.65			NA	NA
	3/5/92						32.24	-0.43				
	4/10/92						31.99	-0.18				
	6/4/92						31.93	-0.12				
	5/19/92						31.94	-0.13				
	6/16/92						31.97	-0.16				
	7/14/92						32.02	-0.21				
	8/7/92						32.03	-0.22				
	8/26/92						32.18	-0.37				
	9/22/92						32.09	-0.28				
	11/20/92						32.12	-0.31				
	12/30/92						31.94	-0.13				
	1/28/93						31.57	0.24				
	3/12/93						31.07	0.74				
	4/30/93						30.7	1.46				
6/18/93	30.67	1.14										
7/13/93	30.68	1.13										
8/11/93	30.63	1.16										
9/13/93	30.67	1.14										
10/10/93	30.71	1.1										
11/17/93	30.7	1.11										
1/24/93	30.68	1.13	1.13									
1/21/94	30.69	1.12	1.12									
4/28/94	30.28	1.53	1.53									

**TABLE Exhibit 5-1  
SUMMARY OF GAUGING DATA  
FORMER CHEMOIL REFINERY**

Well No.	Date	Well Diameter (inches)	Top of Casing Elevation (±)	Top of Screen Elevation	Total Well Depth (±)	Depth to LNAPL	Depth to Water	Groundwater Elevation	Apparent LNAPL Thickness (±)	Specific Gravity	Corrected Depth to Groundwater	Corrected Groundwater Elevation
MW-2	5/17/94	4	31.81	1.81	60	ND	30.25	1.56	ND	NA	1.56	NA
	6/9/94						30.23	1.58				
	7/19/94						1.49					
	8/15/94						1.49					
	9/14/94						1.44					
	10/20/94						1.46					
	11/17/94						1.45					
	12/14/94						2.12					
	1/19/95						2.35					
	2/7/95						2.57					
	3/13/95						2.86					
	4/26/95						2.97					
	5/26/95						2.91					
	6/29/95						2.98					
	7/31/95						2.96					
	8/22/95						2.93					
	9/6/95						3.02					
	1/3/96						3.2					
	2/26/96						3.39					
	3/27/96						3.37					
	4/28/96						3.32					
	5/17/96						3.24					
	7/10/96						3.18					
	8/20/96						3.1					
	9/11/96						3.06					
	10/16/96						3.01					
	11/23/96						3.16					
1/20/97	3.6											
2/19/97	3.81											
3/12/97	3.85											
3/1/98	4.45											
6/29/99	4.01											
6/6/02	2.37											
9/5/02	2.6											
12/4/02	2.77											
3/5/03	3.07											
5/30/03	3.45											

**TABLE Exhibit 5-1  
SUMMARY OF GAUGING DATA  
FORMER CHEMOIL REFINERY**

Well No.	Date	Well Diameter (inches)	Top of Casing Elevation(a)	Top of Screen Elevation	Total Well Depth(a)	Depth to LNAPL	Depth to Water	Groundwater Elevation	Apparent LNAPL Thickness(a)	Specific Gravity	Corrected Depth to Groundwater	Corrected Groundwater Elevation
MW-2	9/4/03	4	31.81	1.81	60	ND	30.23	5.37	ND	NA	1.58	NA
	12/9/03							4.87				
	3/9/04							5.42				
	6/3/04							5.07				
	9/15/04							5.03				
	12/9/04							5.11				
	3/11/05							6.5				
	6/2/05							6.66				
	9/7/05							6.79				
	12/7/05							6.87				
	3/6/06							6.99				
	6/6/06							6.37				
	9/6/06							5.85				
	12/1/06							6.87				
	3/6/07							6.25				
	6/4/07							4.09				
	9/6/07							4.59				
	12/5/07							5.19				
	3/6/08							4.49				
	6/9/08							4.89				
	9/5/08							4.59				
	12/9/08							4.49				
	3/12/09							4.69				
	9/11/09							4.3				
	12/3/09							3.99				
	3/16/10							25.2				
6/3/10	25	4.99										
9/9/10	25.6	4.39										
12/9/10	25.7	4.29										
3/2/11	24.6	5.39										



**TABLE Exhibit 5-1  
SUMMARY OF GAUGING DATA  
FORMER CHEMOIL REFINERY**

Well No.	Date	Well Diameter (inches)	Top of Casing Elevation(a)	Top of Screen Elevation	Total Well Depth(a)	Depth to LNAPL	Depth to Water	Groundwater Elevation	Apparent LNAPL Thickness(a)	Specific Gravity	Corrected Depth to Groundwater	Corrected Groundwater Elevation
MW-3	11/4/85	4	48.48	6.48	70	ND	NA	NA	ND	NA	NA	NA
	6/2/86						NA	NA			NA	NA
	12/22/85						49.04	-0.56			49.04	-0.56
	3/11/87						48.84	-0.36			48.84	-0.36
	6/11/87						48.84	-0.36			48.84	-0.36
	9/3/87						48.87	-0.39			48.87	-0.39
	4/11/88						48.7	-0.22			48.7	-0.22
	9/21/88						48.59	-0.11			48.59	-0.11
	3/30/89						48.51	-0.03			48.51	-0.03
	9/25/89						48.65	-0.17			48.65	-0.17
	4/2/90						NA	NA			NA	NA
	9/10/90						NA	NA			NA	NA
	12/17/90						48.81	-0.33			48.81	-0.33
	5/29/91						48.31	0.17			48.31	-0.17
	8/28/91						48.41	0.07			48.41	0.07
	12/6/91						48.45	0.03			48.45	0.03
	1/10/92						48.39	0.09			NA	NA
	3/5/92						48.5	-0.02			NA	NA
	4/10/92						48.42	0.06			NA	NA
	5/4/92						48.32	0.16			NA	NA
	5/19/92						48.3	0.18			NA	NA
	6/18/92						48.29	0.19			NA	NA
	7/14/92						48.26	0.22			NA	NA
	8/7/92						48.19	0.29			NA	NA
	8/26/02						48.36	0.12			NA	NA
	9/22/92						48.15	0.33				
	11/20/92						48.02	0.46				
	12/30/92						48.06	0.42				
	1/28/93						47.76	0.72				
	3/12/93						47.4	1.08				
	4/30/93						47.13	1.35				
6/18/93	46.94	1.54										
7/13/93	46.76	1.72										
8/11/93	46.45	2.03										
9/13/93	46.34	2.14										
10/19/93	46.25	2.23										
11/17/93	46.12	2.36										
11/24/93	46.04	2.44	2.44									
1/21/94	46.06	2.42	2.42									

**TABLE Exhibit 5-1  
SUMMARY OF GAUGING DATA  
FORMER CHEMOIL REFINERY**

Well No.	Date	Well Diameter (inches)	Top of Casing Elevation(a)	Top of Screen Elevation	Total Well Depth(a)	Depth to LNAPL	Depth to Water	Groundwater Elevation	Apparent LNAPL Thickness(a)	Specific Gravity	Corrected Depth to Groundwater	Corrected Groundwater Elevation
MW-3	4/28/94	4	48.48	6.48	70	ND	45.73	2.75	ND	NA	2.75	NA
	5/17/94						45.65	2.83			2.83	
	6/9/94						45.59	2.89			2.89	
	12/14/94							2.81				
	1/19/95							3.08				
	2/7/95							3.51				
	3/13/95							3.62				
	4/26/95							3.86				
	5/26/95							4.04				
	6/29/95							4.16				
	7/31/95							4.34				
	8/22/95							4.25				
	9/6/95							4.46				
	1/3/96							4.53				
	2/26/96						45.59	4.49				
	3/27/96							4.55				
	4/26/96							4.45				
	6/17/96							4.39				
	7/10/96							4.42				
	8/20/96							4.36				
	9/11/96							4.3				
	10/16/96							4.19				
	11/23/96							4.4				
	1/20/97							4.49				
	2/19/97							4.6				
	3/12/97							4.75				
	3/1/98							4.59				
6/20/99		4.59										
6/8/02		4.46										
9/5/02		4.05										
12/4/02		3.9										
3/5/03		4.13										
5/30/03		4.43										
9/4/03		7.15										
12/9/03		4.05										
3/9/04		4.6										
6/3/04		4.05										
9/15/04		5.17										
12/9/04		5.2										

**TABLE Exhibit 5-1  
SUMMARY OF GAUGING DATA  
FORMER CHEMOIL REFINERY**

Well No.	Date	Well Diameter (inches)	Top of Casing Elevation(a)	Top of Screen Elevation	Total Well Depth(a)	Depth to LNAPL	Depth to Water	Groundwater Elevation	Apparent LNAPL Thickness(a)	Specific Gravity	Corrected Depth to Groundwater	Corrected Groundwater Elevation
MW-3	3/11/05	4	46.48	6.48	70	ND	45.59	5.21	ND	NA	2.89	NA
	6/2/05							5.05				
	9/7/05							5.01				
	12/7/05							4.95				
	3/6/06							5.07				
	6/6/06							5.4				
	9/6/06							4.83				
	12/1/06							4.7				
	3/6/07							4.55				
	6/4/07							6.2				
	9/6/07							6.37				
	12/5/07							7.52				
	3/6/08							6.82				
	6/9/08							6.82				
	9/5/08							6.32				
	12/9/08							6.02				
	3/12/09							6.22				
	9/11/09							5.72				
	12/3/09							5.52				
	3/18/10							41.9				
6/3/10	41.9	6.12										
9/6/10	42.1	5.92										
12/8/10	42.3	5.72										
3/2/11	41.5	6.52										

**TABLE Exhibit 5-1  
SUMMARY OF GAUGING DATA  
FORMER CHEMOIL REFINERY**

Well No.	Date	Well Diameter (inches)	Top of Casing Elevation(a)	Top of Screen Elevation	Total Well Depth(a)	Depth to LNAPL	Depth to Water	Groundwater Elevation	Apparent LNAPL Thickness(a)	Specific Gravity	Corrected Depth to Groundwater	Corrected Groundwater Elevation
MW-5	11/4/85	4	30.78	6.53	60	ND	NA	NA	ND	NM	NA	NA
	6/2/86					ND	NA	NA	ND	NM	NA	NA
	12/24/86					ND	33.58	-2.8	ND	NM	33.58	-2.8
	3/16/87					ND	33.42	-2.64	ND	NM	33.42	-2.64
	9/30/91					31.88	31.9	-1.12	0.02	0.6261	31.9	-1.12

**TABLE Exhibit 5-1  
SUMMARY OF GAUGING DATA  
FORMER CHEMOIL REFINERY**

Well No.	Date	Well Diameter (inches)	Top of Casing Elevation(a)	Top of Screen Elevation	Total Well Depth(a)	Depth to LNAPL	Depth to Water	Groundwater Elevation	Apparent LNAPL Thickness(a)	Specific Gravity	Corrected Depth to Groundwater	Corrected Groundwater Elevation
MW-7	11/4/85	4	24.14	4.14	60	ND	NA	NA	ND	NA	NA	NA
	6/2/86						NA	NA			NA	NA
	12/23/86						26.5	-2.36			26.5	-2.36
	3/13/87						26.38	-2.24			26.38	-2.24
	6/12/87						26.75	-2.61			26.75	-2.61
	9/24/87						26.5	-2.36			26.5	-2.36
	4/12/88						26.02	-1.86			26.02	-1.86
	9/22/88						25.19	-1.05			25.19	-1.05
	3/31/89						25.7	-1.56			25.7	-1.56
	9/26/89						25.06	-0.94			25.06	-0.94
	4/2/90						NA	NA			NA	NA
	9/10/90						NA	NA			NA	NA
	12/17/90						25.49	-1.35			25.49	-1.35
	5/29/91						25.03	-0.89			25.03	-0.89
	6/28/91						25.1	-0.96			25.1	-0.96
	12/6/91						25.2	-1.06			25.2	-1.06
	1/10/92						25.19	-1.05			NA	NA
	3/5/92						25.1	-0.96				
	4/10/92						24.86	-0.72				
	5/4/92						24.74	-0.6				
	5/19/92						24.84	-0.67				
	6/18/92						24.85	-0.71				
	7/14/92						24.92	-0.78				
	8/7/92						24.91	-0.77				
	8/26/92						25.04	-0.9				
	9/22/92						24.95	-0.81				
	11/20/92(e)						21.89	-0.75				
	12/30/92						21.86	-0.72				
	1/28/93						21.46	0.32				
	3/12/93						21.02	0.12				
	4/30/93						20.65	0.49				
	6/18/93						20.64	0.5				
	7/13/93						20.62	0.52				
8/11/93	20.46	0.66										
9/13/93	20.54	0.6										
10/19/93			52.66	20.55	0.59							
11/17/93				20.56	0.58							
11/24/93				20.49	0.65	0.65						
3/21/94				20.57	0.57	0.57						

**TABLE Exhibit 5-1  
SUMMARY OF GAUGING DATA  
FORMER CHEMOIL REFINERY**

Well No.	Date	Well Diameter (inches)	Top of Casing Elevation(a)	Top of Screen Elevation	Total Well Depth(a)	Depth to LNAPL	Depth to Water	Groundwater Elevation	Apparent LNAPL Thickness(a)	Specific Gravity	Corrected Depth to Groundwater	Corrected Groundwater Elevation
M/W-7	4/20/94	4	24.14	4.14	52.66	ND	20.14	1	ND	1	NA	NA
	5/17/94						20.07	1.07		1.07		
	6/9/94						20	1.14		1.14		
	7/19/94							1.07				
	8/15/94							1.15				
	9/14/94							1.14				
	10/20/94							1.02				
	11/17/94							1.09				
	12/14/94							1.08				
	1/19/95							1.56				
	2/7/95							1.76				
	3/13/95							1.9				
	4/25/95							2.41				
	5/26/95							2.47				
	6/29/95							2.56				
	7/31/95							2.59				
	8/22/95							2.6				
	9/6/95							2.54				
	1/3/96							2.44				
	2/28/96							2.75				
	3/27/96							2.91				
	4/28/96							2.92				
	6/17/96							2.97				
	7/10/96							2.66				
	8/20/96							2.6				
	9/11/96							2.8				
	10/16/96							2.79				
	11/23/96							2.69				
	1/20/97							2.71				
	2/19/97							3.15				
	3/12/97							3.36				
	3/1/98							3.5				
	6/29/99							4.41				

**TABLE Exhibit 5-1  
SUMMARY OF GAUGING DATA  
FORMER CHEMOIL REFINERY**

Well No.	Date	Well Diameter (inches)	Top of Casing Elevation(ft)	Top of Screen Elevation	Total Well Depth(ft)	Depth to LNAPL	Depth to Water	Groundwater Elevation	Apparent LNAPL Thickness(ft)	Specific Gravity	Corrected Depth to Groundwater	Corrected Groundwater Elevation
MW-8	11/4/85	4	27.7	6.7	52	ND	NA	NA	ND	NA	NA	NA
	6/2/86						NA	NA	NA	NA		
	12/23/87						30.32	-2.78	30.32	-2.78		
	3/12/87						30.25	-2.71	30.25	-2.71		
	6/11/87						30.25	-2.71	30.25	-2.71		
	9/25/87						30	-2.46	30	-2.46		
	4/13/88						29.57	-2.03	29.57	-2.03		
	9/23/88						29.46	-1.92	29.64	-1.92		
	3/31/89						29.34	-1.8	29.34	-1.8		
	9/26/89						29.3	-1.76	29.3	-1.76		
	4/2/90						NA	NA	NA	NA		
	9/10/90						NA	NA	NA	NA		
	12/17/90						29.33	-1.79	29.33	-1.79		
	5/29/91						28.67	-0.97	28.67	-0.97		
	8/26/91						28.74	-1.04	28.74	-1.04		
	12/6/91						28.9	-1.2	28.9	-1.2		
	1/10/92						28.68	-0.98	NA	NA		
	3/5/92						29.04	-1.6	27.54	29.04	-1.6	
	4/10/92						28.84	-1.3	28.84	-1.3		
	5/4/92						28.69	-1.15	28.69	-1.15		
	5/19/92						28.66	-1.14	28.66	-1.14		
	6/18/92						28.67	-1.13	28.67	-1.13		
	7/14/92						28.64	-1.1	28.64	-1.1		
	8/7/92						28.56	-1.02	28.56	-1.02		
	8/26/92						28.73	-1.19	28.73	-1.19		
	9/22/92						28.62	-1.08	28.62	-1.08		
	11/20/92						28.5	-0.96	28.5	-0.96		
	12/30/92						28.53	-0.99	28.53	-0.99		
	1/28/93						28.14	-0.6	28.14	-0.6		
	3/12/93						27.74	-0.2	27.74	-0.2		
	4/30/93						27.38	0.18	27.38	0.18		
	6/18/93	27.45	0.09	27.45	0.09							
7/13/93	27.38	0.16	27.38	0.16								
8/11/93	27.12	0.42	27.12	0.42								
9/13/93	27.24	0.3	27.24	0.3								
10/19/93	27.21	0.33	45.54	27.21	0.33							
11/17/93	27.18	0.36	27.18	0.36								
11/24/93	27.11	0.43	27.11	0.43								
1/21/94	27.19	0.35	27.19	0.35								

**TABLE Exhibit 5-1  
SUMMARY OF GAUGING DATA  
FORMER CHEMOIL REFINERY**

Well No.	Date	Well Diameter (inches)	Top of Casing Elevation (±)	Top of Screen Elevation	Total Well Depth (±)	Depth to LNAPL	Depth to Water	Groundwater Elevation	Apparent LNAPL Thickness (±)	Specific Gravity	Corrected Depth to Groundwater	Corrected Groundwater Elevation
MW-8	4/26/94	4	27.54	6.7	45.54	ND	26.75	0.79	ND	NA	0.79	NA
	5/17/94						26.68	0.86			0.86	
	6/9/94						26.61	0.93			0.93	
	7/19/94						0.88					
	8/15/94						0.96					
	9/14/94						0.93					
	10/20/94						0.84					
	11/17/94						0.93					
	12/14/94						0.86					
	1/19/95						1.37					
	2/7/95						0.86					
	3/13/95						1.64					
	4/25/95						2.09					
	5/26/95						2.14					
	6/29/95						2.28					
	7/31/95						2.31					
	8/22/95						2.38					
	9/6/95						2.27					
	1/3/96						2.61					
	2/26/96						2.69					
	3/27/96						2.68					
4/28/96	2.76											
6/17/96	2.64											
7/10/96	2.59											
8/20/96	2.59											
9/11/96	2.57											
10/16/96	2.45											
11/23/96	2.44											
1/20/97	2.68											
2/19/97	3.03											
3/12/97	3.16											
3/1/98	3.77											
6/29/99	3.24											
6/6/02	1.56											
9/2/02	2.2											
12/4/02	1.93											
3/5/03	2.36											
4/30/03	2.7											
9/4/03	4.46											



**TABLE Exhibit 5-1  
SUMMARY OF GAUGING DATA  
FORMER CHEMOIL REFINERY**

Well No.	Date	Well Diameter (inches)	Top of Casing Elevation(a)	Top of Screen Elevation	Total Well Depth(a)	Depth to LNAPL	Depth to Water	Groundwater Elevation	Apparent LNAPL Thickness(z)	Specific Gravity	Corrected Depth to Groundwater	Corrected Groundwater Elevation
MW-6	12/9/03	4	27.54	5.7	45.54	ND	28.61	4.36	ND	NA	0.93	NA
	3/3/04							4.55				
	6/3/04							4.36				
	9/15/04							4.26				
	12/9/04							4.29				
	3/11/05							5.6				
	6/2/05							6.21				
	9/7/05							6.15				
	12/7/05							6.32				
	3/6/06							6.78				
	6/6/06							6.34				
	9/6/06							5.74				
	12/1/06							5.83				
	3/6/07							6.76				
	6/4/07							4.61				
	9/6/07							4.46				
	12/5/07							5.86				
	3/6/08							4.81				
	6/9/08							4.91				
	9/5/08							5.61				
	12/9/08							4.41				
	3/12/09							4.81				
	9/11/09							4.31				
	12/3/09							4.01				
	3/18/10						21.1	4.81				
	6/3/10						21.1	4.81				
	9/8/10						21.5	4.41				
	12/9/10						21.7	4.21				
	3/2/11						20.6	5.31				

**TABLE Exhibit 5-1  
SUMMARY OF GAUGING DATA  
FORMER CHEMOIL REFINERY**

Well No.	Date	Well Diameter (inches)	Top of Casing Elevation(a)	Top of Screen Elevation	Total Well Depth(a)	Depth to LNAFL	Depth to Water	Groundwater Elevation	Apparent LNAFL Thickness(a)	Specific Gravity	Corrected Depth to Groundwater	Corrected Groundwater Elevation
MW-9	11/15/85	4	36.73	-12.27	49	NA	NA	NA	NA	NA	NA	NA
	11/22/85											
	6/24/86											
	12/22/86											
	3/11/87											
	6/1/87											
	9/22/87											
	2/16/88											
	5/12/88					38.43	38.69	-1.96	0.26	0.791	38.48	-1.76
	6/15/88					38.5	38.78	-2.05	0.28		38.55	-1.82
	7/7/88					38.61	38.84	-2.08	0.2		38.65	-1.92
	7/12/88					38.5	38.8	-2.07	0.3		38.56	-1.83
	7/15/88					38.52	38.64	-2.11	0.32		38.58	-1.85
	7/19/88					38.46	38.72	-1.99	0.26		38.51	-1.78
	7/22/88					38.41	38.7	-1.97	0.26		38.49	-1.76
	9/20/88					38.32	38.69	-1.96	0.37		38.39	-1.67
	9/26/88					38.38	38.67	-2.14	0.49		38.48	-1.75
	10/12/88					38.37	38.75	-2.02	0.49		38.36	-1.63
	10/17/88					32.86	38.54	-1.81	0.28		38.32	-1.58
	10/24/88					38.25	38.56	-1.87	0.31		38.31	-1.59
	11/21/88					38.26	38.65	-1.92	0.29		38.42	-1.69
	11/30/88					35.26	38.67	-1.94	0.42		38.33	-1.6
	12/5/88					38.2	38.66	-1.93	0.5		38.26	-1.53
	12/9/88					38.76	39.36	-2.03	0.5		38.96	-2.23
	12/22/88					38.24	39.02	-2.29	0.66		38.49	-1.76
	2/8/89					38.18	38.96	-2.27	0.78		38.34	-1.61
	4/28/89					38.04	39.06	-2.33	1.02		38.25	-1.52
	5/15/89					36.02	39.13	-2.4	1.11			
	6/9/89					37.97	39.14	-2.41	1.17		38.21	-1.48
	6/15/89					38.11	38.6	-1.87	0.49		38.21	-1.46
	11/1/89					38.03	39.92	-3.19	0.89		39.22	-2.48
	12/7/89					38.03	38.96	-2.23	0.03		37.8	-1.07
	7/11/90					38.54	38.64	-1.61	0		38.45	-1.8
	7/17/90					38.45	38.46	-1.72	0			-1.77
	7/19/90					38.15	37.7	-0.97	0.45		37.34	-0.61
	12/17/90					37.9	38.94	-2.21	1.04		38.11	-1.36
	3/28/91					37.68	38.46	-1.73	0.78		37.84	-1.11
	5/29/91					37.51	38.25	-1.52	0.59		37.66	-0.93
	7/6/91					37.54	37.54	-0.81	0		37.54	-0.81

**TABLE Exhibit 5-1  
SUMMARY OF GAUGING DATA  
FORMER CHEMOIL REFINERY**

Well No.	Date	Well Diameter (Inches)	Top of Casing Elevation(a)	Top of Screen Elevation	Total Well Depth(a)	Depth to LNAPL	Depth to Water	Groundwater Elevation	Apparent LNAPL Thickness(a)	Specific Gravity	Corrected Depth to Groundwater	Corrected Groundwater Elevation		
MW-9	7/24/91	4	36.73	-12.27	49	37.49	38.25	-1.52	0.76	0.791	37.64	-0.92		
	8/28/91					37.61	38.23	-1.5	0.62		37.73	-1.01		
	9/16/91					37.65	38.18	-1.45	0.53		37.76	-1.03		
	10/21/91					37.53	38.14	-1.41	0.61		37.65	-0.92		
	11/7/91					37.62	38.28	-1.65	0.66		37.75	-1.02		
	12/6/91					37.84	38.5	-1.77	0.66		37.97	-1.06		
	1/10/92					37.66	38.17	-1.44	0.61		37.69	-0.96		
	3/5/92					38	38.75	-2.02	0.75		38.15	-1.42		
	4/10/92					36.2	39.07	-2.34	0.87		38.36	-1.65		
	5/4/92					38.11	38.95	-2.22	0.84		38.28	-1.55		
	5/19/92					38.11	38.94	-2.21	0.83		38.26	-1.55		
	6/15/92					ND	38.1	-1.37	ND	NA	NA	NA		
	7/14/92					ND	37.95	-1.22	ND	NA	NA	NA		
	6/7/92					ND	37.88	-1.15	ND	NA	NA	NA		
	8/26/92					37.87	36.67	-1.94	0.8	0.791	36.04	-1.31		
	9/22/92					ND	37.8	-1.07	ND	NA	NA	NA		
	11/20/92					37.6	38.38	-1.65	0.78	0.791	37.76	-1.03		
	12/30/92					ND	37.64	-0.91	ND	NA	NA	NA		
	1/28/93					ND	37.18	-0.45	ND	NA	NA	NA		
	3/12/93					35.69	37.41	NA	0.72	0.791	36.84	-0.11		
	4/30/93					ND	36.56	0.17	ND	NA	NA	NA		
	6/18/93					ND	36.49	0.24	ND	NA	NA	NA		
	7/13/93					36.4	37.57	-0.64	1.17	0.791	36.64	NA		
	8/11/93					ND	35.95	0.76	ND	NA	NA	0.09		
	9/13/93					ND	35.2	0.53	ND	NA	NA	NA		
	10/19/93						50.35	36.16	37.57	-0.84	1.41	0.791	36.45	0.26
	11/17/93					ND	36.12	0.61	ND	NA	NA	NA		
	11/24/93					36.04	37.42	-0.69	1.38	0.791	36.32	0.41		
	1/21/94					35.08	37.66	0.93	0.68	0.791	37.2	-0.47		
	4/28/94					NA	35.65	1.08	1.06	ND	NA	1.08		
	5/17/94					35.6	35.79	0.94	0.19	0.791	35.63	1.1		
	6/9/94					35.62	35.66	1.08	0.13	0.791	35.54	1.19		
	7/19/94										1.25			
8/15/94						1.09								
9/14/94						1.19								
10/20/94						1.13								
11/17/94						1.58								
12/14/94						1.62								
1/19/95														

**TABLE Exhibit 5-1  
SUMMARY OF GAUGING DATA  
FORMER CHEMOIL REFINERY**

Well No.	Date	Well Diameter (inches)	Top of Casing Elevation(a)	Top of Screen Elevation	Total Well Depth(a)	Depth to LNAPL	Depth to Water	Groundwater Elevation	Apparent LNAPL Thickness(a)	Specific Gravity	Corrected Depth to Groundwater	Corrected Groundwater Elevation
MW-9	2/7/95	4	36.73	-12.27	60.35	35.52	35.65	1.73	0.13	0.791	35.54	1.19
	3/13/95							2.24				
	4/26/95							2.31				
	5/26/95							2.5				
	6/29/95							2.57				
	7/31/95							2.63				
	8/22/95							2.57				
	9/6/95							2.48				
	1/3/96							2.71				
	2/26/96							2.83				
	3/27/96							2.81				
	4/28/96							2.92				
	6/17/96							2.81				
	7/10/96							2.77				
	8/20/96							2.8				
	9/11/96							2.8				
	10/16/96							2.66				
	11/23/96							2.61				
	1/20/97							2.9				
	2/19/97							3.07				
	3/12/97							3.2				
	3/1/98							3.74				
	6/29/99							3.36				
6/6/02	3.75											
9/2/02	2.34											
12/4/02	2.2											
3/5/03	2.53											
4/30/03	2.95											
9/4/03	3											
12/9/03	2.95											
3/3/04	2.65											
6/3/04	2.96											
9/15/04	2.86											
12/9/04	2.67											
3/11/05	3.93											
6/2/05	4.85											
9/7/05	4.73											
12/7/05	5.19											
3/6/06	5.83											

**TABLE Exhibit 5-1  
SUMMARY OF GAUGING DATA  
FORMER CHEMOIL REFINERY**

Well No.	Date	Well Diameter (inches)	Top of Casing Elevation (a)	Top of Screen Elevation	Total Well Depth (a)	Depth to LNAPL	Depth to Water	Groundwater Elevation	Apparent LNAPL Thickness (a)	Specific Gravity	Corrected Depth to Groundwater	Corrected Groundwater Elevation	
MW-9	6/6/06	4	36.73	-12.27	60.36	35.52	35.05	4.87	0.13	0.791	35.54	1.19	
	9/6/06							4.45					
	12/1/06							5.45					
	3/6/07							4.96					
	6/4/07							4.61					
	9/6/07							4.78					
	12/5/07							5.48					
	3/6/08							4.86					
	6/9/08							5.05					
	9/5/08							4.98					
	12/3/08							4.58					
	3/12/09							4.98					
	9/11/09							4.46					
	12/3/09							4.26					
	3/18/10							31.8					4.99
	6/3/10							31.9					4.98
	9/3/10							32.3					4.58
12/8/10	32.4	4.48											
3/2/11	31.3	5.58											

**TABLE Exhibit 5-1  
SUMMARY OF GAUGING DATA  
FORMER CHEMOIL REFINERY**

Well No.	Date	Well Diameter (inches)	Top of Casing Elevation(a)	Top of Screen Elevation	Total Well Depth(a)	Depth to LNAPL	Depth to Water	Groundwater Elevation	Apparent LNAPL Thickness(a)	Specific Gravity	Corrected Depth to Groundwater	Corrected Groundwater Elevation
MW-10	4/13/88	4	31.39	5.39	46	ND	33.08	-1.69	ND	NA	33.06	-1.69
	9/23/88						33	-1.61			33	-1.61
	3/29/89						33	-1.61			33	-1.61
	9/26/89						32.85	-1.46			32.85	-1.46
	4/2/90						NA	NA			NA	NA
	9/10/90						NA	NA			NA	NA
	12/17/90						32.68	-1.29			32.68	-1.29
	5/28/91						32.18	-0.79			32.18	-0.79
	8/28/91						32.27	-0.66			32.27	-0.66
	12/6/91						32.45	-1.06			32.45	-1.06
	1/10/92						32.36	-0.97			NA	NA
	3/5/92						32.38	-0.89			NA	NA
	4/10/92						32.19	-0.6				
	5/4/92						32.09	-0.7				
	5/19/92						32.08	-0.69				
	6/16/92						32.07	-0.66				
	7/14/92						32.19	-0.8				
	8/7/92						32.05	-0.66				
	8/26/92						32.26	-0.87				
	9/22/92						32.09	-0.7				
	11/20/92						32.06	-0.67				
	12/30/92						32.05	-0.66				
	1/28/93						31.72	-0.33				
	3/12/93						31.3	0.09				
	4/30/93						30.86	0.51				
	6/18/93						30.83	0.55				
	7/13/93						30.78	0.61				
	6/11/93						30.65	0.74				
	9/13/93						30.7	0.69				
	10/19/93						47.3	30.72			0.67	
11/17/93	30.7	0.69										
11/24/93	30.63	0.76	0.76									
1/21/94	30.71	0.68	0.68									
4/28/94	30.33	1.06	1.06									
5/17/94	30.26	1.13	1.13									
6/9/94	30.19	1.2	1.2									
7/19/94		1.14										
8/15/94		1.23										
9/14/94		1.37										

**TABLE Exhibit 5-1  
SUMMARY OF GAUGING DATA  
FORMER CHEMOIL REFINERY**

Well No.	Date	Well Diameter (inches)	Top of Casing Elevation(a)	Top of Screen Elevation	Total Well Depth(a)	Depth to LVA/PL	Depth to Water	Groundwater Elevation	Apparent LVA/PL Thickness(e)	Specific Gravity	Corrected Depth to Groundwater	Corrected Groundwater Elevation
MW-10	10/20/94	4	31.39	5.39	47.3	ND	30.19	1.1	ND	NA	1.2	NA
	11/17/94							1.16				
	12/14/94							1.16				
	1/19/95							1.58				
	2/7/95							1.71				
	3/13/95							1.87				
	4/26/95							2.35				
	5/26/95							2.44				
	6/29/95							2.6				
	7/31/95							2.63				
	8/22/95							2.69				
	9/8/95							2.63				
	1/3/96							2.55				
	2/26/96							2.8				
	3/27/96							2.94				
	4/3/96							2.9				
	4/28/96							3.2				
	6/17/96							2.95				
	7/10/96							2.94				
	8/20/96							2.89				
	9/11/96							2.87				
	10/16/96							2.75				
	11/23/96							2.78				
	1/20/97							3.12				
	2/19/97							3.29				
	3/12/97							3.45				
	3/1/98							3.85				
	6/29/99							3.7				
	6/6/02							2.62				
	9/2/02							2.35				
	12/4/02							2.27				
	3/5/03							2.57				
	4/30/03							3.07				
	9/4/03							3.17				
	12/9/03							2.97				
	3/9/04							3.09				
	6/3/04							2.66				
	9/15/04							2.79				
	12/9/04							2.85				

**TABLE Exhibit 5-1  
SUMMARY OF GAUGING DATA  
FORMER CHEMOIL REFINERY**

Well No.	Date	Well Diameter (inches)	Top of Casing Elevation(a)	Top of Screen Elevation	Total Well Depth(a)	Depth to LNAPL	Depth to Water	Groundwater Elevation	Apparent LNAPL Thickness(a)	Specific Gravity	Corrected Depth to Groundwater	Corrected Groundwater Elevation
MW-10	3/11/05	4	31.39	5.39	47.3	ND	30.19	2.99	ND	NA	1.2	NA
	6/2/05							3.65				
	9/7/05							3.64				
	12/7/05							2.91				
	3/6/06							4.05				
	6/6/06							4.25				
	9/6/06							3.92				
	12/1/06							4.07				
	3/6/07							4.17				
	6/4/07							4				
	9/5/07							3.4				
	12/5/07							4.6				
	3/6/08							4.4				
	6/9/08							4.4				
	9/5/08							4.7				
	12/5/08							4.4				
	3/12/09							4.9				
	9/11/09							4.32				
	12/3/09							4.1				
	3/16/10						26.6	5				
	6/3/10						26.7	4.9				
	9/9/10						27	4.6				
	12/8/10						27.2	4.4				
	3/2/11						26.1	5.5				



**TABLE Exhibit 5-1  
SUMMARY OF GAUGING DATA  
FORMER CHEMOIL REFINERY**

Well No.	Date	Well Diameter (inches)	Top of Casing Elevation(a)	Top of Screen Elevation	Total Well Depth(a)	Depth to LNAPL	Depth to Water	Groundwater Elevation	Apparent LNAPL Thickness(a)	Specific Gravity	Corrected Depth to Groundwater	Corrected Groundwater Elevation
MW-11	3/18/10	4	33.06		43	ND	27.5	5.56	ND	NA	1.2	NA
	6/3/10						27.5	5.56				
	9/8/10						28	5.06				
	12/8/10						28.1	4.96				
	3/2/11						27	6.06				
MW-12	3/18/10	4	24.04		33	ND	17.9	5.66				
	6/3/10						18.6	5.44				
	9/8/10						18.9	5.14				
	12/8/10						19	5.04				
	3/2/11						17.9	6.14				
MW-13	3/18/10	4	21.33		30	ND	16	5.33				
	6/3/10						16	5.33				
	9/8/10						16.5	4.63				
	12/8/10						16.6	4.73				
	3/2/11						15.4	5.93				
MW-14	3/18/10	4	16.81		25	ND	11.5	5.31				
	6/3/10						11.7	5.11				
	9/8/10						12.1	4.71				
	12/8/10						12.2	4.61				
	3/2/11						11.1	5.71				
MW-15	3/18/10	4	17.17		26	ND	11.9	5.27				
	6/3/10						11.8	5.37				
	9/8/10						11.3	5.87				
	12/8/10						13.5	3.67				
	3/2/11						11.3	5.87				
MW-16	3/18/10	4	16.41		27	ND	12.9	5.51				
	6/3/10						13	5.4				
	9/8/10						13.4	5.01				
	12/8/10						13.3	5.11				
	3/2/11						12.3	6.11				
MW-17	9/8/10				27	ND	17.3					
	12/8/10						17.4					
	3/2/11						16.1	5.83				
MW-18	12/8/10						11.9	5.82				
MW-19	3/2/11						10.8	5.66				

(a) All well elevations, depths and thickness units of measure are presented in feet

(b) NA = Not Applicable or Not Analyzed

(c) ND = Not Detected

(d) NM = Not Measured

(e) Top of casing is 3.00 feet shorter as of 11/20/92. Well casing above ground was cut flush with ground surface



**EXHIBIT 5 – PART II**

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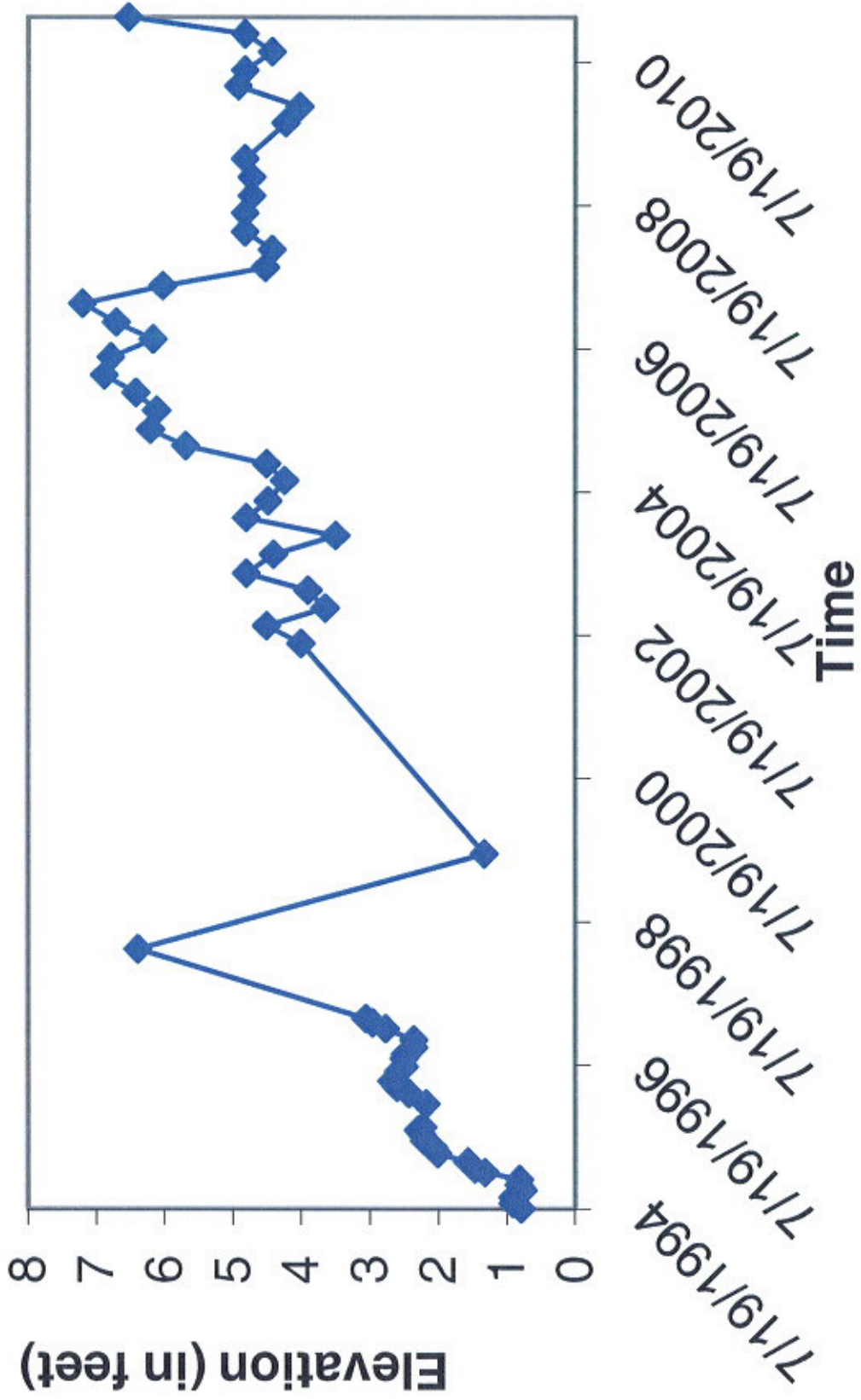
**ANNOTATED HYDROGRAPHS**

## **EXHIBIT 5 -- PART 1**

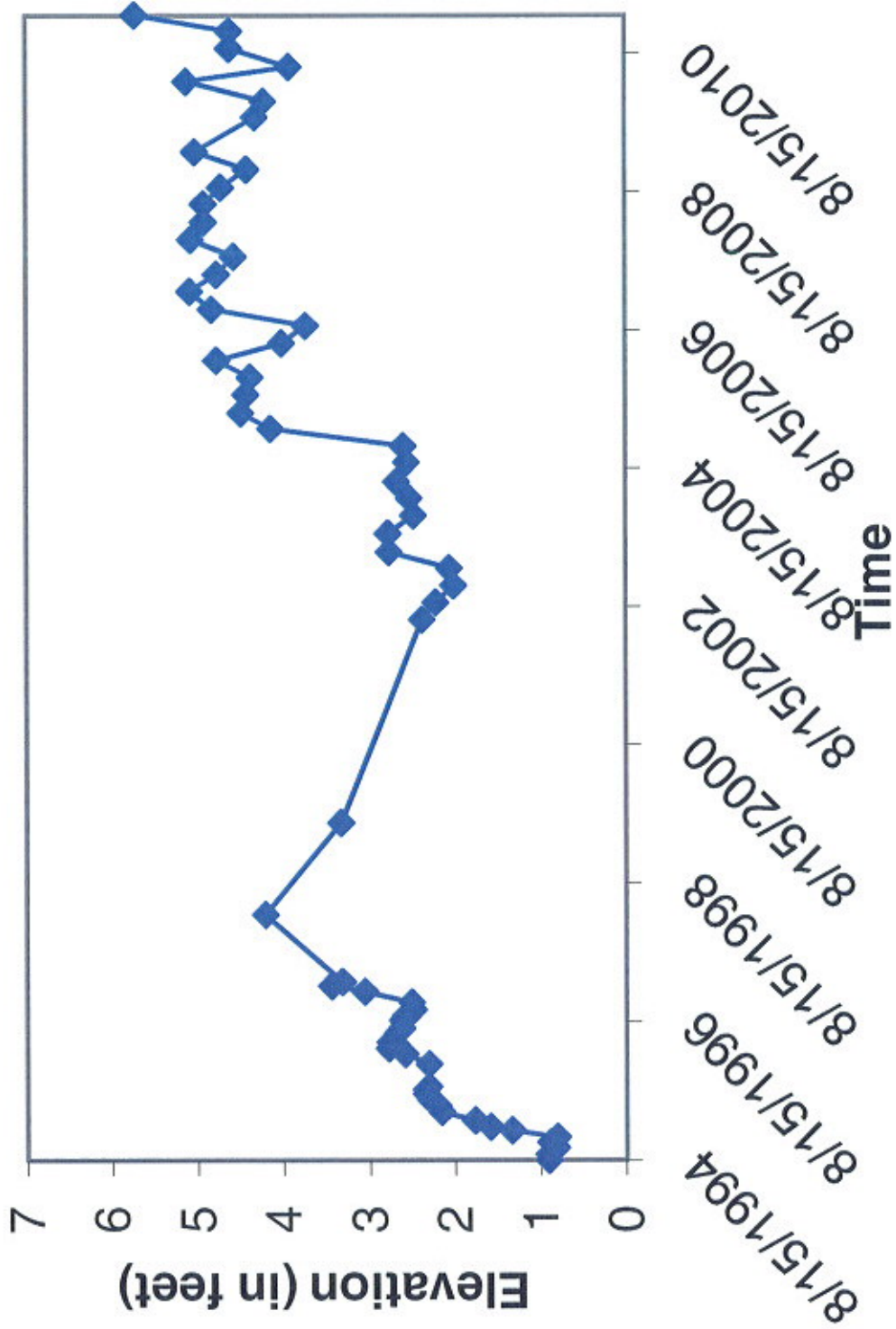
### **TABULATION OF GAUGING DATA**

This appendix contains a tabulation of gauging data for the period from December 1994 through March 2011.

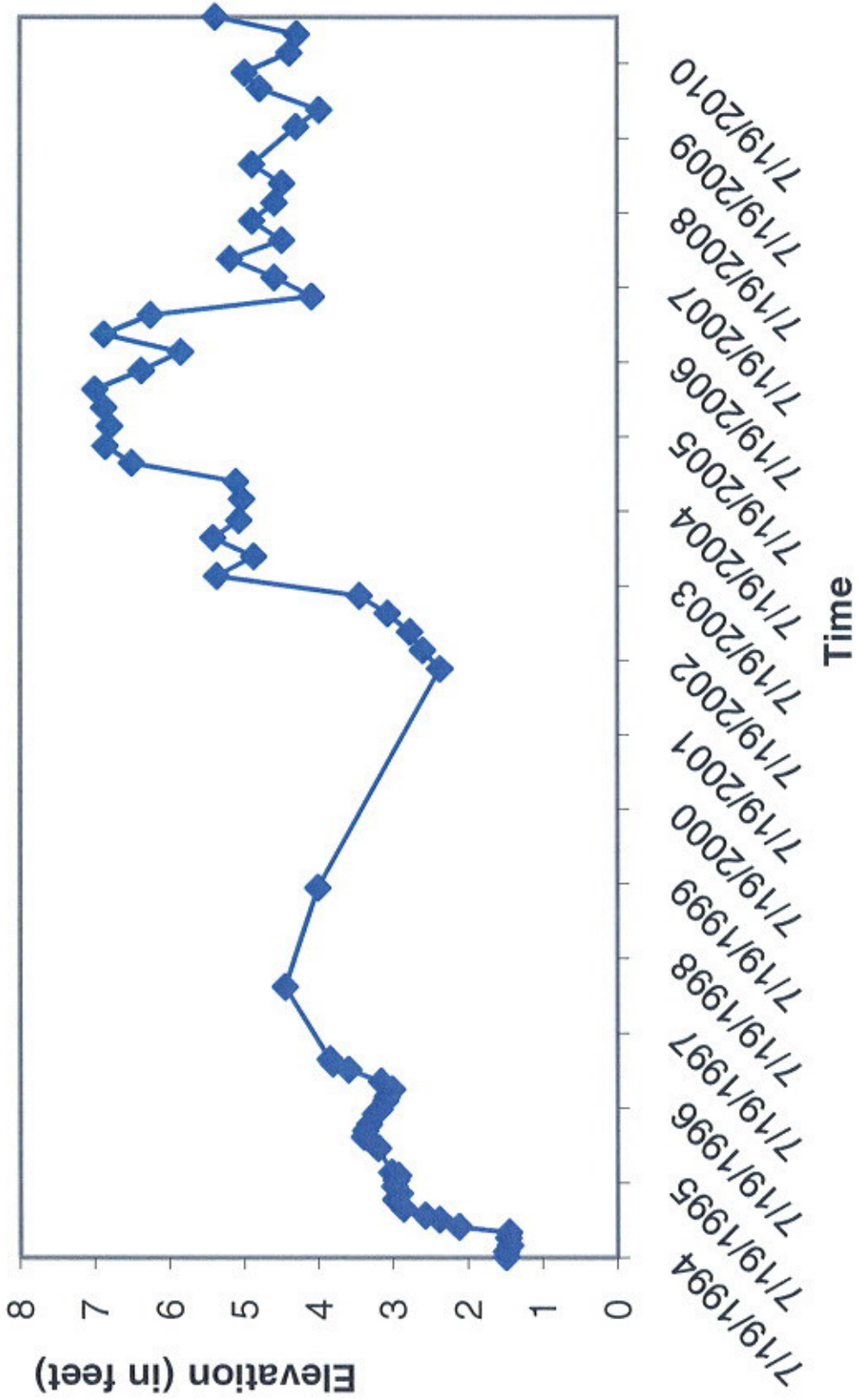
# Hydrograph for MW-1



# Hydrograph for MW-1A

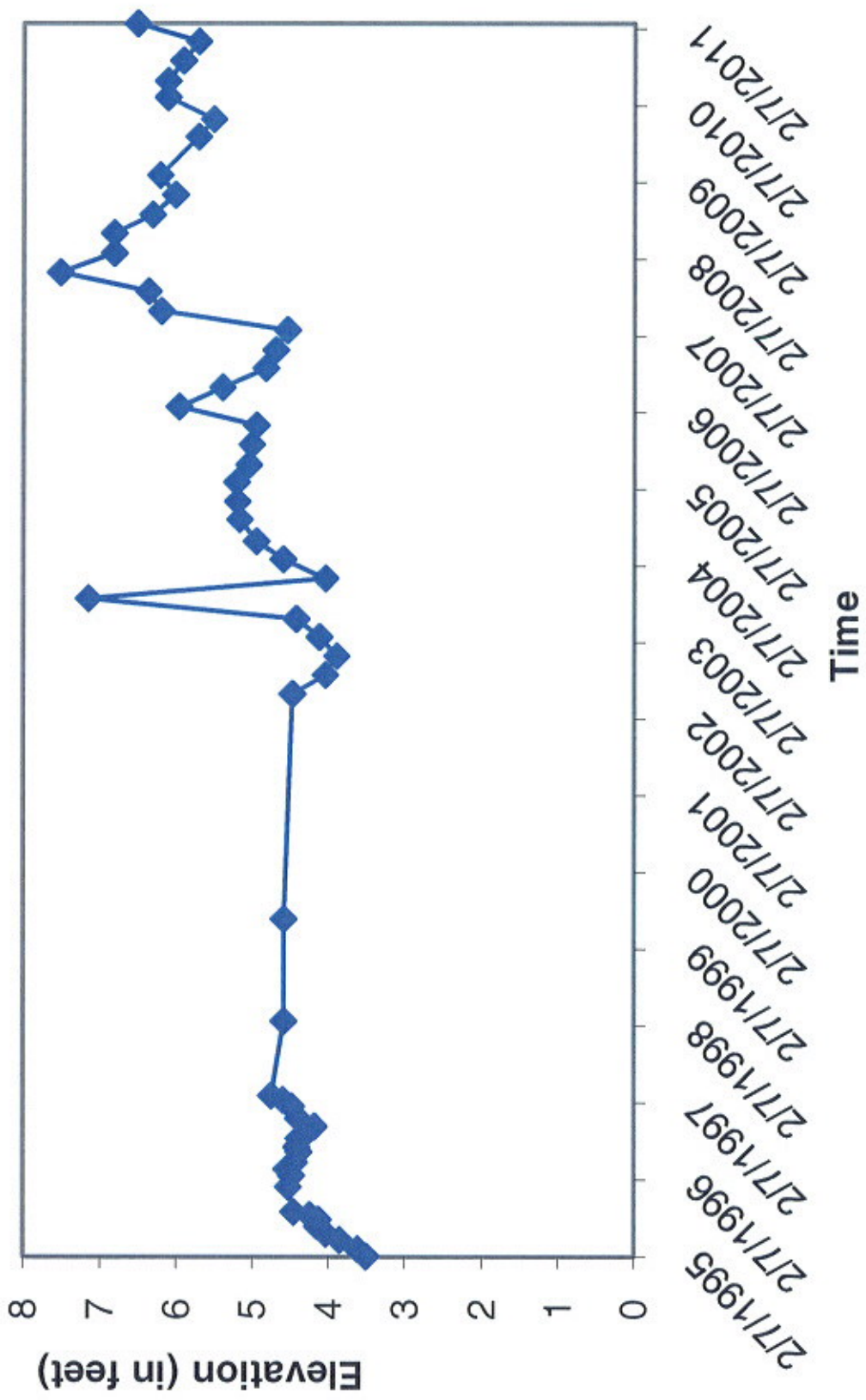


# Hydrograph for MW-2

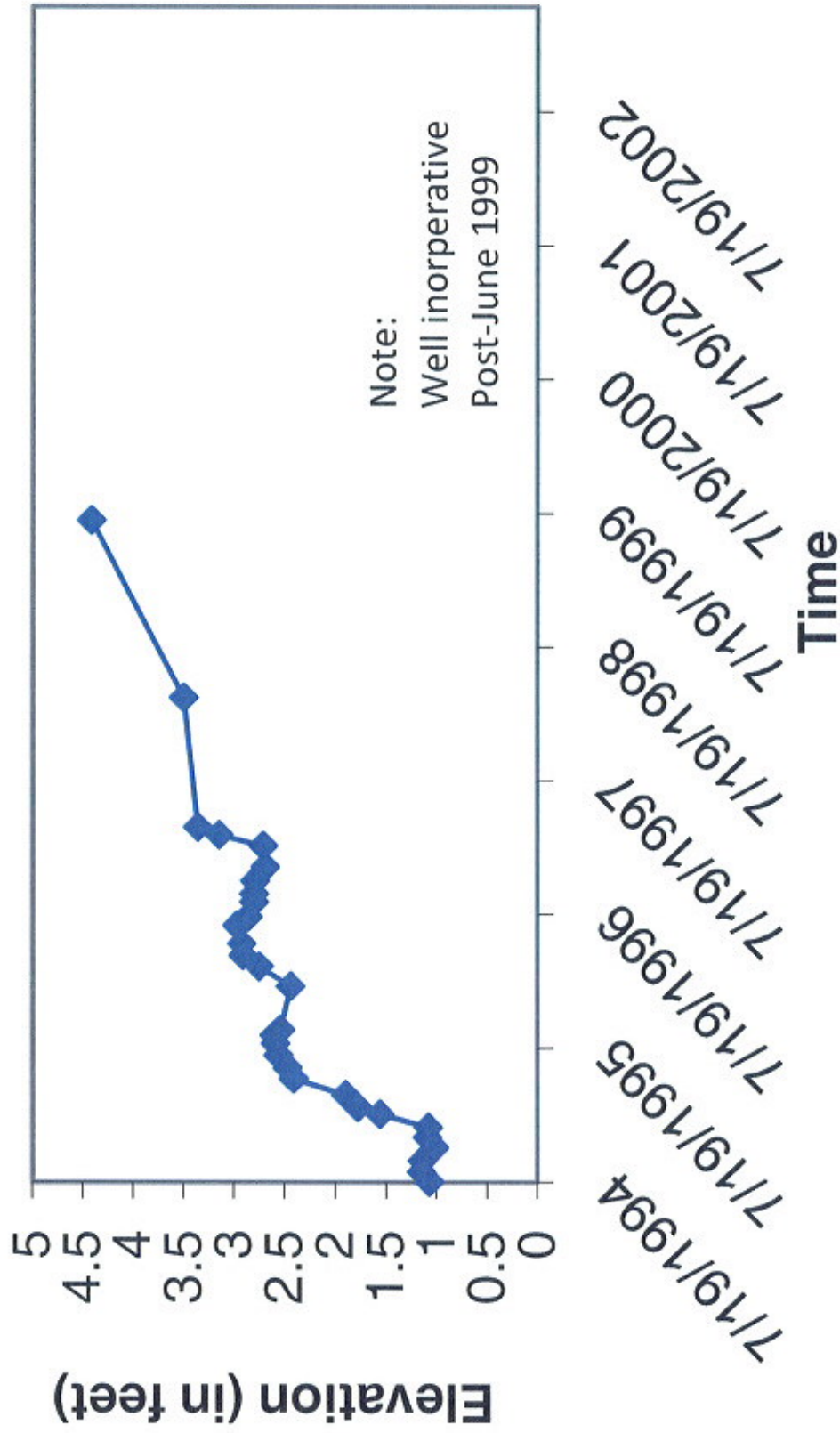




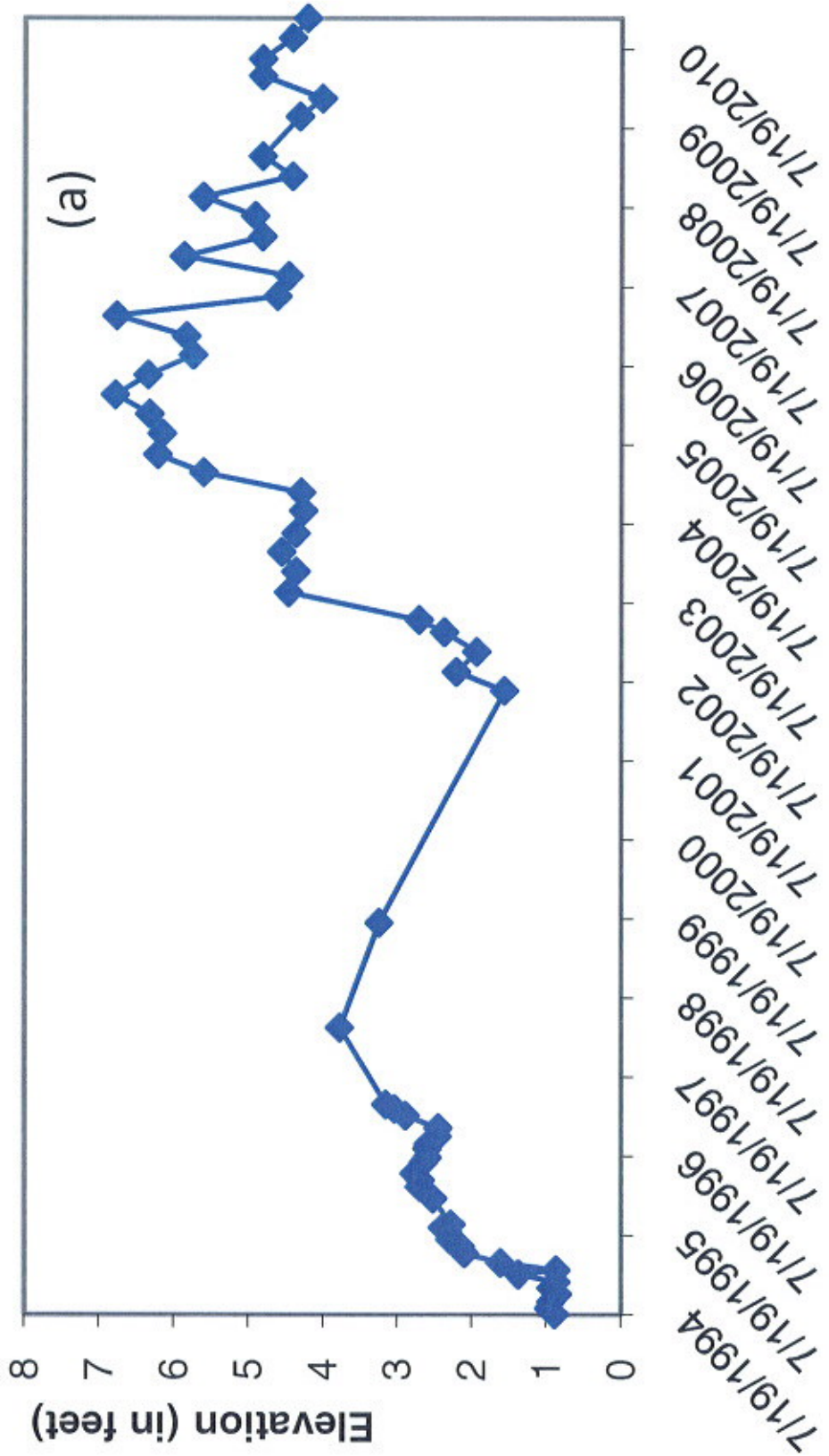
# Hydrograph for MW-3



# Historic Hydrograph for MW-7



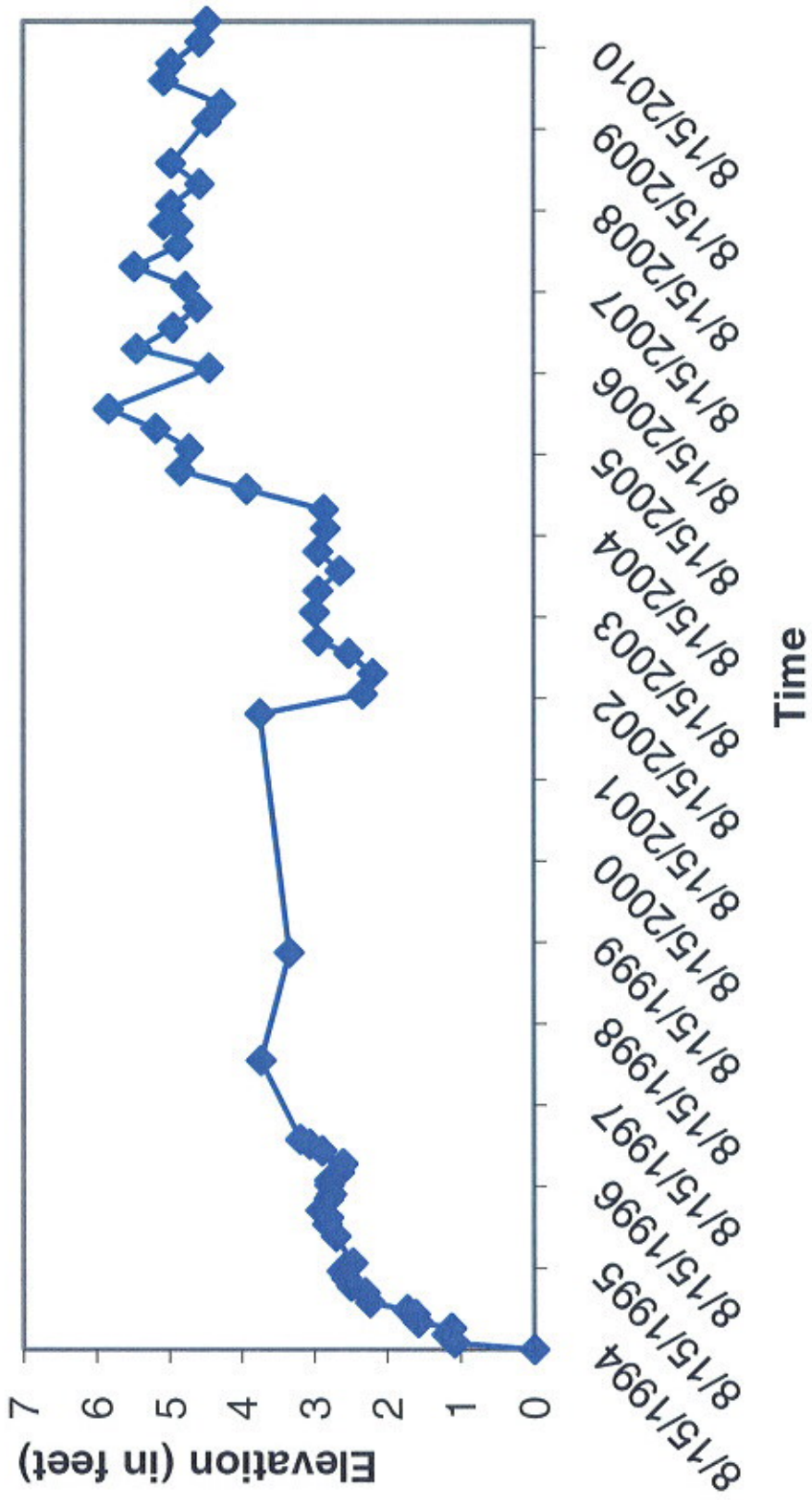
# Hydrograph for MW-8



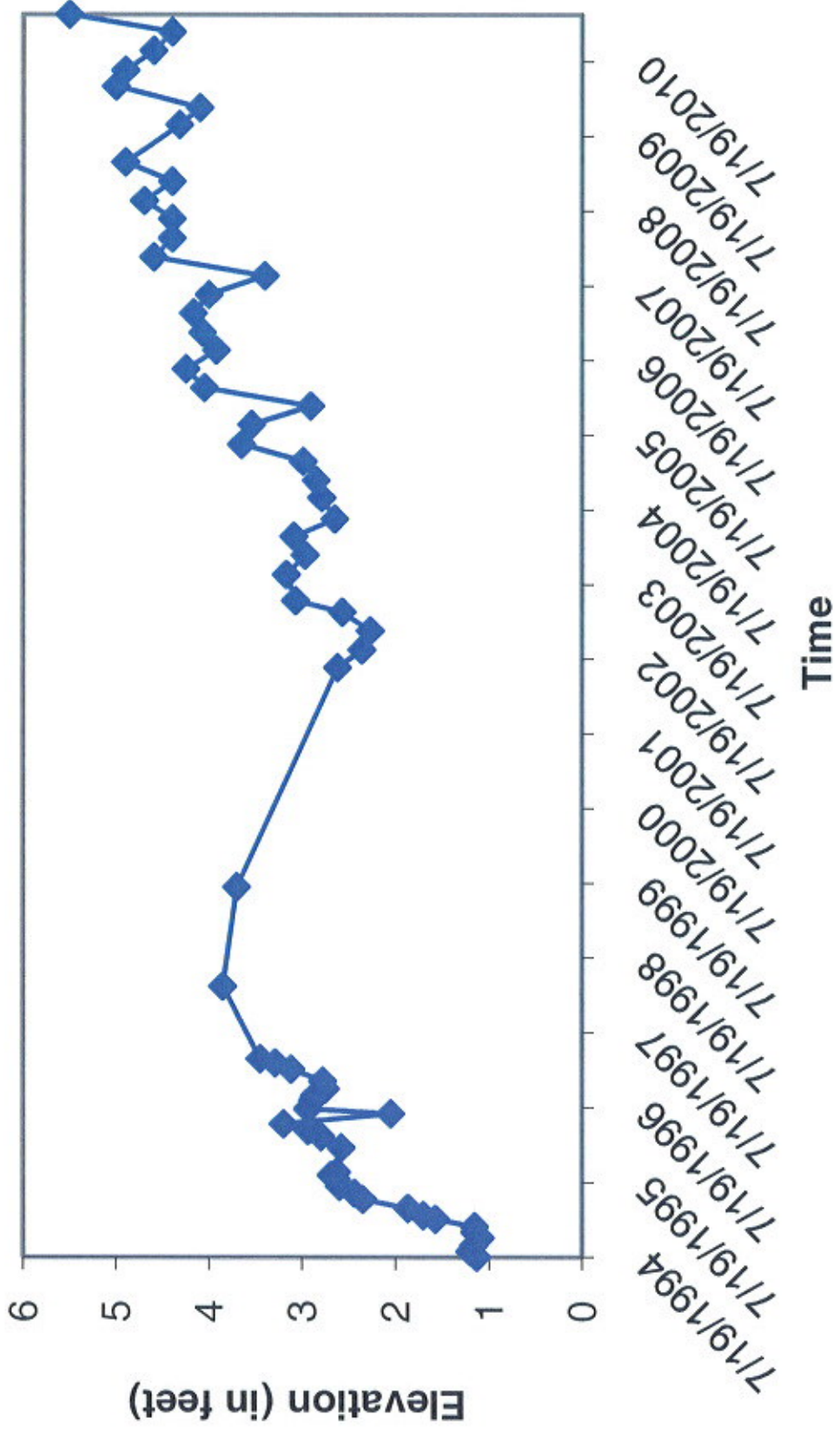
Time

Note: (a) Top of casing elevation suspect.

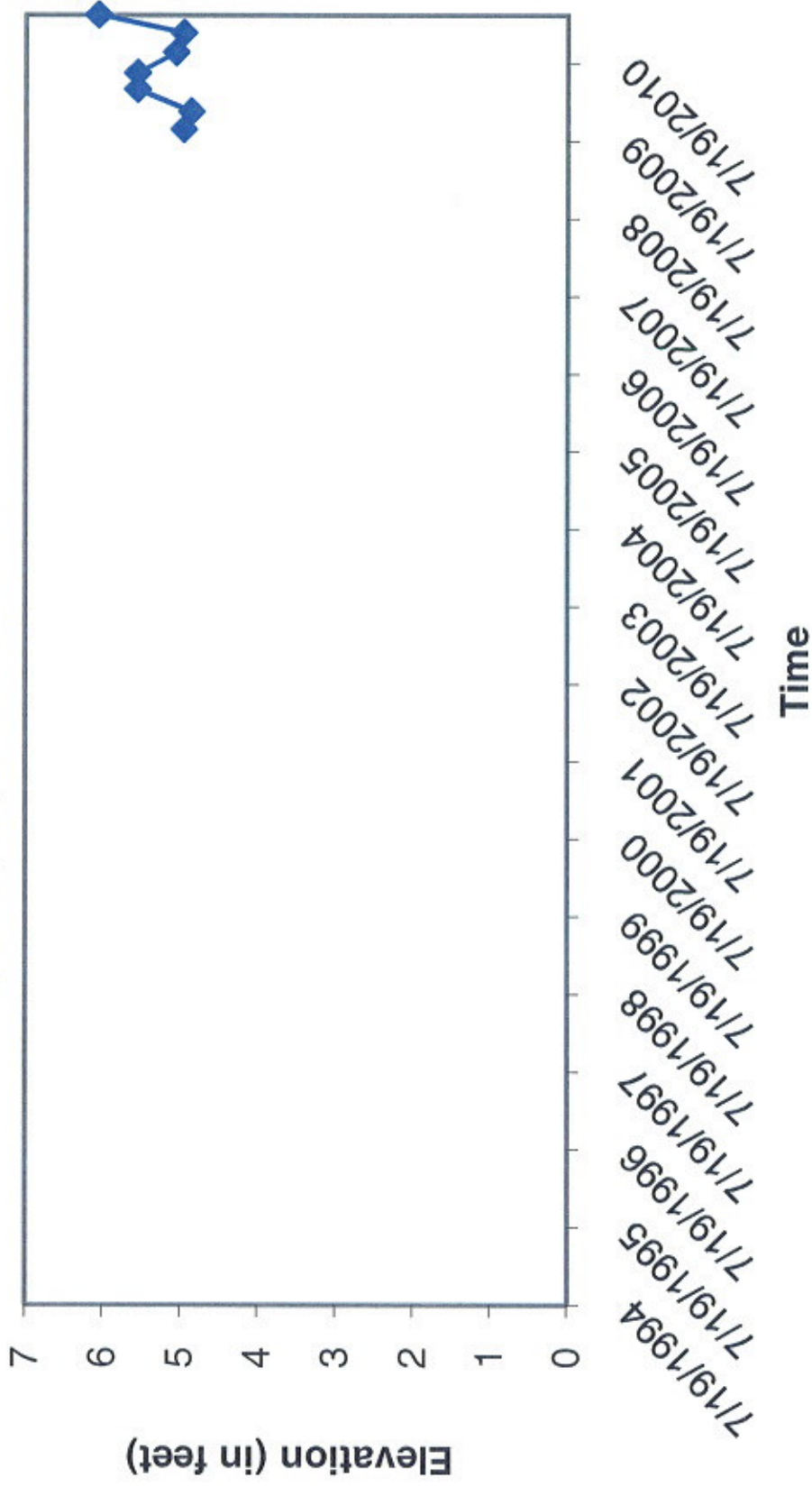
# Hydrograph for MW-9



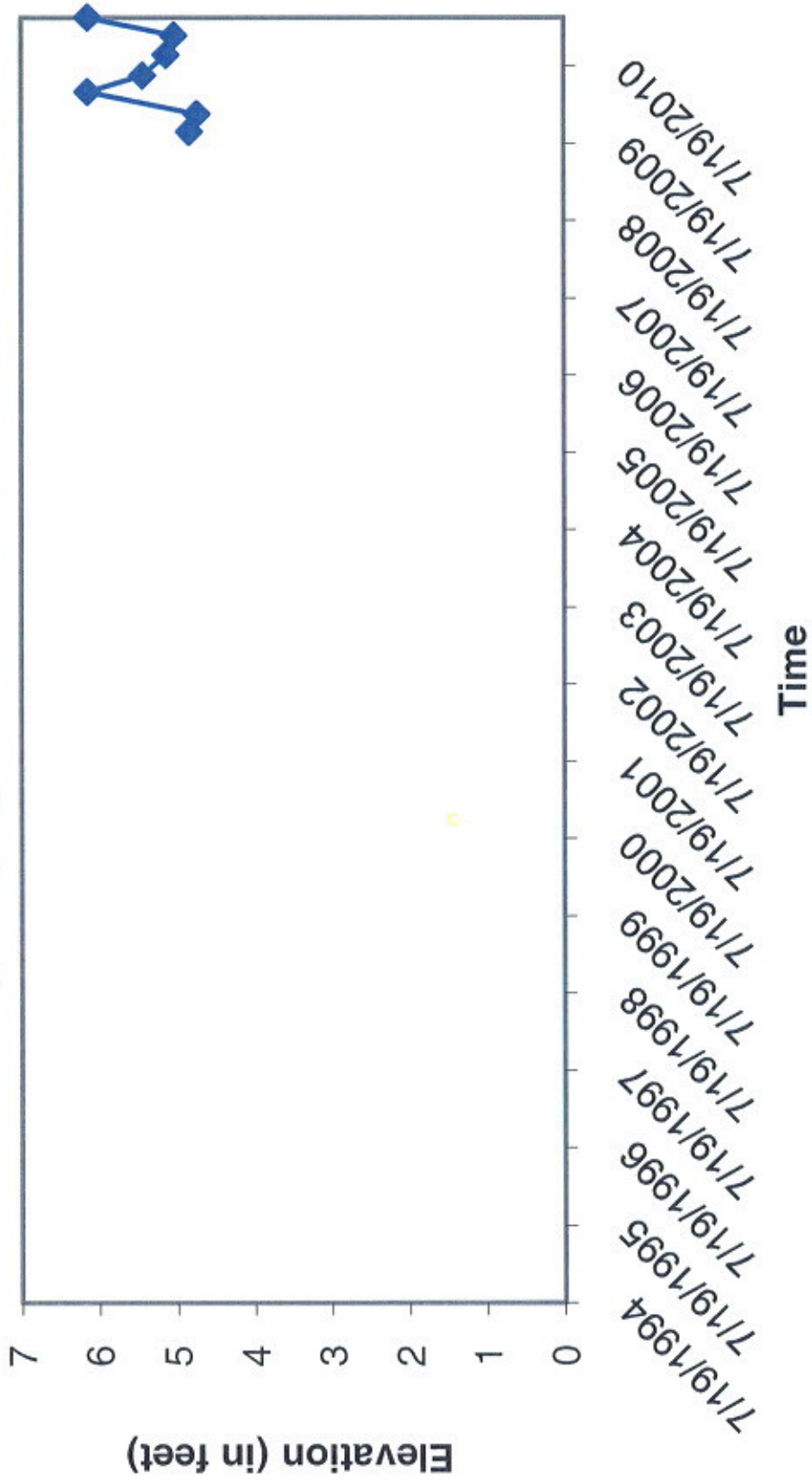
# Hydrograph for MW-10



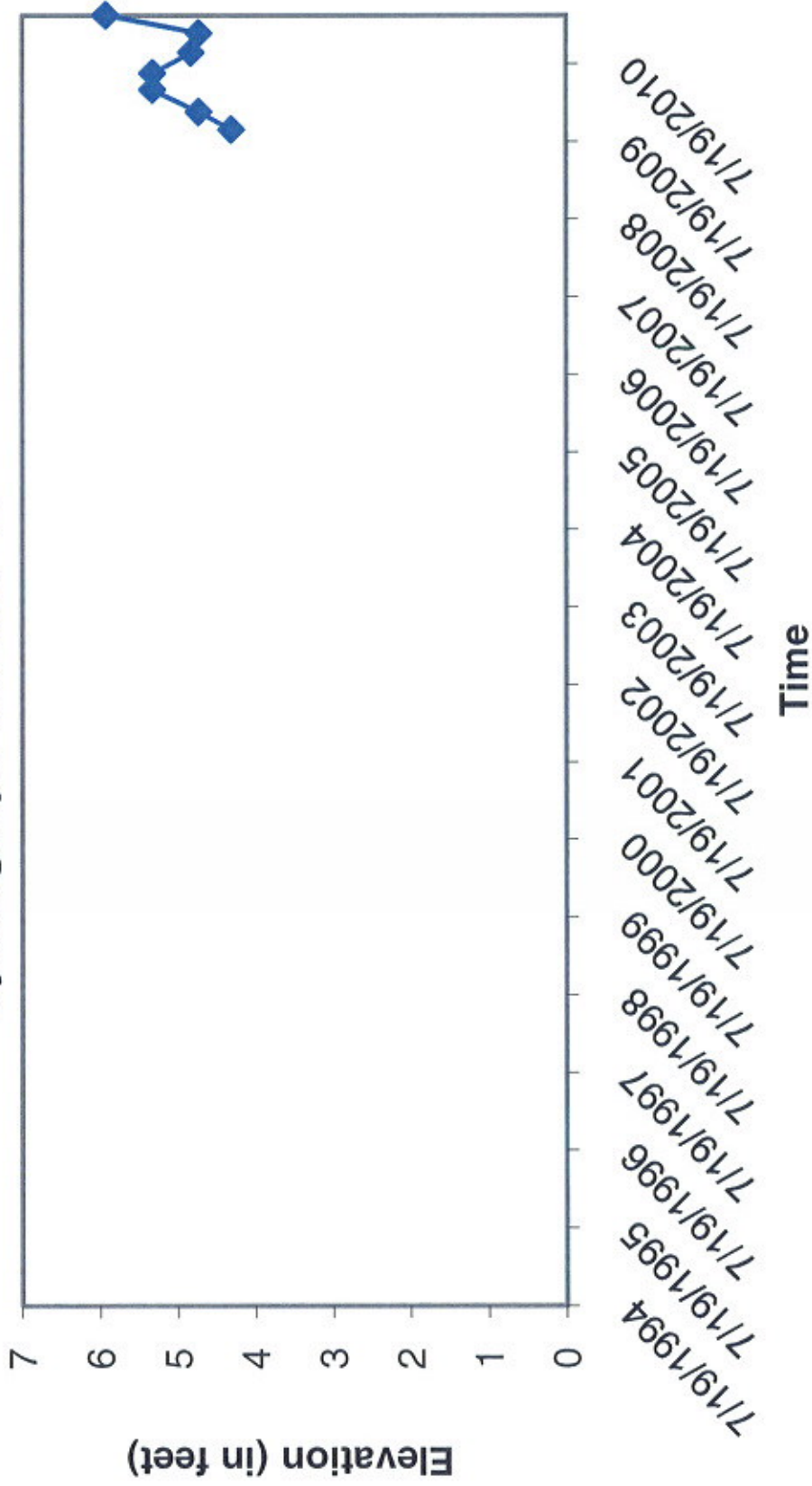
# Hydrograph for MW-11



# Hydrograph for MW-12

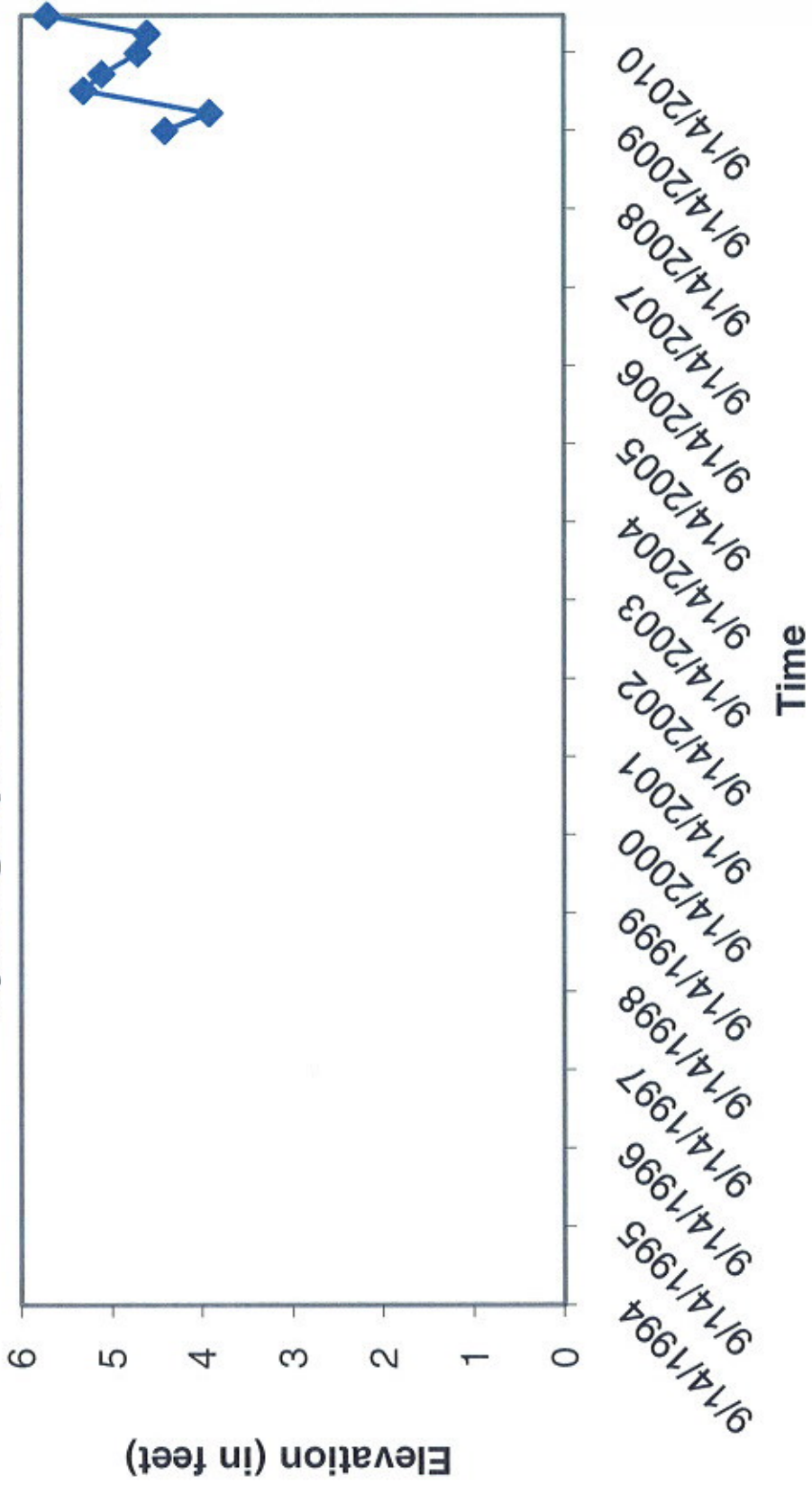


# Hydrograph for MW-13





# Hydrograph for MW-14



# Hydrograph for MW-15

