

DATE: July 8, 2002

ATLANTIC RICHFIELD QUARTERLY GROUNDWATER MONITORING REPORT
ARCO Facility #3012
(Continued)

DATE: July 8, 2002

ATLANTIC RICHFIELD QUARTERLY GROUNDWATER MONITORING REPORT

Facility No.: 3012 Address: 27641 Ynez Road, Temecula, CA
Atlantic Richfield Environmental Engineer: Gordon Terhune
Consulting Co./Contact Person: SECOR/Cleve Solomon
SECOR Project No.: 08BP.60210.01.0436
Primary Agency/Regulatory ID No. California Regional Water Quality Control Board, San Diego
(RWQCB-SD) - Jody Ebsen

WORK PERFORMED THIS QUARTER [Second- 2002]:

1. Completed second quarter groundwater monitoring and sampling.
2. Conducted monthly groundwater gauging in May and June.
3. Conducted bi-weekly vacuum truck events.
4. Complete required NPDES reporting.
5. Submitted site conceptual model report on April 30, 2002, per CAO requirement.
6. Completed POTW permitting process with Eastern Municipal Water District.
7. Installed CPTs 22 through 26 and obtained depth-discrete GW Samples.
8. Installed groundwater recovery well RW-5.
9. Installed connection from remediation compound to onsite sewer lateral.

WORK PROPOSED FOR NEXT QUARTER [Third - 2002]:

1. Complete third quarter groundwater monitoring, sampling, and reporting.
2. Operate interim remediation system with wells MW-26 and RW-5.
3. Prepare site assessment technical report.
4. Install deeper monitoring well clusters at 3 location.

Current Phase of Project:	<u>Assessment/Interim Remediation</u>	(Assmnt, Remed., etc.)
Frequency of Sampling:	<u>Quarterly</u>	(Quarterly, etc.)
Frequency of Monitoring:	<u>Monthly</u>	(Monthly, etc.)
Are Liquid Phase Hydrocarbon Present On-site:	<u>No</u>	(Yes/No)
Cumulative LPH Recovered to Date:	<u>Unknown</u>	(gallons)
LPH recovered This Quarter:	<u>None</u>	(gallons)
Bulk Soil Removed to Date:	<u>Approximately 1,850 yds</u>	(cubic yards)
Bulk Soil Removed This Quarter:	<u>0</u>	(cubic yards)
Water Wells or Surface Waters w/in a 2000 ft. Radius & Their Respective	<u>Murrieta Creek 1,800 ft. SW</u> <u>Municipal well (#118) 2,300 ft. to SW</u>	(Distance and Direction)
Current Remediation Techniques:	<u>Groundwater extraction</u>	(SVES, LPH Removal)
Permits for Discharge:	<u>EMWD POTW</u>	(NPDES. POTW, etc.)

Approximate Depth to Groundwater :	7.08 to 19.22	(Measured Feet)
Groundwater Gradient:	West	(Direction)
	0.014 ft/ft	(Magnitude)

DISCUSSION: On April 15, 2002, *SECOR* personnel gauged 22 wells and sampled 21 wells at the site. Depth to water measurements and calculated groundwater elevations are presented in Table 1. Depth to water ranged from 7.08 feet below ground surface (bgs) in MW-22 to 19.22 feet bgs in MW-27. The groundwater elevations ranged from 1002.09 to 1014.77 feet above mean sea level. The hydraulic gradient at the site was 0.014 ft/ft and the flow direction was to the west. *SECOR* performed no-purge groundwater sampling in accordance with the attached procedures. Groundwater samples were collected and analyzed for Total Petroleum Hydrocarbons as gasoline (TPHg), benzene, toluene, ethylbenzene, and total xylenes (BTEX), and the fuel oxygenates methyl tert-butyl ether (MTBE), ethyl tert-butyl ether (ETBE), di-isopropyl ether (DIPE), tert-amyl methyl ether (TAME), and tert-butyl alcohol (TBA). Analytical results are reported in Tables 2 and 3. TPHg, benzene, and MTBE concentrations are presented on Figure 3, and benzene and MTBE isoconcentration maps are presented in Figures 4 and 5. Hydrographs showing the change in TPHg, benzene, and MTBE, and groundwater elevation with time are attached.

During the second quarter 2002, *SECOR* performed quarterly monitoring and sampling, continued monthly gauging and bi-weekly vacuum truck pumping events. The Eastern Municipal Water District has granted a permit to discharge to the sewer. *SECOR* has also completed additional CPT/DP borings CPT-22 through CPT-26 per the approved March 15, 2002 workplan. In addition, *SECOR* installed extraction well RW-5 and hooked up the interim remediation system to the POTW. The interim remediation system began operation during the week of June 17, 2002. Operation has been suspended temporarily pending resolution of discharge issues with EMWD.

SUMMARY OF UNUSUAL ACTIVITY: Municipal well #118 2,300 feet down-gradient shut down.

AGENCY DIRECTIVE REQUIREMENTS: Monthly groundwater gauging and reporting complete vertical and horizontal delineation of impact in soil and groundwater, submit site conceptual model. Clean up and abatement order R9-2002-0024 Dated February 14, 2002.

ATTACHED:

- Site Plan (Figure 1)
- Groundwater Gradient Map, April 15, 2002 (Figure 2)
- TPHg, Benzene, and MTBE Concentrations in Groundwater, April 15, 2002 (Figure 3)
- Benzene Iso-Concentration Gradient Map, April 15, 2002 (Figure 4)
- MTBE Iso-Concentration Gradient Map, April 15, 2002 (Figure 5)
- Summary of Groundwater Elevations, 1998 to Present (Table 1)
- Summary of Groundwater Sample Analytical Results, 1998 to Present (Table 2)
- Summary of Additional Oxygenate Analytical Data (Table 3)
- Summary of Bi-Weekly Vacuum Truck Pumping Events (Table 4)
- Hydrographs
- No-Purge Monitoring Well Sampling Procedures
- No-Purge Monitoring and Sampling Log
- Laboratory Report and Chain-of-Custody Documentation



LEGEND:

- MW-12 ⊗ MONITORING WELL LOCATION AND DESIGNATION
- RW-1 ⊞ RECOVERY WELL LOCATION AND DESIGNATION
- AS-1 ▲ AIR SPARGE WELL LOCATION AND IDENTIFICATION

NOTES:

SOURCE OF INFORMATION:
CONTINENTAL AERIAL PHOTO, INC.
NEGATIVE NO: C120-7-87
FLIGHT DATE: 07-9-98

INTERPRETED FEATURES:
FROM STATION CONFIGURATION
DRAWINGS OR SEEN ON ACTUAL
AERIAL PHOTO.

SCALE
1 inch ~ 100 feet
0 50 100

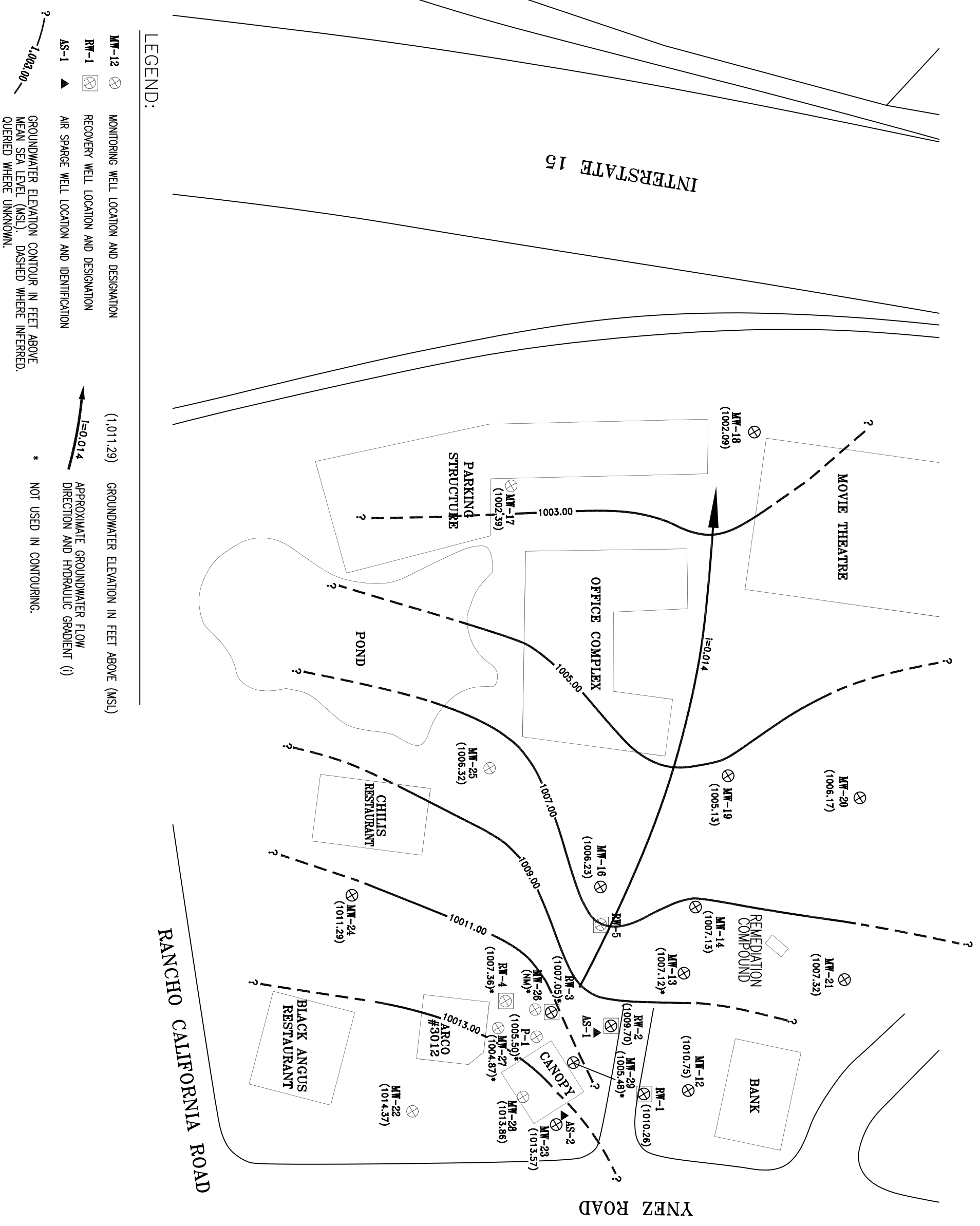
NORTH

SECOR
International Incorporated
2655 CAMINO DEL RIO N., SUITE 302
SAN DIEGO, CA. 92108

FIGURE NO. 1

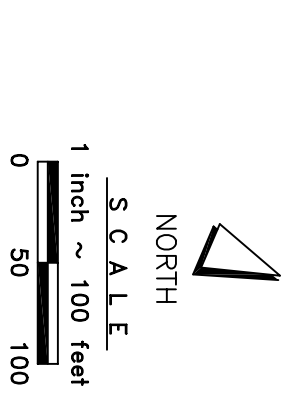
SITE PLAN

ARCO FACILITY #3012
27641 YNEZ ROAD
TEMECULA, CALIFORNIA



LEGEND:

- MW-12 ⊗ MONITORING WELL LOCATION AND DESIGNATION
- RW-1 ⊗ RECOVERY WELL LOCATION AND DESIGNATION
- AS-1 ▲ AIR SPARGE WELL LOCATION AND IDENTIFICATION
- (1,011.29) GROUNDWATER ELEVATION IN FEET ABOVE (MSL)
- $i=0.014$ APPROXIMATE GROUNDWATER FLOW DIRECTION AND HYDRAULIC GRADIENT (i)
- * NOT USED IN CONTOURING.
- 1,003.00 — GROUNDWATER ELEVATION CONTOUR IN FEET ABOVE MEAN SEA LEVEL (MSL). DASHED WHERE INFERRED, QUERIED WHERE UNKNOWN.



NOTES:

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CONTINENTAL AERIAL PHOTO, INC.
NEGATIVE NO: C120-7-87
FLIGHT DATE: 07-9-98

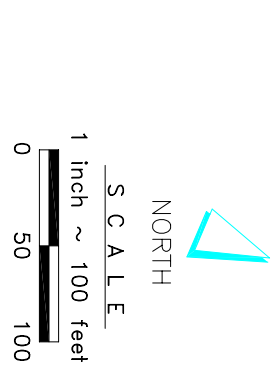
INTERPRETED FEATURES:
FROM STATION CONFIGURATION
DRAWINGS OR SEEN ON ACTUAL
AERIAL PHOTO.

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FIGURE NO. 2
GROUNDWATER
GRADIENT MAP,
APRIL 15, 2002
ARCO FACILITY #3012
27641 YNEZ ROAD
TEMECULA, CALIFORNIA

- LEGEND:**
- MW-12 ⊗ MONITORING WELL LOCATION AND DESIGNATION
 - RW-1 ⊗ RECOVERY WELL LOCATION AND DESIGNATION
 - AS-1 ▲ AIR SPARGE WELL LOCATION AND IDENTIFICATION
 - TPHg B MTBBE <500 <0.50 <1.0 GROUNDWATER SAMPLE ANALYTICAL CONCENTRATION IN MICROGRAMS PER LITER (µg/L).

- TPHg TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
- B BENZENE
- MTBBE METHYL-TERT-BUTYL ETHER
- < = BELOW LABORATORY DETECTION LIMIT SHOWN.
- NS = NOT SAMPLED



NOTES:

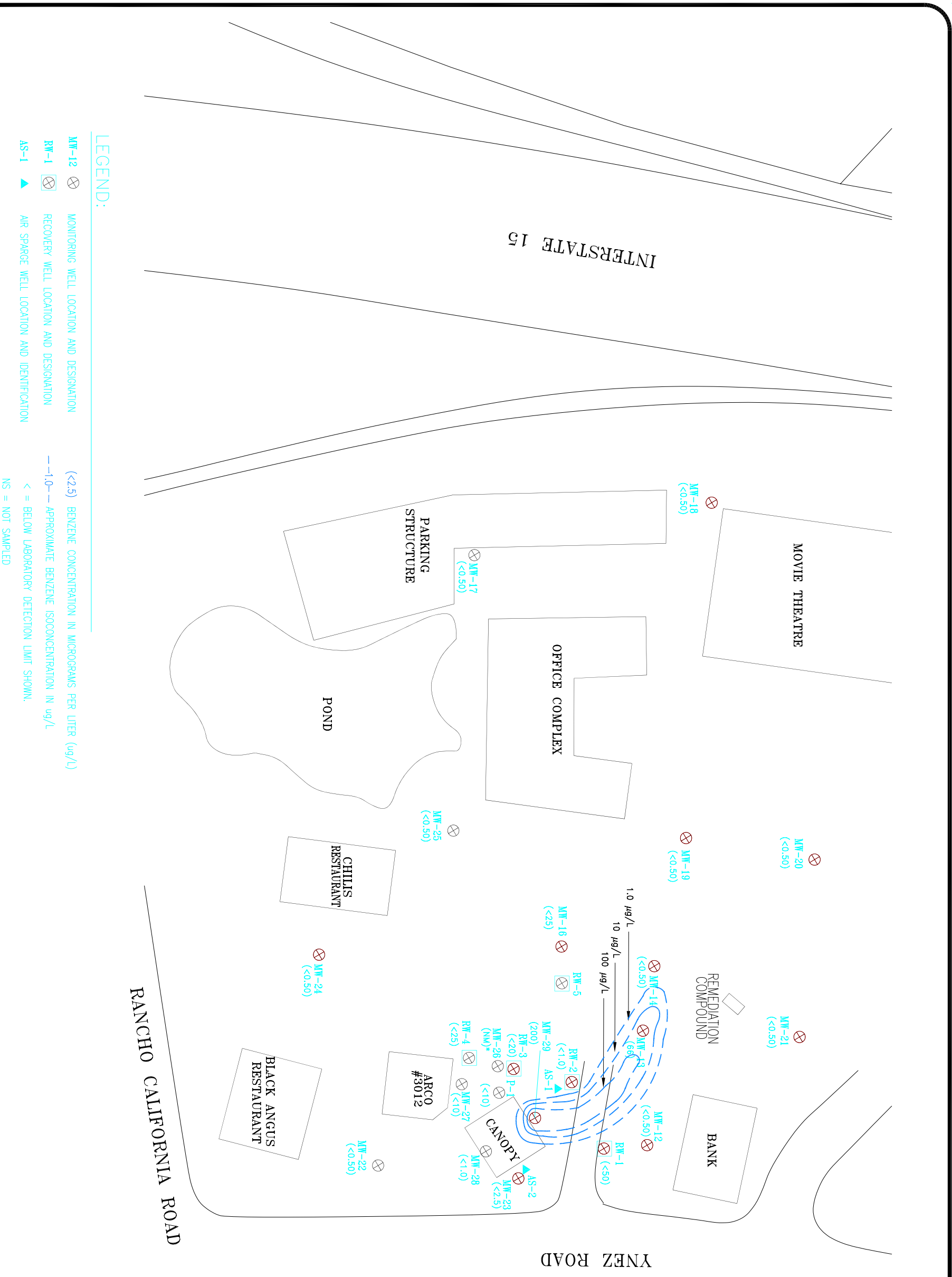
SOURCE OF INFORMATION:
CONTINENTAL AERIAL PHOTO, INC.
NEGATIVE NO: C120-7-87
FLIGHT DATE: 07-9-98

INTERPRETED FEATURES:
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DRAWINGS OR SEEN ON ACTUAL
AERIAL PHOTO.

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FIGURE NO. 3

TPHg, BENZENE, MTBBE
CONCENTRATIONS
IN GROUNDWATER
APRIL 15, 2002
ARC0 FACILITY #3012
27641 YNEZ ROAD
TEMECULA, CALIFORNIA



NOTES:

SOURCE OF INFORMATION:
CONTINENTAL AERIAL PHOTO, INC.
NEGATIVE NO: C120-7-87
FLIGHT DATE: 07-9-98

INTERPRETED FEATURES:
FROM STATION CONFIGURATION
DRAWINGS OR SEEN ON ACTUAL
AERIAL PHOTO.

S C A L E
NORTH

1 inch ~ 100 feet
0 50 100

FIGURE NO. 4
BENZENE
ISO-CONCENTRATION
GRADIENT MAP
APRIL 15, 2002
ARCO FACILITY #3012
27641 YNEZ ROAD
TEMECULA, CALIFORNIA

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2655 CAMINO DEL RIO N., SUITE 302
SAN DIEGO, CA. 92108

PROJECT: 08BP 60161. FILE: 3012-BICM-041502 DATE: 5/9/02

LEGEND:

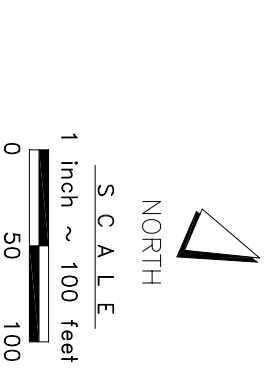
- MW-12 ⊗ MONITORING WELL LOCATION AND DESIGNATION
- RW-1 ⊗ RECOVERY WELL LOCATION AND DESIGNATION
- AS-1 ▲ AIR SPARGE WELL LOCATION AND IDENTIFICATION
- (<2.5) BENZENE CONCENTRATION IN MICROGRAMS PER LITER (µg/L)
- 1.0-- APPROXIMATE BENZENE ISOCONCENTRATION IN µg/L
- < = BELOW LABORATORY DETECTION LIMIT SHOWN.
- NS = NOT SAMPLED



LEGEND:

- MW-12 ⊗ MONITORING WELL LOCATION AND DESIGNATION
- RW-1 ⊗ RECOVERY WELL LOCATION AND DESIGNATION
- AS-1 ▲ AIR SPARGE WELL LOCATION AND IDENTIFICATION

— 1.0 — APPROXIMATE MTBE ISOCONCENTRATION IN µg/L
 (<1.0) METHYL-TERT-BUTYL ETHER CONCENTRATION IN MICROGRAMS PER LITER (µg/L)
 < = BELOW LABORATORY DETECTION LIMIT SHOWN.
 NS = NOT SAMPLED



NOTES:
 SOURCE OF INFORMATION:
 CONTINENTAL AERIAL PHOTO, INC.
 NEGATIVE NO: C120-7-87
 FLIGHT DATE: 07-9-98

INTERPRETED FEATURES:
 FROM STATION CONFIGURATION
 DRAWINGS OR SEEN ON ACTUAL
 AERIAL PHOTO.

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 SAN DIEGO, CA 92108

FIGURE NO. 5
 MTBE
 ISO-CONCENTRATION
 MAP
 APRIL 15, 2002
 ARCO FACILITY #3012
 27641 YNEZ ROAD
 TEMECULA, CALIFORNIA

TABLE 1

SUMMARY OF GROUNDWATER ELEVATIONS, 1998 TO PRESENT
ARCO Facility #3012

Well Identification / Surveyed Well Elevation ¹ (feet)	Date Measured	Depth to Water (Feet)	LPH Thickness (Feet)	Groundwater Elevation ² (Feet)
MW-11 1,024.23	03/28/96	11.45	0	1,014.59
	06/19/96	11.99	0	1,014.05
	09/19/96	12.48	0	1,013.56
	12/19/96	10.90	0	1,015.14
	03/10/97	11.75	0	1,012.48
	06/02/97	13.03	0	1,011.20
	09/29/97	11.45	0	1,012.78
	12/22/97	11.88	0	1,012.35
	03/11/98	10.28	0	1,013.95
	03/16/98	Well Abandoned		
MW-12 1,024.19 1,024.06	03/11/98	12.73	0	1,011.46
	06/11/98	13.04	0	1,011.15
	09/01/98	13.27	0	1,010.92
	12/25/98	12.61	0	1,011.58
	01/28/99	12.51	0	1,011.68
	05/04/99	13.23	0	1,010.96
	07/30/99	12.94	0	1,011.25
	10/14/99	13.00	0	1,011.19
	01/18/00	12.57	0	1,011.62
	04/05/00	12.25	0	1,011.94
	08/10/00	12.86	0	1,011.33
	11/20/00	12.48	0	1,011.71
	01/16/01	12.97	0	1,011.22
	04/03/01	12.17	0	1,012.02
	07/16/01	12.54	0	1,011.52
	10/15/01	12.80	0	1,011.26
	01/14/02	12.75	0	1,011.31
	04/15/02	13.31	0	1,010.75
MW-13 1,019.78 1,019.63	03/11/98	16.45	0	1,003.33
	06/11/98	14.83	0	1,004.95
	09/01/98	14.37	0	1,005.41
	12/25/98	14.04	0	1,005.74
	01/28/99	14.30	0	1,005.48
	05/04/99	14.37	0	1,005.41
	07/30/99	14.33	0	1,005.45
	10/14/99	14.36	0	1,005.42
	01/18/00	13.77	0	1,006.01
	04/05/00	12.79	0	1,006.99
	08/10/00	12.97	0	1,006.81
	11/20/00	12.70	0	1,007.08
	01/16/01	12.62	0	1,007.16
	04/03/01	11.63	0	1,008.15
	07/16/01	11.48	0	1,008.15
	10/15/01	12.17	0	1,007.46
01/14/02	12.18	0	1,007.45	
04/15/02	12.51	0	1,007.12	
MW-14 1,018.48	03/11/98	15.73	0	1,002.75
	06/11/98	14.00	0	1,004.48
	09/01/98	13.40	0	1,005.08
	12/25/98	13.52	0	1,004.96
	01/28/99	13.44	0	1,005.04

TABLE 1

SUMMARY OF GROUNDWATER ELEVATIONS, 1998 TO PRESENT
ARCO Facility #3012

Well Identification / Surveyed Well Elevation ¹ (feet)	Date Measured	Depth to Water (Feet)	LPH Thickness (Feet)	Groundwater Elevation ² (Feet)	
MW-14 Cont'd 1,018.37	05/04/99	12.81	0	1,005.67	
	07/30/99	12.97	0	1,005.51	
	10/14/99	12.99	0	1,005.49	
	01/18/00	12.75	0	1,005.73	
	04/05/00	11.76	0	1,006.72	
	08/10/00	11.73	0	1,006.75	
	11/20/00	11.19	0	1,007.29	
	01/16/01	11.15	0	1,007.33	
	04/03/01	10.54	0	1,007.94	
	07/16/01	10.07	0	1,008.30	
	10/15/01	10.73	0	1,007.64	
	01/14/02	11.63	0	1,006.74	
	04/15/02	11.24	0	1,007.13	
MW-16 1,019.92 1,019.81	03/11/98	15.52	0	1,004.40	
	06/11/98	13.95	0	1,005.97	
	09/01/98	13.82	0	1,006.10	
	12/25/98	14.05	0	1,005.87	
	01/28/99	13.92	0	1,006.00	
	05/04/99	14.11	0	1,005.81	
	07/30/99	14.25	0	1,005.67	
	10/14/99	14.33	0	1,005.59	
	01/18/00	13.61	0	1,006.31	
	04/05/00	12.54	0	1,007.38	
	08/10/00	12.72	0	1,007.20	
	11/20/00	12.33	0	1,007.59	
	01/16/01	12.07	0	1,007.85	
	04/03/01	11.87	0	1,008.05	
	07/16/01	11.88	0	1,007.93	
	10/15/01	13.38	0	1,006.43	
01/14/02	13.11	0	1,006.70		
04/15/02	13.58	0	1,006.23		
MW-17 1,013.36 1,016.33	03/11/98	18.37	0	994.99	
	06/11/98	16.38	0	996.98	
	09/01/98	15.69	0	997.67	
	12/25/98	15.91	0	997.45	
	01/28/99	15.81	0	997.55	
	05/04/99	15.87	0	997.49	
	07/30/99	Not Measured - Parked Vehicle Over Well Box			
	10/14/99	16.18	0	997.18	
	01/18/00	15.51	0	997.85	
	04/05/00	14.87	0	998.49	
	08/10/00	14.79	0	998.57	
	11/20/00	14.35	0	999.01	
	01/16/01	13.95	0	999.41	
	04/03/01	13.21	0	1,000.15	
	07/16/01	12.99	0	1,003.34	
	10/15/01	13.61	0	1,002.72	
	01/14/02	13.68	0	1,002.65	
04/15/02	13.94	0	1,002.39		

TABLE 1

SUMMARY OF GROUNDWATER ELEVATIONS, 1998 TO PRESENT
ARCO Facility #3012

Well Identification / Surveyed Well Elevation ¹ (feet)	Date Measured	Depth to Water (Feet)	LPH Thickness (Feet)	Groundwater Elevation ² (Feet)	
MW-18 1,015.78	03/11/98	18.07	0	997.71	
	06/11/98	15.71	0	1,000.07	
	09/01/98	15.67	0	1,000.11	
	12/25/98	15.91	0	999.87	
	01/28/99	15.70	0	1,000.08	
	05/04/99	16.10	0	999.68	
	07/30/99	16.48	0	999.30	
	10/14/99	16.69	0	999.09	
	01/18/00	15.74	0	1,000.04	
	04/05/00	14.75	0	1,001.03	
	08/10/00	14.94	0	1,000.84	
	11/20/00	14.30	0	1,001.48	
	01/16/01	13.81	0	1,001.97	
	04/03/01	12.29	0	1,003.49	
	07/16/01	12.30	0	1,003.39	
1,015.69	10/15/01	13.58	0	1,002.11	
	01/14/02	13.39	0	1,002.30	
	04/15/02	13.60	0	1,002.09	
	MW-19 1,017.11	03/11/98	15.00	0	1,002.11
		06/11/98	13.02	0	1,004.09
		09/01/98	12.62	0	1,004.19
		12/25/98	12.92	0	1,004.33
		01/28/99	12.78	0	1,004.58
		05/04/99	12.53	0	1,004.36
		07/30/99	12.75	0	1,004.27
		10/14/99	12.84	0	1,004.67
		01/18/00	12.44	0	1,005.26
		04/05/00	11.85	0	1,004.99
		08/10/00	12.12	0	1,005.17
		11/20/00	11.94	0	1,005.17
01/16/01		11.68	0	1,005.43	
04/03/01		10.97	0	1,006.14	
07/16/01		10.80	0	1,006.19	
1,016.99	10/15/01	11.53	0	1,005.46	
	01/14/02	11.64	0	1,005.35	
	04/15/02	11.86	0	1,005.13	
	MW-20 1,017.54	03/11/98	13.93	0	1,003.61
		06/11/98	12.25	0	1,005.29
		09/01/98	11.75	0	1,005.79
		12/25/98	12.07	0	1,005.47
		01/28/99	11.97	0	1,005.57
		05/04/99	11.83	0	1,005.71
		07/30/99	11.92	0	1,005.62
		10/14/99	11.84	0	1,005.70
		01/18/00	11.38	0	1,006.16
		04/05/00	10.91	0	1,006.63
		08/10/00	11.26	0	1,006.28
		11/20/00	11.09	0	1,006.45
01/16/01		10.99	0	1,006.55	
04/03/01		10.38	0	1,007.16	
07/16/01		10.16	0	1,007.29	
1,017.45	10/15/01	10.84	0	1,006.61	
	01/14/02	11.04	0	1,006.41	
	04/15/02	11.28	0	1,006.17	

TABLE 1

SUMMARY OF GROUNDWATER ELEVATIONS, 1998 TO PRESENT
ARCO Facility #3012

Well Identification / Surveyed Well Elevation ¹ (feet)	Date Measured	Depth to Water (Feet)	LPH Thickness (Feet)	Groundwater Elevation ² (Feet)	
MW-21 1,020.43	03/11/98	17.27	0	1,003.16	
	06/11/98	14.04	0	1,006.39	
	09/01/98	13.44	0	1,006.99	
	12/25/98	13.63	0	1,006.80	
	01/28/99	13.48	0	1,006.95	
	05/04/99	13.39	0	1,007.04	
	07/30/99	13.15	0	1,007.68	
	10/14/99	12.99	0	1,006.95	
	01/18/00	12.95	0	1,007.04	
	04/05/00	12.33	0	1,007.28	
	08/10/00	12.84	0	1,007.44	
	11/20/00	12.80	0	1,007.63	
	01/16/01	12.79	0	1,007.64	
	04/03/01	12.03	0	1,008.40	
	07/16/01	11.94	0	1,008.38	
1,020.32	10/15/01	12.46	0	1,007.86	
	01/14/02	12.64	0	1,007.68	
	04/15/02	13.00	0	1,007.32	
	MW-22 1,022.00	03/11/98	6.21	0	1,015.79
		06/11/98	6.49	0	1,015.51
		09/01/98	6.40	0	1,015.60
		12/25/98	6.97	0	1,015.03
		01/28/99	7.17	0	1,014.83
		05/04/99	7.95	0	1,014.05
		07/30/99	7.46	0	1,014.54
		10/14/99	7.10	0	1,014.90
		01/18/00	6.99	0	1,015.01
		04/05/00	6.43	0	1,015.57
		08/10/00	6.31	0	1,015.69
		11/20/00	6.41	0	1,015.59
01/16/01		6.47	0	1,015.53	
04/03/01		6.16	0	1,015.84	
07/16/01		6.06	0	1,015.79	
1,021.85	10/15/01	6.48	0	1,015.37	
	01/14/02	7.00	0	1,014.85	
	04/15/02	7.08	0	1,014.77	
	MW-23 1,024.74	03/11/98	10.77	0	1,013.97
		06/11/98	11.30	0	1,013.44
		09/01/98	10.72	0	1,014.02
		12/25/98	10.70	0	1,014.04
		01/28/99	11.16	0	1,013.58
		05/04/99	12.08	0	1,012.66
		07/30/99	11.32	0	1,013.41
		10/14/99	10.36	0	1,014.38
		01/18/00	11.01	0	1,013.73
		04/05/00	10.61	0	1,014.13
		08/10/00	10.26	0	1,014.48
		11/20/00	8.01	0	1,016.73
01/16/01		10.02	0	1,014.72	
04/03/01		9.77	0	1,014.97	
07/16/01		10.37	0	1,014.24	
1,024.61	10/15/01	10.46	0	1,014.15	
	01/14/02	10.89	0	1,013.72	
	04/15/02	11.04	0	1,013.57	

TABLE 1

SUMMARY OF GROUNDWATER ELEVATIONS, 1998 TO PRESENT
ARCO Facility #3012

Well Identification / Surveyed Well Elevation ¹ (feet)	Date Measured	Depth to Water (Feet)	LPH Thickness (Feet)	Groundwater Elevation ² (Feet)	
MW-24 1,021.33	01/28/99	10.14	0	1,011.19	
	05/04/99	10.80	0	1,010.53	
	07/30/99	10.39	0	1,010.94	
	10/14/99	10.33	0	1,011.00	
	01/18/00	10.16	0	1,011.17	
	04/05/00	9.65	0	1,011.68	
	08/10/00	9.51	0	1,011.82	
	11/20/00	9.69	0	1,011.64	
	01/16/01	9.57	0	1,011.76	
	04/03/01	9.02	0	1,012.31	
	07/16/01	9.02	0	1,021.21	
	10/15/01	9.45	0	1,011.78	
	01/14/02	9.90	0	1,011.33	
04/15/02	9.94	0	1,011.29		
MW-25 1,018.52	01/28/99	13.11	0	1,005.41	
	05/04/99	13.67	0	1,004.85	
	07/30/99	13.86	0	1,004.66	
	10/14/99	13.95	0	1,004.57	
	01/18/00	13.42	0	1,005.10	
	04/05/00	12.72	0	1,005.80	
	08/10/00	12.82	0	1,005.70	
	11/20/00	12.63	0	1,005.89	
	01/16/01	12.38	0	1,006.14	
	04/03/01	11.39	0	1,007.13	
	07/16/01	11.33	0	1,007.11	
	10/15/01	11.95	0	1,006.49	
	01/14/02	12.05	0	1,006.39	
04/15/02	12.12	0	1,006.32		
MW-26 1,023.43	08/10/00	19.46	0	1,003.97	
	11/20/00	Not Measured			
	01/16/01	Not Measured			
	04/03/01	Not Measured			
	07/16/01	Not Measured			
	01/14/02	Not Measured			
1,018.44	04/15/02	Not Measured			
	MW-27 1,024.22	08/10/00	19.43	0	1,004.79
		11/20/00	19.89	0	1,004.33
		01/16/01	19.51	0	1,004.71
		04/03/01	18.66	0	1,005.56
		07/16/01	18.36	0	1,005.73
		10/15/01	19.55	0	1,004.54
01/14/02		18.98	0	1,005.11	
04/15/02	19.22	0	1,004.87		
MW-28 1,024.74	07/16/01	10.21	0	1,014.53	
	10/15/01	10.26	0	1,014.48	
	01/14/02	10.77	0	1,013.97	
	04/15/02	10.88	0	1,013.86	
MW-29 1,023.66	07/16/01	17.38	0	1,006.28	
	10/15/01	18.05	0	1,005.61	
	01/14/02	17.95	0	1,005.71	
	04/15/02	18.18	0	1,005.48	
RW-1 1,023.54	03/11/98	13.08	0	1,010.46	
	06/11/98	13.65	0	1,009.89	
	09/01/98	13.53	0	1,010.01	

TABLE 1

SUMMARY OF GROUNDWATER ELEVATIONS, 1998 TO PRESENT
ARCO Facility #3012

Well Identification / Surveyed Well Elevation ¹ (feet)	Date Measured	Depth to Water (Feet)	LPH Thickness (Feet)	Groundwater Elevation ² (Feet)
RW-1 (cont'd) 1,023.41	12/25/98	12.73	0	1,010.81
	01/28/99	12.78	0	1,010.76
	05/04/99	13.55	0	1,009.99
	07/30/99	13.31	0	1,010.23
	10/14/99	13.22	0	1,010.32
	01/18/00	12.70	0	1,010.84
	04/05/00	12.20	0	1,011.34
	08/10/00	12.77	0	1,010.77
	11/20/00	12.18	0	1,011.36
	01/16/01	12.79	0	1,010.75
	04/03/01	11.83	0	1,011.71
	07/16/01	12.22	0	1,011.19
	10/15/01	12.59	0	1,010.82
	01/14/02	12.54	0	1,010.87
04/15/02	13.15	0	1,010.26	
RW-2 1,020.91 1,020.81	03/11/98	11.96	0	1,008.95
	06/11/98	11.31	0	1,009.60
	09/01/98	11.12	0	1,009.79
	12/25/98	11.31	0	1,009.60
	01/28/99	11.38	0	1,009.53
	05/04/99	11.72	0	1,009.19
	07/30/99	11.68	0	1,009.23
	10/14/99	11.51	0	1,009.40
	01/18/00	11.32	0	1,009.59
	04/05/00	10.21	0	1,010.70
	08/10/00	10.61	0	1,010.30
	11/20/00	10.21	0	1,010.70
	01/16/01	10.67	0	1,010.24
	04/03/01	9.77	0	1,011.14
	07/16/01	10.20	0	1,010.61
	10/15/01	10.71	0	1,010.10
01/14/02	10.85	0	1,009.96	
04/15/02	11.11	0	1,009.70	
RW-3 1,021.86 1,021.74	03/11/98	18.57	0	1,003.29
	06/11/98	17.43	0	1,004.43
	09/01/98	16.10	0	1,005.76
	12/25/98	15.74	0	1,006.12
	01/28/99	15.90	0	1,005.96
	05/04/99	16.33	0	1,005.53
	07/30/99	16.11	0	1,005.75
	10/14/99	16.14	0	1,005.72
	01/18/00	15.59	0	1,006.27
	04/05/00	14.75	0	1,007.11
	08/10/00	15.34	0	1,006.52
	11/20/00	14.72	0	1,007.14
	01/16/01	14.94	0	1,006.92
	04/03/01	13.64	0	1,008.22
	07/16/01	13.78	0	1,007.96
	10/15/01	14.73	0	1,007.01
01/14/02	14.19	0	1,007.55	
04/15/02	14.69	0	1,007.05	

TABLE 1

SUMMARY OF GROUNDWATER ELEVATIONS, 1998 TO PRESENT
ARCO Facility #3012

Well Identification / Surveyed Well Elevation ¹ (feet)	Date Measured	Depth to Water (Feet)	LPH Thickness (Feet)	Groundwater Elevation ² (Feet)
RW-4 1,023.58	03/11/98	18.98	0	1,004.60
	06/11/98	18.89	0	1,004.69
	09/01/98	17.26	0	1,006.32
	12/25/98	16.79	0	1,006.79
	01/28/99	17.02	0	1,006.56
	05/04/99	17.56	0	1,006.02
	07/30/99	16.94	0	1,006.64
	10/14/99	16.78	0	1,006.80
	01/18/00	17.09	0	1,006.49
	04/05/00	16.00	0	1,007.58
	08/10/00	15.74	0	1,007.84
	11/20/00	14.84	0	1,008.74
	01/16/01	15.28	0	1,008.30
	04/03/01	14.84	0	1,008.74
	07/16/01	14.08	0	1,009.37
1,023.45	10/15/01	14.91	0	1,008.54
	01/14/02	16.57	0	1,006.88
	04/15/02	16.09	0	1,007.36
	P-1 1,023.34	07/16/01	17.07	0
10/15/01		17.70	0	1005.64
01/14/02		17.70	0	1005.64
04/15/02		17.84	0	1005.50

Notes:

¹Elevations are in feet relative to a benchmark.

²Groundwater Elevation in feet relative to a benchmark = Surveyed Well Elevation - Depth to Water

³Elevations adjusted by adding (0.75 x LPH thickness) to measured water elevations to account for density differences between LPH and water

-- = Not measured or not available

TABLE 2

SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS, 1998 TO PRESENT
 ARCO Facility #3012

All Results Reported in Micrograms per Liter (ug/l)

Well Identification	Sampling Date	TPHg	B*	T*	E*	X*	Total Lead	MTBE*	
MW-11	03/29/96	<50	<0.3	<0.3	<0.3	<0.6	--	--	
	06/20/96	<500	<0.5	<0.5	<0.5	<1.5	--	--	
	09/20/96	<50	<0.30	<0.30	<0.30	<0.60	--	<10	
	12/20/96	<50	<0.30	<0.30	<0.30	<0.60	--	<10	
	03/10/97 ^{NP}	<50	<0.30	<0.30	<0.30	<0.60	--	--	
	06/02/97 ^{NP}	<50	<0.5	<0.5	<0.5	<1.0	--	<35	
	09/29/97 ^{NP}	<500	<0.5	<0.5	<0.5	<1.5	--	<10	
	09/29/97	<500	<0.5	<0.5	<0.5	<1.5	--	<10	
	12/22/97	<50	<0.30	0.40	<0.30	0.90	--	<10	
	03/11/98	<50	<0.5	<0.5	<0.5	<1.0	--	<10	
03/16/98	Well Abandoned								
MW-12	03/11/98	160	1.4	0.7	3.0	11	--	<10	
	06/11/98	57	<0.5	<0.5	1.7	2.9	--	<10	
	09/01/98	130	1.8	0.44	8.5	27	--	<10	
	12/25/98 ^{NP}	<50	<0.5	<0.5	<0.5	<1.0	--	<10	
	01/28/99 ^{NP}	<50	<0.5	<0.5	<0.5	<1.0	--	<10	
	05/04/99 ^{NP}	120	<0.5	<0.5	<0.5	<1.0	--	<10	
	07/30/99 ^{NP}	<50	<0.5	<0.5	<0.5	<1.0	--	<10	
	10/14/99 ^{NP}	<50	<0.5	<0.5	<0.5	<1.0	--	<10	
	01/18/00 ^{NP}	200	<0.5	<0.5	2.6	2.1	--	<10	
	04/05/00 ^{NP}	1500	110	32	110	160	--	32	
	08/10/00 ^{NP}	300	3.9	<0.50	23	<1.5	--	<1.0	
	11/20/00 ^{NP}	1500	10	1.9	140	89	--	<1.0	
	01/16/01 ^{NP}	220	2.0	0.32	0.29	32	--	<1.0	
	04/03/01 ^{NP}	<50	18	7.6	180	590	--	<1.0	
	07/16/01 ^{NP}	1,300	11	<1.2	250	22	--	<2.5	
	10/15/01 ^{NP}	120	0.58	<0.50	2.0	<1.5	--	<1.0	
	01/14/02 ^{NP}	65	<0.50	<0.50	<0.50	<1.5	--	<1.0	
04/15/02 ^{NP}	120	<0.50	<0.50	<0.50	<1.5	--	<1.0		
MW-13	03/11/98	110	<0.5	<0.5	<0.5	<1.0	--	1,000	
	06/11/98	140	7.6	1.1	<0.5	1.7	--	2,900	
	09/01/98	200	26	2.1	1.0	9.0	--	3,200	
	12/25/98 ^{NP}	1,900	190	66	21	310	--	<10	
	01/28/99 ^{NP}	2,000	300	20	49	170	--	580 ¹	
	05/04/99 ^{NP}	4,600	310	42	240	260	--	150	
	07/30/99 ^{NP}	7,900	670	76	750	820	--	280	
	10/14/99 ^{NP}	7,300	670	56	740	830	--	330	
	01/18/00 ^{NP}	5,900	410	29	670	330	--	200 ¹	
	04/05/00 ^{NP}	13,000	72	27	640	850	--	<50	
	08/10/00 ^{NP}	510	550	110	180	1,100	--	52	
	11/20/00 ^{NP}	4,300	490	59	350	550	--	29	
	01/16/01 ^{NP}	2,100	320	26	530	170	--	130	
	04/03/01 ^{NP}	290	5.4	<2.5	<2.5	35	--	38	
	07/16/01 ^{NP}	100	34	0.55	1.5	11	--	<1.0	
10/15/01 ^{NP}	540	58	8.6	9.7	92	--	13		
01/14/02 ^{NP}	500	73	3.3	56	16	--	81		
04/15/02 ^{NP}	1,200	66	3.1	250	11	--	89		

TABLE 2

SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS, 1998 TO PRESENT
 ARCO Facility #3012

All Results Reported in Micrograms per Liter (ug/l)

Well Identification	Sampling Date	TPHg	B*	T*	E*	X*	Total Lead	MTBE*
MW-14	03/11/98	<50	<0.5	<0.5	<0.5	<1.0	--	600
	06/11/98	<50	<0.5	0.7	<0.5	<1.0	--	580
	09/01/98	<50	0.98	<0.30	0.57	0.86	--	360
	12/25/98 ^{NP}	<50	<0.5	<0.5	<0.5	<1.0	--	32
	01/28/99 ^{NP}	<50	<0.5	<0.5	<0.5	<1.0	--	280 ¹
	05/04/99 ^{NP}	<50	<0.5	<0.5	<0.5	<1.0	--	<10
	07/30/99 ^{NP}	<50	<0.5	<0.5	<0.5	<1.0	--	15
	10/14/99 ^{NP}	<50	<0.5	<0.5	<0.5	<1.0	--	16
	01/18/00 ^{NP}	<50	<0.5	<0.5	<0.5	<1.0	--	5 ¹
	04/05/00 ^{NP}	<50	<0.5	<0.5	<0.5	<1.0	--	59
	08/10/00 ^{NP}	<50	<0.50	<0.50	<0.50	<1.5	--	23
	11/20/00 ^{NP}	<50	<0.50	<0.50	<0.50	<1.5	--	4.7
	01/16/01 ^{NP}	<100	<1.0	<1.0	<1.0	<1.0	--	1.4
	04/03/01 ^{NP}	<50	<0.50	<0.50	<0.50	<1.5	--	37
07/16/01 ^{NP}	<50	<0.50	<0.50	<0.50	<1.5	--	<1.0	
10/15/01 ^{NP}	<50	<0.50	0.60	<0.50	<1.5	--	<1.0	
01/14/02 ^{NP}	<50	<0.50	<0.50	<0.50	<1.5	--	21	
04/15/02 ^{NP}	<50	<0.50	<0.50	<0.50	<1.5	--	2.8	
MW-16	03/12/98	<50	<0.5	<0.5	<0.5	<1.0	--	4,500
	06/11/98	<50	<0.5	<0.5	<0.5	<1.5	--	8,900 ¹
	09/01/98	210	<0.30	<0.30	<0.30	<0.60	--	10,000
	12/25/98 ^{NP}	<50	<0.5	<0.5	<0.5	<1.0	--	7,400
	01/28/99 ^{NP}	<50	<0.5	<0.5	<0.5	<1.0	--	7,500
	05/04/99 ^{NP}	53	<0.5	<0.5	<0.5	<1.0	--	8,100 ¹
	07/30/99 ^{NP}	110	<0.5	<0.5	<0.5	<1.0	--	7,600
	10/14/99 ^{NP}	66	<0.5	<0.5	<0.5	<1.0	--	8,900
	01/18/00 ^{NP}	100	<0.5	<0.5	<0.5	<1.0	--	11,000
	04/05/00 ^{NP}	61	<0.5	<0.5	<0.5	<1.0	--	11,000 ¹
	08/10/00 ^{NP}	67	<5.0	<5.0	<5.0	<15	--	24,000
	11/20/00 ^{NP}	67	<10	<10	<10	<30	--	25,000
	01/16/01 ^{NP}	1000	<250	<250	<250	<250	--	17,000
	04/03/01 ^{NP}	<250	<250	<250	<250	<750	--	9,800
07/16/01 ^{NP}	54	<40	<40	<40	<120	--	13,000	
10/15/01 ^{NP}	76	<50	51	<50	<150	--	8,800	
01/14/02 ^{NP}	<50	<25	<25	<25	<75	--	5,300	
04/15/02 ^{NP}	<120	<25	<25	<25	<75	--	5,400	
MW-17	03/12/98	<50	<0.5	<0.5	<0.5	<1.0	--	<10
	06/11/98	<50	<0.5	<0.5	<0.5	<1.0	--	<10
	09/02/98	<50	<0.30	<0.30	<0.30	<0.60	--	<10
	12/25/98	Not Sampled - Well Reduction Program						
	01/28/99 ^{NP}	<50	<0.5	<0.5	<0.5	<0.5	--	<10
	05/04/99	Not Sampled - Well Reduction Program						
	07/30/99	Not Sampled - Parked Vehicle Over Well Top						
	10/14/99	Not Sampled - Well Reduction Program						
	01/18/00 ^{NP}	<50	<0.5	<0.5	<0.5	<1.0	--	<2 ¹
	04/05/00	Not Sampled - Well Reduction Program						
	08/10/00 ^{NP}	<50	<0.50	<0.50	<0.50	<1.5	--	7.9
	11/20/00 ^{NP}	<50	<0.50	<0.50	<0.50	<1.5	--	<1.0
	01/16/01 ^{NP}	<100	<1.0	<1.0	<1.0	<1.0	--	3.3
	04/03/01 ^{NP}	<50	<0.50	<0.50	<0.50	<1.5	--	2.3
07/16/01 ^{NP}	<50	<0.50	<0.50	<0.50	<1.5	--	4.3	
10/15/01 ^{NP}	<50	<0.50	0.60	<0.50	<1.5	--	5.2	
01/14/02 ^{NP}	<50	<0.50	<0.50	<0.50	<1.5	--	6	
04/15/02 ^{NP}	<50	<0.50	<0.50	<0.50	<1.5	--	11	

TABLE 2

SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS, 1998 TO PRESENT
ARCO Facility #3012

All Results Reported in Micrograms per Liter (ug/l)

Well Identification	Sampling Date	TPHg	B*	T*	E*	X*	Total Lead	MTBE*
MW-18	03/12/98	<50	<0.5	<0.5	<0.5	<1.0	--	<10
	06/11/98	<50	<0.5	<0.5	<0.5	<1.0	--	<10
	09/01/98	<50	<0.30	<0.30	<0.30	<0.60	--	<10
	12/25/98	Not Sampled - Well Reduction Program						
	01/28/99 ^{NP}	<50	<0.5	<0.5	<0.5	<1.0	--	<10
	05/04/99	Not Sampled - Well Reduction Program						
	07/30/99 ^{NP}	<50	<0.5	<0.5	<0.5	<1.0	--	<10
	10/14/99	Not Sampled - Well Reduction Program						
	01/18/00 ^{NP}	<50	<0.5	<0.5	<0.5	<1.0	--	<10
	04/05/00	Not Sampled - Well Reduction Program						
	08/10/00 ^{NP}	<50	<0.50	<0.50	<0.50	<1.5	--	<1.0
	11/20/00 ^{NP}	Not Sampled - Well Reduction Program						
	01/16/01 ^{NP}	<100	<1.0	<1.0	<1.0	<1.0	--	0.96
	04/03/01 ^{NP}	<50	<0.50	<0.50	<0.50	<1.5	--	<1.0
07/16/01 ^{NP}	<50	<0.50	<0.50	<0.50	<1.5	--	<1.0	
10/15/01 ^{NP}	<50	<0.50	0.56	<0.50	<1.5	--	<1.0	
01/14/02 ^{NP}	<50	<0.50	<0.50	<0.50	<1.5	--	<1.0	
04/15/02 ^{NP}	<50	<0.50	<0.50	<0.50	<1.5	--	<1.0	
MW-19	03/11/98	1600	<0.5	0.6	8.1	62	--	<10
	06/11/98	470	<0.5	<0.5	14	<1.0	--	<10
	09/01/98	97	<0.30	<0.30	<0.30	<0.60	--	<10
	12/25/98	<50	<0.5	<0.5	<0.5	<1.0	--	<10
	01/28/99 ^{NP}	<50	<0.5	<0.5	<0.5	<1.0	--	<10
	05/04/99 ^{NP}	<50	<0.5	<0.5	<0.5	<1.0	--	<10
	07/30/99 ^{NP}	<50	<0.5	<0.5	<0.5	<1.0	--	<10
	10/14/99 ^{NP}	<50	<0.5	<0.5	<0.5	<1.0	--	<10
	01/18/00 ^{NP}	100	<0.5	<0.5	<0.5	<1.0	--	<10
	04/05/00 ^{NP}	<50	<0.5	<0.5	<0.5	<1.0	--	<10
	08/10/00 ^{NP}	<50	<0.50	0.54	<0.50	<1.5	--	<1.0
	11/20/00 ^{NP}	<50	<0.50	<0.50	<0.50	<1.5	--	<1.0
	01/16/01 ^{NP}	<100	<1.0	<1.0	<1.0	<1.0	--	<1.0
	04/03/01 ^{NP}	<50	<0.50	<0.50	<0.50	<1.5	--	1.3
07/16/01 ^{NP}	<50	<0.50	<0.50	<0.50	<1.5	--	<1.0	
10/15/01 ^{NP}	<50	<0.50	0.76	<0.50	<1.5	--	<1.0	
01/14/02 ^{NP}	<50	<0.50	<0.50	<0.50	<1.5	--	1.0	
04/15/02 ^{NP}	<50	<0.50	<0.50	<0.50	<1.5	--	1.5	
MW-20	03/11/98	<50	<0.5	<0.5	<0.5	<1.0	--	<10
	06/11/98	<50	<0.5	<0.5	<0.5	<1.0	--	<10
	09/01/98	<50	<0.30	<0.30	<0.30	<0.60	--	<10
	12/25/98	Not Sampled - Well Reduction Program						
	01/28/99 ^{NP}	<50	<0.5	<0.5	<0.5	<1.0	--	<10
	05/04/99 ^{NP}	<50	<0.5	<0.5	<0.5	<1.0	--	<10
	07/30/99 ^{NP}	<50	<0.5	<0.5	<0.5	<1.0	--	<10
	10/14/99	Not Sampled - Well Reduction Program						
	01/18/00 ^{NP}	<50	<0.5	<0.5	<0.5	<1.0	--	<10
	04/05/00	Not Sampled - Well Reduction Program						
	08/10/00 ^{NP}	<50	<0.50	<0.50	<0.50	<1.5	--	<1.0
	11/20/00 ^{NP}	Not Sampled - Well Reduction Program						
	01/16/01 ^{NP}	<100	<1.0	<1.0	<1.0	<1.0	--	<1.0
	04/03/01 ^{NP}	<50	<0.50	<0.50	<0.50	<1.5	--	<1.0
07/16/01 ^{NP}	<50	<0.50	<0.50	<0.50	<1.5	--	<1.0	
10/15/01 ^{NP}	<50	<0.50	0.72	<0.50	<1.5	--	<1.0	
01/14/02 ^{NP}	<50	<0.50	<0.50	<0.50	<1.5	--	<1.0	
04/15/02 ^{NP}	<50	<0.50	<0.50	<0.50	<1.5	--	<1.0	

TABLE 2

SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS, 1998 TO PRESENT
ARCO Facility #3012

All Results Reported in Micrograms per Liter (ug/l)

Well Identification	Sampling Date	TPHg	B*	T*	E*	X*	Total Lead	MTBE*
MW-21	03/11/98	<50	<0.5	<0.5	<0.5	<1.0	--	<10
	06/11/98	<50	<0.5	<0.5	<0.5	<1.0	--	<10
	09/01/98	<50	<0.30	<0.30	<0.30	<0.60	--	<10
	12/25/98	Not Sampled - Well Reduction Program						
	01/28/99 ^{NP}	<50	<0.5	<0.5	<0.5	<1.0	--	<10
	05/04/99	Not Sampled - Well Reduction Program						
	07/30/99 ^{NP}	<50	<0.5	<0.5	<0.5	<1.0	--	<10
	10/14/99	Not Sampled - Well Reduction Program						
	01/18/00 ^{NP}	<50	<0.5	<0.5	<0.5	<1.0	--	<10
	04/05/00	Not Sampled - Well Reduction Program						
	08/10/00 ^{NP}	<50	<0.50	<0.50	<0.50	<1.5	--	<1.0
	11/20/00 ^{NP}	Not Sampled - Well Reduction Program						
	01/16/01 ^{NP}	<100	<1.0	<1.0	<1.0	<1.0	--	<1.0
	04/03/01 ^{NP}	<50	<0.50	<0.50	<0.50	<1.5	--	1.1
	07/16/01 ^{NP}	<50	<0.50	<0.50	<0.50	<1.5	--	<1.0
10/15/01 ^{NP}	<50	<0.50	0.62	<0.50	<1.5	--	1.0	
01/14/02 ^{NP}	<50	<0.50	<0.50	<0.50	<1.5	--	<1.0	
04/15/02 ^{NP}	<50	<0.50	<0.50	<0.50	<1.5	--	<1.0	
MW-22	03/12/98	<50	<0.5	<0.5	<0.5	<1.0	--	<10
	06/12/98	<50	<0.5	<0.5	<0.5	<1.0	--	<10
	09/02/98	<50	<0.30	<0.30	<0.30	<0.60	--	<10
	12/25/98	<50	<0.5	<0.5	<0.5	<1.0	--	<10
	01/28/99 ^{NP}	<50	<0.5	<0.5	<0.5	<1.0	--	<10
	05/04/99 ^{NP}	<50	<0.5	<0.5	<0.5	<1.0	--	<10
	07/30/99 ^{NP}	<50	<0.5	<0.5	<0.5	<1.0	--	<10
	10/14/99 ^{NP}	<50	<0.5	<0.5	<0.5	<1.0	--	<10
	01/18/00 ^{NP}	<50	<0.5	<0.5	<0.5	<1.0	--	<10
	04/05/00 ^{NP}	<50	<0.5	<0.5	<0.5	<1.0	--	<10
	08/10/00 ^{NP}	<50	<0.50	<0.50	<0.50	<1.5	--	<1.0
	11/20/00 ^{NP}	<50	<0.50	<0.50	<0.50	<1.5	--	1.2
	01/16/01 ^{NP}	<100	<1.0	<1.0	<1.0	<1.0	--	0.98
	04/03/01 ^{NP}	<50	<0.50	<0.50	<0.50	<1.5	--	<1.0
	07/16/01 ^{NP}	<50	<0.50	<0.50	<0.50	<1.5	--	<1.0
10/15/01 ^{NP}	<50	<0.50	0.61	<0.50	<1.5	--	<1.0	
01/14/02 ^{NP}	<50	<0.50	<0.50	<0.50	<1.5	--	<1.0	
04/15/02 ^{NP}	<50	<0.50	<0.50	<0.50	<1.5	--	<1.0	
MW-23	03/12/98	4,500	21	63	130	330	--	<20
	06/12/98	2,300	18	12	210	120	--	<10
	09/02/98	1,900	9.9	5.6	170	79	--	13
	12/25/98	13,000	13	110	430	1,200	--	<10
	01/28/99 ^{NP}	15,000	14	120	640	1,400	--	<50
	05/04/99 ^{NP}	15,000	15	110	660	1,100	--	<50
	07/30/99 ^{NP}	15,000	8.0	180	550	1,800	--	<50
	10/14/99 ^{NP}	8,200	<2.5	61	230	630	--	<2 ¹
	01/18/00 ^{NP}	10,000	5.3	75	450	810	--	<50
	04/05/00 ^{NP}	10,000	21	97	450	760	--	<50
	08/10/00 ^{NP}	12,000	4.6	270	590	2,100	--	100
	11/20/00 ^{NP}	4,200	<2.5	77	280	580	--	7.0
	01/16/01 ^{NP}	3,100	<1.0	4.4	31	35	--	4.6
	04/03/01 ^{NP}	4,300	<2.5	46	360	290	--	27
	07/16/01 ^{NP}	10,000	2.4	200	690	1,800	--	27
10/15/01 ^{NP}	12,000	2.4	170	610	1,600	--	20	
01/14/02 ^{NP}	6,000	<2.5	38	310	240	--	12	
04/15/02 ^{NP}	4,200	<2.5	29	370	150	--	9.8	

TABLE 2

SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS, 1998 TO PRESENT
 ARCO Facility #3012

All Results Reported in Micrograms per Liter (ug/l)

Well Identification	Sampling Date	TPHg	B*	T*	E*	X*	Total Lead	MTBE*
MW-24	01/28/99	<50	<0.5	<0.5	<0.5	<1.0	--	38 ¹
	05/04/99 ^{NP}	<50	<0.5	<0.5	<0.5	<1.0	--	32 ¹
	07/30/99	<50	<0.5	<0.5	<0.5	<1.0	--	23
	07/30/99 ^{NP}	<50	<0.5	<0.5	<0.5	<1.0	--	30
	10/14/99 ^{NP}	<50	<0.5	<0.5	<0.5	<1.0	--	18 ¹
	01/18/00 ^{NP}	<50	<0.5	<0.5	<0.5	<1.0	--	12
	04/05/00 ^{NP}	<50	<0.5	<0.5	<0.5	<1.0	--	<10
	08/10/00 ^{NP}	<50	<0.50	<0.50	<0.50	<0.50	--	6.9
	11/20/00 ^{NP}	<50	<0.50	<0.50	<0.50	<1.5	--	5.0
	01/16/01 ^{NP}	<100	<1.0	<1.0	<1.0	<1.0	--	1.6
	04/03/01 ^{NP}	<50	<0.50	<0.50	<0.50	<1.5	--	3.5
	07/16/01 ^{NP}	<50	<0.50	<0.50	<0.50	<1.5	--	3.1
	10/15/01 ^{NP}	<50	<0.50	0.57	<0.50	<1.5	--	2.2
01/14/02 ^{NP}	<50	<0.50	<0.50	<0.50	<1.5	--	1.4	
04/15/02 ^{NP}	<50	<0.50	<0.50	<0.50	<1.5	--	1.1	
MW-25	01/28/99	<50	<0.5	<0.5	<0.5	<1.0	--	170 ¹
	05/04/99	<50	<0.5	<0.5	<0.5	<1.0	--	240 ¹
	07/30/99	<50	<0.5	<0.5	<0.5	<1.0	--	190 ¹
	07/30/99 ^{NP}	<50	<0.5	<0.5	<0.5	<1.0	--	180 ¹
	10/14/99 ^{NP}	<50	<0.5	<0.5	<0.5	<1.0	--	300
	01/18/00 ^{NP}	<50	<0.5	<0.5	<0.5	<1.0	--	320 ¹
	04/05/00 ^{NP}	<50	<0.5	<0.5	<0.5	<1.0	--	340
	08/10/00 ^{NP}	50	<0.50	<0.50	<0.50	<1.5	--	260
	11/20/00 ^{NP}	<50	<1.0	<1.0	<1.0	<3.0	--	280
	01/16/01 ^{NP}	<100	<2.0	<2.0	<2.0	<2.0	--	150
	04/03/01 ^{NP}	<50	<1.0	<1.0	<1.0	<3.0	--	130
	07/16/01 ^{NP}	<50	<1.0	<1.0	<1.0	<3.0	--	130
	10/15/01 ^{NP}	<50	<0.50	0.75	<0.50	<1.5	--	130
01/14/02 ^{NP}	<50	<0.50	<0.50	<0.50	<1.5	--	120	
04/15/02 ^{NP}	<50	<0.50	<0.50	<0.50	<1.5	--	91	
MW-26	08/10/00 ^{NP}	54	<6.3	9.3	<6.3	<19	--	3,600
	11/20/00	Not Sampled - Well Reduction Program						
	01/16/01	Not Sampled - Well Reduction Program						
	04/03/01	Not Sampled - Well Reduction Program						
	07/16/01	Not Sampled - Well Reduction Program						
	10/15/01	Not Sampled - Well Reduction Program						
	01/14/02	Not Sampled - Well Reduction Program						
04/15/02	Not Sampled - Well Reduction Program							
MW-27	08/10/00 ^{NP}	<50	<10	12	<10	<30	--	25,000
	11/20/00 ^{NP}	<50	<10	<10	<10	<30	--	8,500
	01/16/01 ^{NP}	290	<50	<50	<50	<50	--	5,000
	04/03/01 ^{NP}	50	<200	<200	360	970	--	3,800
	07/16/01 ^{NP}	<50	<5.0	<5.0	<5.0	<15	--	4,000
	10/15/01 ^{NP}	<50	<20	<20	<20	<60	--	1,700
	01/14/02 ^{NP}	<50	<5.0	<5.0	<5.0	<15	--	980
04/15/02 ^{NP}	<50	<10	<10	<10	<30	--	2,000	
MW-28	07/16/01	290	<1.2	7.3	18	25	--	220
	10/15/01 ^{NP}	5,200	<1.0	150	480	850	--	90
	01/14/02 ^{NP}	2,500	<2.0	66	220	380	--	140
	04/15/02 ^{NP}	2,700	<1.0	61	290	440	--	80
MW-29	07/16/01	31,000	300	1,700	2,200	10,000	--	220
	10/15/01 ^{NP}	44,000	380	2,100	3,000	15,000	--	280
	01/14/02 ^{NP}	36,000	260	1,400	2,400	10,000	--	270
	04/15/02 ^{NP}	28,000	200	1,300	2,200	11,000	--	480

TABLE 2

SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS, 1998 TO PRESENT
 ARCO Facility #3012

All Results Reported in Micrograms per Liter (ug/l)

Well Identification	Sampling Date	TPHg	B*	T*	E*	X*	Total Lead	MTBE*
RW-1	03/11/98	3,600	8.9	8.8	6.1	250	--	<10
	06/12/98	2,200	37	3.4	260	80	--	<10
	09/02/98	2,200	58	45	250	460	--	<100
	12/25/98 ^{NP}	18,000	24	200	540	2,900	--	<10
	01/28/99 ^{NP}	14,000	17	120	460	2,100	--	<100
	05/04/99 ^{NP}	8,300	17	36	400	660	--	<100
	07/30/99 ^{NP}	23,000	62	480	1,100	3,700	--	<20 ^l
	10/14/99 ^{NP}	19,000	23	320	900	2,500	--	<50
	01/18/00 ^{NP}	14,000	15	83	780	1,400	--	55
	04/05/00 ^{NP}	8,600	31	61	680	930	--	<20 ^l
	08/10/00 ^{NP}	18,000	46	1,000	1,400	4,200	--	<10
	11/20/00 ^{NP}	29,000	51	1,500	2,800	9,100	--	<10
	01/16/01 ^{NP}	20,000	<100	910	2,000	5,700	--	<100
	04/03/01 ^{NP}	15,000	<50	180	1,700	2,300	--	<100
	07/16/01 ^{NP}	20,000	23	720	2,100	5,500	--	22
10/15/01 ^{NP}	21,000	13	690	2,000	6,000	--	<20	
01/14/02 ^{NP}	18,000	<6.2	77	1,800	3,400	--	<12	
04/15/02 ^{NP}	13,000	<50	120	1,600	2,100	--	<100	
RW-2	03/12/98	230	<0.5	<0.5	<0.5	<1.0	--	970
	06/12/98	<500	<5	6.8	<5	10	--	2,000
	09/02/98	81	0.62	<0.30	<0.30	<0.60	--	1,400
	12/25/98 ^{NP}	58	<0.5	<0.5	<0.5	1.0	--	1,100
	01/28/99 ^{NP}	93	<0.5	<0.5	<0.5	1.0	--	1,000 ^l
	05/04/99 ^{NP}	100	<0.5	<0.5	<0.5	1.0	--	1,300 ^l
	07/30/99 ^{NP}	<50	<0.50	<0.5	<0.5	1.0	--	260
	10/14/99 ^{NP}	73	2.7	2.1	0.9	3.3	--	120
	01/18/00 ^{NP}	130	<0.5	<0.5	<0.5	<1.0	--	600
	04/05/00 ^{NP}	51	1.9	1.4	<0.5	1.1	--	320 ^l
	08/10/00 ^{NP}	53	<1.0	1.3	<1.0	<3.0	--	150
	11/20/00 ^{NP}	<50	1.0	<1.0	<1.0	3.8	--	220
	01/16/01 ^{NP}	50	<2.5	<2.5	1	<2.5	--	240
	04/03/01 ^{NP}	590	39	1.1	3.6	57	--	57
	07/16/01 ^{NP}	89	1.9	<1.0	1.9	<3.0	--	150
10/15/01 ^{NP}	80	<1.0	<1.0	<1.0	<3.0	--	290	
01/14/02 ^{NP}	59	<1.0	<1.0	<1.0	<3.0	--	270	
04/15/02 ^{NP}	87	<1.0	<1.0	<1.0	<3.0	--	330	
RW-3	03/12/98	350	<0.5	<0.5	<0.5	<1.0	--	1,300
	06/12/98	<500	<5	<5	<5	<10	--	3,300
	09/02/98	<50	0.64	<0.30	<0.30	<0.60	--	2,300
	12/25/98 ^{NP}	75	<0.5	<0.5	<0.5	<1.0	--	5,500
	01/28/99 ^{NP}	180	<0.5	0.6	<0.5	1.3	--	5,600 ^l
	05/04/99 ^{NP}	150	<0.5	<0.5	<0.5	<1.0	--	4,000
	07/30/99 ^{NP}	79	<0.5	<0.5	<0.5	<1.0	--	2,800
	10/14/99 ^{NP}	71	<0.5	0.7	0.6	1.3	--	4,900
	01/18/00 ^{NP}	110	<0.5	<0.5	<0.5	<1.0	--	1,800 ^l
	04/05/00 ^{NP}	90	<0.5	1.5	<0.5	<0.5	--	5,100
	08/10/00 ^{NP}	77	<5.0	7.7	<5.0	<15	--	3,800
	11/20/00 ^{NP}	280	<5.0	<5.0	19	<15	--	3,200
	01/16/01 ^{NP}	330	<50	<50	<50	<50	--	3,000
	04/03/01 ^{NP}	100	<50	<50	<50	<150	--	3,300
	07/16/01 ^{NP}	110	<6.2	<6.2	<6.2	<19	--	4,400
10/15/01 ^{NP}	<50	<25	<25	<25	<75	--	1,800	
01/14/02 ^{NP}	92	<5.0	<5.0	<5.0	<15	--	2,200	
04/15/02 ^{NP}	<50	<20	<20	<20	<60	--	5,900	

TABLE 2

SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS, 1998 TO PRESENT
 ARCO Facility #3012

All Results Reported in Micrograms per Liter (ug/l)

Well Identification	Sampling Date	TPHg	B*	T*	E*	X*	Total Lead	MTBE*
RW-4	03/12/98	<50	<0.5	<0.5	<0.5	<10	--	900
	06/12/98	<500	<5	<5	<5	<10	--	1,500 ¹
	09/02/98	<50	1.1	<0.30	<0.30	<0.60	--	2,500
	12/25/98 ^{NP}	<50	<0.5	<0.5	<0.5	<1.0	--	4,700
	01/28/99 ^{NP}	99	<0.5	<0.5	<0.5	1.0	--	5,700 ¹
	05/04/99 ^{NP}	120	<0.5	<0.5	<0.5	<1	--	8,800
	07/30/99 ^{NP}	130	<0.5	<0.5	<0.5	1.0	--	12,000
	10/14/99 ^{NP}	140	<0.5	<0.5	<0.5	<1.0	--	16,000
	01/18/00 ^{NP}	220	<0.5	<0.5	<0.5	<1.0	--	18,000 ¹
	04/05/00 ^{NP}	52	<0.5	<0.5	<0.5	<1.0	--	11,000
	08/10/00 ^{NP}	54	<20	38	<20	<60	--	10,000
	11/20/00 ^{NP}	<50	<20	<20	<20	<60	--	4,800
	01/16/01 ^{NP}	71	<25	<25	<25	<25	--	1,700
	04/03/01 ^{NP}	<50	<0.50	<0.50	<0.50	<1.5	--	1,200
	07/16/01 ^{NP}	<50	<2.5	<2.5	<2.5	<7.5	--	1,500
10/15/01 ^{NP}	<50	<12	<12	<12	<38	--	1,300	
01/14/02 ^{NP}	<50	<5.0	<5.0	<5.0	<15	--	1,500	
04/15/02 ^{NP}	<100	<25	<25	<25	<75	--	2,000	
P-1	07/16/01	150	<10	<10	<10	<30	--	3,900
	10/15/01 ^{NP}	51	<40	<40	<40	<120	--	2,200
	01/14/02 ^{NP}	<50	<10	<10	<10	<30	--	2,100
	04/15/02 ^{NP}	<50	<10	<10	<10	<30	--	2,900

Notes:

- TPHg = Total Petroleum Hydrocarbons (DHS Modified EPA Method 8015)
- B = Benzene
- T = Toluene
- E = Ethylbenzene
- X = Total Xylenes
- BTEX = Analyzed by EPA Method 8021
- MTBE = Methyl Tertiary Butyl Ether (EPA Method 8021 unless noted otherwise.)
- ¹ = MTBE Analyzed by EPA Method 8260
- ~ = Approximate MTBE concentration
- = Sample Not Analyzed
- < = Below method reporting limit shown
- ^{NP} = Sample collected by no-purge sampling procedures
- * BTEX and MTBE analyzed by EPA Method 8260B beginning August 10, 2000.
- Total lead analyzed by the DHS Method

TABLE 3

SUMMARY OF ADDITIONAL OXYGENATES ANALYTICAL DATA
 ARCO Facility #3012
 All Results Reported in Micrograms per Liter (ug/l)

Well Identification	Sampling Date	TBA ¹	DIPE ¹	ETBE ¹	TAME ¹
MW-12	08/10/00	<25	<5.0	<5.0	<5.0
	11/20/00	<25	<5.0	<5.0	<5.0
	01/16/01	<25	<2.0	<2.0	<2.0
	04/03/01	<25	<5.0	<5.0	<5.0
	07/16/01	<62	<12	<12	<12
	10/15/01	<25	<5.0	<5.0	<5.0
	01/14/02	<25	<5.0	<5.0	<5.0
MW-13	08/10/00	<130	<25	<25	<25
	11/20/00	<130	<25	<25	<25
	01/16/01	<250	<20	<20	<20
	04/03/01	<130	<25	<25	<25
	07/16/01	<25	<5.0	<5.0	<5.0
	10/15/01	<25	<5.0	<5.0	<5.0
	01/14/02	<25	<5.0	<5.0	<5.0
MW-14	08/10/00	<25	<5.0	<5.0	<5.0
	11/20/00	<25	<5.0	<5.0	<5.0
	01/16/01	<25	<2.0	<2.0	<2.0
	04/03/01	<25	<5.0	<5.0	<5.0
	07/16/01	<25	<5.0	<5.0	<5.0
	10/15/01	<25	<5.0	<5.0	<5.0
	01/14/02	<25	<5.0	<5.0	<5.0
MW-16	08/10/00	2,500	<50	<50	82
	11/20/00	2,100	<100	<100	<100
	01/16/01	<6,200	<500	<500	<500
	04/03/01	<13,000	<2,500	<2,500	<2,500
	07/16/01	<2,000	<400	<400	<400
	10/15/01	<2,500	<500	<500	<500
	01/14/02	1,400	<250	<250	<250
MW-17	08/10/00	<25	<5.0	<5.0	<5.0
	11/20/00	<25	<5.0	<5.0	<5.0
	01/16/01	<25	<2.0	<2.0	<2.0
	04/03/01	<25	<5.0	<5.0	<5.0
	07/16/01	<25	<5.0	<5.0	<5.0
	10/15/01	<25	<5.0	<5.0	<5.0
	01/14/02	<25	<5.0	<5.0	<5.0
MW-18	08/10/00	<25	<5.0	<5.0	<5.0
	11/20/00	Not Sampled - Well Reduction Program			
	01/16/01	<25	<2.0	<2.0	<2.0
	04/03/01	<25	<5.0	<5.0	<5.0
	07/16/01	<25	<5.0	<5.0	<5.0
	10/15/01	<25	<5.0	<5.0	<5.0
	01/14/02	<25	<5.0	<5.0	<5.0
MW-19	08/10/00	<25	<5.0	<5.0	<5.0
	11/20/00	<25	<5.0	<5.0	<5.0
	01/16/01	<25	<2.0	<2.0	<2.0
	04/03/01	<25	<5.0	<5.0	<5.0
	07/16/01	<25	<5.0	<5.0	<5.0
	10/15/01	<25	<5.0	<5.0	<5.0
	01/14/02	<25	<5.0	<5.0	<5.0
04/15/02	<25	<5.0	<5.0	<5.0	

TABLE 3

SUMMARY OF ADDITIONAL OXYGENATES ANALYTICAL DATA
ARCO Facility #3012
 All Results Reported in Micrograms per Liter (ug/l)

Well Identification	Sampling Date	TBA ¹	DIPE ¹	ETBE ¹	TAME ¹
MW-20	08/10/00	<25	<5.0	<5.0	<5.0
	11/20/00	Not Sampled - Well Reduction Program			
	01/16/01	<25	<2.0	<2.0	<2.0
	04/03/01	<25	<5.0	<5.0	<5.0
	07/16/01	<25	<5.0	<5.0	<5.0
	10/15/01	<25	<5.0	<5.0	<5.0
	01/14/02	<25	<5.0	<5.0	<5.0
MW-21	08/10/00	<25	<5.0	<5.0	<5.0
	11/20/00	Not Sampled - Well Reduction Program			
	01/16/01	<25	<2.0	<2.0	<2.0
	04/03/01	<25	<5.0	<5.0	<5.0
	07/16/01	<25	<5.0	<5.0	<5.0
	10/15/01	<25	<5.0	<5.0	<5.0
	01/14/02	<25	<5.0	<5.0	<5.0
MW-22	08/10/00	<25	<5.0	<5.0	<5.0
	11/20/00	<25	<5.0	<5.0	<5.0
	01/16/01	<25	<2.0	<2.0	<2.0
	04/03/01	<25	<5.0	<5.0	<5.0
	07/16/01	<25	<5.0	<5.0	<5.0
	10/15/01	<25	<5.0	<5.0	<5.0
	01/14/02	<25	<5.0	<5.0	<5.0
MW-23	08/10/00	<130	<25	<25	<25
	11/20/00	<130	<25	<25	<25
	01/16/01	<25	<2.0	<2.0	<2.0
	04/03/01	<130	<25	<25	<25
	07/16/01	<62	<12	<12	<12
	10/15/01	<50	<10	<10	<10
	01/14/02	<120	<25	<25	<25
MW-24	08/10/00	<25	<5.0	<5.0	<5.0
	11/20/00	<25	<5.0	<5.0	<5.0
	01/16/01	<25	<2.0	<2.0	<2.0
	04/03/01	<25	<5.0	<5.0	<5.0
	07/16/01	<25	<5.0	<5.0	<5.0
	10/15/01	<25	<5.0	<5.0	<5.0
	01/14/02	<25	<5.0	<5.0	<5.0
MW-25	08/10/00	<25	<5.0	<5.0	<5.0
	11/20/00	<50	<10	<10	<10
	01/16/01	<50	<4.0	<4.0	<4.0
	04/03/01	<50	<10	<10	<10
	07/16/01	<25	<5.0	<5.0	<5.0
	10/15/01	<25	<5.0	<5.0	<5.0
	01/14/02	<25	<5.0	<5.0	<5.0
04/15/02	<25	<5.0	<5.0	<5.0	

TABLE 3

**SUMMARY OF ADDITIONAL OXYGENATES ANALYTICAL DATA
ARCO Facility #3012**

All Results Reported in Micrograms per Liter (ug/l)

Well Identification	Sampling Date	TBA ¹	DIPE ¹	ETBE ¹	TAME ¹
MW-26	08/10/00	810	<63	<63	<63
	11/20/00	Not Sampled - Well Reduction Program			
	01/16/01	Not Sampled - Well Reduction Program			
	04/03/01	Not Sampled - Well Reduction Program			
	07/16/01	<25	<5.0	<5.0	<5.0
	10/15/01	Not Sampled - Well Reduction Program			
	01/14/02	Not Sampled - Well Reduction Program			
MW-27	08/10/00	1,100	<100	<100	<100
	11/20/00	990	<100	<100	<100
	01/16/01	<1,200	<100	<100	<100
	04/03/01	<10,000	<2,000	<2,000	<2,000
	07/16/01	540	<50	<50	<50
	10/15/01	<1,000	<200	<200	<200
	01/14/02	<250	<50	<50	<50
MW-28	04/15/02	<500	<100	<100	<100
	07/16/01	<62	<12	<12	<12
	10/15/01	<50	<10	<10	<10
	01/14/02	<100	<20	<20	<20
MW-29	04/15/02	<50	<10	<10	<10
	07/16/01	<620	<120	<120	<120
	10/15/01	<500	<100	<100	<100
	01/14/02	<1,000	<200	<200	<200
RW-1	04/15/02	<2,500	<500	<500	<500
	08/10/00	<250	<50	<50	<50
	11/20/00	<250	<50	<50	<50
	01/16/01	<2,500	<200	<200	<200
	04/03/01	<2,500	<500	<500	<500
	07/16/01	<310	<62	<62	<62
	10/15/01	<500	<100	<100	<100
RW-2	01/14/02	<310	<62	<62	<62
	04/15/02	<2,500	<500	<500	<500
	08/10/00	<50	<10	<10	<10
	11/20/00	<50	<10	<10	<10
	01/16/01	62	<5.0	<5.0	<5.0
	04/03/01	<50	<10	<10	<10
	07/16/01	<50	<10	<10	<10
RW-3	10/15/01	<50	<10	<10	<10
	01/14/02	52	<10	<10	<10
	04/15/02	<50	<10	<10	<10
	08/10/00	1,300	<50	<50	<50
	11/20/00	820	<50	<50	<50
	01/16/01	<1,200	<100	<100	<100
	04/03/01	<2,500	<500	<500	<500
RW-3	07/16/01	800	<62	<62	<62
	10/15/01	<1,200	<250	<250	<250
	01/14/02	920	<50	<50	<50
	04/15/02	<1,000	<200	<200	<200

TABLE 3

**SUMMARY OF ADDITIONAL OXYGENATES ANALYTICAL DATA
ARCO Facility #3012**

All Results Reported in Micrograms per Liter (ug/l)

Well Identification	Sampling Date	TBA ¹	DIPE ¹	ETBE ¹	TAME ¹
RW-4	08/10/00	1,000	<200	<200	<200
	11/20/00	1,000	<200	<200	<200
	01/16/01	<620	<50	<50	<50
	04/03/01	460	<5.0	<5.0	<5.0
	07/16/01	<120	<25	<25	<25
	10/15/01	<620	<120	<120	<120
	01/14/02	480	<50	<50	<50
	04/15/02	<1,200	<250	<250	<250
P-1	07/16/01	<500	<100	<100	<100
	10/15/01	<2,000	<400	<400	<400
	01/14/02	930	<100	<100	<100
	04/15/02	<500	<100	<100	<100

Notes:

- ug/l = micrograms per liter
- TBA = tert-Butyl Alcohol
- DIPE = Di-isopropyl Ether
- ETBE = Ethyl tert-Butyl Ether
- TAME = tert-Amyl Methyl Ether
- ¹ = Analyzed by EPA Method 8260
- < =Less than laboratory detection limit

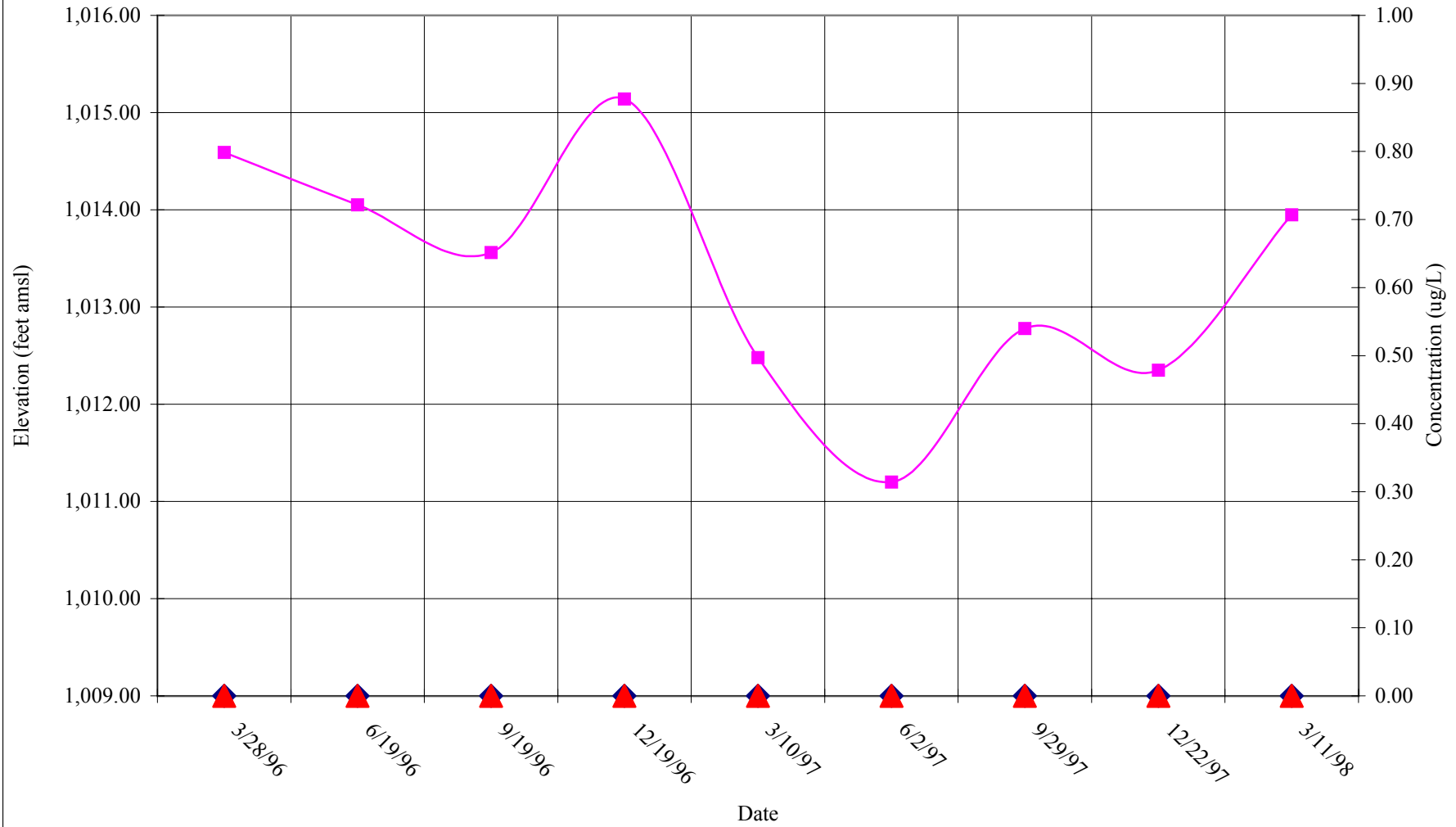
TABLE 4

**SUMMARY OF BI-WEEKLY VACUUM TRUCK PUMPING EVENTS
ARCO Facility #3012
Temecula, California**

Date	Well I.D.	Duration of Pumping (hrs)	Volume of Water Pumped (gal)	Average Pump Rate (gpm)
01/24/01	MW-26	8	800	1.67
02/07/01	MW-26	8	578	1.20
02/21/01	MW-26	8	533	1.11
03/07/01	MW-26	8	488	1.02
03/21/01	MW-26	8	525	1.09
04/04/01	MW-26	8	1,250	2.60
04/17/01	MW-26	8	1,100	2.29
05/02/01	MW-26	8	1,300	2.71
05/16/01	MW-26	8	1,300	2.71
06/22/01	MW-26	8	900	1.88
07/02/01	MW-26	8	433	0.90
08/29/01	MW-16	8	715	1.49
09/12/01	MW-16	8	887	1.85
09/26/01	MW-16	8	900	1.88
10/10/01	MW-16	6	700	1.46
10/24/01	MW-16	6	900	1.88
11/16/01	MW-16	4	250	0.52
11/26/01	MW-26	6	800	1.67
01/15/01	MW-16	6	1,000	2.08
01/29/01	MW-16	6	1,000	2.08
02/14/02	MW-16	6	900	1.88
02/28/02	MW-16	6	800	1.67
03/15/02	MW-16	6	800	1.67
03/29/02	MW-16	6	530	1.10
04/16/02	MW-16	6	500	1.04
04/30/02	MW-16	6	540	1.13
Total Gallons Removed			20,429	

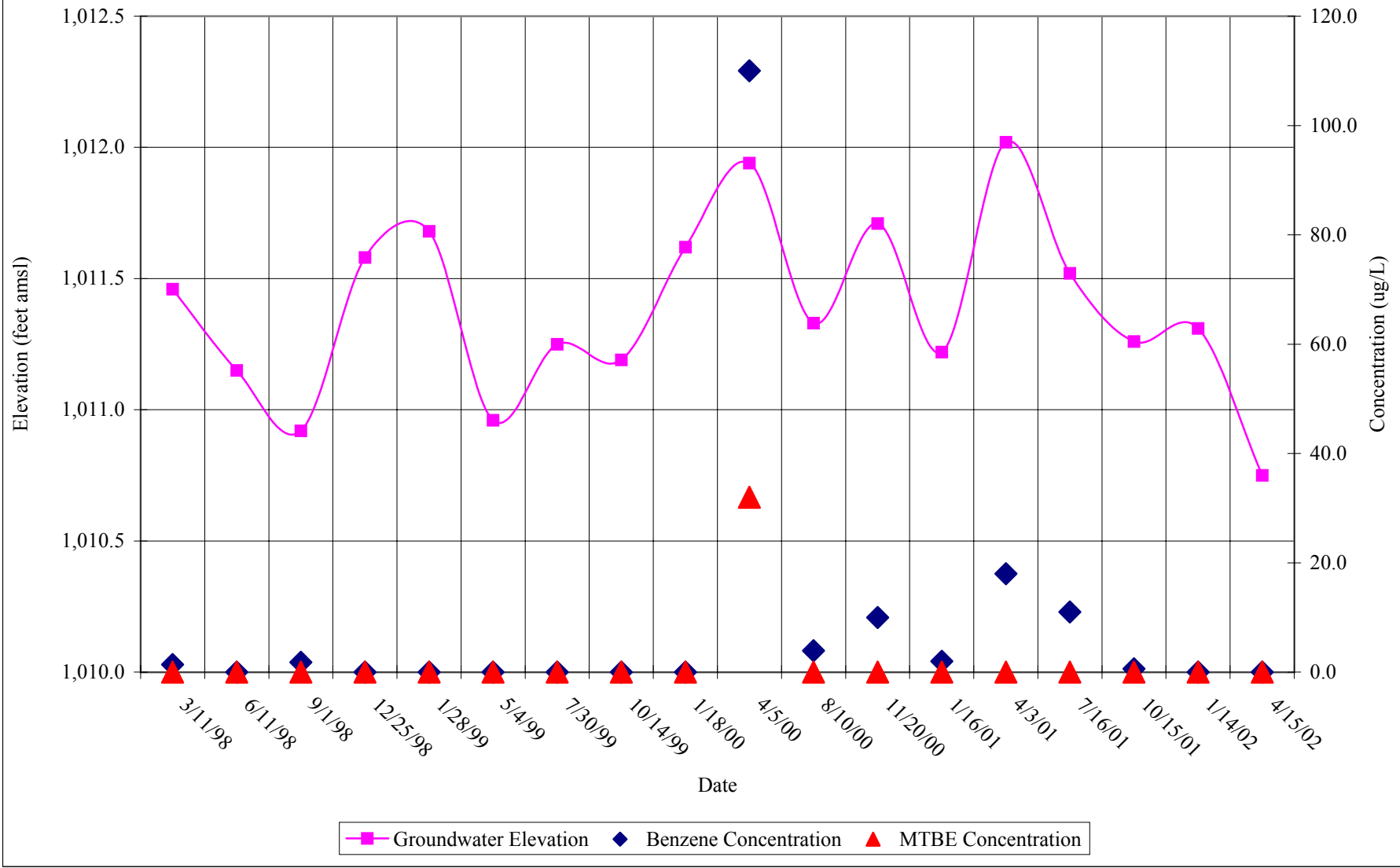
gpm = gallons per minute
 hrs = hours
 gal = gallons

Hydrograph for MW-11

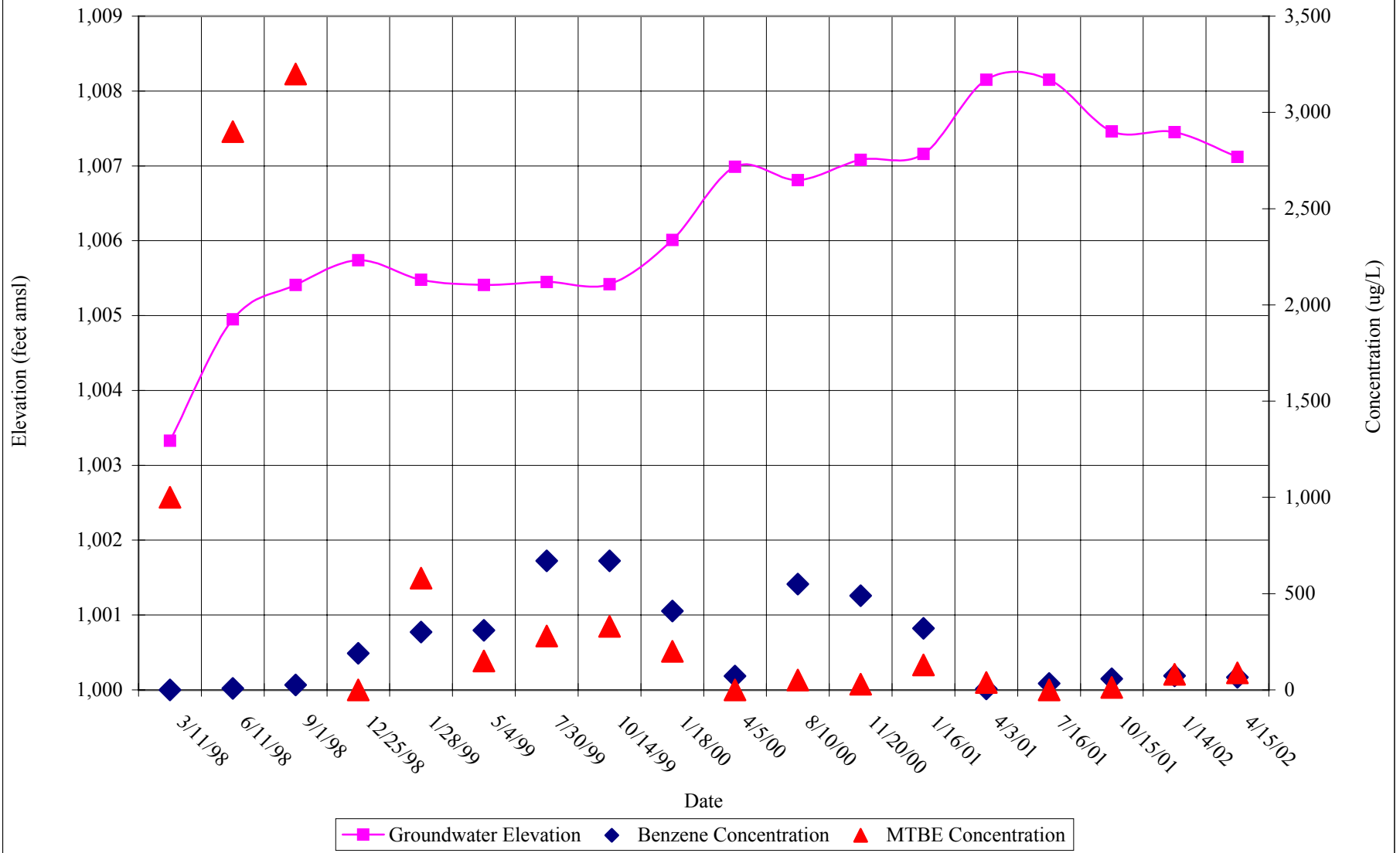


—■— Groundwater Elevation ◆ Benzene Concentration ▲ MTBE Concentration

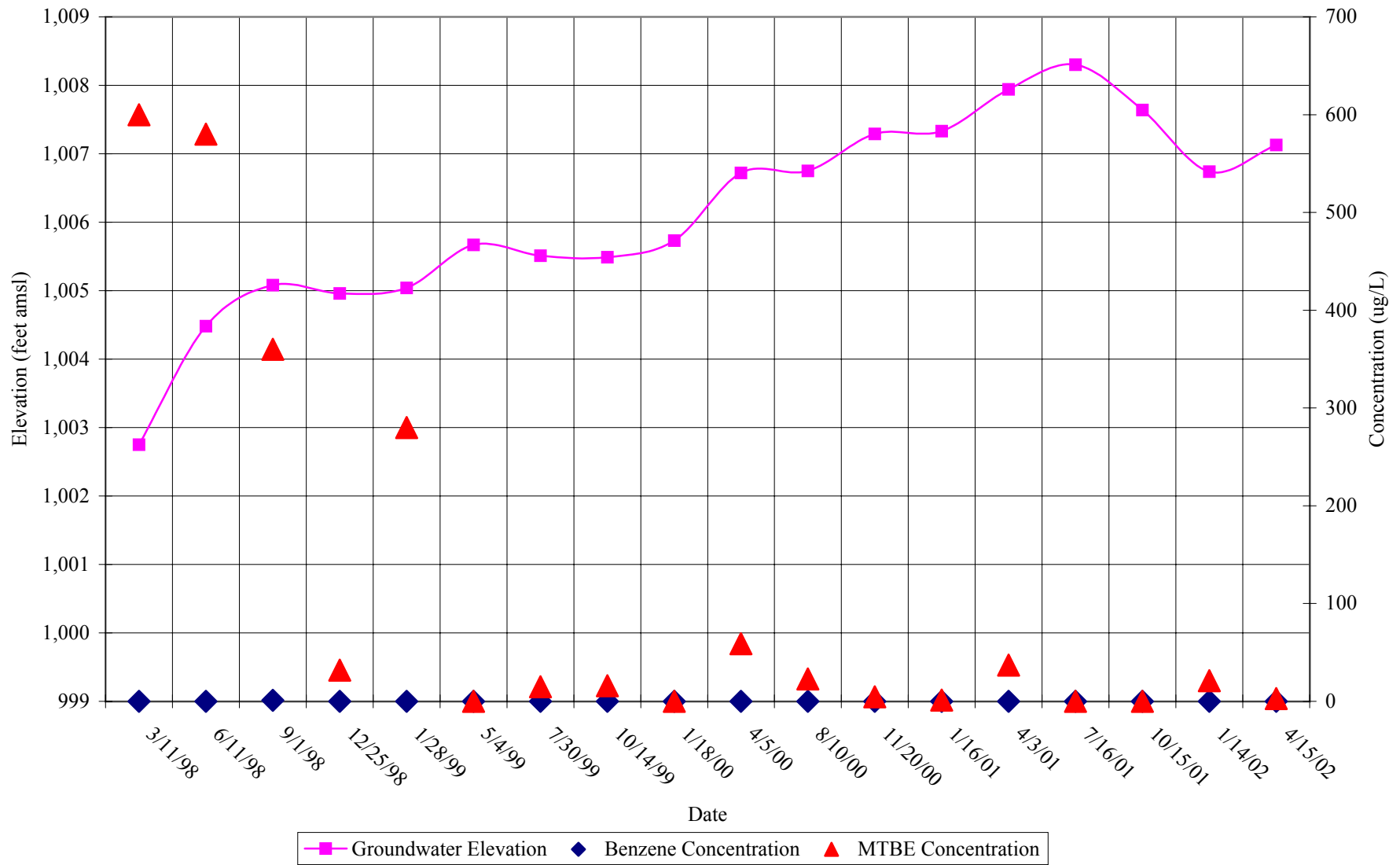
Hydrograph for MW-12



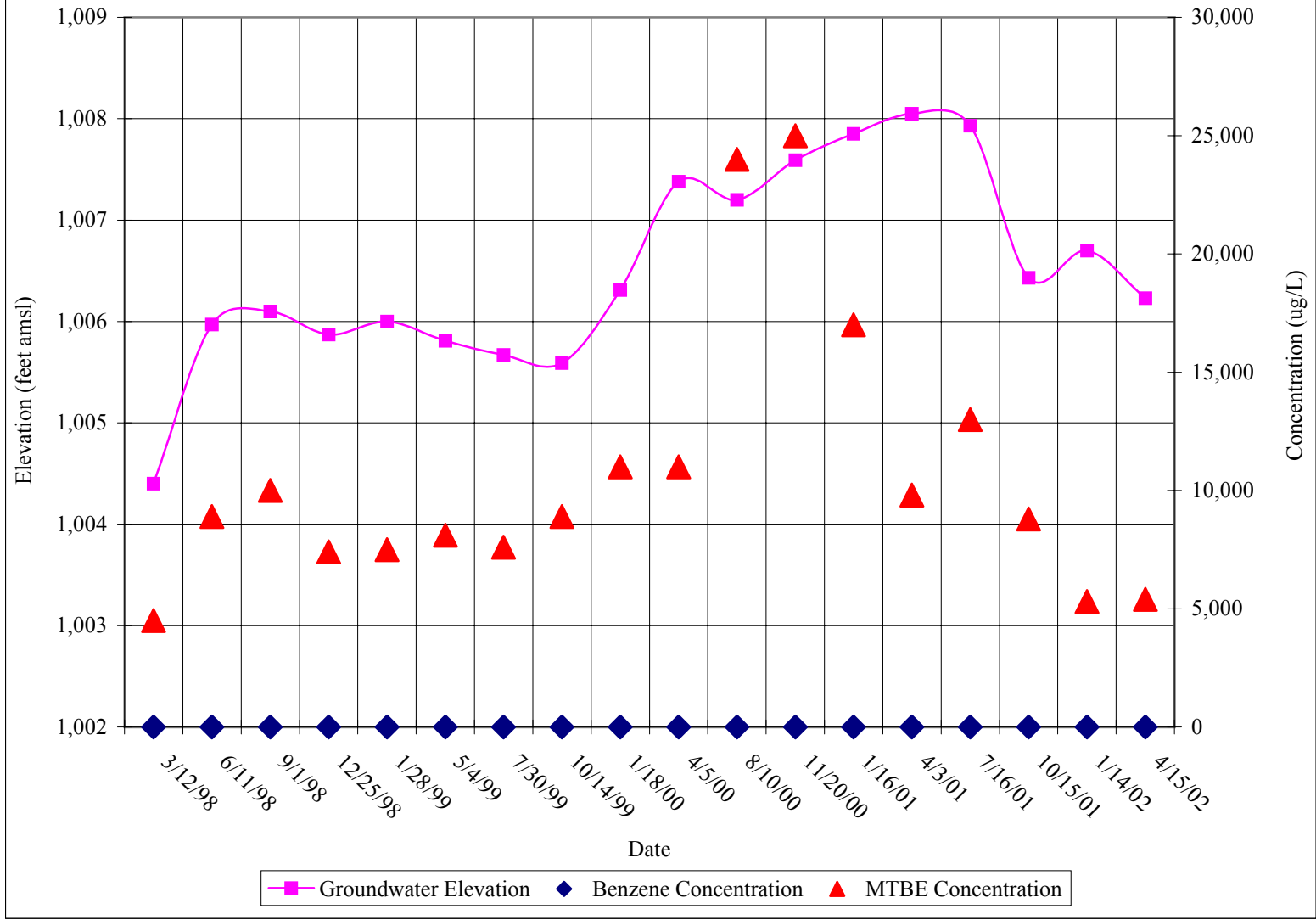
Hydrograph for MW-13



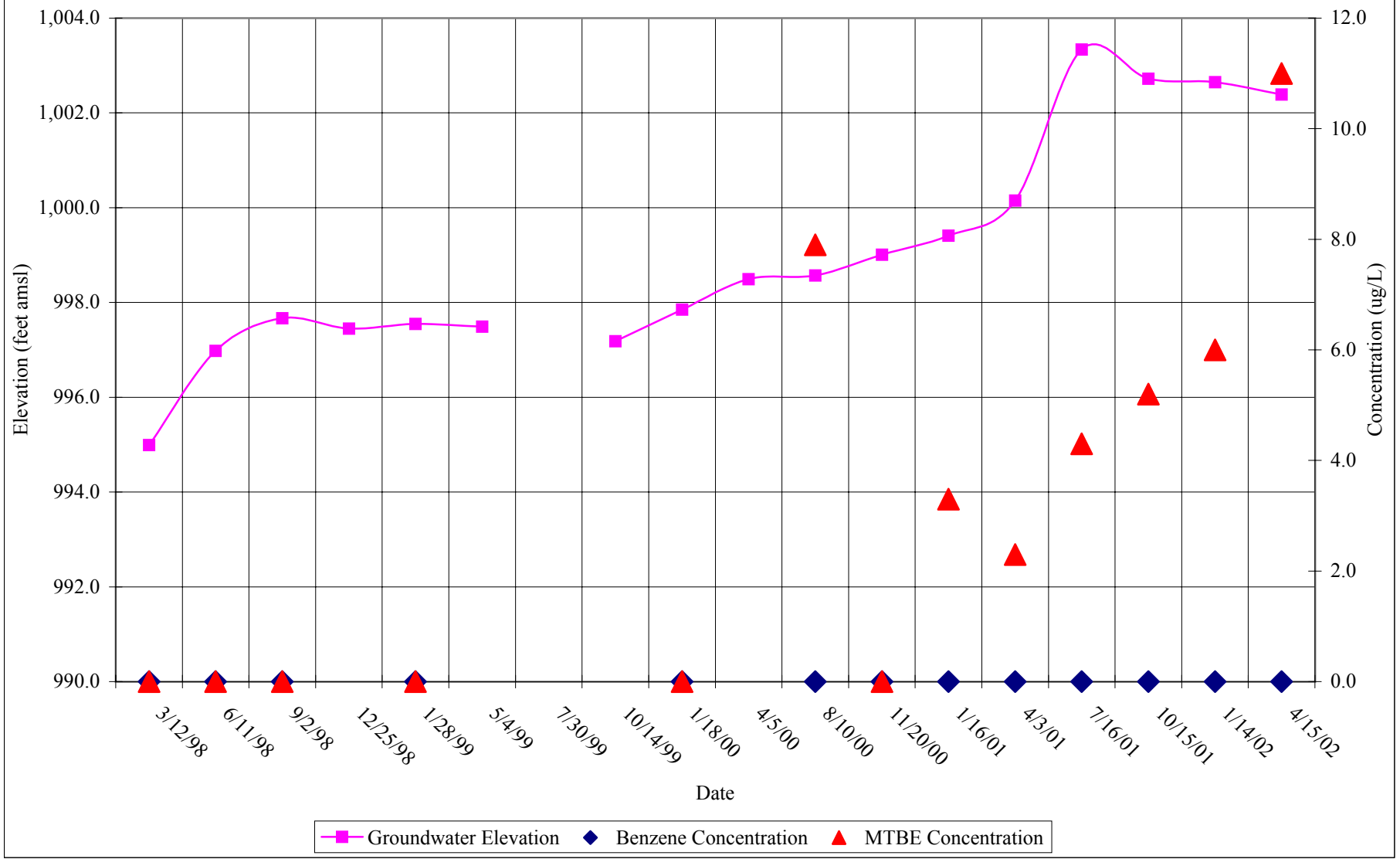
Hydrograph for MW-14



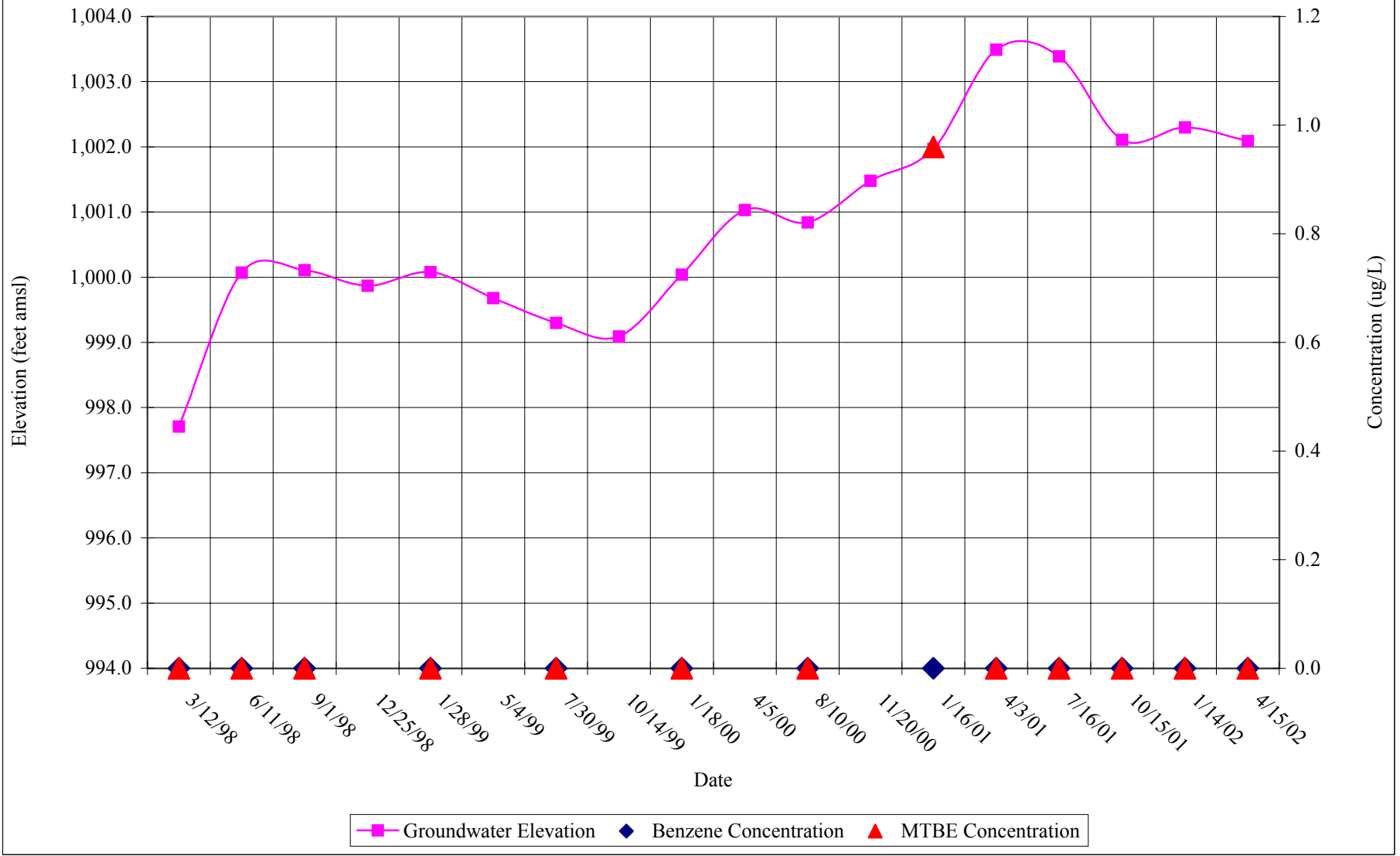
Hydrograph for MW-16



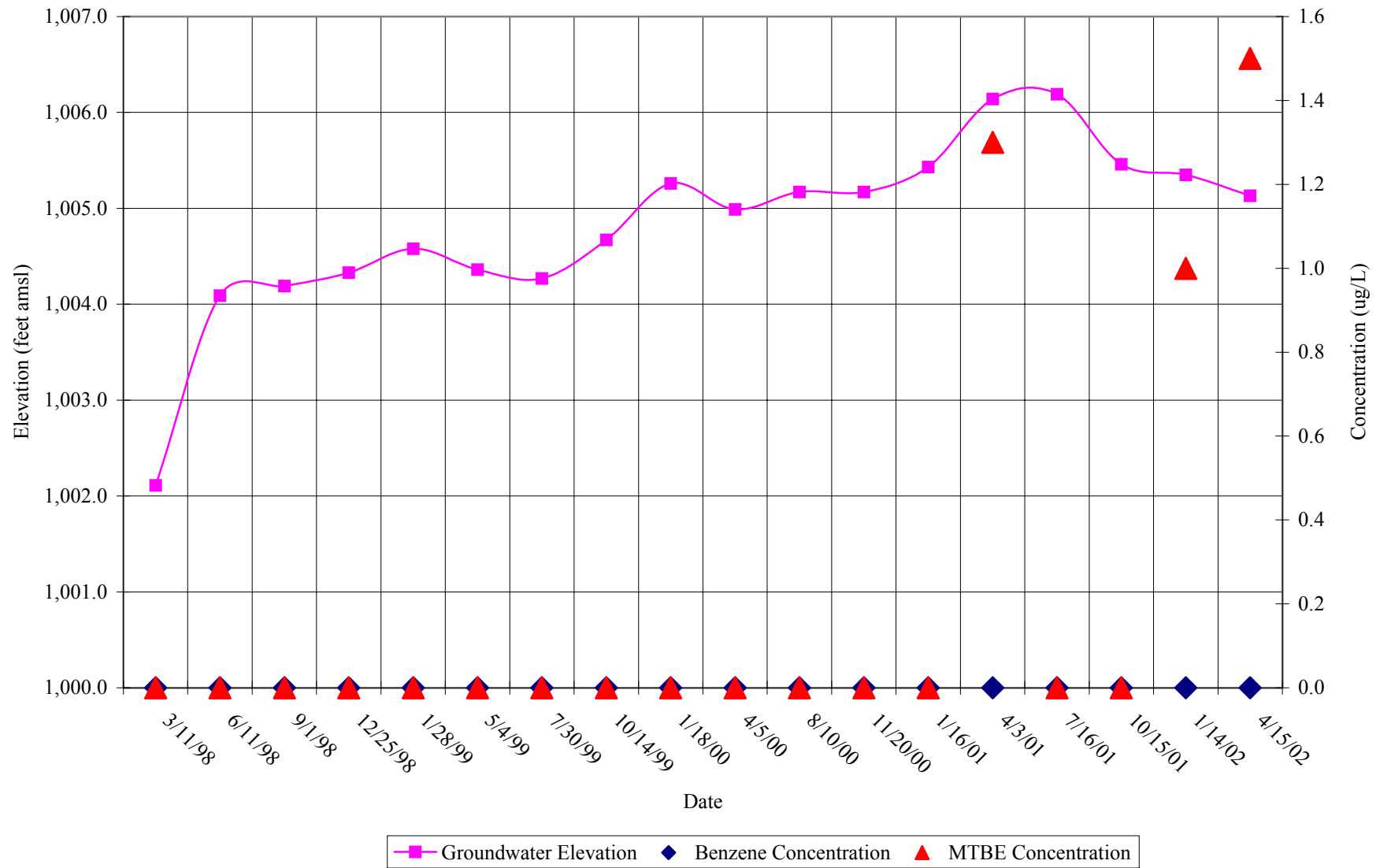
Hydrograph for MW-17



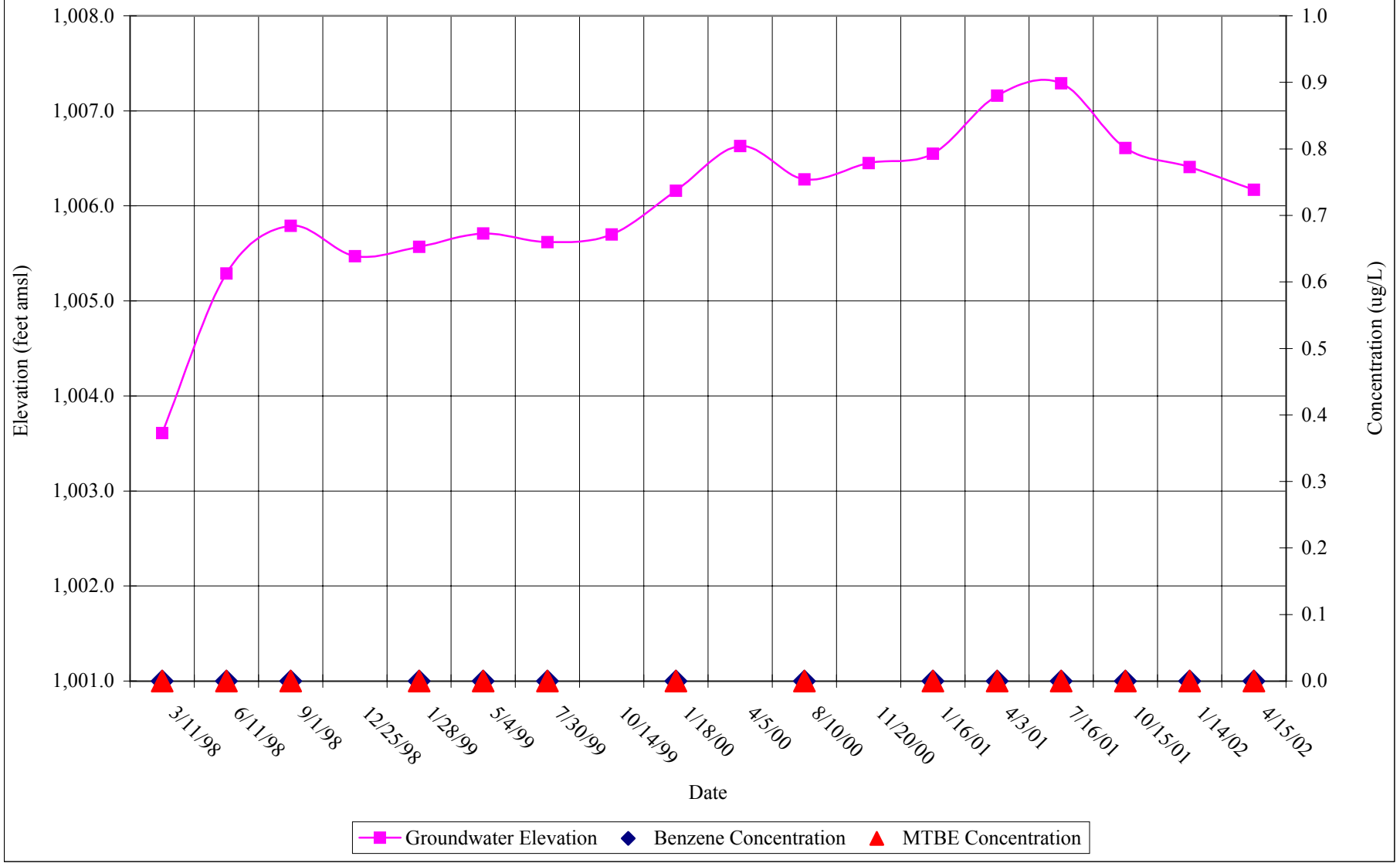
Hydrograph for MW-18



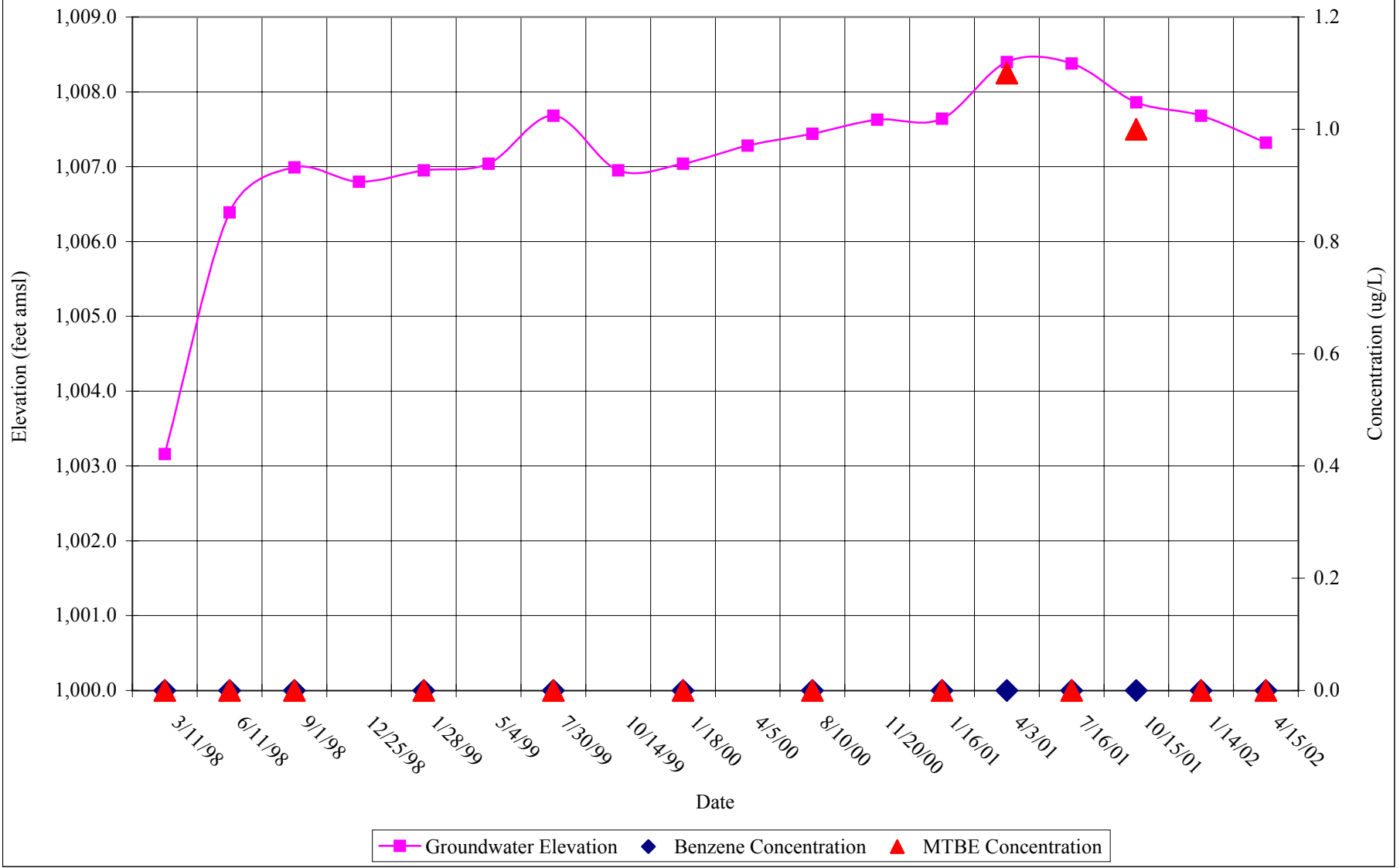
Hydrograph for MW-19



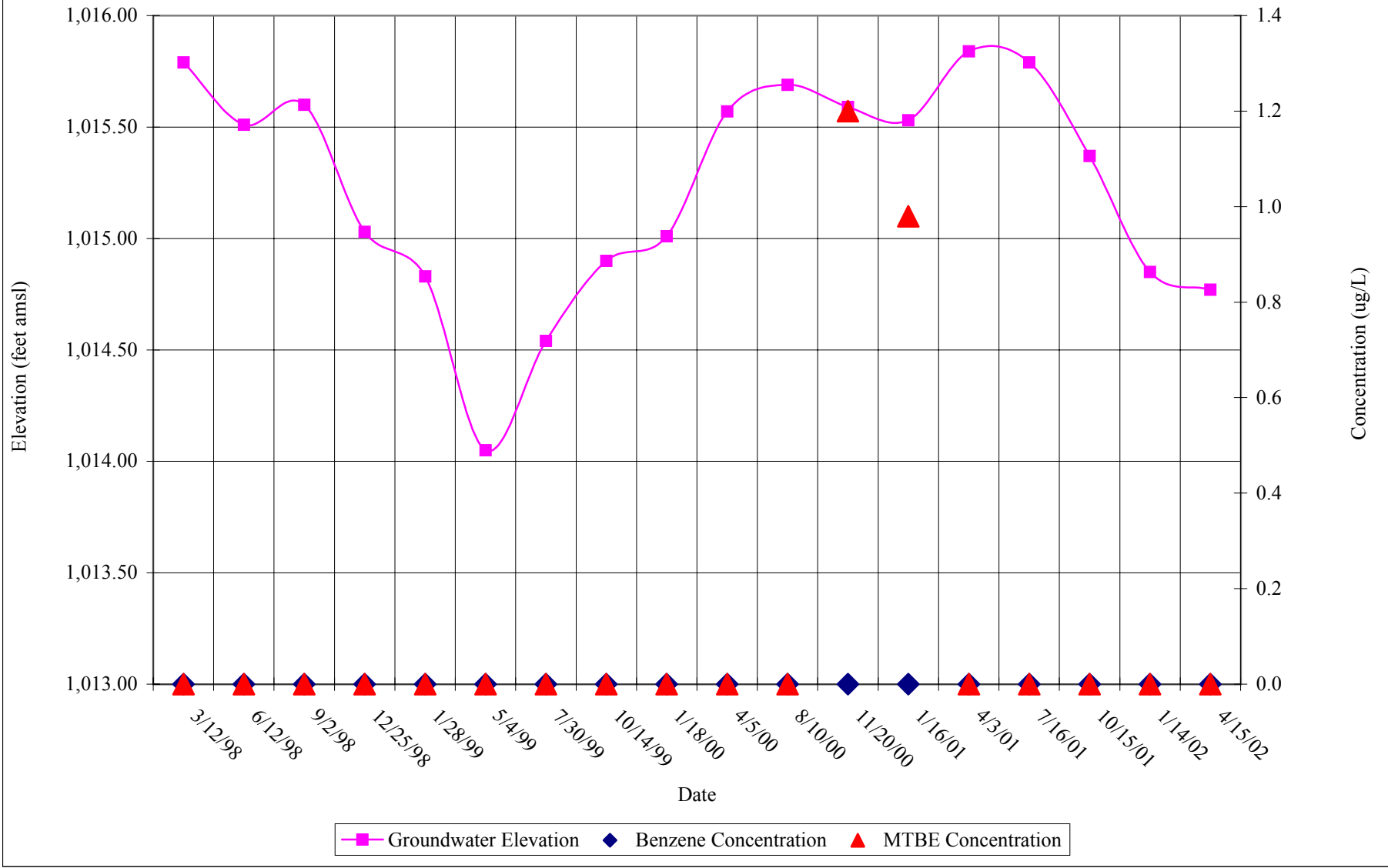
Hydrograph for MW-20



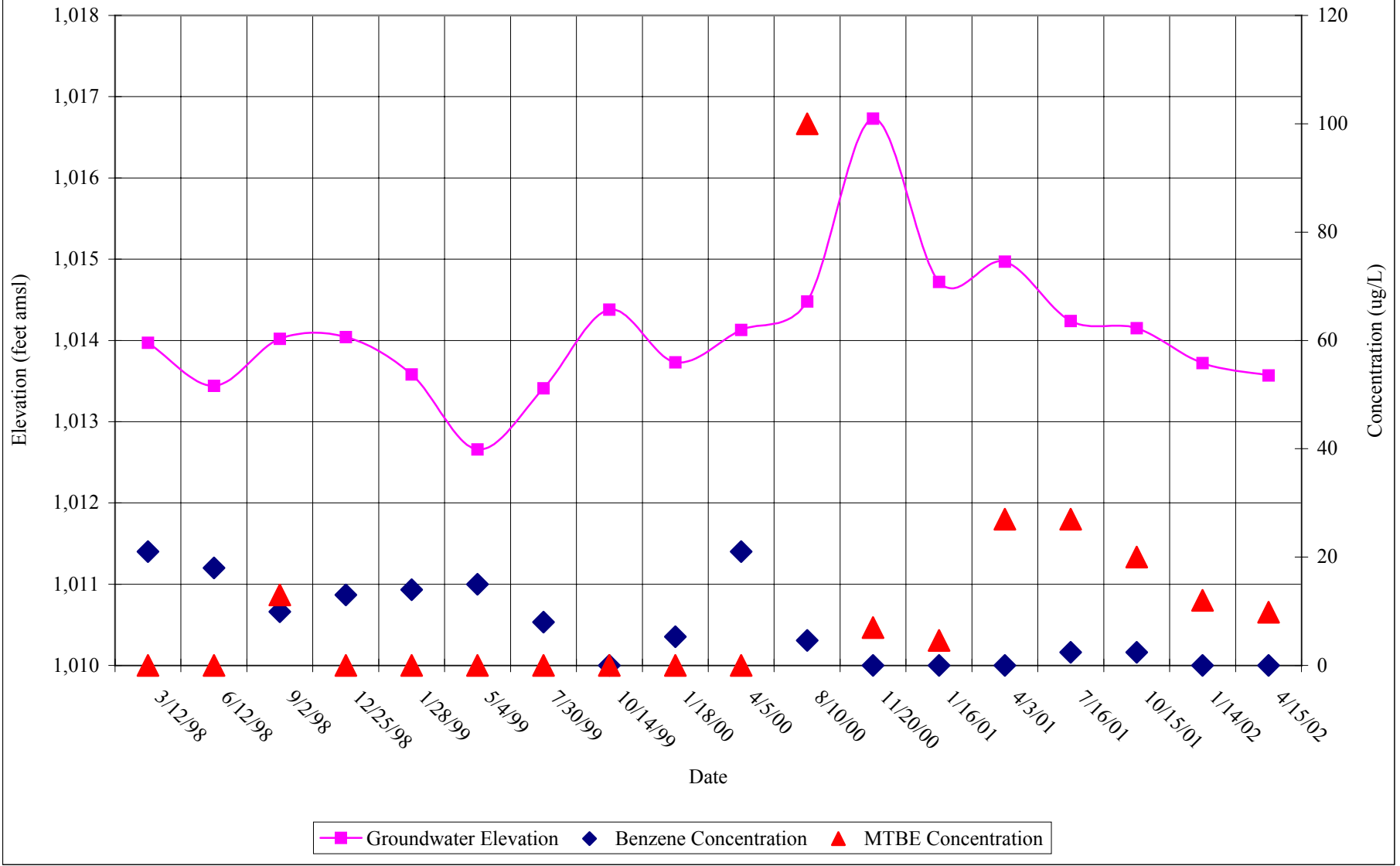
Hydrograph for MW-21



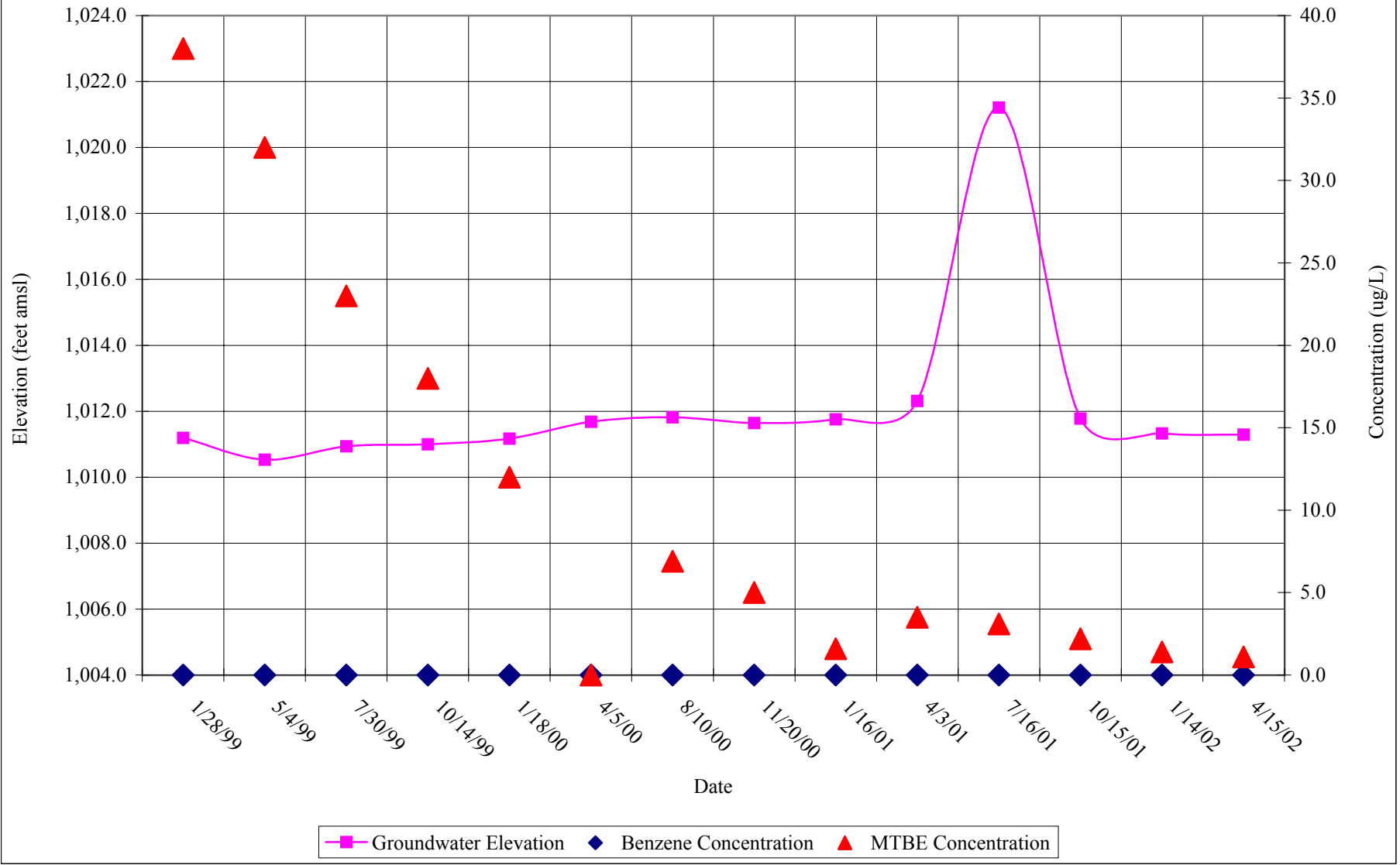
Hydrograph for MW-22



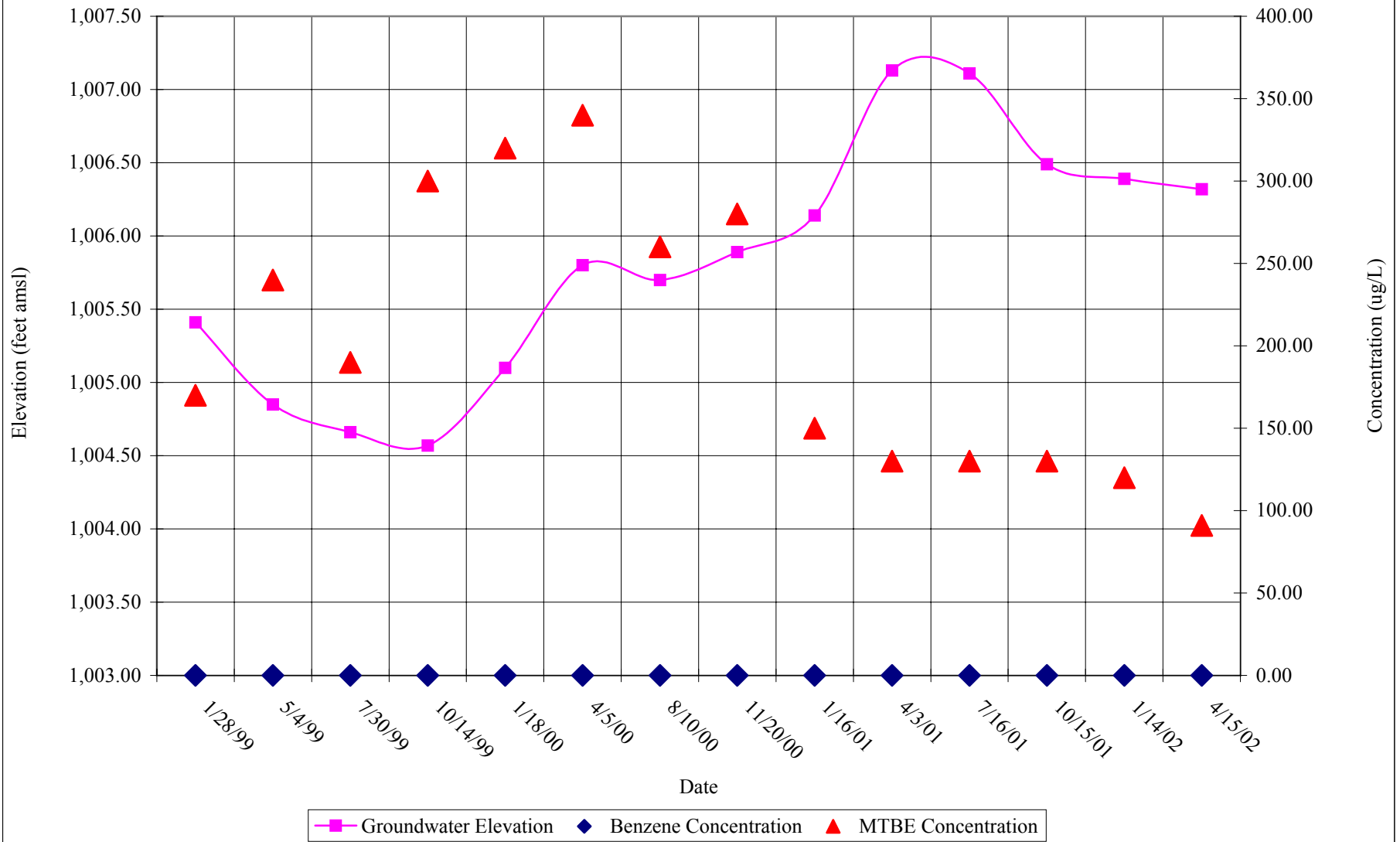
Hydrograph for MW-23



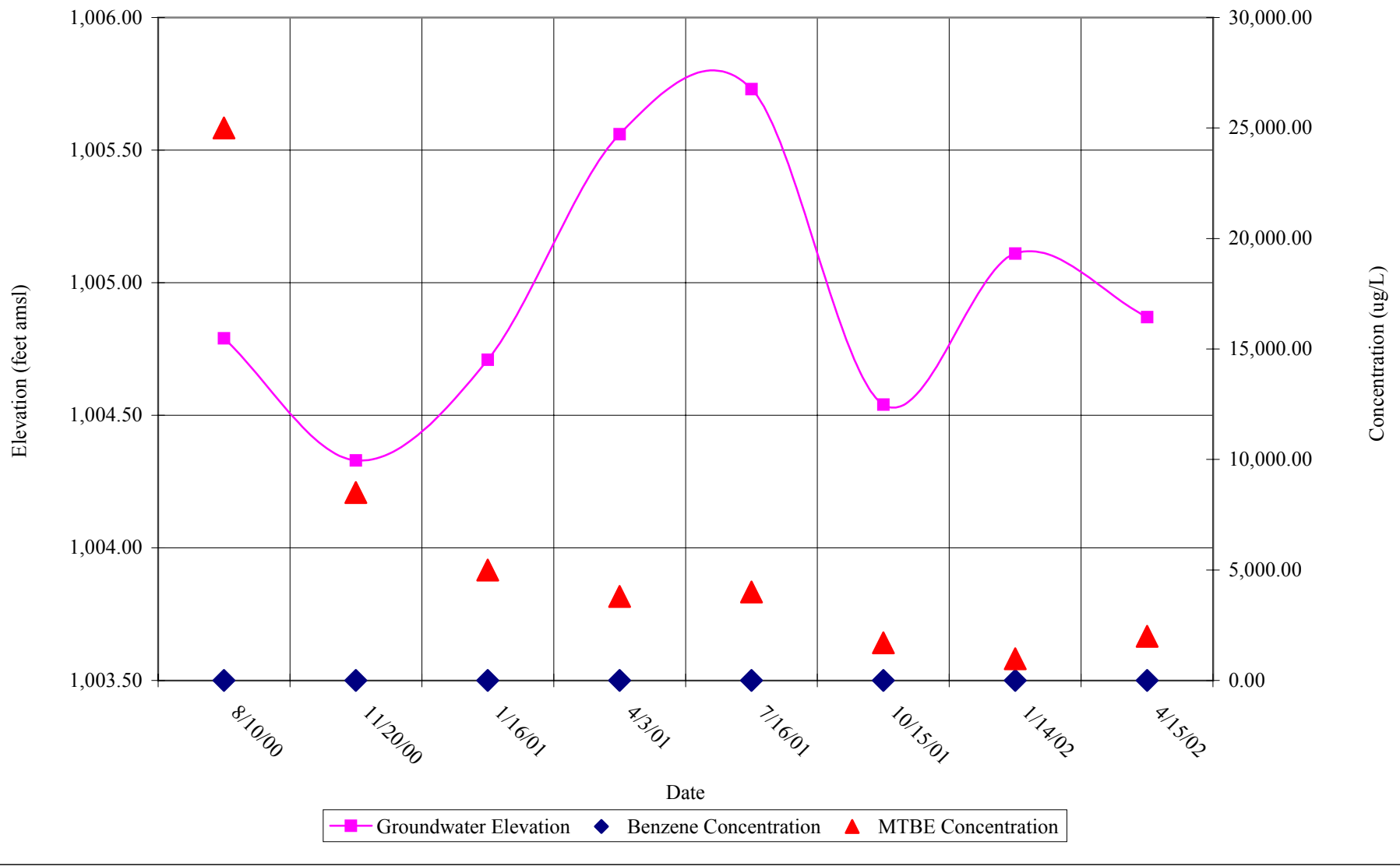
Hydrograph for MW-24



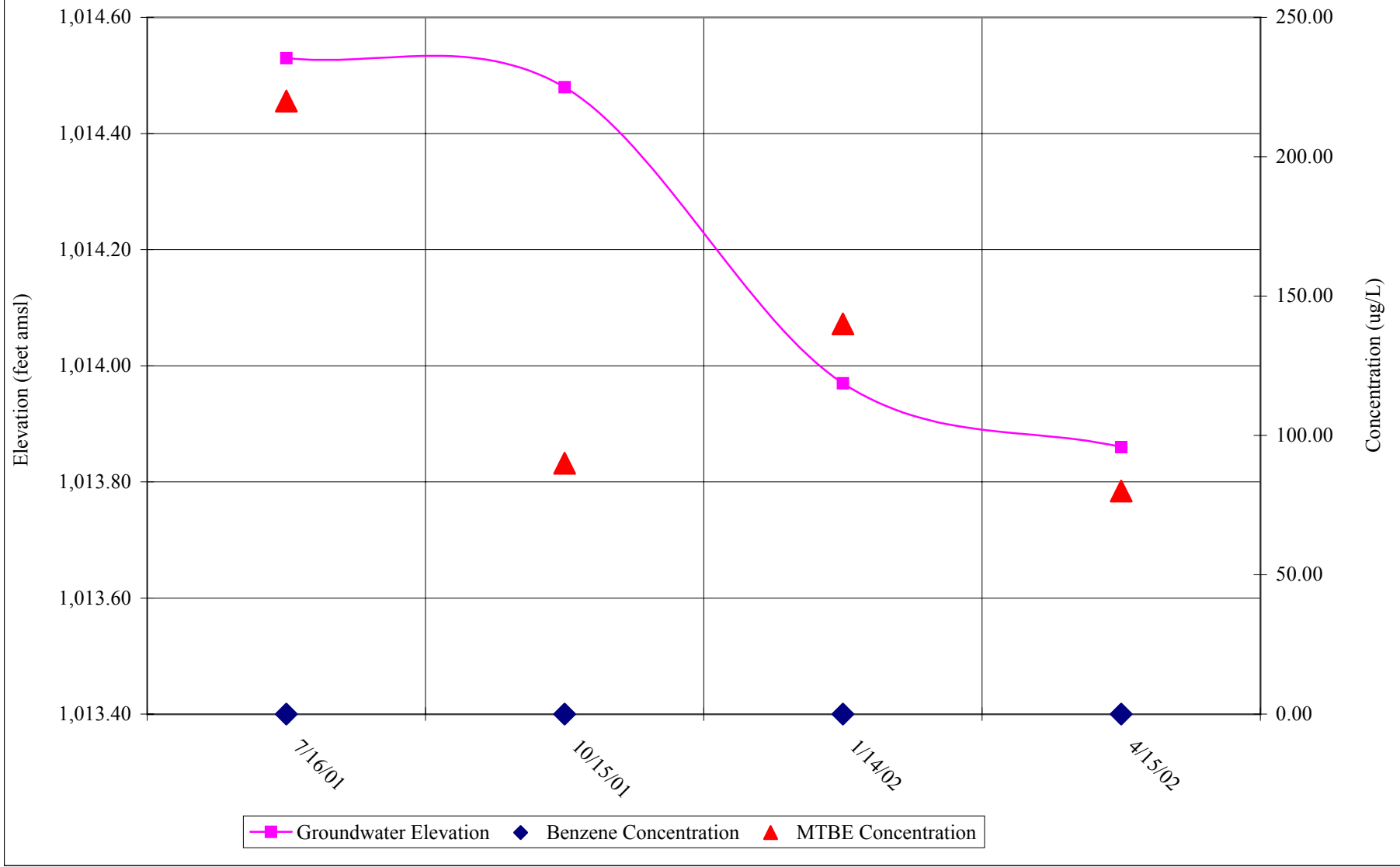
Hydrograph for MW-25



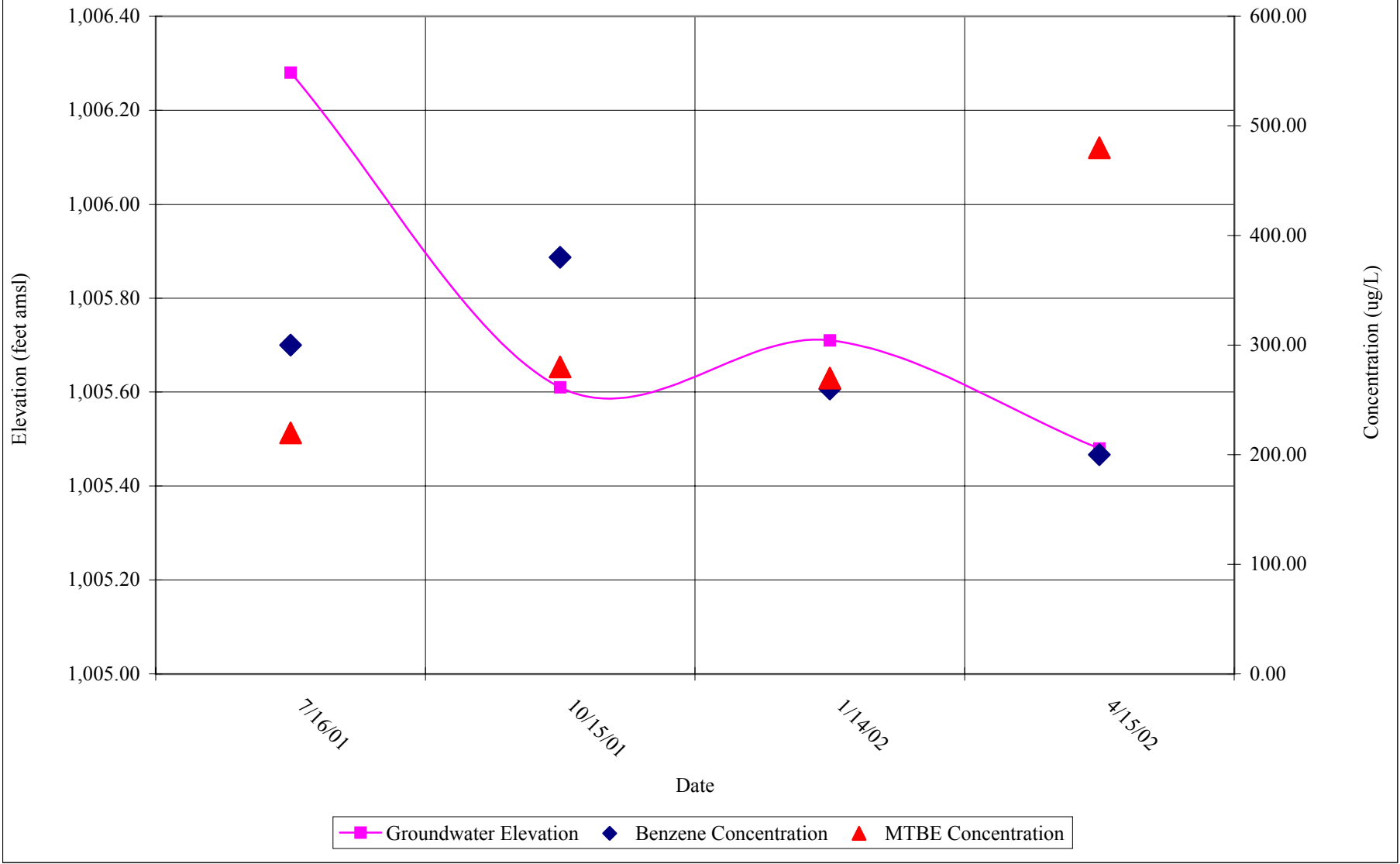
Hydrograph for MW-27



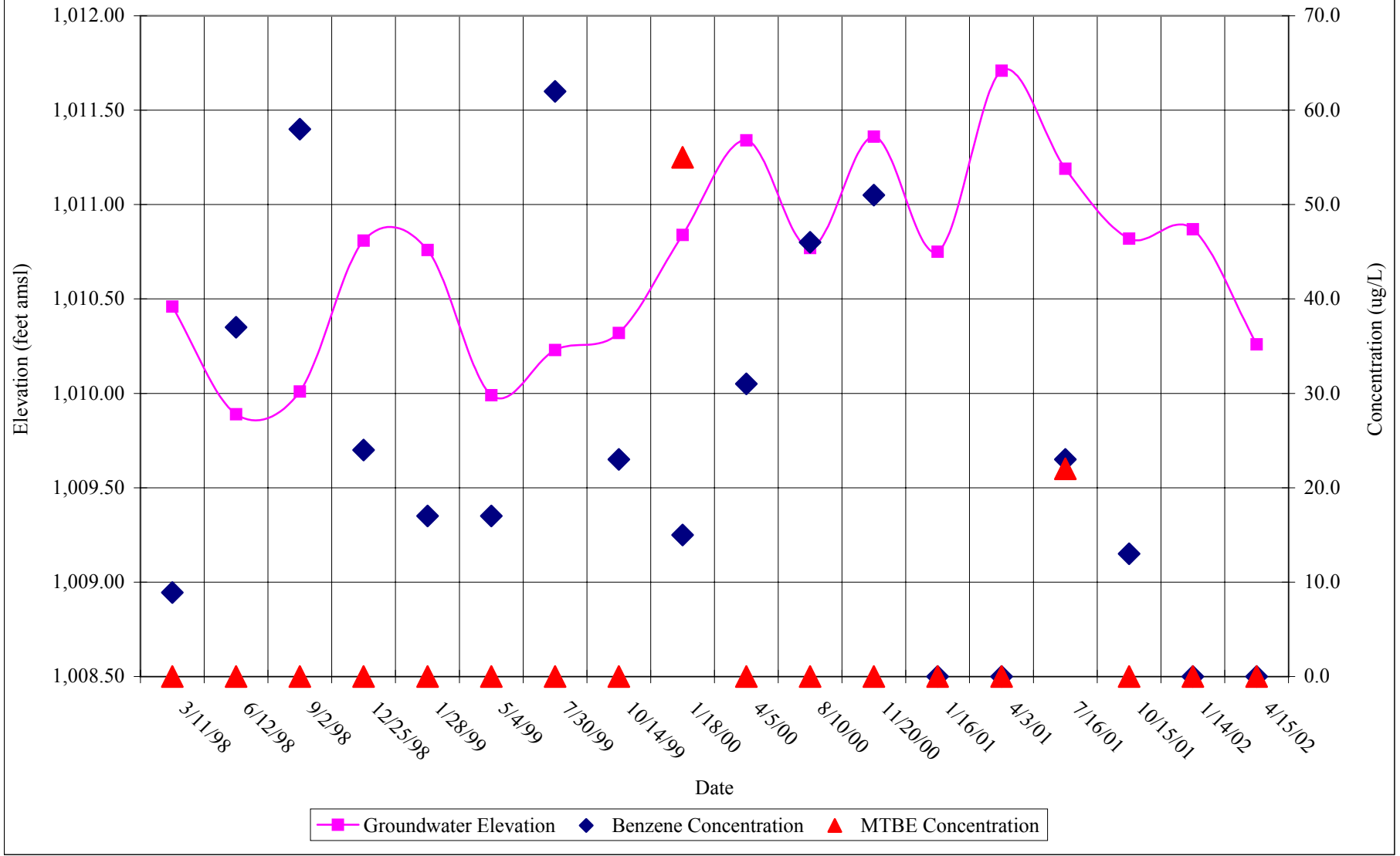
Hydrograph for MW-28



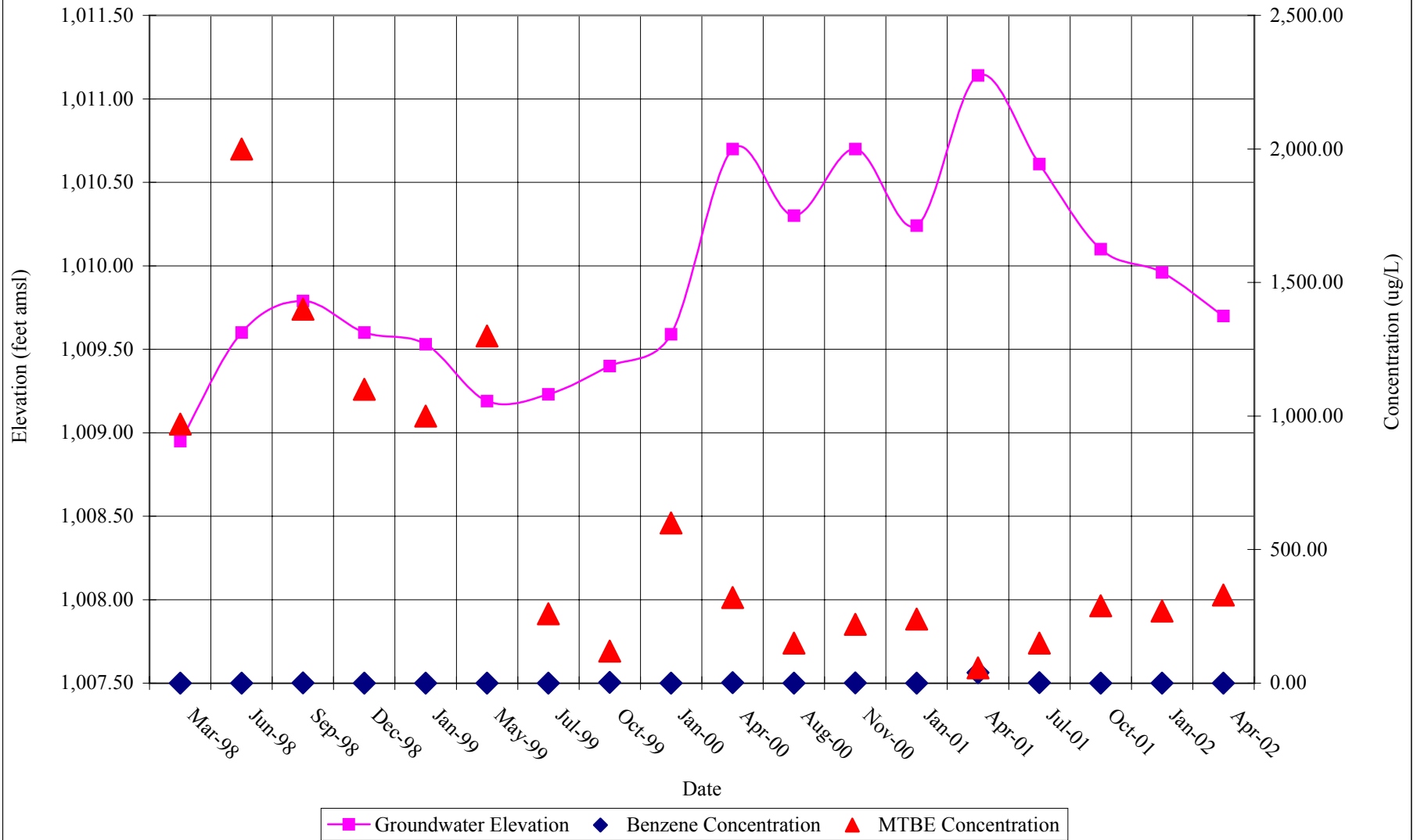
Hydrograph for MW-29



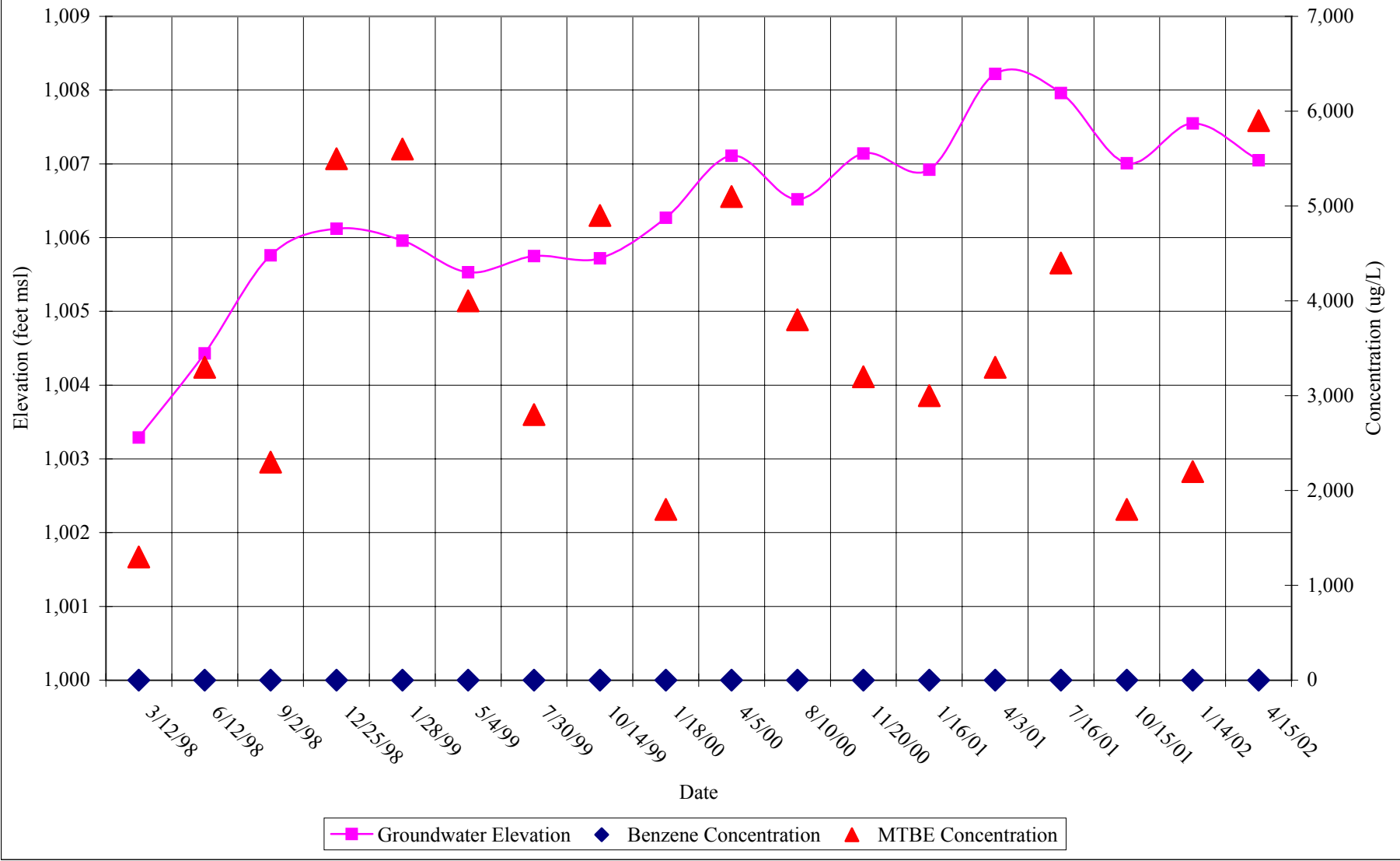
Hydrograph for RW-1



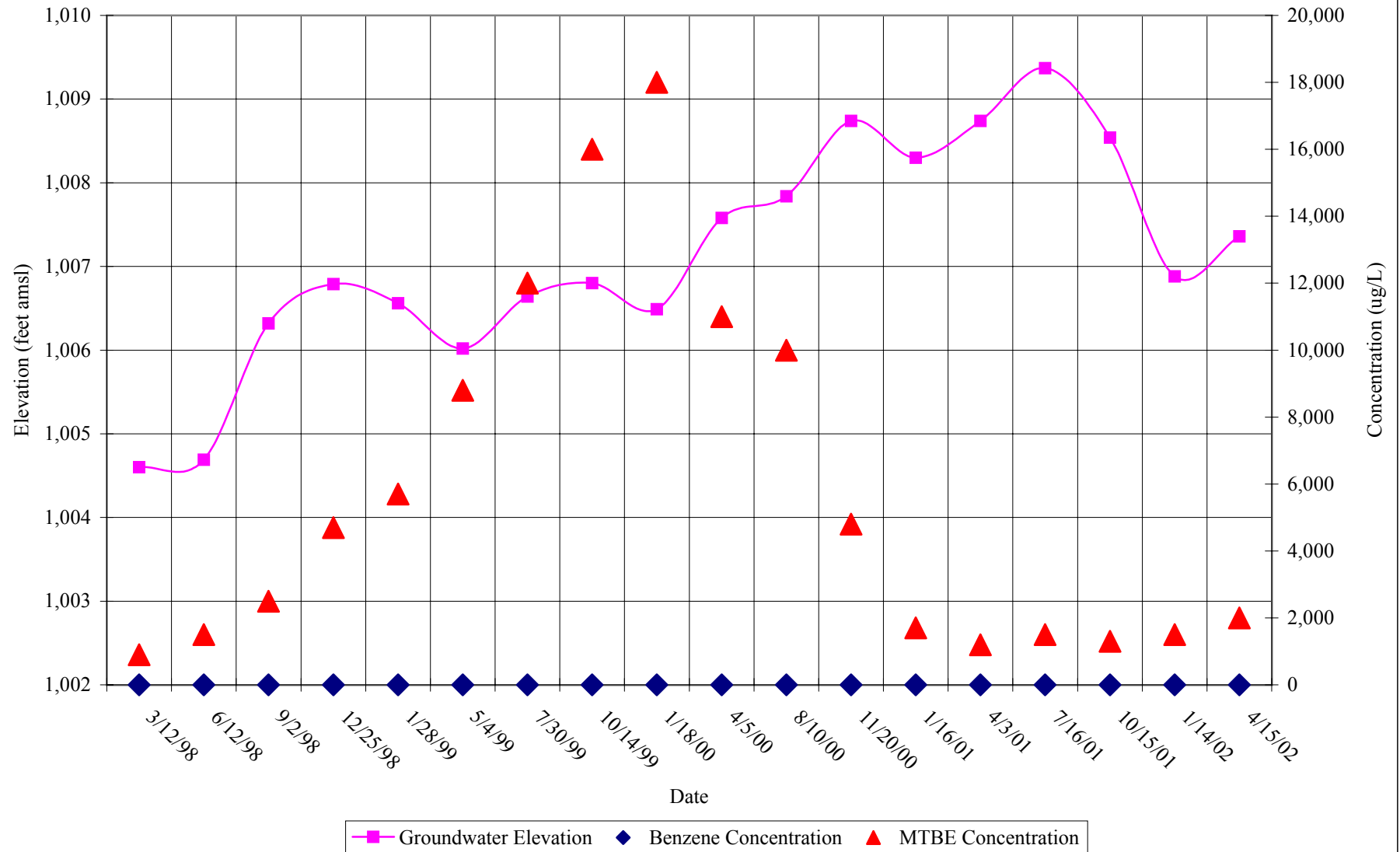
Hydrograph for RW-2



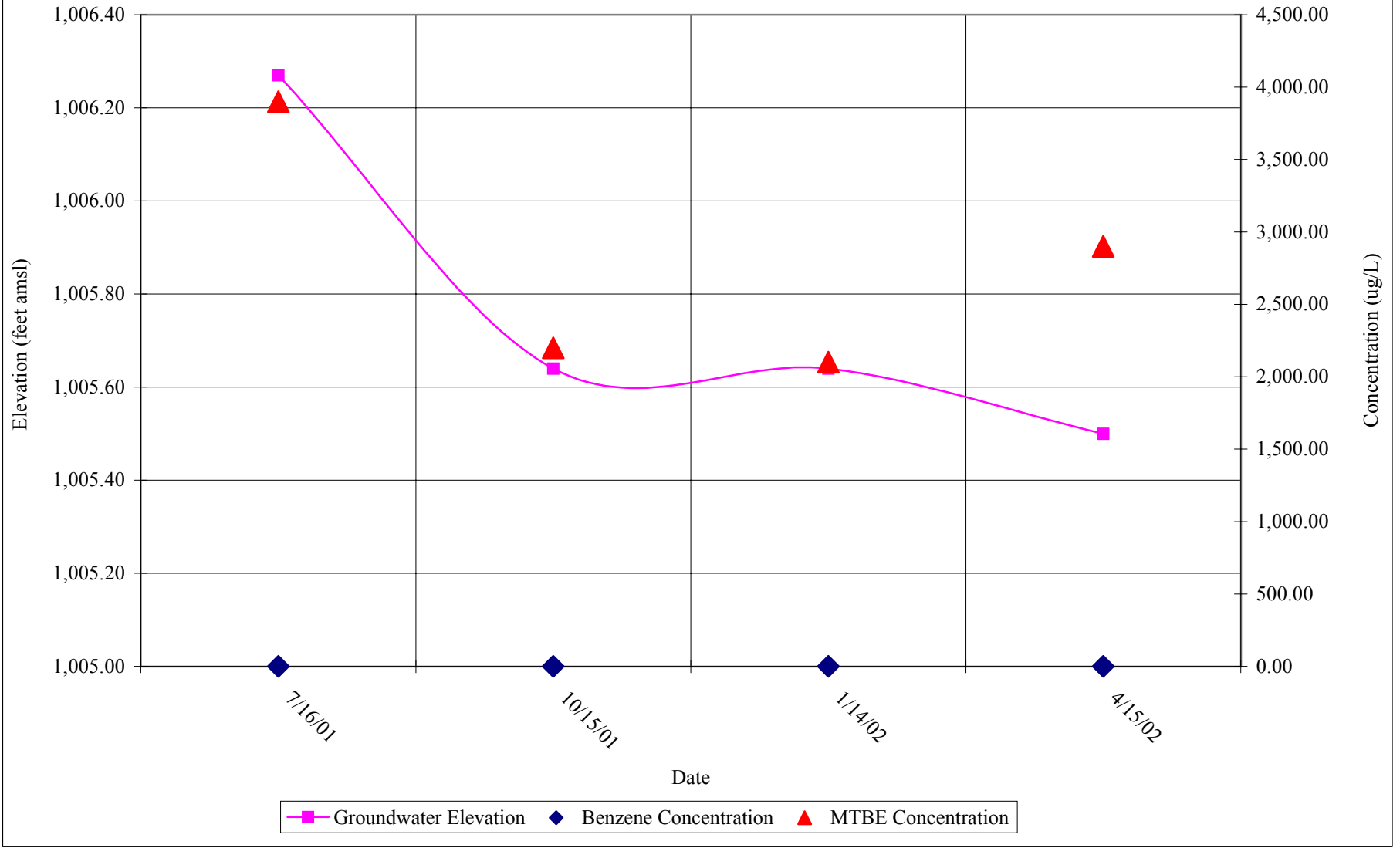
Hydrograph for RW-3



Hydrograph for RW-4



Hydrograph for P-1



NO-PURGE MONITORING WELL SAMPLING PROCEDURES

The following quarterly groundwater monitoring and sampling procedures were developed by environmental consultants for the Western States Petroleum Association's California Groundwater Purging Study for Petroleum Hydrocarbons.

1. Pre-Sampling Procedures

- A. Note and remove any accumulated water inside the well monument.
- B. Using a decontaminated instrument (i.e., tape measure, continuity meter, or interface probe) measure the depth to groundwater in reference to the measuring point at the top of the casing.
- C. If a monitoring well is suspected of containing a measurable thickness of LPH, lower an interface probe to measure the depths to product and water to determine the LPH thickness.
- D. Lower dissolved oxygen probe into the monitoring well to obtain dissolved oxygen reading.
- E. Decontaminate field instruments by scrubbing in non-phosphate detergent solution, followed by a tap water rinse and then a deionized water rinse.

2. Sampling Procedures

- A. Slowly lower a new, 36-inch long, factory-cleaned, polyethylene, disposable bailer into the monitoring well until it is fully submerged.
- B. Withdraw the full bailer from the monitoring well.
- C. Transfer the groundwater sample from the bailer into the appropriate laboratory-supplied and preserved containers. Where applicable, completely fill volatile contaminant sample containers to achieve zero headspace. Label the samples according to location and date of collection.
- D. Preserve samples on ice until delivery to the analytical laboratory.
- E. Record the collection of the samples onto the Chain-of-Custody document. Complete the No-Purge Monitoring and Sampling Log to be stored in the project file.

A laboratory-prepared trip blank should be included with and kept with the samples in the cooler.

SECOR INTERNATIONAL INCORPORATED	NO-PURGE MONITORING & SAMPLING LOG		Page <u>1</u> of <u>1</u>
	Project Name: ARCO 3012		Date: 4/15/02
	Project Number: 08BP.60161.00 / 0062		No. of Monitoring Wells Gauge: 22
	SECOR Rep: E. Hicks / J. Dasinger	Checked by: <i>[Signature]</i>	No. of Monitoring Wells Sampled: 21

NO-PURGE MONITORING & SAMPLING EQUIPMENT / METHOD

Water Level Meter Type & ID: Solinst # 4

Dissolved Oxygen Meter Type/ID: YSI Model 55 # 2 Calibration: 1000 ft above mean sea level 0.6 salinity concentration (PPT)

Sampling Method: Teflon Bailer Disposable Bailer Other _____

Decontamination Method: Steam / High Pressure Wash 3 Stage (Alconox, Tap & DI rinse) Other: _____

MONITORING / SAMPLING DATA

Well I.D.	Previous Quarter DTW	Depth to Floating Product (ft)	DTW (ft)	Floating Product Thickness	Dissolved Oxygen Readings	Sampling Time	Casing Elevation ¹	Groundwater Elevation	Corrected Groundwater Elevation ²	Comments
MW-12	13.17	—	13.31	—	0.15	1022	1024.06	1010.75	—	
MW-13	12.49	—	12.51	—	0.20	1155	1019.63	1007.12	—	
MW-14	11.54	—	11.24	—	0.19	1209	1018.37	1007.13	—	
MW-16	13.59	—	13.58	—	0.27	1218	1019.81	1006.23	—	
MW-17	NM	—	13.94	—	0.35	0845	1016.33	1002.39	—	
MW-18	13.79	—	13.60	—	1.65	0900	1015.69	1002.09	—	
MW-19	11.88	—	11.86	—	0.25	0920	1016.99	1005.13	—	
MW-20	11.26	—	11.28	—	0.39	0914	1017.45	1006.17	—	
MW-21	12.92	—	13.00	—	0.32	1000	1020.32	1007.32	—	
MW-22	7.27	—	7.08	—	0.30	1039	1021.85	1014.77	—	
MW-23	11.01	—	11.04	—	0.17	1144	1024.61	1013.57	—	
MW-24	10.03	—	9.94	—	0.21	1012	1021.23	1011.29	—	
MW-25	12.13	—	12.12	—	0.26	0928	1018.44	1006.32	—	
MW-26	NM	—	NM	—	NM	NA	1023.31	N/A	—	pump set up in well
MW-27	19.27	—	19.22	—	0.26	1151	1024.09	1004.87	—	
MW-28	10.95	—	10.88	—	0.09	1047	1024.74	1013.86	—	
MW-29	18.37	—	18.18	—	0.12	1058	1023.66	1005.48	—	
RW-1	12.99	—	13.15	—	0.17	1029	1023.41	1010.26	—	
RW-2	11.08	—	11.11	—	0.25	1108	1020.81	1009.70	—	
RW-3	14.68	—	14.69	—	0.40	1129	1021.74	1007.05	—	
RM-4	16.66	—	16.09	—	0.41	1136	1023.45	1007.36	—	
P-1	18.00	—	17.84	—	0.37	1120	1023.34	1005.50	—	

SAMPLING INFORMATION

Container Types & Volumes	Filtered (Y/N)	Sample Preservatives	Analytical Parameters
2 o <u>3</u> x 40ml VOAs	N	HCL & ICE or NONE	TPHg, BTEX, MTBE, (8015, 8260)
			DIPE, TAME, ETBE, TBA (8260b)

Notes: 1 = feet from mean sea level
2 = elevation adjusted by adding (.75 x product thickness) to measured water elevation



Chain of Custody Record
Project Name ARCO # 3012 - GWS
BP BU/GEM CO Portfolio: _____

Date: 4-15-02
Requested Due Date (mm/dd/yy) Standard Turnaround

On-site Time: 0730 **Temp:** 60 / 1
Off-site Time: 1320 **Temp:** 60 / 1
Sky Conditions: Nothing light rain / Afternoon light showers
Meteorological Events: _____
Wind Speed: 19 kt **Direction:** Variable

Send To: #
Lab Name: Del Mar Analytical
Lab Address: _____

BP/GEM Facility No.: 3012
BP/GEM Facility Address: 2769 Ynez Road, Temecula, CA
Site ID No. ARCO STATION # 3012
Site Lat/Long: _____
California Global ID #: T0606501111
BP/GEM PM Contact: Roy Thun
Address: 4 Centerpointe Dr.
 19 Palmdale, CA 90623
Tele/Fax: (661)-287-3855

Lab PM: ~~Carole Farr~~ ~~Jeannie Shaulder~~
Tele/Fax: (909)-370-4667
Report Type & QC Level: _____
BP/GEM Account No.: _____
Lab Bottle Order No.: _____

Item No.	Sample Description	Time	Matrix				Laboratory No.	No. of containers	Preservatives				Date	Time	Accepted By / Affiliation	Date	Time	Sample Point Lat/Long and Comments
			Soil/Solid	Water/Liquid	Sediments	Air			Unpreserved	H ₂ SO ₄	HNO ₃	HCl						
1	MW-12	1022		X			3					X	TPH * 8015					
2	MW-13	1155		X								X	BTEX + 5 fund. Fuel On 45 * 8260					
3	MW-14	1209		X														
4	MW-16	1218		X														
5	MW-17	6845		X														
6	MW-18	0900		X														
7	MW-19	0920		X														
8	MW-20	0914		X														
9	MW-21	1000		X														
10	MW-22	1039		X														

Sampler's Name: Eric Hicks
Relinquished By / Affiliation: Eric Hicks / SAMPLER
Sampler's Company: Secor International
Shipment Date: 4-15-02
Shipment Method: courier
Shipment Tracking No.: _____
Special Instructions: please Fax Results

Custody Seals In Place Yes **No** **Temperature Blank Yes** **No** **Cooler Temperature on Receipt** **°C** **F** **Trip Blank Yes** **No**



Chain of Custody Record
Project Name Arco # 3012-GWS
BP BU/GEM CO Portfolio: _____
BP Laboratory Contract Number: _____
Requested Due Date (mm/dd/yy) Standard Turnaround

On-site Time: 0730 **Temp:** 60.1
Off-site Time: 1320 **Temp:** 60.1
Sky Conditions: morning rain showers
Meteorological Events: _____
Wind Speed: light **Direction:** variable

Date: 4-15-02

Send To: Del Mar Analytical
Lab Name: Del Mar Analytical
Lab Address: _____
Site ID No. ARCO STATION # 3012
Site Lat/Long: _____
California Global ID #: TO606501111
BP/GEM PM Contact: Roy Thun
Address: 4 Centerpointe Dr,
La Brea, CA 90623
Tele/Fax: (661)-287-3855

BP/GEM Facility No.: 3012
BP/GEM Facility Address: 27641 Puez Road, Temecula, CA.
Requested Analysis: _____
Consultant/Contractor: Secor International
Address: 2655 Camino Del Rio N #302
San Diego, CA 92108
e-mail EDD: _____
Consultant/Contractor Project No.: DBBP60K100.0062
Consultant/Contractor Tele/Fax: (619) 296-6195 / (619) 296-6195
Consultant/Contractor PM: Carole Farr
Invoice to: Consultant/Contractor or BP/GEM (Circle one)
BP/GEM Work Release No.: _____

Item No.	Sample Description	Time	Matrix				Laboratory No.	No. of containers	Preservatives					Requested Analysis				Sample Point Lat/Long and Comments
			Soil/Solid	Water/Liquid	Sediments	Air			Unpreserved	H ₂ SO ₄	HNO ₃	HCl	BTEX 8021	BTEX/TPH	EPA 8260	EPA 8270		
1	MW-23	1144		X			3											
2	MW-24	1012		X														
3	MW-25	0928		X														
4	MW-27	1115		X														
5	MW-28	1047		X														
6	MW-29	1058		X														
7	RW-1	1029		X														
8	RW-2	1108		X														
9	RW-3	1129		X														
10	RW-4	1136		X														

Relinquished By / Affiliation: Eric Hicks
Relinquished Date: 4/15/02
Accepted By / Affiliation: Carole Farr
Accepted Date: 4/15/02
Sampler's Name: Eric Hicks / SAMPLER
Sampler's Company: Secor International
Shipment Date: 4-15-02
Shipment Method: Quarter
Shipment Tracking No.: _____
Special Instructions: PLEASE FAX RESULTS

Custody Seals In Place Yes **No** **Temperature Blank Yes** **No** **Cooler Temperature on Receipt** **No** **Trip Blank Yes** **No**



Project Name
BP/BP/GEM CO Portfolio:

Chain of Custody Record
ARCO # 3012 - GWS

Date: 4-15-02

BP Laboratory Contract Number:

Requested Due Date (mm/dd/yy) Standard Turnaround

On-site Time: 0730 Temp: 60
Off-site Time: 1330 Temp: 60
Sky Conditions: very light rain / Afternoon light showers
Meteorological Events: MDT A1149
Wind Speed: Light Direction: Variable

Send To:

Lab Name: Del Mar Analytical
Lab Address:

BP/GEM Facility No.: 3012
BP/GEM Facility Address: 27691 Puez Road, Temecula, CA
Site ID No. ARCO STATION # 3012
Site Lat/Long:

Consultant/Contractor: Secor International
Address: 2655 Camino Del Rio N. #302
San Diego, CA
e-mail EDD:

Lab PM: Jeanne Shaulder
Tele/Fax: (909)-370-4667

California Global ID #: 7060650111
BP/GEM PM Contact: Roy Thun
Address: 4 Centerpointe Dr,
La Palma, CA 90623
Tele/Fax: (661)-1-287-3855

Consultant/Contractor Project No.: DRBP 60161.00.0062
Consultant/Contractor Tele/Fax: (619) 296-685 / (661) 296-619
Consultant/Contractor PM: Carole Farr
Invoice to: Consultant/Contractor or BP/GEM (Circle one)
BP/GEM Work Release No.:

Lab Bottle Order No.:

Matrix

Requested Analysis

Sample Point Lat/Long and Comments

Item No.	Sample Description	Time	Matrix				Laboratory No.	No. of containers	Preservatives					Requested Analysis	Sample Point Lat/Long and Comments			
			Soil/Solid	Water/Liquid	Sediments	Air			Unpreserved	H ₂ SO ₄	HNO ₃	HCl	Other					
1	P-1 Trip Blank	1120		X			3											
2	Trip Blank	NA					1											
3	Trip Blank	NA					1											
4																		
5																		
6																		
7																		
8																		
9																		
10																		

Sampler's Name: Eric Hicks

Relinquished By / Affiliation

Date

Accepted By / Affiliation

Date

Sampler's Company: Secor International

Eric Hicks / SAMPLER

4/14/02

Eric Hicks

4/15/02

Shipment Date: 4-15-02

Eric Hicks / SAMPLER

4/15/02

Eric Hicks

4/15/02

Shipment Method: Carrier

Eric Hicks / SAMPLER

4/15/02

Eric Hicks

4/15/02

Shipment Tracking No.:

Eric Hicks / SAMPLER

4/15/02

Eric Hicks

4/15/02

Special Instructions: Please Fax Results

Custody Seals In Place Yes No

Temperature Blank Yes No

Cooler Temperature on Receipt

Trip Blank Yes No