DATA SUMMARY FOR ADDITIONAL SITE CHARACTERIZATION ACTIVITIES AT THE WEST 45TH STREET WORKS SITE OPERABLE UNIT NO. 2 (Site No. V00532-2) New York, New York

PREPARED BY:

PARSONS
Liverpool, New York 13088

MAY 2006

Consolidated Edison Company of New York
West 45th Street Works Site – Operable Unit 2
New York, New York

Additional Site Characterization Results

Results for additional Site Characterization activities conducted at Operable Unit-2 (OU-2) of the former West 45th Street Gas Works Site are provided below. The additional investigation activities were conducted in accordance with the protocols and procedures set forth in the New York State Department of Environmental Conservation (NYSDEC)-approved Site Characterization Work Plan (AKRF and Parsons, 2003) and letter work plan dated June 30, 2005. The additional activities are briefly described below with results summarized in the attachments that follow.

Tidal Study

A tidal study was conducted to evaluate the effects that tidal fluctuations in the Hudson River have on groundwater elevations and flow directions. Mini-Trolls™, a combination transducer and data logger, were installed in monitoring wells MW-7, MW-8, and MW-9 at OU-1 and monitoring wells MW-2, MW-3 and MW-5 at OU-2 (Figure 1) to obtain continuous groundwater levels over an approximately 72-hour period. Water level data were collected from these six monitoring wells at 10-minute intervals. The logger data are summarized in Table 1. Average groundwater elevation data were utilized to develop a groundwater contour map (Figure 2), which illustrates the general groundwater flow directions at the Site. It is likely that utility corridors and surface drainage systems on and around the Site are influencing the flow directions. Based on the logger data, it appears that the central area of each city block is acting as a recharge area and areas adjacent to the roads are acting as sinks, as is common for urban areas.

The water level changes in the monitoring wells were plotted and compared with high and low tide readings obtained from a gauge located at the Battery and with barometric readings from La Guardia airport (see Figure 3). Based on those readings, the water levels at the site are not affected by tides in the Hudson River. However, the water level changes for all but MW-8 appear to change in response to barometric pressure changes. Water levels in MW-8 did not appear to change in response to either the tides or barometric pressure. Actual water level differences were on the order of 0.01 to 0.02 of a foot. Therefore, for practical purposes, the barometric response can be ignored

Non-aqueous phase liquids (NAPL) were observed in monitoring wells MW-4 and MW-6. Therefore, pressure transducers were not installed in these monitoring wells as proposed in the letter work plan submitted on June 30, 2005.

NAPL Removal/Monitoring

As noted above, NAPL was observed in monitoring wells MW-4 and MW-6 at OU-2 prior to implementation of the tidal study. Upon notification, the NYSDEC requested that the NAPL be removed from these monitoring wells and periodically gauged to monitor potential NAPL recovery.

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Additional Site Characterization Results

NAPL was removed from monitoring wells MW-4 and MW-6 on March 21, 2006. Depth to NAPL readings were recorded on March 30 and April 27, 2006 and are provide in Table 2.

Soil Gas Sampling

Soil gas samples were collected from three locations along the northern and eastern boundaries of OU-2. The sampling locations, SG-1 through SG-3, are shown on Figure 1. Soil gas samples were collected in accordance with the New York State Department of Health (NYSDOH) Draft Guidance for Evaluating Soil Vapor Intrusion (NYSDOH, 2005). Two soil gas samples were collected from each location. Prior to soil gas sampling, groundwater levels were obtained from all accessible monitoring wells at the site to determine the approximate depth to groundwater at each soil gas sampling location. Groundwater appeared to be 5 feet below ground surface (bgs) in the vicinity of each sampling location. Therefore, soil gas samples were collected from depths of approximately 1 foot and 4 feet bgs (approximately 1 foot above the groundwater table) in accordance with the June 30, 2005 letter work plan.

All soil gas samples were submitted for laboratory analysis of volatile organic compounds (VOCs) using modified EPA Method TO-15. Table 3 includes the soil gas analytical results.

Table 1
Groundwater Elevation Summary
West 45th Street Operable Unit 2

Monitoring Well Number	Highest Groundwater Elevation	Lowest Groundwater Elevation	Average Groundwater Elevation	Range of Groundwater Elevations (ft)
MW-2	0.57	0.32	0.39	0.25
MW-3	6.88	6.2	6.37	0.68
MW-5	8.59	8.28	8.44	0.31
MW-7	2.21	1.83	1.94	0.38
MW-8	9.33	9.11	9.32	0.22
MW-9	5.41	4.71	4.76	0.7

Note:
Elevations are based on the North American Vertical Datum of 1988.

Table 2
NAPL Monitoring Results
West 45th Street Operable Unit 2

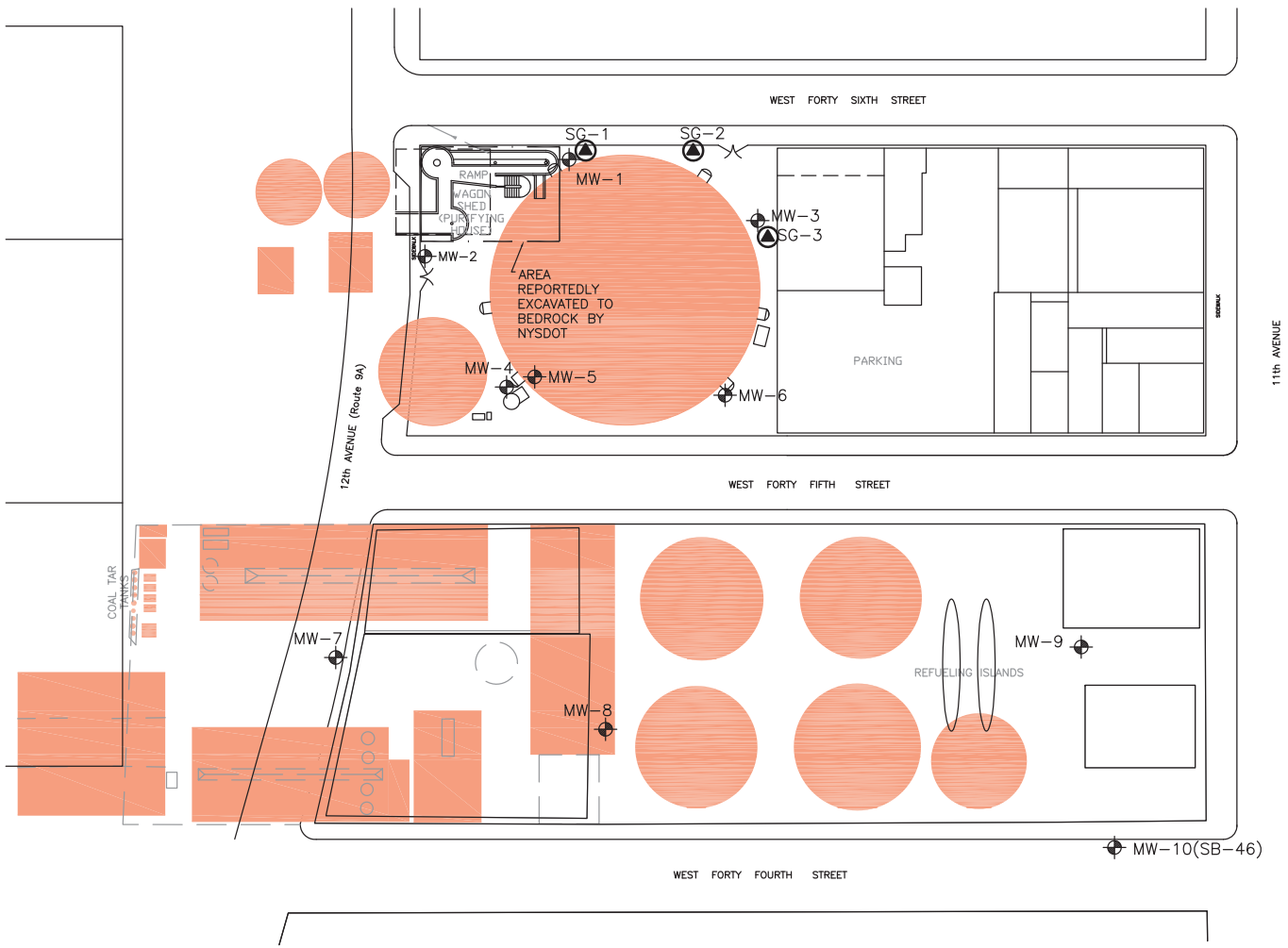
Date	Monitoring Well Number	Depth to Water (ft)	Depth to Bottom (ft)	Depth to NAPL (ft)	NAPL Thickness (ft)
3/13/2006	MW-4	2.42	16	12.6	3.4
3/13/2006	MW-6	3.62	15	12.75	2.25
3/30/2006	MW-4	3.14	16	14.5	1.5
3/30/2006	MW-6	4.45	15	12.45	2.55
4/27/2006	MW-4	2.8	16	14.8	1.2
4/27/2006	MW-6	3.95	15	12.6	2.4

Notes:
1) NAPL was removed from monitoring wells MW-4 and MW-6 on 3/21/2006.

Table 3
Validated Soil Gas Analytical Data
Detected Compound Summary
West 45th Street Opereable Unit 2

Consolidated Edison W 45th Street Operable Unit 2 Validated Soil Gas Analytical Data Detected Compound Summary		Sample ID: Lab Sample Id Depth: Source: SDG: Matrix: Sampled: Validated:	OU-2 SG-1 (1FT) 0603388-05A 1' Air Toxics 603388 Air 3/14/2006 4/28/2006	OU-2 SG-1 (4FT) 0603388-06A 4' Air Toxics 603388 Air 3/14/2006 4/28/2006	OU-2 SG-2 (1FT) 0603388-03A 1' Air Toxics 603388 Air 3/14/2006 4/28/2006	OU-2 SG-2 (4FT) 0603388-04A 4' Air Toxics 603388 Air 3/14/2006 4/28/2006	OU-2 SG-3 (1FT) 0603388-01A 1' Air Toxics 603388 Air 3/14/2006 4/28/2006	OU-2 SG-3 (4FT) 0603388-02A 4' Air Toxics 603388 Air 3/14/2006 4/28/2006
CAS NO.	COMPOUND	UNITS:						
	VOLATILES							
75-71-8	Freon 12	ug/m^3	ND	ND	4.1	3.3	3	3.4
74-87-3	Chloromethane	ug/m^3	ND	ND	ND	ND	1.5	1.6
106-99-0	1,3-Butadiene	ug/m^3	ND	ND	ND	ND	ND	2.7
75-69-4	Freon 11	ug/m^3	ND	ND	5.3	4.4	1.6	2.2
64-17-5	Ethanol	ug/m^3	140	ND	51	19	8.8	16
67-64-1	Acetone	ug/m^3	1200	ND	940 J	150	29	290 J
67-63-0	2-Propanol	ug/m^3	ND	ND	7.5	ND	ND	3.3
75-15-0	Carbon disulfide	ug/m^3	71	ND	27	40	ND	190
110-54-3	Hexane	ug/m^3	160	1500	ND	ND	ND	37
78-93-3	Methyl Ethyl Ketone	ug/m^3	ND	ND	44	6.9	ND	28
67-66-3	Chloroform	ug/m^3	ND	ND	4.4	13	ND	5.4
110-82-7	Cyclohexane	ug/m^3	100	ND	ND	ND	ND	7.4
71-43-2	Benzene	ug/m^3	910	18000	53	7.3	2.8	59
142-82-5	Heptane	ug/m^3	120	1700	11	6.1	ND	23
79-01-6	Trichloroethene	ug/m^3	ND	ND	ND	ND	1.7	ND
108-88-3	Toluene	ug/m^3	3300	62000	51	46	16	150
127-18-4	Tetrachloroethene	ug/m^3	28	ND	44	62	1.5	40
100-41-4	Ethylbenzene	ug/m^3	740	20000	17	20	1	27
1330-20-7	Xylene (m,p)	ug/m^3	420	10000	68	61	3.8	76
95-47-6	Xylene (o)	ug/m^3	110	3000	35	34	1.5	35
100-42-5	Styrene	ug/m^3	ND	ND	ND	ND	ND	3.4
103-65-1	Propylbenzene	ug/m^3	ND	ND	14	10	ND	10
622-96-8	4-Ethyltoluene	ug/m^3	ND	ND	83	56	ND	51
108-67-8	1,3,5-Trimethylbenzene	ug/m^3	21	ND	37	24	0.92	21
95-63-6	1,2,4-Trimethylbenzene	ug/m^3	62	ND	120	83	3.1	73
541-73-1	1,3-Dichlorobenzene	ug/m^3	ND	ND	2.8	ND	ND	ND
565-59-3	2,3-Dimethylpentane	ug/m^3	ND	ND	ND	ND	ND	13
107-83-5	2-Methylpentane	ug/m^3	98	ND	ND	ND	ND	17
496-11-7	Indan	ug/m^3	ND J	ND J	14 J	10 J	ND J	10 J
78-78-4	Isopentane	ug/m^3	350 J	1000 J	140 J	26 J	8.4 J	43 J
91-20-3	Naphthalene	ug/m^3	ND J	ND J	34 J	26 J	ND J	21 J
540-84-1	2,2,4-Trimethylpentane	ug/m^3	1200	ND	440	300	290 J	1100 J

Notes:
(1) ND indicates compound was not detected
(2) J indicates an estimated concentration



LEGEND:

SG-1 OU-2 SOIL GAS SAMPLING LOCATION

MW-1 MONITORING WELL LOCATION

CURRENT FEATURES

HISTORICAL FEATURES

NOTE:

ALL LOCATIONS ARE APPROXIMATE.

80 40 0 80 160

SCALE: 1"=80'

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FIGURE 1

CONSOLIDATED EDISON OF NEW YORK
WEST 45th STREET
NEW YORK, NEW YORK

MONITORING WELL & SOIL GAS SAMPLING LOCATIONS

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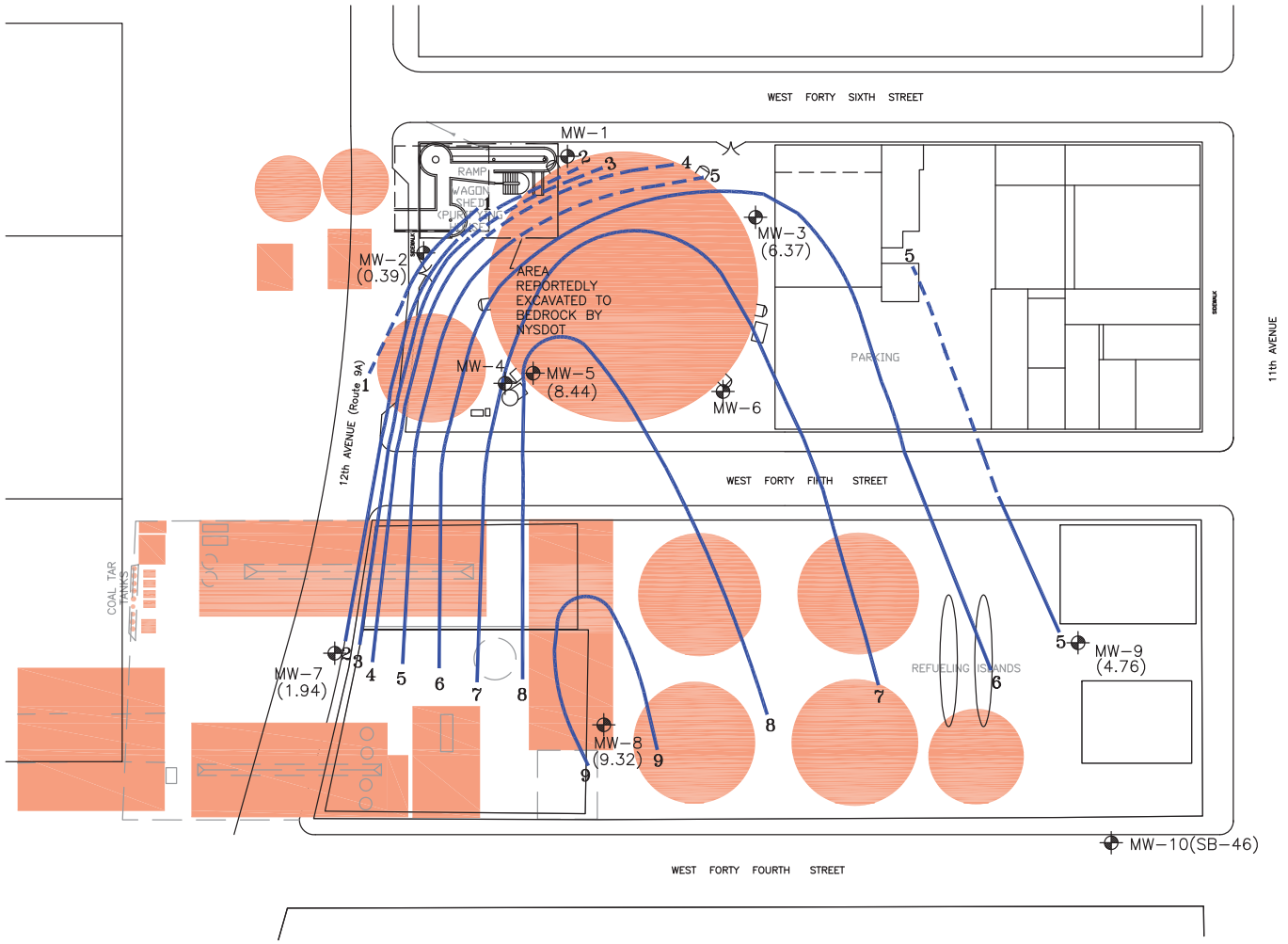
290 ELWOOD DAVIS ROAD, SUITE 312, LIVERPOOL, N.Y. 13088, PHONE: 315-451-9560



LEGEND:

- MW-1 — MONITORING WELL LOCATION
- CURRENT FEATURES
- HISTORICAL FEATURES
- 7 — 7 — GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED)
- (0.39) — AVERAGE GROUNDWATER ELEVATION IN FEET BASED ON MINI-TROLL™ DATA. (NAVD 88) (3/13/06 THRU 3/17/06)

NOTE:

ALL LOCATIONS ARE APPROXIMATE.

80 40 0 80 160

SCALE: 1"=80'

No XREFs
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FIGURE 2

CONSOLIDATED EDISON OF NEW YORK
WEST 45th STREET
NEW YORK, NEW YORK

GROUNDWATER CONTOUR MAP

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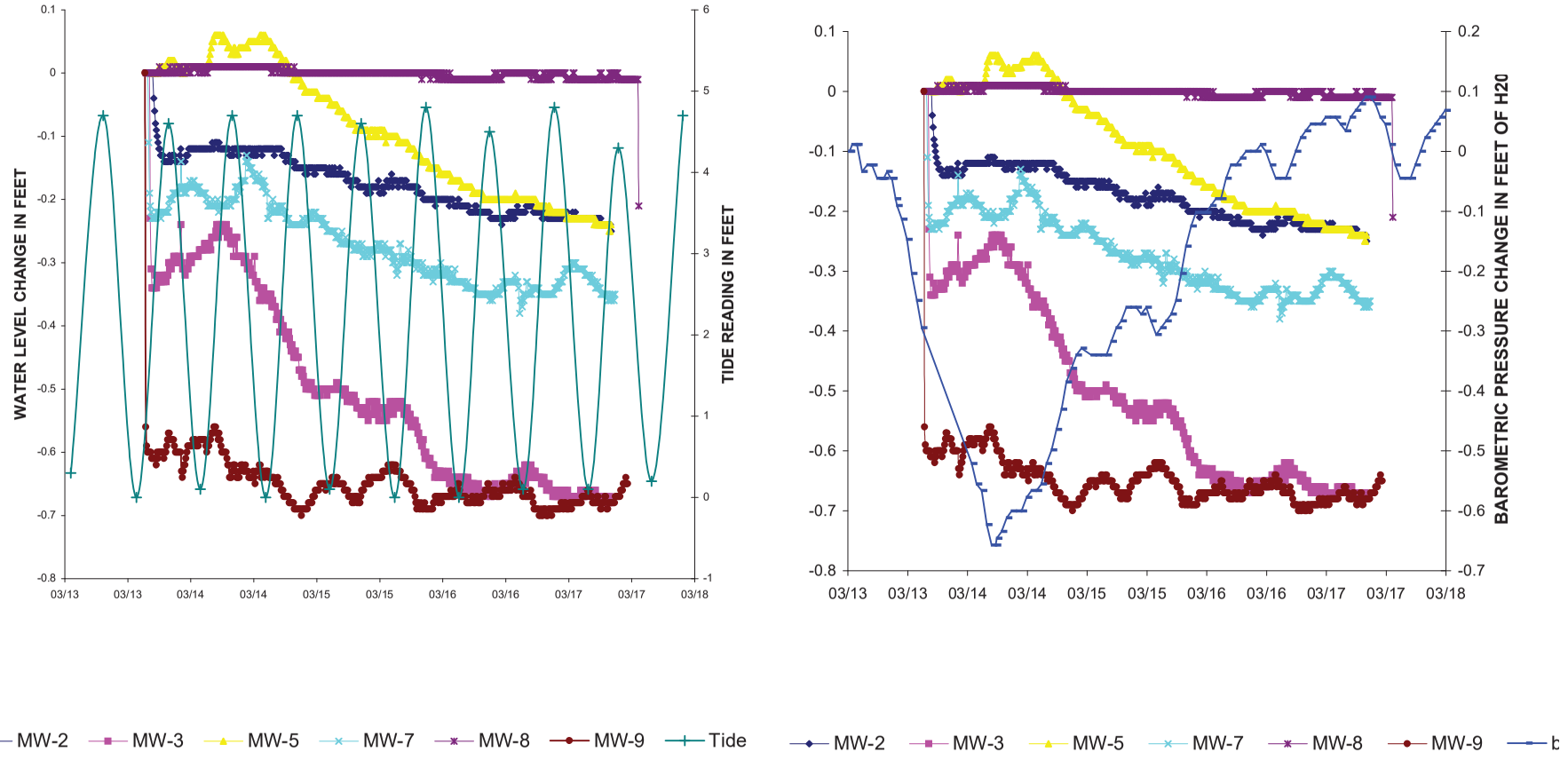

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FIGURE 3
COMPARISON OF TIDES AND BAROMETRIC PRESSURE WITH WATER-LEVEL CHANGES