BLUE ROCK
ENVIRONMENTAL, INC.

FILE COPY

Mr. Bob Stone
Environmental Health Specialist
Humboldt County Division of Environmental Health
100 H Street, Suite 100
Eureka, CA, 95501

May 6, 2005

Re: **Second Quarter 2005 Groundwater Monitoring Report**
Indianola Market
7769 Myrtle Avenue
Eureka, CA
Project No. NC-18
LOP # 12690

Dear Mr. Stone,

This report presents the results of the second quarter 2005 groundwater monitoring activities at 7769 Myrtle, Eureka, Humboldt County, California (site) (Figure 1), and was prepared for Mr. And Mrs. Cecil Alto by Blue Rock Environmental, Inc. (Blue Rock).

Background

Site Description
The subject site is located near the northern boundary of the City of Eureka in Humboldt County approximately 800 feet north of the intersection of Indianola Cutoff and Myrtle Avenue in a combined commercial/ residential area of Eureka at approximately 25 feet above mean sea level (Figure 1). The site is located in the southern portion of a 5-acre parcel of land containing two residences, the Indianola Market, and The Alto Brothers Trucking equipment maintenance/ storage yard and office.

Site History
The Indianola Market contained two 550-gallon capacity gasoline underground storage tanks (UST) and one 550-gallon capacity diesel UST (Figure 2). The UST system, consisting of one 550-gallon gasoline and one 550-gallon diesel UST was constructed in 1953. At some time during the 1960's, the diesel UST was abandoned in-place and an additional 550-gallon gasoline UST was installed. The UST system was operated until September 1998, when the three USTs were closed by removal. The UST system was replaced by a single 1,000-gallon capacity aboveground gasoline storage tank, which is currently located on a concrete pad directly above the former UST excavation.

In September 1998, Christens NCI, Inc. (NCI), of Eureka, California, decommissioned and removed three USTs from the site along with associated piping, dispensers, and the dispenser island. This work was observed by the HCDEH and at the direction of the HCDEH inspector, approximately 50 to 75 cubic yards of obviously impacted soil was excavated and stockpiled at

the site pending disposal. During UST removal activities, petroleum hydrocarbon stained soils were observed and groundwater entering the excavation exhibited a sheen accompanied by hydrocarbon odors. This confirmed that an unauthorized release of petroleum had occurred. On September 29, 1998, an unauthorized release report was filed by Mr. Jerry Avila, operator of the UST system at that time. After completion of UST removal and soil excavation operations, NCI personnel collected confirmation soil and groundwater samples from the excavation at locations specified by the HCDEH. Results of soil and groundwater sampling confirmed that an unauthorized release of petroleum had occurred.

Site Investigation and Corrective Action History

On October 1, 2001, Clearwater Group (Clearwater) supervised Fisch Environmental of Valley Springs, California drill five direct push borings to preliminarily investigate the onsite extent of soil and groundwater contamination resulting from the confirmed release from the former UST system. Results for this investigation and the locations of the proposed monitoring wells were presented in Clearwater's *Preliminary Subsurface Investigation Report* dated October 22, 2001. In a letter dated October 26, 2001, the HCDEH concurred with Clearwater recommendations for monitoring well locations.

On November 7, 2001, Clearwater supervised Mitchell Drilling Environmental (MDE) in installing three monitoring wells: MW-1, MW-2 and MW-3 (Figure 2). These monitoring wells were placed in locations to assess the sorbed and dissolved-phase hydrocarbon contamination associated with the UST release. Results of this investigation are presented in Clearwater's *Monitoring Well Installation and Fourth Quarter 2001 Groundwater Monitoring Report* dated December 13, 2001.

On October 10, 2002, Clearwater supervised MDE in drilling two monitoring wells: MW-4 and MW-5 (Figure 2). These monitoring wells were placed in locations to further assess the residual sorbed and dissolved-phase gasoline and diesel range hydrocarbon contamination associated with the UST release. Data collected during this phase of investigation are presented in Clearwater's *Monitoring Well Installation and Fourth Quarter 2002 Groundwater Monitoring Report / Sensitive Receptor Survey* dated November 18, 2002.

On June 10, 2003, Clearwater supervised MDE in installing four soil borings: B-6 to B-9 (Figure 2). These borings were placed in locations to further assess the residual sorbed and dissolved-phase gasoline and diesel range hydrocarbon contamination associated with the UST release. Data collected during this phase of investigation are presented in Clearwater's *Additional Investigation Report* dated July 8, 2003.

Per HCDEH request in a letter dated July 11, 2003, Clearwater prepared and submitted a *Corrective Action Plan* (CAP) dated February 18, 2004. The HCDEH responded to the CAP submitted by Clearwater in a letter dated April 23, 2004 requesting corrections to the existing CAP and a response to questions contained in that letter. In May 2004, Blue Rock was retained

by Mr. and Mrs. Alto to continue site work. Blue Rock subsequently submitted a brief letter report dated June 15, 2004 in response to HCDEH requests.

Field and Laboratory Activities

Groundwater Monitoring Activities

On April 18, 2005, five wells (MW-1 through MW-5) were gauged and sampled. Prior to sampling, an electronic water level indicator was used to gauge depth to water in each well, accurate to within ±0.01-foot. All wells were checked for the presence of light non-aqueous phase liquid (LNAPL) petroleum prior to purging. No measurable thicknesses of LNAPL were observed on groundwater in any of the wells.

In preparation for sampling, the wells were purged of groundwater until sampling parameters (temperature, pH, and conductivity) stabilized. Following recovery of water levels to at least 80% of their static levels in the other wells, groundwater samples were collected from the wells using disposable polyethylene bailers and transferred to laboratory supplied containers. Sample containers were labeled, documented on a chain-of-custody form, and placed on ice in a cooler for transport to the project laboratory.

Purging instruments were cleaned between use by an Alconox® wash followed by double rinse in clean tap water to prevent cross-contamination. Purge and rinseate water was stored on-site in labeled 55-gallon drums pending future removal and disposal.

Groundwater monitoring and well purging information is presented on Gauge Data/Purge Calculations and Purge Data sheets (attached).

Groundwater Sample Analyses

Groundwater samples were analyzed by Kiff Analytical (Kiff), a DHS-certified laboratory, located in Davis, California, for the following analytes:

- TPHd by EPA Method 8015 (MW-2 & MW-5)
- TPHg, BTEX and MTBE by EPA Method 8260B

Groundwater Monitoring Results

Groundwater Flow Direction and Gradient

Static groundwater in the wells was present beneath the site at depths ranging from approximately 1.48 (MW-3) to 2.40 (MW-1) feet bgs. Gauging data, combined with well elevation data, were used to calculate groundwater elevation, and to generate a groundwater elevation and gradient map. The groundwater flow direction was primarily calculated to be toward the southwest at a gradient of approximately 0.026 ft/ft (Figure 3). The groundwater gradient and flow direction is consistent with previous measurements.

Groundwater Contaminant Analytical Results

LNAPL:	None
TPHg concentration:	<50 micrograms per liter (μg/L) (MW-1, 3,4 & 5) to 620 μg/L (MW-2)
TPHd concentration:	<50 μg/L (MW-5) to < 500 μg/L (MW-2)
MTBE concentration:	<0.5 μg/L (MW-4) to 510 μg/L (MW-2)
Benzene concentration:	<0.5 μg/L (MW-1, 3, 4, & 5) to <1.0 μg/L (MW-2)

Groundwater sample analytical results are shown graphically on Figures 4 and 5. Cumulative groundwater sample analytical results are summarized in Table 1. Copies of the laboratory report and chain-of-custody form are attached.

Remarks

Groundwater sample analytical results fall within historical concentration range for the site. Silica gel cleanup was inadvertently not used for the TPHd analysis for groundwater samples collected from MW-2 and MW-5. The plume of dissolved-phase hydrocarbons appears stable with no significant migration.

First Order Decay Rates First Quarter 2005

This report contains first order decay rate graphs (Charts 1 to 3) which show that concentrations of dissolved-phase MTBE in MW-2 and MW-5 are declining at rates of 0.0009 and 0.0015 per day respectively. Based on current analytical data, concentrations of TPHg in MW-2 over the last four quarters appear to be stable and/or decreasing.

Depth to Water vs. Concentrations of TPHg and MTBE in MW-2

Charts 4 and 5 show concentrations of TPHg and MTBE vs. depth to groundwater over the duration of the groundwater monitoring program. Based on the data presented in these graphs, a small correlation exists between groundwater elevations and concentrations of target analytes in MW-2. It appears the majority of partitioning of sorbed-phase hydrocarbons into dissolved-phase has occurred during periods of high groundwater.

Dissolved-Phase Mass Calculations Fourth Quarter 2003 to Second Quarter 2005

Calculations of residual dissolved-phase masses for MTBE and show declining trends. Based on the data presented (Charts 6 and 7), the dissolved-phase mass of residual fuel hydrocarbons associated with the subject release is stable and/or decreasing. Mass calculations for individual quarters and associated graphs are attached.

Project Status and Recommendations

- The site is currently being monitored on a quarterly basis per the HCDEH directives. The next quarterly sampling event is scheduled for July 2005. Per the HCDEH letter dated July 26, 2004 the current analytical suite is as follows: TPHg, BTEX and MTBE by EPA Method 8260B (all wells) and TPHd by EPA Method 8015M with silica gel cleanup (MW-2 & MW-5).
- The excavation activities proposed in the *Corrective Action Plan* dated February 18, 2004 prepared by Clearwater Group and the *Response to the HCDEH letter dated April 23, 2004 and Documentation of the June 7, 2004 Meeting with the HCDEH* dated June 15, 2004 have been postponed due to the location of a PG&E gas line which runs directly through the center of the proposed excavation. Blue Rock has filed a claim with PG&E so that the gas line in question can be moved out of the excavation area prior to excavation activities occurring. PG&E representatives have stated that this gas line relocation will likely occur in spring or summer 2005.
- Groundwater analytical data collected from MW-2 and MW-5 over the last four quarters indicate that concentrations of dissolved-phase TPHg and MTBE at these monitoring points are decreasing and/or stable. Because of these observed declines in concentrations of target analytes, continued groundwater monitoring may indicate that a more cost effective, less invasive remedial alternative may be more appropriate. Blue Rock will continue to update the HCDEH regarding when the excavation will occur.

Certification

This report was prepared under the supervision of a California Professional Geologist at Blue Rock. All statements, conclusions, and recommendations are based upon published results from past consultants, field observations by Blue Rock, and analyses performed by a state-certified laboratory as they relate to the time, location, and depth of points sampled by Blue Rock or others. Interpretation of data, including spatial distribution and temporal trends, are based on commonly used geologic and scientific principles. It is possible that interpretations, conclusions, and recommendations presented in this report may change, as additional data become available and/or regulations change.

Information and interpretation presented herein are for the sole use of the client and regulating agency. The information and interpretation contained in this document should not be relied upon by a third party.

The service performed by Blue Rock has been conducted in a manner consistent with the level of care and skill ordinarily exercised by members of our profession currently practicing under similar conditions in the area of the site. No other warranty, expressed or implied, is made.

If you have any questions regarding this project, please contact us at (707) 441-1934.

Sincerely,
Blue Rock Environmental, Inc.

Prepared by:

Andrew LoCicero
Project Scientist

Reviewed by:

Brian Gwinn, PG
Principal Geologist

PROFESSIONAL GEOLOGIST
BRIAN M. GWINN
No 6505
exp 4/30/07
STATE OF CALIFORNIA

Attachments

Table 1	Groundwater Elevations and Analytical Results
Table 2	Well Construction Details
Figure 1	Site Location Map
Figure 2	Site Plan
Figure 3	Groundwater Elevation and Gradient 4/18/05
Figure 4	Dissolved-Phase TPHg Distribution 4/18/05
Figure 5	Dissolved-phase MTBE Distribution 4/18/05
Chart 1	Concentrations of Dissolved-Phase MTBE vs. Time in MW-2
Chart 2	Concentrations of Dissolved-Phase TPHg vs. Time in MW-2
Chart 3	Concentrations of Dissolved-Phase MTBE vs. Time in MW-5
Chart 4	Depth to Water Vs. TPHg Concentrations for MW-2
Chart 5	Depth to Water Vs. TPHg Concentrations for MW-5
Chart 6	Dissolved-Phase MTBE Mass vs. Time
Chart 7	Dissolved-Phase TPHg Mass vs. Time

Dissolved-Phase Mass Calculations - Fourth Quarter 2003 to Second Quarter 2005
Blue Rock Gauge/Purge Calculations and Well Purging Data field sheets
Laboratory Analytical Report and Chain-of-Custody Form

CC: Beverly Alto
7803 Myrtle Avenue
Eureka, CA 95503

Jerry Avila
7769 Myrtle Avenue
Eureka, CA 95503

Table 1
GROUNDWATER ELEVATIONS AND ANALYTICAL RESULTS
Indianola Market
7769 Myrtle Avenue
Eureka, California
Project No. NC-18

Well No.	Sampling Date	TOC (feet)	DTW (feet)	GWE (feet)	TPHg (µg/L)	TPHd (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	DIPE (µg/L)	TAME (µg/L)	ETBE (µg/L)	TBA (µg/L)	Ethanol (µg/L)	Methanol (µg/L)
MW-1	11/20/01	99.99	5.15	94.84	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<50
	2/2/02	99.99	2.58	97.41	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<50
	5/2/02	99.99	2.67	97.32	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<50
	8/2/02	99.99	5.07	94.92	<50	<50	<0.5	<0.5	<0.5	<0.5	**0.99**	<0.5	<0.5	<0.5	<5	--	--
	(10/15/2002)	32.22	6.77	25.45	<50	<50	<0.5	<0.5	<0.5	<0.5	**0.57**	<0.5	<0.5	<0.5	<5	--	--
	1/13/03	32.22	2.03	30.19	<50	<50	<0.5	<0.5	<0.5	<0.5	**0.51**	<0.5	<0.5	<0.5	<5	--	--
	4/1/03	32.22	1.33	30.89	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	--	--
	7/10/03	32.22	4.33	27.89	<50	**66**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	--	--
	10/2/03	32.22	7.07	25.15	<50	**110**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	--	--
	1/5/04	32.22	3.38	28.84	<50	**58**	<0.5	<0.5	<0.5	<0.5	**2.9**	<0.5	<0.5	<0.5	<5	--	--
	4/6/04	32.22	2.85	29.37	<50	**81**	<0.5	<0.5	<0.5	<0.5	**3.2**	<0.5	<0.5	<0.5	<5	--	--
	7/1/04	32.22	4.92	27.30	<50	<50	<0.5	<0.5	<0.5	<0.5	**3.6**	<0.5	<0.5	<0.5	<5	--	--
	10/1/04	32.22	7.04	25.18	<50	--	<0.5	<0.5	<0.5	<0.5	**1.5**	--	--	--	--	--	--
	1/4/05	32.22	2.05	30.17	<50	--	<0.5	<0.5	<0.5	<0.5	**1.6**	--	--	--	--	--	--
	4/18/05	32.22	2.40	29.82	<50	--	<0.5	<0.5	<0.5	<0.5	**1.1**	--	--	--	--	--	--
MW-2	11/20/01	99.15	4.92	94.23	**300**	<200	<2	<2	<2	<2	**1,100**	<2	**5.3**	**4**	**35**	<20	<200
	2/2/02	99.15	2.31	96.84	**1,400**	<500	<5	<5	<5	<5	**1,900**	<5	**5.5**	**5.4**	**63**	<50	<500
	5/2/02	99.15	2.47	96.68	**1,000**	<350	**3.1**	<2.5	<2.5	<2.5	**1,200**	<2.5	**5.8**	**5.5**	**33**	--	--
	8/2/02	99.15	4.77	94.38	**650**	<400	<5	<5	<5	<5	**2,300**	<5	**12**	**6.1**	**71**	--	--
	(10/15/2002)	31.33	6.49	24.84	**73**	<100	<0.5	<0.5	<0.5	<0.5	**310**	<0.5	**1.9**	**0.84**	**7.7**	--	--
	1/13/03	31.33	1.97	29.36	**1,500**	<800	**2.6**	<0.2	<0.2	**3.2**	**1,300**	<0.2	**7.3**	**4.6**	**41**	--	--
	4/1/03	31.33	2.07	29.26	**1,000**	<1,100	<2	<2	<2	**2.8**	**940**	<2	**5.4**	**3.4**	**25 1**	--	--
	7/10/03	31.33	4.09	27.24	**1,100**	<600	<2	<2	<2	<2	**1,000**	<2	**5.8**	**4**	**25 1**	--	--
	10/2/03	31.33	6.80	24.53	**1,000**	<800	<2.5	<2.5	<2.5	<2.5	**1,100**	<2.5	**7.7**	**5**	**32 1**	--	--
	1/5/04	31.33	2.76	28.57	**1,300**	<1,000	<1.5	<1.5	<1.5	<1.5	**740**	<1.5	<1.5	**4**	**22**	--	--
	4/6/04	31.33	2.58	28.75	**280**	**120**	<0.5	<0.5	<0.5	<0.5	**120**	<0.5	**0.72**	**0.82**	<5	--	--
	7/1/04	31.33	4.56	26.77	**510**	**690**	<1.5	<1.5	<1.5	<1.5	**800**	<1.5	**7.10**	**2.4**	**27**	--	--
	10/1/04	31.33	6.71	24.62	<50	<50[2]	<0.5	<0.5	<0.5	<0.5	**130**	--	--	--	--	--	--
	1/4/05	31.33	1.85	29.48	**580**	<80[2]	<1.5	<1.5	<1.5	<1.5	**580**	--	--	--	--	--	--
	4/18/05	31.33	2.08	29.25	**620**	<500	<1.0	<1.0	<1.0	<1.0	**510**	--	--	--	--	--	--
MW-3	11/20/01	99.30	3.36	95.94	<50	<50	<0.5	<0.5	<0.5	<0.5	**100**	<0.5	**0.85**	<0.5	**8.1**	<5	<50
	2/2/02	99.30	1.56	97.74	<50	<50	<0.5	<0.5	<0.5	<0.5	**2.4**	<0.5	<0.5	<0.5	<5	<5	<50
	5/2/02	99.30	1.67	97.63	<50	<50	<0.5	<0.5	<0.5	<0.5	**6**	<0.5	<0.5	<0.5	<5	--	--
	8/2/02	99.30	3.37	95.93	<50	<50	<0.5	<0.5	<0.5	<0.5	**89**	<0.5	**0.65**	<0.5	**5.3**	--	--
	(10/15/2002)	31.47	5.06	26.41	<50	<50	<0.5	<0.5	<0.5	<0.5	**94**	<0.5	**0.79**	<0.5	<5	--	--
	1/13/03	31.47	1.44	30.03	<50	**56**	<0.5	<0.5	<0.5	<0.5	**340**	<0.5	**2.1**	<0.5	**27**	--	--
	4/1/03	31.47	1.37	30.10	**51**	<50	<0.5	<0.5	<0.5	<0.5	**280**	<0.5	**2**	<0.5	**18**	--	--
	7/10/03	31.47	2.80	28.67	<50	**89**	<0.5	<0.5	<0.5	<0.5	**89**	<0.5	**0.84**	<0.5	**6.4**	--	--

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MW-3	10/2/03	31.47	5.41	26.06	<50	**150**	<0.5	<0.5	<0.5	<0.5	**110**	<0.5	**0.71**	<0.5	<5	--	--
	1/5/04	31.47	2.46	29.01	<50	<50	<0.5	<0.5	<0.5	<0.5	**11**	<0.5	<0.5	<0.5	<5	--	--
	4/6/04	31.47	1.71	29.76	<50	<50	<0.5	<0.5	<0.5	<0.5	**0.73**	<0.5	<0.5	<0.5	<5	--	--
	7/1/04	31.47	3.16	28.31	<50	<50	<0.5	<0.5	<0.5	<0.5	**80**	<0.5	<0.5	<0.5	<5	--	--
	10/1/04	31.47	5.26	26.21	<50	--	<0.5	<0.5	<0.5	<0.5	**61**	--	--	--	--	--	--
	1/4/05	31.47	1.43	30.04	<50	--	<0.5	<0.5	<0.5	<0.5	**9**	--	--	--	--	--	--
	4/18/05	31.47	1.48	29.99	<50	--	<0.5	<0.5	<0.5	<0.5	**2.2**	--	--	--	--	--	--
MW-4	10/15/02	32.74	4.99	27.75	<50	<50	<0.5	<0.5	<0.5	<0.5	**4.1**	<0.5	<0.5	<0.5	<5	--	--
	1/13/03	32.74	1.41	31.33	<50	<50	<0.5	<0.5	<0.5	<0.5	**0.92**	<0.5	<0.5	<0.5	<5	--	--
	4/1/03	32.74	1.45	31.29	<50	<50	<0.5	<0.5	<0.5	<0.5	**0.70**	<0.5	<0.5	<0.5	<5	--	--
	7/10/03	32.74	2.82	29.92	<50	<50	<0.5	<0.5	<0.5	<0.5	**7.9**	<0.5	<0.5	<0.5	<5	--	--
	10/2/03	32.74	5.32	27.42	<50	**99**	<0.5	<0.5	<0.5	<0.5	**6.9**	<0.5	<0.5	<0.5	<5	--	--
	1/5/04	32.74	2.60	30.14	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	--	--
	4/6/04	32.74	1.88	30.86	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	--	--
	7/1/04	32.74	3.19	29.55	<50	<50	<0.5	<0.5	<0.5	<0.5	**17**	<0.5	<0.5	<0.5	<5	--	--
	10/1/04	32.74	5.16	27.58	<50	--	<0.5	<0.5	<0.5	<0.5	**6.3**	--	--	--	--	--	--
	1/4/05	32.74	1.52	31.22	<50	--	<0.5	<0.5	<0.5	<0.5	**0.68**	--	--	--	--	--	--
	4/18/05	32.74	1.66	31.08	<50	--	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--
MW-5	10/15/02	29.71	7.11	22.60	<50	<50	<0.5	<0.5	<0.5	<0.5	**32**	<0.5	<0.5	<0.5	<5	--	--
	1/13/03	29.71	0.66	29.05	<50	<50	<0.5	<0.5	<0.5	<0.5	**31**	<0.5	<0.5	<0.5	<5	--	--
	4/1/03	29.71	1.75	27.96	<50	<50	<0.5	<0.5	<0.5	<0.5	**35**	<0.5	<0.5	<0.5	<5	--	--
	7/10/03	29.71	4.60	25.11	<50	<50	<0.5	<0.5	<0.5	<0.5	**20**	<0.5	<0.5	<0.5	<5	--	--
	10/2/03	29.71	7.45	22.26	<50	<50	<0.5	<0.5	<0.5	<0.5	**9**	<0.5	<0.5	<0.5	<5	--	--
	1/5/04	29.71	2.31	27.40	<50	**85**	<0.5	<0.5	<0.5	<0.5	**29**	<0.5	<0.5	<0.5	<5	--	--
	4/6/04	29.71	2.53	27.18	<50	**68**	<0.5	<0.5	<0.5	<0.5	**38**	<0.5	<0.5	<0.5	<5	--	--
	7/1/04	29.71	4.95	24.76	**86**	**86**	<0.5	<0.5	<0.5	<0.5	**170**	<0.5	**1.4**	**0.97**	**17**	--	--
	10/1/04	29.71	7.26	22.45	<50	<50[2]	<0.5	<0.5	<0.5	<0.5	**2**	--	--	--	--	--	--
	1/4/05	29.71	0.78	28.93	<50	<50[2]	<0.5	<0.5	<0.5	<0.5	**5.3**	--	--	--	--	--	--
	4/18/05	29.71	2.02	27.69	<50	<50	<0.5	<0.5	<0.5	<0.5	**8.2**	--	--	--	--	--	--

Table 1
GROUNDWATER ELEVATIONS AND ANALYTICAL RESULTS
Indianola Market
7769 Myrtle Avenue
Eureka, California
Project No. NC-18

Well No.	Sampling Date	TOC (feet)	DTW (feet)	GWE (feet)	TPHg (µg/L)	TPHd (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	DIPE (µg/L)	TAME (µg/L)	ETBE (µg/L)	TBA (µg/L)	Ethanol (µg/L)	Methanol (µg/L)
Dom - 1	4/1/03	(Domestic well located at 7711 Myrtle Ave.)			<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	--	--
	1/4/05				<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--
				MCL	--	--	1	150	300	1,750	5						
				Taste & odor threshold	5	100	--	42	29	17	5						
				NCRWQCB cleanup goals	<50	100	0.50	42	29	17	5						

Notes :

TOC: Top of casing referenced to mean sea level (4.33 NAVD 88 (NGS LV 0638) SS rod E1401 1988

Sample date in parentheses indates new wellhead survey per Geotracker

DTW: Depth to water as referenced to benchmark.

GWE: Ground water elevation as referenced to benchmark

µg/L=micrograms per liter

"--": Not analyzed, available, or applicable

MCL: Maximum contaminant level, an enforceable drinking water standard

Taste & odor threshold: A drinking water standard

1. Tert Butanol results may be biased high (see case narative in laboratory report)

2. TPHd analysis performed using silica gel cleanup

TPHg: Total Petroleum Hydrocarbons as Gasoline by Method 5030/8260B

TPHd: Total Petroleum Hydrocarbons as Diesel by Method 3510/8015M

MTBE: Methyl Tertiary Butyl Ether by Method 8260B

DIPE: Di-Isopropyl Ether by Method 8260B

TAME: Tertiary Amyl Methyl Ether by method 8260B

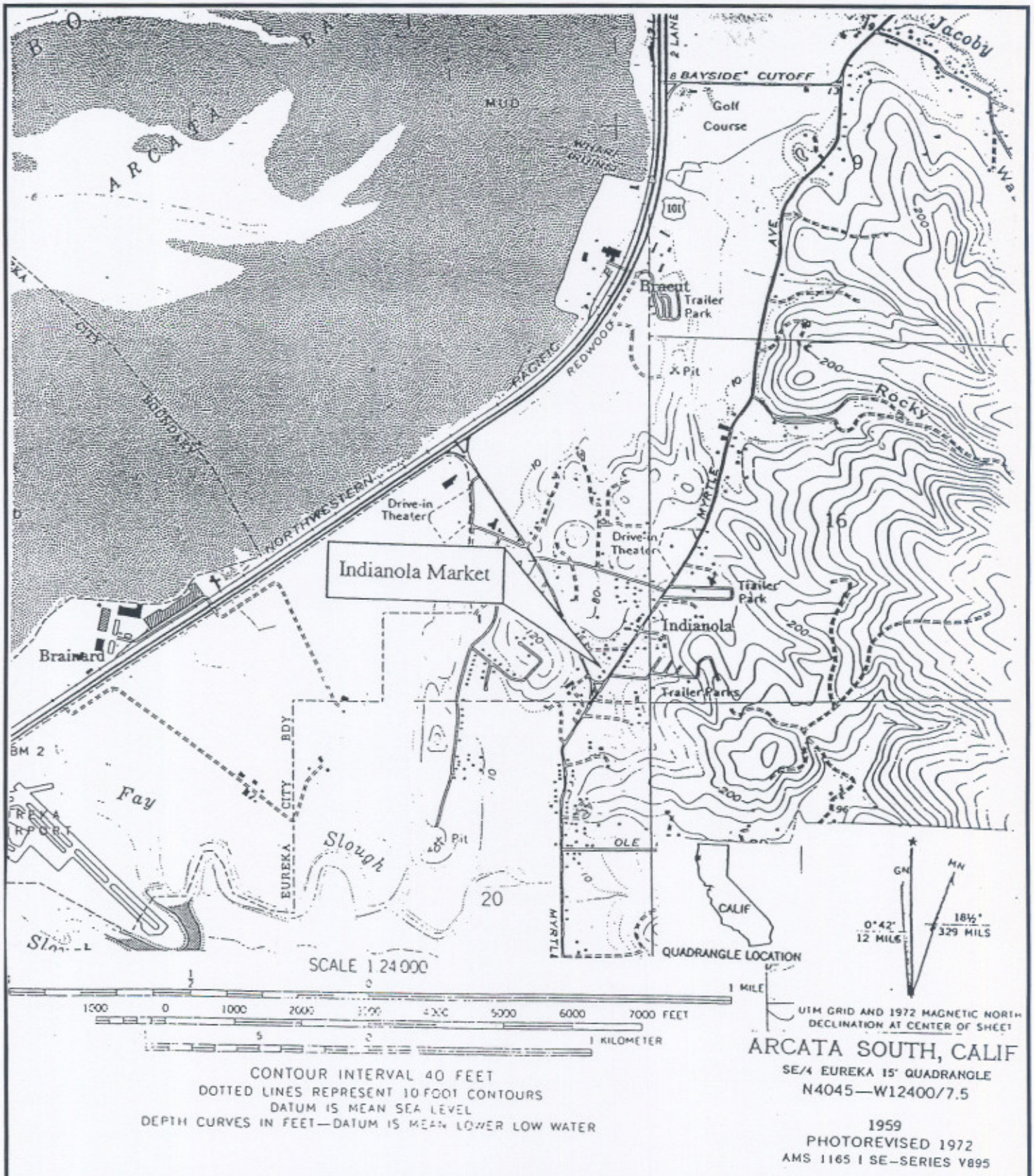
ETBE: Ethyl Tertiary Butyl Ether by Method 8260B

TBA: Tertiary Butyl Alcohol by Method 8260B

NCWQCB: North Coast Water Quality Control Board

Table 2
Well Construction Details
Indianola Market
7769 Myrtle Avenue
Eureka, CA
Project # NC-18

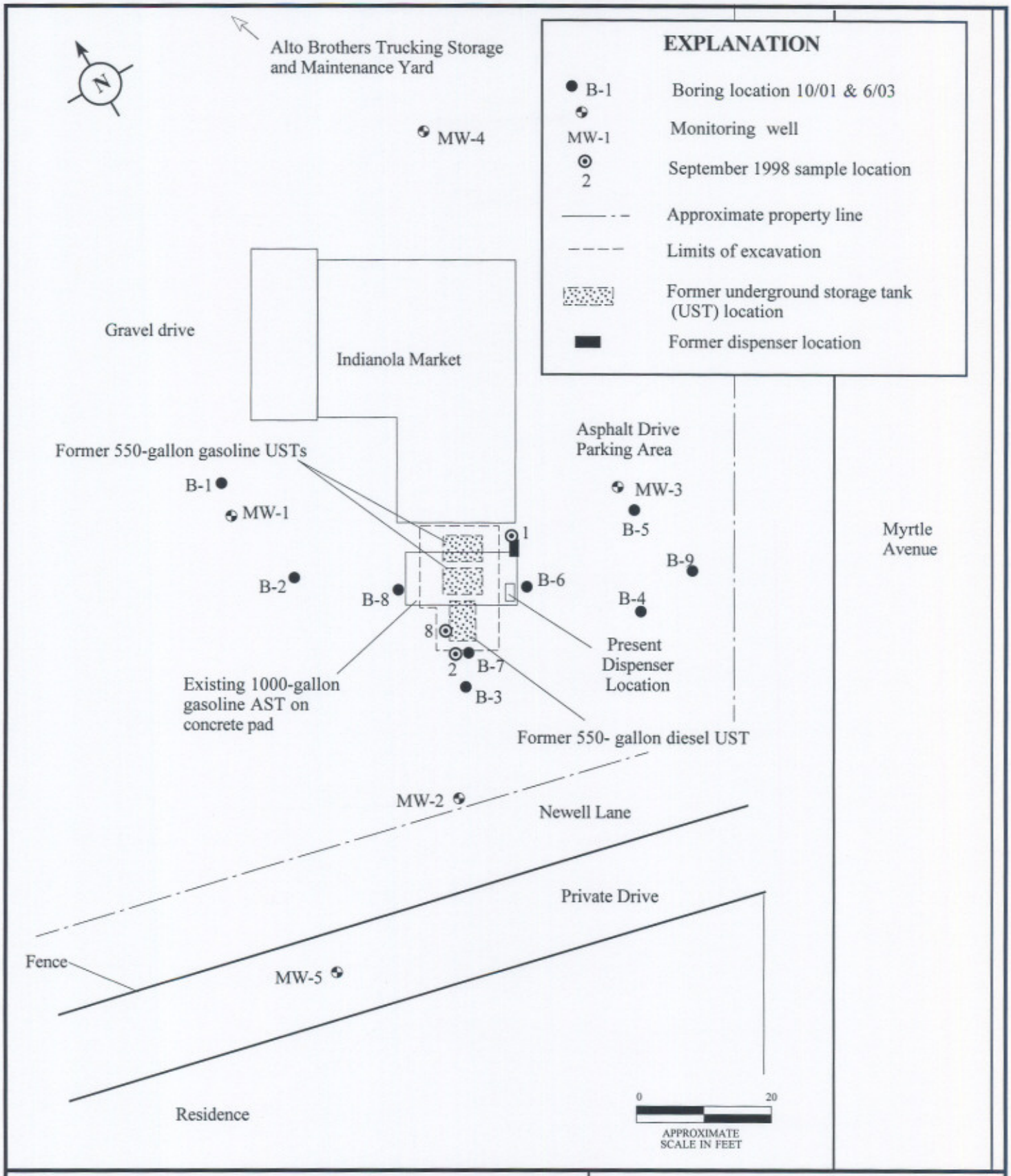
Well Identification	Date Intstalled	Intstalled by	Casing Diameter (inches)	Total Depth (feet)	Blank Interval (feet)	Screened Interval (feet)	Slot Size (inches)	Filter Pack (feet)	Bentonite Seal (feet)	Cement (feet)
MW-1	10/10/01	Clearwater	2	20	0-3	3-20	0.02	2-20	1-2	0-1
MW-2	10/10/01	Clearwater	2	20	0-3	3-20	0.02	2-20	1-2	0-1
MW-3	10/10/01	Clearwater	2	20	0-3	3-20	0.02	2-20	1-2	0-1
MW-4	10/7/02	Clearwater	2	20	0-3	3-20	0.02	2-20	1-2	0-1
MW-5	10/7/02	Clearwater	2	20	0-3	5-20	0.02	2-20	1-2	0-1



Site Location Map
Indianola Market
7769 Myrtle Avenue
Eureka, California

BLUE ROCK ENVIRONMENTAL, INC.

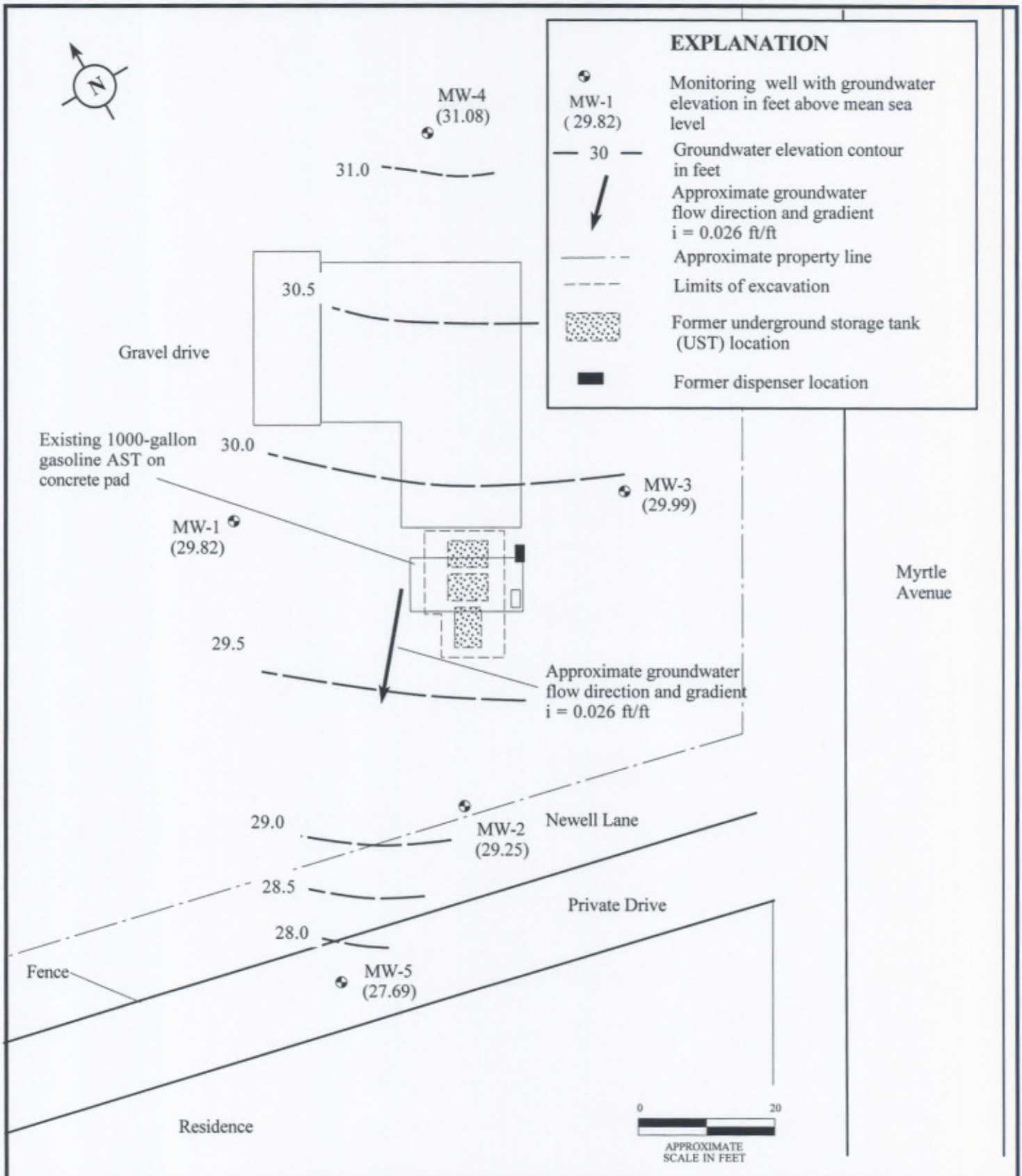
Project No.	Date	Figure
NC-18	**5/05**	**1**



Site Plan
Indianola Market
7769 Myrtle Avenue
Eureka, California

BLUE ROCK ENVIRONMENTAL, INC.

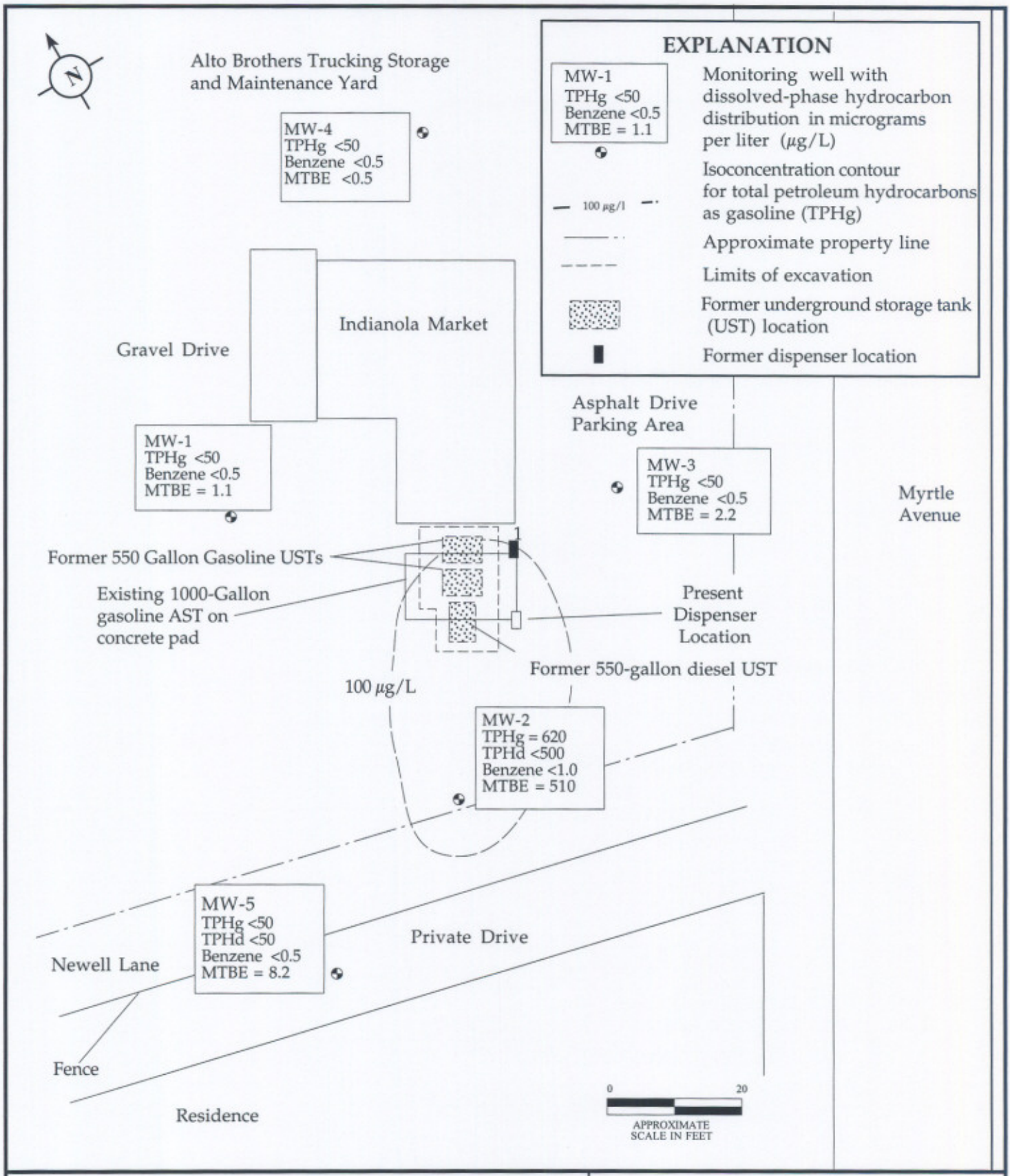
Project No.	Date	Figure
NC-18	5/05	2



Groundwater Elevation and Gradient 4/18/05
Indianola Market
7769 Myrtle Avenue
Eureka, California

BLUE ROCK ENVIRONMENTAL, INC.

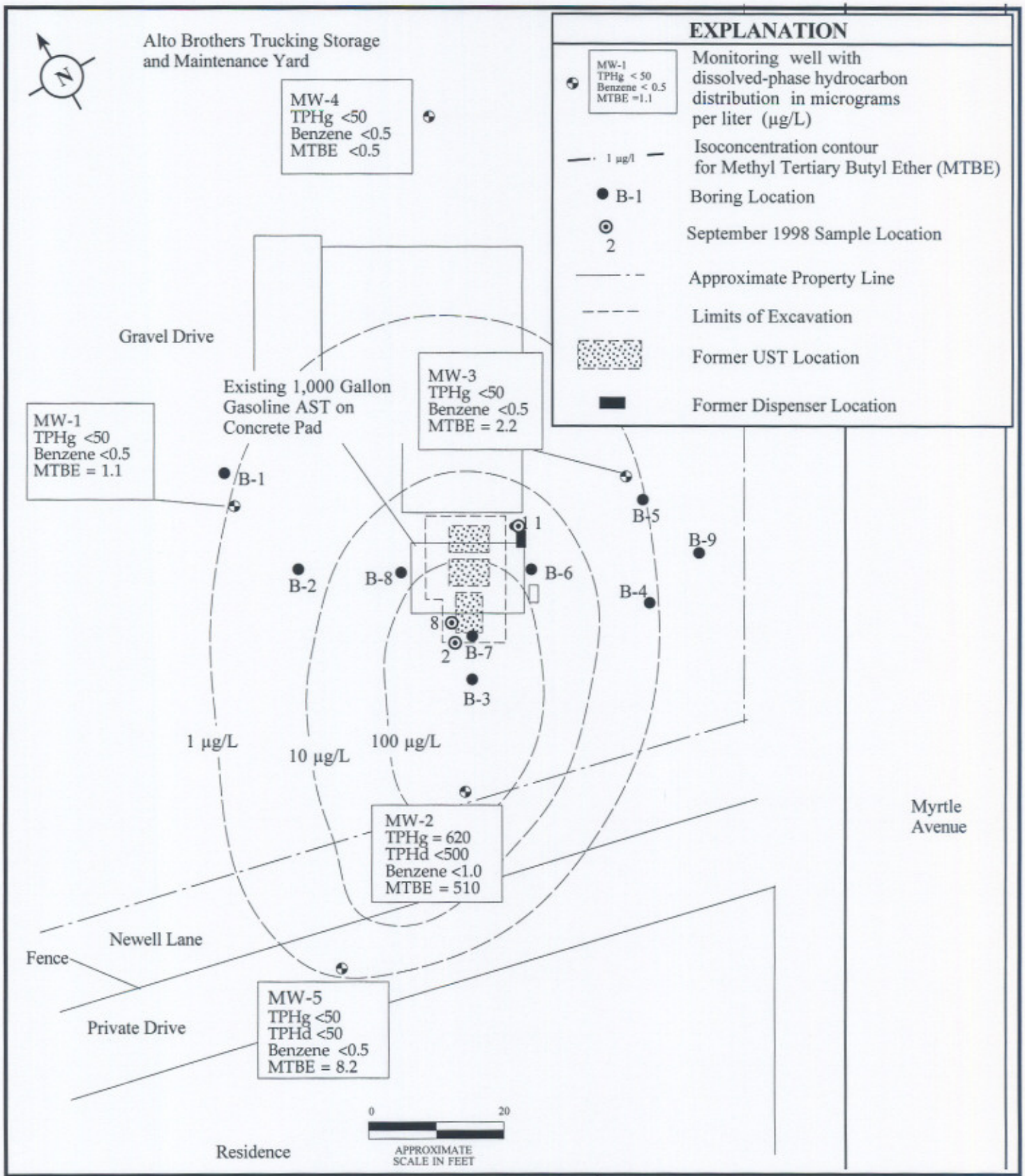
Project No.	Date	Figure
NC-18	5/05	3



Dissolved-Phase TPHg Distribution 4/18/05
Indianola Market
7769 Myrtle Avenue
Eureka, California

BLUE ROCK ENVIRONMENTAL, INC.

Project No.	Date	Figure
NC-18	**5/05**	**4**



Dissolved-Phase MTBE Distribution 4/18/05
Indianola Market
7769 Myrtle Avenue
Eureka, California

BLUE ROCK ENVIRONMENTAL, INC.

Project No.	Date	Figure
NC-18	**5/05**	**5**

First-Order Decay Rates of Dissolved-Phase Contaminants 6/01 - 4/05

Indianola Market, Eureka, CA

Well	MTBE (day^{-1})	TPHg (day^{-1})
MW-2	-0.0009	NA
MW-5	-0.0015	NA

See attached decay rate graphs

TPHg = Total petroleum hydrocarbons as gasoline
MTBE = Methyl tertiary butyl ether
NA = Not applicable or calclated trend not statistically significant based on R^2 value
or contaminant concentrations are already below water quality goals and/or detection limits.

1. Based on method presented by:
Buscheck, T.E., O'Reilly, K.T., and Nelson S.N. 1993. *Evaluation of Intrinsic Bioremediation at Field Sites.* Proceedings of the Conference of Petroleum Hydrocarbons and Organic Chemicals in Ground Water, National Ground Water Association/API, Houston, TX, November 10-12.

$$C(t) = C_0 e^{-(kt)}$$

where, $C(t)$ is concentration as a function of time (t)
C_0 is concentration at $t = 0$
k is the decay rate (t^{-1})

Chart 1
Indianola Market
7769 Myrtle Avenue
Eureka, California
Project No. NC-18

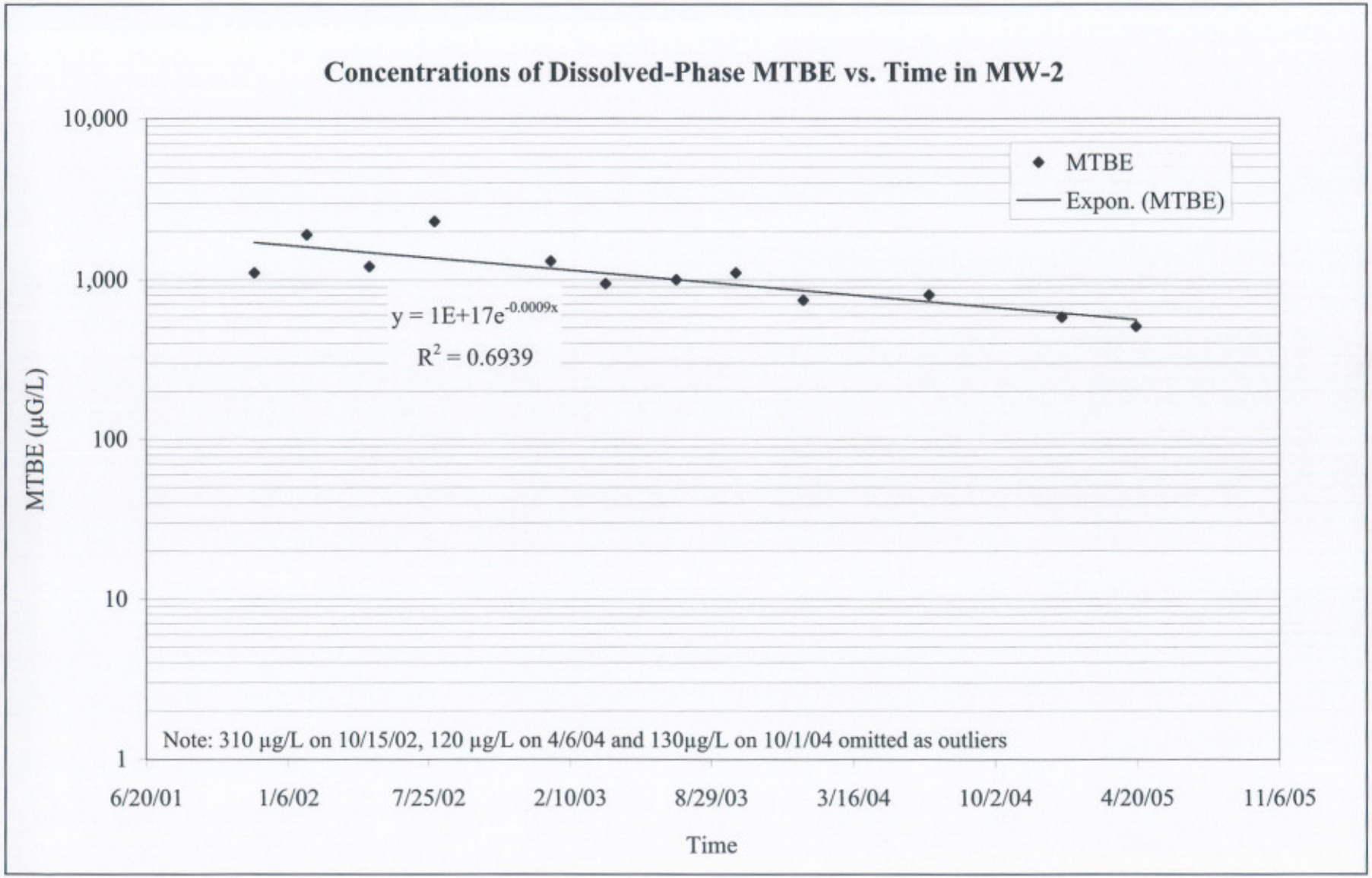


Chart 2
Indianola Market
7769 Myrtle Avenue
Eureka, California
Project No. NC-18

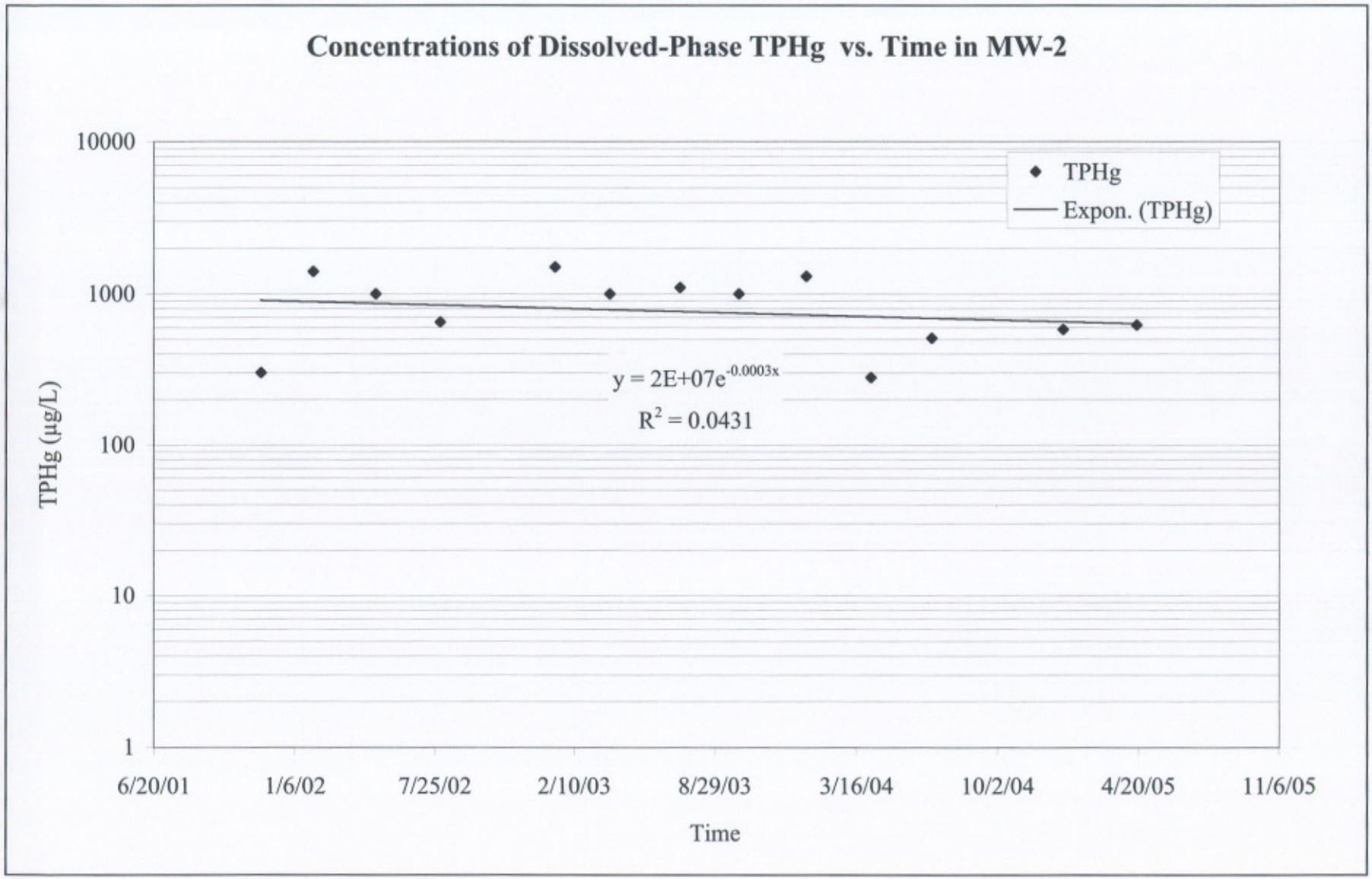


Chart 3
Indianola Market
7769 Myrtle Avenue
Eureka, California
Project No. NC-18

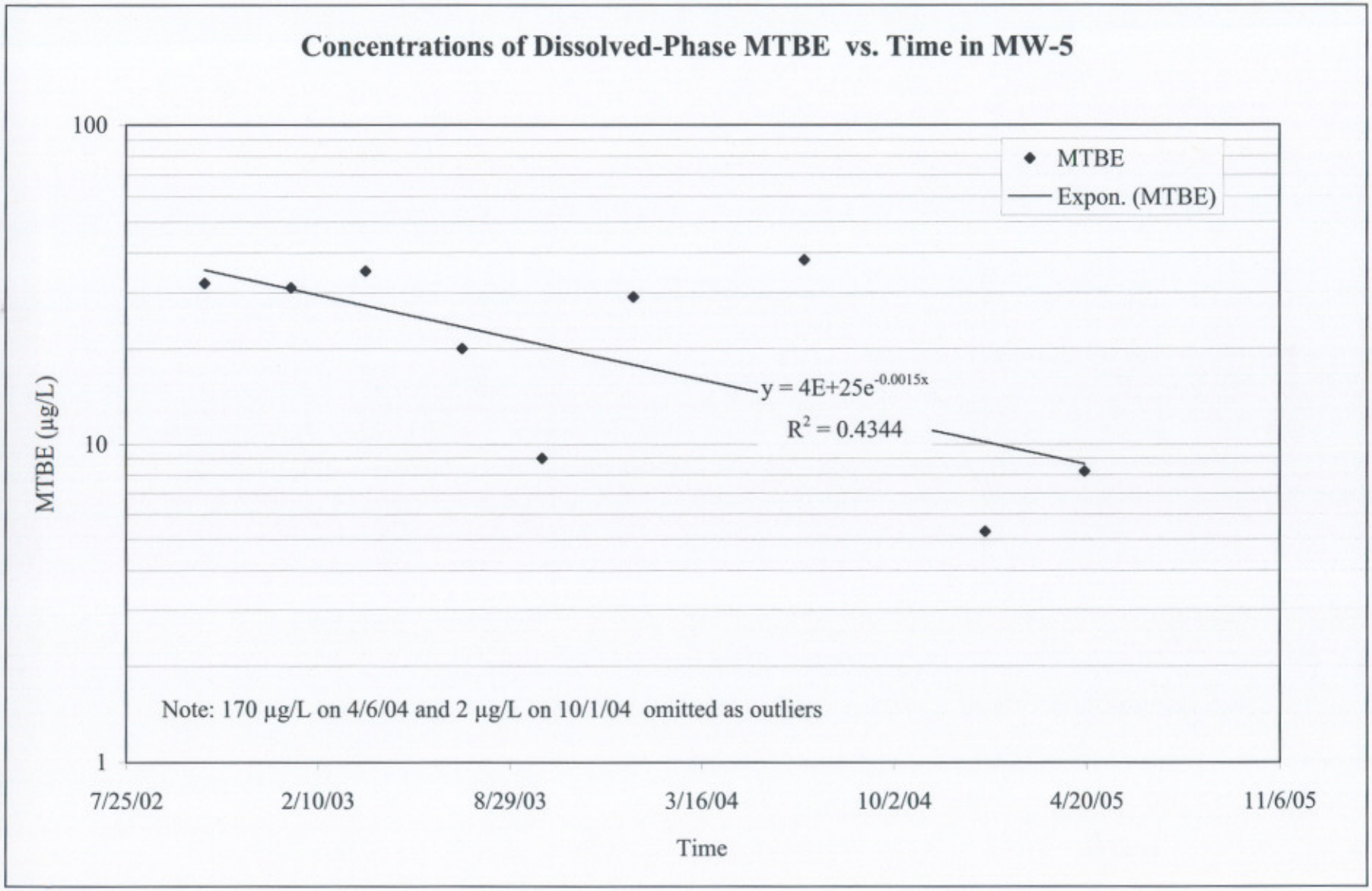


Chart 4
Indianola Market
7769 Myrtle Avenue
Eureka, California
Project No. NC-18

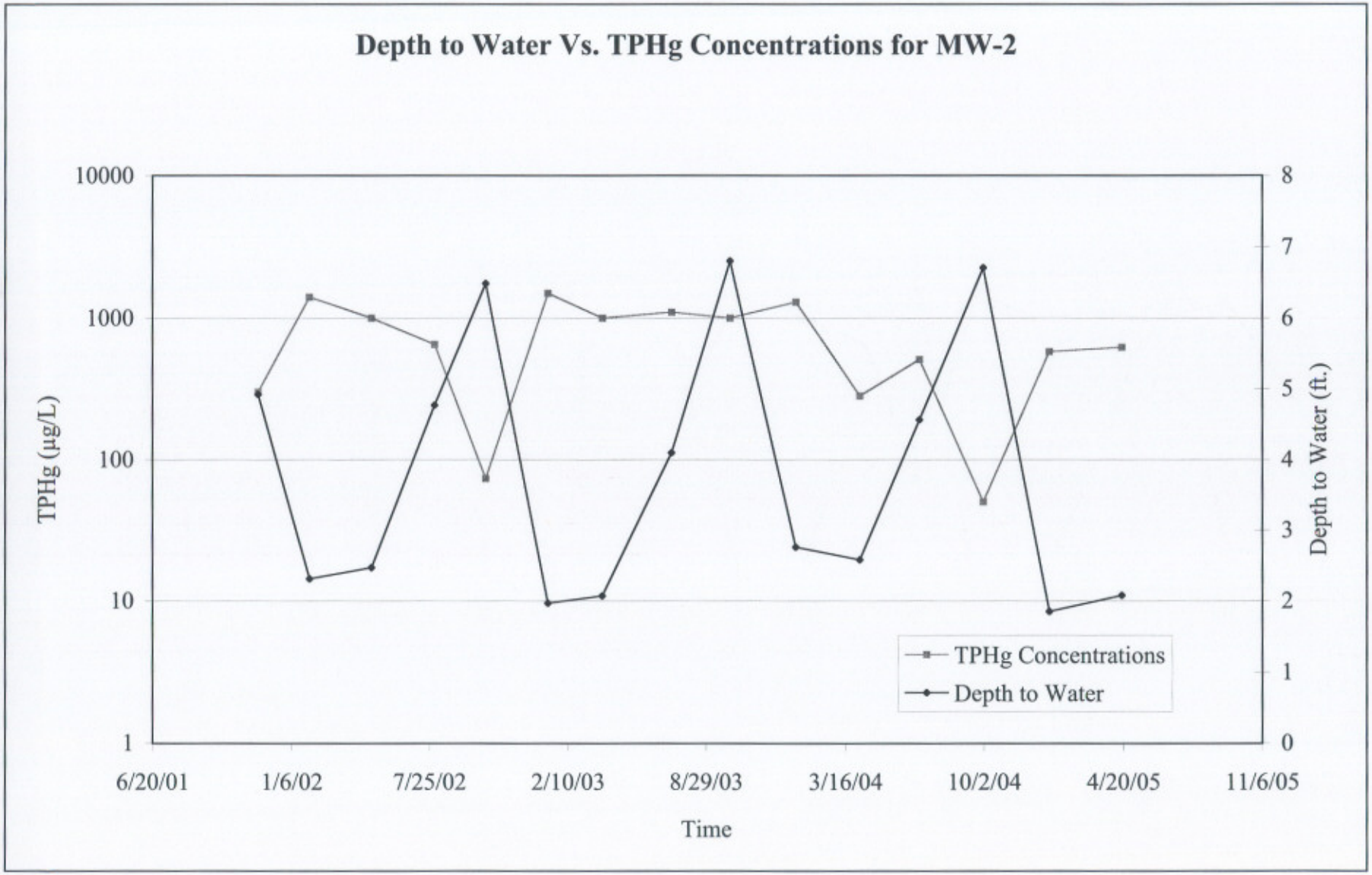


Chart 5
Indianola Market
7769 Myrtle Avenue
Eureka, California
Project No. NC-18

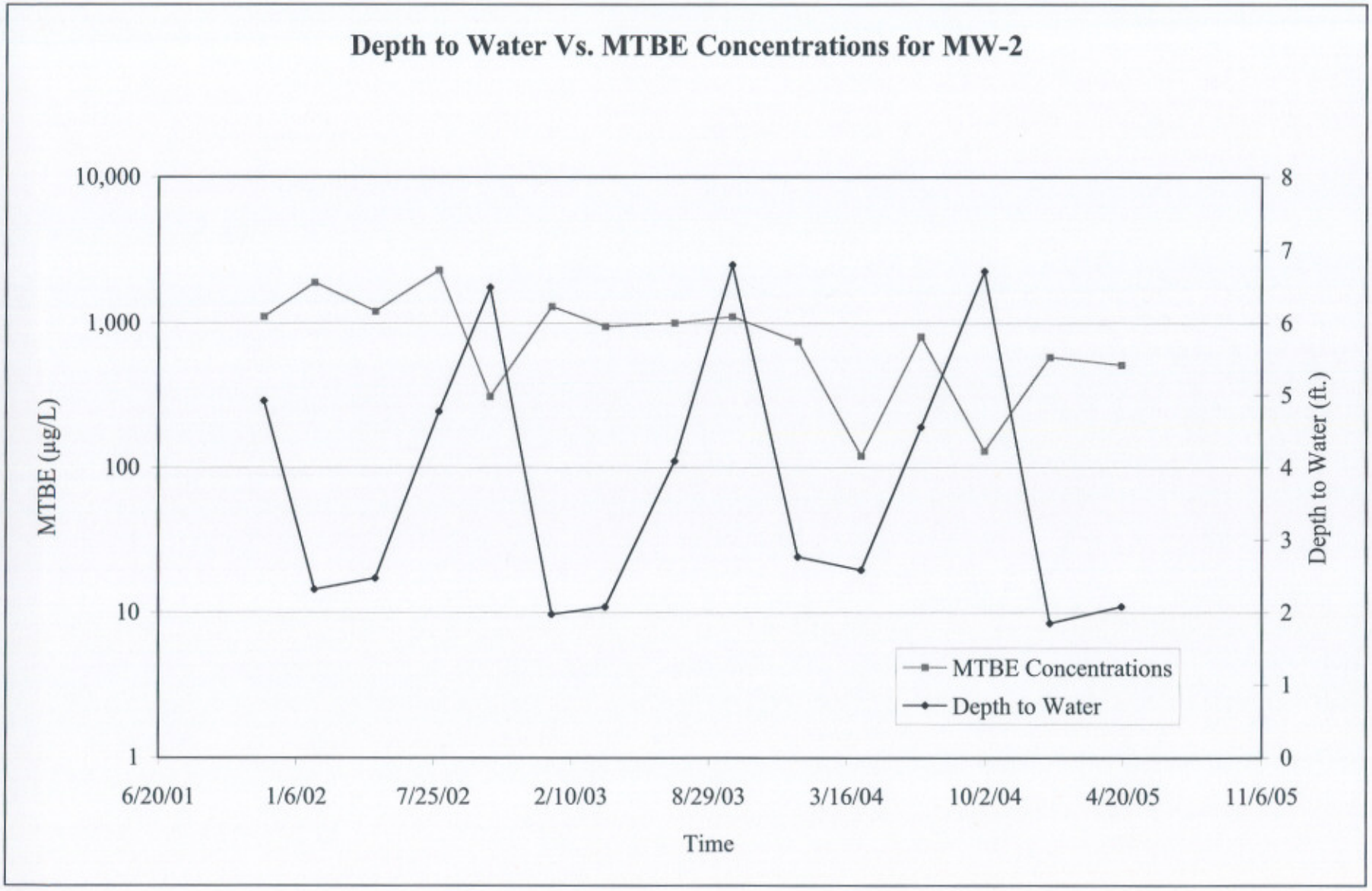


Chart 6
Indianola Market
7769 Myrtle Avenue
Eureka, California
Project No. NC-18

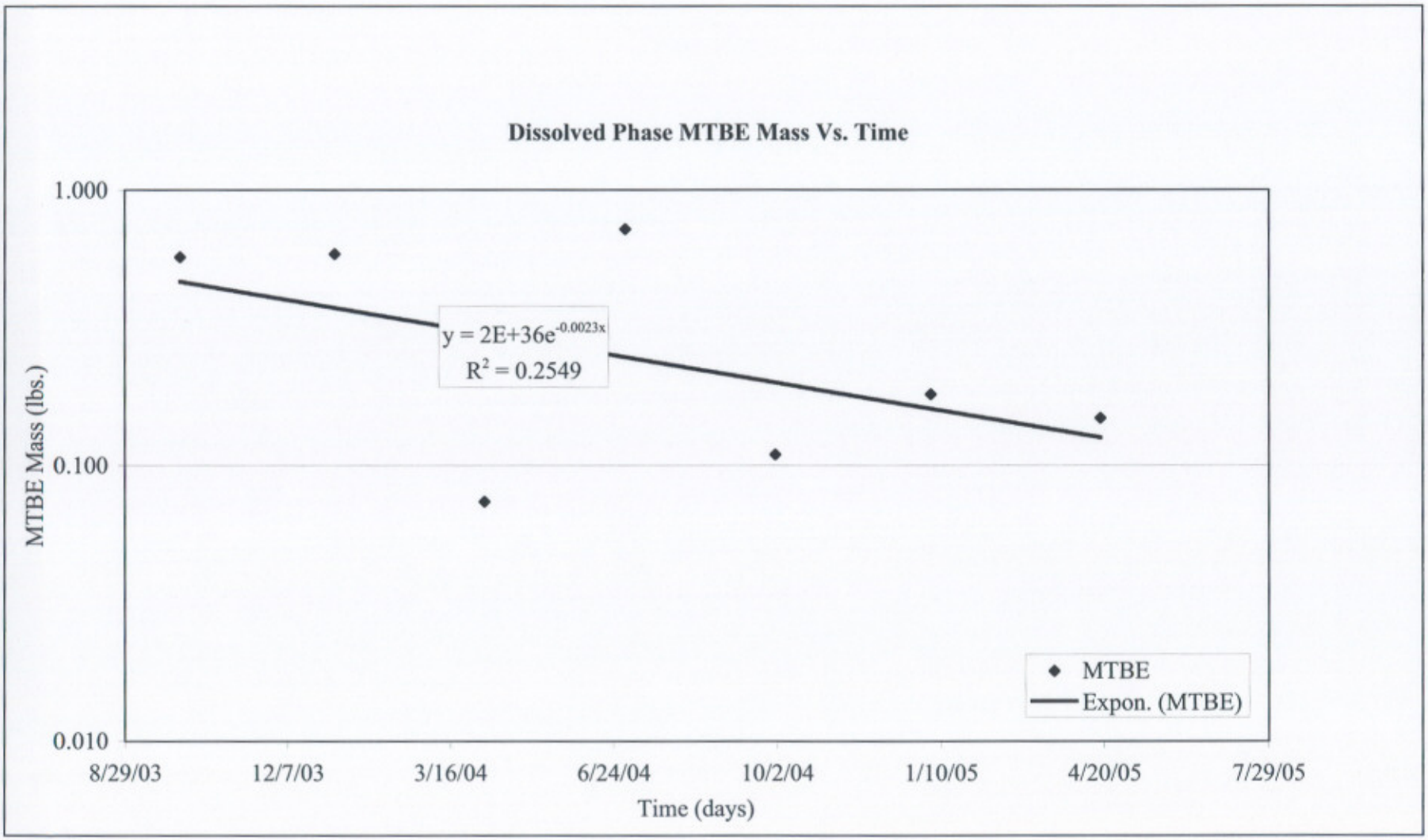
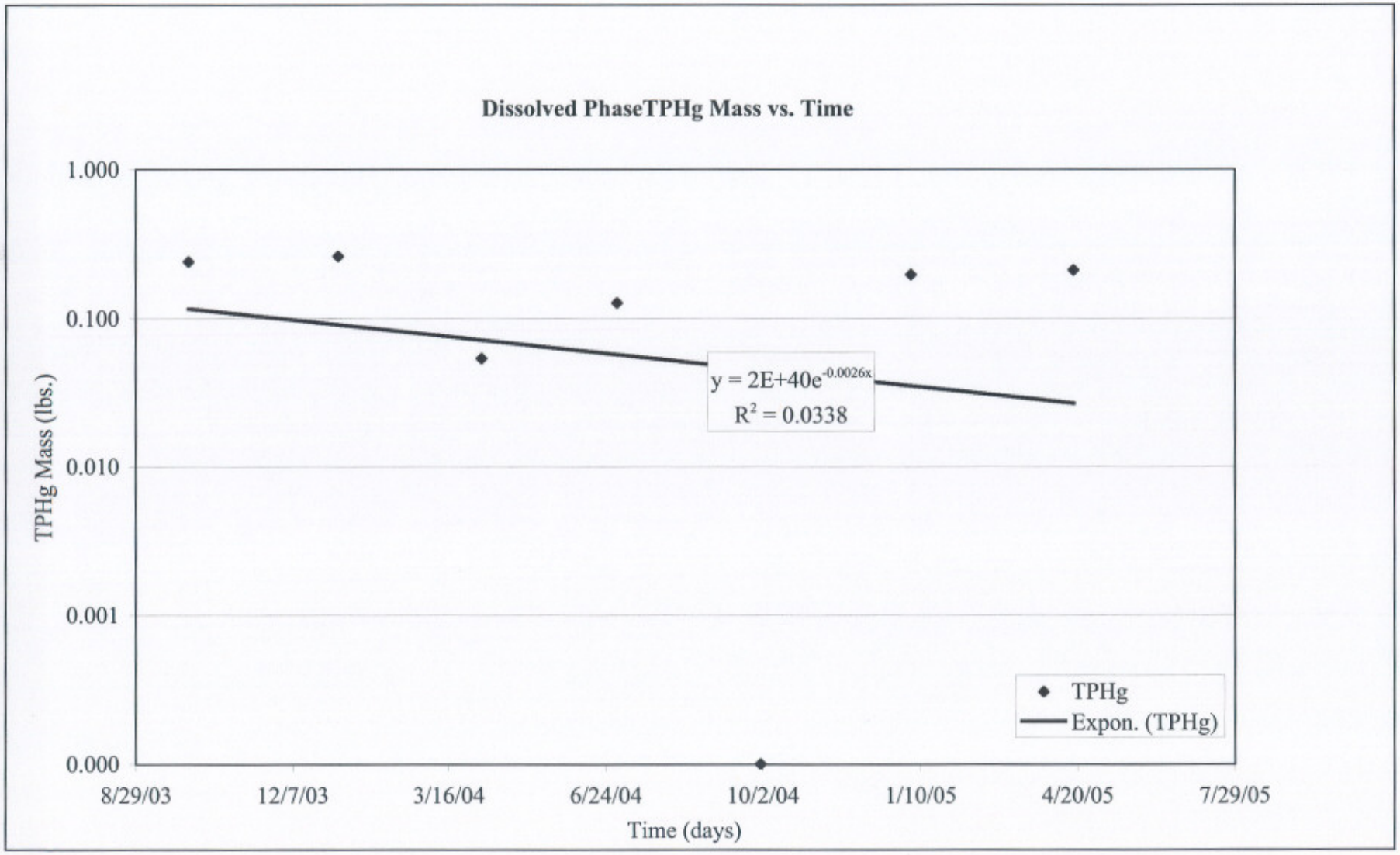


Chart 7
Indianola Market
7769 Myrtle Avenue
Eureka, California
Project No. NC-18



Calculation of Residual Dissolved-Phase Contaminant Mass (Fourth Quarter 2003)
Indianola Market. Eureka, CA

Residual TPHg (zone 1) TPHg concentrations 1,000µg/L or greater

TPHg mean (mg/L)	A (ft2)	h (ft)	n	V (ft3)	TPHg mass (ft3-mg/L)	TPHg mass (lb)
1.100	386	15	0.35	2,027	2,229	0.139
				Total TPHg (lb)		0.139
				Total TPHg (kg)		0.06
				Total TPHg (gal)		0.02

Residual TPHg (zone 2) TPHg concentrations 100µg/L to 1,000µg/L

TPHg mean (mg/L)	A (ft2)	h (ft)	n	V (ft3)	TPHg mass (ft3-mg/L)	TPHg mass (lb)
0.320	980	15	0.35	5,145	1,646.4	0.103
				Total TPHg (lb)		0.103
				Total TPHg (kg)		0.047
				Total TPHg (gal)		0.017

Total TPHg Mass (lb)	**0.2414**
Total TPHg Vol. (gal.)	**0.0396**

A = Area
h = thickness
V = volume = A * h
n = soil porosity (assume 35%)
TPHg mass (ft3-mg/L)= V (ft3) * TPH conc. (mg/L)
TPHg mass (lb) = Mass (ft3-mg/L) * (28.31 L/ft3) * (0.000001 kg/mg) * (2.2 lb/kg)
TPHg vol (gal) = TPHg mass (lb) / density of gasoline (assume 6.1 lb/gal.)

Calculation of Residual Dissolved-Phase Contaminant Mass (Fourth Quarter 2003)
Indianola Market. Eureka, CA

Residual TPHg (zone 1) TPHg concentrations 1,000µg/L or greater

TPHg mean	A	h	n	V	TPHg mass	TPHg mass

Residual MTBE (zone 1) MTBE concentrations 1,000µg/L or greater

MTBE mean (mg/L)	A (ft2)	h (ft)	n	V (ft3)	MTBE mass (ft3-mg/L)	MTBE mass (lb)
1.000	724	15	0.35	3,801	3,801	0.237
				Total MTBE (lb)		0.237
				Total MTBE (kg)		0.11
				Total MTBE (gal)		0.04

Residual MTBE (zone 2) MTBE concentrations 100µg/L to 1,000 µg/L

MTBE mean (mg/L)	A (ft2)	h (ft)	n	V (ft3)	MTBE mass (ft3-mg/L)	MTBE mass (lb)
0.320	2,908	15	0.35	15,267	4,885.4	0.30427
				Total MTBE (lb)		0.30427
				Total MTBE (kg)		0.1383068
				Total MTBE (gal)		0.0499

Residual MTBE (zone 3) MTBE concentrations 10µg/L to 100 µg/L

MTBE mean (mg/L)	A (ft2)	h (ft)	n	V (ft3)	MTBE mass (ft3-mg/L)	MTBE mass (lb)
0.032	2,682	15	0.35	14,081	450.6	0.02806
				Total MTBE (lb)		0.02806
				Total MTBE (kg)		0.0127558
				Total MTBE (gal)		0.0046

Residual MTBE (zone 1) MTBE concentrations 1 µg/L to 10µg/L

MTBE conc. (mg/L)	A (ft2)	h (ft)	n	V (ft3)	MTBE mass (ft3-mg/L)	MTBE mass (lb)
0.00320	3,625	10	0.35	12,688	41	0.0025
				Total MTBE (lb)		0.00253
				Total MTBE (kg)		0.00115
				Total MTBE (gal)		0.0004

Total MTBE Mass (lb)	**0.5716**
Total MTBE Vol. (gal.)	**0.0937**

A = Area
h = thickness
V = volume = A * h
n = soil porosity (assume 35%)
MTBE mass (ft3-mg/L)= V (ft3) *MTBE conc. (mg/L)
MTBE mass (lb) = Mass (ft3-mg/L) * (28.31 L/ft3) * (0.000001 kg/mg) * (2.2 lb/kg)
MTBE vol (gal) = MTBE mass (lb) / density of gasoline (assume 6.1 lb/gal.)

Calculation of Residual Dissolved-Phase Contaminant Mass (First Quarter 2004)
Indianola Market. Eureka, CA

Residual TPHg (zone 1) TPHg concentrations 1,000µg/L or greater

TPHg mean (mg/L)	A (ft2)	h (ft)	n	V (ft3)	TPHg mass (ft3-mg/L)	TPHg mass (lb)
1.300	386	15	0.35	2,027	2,634	0.164
				Total TPHg (lb)		0.164
				Total TPHg (kg)		0.07
				Total TPHg (gal)		0.03

Residual TPHg (zone 2) TPHg concentrations 100µg/L to 1,000µg/L

TPHg mean (mg/L)	A (ft2)	h (ft)	n	V (ft3)	TPHg mass (ft3-mg/L)	TPHg mass (lb)
0.320	930	15	0.35	4,883	1,562.4	0.097
				Total TPHg (lb)		0.097
				Total TPHg (kg)		0.044
				Total TPHg (gal)		0.016

Total TPHg Mass (lb)	**0.2614**
Total TPHg Vol. (gal.)	**0.0429**

A = Area
h = thickness
V = volume = A * h
n = soil porosity (assume 35%)
TPHg mass (ft3-mg/L)= V (ft3) * TPH conc. (mg/L)
TPHg mass (lb) = Mass (ft3-mg/L) * (28.31 L/ft3) * (0.000001 kg/mg) * (2.2 lb/kg)
TPHg vol (gal) = TPHg mass (lb) / density of gasoline (assume 6.1 lb/gal.)

Calculation of Residual Dissolved-Phase Contaminant Mass (First Quarter 2004)
Indianola Market. Eureka, CA

Residual MTBE (zone 1) MTBE concentrations 100µg/L or greater

MTBE mean (mg/L)	A (ft2)	h (ft)	n	V (ft3)	MTBE mass (ft3-mg/L)	MTBE mass (lb)
0.740	2,316	15	0.35	12,159	8,998	0.560
				Total MTBE (lb)		0.560
				Total MTBE (kg)		0.25
				Total MTBE (gal)		0.09

Residual MTBE (zone 2) MTBE concentrations 10 µg/L to 100 µg/L

MTBE mean (mg/L)	A (ft2)	h (ft)	n	V (ft3)	MTBE mass (ft3-mg/L)	MTBE mass (lb)
0.032	2,323	15	0.35	12,196	390.3	0.02431
				Total MTBE (lb)		0.02431
				Total MTBE (kg)		0.0110484
				Total MTBE (gal)		0.0040

Residual MTBE (zone 3) MTBE concentrations 1 µg/L to 10 µg/L

MTBE mean (mg/L)	A (ft2)	h (ft)	n	V (ft3)	MTBE mass (ft3-mg/L)	MTBE mass (lb)
0.001	3,483	15	0.35	18,286	18.3	0.00114
				Total MTBE (lb)		0.00114
				Total MTBE (kg)		0.0005177
				Total MTBE (gal)		0.0002

Total MTBE Mass (lb)	**0.5858**
Total MTBE Vol. (gal.)	**0.0960**

A = Area
h = thickness
V = volume = A * h
n = soil porosity (assume 35%)
MTBE mass (ft3-mg/L)= V (ft3) *MTBE conc. (mg/L)
MTBE mass (lb) = Mass (ft3-mg/L) * (28.31 L/ft3) * (0.000001 kg/mg) * (2.2 lb/kg)
MTBE vol (gal) = MTBE mass (lb) / density of gasoline (assume 6.1 lb/gal.)

Calculation of Residual Dissolved-Phase Contaminant Mass (Second Quarter 2004)
Indianola Market. Eureka, CA

Residual TPHg (zone 2) TPHg concentrations 100µg/L to 1,000µg/L

TPHg mean (mg/L)	A (ft2)	h (ft)	n	V (ft3)	TPHg mass (ft3-mg/L)	TPHg mass (lb)
0.280	584	15	0.35	3,066	858.5	0.053
				Total TPHg (lb)		0.053
				Total TPHg (kg)		0.024
				Total TPHg (gal)		0.009

Total TPHg Mass (lb)	**0.0535**
Total TPHg Vol. (gal.)	**0.0088**

A = Area
h = thickness
V = volume = A * h
n = soil porosity (assume 35%)
TPHg mass (ft3-mg/L)= V (ft3) * TPH conc. (mg/L)
TPHg mass (lb) = Mass (ft3-mg/L) * (28.31 L/ft3) * (0.000001 kg/mg) * (2.2 lb/kg)
TPHg vol (gal) = TPHg mass (lb) / density of gasoline (assume 6.1 lb/gal.)

Residual MTBE (zone 1) MTBE concentrations 100µg/L or greater

MTBE mean (mg/L)	A (ft2)	h (ft)	n	V (ft3)	MTBE mass (ft3-mg/L)	MTBE mass (lb)
0.120	1,082	15	0.35	5,681	682	0.042
				Total MTBE (lb)		0.042
				Total MTBE (kg)		0.02
				Total MTBE (gal)		0.01

Calculation of Residual Dissolved-Phase Contaminant Mass (Second Quarter 2004)
Indianola Market. Eureka, CA

Residual MTBE (zone 2) MTBE concentrations 10 µg/L to 100 µg/L

MTBE mean (mg/L)	A (ft2)	h (ft)	n	V (ft3)	MTBE mass (ft3-mg/L)	MTBE mass (lb)
0.032	2,696	15	0.35	14,154	452.9	0.02821
				Total MTBE (lb)		0.02821
				Total MTBE (kg)		0.0128224
				Total MTBE (gal)		0.0046

Residual MTBE (zone 3) MTBE concentrations 1 µg/L to 10 µg/L

MTBE mean (mg/L)	A (ft2)	h (ft)	n	V (ft3)	MTBE mass (ft3-mg/L)	MTBE mass (lb)
0.003	2,683	15	0.35	14,086	45.1	0.00281
				Total MTBE (lb)		0.00281
				Total MTBE (kg)		0.0012761
				Total MTBE (gal)		0.0005

Total MTBE Mass (lb)	**0.0735**
Total MTBE Vol. (gal.)	**0.0120**

A = Area
h = thickness
V = volume = A * h
n = soil porosity (assume 35%)
MTBE mass (ft3-mg/L)= V (ft3) *MTBE conc. (mg/L)
MTBE mass (lb) = Mass (ft3-mg/L) * (28.31 L/ft3) * (0.000001 kg/mg) * (2.2 lb/kg)
MTBE vol (gal) = MTBE mass (lb) / density of gasoline (assume 6.1 lb/gal.)

Calculation of Residual Dissolved-Phase Contaminant Mass (Third Quarter 2004)
Indianola Market, Eureka, CA

Residual TPHg (zone 2) TPHg concentrations 100µg/L to 1,000µg/L

TPHg mean (mg/L)	A (ft2)	h (ft)	n	V (ft3)	TPHg mass (ft3-mg/L)	TPHg mass (lb)
0.510	764	15	0.35	4,011	2,045.6	0.127
				Total TPHg (lb)		0.127
				Total TPHg (kg)		0.058
				Total TPHg (gal)		0.021

Total TPHg Mass (lb)	**0.1274**
Total TPHg Vol. (gal.)	**0.0209**

A = Area
h = thickness
V = volume = A * h
n = soil porosity (assume 35%)
TPHg mass (ft3-mg/L)= V (ft3) * TPH conc. (mg/L)
TPHg mass (lb) = Mass (ft3-mg/L) * (28.31 L/ft3) * (0.000001 kg/mg) * (2.2 lb/kg)
TPHg vol (gal) = TPHg mass (lb) / density of gasoline (assume 6.1 lb/gal.)

Residual MTBE (zone 1) MTBE concentrations 100µg/L or greater

MTBE mean (mg/L)	A (ft2)	h (ft)	n	V (ft3)	MTBE mass (ft3-mg/L)	MTBE mass (lb)
0.800	2,562	15	0.35	13,451	10,760	0.670
				Total MTBE (lb)		0.670
				Total MTBE (kg)		0.30
				Total MTBE (gal)		0.11

Calculation of Residual Dissolved-Phase Contaminant Mass (Third Quarter 2004)
Indianola Market, Eureka, CA

Residual TPHg (zone 2) TPHg concentrations 100µg/L to 1,000µg/L

Residual MTBE (zone 2) MTBE concentrations 10 µg/L to 100 µg/L

MTBE mean (mg/L)	A (ft2)	h (ft)	n	V (ft3)	MTBE mass (ft3-mg/L)	MTBE mass (lb)
0.032	4,500	15	0.35	23,625	756.0	0.04709
				Total MTBE (lb)		0.04709
				Total MTBE (kg)		0.0214024
				Total MTBE (gal)		0.0077

Residual MTBE (zone 3) MTBE concentrations 1 µg/L to 10 µg/L

MTBE mean (mg/L)	A (ft2)	h (ft)	n	V (ft3)	MTBE mass (ft3-mg/L)	MTBE mass (lb)
0.0032	4,129	15	0.35	21,677	69.4	0.00432
				Total MTBE (lb)		0.00432
				Total MTBE (kg)		0.0019638
				Total MTBE (gal)		0.0007

Total MTBE Mass (lb)	**0.7216**
Total MTBE Vol. (gal.)	**0.1183**

A = Area
h = thickness
V = volume = A * h
n = soil porosity (assume 35%)
MTBE mass (ft3-mg/L)= V (ft3) *MTBE conc. (mg/L)
MTBE mass (lb) = Mass (ft3-mg/L) * (28.31 L/ft3) * (0.000001 kg/mg) * (2.2 lb/kg)
MTBE vol (gal) = MTBE mass (lb) / density of gasoline (assume 6.1 lb/gal.)

Calculation of Residual Dissolved-Phase Contaminant Mass (Fourth Quarter 2004)
Indianola Market, Eureka, CA

Residual MTBE (zone 1) MTBE concentrations 100µg/L or greater

MTBE mean (mg/L)	A (ft2)	h (ft)	n	V (ft3)	MTBE mass (ft3-mg/L)	MTBE mass (lb)
0.130	839	15	0.35	4,405	573	0.036
				Total MTBE (lb)		0.036
				Total MTBE (kg)		0.02
				Total MTBE (gal)		0.01

Residual MTBE (zone 2) MTBE concentrations 10 µg/L to 100 µg/L

MTBE mean (mg/L)	A (ft2)	h (ft)	n	V (ft3)	MTBE mass (ft3-mg/L)	MTBE mass (lb)
0.032	1,817	15	0.35	9,539	305.3	0.01901
				Total MTBE (lb)		0.01901
				Total MTBE (kg)		0.0086418
				Total MTBE (gal)		0.0031

Residual MTBE (zone 3) MTBE concentrations 1 µg/L to 10 µg/L

MTBE mean (mg/L)	A (ft2)	h (ft)	n	V (ft3)	MTBE mass (ft3-mg/L)	MTBE mass (lb)
0.0032	51,800	15	0.35	271,950	870.2	0.05420
				Total MTBE (lb)		0.05420
				Total MTBE (kg)		0.0246365
				Total MTBE (gal)		0.0089

Total MTBE Mass (lb)	**0.1089**
Total MTBE Vol. (gal.)	**0.0178**

A = Area
h = thickness
V = volume = A * h
n = soil porosity (assume 35%)
MTBE mass (ft3-mg/L)= V (ft3) *MTBE conc. (mg/L)
MTBE mass (lb) = Mass (ft3-mg/L) * (28.31 L/ft3) * (0.000001 kg/mg) * (2.2 lb/kg)
MTBE vol (gal) = MTBE mass (lb) / density of gasoline (assume 6.1 lb/gal.)

Calculation of Residual Dissolved-Phase Contaminant Mass (First Quarter 2005)
Indianola Market, Eureka, CA

Residual MTBE (zone 2) MTBE concentrations 10 µg/L to 100 µg/L

MTBE mean (mg/L)	A (ft2)	h (ft)	n	V (ft3)	MTBE mass (ft3-mg/L)	MTBE mass (lb)
0.032	1,426	15	0.35	7,487	239.6	0.01492
				Total MTBE (lb)		0.01492
				Total MTBE (kg)		0.0067822
				Total MTBE (gal)		0.0024

Residual MTBE (zone 3) MTBE concentrations 1 µg/L to 10 µg/L

MTBE mean (mg/L)	A (ft2)	h (ft)	n	V (ft3)	MTBE mass (ft3-mg/L)	MTBE mass (lb)
0.0032	5,269	15	0.35	27,662	88.5	0.00551
				Total MTBE (lb)		0.00551
				Total MTBE (kg)		0.0025060
				Total MTBE (gal)		0.0009

Total MTBE Mass (lb)	**0.1809**
Total MTBE Vol. (gal.)	**0.0297**

A = Area
h = thickness
V = volume = A * h
n = soil porosity (assume 35%)
MTBE mass (ft3-mg/L)= V (ft3) *MTBE conc. (mg/L)
MTBE mass (lb) = Mass (ft3-mg/L) * (28.31 L/ft3) * (0.000001 kg/mg) * (2.2 lb/kg)
MTBE vol (gal) = MTBE mass (lb) / density of gasoline (assume 6.1 lb/gal.)

Calculation of Residual Dissolved-Phase Contaminant Mass (First Quarter 2005)
Indianola Market, Eureka, CA

Residual TPHg (zone 2) TPHg concentrations 100µg/L to 1,000µg/L

TPHg mean (mg/L)	A (ft2)	h (ft)	n	V (ft3)	TPHg mass (ft3-mg/L)	TPHg mass (lb)
0.580	1,040	15	0.35	5,460	3,166.8	0.197
				Total TPHg (lb)		0.197
				Total TPHg (kg)		0.090
				Total TPHg (gal)		0.032

Total TPHg Mass (lb)	**0.1972**
Total TPHg Vol. (gal.)	**0.0323**

A = Area
h = thickness
V = volume = A * h
n = soil porosity (assume 35%)
TPHg mass (ft3-mg/L)= V (ft3) * TPH conc. (mg/L)
TPHg mass (lb) = Mass (ft3-mg/L) * (28.31 L/ft3) * (0.000001 kg/mg) * (2.2 lb/kg)
TPHg vol (gal) = TPHg mass (lb) / density of gasoline (assume 6.1 lb/gal.)

Residual MTBE (zone 1) MTBE concentrations 100µg/L or greater

MTBE mean (mg/L)	A (ft2)	h (ft)	n	V (ft3)	MTBE mass (ft3-mg/L)	MTBE mass (lb)
0.580	846	15	0.35	4,442	2,576	0.160
				Total MTBE (lb)		0.160
				Total MTBE (kg)		0.07
				Total MTBE (gal)		0.03

Calculation of Residual Dissolved-Phase Contaminant Mass (Second Quarter 2005)
Indianola Market, Eureka, CA

Residual TPHg (zone 2) TPHg concentrations 100µg/L to 1,000µg/L

TPHg mean (mg/L)	A (ft2)	h (ft)	n	V (ft3)	TPHg mass (ft3-mg/L)	TPHg mass (lb)
0.620	1,040	15	0.35	5,460	3,385.2	0.211
				Total TPHg (lb)		0.211
				Total TPHg (kg)		0.096
				Total TPHg (gal)		0.035

Total TPHg Mass (lb)	**0.2108**
Total TPHg Vol. (gal.)	**0.0346**

A = Area
h = thickness
V = volume = A * h
n = soil porosity (assume 35%)
TPHg mass (ft3-mg/L)= V (ft3) * TPH conc. (mg/L)
TPHg mass (lb) = Mass (ft3-mg/L) * (28.31 L/ft3) * (0.000001 kg/mg) * (2.2 lb/kg)
TPHg vol (gal) = TPHg mass (lb) / density of gasoline (assume 6.1 lb/gal.)

Residual MTBE (zone 1) MTBE concentrations 100µg/L or greater

MTBE mean (mg/L)	A (ft2)	h (ft)	n	V (ft3)	MTBE mass (ft3-mg/L)	MTBE mass (lb)
0.510	777	15	0.35	4,079	2,080	0.130
				Total MTBE (lb)		0.130
				Total MTBE (kg)		0.06
				Total MTBE (gal)		0.02

Calculation of Residual Dissolved-Phase Contaminant Mass (Second Quarter 2005)
Indianola Market, Eureka, CA

Residual MTBE (zone 2) MTBE concentrations 10 µg/L to 100 µg/L

MTBE mean (mg/L)	A (ft2)	h (ft)	n	V (ft3)	MTBE mass (ft3-mg/L)	MTBE mass (lb)
0.032	1,476	15	0.35	7,749	248.0	0.01544
				Total MTBE (lb)		0.01544
				Total MTBE (kg)		0.0070200
				Total MTBE (gal)		0.0025

Residual MTBE (zone 3) MTBE concentrations 1 µg/L to 10 µg/L

MTBE mean (mg/L)	A (ft2)	h (ft)	n	V (ft3)	MTBE mass (ft3-mg/L)	MTBE mass (lb)
0.0032	3,116	15	0.35	16,359	52.3	0.00326
				Total MTBE (lb)		0.00326
				Total MTBE (kg)		0.0014820
				Total MTBE (gal)		0.0005

Total MTBE Mass (lb)	**0.1483**
Total MTBE Vol. (gal.)	**0.0243**

A = Area
h = thickness
V = volume = A * h
n = soil porosity (assume 35%)
MTBE mass (ft3-mg/L)= V (ft3) *MTBE conc. (mg/L)
MTBE mass (lb) = Mass (ft3-mg/L) * (28.31 L/ft3) * (0.000001 kg/mg) * (2.2 lb/kg)
MTBE vol (gal) = MTBE mass (lb) / density of gasoline (assume 6.1 lb/gal.)

GAGING DATA/PURGE CALCULATIONS

Job No.: NC-18 **Location:** 7769 Myrtle Ave. **Date:** 4-19-05 **Tech(s):** J.L. + A.L.

WELL NO.	DIA. (in.)	DTB (ft.)	DTW (ft.)	ST (ft.)	CV (gal.)	PV (gal.)	SPH (ft.)	NOTES
MW-1	2	16.59	2.40	14.19	2.2704	6.81	0	no sheen
MW-2	2	18.07	~~2.48~~ 2.08	15.99	2.56	7.68	0	no sheen
MW-3	2	17.71	1.48	16.23	2.59	7.77	0	no sheen
MW-4	2	16.94	1.66	15.28	2.44	7.32	0	no sheen
MW-5	2	19.76	2.02	17.74	2.84	8.52	0	no sheen

Explanation:

DIA. = Well Diameter
DTB = Depth to Bottom
DTW = Depth to Water
ST = Saturated Thickness (DTB-DTW)
CV = Casing Volume (ST x cf)
PV = Purge Volume (standard 3 x CV, well development 10 x CV)
SPH = Thickness of Separate Phase Hydrocarbons

Conversion Factors (cf):

2 in. dia. well cf = 0.16 gal./ft.
4 in. dia. well cf = 0.65 gal./ft.
6 in. dia. well cf = 1.44 gal./ft.

BLUE ROCK ENVIRONMENTAL, INC.

PURGING DATA

Job No.: NC-18 **Location:** 7769 Myrtle **Date:** 4/19/05 **Tech:** J. L.

WELL No.	TIME	VOLUME (gal.)	COND. (mS/cm)	TEMP. (deg. F.)	pH
MW-1			---	---	---
Calc. purge	1430	≈ 2gal	245	62.5	5.52
volume	1435	≈ 4gal	287	60.1	5.43
6.81	1445	≈ 6gal	286	60.1	5.38

COMMENTS: color, turbidity, recharge, sheen

clear / no odor / low Turb. / no sheen / mod. rech.

Sample for: TPHg TPHd 8260 BTEX MTBE Metals

Purging Method: PVC bailer / Pump

Sampling Method: Dedicated / Disposable bailer

Sample at: 14:50

WELL No.	TIME	VOLUME (gal.)	COND. (mS/cm)	TEMP. (deg. F.)	pH
MW-2			---	---	---
Calc. purge	15:40	≈ 2gal.	361	59.3	6.00
volume	15:45	≈ 4 gal.	388	57.7	6.04
7.68	15:50	≈ 6 gal.		50.9	6.15

COMMENTS: color, turbidity, recharge, sheen

clear to brown / mod. Turb. / NC odor / mod. rech. no sheen

Sample for: TPHg TPHd 8260 BTEX MTBE Metals

Purging Method: PVC bailer / Pump

Sampling Method: Dedicated / Disposable bailer

Sample at: 1555

WELL No.	TIME	VOLUME (gal.)	COND. (mS/cm)	TEMP. (deg. F.)	pH
MW-3			---	---	---
Calc. purge	1500	≈ 2gal.	275	61.2	5.77
volume	1505	≈ 4 gal.	269	60.7	5.72
7.77	1510	≈ 6 gal.	267	60.6	5.81

COMMENTS: color, turbidity, recharge, sheen

clear to brown / no odor / mod. to low Turb. / mod. rech. no sheen

Sample for: TPHg TPHd 8260 BTEX MTBE Metals

Purging Method: PVC bailer / Pump

Sampling Method: Dedicated / Disposable bailer

Sample at: 1515

PURGING DATA

Job No.: NC-18 **Location:** 7769 **Date:** 4-19-05 **Tech:** J.L.

WELL No.	TIME	VOLUME (gal.)	COND. (mS/cm)	TEMP. (deg. F.)	pH
MW-4			---	---	---
Calc. purge	1400	≈ 2 gal.	511	62	6.5
volume	1410	≈ 5 gal.	430	58.8	5.82
7.32	1420	≈ 7 gal.	419	57.9	5.56

COMMENTS: color, turbidity, recharge, sheen

Clear to brown / mod. turb. / no odor / no sheen / mod. rech.

Sample for: TPHg TPHd 8260 BTEX MTBE Metals

Purging Method: PVC bailer / Pump

Sampling Method: Dedicated / Disposable bailer

Sample at: 1430

WELL No.	TIME	VOLUME (gal.)	COND. (mS/cm)	TEMP. (deg. F.)	pH
MW-5			---	---	---
Calc. purge	1517	≈ 2 gal	116	56.1	5.34
volume	1520	≈ 4 gal	107	54.3	5.22
8.52	1522	≈ 8 gal.	100	54.4	5.14

COMMENTS: color, turbidity, recharge, sheen

Clear to brown / mod. turb. / mod. rech. / no sheen / no odor

Sample for: TPHg TPHd 8260 BTEX MTBE Metals

Purging Method: PVC bailer / Pump

Sampling Method: Dedicated / Disposable bailer

Sample at: 1525

WELL No.	TIME	VOLUME (gal.)	COND. (mS/cm)	TEMP. (deg. F.)	pH
			---	---	---
Calc. purge					
volume					

COMMENTS: color, turbidity, recharge, sheen

Sample for: TPHg TPHd 8260 BTEX MTBE Metals

Purging Method: PVC bailer / Pump

Sampling Method: Dedicated / Disposable bailer

Sample at:

KIFF ANALYTICAL LLC

Report Number : 43317
Date : 4/27/2005

Andrew LoCicero
Blue Rock Environmental, Inc.
535 3rd Street, Suite 100
Eureka, CA 95501

Subject : 5 Water Samples
Project Name : Indianola Market
Project Number : NC-18

Dear Mr. LoCicero,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed.

Kiff Analytical is certified by the State of California (# 2236). If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,

Joel Kiff

KIFF ANALYTICAL LLC

Report Number : 43317
Date : 4/27/2005

Subject : 5 Water Samples
Project Name : Indianola Market
Project Number : NC-18

Case Narrative

The Method Reporting Limit for TPH as Diesel is increased due to interference from Gasoline-Range Hydrocarbons for sample MW-2.

Approved By: Joel Kiff

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

KIFF ANALYTICAL LLC

Report Number : 43317

Date : 4/27/2005

Project Name : **Indianola Market**

Project Number : **NC-18**

Sample : **MW-1** Matrix : Water Lab Number : 43317-01

Sample Date :4/18/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	4/23/2005
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	4/23/2005
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	4/23/2005
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	4/23/2005
Methyl-t-butyl ether (MTBE)	**1.1**	0.50	ug/L	EPA 8260B	4/23/2005
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	4/23/2005
Toluene - d8 (Surr)	85.8		% Recovery	EPA 8260B	4/23/2005
4-Bromofluorobenzene (Surr)	101		% Recovery	EPA 8260B	4/23/2005

Sample : **MW-2** Matrix : Water Lab Number : 43317-02

Sample Date :4/18/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 1.0**	1.0	ug/L	EPA 8260B	4/22/2005
Toluene	**< 1.0**	1.0	ug/L	EPA 8260B	4/22/2005
Ethylbenzene	**< 1.0**	1.0	ug/L	EPA 8260B	4/22/2005
Total Xylenes	**< 1.0**	1.0	ug/L	EPA 8260B	4/22/2005
Methyl-t-butyl ether (MTBE)	**510**	1.0	ug/L	EPA 8260B	4/22/2005
TPH as Gasoline	**620**	100	ug/L	EPA 8260B	4/22/2005
Toluene - d8 (Surr)	102		% Recovery	EPA 8260B	4/22/2005
4-Bromofluorobenzene (Surr)	97.0		% Recovery	EPA 8260B	4/22/2005
TPH as Diesel	**< 500**	500	ug/L	M EPA 8015	4/26/2005
Octacosane (Diesel Surrogate)	115		% Recovery	M EPA 8015	4/26/2005

Approved By: Joel Kiff

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800

KIFF ANALYTICAL LLC

Report Number : 43317

Date : 4/27/2005

Project Name : **Indianola Market**

Project Number : **NC-18**

Sample : **MW-3** Matrix : Water Lab Number : 43317-03

Sample Date :4/18/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	4/22/2005
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	4/22/2005
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	4/22/2005
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	4/22/2005
Methyl-t-butyl ether (MTBE)	**2.2**	0.50	ug/L	EPA 8260B	4/22/2005
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	4/22/2005
Toluene - d8 (Surr)	99.4		% Recovery	EPA 8260B	4/22/2005
4-Bromofluorobenzene (Surr)	99.5		% Recovery	EPA 8260B	4/22/2005

Sample : **MW-4** Matrix : Water Lab Number : 43317-04

Sample Date :4/18/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	4/22/2005
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	4/22/2005
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	4/22/2005
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	4/22/2005
Methyl-t-butyl ether (MTBE)	**< 0.50**	0.50	ug/L	EPA 8260B	4/22/2005
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	4/22/2005
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	4/22/2005
4-Bromofluorobenzene (Surr)	93.3		% Recovery	EPA 8260B	4/22/2005

Approved By: Joel Kiff

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800

KIFF ANALYTICAL LLC

Report Number : 43317

Date : 4/27/2005

Project Name : **Indianola Market**

Project Number : **NC-18**

Sample : **MW-5** Matrix : Water Lab Number : 43317-05

Sample Date :4/18/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	4/22/2005
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	4/22/2005
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	4/22/2005
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	4/22/2005
Methyl-t-butyl ether (MTBE)	**8.2**	0.50	ug/L	EPA 8260B	4/22/2005
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	4/26/2005
Toluene - d8 (Surr)	99.9		% Recovery	EPA 8260B	4/22/2005
4-Bromofluorobenzene (Surr)	116		% Recovery	EPA 8260B	4/22/2005
TPH as Diesel	**< 50**	50	ug/L	M EPA 8015	4/26/2005
Octacosane (Diesel Surrogate)	106		% Recovery	M EPA 8015	4/26/2005

Approved By: Joel Kiff

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800

Report Number : 43317

Date : 4/27/2005

QC Report : Method Blank Data

Project Name : **Indianola Market**

Project Number : **NC-18**

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
TPH as Diesel	< 50	50	ug/L	M EPA 8015	4/25/2005
Octacosane (Diesel Surrogate)	118		%	M EPA 8015	4/25/2005
Benzene	< 0.50	0.50	ug/L	EPA 8260B	4/21/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	4/21/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	4/21/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	4/21/2005
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	4/21/2005
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	4/21/2005
Toluene - d8 (Surr)	87.7		%	EPA 8260B	4/21/2005
4-Bromofluorobenzene (Surr)	101		%	EPA 8260B	4/21/2005
Benzene	< 0.50	0.50	ug/L	EPA 8260B	4/22/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	4/22/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	4/22/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	4/22/2005
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	4/22/2005
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	4/22/2005
Toluene - d8 (Surr)	98.3		%	EPA 8260B	4/22/2005
4-Bromofluorobenzene (Surr)	110		%	EPA 8260B	4/22/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	4/22/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	4/22/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	4/22/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	4/22/2005
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	4/22/2005
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	4/22/2005
Toluene - d8 (Surr)	100		%	EPA 8260B	4/22/2005
4-Bromofluorobenzene (Surr)	94.4		%	EPA 8260B	4/22/2005
Benzene	< 0.50	0.50	ug/L	EPA 8260B	4/26/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	4/26/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	4/26/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	4/26/2005
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	4/26/2005
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	4/26/2005
Toluene - d8 (Surr)	101		%	EPA 8260B	4/26/2005
4-Bromofluorobenzene (Surr)	97.2		%	EPA 8260B	4/26/2005
Benzene	< 0.50	0.50	ug/L	EPA 8260B	4/22/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	4/22/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	4/22/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	4/22/2005
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	4/22/2005
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	4/22/2005
Toluene - d8 (Surr)	100		%	EPA 8260B	4/22/2005
4-Bromofluorobenzene (Surr)	94.6		%	EPA 8260B	4/22/2005

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

Report Number : 43317

Date : 4/27/2005

QC Report : Method Blank Data

Project Name : **Indianola Market**

Project Number : **NC-18**

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	4/23/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	4/23/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	4/23/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	4/23/2005
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	4/23/2005
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	4/23/2005
Toluene - d8 (Surr)	92.4		%	EPA 8260B	4/23/2005
4-Bromofluorobenzene (Surr)	105		%	EPA 8260B	4/23/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

Report Number : 43317

QC Report : Matrix Spike/ Matrix Spike Duplicate

Date : 4/27/2005

Project Name : **Indianola Market**

Project Number : **NC-18**

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
TPH as Diesel	Blank	<50	1000	1000	925	1040	ug/L	M EPA 8015	4/25/05	92.5	104	12.1	70-130	25
Benzene	43352-01	<0.50	40.0	40.0	42.5	41.1	ug/L	EPA 8260B	4/21/05	106	103	3.22	70-130	25
Toluene	43352-01	1.1	40.0	40.0	38.7	37.3	ug/L	EPA 8260B	4/21/05	94.0	90.6	3.69	70-130	25
Tert-Butanol	43352-01	<5.0	200	200	212	197	ug/L	EPA 8260B	4/21/05	106	98.6	7.28	70-130	25
Methyl-t-Butyl Ether	43352-01	<0.50	40.0	40.0	33.4	34.0	ug/L	EPA 8260B	4/21/05	83.5	85.0	1.79	70-130	25
Benzene	43342-06	64	40.0	40.0	108	107	ug/L	EPA 8260B	4/22/05	111	108	2.56	70-130	25
Toluene	43342-06	3.6	40.0	40.0	43.5	43.4	ug/L	EPA 8260B	4/22/05	99.8	99.5	0.224	70-130	25
Tert-Butanol	43342-06	10	200	200	213	206	ug/L	EPA 8260B	4/22/05	102	97.9	3.68	70-130	25
Methyl-t-Butyl Ether	43342-06	29	40.0	40.0	65.7	66.1	ug/L	EPA 8260B	4/22/05	91.9	93.0	1.17	70-130	25
Benzene	43342-12	<0.50	40.0	40.0	42.3	41.8	ug/L	EPA 8260B	4/22/05	106	104	1.23	70-130	25
Toluene	43342-12	<0.50	40.0	40.0	42.3	41.8	ug/L	EPA 8260B	4/22/05	106	104	1.36	70-130	25
Tert-Butanol	43342-12	<5.0	200	200	209	204	ug/L	EPA 8260B	4/22/05	104	102	2.28	70-130	25
Methyl-t-Butyl Ether	43342-12	<0.50	40.0	40.0	43.1	43.0	ug/L	EPA 8260B	4/22/05	108	107	0.277	70-130	25
Benzene	43375-07	<0.50	40.0	40.0	41.2	40.9	ug/L	EPA 8260B	4/26/05	103	102	0.700	70-130	25
Toluene	43375-07	<0.50	40.0	40.0	42.0	41.9	ug/L	EPA 8260B	4/26/05	105	105	0.377	70-130	25
Tert-Butanol	43375-07	<5.0	200	200	204	205	ug/L	EPA 8260B	4/26/05	102	102	0.575	70-130	25
Methyl-t-Butyl Ether	43375-07	0.57	40.0	40.0	42.6	42.7	ug/L	EPA 8260B	4/26/05	105	105	0.181	70-130	25

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

Report Number : 43317

Date : 4/27/2005

QC Report : Matrix Spike/ Matrix Spike Duplicate

Project Name : **Indianola Market**

Project Number : **NC-18**

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Benzene	43340-01	<0.50	40.0	40.0	40.5	40.0	ug/L	EPA 8260B	4/22/05	101	99.9	1.21	70-130	25
Toluene	43340-01	<0.50	40.0	40.0	40.9	40.5	ug/L	EPA 8260B	4/22/05	102	101	0.964	70-130	25
Tert-Butanol	43340-01	<5.0	200	200	194	193	ug/L	EPA 8260B	4/22/05	97.1	96.4	0.702	70-130	25
Methyl-t-Butyl Ether	43340-01	<0.50	40.0	40.0	37.1	37.1	ug/L	EPA 8260B	4/22/05	92.8	92.7	0.154	70-130	25
Benzene	43363-03	<0.50	40.0	40.0	37.0	37.5	ug/L	EPA 8260B	4/23/05	92.5	93.8	1.39	70-130	25
Toluene	43363-03	<0.50	40.0	40.0	38.4	36.9	ug/L	EPA 8260B	4/23/05	96.0	92.4	3.88	70-130	25
Tert-Butanol	43363-03	10	200	200	196	200	ug/L	EPA 8260B	4/23/05	92.6	95.0	2.47	70-130	25
Methyl-t-Butyl Ether	43363-03	<0.50	40.0	40.0	42.8	40.4	ug/L	EPA 8260B	4/23/05	107	101	5.59	70-130	25

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

Report Number : 43317

Date : 4/27/2005

QC Report : Laboratory Control Sample (LCS)

Project Name : **Indianola Market**

Project Number : **NC-18**

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Benzene	40.0	ug/L	EPA 8260B	4/21/05	104	70-130
Toluene	40.0	ug/L	EPA 8260B	4/21/05	98.4	70-130
Tert-Butanol	200	ug/L	EPA 8260B	4/21/05	103	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	4/21/05	84.8	70-130
Benzene	40.0	ug/L	EPA 8260B	4/22/05	93.5	70-130
Toluene	40.0	ug/L	EPA 8260B	4/22/05	96.2	70-130
Tert-Butanol	200	ug/L	EPA 8260B	4/22/05	97.9	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	4/22/05	94.6	70-130
Benzene	40.0	ug/L	EPA 8260B	4/22/05	98.5	70-130
Toluene	40.0	ug/L	EPA 8260B	4/22/05	101	70-130
Tert-Butanol	200	ug/L	EPA 8260B	4/22/05	99.6	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	4/22/05	103	70-130
Benzene	40.0	ug/L	EPA 8260B	4/26/05	97.3	70-130
Toluene	40.0	ug/L	EPA 8260B	4/26/05	103	70-130
Tert-Butanol	200	ug/L	EPA 8260B	4/26/05	99.7	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	4/26/05	104	70-130
Benzene	40.0	ug/L	EPA 8260B	4/22/05	96.1	70-130

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

Report Number : 43317

QC Report : Laboratory Control Sample (LCS)

Date : 4/27/2005

Project Name : **Indianola Market**

Project Number : **NC-18**

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Toluene	40.0	ug/L	EPA 8260B	4/22/05	98.7	70-130
Tert-Butanol	200	ug/L	EPA 8260B	4/22/05	92.6	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	4/22/05	90.7	70-130
Benzene	40.0	ug/L	EPA 8260B	4/23/05	94.3	70-130
Toluene	40.0	ug/L	EPA 8260B	4/23/05	96.7	70-130
Tert-Butanol	200	ug/L	EPA 8260B	4/23/05	91.0	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	4/23/05	112	70-130

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

KIFF ANALYTICAL LLC

2795 2nd Street, Suite 300
Davis, CA 95616
Lab: 530.297.4800
Fax: 530.297.4808

Lab No. 43317 Page 1 of 1

Chain-of-Custody Record and Analysis Request

Project Contact (Hardcopy or PDF To): Andrew Locicero

California EDF Report? ☒ Yes ☐ No

Company/Address: Blue Rock Env. Inc. 535 3rd St. Ste. 100 Eureka

Recommended but not mandatory to complete this section:
Sampling Company Log Code: - - -

Phone No.: (707) 441-1934
FAX No.: (707) 441-1949

Global ID: T-0-6-0-2-3-0-0-4-8-9

Project Number: NC-18
P.O. No: —

EDF Deliverable To (Email Address):

Project Name: Indianola Market

Sampler Signature: Dianne Lindemann

Project Address: 7769 Myrtle Ave Eureka CA

Sample Designation	Sampling Date	Sampling Time	Container: 40 ml VOA	Container: SLEEVE	Preservative: HCl	Preservative: HNO_3	Preservative: ICE	Preservative: NONE	Matrix: WATER	Matrix: SOIL	BTEX (8021B)	BTEX/TPH Gas/MTBE (8021B/M8015)	TPH as Diesel (M8015)	TPH as Motor Oil (M8015)	TPH Gas/BTEX/MTBE (8260B)	5 Oxygenates/TPH Gas/BTEX (8260B)	7 Oxygenates/TPH Gas/BTEX (8260B)	5 Oxygenates (8260B)	7 Oxygenates (8260B)	Lead Scav. (1,2 DCA & 1,2 EDB - 8260B)	EPA 8260B (Full List)	Volatile Halocarbons (EPA 8260B)	Lead (7421/239.2) TOTAL (X) W.E.T. (X)	TAT: 12 hr/24 hr/48 hr/72 hr/1 wk	For Lab Use Only
MW-1	4-18-05	1480	4		X		X		X						X										-01
MW-2	↓	1555	4		↓		↓		↓				X		↓										-02
MW-3		1515	4																						-03
MW-4		1450	4																						-04
MW-5		1525	4										X												-05

Relinquished by:	Date	Time	Received by:
Dianne Lindemann	4/19/05	1500	Fed Ex
Relinquished by:	Date	Time	Received by:
Relinquished by:	Date	Time	Received by Laboratory:
	04-2005	1050	Robert C Pickle — KIFF ANALYTICAL

Remarks: SAMPLES ARRIVED VIA FEDEX ON WET ICE AT 1000. TEMPERATURES WERE 5.1°C VIA IR-1. RCP 04-2005 1050

Bill to:

Distribution: White - Lab, Pink - Originator

Forms/coc 121001.fh9