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#5814

ENVIRONMENTAL PROTECTION
98 DEC 22 AM 10:39

Friday, December 18, 1998
Via US Mail

NORTHWEST ENVIROCON INC.

ENVIRONMENTAL ENGINEERING

ENVIRONMENTAL DUE DILIGENCE

ASBESTOS / LEAD SERVICES

INDUSTRIAL HYGIENE

LABORATORY SERVICES

CONSTRUCTION MANAGEMENT

ENVIRONMENTAL TRAINING

Patrick Murray
McMorgan & Company
One Bush Street
Suite 800
San Francisco, CA 94104

Re: Supplemental Soil and Groundwater Assessment, 444 Hegenberger Road, Oakland, CA.; NWE Project No. 05-001594

Dear Mr. Murray:

Northwest Envirocon, Inc. (NWE) is pleased to present our findings, conclusions and recommendations from the Supplemental Soil and Groundwater Assessment conducted at 444 Hegenberger Road, Oakland, California (Site). The work was performed in accordance with the Scope of Work prepared by NWE, dated October 5, 1998, which was approved for implementation by the Alameda County Environmental Health Services in a telephone conversation with Mr. Barney Chan, November 2, 1998, and memorialized in correspondence from NWE to Mr. Chan on November 3, 1998.

BACKGROUND

The Site is located in northwest Alameda County approximately ¼ mile south of the Interstate 80 and Hegenberger Road interchange, and approximately 1 mile east of Oakland International Airport. Plate 1 (Appendix A) illustrates the location of the Site. The Site is a rectangular shaped parcel situated at the southeast corner of the intersection of Hegenberger Road and Hegenberger Loop. Plate 2 (Appendix A) illustrates the configuration of the Site. The western portion of the Site was previously occupied by a retail gasoline service station.

In April 1997, four soil borings were drilled at the Site to collect soil and groundwater "grab" samples. Plate 3 (Appendix A) illustrates the locations of the soil borings (SB-1 through SB-4). Soil sample analytical results detected total petroleum hydrocarbons as gasoline (TPHg) at concentrations ranging from 1.7 to 260 milligrams/kilogram (mg/kg), total petroleum hydrocarbons as diesel (TPHd) at concentrations ranging from 2.1 to 120 mg/kg, and oil and grease at concentrations ranging from 93 to 220 mg/kg. Table 1 (Appendix B) tabulates the soil analytical data. Groundwater "grab" sample analytical results detected benzene at concentrations ranging from 35 to 1,600 micrograms/liter (µg/L). Table 2 (Appendix B) tabulates the groundwater analytical data.

On the basis of these results, an additional investigation was performed at the Site in July and October 1997, included conducting a subsurface geophysical survey (July 24, 1997) and exploratory trenching (October 8, 1997) in the northwest corner of the Site, and drilling soil borings to collect soil and groundwater "grab" samples (October 6, 7 and 8, 1997). Plate 3 (Appendix A) illustrates the locations of the geophysical survey, exploratory trenching and soil borings (SB-5 through SB-16). The results of the geophysical survey and exploratory trenching identified metal debris (discarded piping, auto parts, and scrap metal) beneath the surface at the Site but did not indicate the presence of underground storage tanks (USTs).

Twelve soil borings were drilled and sampled to depths of 10 to 12 feet below ground surface (bgs). Soil sample analytical results detected TPHg at concentrations ranging from 1.1 to 930 mg/kg, and oil and grease at concentrations ranging from 13 to 780 mg/kg. TPHd was not detected at concentrations at or greater than the analytical reporting limit. Soil samples collected from two soil borings (SB-15 and SB-16) did not contain detectable concentrations of TPHg or other petroleum hydrocarbon constituents at or above their respective analytical reporting limit. Table 1 (Appendix B) tabulates the soil analytical data. Groundwater "grab" sample analytical results detected TPHg at concentrations ranging from 0.190 to 52 milligrams/liter (mg/l), benzene concentrations ranging from 4.5 to 12,000 µg/l, toluene concentrations ranging from 1.1 to 1,800 µg/l, ethylbenzene concentrations ranging from 40 to 6,000 µg/l, and total xylenes concentrations ranging from 1.4 to 7,400 µg/l. Concentrations of methyl t-butyl ether (MTBE) were not detected at or greater than the analytical reporting limit. Volatile organic compounds (solvents) were not detected in four groundwater samples analyzed for these constituents at or greater than their respective analytical reporting limits. Concentration of TPHd was detected in one groundwater sample at 0.130 mg/l. Concentrations of total petroleum hydrocarbons as motor oil (TPHmo) ranged from 0.130 to 0.890 mg/l. Groundwater samples collected from two soil borings (SB-15 and SB-16) did not contain detectable concentrations of TPHg, TPHd, TPHmo, solvents, or other petroleum hydrocarbon constituents at or above their respective analytical reporting limit. Table 2 (Appendix B) tabulates the groundwater analytical data.

PHYSICAL SETTING

The Site is situated within the Franciscan Complex Geomorphic Province of California (California Department of Mines and Geology, 1977). The geographic character of the Franciscan Complex are coastal foothills and mountains, which extends from the Tehachapi Mountains in the south to the Klamath Mountains in the north. The western and eastern boundaries of this province are include the Pacific Ocean and the Great Valley Province, respectively. The Franciscan Province is split into four major divisions which are identified as the Northern Coast Range, Franciscan Block, Diablo Range and the Naciomento Block.

1.0 GEOLOGY

The Site is situated within the Franciscan Block which can be described as an assemblage of variably deformed and metamorphosed rock units that formed as a subduction complex. The Franciscan Block are predominately detrital sedimentary rocks with volcanic tuffs and deep ocean pelagic sediments.

Based upon the General Soil Map from the Alameda County Soil Survey, issued by the United States Department of Agriculture Soil Conservation Service in 1981, the Site is situated within the Xeropsamments-Urban land-Baywood (XUB) association. The geographic character of the XUB consist of nearly level to moderately sloping coastal plains (slopes from 0 to 9 percent).The soils in this association generally consist of excessively drained sands and loamy sands that formed in sandy Eolian deposits on mounds and ridges that derived from beach deposits and in sandy material dredged from beaches.

2.0 HYDROGEOLOGY

Based upon information obtained from the Alameda County Public Works Agency (Mr. Alvin Kan – personal communication) the estimated depth to uppermost groundwater at the Site is approximately 10 feet bgs and the prevailing groundwater flow direction in the area of the Site is west to southwest. However, localized groundwater flow may vary during winter/summer cycles and periods of high or low tides. Groundwater was previously encountered at an approximate depth of 10 feet bgs in the soil borings drilled on the Site between October 6 and 8, 1997. The nearest surface water feature is the San Francisco Bay, located approximately five miles west of the Site.

Tertiary marine and non-marine lagoonal clay and silt deposits are the principal source of shallow groundwater in the Oakland area. The area is primarily drained by the hydrogeologic system related to the San Francisco Bay.

Groundwater in the Oakland area occurs under both confined and unconfined conditions. The groundwater occurs in the Alameda Bay Plain Ground Water Basin (formerly the East Bay Area of the Santa Clara Valley Ground Water Basin, Department of Water Resources [DWR] Ground Water Basin No. 2-9.01). The Santa Clara Valley Ground Water Basin is a 580-square mile basin drained primarily by the Guadalupe River and Alameda, Coyote, Redwood and San Francisquito Creeks. The groundwater occurs in younger and older alluvium and is used intensively for domestic, industrial and irrigation uses (DWR, 1975, *California's Ground Water*, Bulletin 118 and DWR, 1980, *Ground Water Basins in California,* Bulletin 118-80).

SCOPE OF WORK

NWE followed the scope of work prepared by NWE, dated October 5, 1998. Specifically, the following activities were conducted:

1. A Site-specific health and safety plan was prepared.
2. Permit for five groundwater monitoring wells was secured from the Alameda County Public Works Agency – Water Resources Section.
3. Five soil borings were drilled which were completed as groundwater monitoring wells.
4. The five groundwater monitoring wells were developed.
5. The tops of well casings of the five groundwater monitoring wells were surveyed relative to a benchmark.
6. Groundwater beneath the Site was monitored, purged and sampled via the monitoring wells.
7. Soil samples were analyzed for TPHg, TPHd, TPHmo, and BTEX.

8. Groundwater samples were analyzed for TPHg, TPHd, BTEX and MTBE.
9. Data were interpreted and this report was prepared.

1.0 SOIL BORING AND SAMPLING

On November 23 and 24, 1998, NWE drilled five borings at the Site which were converted into groundwater monitoring wells (MW1, MW2, MW3, MW4 and MW5). A well permit was obtained from the Alameda County Public Works Agency – Water Resources Section and is enclosed in Appendix C. Locations of the wells are shown on Plate 3 (Appendix A). The monitoring well locations were chosen to evaluate the quality of groundwater at the Site.

All borings were drilled using truck-mounted, 8-inch-diameter, hollow-stem auger drilling equipment. All five borings were drilled to 20 feet bgs. Augers were cleaned prior to the beginning of each exploratory boring and rinsed with clean, potable water.

Soil samples for logging and laboratory analysis were collected at 5-foot intervals by driving a modified California split-spoon sampler, with brass liners, 18 inches into undisturbed ground beyond the tip of the augers by a 140-pound hammer having a 30-inch drop. During drilling, the soil samples and soil cuttings were logged according to the Unified Soil Classification System.

Volatile organic vapor concentrations of each soil sample were measured using a photoionization detector, Mini-Rae (PID). The PID was calibrated to 50 parts per million (ppm) hexane. The soil samples were immediately covered to allow organic vapors to equalize for several minutes prior to each measurement. Soil sample PID readings ranged from nondetect to approximately 872 ppm. The soil sample descriptions and the PID readings are presented on the boring logs included in Appendix C.

Soil samples were retained in 2-inch-diameter, 6-inch-long brass tubes, taped, sealed with caps, and stored on ice for transport to a State-certified laboratory. Labels were placed on each sample identifying the project number, date, sampler's initials, boring number, and depth. The soil cuttings from drilling operations were placed in Department of Transportation (DOT)-approved 55-gallon drums and stored on-Site awaiting disposal. The drums were labeled indicating the soil boring number and depth interval from which the soil cuttings were generated.

2.0 GROUNDWATER MONITORING WELL INSTALLATION

NWE installed five groundwater monitoring wells, MW1, MW2, MW3, MW4 and MW5. These wells were constructed of 2-inch-diameter, Schedule 40 PVC casing. The bottom of each casing has a threaded end plug, and the top of each well is secured with a watertight locking well cap. The screened portion of each well consists of slotted PVC casing with 0.02-inch-wide slots. All five wells were constructed with perforations from 5 to 20 feet bgs. The annular space of each well was packed with Monterey sand 2/12 to approximately 2 feet above the slotted casing (3 feet bgs). On top of the Monterey sand, bentonite pellets were placed and hydrated with water to approximately 2.5 feet bgs. A neat cement and bentonite mixture was installed above the bentonite seal to approximately 1 foot bgs. Concrete was used to secure the well-head covers. Each well-head cover has a watertight seal to protect against infiltration of surface water. The well construction details are included in Appendix C.

3.0 GROUNDWATER MONITORING WELL DEVELOPMENT

Each groundwater monitoring well was developed using a surge block and by removing the surged water with a stainless steel bailer. Surging and bailing were performed prior to placement of the bentonite seal to allow the sand to settle. A minimum of five well volumes of water were bailed from each well. The bailed water was placed in DOT-approved, 55-gallon drums and stored on-Site awaiting disposal.

4.0 GROUNDWATER MONITORING WELL SURVEY

NWE performed a well survey to determine the relative elevations of the five groundwater monitoring wells. The benchmark selected for the survey was the top of casing for groundwater monitoring well MW-4 (assumed 100.00 feet). For the purpose of determining the direction of groundwater flow, each well rim or top of casing (TOC) was marked with a black waterproof mark. The elevation of each well casing rim at the mark was surveyed to the benchmark. The survey data is summarized in Table 3 (Appendix B).

Prior to the collection of groundwater samples, the depth to water in each well was measured relative to the elevation of the TOC of each well using a Solinst water level indicator. The depth to groundwater in the well casings ranged from 2.20 to 4.61 feet below TOC. Relative groundwater elevation was evaluated by subtracting the water table depth from each well's TOC elevation. The results of the groundwater level measurements are summarized in Table 3 (Appendix B).

5.0 GROUNDWATER SAMPLING

On December 2, 1998, NWE collected one groundwater sample from each of the wells. Prior to sampling each well was purged of approximately three well casing volumes of water using a ABS submersible purge pump. The pH, conductivity, and temperature of purged groundwater from each well were measured and recorded during the purging process and are summarized in Table 4 (Appendix B). Purge data sheets are included in Appendix C. Water removed during monitoring well purging was placed in DOT-approved, 55-gallon drums and remain on-site pending analytical results and transport to an appropriate disposal facility.

Groundwater samples were obtained after the pH, conductivity and temperature in each well had stabilized. Groundwater samples were collected using a separate, disposable HDPE bailer for each well. The groundwater samples collected from each well were transferred from the bailer via a bottom-emptying device into laboratory prepared, HCL preserved, 40-milliliter glass vials with Teflon-lined septa, recorded on a chain-of-custody form, and stored in an ice chest filled with ice for transport to a California State-certified laboratory for analyses. Labels were placed on each groundwater sample identifying the project number, date, sampler's initials, and well number.

Water removed during well purging was placed in DOT-approved, 55-gallon drums on-Site awaiting transport to an appropriate disposal facility.

6.0 LABORATORY ANALYSES

6.1 Soil

Selected soil samples were analyzed for TPHg, TPHd and TPHmo by EPA Method 8015M, and BTEX by EPA Method 8020. Soil analytical results are summarized in Table 1 (Appendix B). Laboratory analytical reports are included in Appendix D.

6.2 Groundwater

Groundwater samples from each well were analyzed for TPHg and TPHd by EPA Method 8015M, and BTEX and MTBE by EPA Method 8020. Groundwater analytical results are summarized in Table 2 (Appendix B). Laboratory analytical reports are included in Appendix D.

FINDINGS

The major findings of this Supplemental Soil and Groundwater Assessment can be summarized as follows:

- PID readings were elevated from soil samples collected at 5 and 10 feet bgs in all five borings. The highest readings were from soil samples collected at 5 feet bgs. In general, PID readings decreased with increasing depth. The lowest PID readings were from Boring MW-1.
- Laboratory analytical results detected concentrations of TPHg and BTEX in soil samples collected from all borings except boring MW-1. Concentrations of TPHmo were detected in soil samples collected from Borings MW-2 and MW-4. TPHd concentrations were not detected above the analytical reporting limit in any of the soil samples analyzed.
- Elevated concentrations of TPHg and BTEX were detected in soil samples collected from Borings MW-2, MW-4 and MW-5 between 8.5 and 10 feet bgs. The highest TPHg and BTEX concentrations were detected in soil samples collected from Boring MW-1 between 8.5 and 10 feet bgs at 47 mg/kg TPHg, 1.5 mg/kg benzene, 1.7mg/kg toluene, 3.0 mg/kg ethylbenzene, and 5.2 mg/kg total xylenes. Low TPHg concentrations were detected in soil samples collected from Boring MW-3 between 8.5 and 10 feet bgs, and Boring MW-4 between 13.5 and 10 feet bgs. The lowest TPHg and BTEX concentrations were detected in soil samples collected from Boring MW-4 between 13.5 and 15 feet bgs. Concentrations of TPHg and BTEX were not detected in soil samples collected from Boring MW-1 above the analytical reporting limit. In general, concentrations of TPHg and BTEX in soil decreased with increasing depth.
- The approximate lateral extent of TPHg concentrations in soil greater than 100 mg/kg is presented on Plate 4 (Appendix A) between 3 and 8 feet bgs, and between 8 and 15 feet bgs, and includes soil analytical data from previous assessment work conducted by NWE at the Site in April and October 1997.
- Soils encountered were found to be a thin veneer of sand with clay (aggregate base) ranging in thickness between approximately 0.5 to 3.5 feet bgs, underlain by moderately plastic, moderately stiff to stiff clay to approximately 15 feet bgs, underlain by medium to coarse-grained sand with fine-grained gravels to total depth explored (20 feet bgs). Interbedded discontinuous silty sands were encountered in the west portion of the Site between approximately 3 and 8 feet bgs. A discontinuous gravely clay layer was encountered in the central northwest portion of the Site between approximately 3.5 and 8.5 feet bgs. Soil colors ranged from dark gray to black (clays) to yellow brown to strong brown (sands and gravels). Where soil was visibly impacted, soil color ranged from dark greenish gray to dark bluish gray. Plate 4 (Appendix A) illustrates the locations of two cross-sections depicting the soil

types encountered by this assessment, and includes soil lithologic data from previous assessment work conducted by NWE at the Site in April and October 1997. The two cross-sections are presented on Plates 5a and 5b (Appendix A).

- Saturated soils inferring the presence of groundwater were encountered during borehole drilling between approximately 15 and 17 feet bgs in granular material (gravels and sands).
- Depth to groundwater was measured in the developed wells between 2.20 and 4.61 feet below TOC.
- Plate 6 (Appendix A) illustrates the inferred configuration of the groundwater surface beneath the Site on December 2, 1998. The groundwater gradient beneath the Site is calculated to be approximately 0.00091 ft/ft with a groundwater flow direction slightly south of west across the Site.
- Laboratory analyses of groundwater samples collected from the wells detected concentrations of TPHg, TPHd and BTEX. Concentrations of MTBE were not detected at or greater than the analytical reporting limit for MTBE.
- The highest concentrations of TPHg was detected in groundwater samples collected from well MW-3 at 0.97 mg/l TPHg. Low concentrations of TPHg were detected in the groundwater sample collected from well MW-4 (0.15 mg/l). The remaining groundwater samples collected from wells MW-1, MW-2, and MW-5 did not contain concentrations of TPHg at or above the analytical reporting limit for TPHg. Low concentrations of TPHd were detected in samples collected from wells MW-2, MW-3, MW-4 and MW-5 at 0.099 mg/l, 0.30 mg/l, 0.15 mg/l and 0.62 mg/l, respectively. and BTEX were,
- Elevated concentrations of BTEX were detected in groundwater samples collected from wells MW-3, and MW-4. The highest concentrations were detected in groundwater samples collected from well MW-3: benzene at 160 µg/l, toluene at 6.5 µg/l, ethylbenzene at 16 µg/l, and total xylenes at 9 µg/l. Low BTEX concentrations were detected in groundwater samples collected from wells MW-2 and MW-5. Concentrations of BTEX were not detected in groundwater samples collected from well MW-1. Plate 6 (Appendix A) illustrates the distribution of benzene in groundwater beneath the Site on December 2, 1998.

CONCLUSIONS

Based on the major findings of this Supplemental Soil and Groundwater Assessment, the following conclusions are presented:

- The approximate lateral and vertical extent of soil impact beneath the Site (TPHg concentrations greater than [>] 100 mg/kg) is limited to the northwest portion of the Site between 3 and 8 feet bgs, and along the west-central portion of the Site between 8 and 15 feet bgs. Plate 4 (Appendix A) illustrates the approximate lateral extent of soil impact at the Site between 3 and 8 feet bgs, and 8 and 15 feet bgs, and includes soil analytical data from previous assessment work conducted by NWE at the Site in April and October 1997. The approximate lateral extent of soil impact between 3 and 8 feet bgs appears to extend beyond the Site to the northwest. Plates 5a and 5b illustrate the vertical extent of soil impact beneath the Site between 3 and 8 feet bgs The approximate vertical impact appears limited to predominately clay soil types.
- NWE believes that the likely source of soil impact in the northwest portion of the Site were the USTs located in this area of the Site, and for the west central portion of the Site the oil/water separator formerly located in this portion of the Site.
- Soil at the Site is predominately a moderately plastic, moderately stiff to stiff clay which is generally conducive to adsorbing petroleum hydrocarbon compounds thereby allowing

indigenous bacteria to metabolize the adsorbed petroleum hydrocarbon compounds into water and common salts.

- Saturated conditions at the Site were encountered in a gravel and sand soil type between approximately 15 and 17 feet bgs. Groundwater elevations in the developed wells were found to be near ground surface. This infers that uppermost groundwater beneath the Site occurs under somewhat confined conditions. The configuration of the groundwater surface at the Site closely reflects the local surficial topography flowing generally west towards San Francisco Bay at a very gentle gradient of 0.00091 ft/ft, at an average depth of approximately 4 feet bgs.
- Groundwater impact at the Site appears to be limited to northwest portion of the Site concurrent with soil impact between 3 and 8 feet bgs and appears to extend northwest beyond the Site.

RECOMMENDATIONS

- Groundwater monitoring should be conducted on a quarterly basis using the five groundwater monitoring wells installed to establish a baseline of groundwater analytical information including peak concentrations, trends in concentrations, i.e. stabilized or decreasing concentrations, and groundwater surface elevations. The next groundwater monitoring event should be conducted in March of 1998.
- NWE recommends that the findings, conclusions and recommendations from this supplemental assessment be reported to the Alameda County Environmental Health Services for review and oversight.
- NWE further recommends that an application to the State Underground Storage Tank Cleanup Fund be completed and submitted as soon as possible in order to acquire a priority listing and subsequent reimbursement for past site characterization and future monitoring activities.

This report has been prepared under the professional supervision and review of the individual whose name and professional seal appear below. If you have any questions, please feel free to contact Walter Kim at (800) 395-3570.

Sincerely,

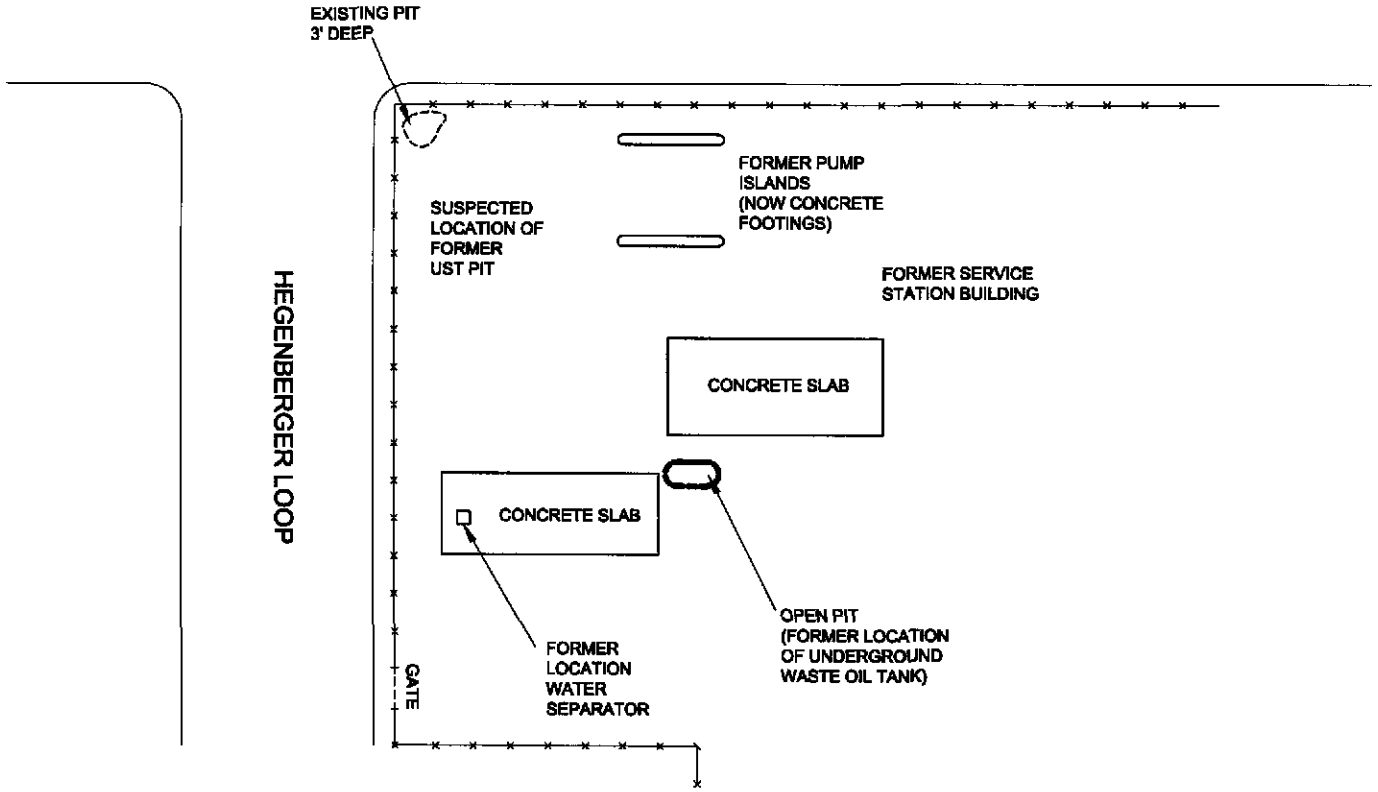
Matthew H. Spielmann
Project Geologist

Walter H. Kim
Environmental Services Manager

MHS:mys\5-1594 Supp Assess Report

Enclosures: Appendices A – C

cc: Mr. Barney Chan/Alameda County Environmental Health Services



EXPLANATION

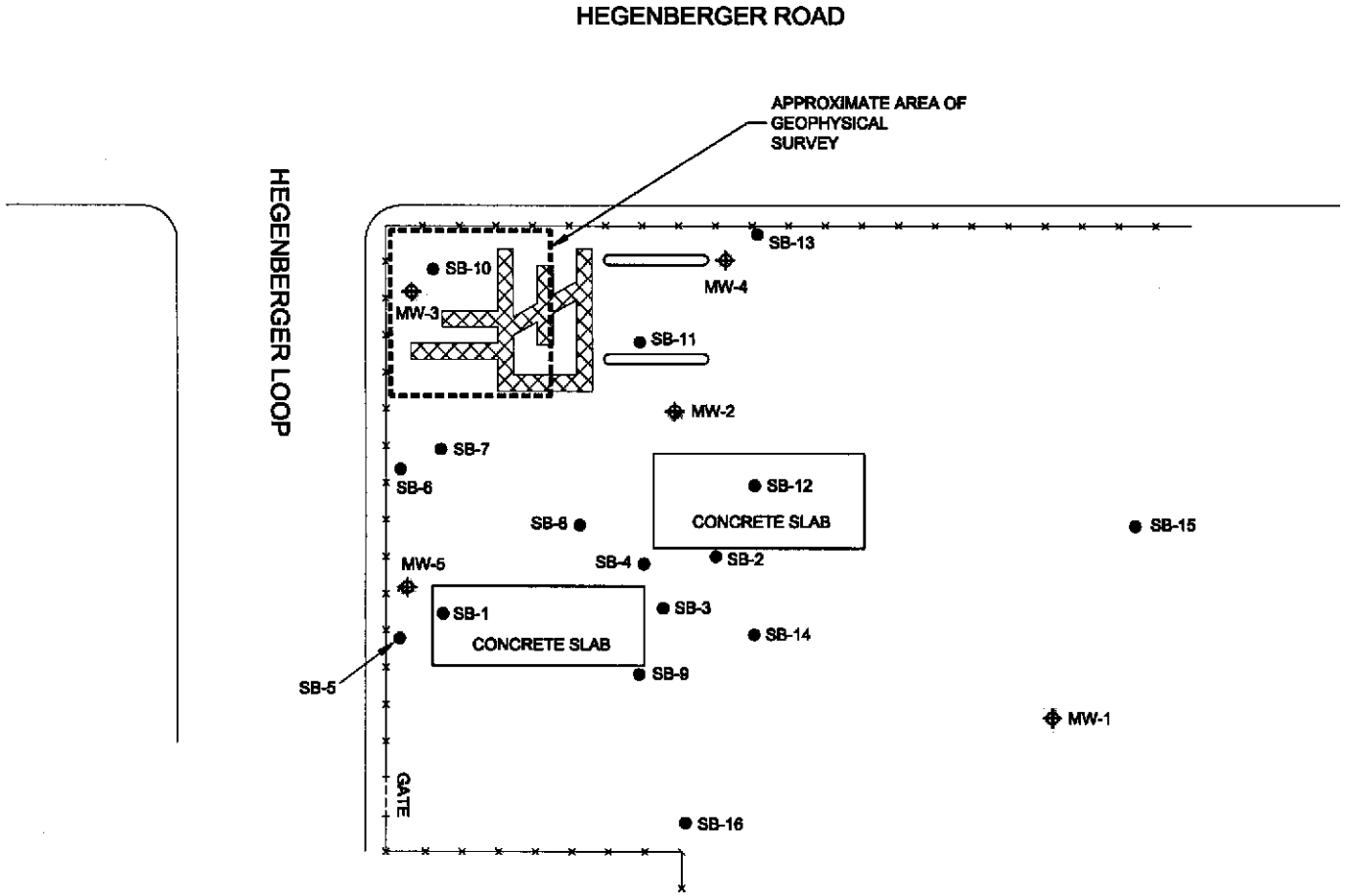
-x-x-x- = FENCE

SCALE IN FEET

0 10' 20' 30' 40' 50' 60'

NORTH

NORTHWEST ENVIROCON, INC. 1828 TRIBUTE ROAD, SUITE A, SACRAMENTO, CA 95815 (916) 649-3570 FAX: (916) 649-3819		SITE: 444 HEGENBERGER LOOP OAKLAND, CALIFORNIA		PROJECT#: 05-001594 DATE: DECEMBER 18, 1998	REVISIONS
DRAWN: CEB	APPROVED: MHS	CLIENT: McMORGAN AND COMPANY	TITLE: SITE MAP	PLATE: 2	SCALE: 1"=60'



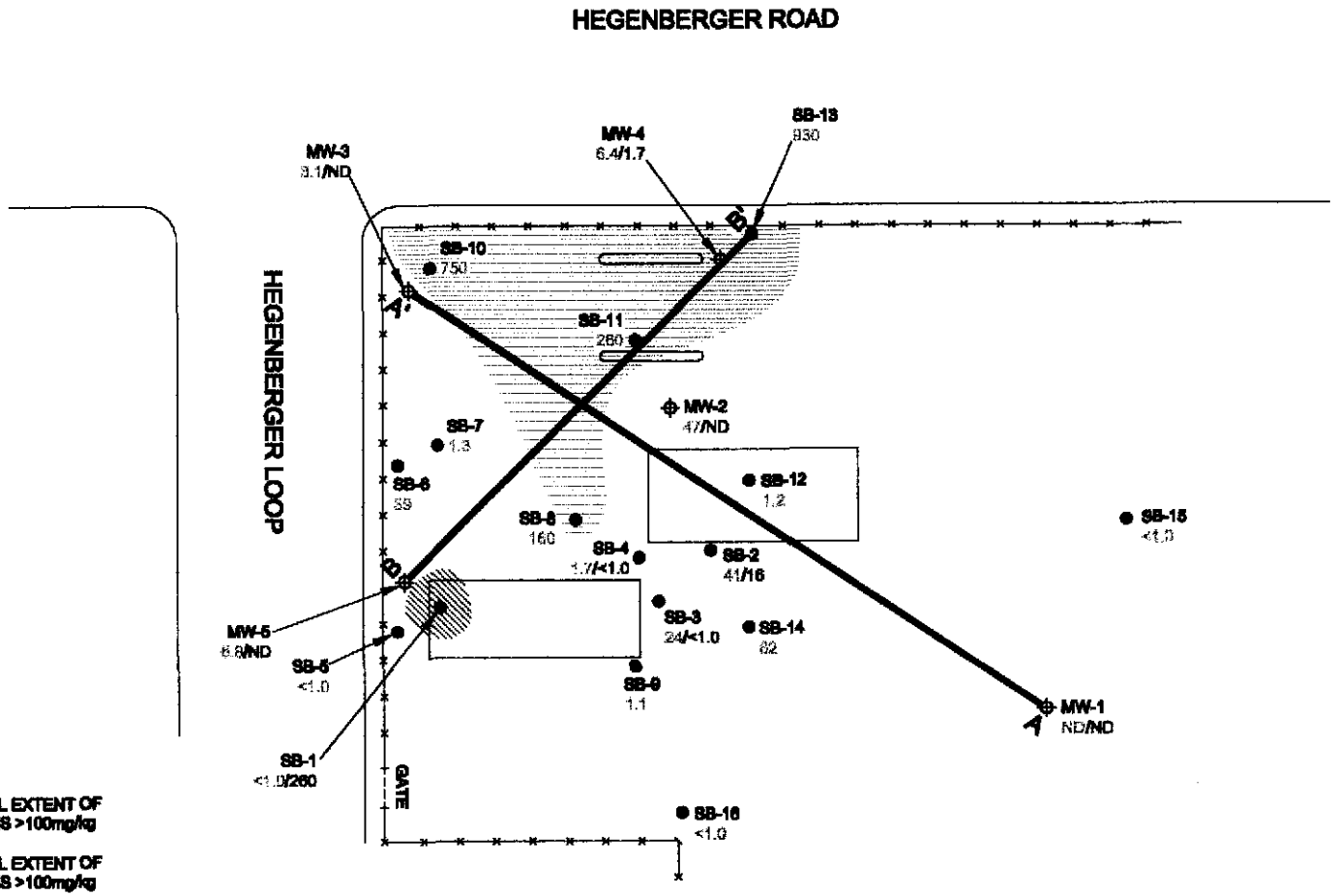
EXPLANATION

- ⊕ = MONITORING WELL LOCATION
- ● = SOIL BORING LOCATION
- ▨ = TRENCHING AREAS
- —×—×—×— = FENCE

SCALE IN FEET
0 10' 20' 30' 40' 50' 60'

NORTH

NORTHWEST ENVIROCON, INC. 1828 TRIBUTE ROAD, SUITE A, SACRAMENTO, CA 95815 (916) 649-3570 FAX: (916) 649-3819		SITE: 444 HEGENBERGER LOOP OAKLAND, CALIFORNIA		PROJECT#: 05-001594 DATE: DECEMBER 18, 1998	REVISIONS
DRAWN: CEB	APPROVED: MHS	CLIENT: McMORGAN AND COMPANY	TITLE: SB/MW LOCATIONS	PLATE: 3	SCALE: 1"=60'



EXPLANATION

- ⊕ = MONITORING WELL LOCATION
- ● = SOIL BORING LOCATION

TPHg CONCENTRATION

160 = 3'-6' FBGS

8.8 = 6'-15' FBGS

▭ = APPROXIMATE LATERAL EXTENT OF TPHg CONCENTRATIONS >100mg/kg 3' - 6' FBGS

▨ = APPROXIMATE LATERAL EXTENT OF TPHg CONCENTRATIONS >100mg/kg 6' - 15' FBGS

A——A' = CROSS-SECTION

-×-×-×- = FENCE

SCALE IN FEET

0 10' 20' 30' 40' 50' 60'

NORTH

NORTHWEST ENVIROCON, INC.
1828 TRIBUTE ROAD, SUITE A, SACRAMENTO, CA 95815
(916) 649-3570 FAX: (916) 649-3819

SITE: 444 HEGENBERGER LOOP OAKLAND, CALIFORNIA

PROJECT#: 05-001594

DATE: DECEMBER 18, 1998

REVISIONS

DRAWN: CEB

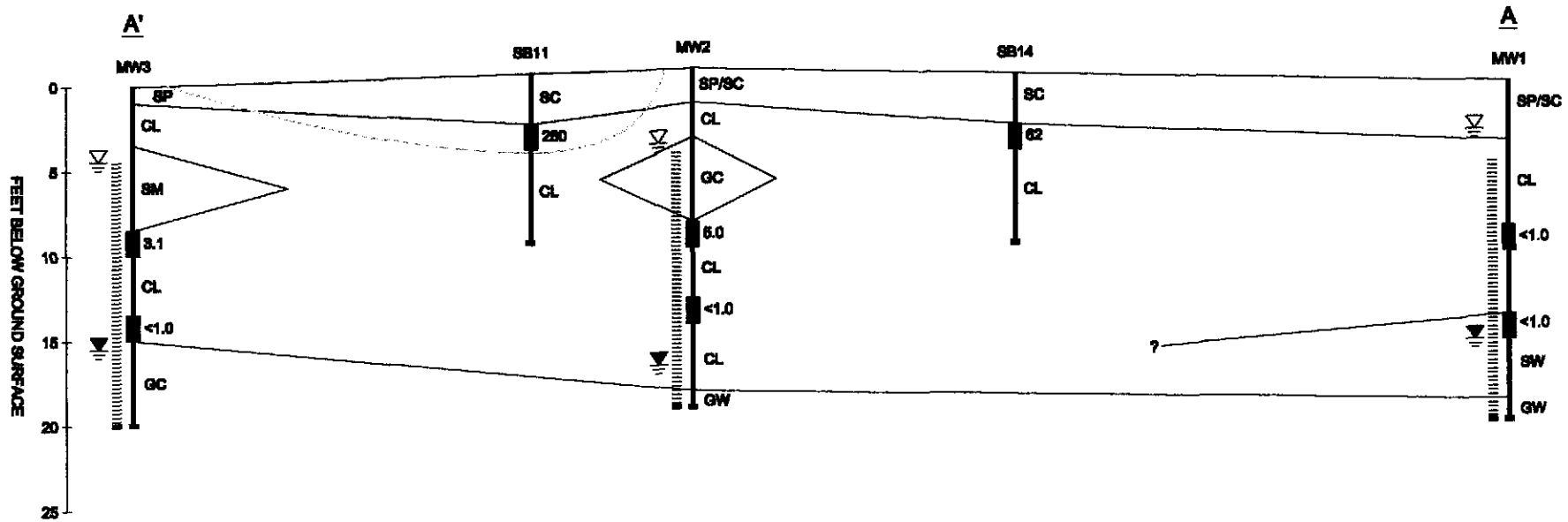
APPROVED: MHS

CLIENT: McMORGAN AND COMPANY

TITLE: TPHg CONCENTRATIONS IN SOIL

PLATE: 4

SCALE: 1"=60'

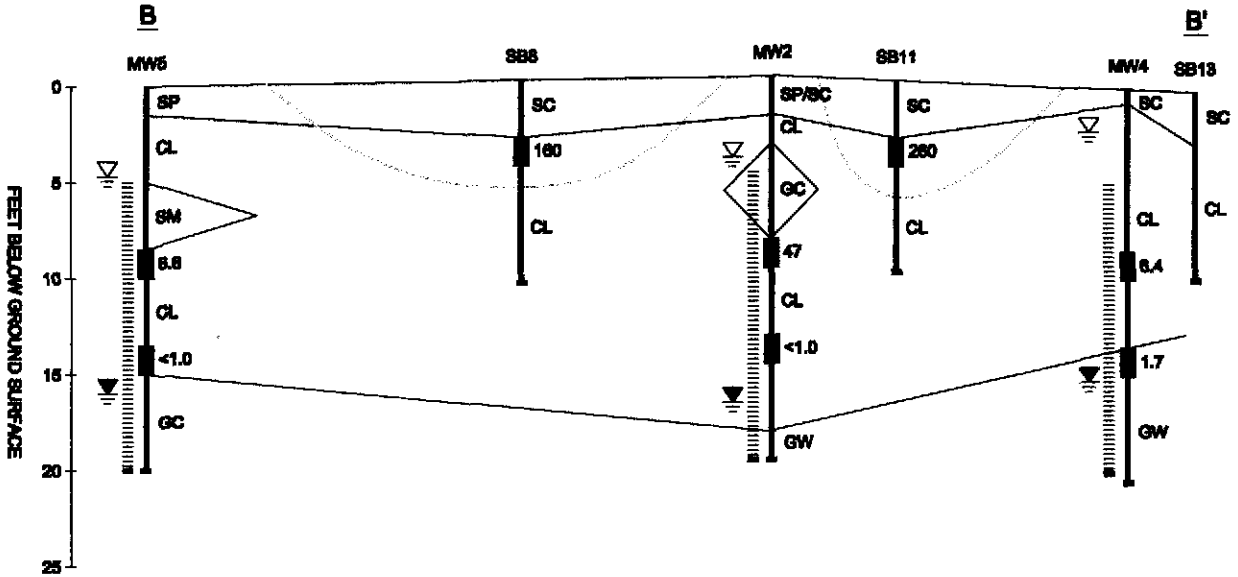


EXPLANATION

- 80 = SOIL SAMPLE INTERVAL-TPHg CONCENTRATION (mg/kg)
- = GROUND WATER ENCOUNTERED DURING DRILLING (11/23-11/24, 1998)
- = GROUNDWATER LEVEL MEASURED IN WELL (12/2/98)
- = WELL SCREEN INTERVAL
- = APPROXIMATE VERTICAL EXTENT OF TPHg CONCENTRATIONS >100mg/kg

0 10' 20' 30'
HORIZONTAL SCALE IN FEET
VERTICAL EXAGERATION = 3X

NORTHWEST ENVIROCON, INC. 1828 TRIBUTE ROAD, SUITE A, SACRAMENTO, CA 95815 (916) 649-3570 FAX: (916) 649-3819		SITE: 444 HEGENBERGER LOOP OAKLAND, CALIFORNIA		PROJECT#: 05-001594		REVISIONS
				DATE: DECEMBER 18, 1998		
DRAWN: CEB	APPROVED: MHS	CLIENT: McMORGAN AND COMPANY	TITLE: GEOLOGIC CROSS-SECTION	PLATE: 5a	SCALE: AS NOTED	



EXPLANATION

- 60 = SOIL SAMPLE INTERVAL-TPHg CONCENTRATION (mg/kg)
- = GROUND WATER ENCOUNTERED DURING DRILLING (11/23-11/24, 1986)
- = GROUNDWATER LEVEL MEASURED IN WELL (12/2/86)
- = WELL SCREEN INTERVAL
- = APPROXIMATE VERTICAL EXTENT OF TPHg CONCENTRATIONS >100mg/kg

0 10' 20' 30'

HORIZONTAL SCALE IN FEET
VERTICAL EXAGERATION = 3X

NORTHWEST ENVIROCON, INC.
1828 TRIBUTE ROAD, SUITE A, SACRAMENTO, CA 95815
(916) 649-3570 FAX: (916) 649-3819

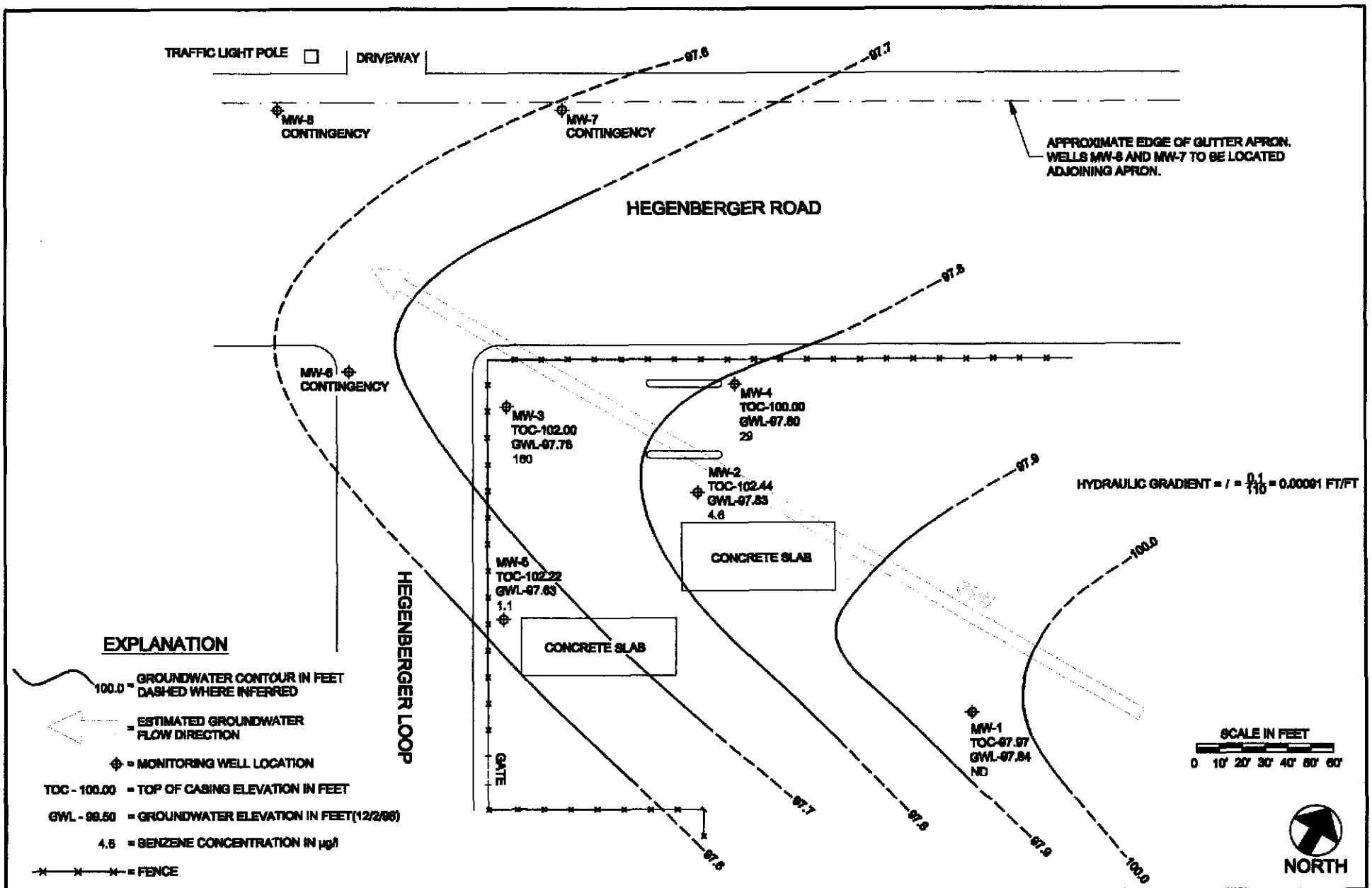
SITE: 444 HEGENBERGER LOOP
OAKLAND, CALIFORNIA

PROJECT#: 05-001594

DATE: DECEMBER 18, 1998

REVISIONS

DRAWN:	APPROVED:	CLIENT:	TITLE:	PLATE:	SCALE:
CEB	MHS	McMORGAN AND COMPANY	GEOLOGIC CROSS-SECTION	5b	AS NOTED



NORTHWEST ENVIROCON, INC. 1828 TRIBUTE ROAD, SUITE A, SACRAMENTO, CA 95815 (916) 649-3570 FAX: (916) 649-3619	SITE: 444 HEGENBERGER LOOP OAKLAND, CALIFORNIA		PROJECT#: 05-001594 DATE: DECEMBER 18, 1998	REVISIONS
DRAWN: CEB	APPROVED: MHS	CLIENT: McMORGAN AND COMPANY	TITLE: GW ELEVATIONS 12/2/98	PLATE: 6 / SCALE: 1"=60'

TABLE 1

SOIL ANALYTICAL RESULTS
444 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

SAMPLE	DEPTH	DATE	TPHg	TPHd	TPHmo	Oil and Grease	MTBE	B	T	E	X
	FBGS		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
SB1A	5	4/4/97	ND	ND	NA	ND	ND	0.037	ND	ND	ND
SB1B	10	4/4/97	260	120	NA	93	ND	1.1	0.54	5.1	2.4
SB2A	5	4/4/97	41	19	NA	220	ND	0.33	0.065	0.13	0.18
SB2B	10	4/4/97	16	2.1	NA	ND	ND	0.34	ND	0.87	0.24
SB3A	5	4/4/97	24	7.8	NA	ND	ND	0.18	ND	0.31	0.062
SB3B	10	4/4/97	ND	ND	NA	ND	ND	ND	ND	ND	ND
SB4A	5	4/4/97	1.7	ND	NA	ND	ND	0.019	ND	0.052	0.015
SB4B	10	4/4/97	ND	ND	NA	ND	ND	ND	ND	ND	ND
SB5	3	10/6/97	ND	ND	NA	ND	ND	ND	ND	ND	ND
SB6	3	10/6/97	39	ND	NA	61	ND	0.055	0.053	0.11	0.11
SB7	3	10/6/97	1.3	ND	NA	130	ND	0.015	0.011	ND	ND
SB8	3	10/7/97	160	ND	NA	20	ND	1.1	ND	2.2	7.6
SB9	3	10/7/97	1.1	ND	NA	120	ND	0.017	ND	ND	0.015
SB10	3	10/6/97	750	ND	NA	25	ND	4.7	ND	2.8	2.5
SB11	3	10/7/97	260	ND	NA	37	ND	2.3	0.73	6.1	11
SB12	3	10/7/97	1.2	ND	NA	42	ND	0.036	0.007	ND	0.025
SB13	3	10/7/97	930	ND	NA	780	ND	13	0.85	5.8	4.2
SB14	3	10/7/97	62	ND	NA	61	ND	0.81	0.36	0.087	0.38
SB15-3	3	10/8/98	ND	ND	ND	ND	ND	ND	ND	ND	ND
SB15-6	6	10/8/98	ND	ND	ND	ND	ND	ND	ND	ND	ND
SB16-3	3	10/8/98	ND	ND	ND	ND	ND	ND	ND	ND	ND
SB16-6	6	10/8/98	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW1	8.5- 10.0	11/23/98	ND	ND	ND	NA	NA	ND	ND	ND	ND
MW1	13.5- 15.0	11/23/98	ND	ND	ND	NA	NA	ND	ND	ND	ND
MW2	8.5- 10.0	11/23/98	47	ND	4.8	NA	NA	1.5	1.7	3.0	5.2
MW2	13.5-15.0	11/23/98	ND	ND	ND	NA	NA	ND	ND	ND	ND
MW3	8.5-10.0	11/24/98	3.1	ND	ND	NA	NA	0.18	0.032	0.078	0.062
MW3	13.5-15.0	11/24/98	ND	ND	ND	NA	NA	ND	ND	ND	ND
MW4	8.5-10.0	11/23/98	6.4	ND	6.7	NA	NA	0.0064	0.16	0.077	0.096
MW4	13.5-15.0	11/23/98	1.7	ND	2.1	NA	NA	0.013	0.039	0.013	0.026
MW5	8.5-10.0	11/24/98	6.8	ND	ND	NA	NA	0.51	0.15	0.50	0.12
MW5	13.5-15.0	11/24/98	ND	ND	ND	NA	NA	ND	ND	ND	ND
REPORTING	LIMITS		5.0	1.0	1.0	10	0.050	0.005	0.005	0.005	0.01

NOTES:

FBGS	Feet below ground surface	T	Toluene	ND	Not detected
TPHg	Total petroleum hydrocarbons as gasoline	E	Ethylbenzene	NA	Not analyzed
TPHd	Total petroleum hydrocarbons as diesel	X	Total xylenes		
TPHmo	Total petroleum hydrocarbons as motor oil	MTBE	Methyl-t-butyl ether		
B	Benzene	mg/kg	Milligrams/kilogram		

TABLE 2

GROUNDWATER ANALYTICAL RESULTS
444 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

SAMPLE	DATE	TPHg	TPHd	TPHmo	VOC	B	T	E	X	MTBE
		mg/l	mg/l	mg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l
SB5W	10/6/97	0.19	ND	ND	ND	4.5	1.1	ND	1.4	ND
SB6W	10/6/97	15	0.18	0.13	ND	620	ND	800	ND	ND
SB7W	10/6/97	3.9	ND	ND	NA	45	ND	210	ND	ND
SB8W	10/7/97	52	ND	ND	NA	1200 45	540 ND	600 210	740 ND	ND
SB9W	10/7/97	1.6	ND	0.13	ND	55	3.5	40	4.5	ND
SB10W	10/6/97	5.4	ND	0.11	NA	280	15	400	120	ND
SB11W	10/7/97	16	ND	ND	NA	2,100	1,800	1,300	4,800	ND
SB12W	10/7/97	13	ND	0.89	NA	460	42	2,100	230	ND
SB13W	10/7/97	11	ND	0.44	NA	3,200	67	180	100	ND
SB14W	10/7/97	2.7	ND	0.11	NA	95	3.0	120	8.9	ND
SB15W	10/8/97	ND	ND	ND	NA	ND	ND	ND	ND	ND
SB16W	10/8/97	ND	ND	ND	NA	ND	ND	ND	ND	ND
MW1	12/2/98	ND	ND	NA	NA	ND	ND	ND	ND	ND
MW2	12/2/98	ND	0.099	NA	NA	4.6	0.85	0.57	5.0	ND
MW3	12/2/98	0.97	0.30	NA	NA	160	6.5	16	9.0	ND
MW4	12/2/98	0.15	0.15	NA	NA	29	0.78	0.38	1.1	ND
MW5	12/2/98	ND	0.62	NA	NA	1.1	0.37	ND	2.0	ND
REPORTING LIMITS		0.050	0.050	100	0.1 - 0.001	0.30	0.30	0.30	0.60	1.0

NOTES:

TPHg	Total petroleum hydrocarbons as gasoline	T	Toluene	NA	Not analyzed
TPHd	Total petroleum hydrocarbons as diesel	E	Ethylbenzene	µg/l	Micrograms/liter
TPHmo	Total petroleum hydrocarbons as motor oil	X	Total xylenes	mg/l	Milligrams/liter
VOC	Volatile Organic Compounds (solvents)	MTBE	Methyl-t-butyl ether		
B	Benzene	ND	Not detected		

TABLE 3

GROUNDWATER MONITORING WELL SURVEY DATA
444 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

POINT	HI	SHOT	ELEVATION (in feet)
TOC @ MW4	6.8		100.00 (ASSUMED)
TOC @ MW3		4.80	102.00
TOC @ MW5		4.58	102.22
TOC @ MW2		4.36	102.44
TOC @ MW1		6.06	100.74

NOTES:

TOC Top of monitoring well casing
HI Height of instrument
SHOT Level shot from HI to rod at POINT

TABLE 4

GROUNDWATER MONITORING WELL PURGE DATA
444 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

WELL	TIME	TOC	DTW	GW ELEVATION	TD	WATER COLUMN	GALLONS PURGED	TEMP	CONDUCTIVITY	Ph	TURBIDITY
	24 hour	feet	feet	feet	feet	feet		°F	µmhos/cm		visual
MW1	1016	100.74	2.90	97.84	19.60	16.70	15	65.3	818	6.63	CLEAR
MW2	1109	102.44	4.61	97.83	19.79	15.18	10	67.0	1,094	6.69	CLEAR
MW3	1219	102.00	4.24	97.76	19.85	15.61	10	66.2	859	6.66	CLEAR
MW4	1145	100.00	2.20	97.80	19.15	16.95	9	66.5	888	6.65	CLEAR
MW5	1251	102.22	4.59	97.63	19.72	15.13	10	66.5	1.050	6.57	CLEAR

NOTES:

TOC	Top of monitoring well casing
GW	Groundwater
TD	Well total depth
°F	Degrees Fahrenheit
µmhos/cm	Micormhos/centimeter

ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION
951 TURNER COURT, SUITE 300, HAYWARD, CA 94545-2651
PHONE (510) 670-5575 ANDREAS GODFREY FAX (510) 670-5262
(510) 670-5268 ALVIN KAN

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT 444 Hegenberger Loop, Oakland, Alameda County, California 94621

California Coordinates Source _____ ft Accuracy ± ___ ft.
CCN _____ ft. CCE _____ ft.
APN 44-5076-3-1

CLIENT
Name McMorgan and Company Inc.
Address One Bush Street #900 Phone 415-788-9300
City San Francisco, CA. Zip 94104

APPLICANT
Name Northwest Environ. Inc.
Fax 916-649-3819
Address 1820 Tribute Rd. #A Phone 800-895-3670
City Sacramento, CA. Zip 95815-4310

TYPE OF PROJECT

Well Construction		Geotechnical Investigation	
Cathodic Protection	☐	General	☐
Water Supply	☐	Contamination	☐
Monitoring	X	Well Destruction	☐

PROPOSED WATER SUPPLY WELL USE

New Domestic	☐	Replacement Domestic	☐
Municipal	☐	Irrigation	☐
Industrial	☐	Other _____	☐

DRILLING METHOD:

Mud Rotary	☐	Air Rotary	☐	Auger	X
Cable	☐	Other	☐		

DRILLER'S LICENSE NO. ~~437836~~ C57-177681

WELL PROJECTS
Drill Hole Diameter 6-8 in. Maximum
Casing Diameter 2 in. Depth 20 ft.
Surface Seal Depth 2.5 ft. Number 8

GEOTECHNICAL PROJECTS
Number of Borings _____ Maximum
Hole Diameter _____ in. Depth _____ ft.

ESTIMATED STARTING DATE 11/10-11/13, 1998
ESTIMATED COMPLETION DATE 11/13-11/18, 1998

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE Matthew L. Spink DATE 11/2/98
for Northwest Environ, Inc.

FOR OFFICE USE

PERMIT NUMBER 98WR465
WELL NUMBER _____
APN _____

PERMIT CONDITIONS

Circled Permit Requirements Apply

(A.) GENERAL
1. A permit application should be submitted so as to arrive at the ACPWA office five days prior to proposed starting date.
(2.) Submit to ACPWA within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well projects, or drilling logs and location sketch for geotechnical projects.
(3.) Permit is void if project not begun within 90 days of approval date.

B. WATER SUPPLY WELLS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.

(C.) GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

D. GEOTECHNICAL
Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings.

E. CATHODIC
Fill hole above anode zone with concrete placed by tremie.

F. WELL DESTRUCTION
See attached.

G. SPECIAL CONDITIONS

APPROVED AL-K DATE 11/5/98

** TOTAL PAGE.02 **

NORTHWEST ENVIROCON, INC.
1828 TRIBUTE ROAD, SUITE A
SACRAMENTO, CA. 95815
(916) 649-3570 FAX: (916) 649-3819

BORING LOG

BORING NO.: MW1

PROJECT NAME: 444 HEGENBERGER LOOP
PROJECT NUMBER: 05-001594
SOIL BORING ☐ MONITORING WELL ☒ _____ ☐ SHEET 1 of 1

PROJECT LOCATION: 444 HEGENBERGER LOOP, OAKLAND, CA		START DATE: 11/23/98	COMPLETION DATE: 11/23/98
		COMPLETED DEPTH (FEET): 20	GROUNDWATER DEPTH (FEET): 15-ENCOUNTERED
DRILLING CONTRACTOR: WEEKS DRILLING/PUMP	DRILLER: RICHARD LARSEN	WELL CONSTRUCTION	
DRILLING EQUIPMENT: HSA-MOBILE	BORING DIAMETER: 8"Ø	TYPE AND DIAMETER OF WELL CASING: 2-INCH Ø SCHEDULE 40 PVC/FLUSH-THREADED	
SAMPLING METHOD: California Modified ☒ Hand Auger ☐ Geoprobe ☐		SLOT SIZE: 0.020-INCH	FILTER MATERIAL: MONTEREY 2/12
LOGGED BY: MHS	BACKFILL MATERIAL:	WELL DEPTH: 20FT	PERFORATED INTERVAL: 5-20FT

TIME	DESCRIPTION	BLOW COUNTS	SAMPLE	USCS SOIL TYPE	PID/FID OVA (ppm)	REMARKS
1010	0.3'A/C **0.3'-3.5' SAND W/CLAY.** SP/SC. 7.5YR4/6. POORLY GRADED, MED/SUBROUNDED, PLASTIC CLAY/MED. STIFF, MOIST, NO ODOR.			SP/SC	0.1	AGGREGATE BASE
1030	**3.5' - 13.5' CLAY.** CL. 2.5Y2/0, MOIST, MOD. PLASTIC, STIFF, NO ODOR	3 4 3		CL CL	0.1	MW1 3.5'-5.0'
1040	**CLAY.** CL 2.5Y2/0, MOIST, MOD. PLASTIC, STIFF. NO ODOR	1 4 1		CL CL	0.3	MW1 8.5'-10.0'
1047	**13.5' - 18.5' SAND W/CLAY.** SW. 2.5Y6/6, MED. TO COARSE/SUBROUNDED, PLASTIC CLAY/MOD. STIFF, WET, NO ODOR	3 8 5		SW	0.0	MW1 13.5'-15.0' SATURATED @ 15'
1052	**18.5' - 20.0' GRAVELLY SAND.** GW. 2.5Y6/6, FINE GRAIN/ROUNDED, MED-COARSE SAND/SUBROUNDED, SATURATED, NO CEMENTATION, NO ODOR, 3% GRAVEL 40% MED. SAND/57% COARSE SAND	8 15 25	NS	GW	0.0	NO SAMPLE-BARREL EMPTY
1100						TD@20FT

DEPTH (FEET): 0, 5, 10, 15, 20, 25

WELL: 5-20FT

E:\forms\BORING LOG_1.dwg

NORTHWEST ENVIROCON, INC.
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BORING LOG

PROJECT NAME: 444 HEGENBERGER LOOP
PROJECT NUMBER: 05-001594
SOIL BORING ☐ MONITORING WELL ☒ ☐

BORING NO.: MW2
SHEET 1 of 1

PROJECT LOCATION: 444 HEGENBERGER LOOP, OAKLAND, CA		START DATE: 11/23/98	COMPLETION DATE: 11/23/98
		COMPLETED DEPTH (FEET): 20	GROUNDWATER DEPTH (FEET): 17-ENCOUNTERED
DRILLING CONTRACTOR: WEEKS DRILLING/PUMP	DRILLER: RICHARD LARSEN	WELL CONSTRUCTION	
DRILLING EQUIPMENT: HSA-MOBILE	BORING DIAMETER: 8"Ø	TYPE AND DIAMETER OF WELL CASING: 2-INCH Ø SCHEDULE 40 PVC/FLUSH-THREADED	
SAMPLING METHOD: California Modified ☒ Hand Auger ☐ Geoprobe ☐		SLOT SIZE: 0.020-INCH	FILTER MATERIAL: MONTEREY 2/12
LOGGED BY: MHS	BACKFILL MATERIAL:	WELL DEPTH: 20FT	PERFORATED INTERVAL: 5-20FT

TIME	DESCRIPTION	BLOW COUNTS	SAMPLE	UCSC SOIL TYPE	PID/FID READINGS OVA (ppm)	REMARKS
	0.3' A/C **0.3' - 2.0' SAND W/CLAY.** SP/SC. 7.5YR4/6. POORLY GRADED, MED/SUBROUNDED, PLASTIC CLAY/SOFT, MOIST, SL. ODOR.			SP/SC		AGGREGATE BASE
	2.0' - 3.5' CLAY. CL. 5Y4/2. MOIST/PLASTIC/SOFT, ODOR			CL	4.4	
1306	**3.5' - 8.5' GRAVELLY CLAY.** GC. 5Y4/2. FINE/SUBROUNDED, PLASTIC CLAY/SOFT, STRONG ODOR	3 7 5		GC	321	MW1 3.5'-5.0'
				GC		
1315	**8.5' - 13.5' CLAY.** CL. 2.5Y2/0, MOIST, PLASTIC, SOFT, ODOR	1 2 1		CL	626	MW1 8.5'-10.0'
				CL		
1324	**13.5' - 18.5' SILTY CLAY.** CL. 5B4/1, MOIST, MOD. PLASTIC, STIFF, NO ODOR	3 7 5		CL	0.2	MW1 13.5'-15.0' SATURATED @ 17'
				CL		
1334	**18.5' - 20.0' GRAVELLY SAND.** GW. 2.5Y/6, FINE GRAIN/SUBROUNDED, MED-COARSE SAND/SUBROUNDED, SATURATED, NO CEMENTATION, NO ODOR. 3-5% GRAVEL, 40-50% SAND, 40-50% COARSE SAND		NS	GW	0.0	NO SAMPLE- BARREL EMPTY
1350						TD@20FT

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BORING LOG

PROJECT NAME: 444 HEGENBERGER LOOP
PROJECT NUMBER: 05-001594
SOIL BORING ☐ MONITORING WELL ☒ _____ ☐

BORING NO.: MW3
SHEET 1 of 1

PROJECT LOCATION: 444 HEGENBERGER LOOP, OAKLAND, CA		START DATE: 11/24/98	COMPLETION DATE: 11/24/98
		COMPLETED DEPTH (FEET): 20	GROUNDWATER DEPTH (FEET): 15-16 ENCOUNTERED
DRILLING CONTRACTOR: WEEKS DRILLING/PUMP	DRILLER: RICHARD LARSEN	WELL CONSTRUCTION	
DRILLING EQUIPMENT: HSA-MOBILE	BORING DIAMETER: 8"Ø	TYPE AND DIAMETER OF WELL CASING: 2-INCH Ø SCHEDULE 40 PVC/FLUSH-THREADED	
SAMPLING METHOD: California Modified ☒ Hand Auger ☐ Geoprobe ☐		SLOT SIZE: 0.020-INCH	FILTER MATERIAL: MONTEREY 2/12
LOGGED BY: MHS	BACKFILL MATERIAL:	WELL DEPTH: 20FT	PERFORATED INTERVAL: 5-20FT

TIME	DESCRIPTION	BLOW COUNTS	SAMPLE	UCSC SOIL TYPE	PID/FID OVA (ppm)	REMARKS
0903	0.3' A/C					
0910	**0.3'-1.0' GRAVELLY SAND.** SP. 7.5YR4/6. POORLY SORTED MED/SUBROUNDED, MOIST, NO ODOR			SP		AGGREGATE BASE
	1.0' - 3.5' CLAY. CL. 7.5YR3/0. PLASTIC, MOIST, NO ODOR			CL	1.0	
0916	**3.5'- 8.5' SILTY SAND.** SM. 7.5YR3/0. MOIST, NONPLASTIC, FINEGRAINED, SUBROUNDED, ODOR, NO CEMENTATION	2 3 2		SM	872	MW3 3.5'-5.0'
				SM		
0930	**8.5' - 13.5' CLAY.** CL. 2.5YR2/0. MOIST, PLASTIC, SOFT, ODOR	2 3 4		CL	3.0	MW3 8.5'-10.0'
	13.5'-15.0' CLAYEY SANDY GRAVEL. GC. 5B4/1. WET, SAND IS WELL SORTED, MEDIUM TO COARSE/SUBROUNDED. GRAVEL IS POORLY SORTED/SUBANGULAR. CLAY IS PLASTIC,			CL		
0937	SOFT, NO ODOR	3 7 5		GC	0.0	MW3 13.5'-15.0'
	15.0'-20.0' AS ABOVE. 10YR6/6. SATURATED			GC		SATURATED @ 15' - 16'
0950		6 20 9	NS	GC	0.0	NO SAMPLE- BARREL EMPTY
0955						TD@20FT

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BORING LOG

PROJECT NAME: 444 HEGENBERGER LOOP
PROJECT NUMBER: 05-001594
SOIL BORING ☐ MONITORING WELL ☒ ☐

BORING NO.: MW4
SHEET 1 of 1

PROJECT LOCATION: 444 HEGENBERGER LOOP, OAKLAND, CA		START DATE: 11/23/98	COMPLETION DATE: 11/23/98
		COMPLETED DEPTH (FEET): 20	GROUNDWATER DEPTH (FEET): 15'-16' ENCOUNTERED
DRILLING CONTRACTOR: WEEKS DRILLING/PUMP	DRILLER: RICHARD LARSEN	WELL CONSTRUCTION	
DRILLING EQUIPMENT: HSA-MOBILE	BORING DIAMETER: 8"Ø	TYPE AND DIAMETER OF WELL CASING: 2-INCH Ø SCHEDULE 40 PVC/FLUSH-THREADED	
SAMPLING METHOD: California Modified ☒ Hand Auger ☐ Geoprobe ☐		SLOT SIZE: 0.020-INCH	FILTER MATERIAL: MONTEREY 2/12
LOGGED BY: MHS	BACKFILL MATERIAL:	WELL DEPTH: 20FT	PERFORATED INTERVAL: 5-20FT

TIME	DESCRIPTION	BLOW COUNTS	DEPTH (FEET)	SAMPLE	UCSC SOIL TYPE	LITHOLOGY	WELL	PID/FID READINGS OVA (ppm)	REMARKS
1521	0.2' A/C **0.2' - 0.5' SANDY CLAY W/GRAVEL.** CL. 7.5YR4/6. MED/COARSE SAND, SUBANGULAR, FINE GRAINED/SUBANGULAR. PLASTIC CLAY (10%) STIFF, MOIST, NO ODOR		0						
	0.5' - 5.0' CLAY. CL. 2.5Y2/0. MOIST, MOD. PLASTIC, MOD. STIFF, ODOR				SP				AGGREGATE BASE
1528		3 3 3			CL			706	MW4 3.5'-5.0'
	5.0' 13.5' CLAY. CL. 2.5Y2/0. MOIST, MOD. PLASTIC, MOD. STIFF, ODOR		5		CL				
1536		1 3 2			CL			27.4	MW4 8.5'-10.0'
	13.5' - 15.0' GRAVELLY SAND. GW. 10YR6/6. SAND IS MED-COARSE/SUBANGULAR, GRAVEL IS FINE/SUBANGULAR. NO CEMENTATION, 10% MED./80-85% COARSE/5%GRAVEL, MOIST, WET, SLIGHT ODOR		10		CL				
1546		6 26 17			GW			6.1	MW4 13.5'-15.0'
			15		GL				SATURATED @ 15"
1600	**13.5' - 15.0'** AS ABOVE. NO ODOR	8 30 20		NS	GW			0.0	NO SAMPLE-BARREL EMPTY
1600			20						TD@20FT
			25						

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(916) 649-3570 FAX: (916) 649-3819

BORING LOG

BORING NO.: MW5

PROJECT NAME: 444 HEGENBERGER LOOP
PROJECT NUMBER: 05-001594
SOIL BORING ☐ MONITORING WELL ☒ _____ ☐ SHEET 1 of 1

PROJECT LOCATION: 444 HEGENBERGER LOOP, OAKLAND, CA		START DATE: 11/24/98	COMPLETION DATE: 11/24/98
		COMPLETED DEPTH (FEET): 20	GROUNDWATER DEPTH (FEET): 16'-17' ENCOUNTERED
DRILLING CONTRACTOR: WEEKS DRILLING/PUMP	DRILLER: RICHARD LARSEN	WELL CONSTRUCTION	
DRILLING EQUIPMENT: HSA-MOBILE	BORING DIAMETER: 8"Ø	TYPE AND DIAMETER OF WELL CASING: 2-INCH Ø SCHEDULE 40 PVC/FLUSH-THREADED	
SAMPLING METHOD: California Modified ☒ Hand Auger ☐ Geoprobe ☐		SLOT SIZE: 0.020-INCH	FILTER MATERIAL: MONTEREY 2/12
LOGGED BY: MHS	BACKFILL MATERIAL:	WELL DEPTH: 20FT	PERFORATED INTERVAL: 5-20FT

TIME	DESCRIPTION	BLOW COUNTS	SAMPLE	UCSC SOIL TYPE	LITHOLOGY	WELL	PID/FID READINGS OVA (ppm)	REMARKS
1144	0.3'-0.5' A/C **0.5'-1.5' GRAVELLY SAND.** SP. 7.5YR4/6. POORLY SORTED MED-COARSE/ SUBROUNDED, GRAVEL IS FINE/SUBANGULAR, MOIST, NO ODOR			SP				AGGREGATE BASE
1200	**1.5'-5.0' CLAY.** CL. 7.5YR3/0. PLASTIC, SLIGHTLY MOIST, SOFT, ODOR	4 8 5		CL			40.8	MW5 3.5'-5.0'
1208	**5.0' - 8.5' SILTY SAND W/GRAVEL.** SM. 7.5YR3/0 GRADING TO 5B4/1. MOIST, NONPLASTIC, SAND IS POORLY SORTED, FINE-GRAINED/SUBANGULAR. GRAVEL IS FINE GRAINED/SUBROUNDED. NO CEMENTATION. ODOR	2 4 3		SM CL			259	MW5 8.5'-10.0'
1227	**8.5'-10.0' CLAY.** CL. 2.5Y2/0. PLASTIC, MEDIUM STIFF, MOIST, ODOR **10.0' - 15.0'** AS ABOVE	6 6 4		CL CL			20.0	MW5 13.5'-15.0'
1600	**15.0' - 20.0' CLAYEY SANDY GRAVEL.** GC. 2.5Y/6. WET, CLAY IS PLASTIC, SOFT. SAND IS WELL SORTED, MED-COARSE/ SUBANGULAR, GRAVEL IS FINE/ SUBANGULAR, NO ODOR	8 27 13	NS	GC GC			0.0	SATURATED 16'-17' NO SAMPLE-BARREL EMPTY
1600								TD@20FT

NORTHWEST ENVIROCON, INC.
1826 TRIBUTE ROAD, SUITE A
SACRAMENTO, CA 95815
(916) 649-3570 FAX: (916) 649-3819

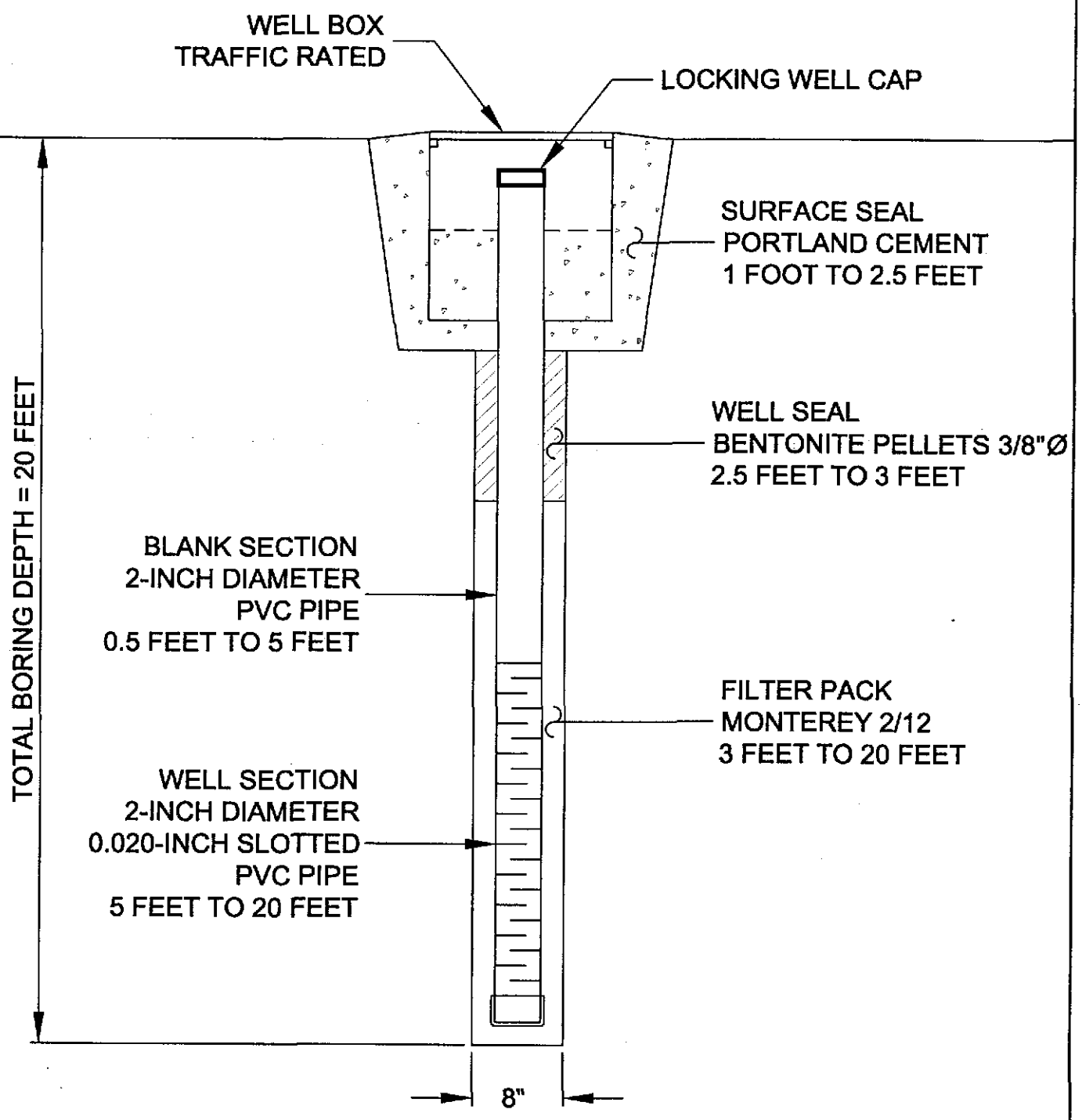
WELL CONSTRUCTION DETAIL

WELL NO.: MW1

PROJECT: 05-001594

INSTALLATION DATE: 11/23/98

ADDRESS: 444 HEGENBERGER LOOP
OAKLAND, CA



SCALE:	DATE:	VERSION:
NTS	11/25/98	

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NORTHWEST
ENVIROCON, INC.
1828 TRIBUTE ROAD, SUITE A
SACRAMENTO, CA 95815
(916) 649-3570 FAX: (916) 649-3819

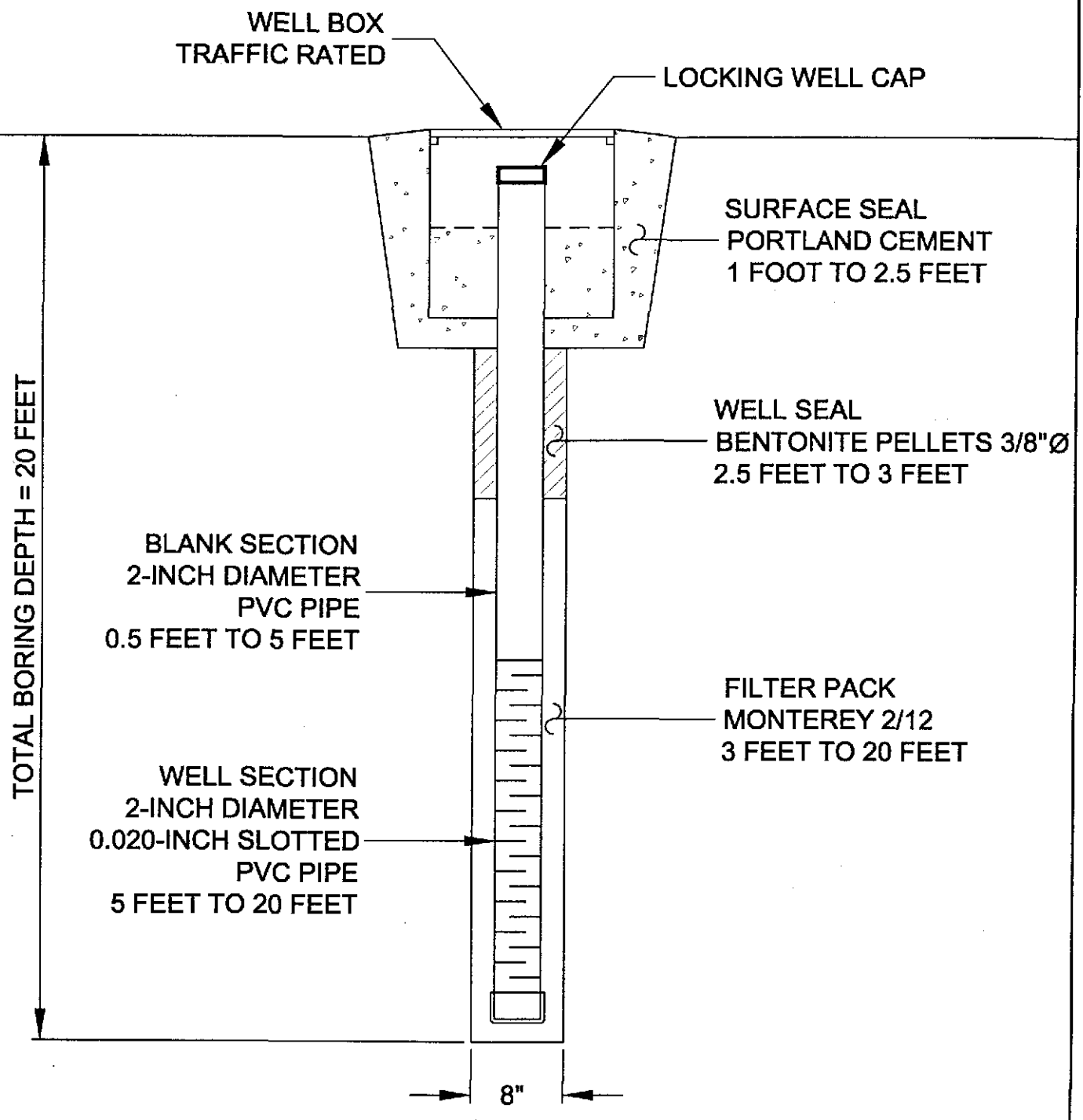
WELL CONSTRUCTION DETAIL

WELL NO.: MW2

PROJECT: 05-001594

INSTALLATION DATE: 11/23/98

ADDRESS: 444 HEGENBERGER LOOP
OAKLAND, CA



SCALE:	DATE:	VERSION:
NTS	11/25/98	

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NORTHWEST
ENVIROCON, INC.
1828 TRIBUTE ROAD, SUITE A
SACRAMENTO, CA 95815
(916) 649-3570 FAX: (916) 649-3819

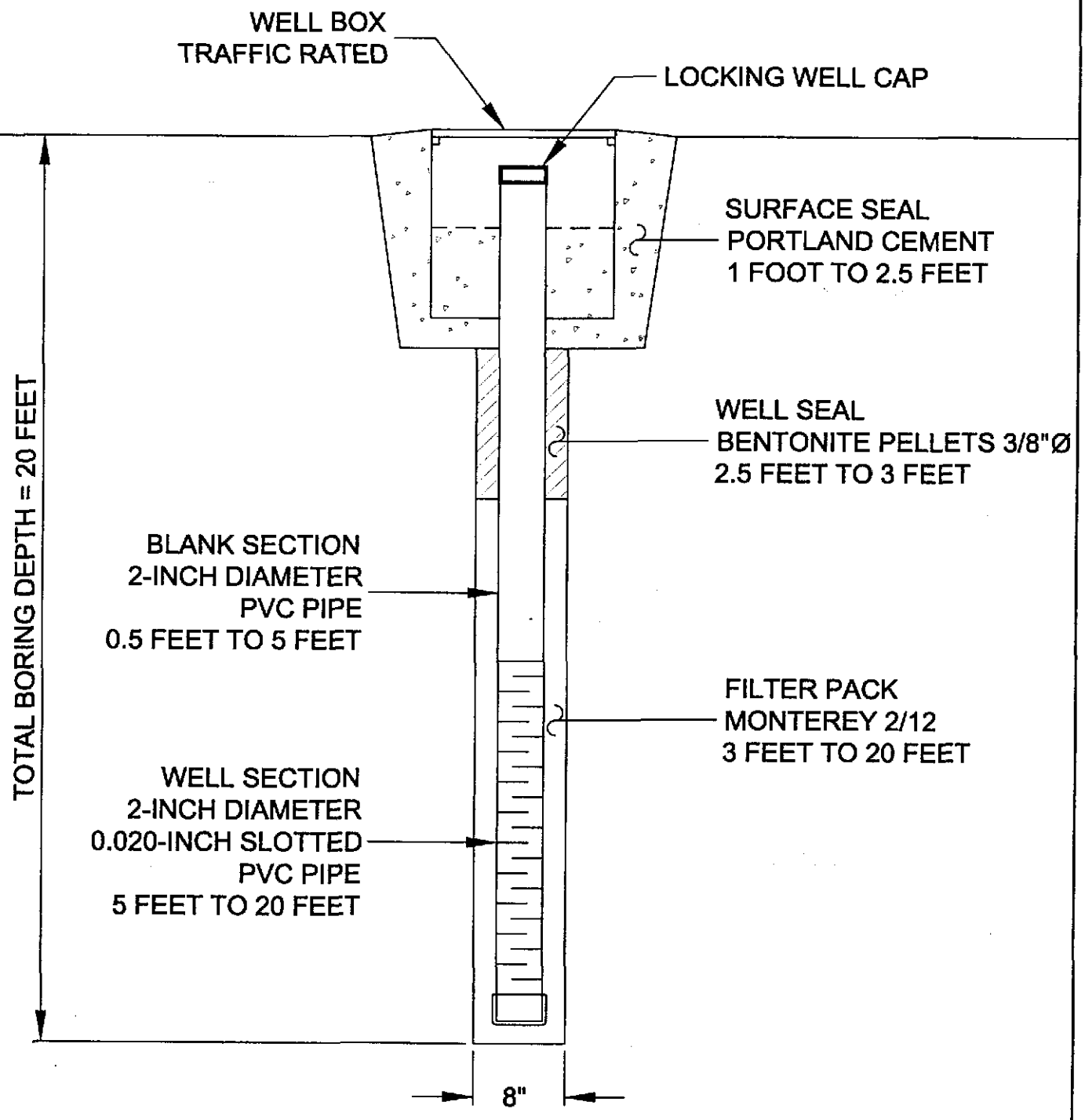
WELL CONSTRUCTION DETAIL

WELL NO.: MW3

PROJECT: 05-001594

INSTALLATION DATE: 11/23/98

ADDRESS: 444 HEGENBERGER LOOP
OAKLAND, CA



SCALE:	DATE:	VERSION:
NTS	11/25/98	

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NORTHWEST
ENVIROCON, INC.
1828 TRIBUTE ROAD, SUITE A
SACRAMENTO, CA 95815
(916) 649-3570 FAX: (916) 649-3819

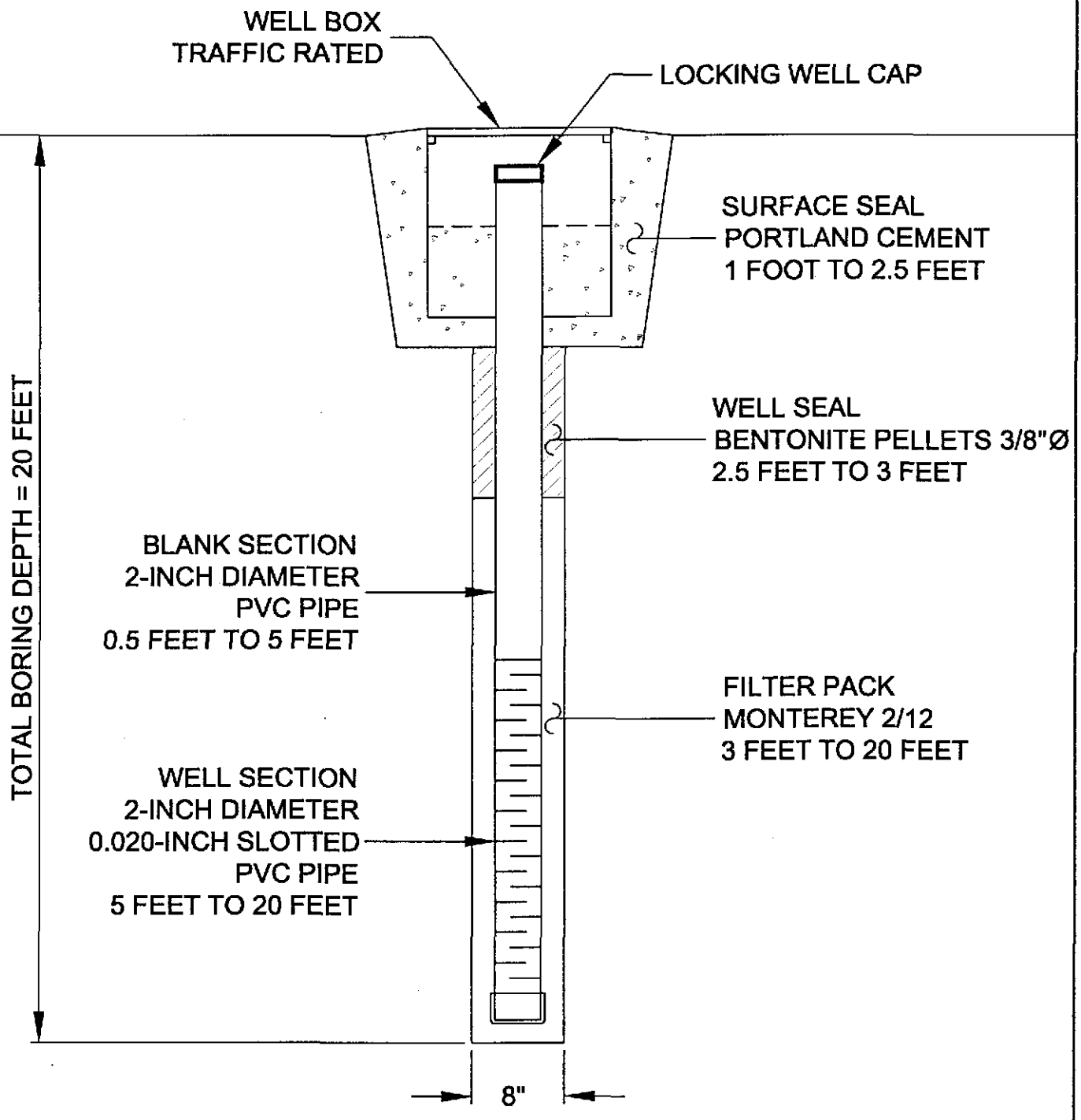
WELL CONSTRUCTION DETAIL

WELL NO.: MW4

PROJECT: 05-001594

INSTALLATION DATE: 11/23/98

ADDRESS: 444 HEGENBERGER LOOP
OAKLAND, CA



SCALE:	DATE:	VERSION:
NTS	11/25/98	

E:\forms\WELL CONSTRUCTION DETAIL_1.dwg

NORTHWEST ENVIROCON, INC.
1828 TRIBUTE ROAD, SUITE A
SACRAMENTO, CA 95815
(916) 649-3570 FAX: (916) 649-3819

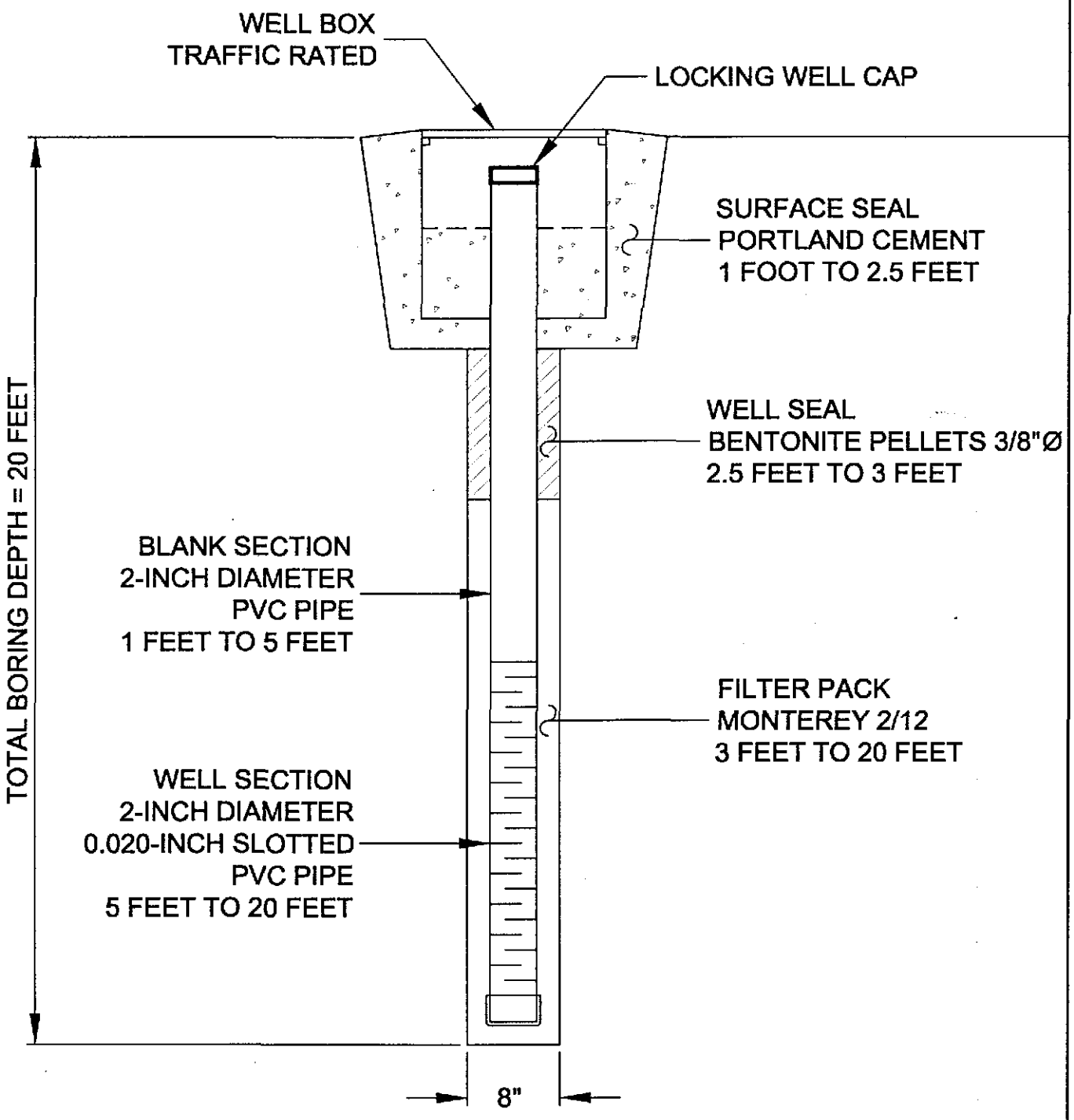
WELL CONSTRUCTION DETAIL

WELL NO.: MW5

PROJECT: 05-001594

INSTALLATION DATE: 11/23/98

ADDRESS: 444 HEGENBERGER LOOP
OAKLAND, CA



SCALE:	DATE:	VERSION:
NTS	11/25/98	

E:\forms\WELL CONSTRUCTION DETAIL_1.dwg

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

NORTHWEST ENVIROCON, INC.

GEOHYDROLOGIC DATA SHEET

Sheet 1 of 1

PROJECT NAME 444 Hegenberger Road	DATE 12/2/98
PROJECT ADDRESS 444 Hegenberger Road, Oakland, CA.	PROJECT NO. 5-1594
NWE PERSONNEL M. Spielmann C. Burriss	SIGNATURE
REGULATOR —	CONTRACTOR —
REGULATOR —	CONTRACTOR —

WELL ID	TIME (24 hr)	TOC (famsl) (fadp)	DTP (feet)	DTW (feet)	TD (feet)	GW ELEVATION (famsl) (fadp)	PRODUCT ELEVATION (famsl) (fadp)	
MW1	1016	100.74	—	2.90	19.60	97.84	—	Hand bailed soft bottom
MW2	1109	102.44	—	4.61	19.79	97.83	—	soft bottom
MW4	1145	100.00	—	2.20	19.15	97.80	—	soft bottom
MW3	1219	102.00	—	4.24	19.85	97.76	—	soft bottom
MW5	1251	102.22	—	4.59	19.72	97.63	—	soft bottom

TOC	**Top of Casing**	**DTP**	**Depth to Product**
DTW	**Depth to Water**	**TD**	**Total Depth**
famsl	**Feet Above Mean Sea Level**	**fadp**	**Feet Above Datum Point**

NORTHWEST ENVIROCON, INC.

WELL VOLUME PURGING DATA SHEET

Sheet 1 of 1

PROJECT NAME 444 Hegenberger Road	DATE 12/2/98
PROJECT ADDRESS 444 Hegenberger Road, Oakland, CA.	PROJECT NO. 5-1594
NWE PERSONNEL M. Spiekman C. Blumin	SIGNATURE
REGULATOR —	CONTRACTOR —
REGULATOR —	CONTRACTOR —

WELL ID	MW1
WELL TD (feet)	19.6
DTW (feet)	2.9
COLUMN HEIGHT (feet)	16.7
CONVERSION FACTOR (gallons/feet of column height)	0.163
TOTAL WELL VOLUME (gallons)	3
THREE WELL VOLUMES (gallons)	9

TD Total Well Depth
DTW Depth to Water

CONVERSION FACTORS

2-inch diameter well 0.163 gallons/foot
4-inch diameter well 0.653 gallons/foot

TIME (24 hr)	DTW (feet)	GALLONS PURGED	TEMPERATURE (^{0}F)	CONDUCTIVITY (micromohs/cm)	pH	TURBIDITY
Purge 1025	2.95		65	1,000	10.04	muddy
1030	5.40	5	66.5	868	6.75	clear
1035	7.05	10	74.7	833	7.16	clear
1040	8.20	15	65.3	818	6.63	clear

NORTHWEST ENVIROCON, INC.

WELL VOLUME PURGING DATA SHEET

Sheet 1 of 1

PROJECT NAME 444 Hegenberger Road	DATE 12/2/98
PROJECT ADDRESS 444 Hegenberger Road, Oakland, CA.	PROJECT NO. 5-1594
NWE PERSONNEL M. Spielman C. Burriss	SIGNATURE
REGULATOR	CONTRACTOR
REGULATOR	CONTRACTOR

WELL ID	MW2
WELL TD (feet)	19.79
DTW (feet)	4.61
COLUMN HEIGHT (feet)	15.18
CONVERSION FACTOR (gallons/feet of column height)	0.163
TOTAL WELL VOLUME (gallons)	2.5
THREE WELL VOLUMES (gallons)	7.5

TD Total Well Depth
DTW Depth to Water

CONVERSION FACTORS

2-inch diameter well 0.163 gallons/foot
4-inch diameter well 0.653 gallons/foot

TIME (24 hr)	DTW (feet)	GALLONS PURGED	TEMPERATURE (^{0}F)	CONDUCTIVITY (micromohs/cm)	pH	TURBIDITY
pumps on 1116	3.97					muddy
1117	5.40	1	64.7	1,247	6.76	muddy
1119	5.57	3.5				clearing
1121	5.61	5.0	66.2	1,144	6.61	clearing
1124	5.71	8.0	66.70	1,111	6.76	clearing
1126	5.73	10.0	67.0	1,094	6.69	clearing

NORTHWEST ENVIROCON, INC.

WELL VOLUME PURGING DATA SHEET

PROJECT NAME 444 Hegenberger Road	DATE 12/2/98
PROJECT ADDRESS 444 Hegenberger Road, Oakland, CA.	PROJECT NO. 5-1594
NWE PERSONNEL	SIGNATURE
REGULATOR	CONTRACTOR
REGULATOR	CONTRACTOR

WELL ID	MW3
WELL TD (feet)	19.85
DTW (feet)	4.24
COLUMN HEIGHT (feet)	15.61
CONVERSION FACTOR (gallons/feet of column height)	0.163
TOTAL WELL VOLUME (gallons)	2.5
THREE WELL VOLUMES (gallons)	7.5

TD Total Well Depth
DTW Depth to Water

CONVERSION FACTORS

2-inch diameter well 0.163 gallons/foot
4-inch diameter well 0.653 gallons/foot

TIME (24 hr)	DTW (feet)	GALLONS PURGED	TEMPERATURE (^{0}F)	CONDUCTIVITY (micromohs/cm)	pH	TURBIDITY
pump on 1225	4.35					
1227	5.26	2	65.2	979	6.76	cloudy
1229	5.48	4	66.0	982	6.65	clearing
1233	5.61	8	65.8	867	6.68	clearing
1235	5.69	10	66.2	859	6.66	clearing

NORTHWEST ENVIROCON, INC.

WELL VOLUME PURGING DATA SHEET

Sheet 1 of 1

PROJECT NAME 444 Hegenberger Road	DATE 12/2/98
PROJECT ADDRESS 444 Hegenberger Road, Oakland, CA.	PROJECT NO. 5-1594
NWE PERSONNEL M. Spickum C. Burriss	SIGNATURE
REGULATOR —	CONTRACTOR —
REGULATOR —	CONTRACTOR —

WELL ID	MW4
WELL TD (feet)	19.15
DTW (feet)	2.20
COLUMN HEIGHT (feet)	16.95
CONVERSION FACTOR (gallons/feet of column height)	0.163
TOTAL WELL VOLUME (gallons)	2.8
THREE WELL VOLUMES (gallons)	8.5

TD Total Well Depth
DTW Depth to Water

CONVERSION FACTORS

2-inch diameter well 0.163 gallons/foot
4-inch diameter well 0.653 gallons/foot

TIME (24 hr)	DTW (feet)	GALLONS PURGED	TEMPERATURE (^{0}F)	CONDUCTIVITY (micromohs/cm)	pH	TURBIDITY
1150	2.20					
pumps on 1151						muddy
1152	2.68	1	65.1	1018	6.71	muddy
1155 1 GPM	2.70	4	66.3	934	6.66	clearing
1157	2.70	6	66.70	914	6.66	clearing
1200	2.70	9	66.50	888	6.65	clearing

NORTHWEST ENVIROCON, INC.

WELL VOLUME PURGING DATA SHEET

Sheet 1 of 1

PROJECT NAME 444 Hegenberger Road	DATE 12/2/98
PROJECT ADDRESS 444 Hegenberger Road, Oakland, CA.	PROJECT NO. 57594
NWE PERSONNEL M. Spielman C. Burriss	SIGNATURE
REGULATOR	CONTRACTOR
REGULATOR	CONTRACTOR

WELL ID	MW5
WELL TD (feet)	19.72
DTW (feet)	4.59
COLUMN HEIGHT (feet)	15.13
CONVERSION FACTOR (gallons/feet of column height)	0.163
TOTAL WELL VOLUME (gallons)	2.5
THREE WELL VOLUMES (gallons)	7.5

TD Total Well Depth
DTW Depth to Water

CONVERSION FACTORS

2-inch diameter well 0.163 gallons/foot
4-inch diameter well 0.653 gallons/foot

TIME (24 hr)	DTW (feet)	GALLONS PURGED	TEMPERATURE (^{0}F)	CONDUCTIVITY (micromohs/cm)	pH	TURBIDITY
start pump 1257	4.58					
1258	6.71	1	65.0	1,254	6.72	cloudy
1300	8.43	3	66.1	1,203	6.57	clearing
1302	9.36	5	66.1	1,127	6.68	clearing
1305	9.96	8	66.3	1,074	6.58	clearing
1307	10.14	10	66.5	1,050	6.57	clear

CLS Labs

Analysis Report: **BTEX, EPA Method 8020**
Purge and Trap, EPA Method 5030

Client: **Northwest Envirocon, Inc.**
1828 Tribute Road, STE A
Sacramento, Ca 95815

Project: **444 Hegenberger Road**

Date Sampled: **11/23/98**
Date Received: **11/25/98**
Date Extracted: **11/30/98**
Date Analyzed: **12/01/98**
Date Reported: **12/02/98**
Client ID No.: **MW1 8.5'-10.0'**

Project No.: **5-1594**
Contact: **Matthew H. Spielman**
Phone: **(916)649-3570**

Lab Contact: **Ray Oslowski**
Lab ID No.: **P8453-1A**
Job No.: **818453**
COC Log No.: **NO NUMBER**
Batch No.: **23944**
Instrument ID: **GC018**
Analyst ID: **SCOTTF**
Matrix: **SOIL**

MW1 8.5'-10.0'

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)	Dilution (factor)
Benzene	71-43-2	ND	5.0	1.0
Toluene	108-88-3	ND	5.0	1.0
Ethylbenzene	100-41-4	ND	5.0	1.0
Xylenes, total	1330-20-7	ND	10	1.0

ND = Not detected at or above indicated Reporting Limit

CLS Labs

Analysis Report: **BTEX, EPA Method 8020**
Purge and Trap, EPA Method 5030

Client: **Northwest Envirocon, Inc.**
1828 Tribute Road, STE A
Sacramento, Ca 95815

Project: **444 Hegenberger Road**

Date Sampled: **11/23/98**
Date Received: **11/25/98**
Date Extracted: **11/30/98**
Date Analyzed: **12/01/98**
Date Reported: **12/02/98**
Client ID No.: **MW1 13.5'-15.0'**

Project No.: **5-1594**
Contact: **Matthew H. Spielman**
Phone: **(916)649-3570**

Lab Contact: **Ray Oslowski**
Lab ID No.: **P8453-2A**
Job No.: **818453**
COC Log No.: **NO NUMBER**
Batch No.: **23944**
Instrument ID: **GC018**
Analyst ID: **SCOTTF**
Matrix: **SOIL**

MW1 13.5'-15.0'

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)	Dilution (factor)
Benzene	71-43-2	ND	5.0	1.0
Toluene	108-88-3	ND	5.0	1.0
Ethylbenzene	100-41-4	ND	5.0	1.0
Xylenes, total	1330-20-7	ND	10	1.0

ND = Not detected at or above indicated Reporting Limit

CLS Labs

Analysis Report: **BTEX, EPA Method 8020**
Purge and Trap, EPA Method 5030

Client: **Northwest Envirocon, Inc.**
1828 Tribute Road, STE A
Sacramento, Ca 95815

Project: **444 Hegenberger Road**

Date Sampled: **11/23/98**
Date Received: **11/25/98**
Date Extracted: **11/30/98**
Date Analyzed: **12/01/98**
Date Reported: **12/02/98**
Client ID No.: **MW2 8.5'-10.0'**

Project No.: **5-1594**
Contact: **Matthew H. Spielman**
Phone: **(916)649-3570**

Lab Contact: **Ray Oslowski**
Lab ID No.: **P8453-3A**
Job No.: **818453**
COC Log No.: **NO NUMBER**
Batch No.: **23944**
Instrument ID: **GC018**
Analyst ID: **SCOTTF**
Matrix: **SOIL**

MW2 8.5'-10.0'

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)	Dilution (factor)
Benzene	71-43-2	1500	250	50
Toluene	108-88-3	1700	250	50
Ethylbenzene	100-41-4	3000	250	50
Xylenes, total	1330-20-7	5200	500	50

ND = Not detected at or above indicated Reporting Limit

CLS Labs

Analysis Report: **BTEX, EPA Method 8020**
Purge and Trap, EPA Method 5030

Client: **Northwest Envirocon, Inc.**
1828 Tribute Road, STE A
Sacramento, Ca 95815

Project: **444 Hegenberger Road**

Date Sampled: **11/23/98**
Date Received: **11/25/98**
Date Extracted: **11/30/98**
Date Analyzed: **12/01/98**
Date Reported: **12/02/98**
Client ID No.: **MW2 13.5'-15.0'**

Project No.: **5-1594**
Contact: **Matthew H. Spielman**
Phone: **(916)649-3570**

Lab Contact: **Ray Oslowski**
Lab ID No.: **P8453-4A**
Job No.: **818453**
COC Log No.: **NO NUMBER**
Batch No.: **23944**
Instrument ID: **GC018**
Analyst ID: **SCOTTF**
Matrix: **SOIL**

MW2 13.5'-15.0'

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)	Dilution (factor)
Benzene	71-43-2	ND	5.0	1.0
Toluene	108-88-3	ND	5.0	1.0
Ethylbenzene	100-41-4	ND	5.0	1.0
Xylenes, total	1330-20-7	ND	10	1.0

ND = Not detected at or above indicated Reporting Limit

CLS Labs

Analysis Report: **BTEX, EPA Method 8020**
Purge and Trap, EPA Method 5030

Client: **Northwest Envirocon, Inc.**
1828 Tribute Road, STE A
Sacramento, Ca 95815

Project: **444 Hegenberger Road**

Date Sampled: **11/23/98**
Date Received: **11/25/98**
Date Extracted: **11/30/98**
Date Analyzed: **12/01/98**
Date Reported: **12/02/98**
Client ID No.: **MW4 8.5'-10.0'**

Project No.: **5-1594**
Contact: **Matthew H. Spielman**
Phone: **(916)649-3570**

Lab Contact: **Ray Oslowski**
Lab ID No.: **P8453-5A**
Job No.: **818453**
COC Log No.: **NO NUMBER**
Batch No.: **23944**
Instrument ID: **GC018**
Analyst ID: **SCOTTF**
Matrix: **SOIL**

MW4 8.5'-10.0'

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)	Dilution (factor)
Benzene	71-43-2	160	5.0	1.0
Toluene	108-88-3	160	5.0	1.0
Ethylbenzene	100-41-4	77	5.0	1.0
Xylenes, total	1330-20-7	96	10	1.0

ND = Not detected at or above indicated Reporting Limit

CA DOHS ELAP Accreditation/Registration Number 1233

3249 Fitzgerald Road Rancho Cordova, CA 95742 (916) 638-7301 Fax (916) 638-4510

CLS Labs

Analysis Report: **BTEX, EPA Method 8020**
Purge and Trap, EPA Method 5030

Client: **Northwest Envirocon, Inc.**
1828 Tribute Road, STE A
Sacramento, Ca 95815

Project: **444 Hegenberger Road**

Date Sampled: **11/23/98**
Date Received: **11/25/98**
Date Extracted: **11/30/98**
Date Analyzed: **12/01/98**
Date Reported: **12/02/98**
Client ID No.: **MW4 13.5'-15.0'**

Project No.: **5-1594**
Contact: **Matthew H. Spielman**
Phone: **(916)649-3570**

Lab Contact: **Ray Oslowski**
Lab ID No.: **P8453-6A**
Job No.: **818453**
COC Log No.: **NO NUMBER**
Batch No.: **23944**
Instrument ID: **GC018**
Analyst ID: **SCOTTF**
Matrix: **SOIL**

MW4 13.5'-15.0'

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)	Dilution (factor)
Benzene	71-43-2	13	5.0	1.0
Toluene	108-88-3	39	5.0	1.0
Ethylbenzene	100-41-4	13	5.0	1.0
Xylenes, total	1330-20-7	26	10	1.0

ND = Not detected at or above indicated Reporting Limit

CLS Labs

Analysis Report: **BTEX, EPA Method 8020**
Purge and Trap, EPA Method 5030

Client: **Northwest Envirocon, Inc.**
1828 Tribute Road, STE A
Sacramento, Ca 95815

Project: **444 Hegenberger Road**

Date Sampled: **11/24/98**
Date Received: **11/25/98**
Date Extracted: **11/30/98**
Date Analyzed: **12/01/98**
Date Reported: **12/02/98**
Client ID No.: **MW3 8.5'-10.0'**

Project No.: **5-1594**
Contact: **Matthew H. Spielman**
Phone: **(916)649-3570**

Lab Contact: **Ray Oslowski**
Lab ID No.: **P8453-7A**
Job No.: **818453**
COC Log No.: **NO NUMBER**
Batch No.: **23944**
Instrument ID: **GC018**
Analyst ID: **SCOTTF**
Matrix: **SOIL**

MW3 8.5'-10.0'

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)	Dilution (factor)
Benzene	71-43-2	180	5.0	1.0
Toluene	108-88-3	32	5.0	1.0
Ethylbenzene	100-41-4	78	5.0	1.0
Xylenes, total	1330-20-7	62	10	1.0

ND = Not detected at or above indicated Reporting Limit

CLS Labs

Analysis Report: **BTEX, EPA Method 8020**
Purge and Trap, EPA Method 5030

Client: **Northwest Envirocon, Inc.**
1828 Tribute Road, STE A
Sacramento, Ca 95815

Project: **444 Hegenberger Road**

Date Sampled: **11/24/98**
Date Received: **11/25/98**
Date Extracted: **11/30/98**
Date Analyzed: **12/01/98**
Date Reported: **12/02/98**
Client ID No.: **MW3 13.5'-15.0'**

Project No.: **5-1594**
Contact: **Matthew H. Spielman**
Phone: **(916)649-3570**

Lab Contact: **Ray Oslowski**
Lab ID No.: **P8453-8A**
Job No.: **818453**
COC Log No.: **NO NUMBER**
Batch No.: **23944**
Instrument ID: **GC018**
Analyst ID: **SCOTTF**
Matrix: **SOIL**

MW3 13.5'-15.0'

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)	Dilution (factor)
Benzene	71-43-2	ND	5.0	1.0
Toluene	108-88-3	ND	5.0	1.0
Ethylbenzene	100-41-4	ND	5.0	1.0
Xylenes, total	1330-20-7	ND	10	1.0

ND = Not detected at or above indicated Reporting Limit

CLS Labs

Analysis Report: **BTEX, EPA Method 8020**
Purge and Trap, EPA Method 5030

Client: **Northwest Envirocon, Inc.**
1828 Tribute Road, STE A
Sacramento, Ca 95815

Project: **444 Hegenberger Road**

Date Sampled: **11/24/98**
Date Received: **11/25/98**
Date Extracted: **11/30/98**
Date Analyzed: **12/01/98**
Date Reported: **12/02/98**
Client ID No.: **MW5 8.5'-10.0'**

Project No.: **5-1594**
Contact: **Matthew H. Spielman**
Phone: **(916)649-3570**

Lab Contact: **Ray Oslowski**
Lab ID No.: **P8453-9A**
Job No.: **818453**
COC Log No.: **NO NUMBER**
Batch No.: **23944**
Instrument ID: **GC018**
Analyst ID: **SCOTTF**
Matrix: **SOIL**

MW5 8.5'-10.0'

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)	Dilution (factor)
Benzene	71-43-2	510	25	5.0
Toluene	108-88-3	150	25	5.0
Ethylbenzene	100-41-4	500	25	5.0
Xylenes, total	1330-20-7	120	50	5.0

ND = Not detected at or above indicated Reporting Limit

3249 Fitzgerald Road Rancho Cordova, CA 95742 (916) 638-7301 Fax (916) 638-4510

CLS Labs

Analysis Report: **BTEX, EPA Method 8020**
Purge and Trap, EPA Method 5030

Client: **Northwest Envirocon, Inc.**
1828 Tribute Road, STE A
Sacramento, Ca 95815

Project: **444 Hegenberger Road**

Date Sampled: **11/24/98**
Date Received: **11/25/98**
Date Extracted: **11/30/98**
Date Analyzed: **12/01/98**
Date Reported: **12/02/98**
Client ID No.: **MW5 13.5'-15.0'**

Project No.: **5-1594**
Contact: **Matthew H. Spielman**
Phone: **(916)649-3570**

Lab Contact: **Ray Oslowski**
Lab ID No.: **P8453-10A**
Job No.: **818453**
COC Log No.: **NO NUMBER**
Batch No.: **23944**
Instrument ID: **GC018**
Analyst ID: **SCOTTF**
Matrix: **SOIL**

MW5 13.5'-15.0'

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)	Dilution (factor)
Benzene	71-43-2	ND	5.0	1.0
Toluene	108-88-3	ND	5.0	1.0
Ethylbenzene	100-41-4	ND	5.0	1.0
Xylenes, total	1330-20-7	ND	10	1.0

ND = Not detected at or above indicated Reporting Limit

CLS Labs

Analysis Report: **Total Petroleum Hydrocarbons, EPA Method 8015**
Purge and Trap, EPA Method 5030

Client: **Northwest Envirocon, Inc.**
1828 Tribute Road, STE A
Sacramento, Ca 95815

Project: **444 Hegenberger Road**

Date Sampled: **11/23/98**
Date Received: **11/25/98**
Date Extracted: **11/30/98**
Date Analyzed: **12/01/98**
Date Reported: **12/02/98**
Client ID No.: **MW1 8.5'-10.0'**

Project No.: **5-1594**
Contact: **Matthew H. Spielman**
Phone: **(916)649-3570**

Lab Contact: **Ray Oslowski**
Lab ID No.: **P8453-1A**
Job No.: **818453**
COC Log No.: **NO NUMBER**
Batch No.: **23944**
Instrument ID: **GC018**
Analyst ID: **SCOTTF**
Matrix: **SOIL**

MW1 8.5'-10.0'

Analyte	CAS No.	Results (mg/kg)	Rep. Limit (mg/kg)	Dilution (factor)
TPH as Gasoline	N/A	ND	1.0	1.0

ND = Not detected at or above indicated Reporting Limit

CA DOHS ELAP Accreditation/Registration Number 1233

3249 Fitzgerald Road Rancho Cordova, CA 95742 (916) 638-7301 Fax (916) 638-4510

CLS Labs

Analysis Report: **Total Petroleum Hydrocarbons, EPA Method 8015**
Purge and Trap, EPA Method 5030

Client: **Northwest Envirocon, Inc.**
1828 Tribute Road, STE A
Sacramento, Ca 95815

Project: **444 Hegenberger Road**

Date Sampled: **11/23/98**
Date Received: **11/25/98**
Date Extracted: **11/30/98**
Date Analyzed: **12/01/98**
Date Reported: **12/02/98**
Client ID No.: **MW1 13.5'-15.0'**

Project No.: **5-1594**
Contact: **Matthew H. Spielman**
Phone: **(916)649-3570**

Lab Contact: **Ray Oslowski**
Lab ID No.: **P8453-2A**
Job No.: **818453**
COC Log No.: **NO NUMBER**
Batch No.: **23944**
Instrument ID: **GC018**
Analyst ID: **SCOTTF**
Matrix: **SOIL**

MW1 13.5'-15.0'

Analyte	CAS No.	Results (mg/kg)	Rep. Limit (mg/kg)	Dilution (factor)
TPH as Gasoline	N/A	ND	1.0	1.0

ND = Not detected at or above indicated Reporting Limit

CLS Labs

Analysis Report: **Total Petroleum Hydrocarbons, EPA Method 8015**
Purge and Trap, EPA Method 5030

Client: **Northwest Envirocon, Inc.**
1828 Tribute Road, STE A
Sacramento, Ca 95815

Project: **444 Hegenberger Road**

Date Sampled: **11/23/98**
Date Received: **11/25/98**
Date Extracted: **11/30/98**
Date Analyzed: **12/01/98**
Date Reported: **12/02/98**
Client ID No.: **MW2 8.5'-10.0'**

Project No.: **5-1594**
Contact: **Matthew H. Spielman**
Phone: **(916)649-3570**

Lab Contact: **Ray Oslowski**
Lab ID No.: **P8453-3A**
Job No.: **818453**
COC Log No.: **NO NUMBER**
Batch No.: **23944**
Instrument ID: **GC018**
Analyst ID: **SCOTTF**
Matrix: **SOIL**

MW2 8.5'-10.0'

Analyte	CAS No.	Results (mg/kg)	Rep. Limit (mg/kg)	Dilution (factor)
TPH as Gasoline	N/A	47	5.0	5.0

ND = Not detected at or above indicated Reporting Limit

CLS Labs

Analysis Report: **Total Petroleum Hydrocarbons, EPA Method 8015**
Purge and Trap, EPA Method 5030

Client: **Northwest Envirocon, Inc.**
1828 Tribute Road, STE A
Sacramento, Ca 95815

Project: **444 Hegenberger Road**

Date Sampled: **11/23/98**
Date Received: **11/25/98**
Date Extracted: **11/30/98**
Date Analyzed: **12/01/98**
Date Reported: **12/02/98**
Client ID No.: **MW2 13.5'-15.0'**

Project No.: **5-1594**
Contact: **Matthew H. Spielman**
Phone: **(916)649-3570**

Lab Contact: **Ray Oslowski**
Lab ID No.: **P8453-4A**
Job No.: **818453**
COC Log No.: **NO NUMBER**
Batch No.: **23944**
Instrument ID: **GC018**
Analyst ID: **SCOTTF**
Matrix: **SOIL**

MW2 13.5'-15.0'

Analyte	CAS No.	Results (mg/kg)	Rep. Limit (mg/kg)	Dilution (factor)
TPH as Gasoline	N/A	ND	1.0	1.0

ND = Not detected at or above indicated Reporting Limit

CA DOHS ELAP Accreditation/Registration Number 1233

CLS Labs

Analysis Report: **Total Petroleum Hydrocarbons, EPA Method 8015**
Purge and Trap, EPA Method 5030

Client: **Northwest Envirocon, Inc.**
1828 Tribute Road, STE A
Sacramento, Ca 95815

Project: **444 Hegenberger Road**

Date Sampled: **11/23/98**
Date Received: **11/25/98**
Date Extracted: **11/30/98**
Date Analyzed: **12/01/98**
Date Reported: **12/02/98**
Client ID No.: **MW4 8.5'-10.0'**

Project No.: **5-1594**
Contact: **Matthew H. Spielman**
Phone: **(916)649-3570**

Lab Contact: **Ray Oslowski**
Lab ID No.: **P8453-5A**
Job No.: **818453**
COC Log No.: **NO NUMBER**
Batch No.: **23944**
Instrument ID: **GC018**
Analyst ID: **SCOTTF**
Matrix: **SOIL**

MW4 8.5'-10.0'

Analyte	CAS No.	Results (mg/kg)	Rep. Limit (mg/kg)	Dilution (factor)
TPH as Gasoline	N/A	6.4	1.0	1.0

ND = Not detected at or above indicated Reporting Limit

CLS Labs

Analysis Report: **Total Petroleum Hydrocarbons, EPA Method 8015**
Purge and Trap, EPA Method 5030

Client: **Northwest Envirocon, Inc.**
1828 Tribute Road, STE A
Sacramento, Ca 95815

Project: **444 Hegenberger Road**

Date Sampled: **11/23/98**
Date Received: **11/25/98**
Date Extracted: **11/30/98**
Date Analyzed: **12/01/98**
Date Reported: **12/02/98**
Client ID No.: **MW4 13.5'-15.0'**

Project No.: **5-1594**
Contact: **Matthew H. Spielman**
Phone: **(916)649-3570**

Lab Contact: **Ray Oslowski**
Lab ID No.: **P8453-6A**
Job No.: **818453**
COC Log No.: **NO NUMBER**
Batch No.: **23944**
Instrument ID: **GC018**
Analyst ID: **SCOTTF**
Matrix: **SOIL**

MW4 13.5'-15.0'

Analyte	CAS No.	Results (mg/kg)	Rep. Limit (mg/kg)	Dilution (factor)
TPH as Gasoline	N/A	1.7	1.0	1.0

ND = Not detected at or above indicated Reporting Limit

CA DOHS ELAP Accreditation/Registration Number 1233

3249 Fitzgerald Road Rancho Cordova, CA 95742 (916) 638-7301 Fax (916) 638-4510

CLS Labs

Analysis Report: **Total Petroleum Hydrocarbons, EPA Method 8015**
Purge and Trap, EPA Method 5030

Client: **Northwest Envirocon, Inc.**
1828 Tribute Road, STE A
Sacramento, Ca 95815

Project: **444 Hegenberger Road**

Date Sampled: **11/24/98**
Date Received: **11/25/98**
Date Extracted: **11/30/98**
Date Analyzed: **12/01/98**
Date Reported: **12/02/98**
Client ID No.: **MW3 8.5'-10.0'**

Project No.: **5-1594**
Contact: **Matthew H. Spielman**
Phone: **(916)649-3570**

Lab Contact: **Ray Oslowski**
Lab ID No.: **P8453-7A**
Job No.: **818453**
COC Log No.: **NO NUMBER**
Batch No.: **23944**
Instrument ID: **GC018**
Analyst ID: **SCOTTF**
Matrix: **SOIL**

MW3 8.5'-10.0'

Analyte	CAS No.	Results (mg/kg)	Rep. Limit (mg/kg)	Dilution (factor)
TPH as Gasoline	N/A	3.1	1.0	1.0

ND = Not detected at or above indicated Reporting Limit

CLS Labs

Analysis Report: **Total Petroleum Hydrocarbons, EPA Method 8015**
Purge and Trap, EPA Method 5030

Client: **Northwest Envirocon, Inc.**
1828 Tribute Road, STE A
Sacramento, Ca 95815

Project: **444 Hegenberger Road**

Date Sampled: **11/24/98**
Date Received: **11/25/98**
Date Extracted: **11/30/98**
Date Analyzed: **12/01/98**
Date Reported: **12/02/98**
Client ID No.: **MW3 13.5'-15.0'**

Project No.: **5-1594**
Contact: **Matthew H. Spielman**
Phone: **(916)649-3570**

Lab Contact: **Ray Oslowski**
Lab ID No.: **P8453-8A**
Job No.: **818453**
COC Log No.: **NO NUMBER**
Batch No.: **23944**
Instrument ID: **GC018**
Analyst ID: **SCOTTF**
Matrix: **SOIL**

MW3 13.5'-15.0'

Analyte	CAS No.	Results (mg/kg)	Rep. Limit (mg/kg)	Dilution (factor)
TPH as Gasoline	N/A	ND	1.0	1.0

ND = Not detected at or above indicated Reporting Limit

CA DOHS ELAP Accreditation/Registration Number 1233

CLS Labs

Analysis Report: **Total Petroleum Hydrocarbons, EPA Method 8015**
Purge and Trap, EPA Method 5030

Client: **Northwest Envirocon, Inc.**
1828 Tribute Road, STE A
Sacramento, Ca 95815

Project: **444 Hegenberger Road**

Date Sampled: **11/24/98**
Date Received: **11/25/98**
Date Extracted: **11/30/98**
Date Analyzed: **12/01/98**
Date Reported: **12/02/98**
Client ID No.: **MW5 8.5'-10.0'**

Project No.: **5-1594**
Contact: **Matthew H. Spielman**
Phone: **(916)649-3570**

Lab Contact: **Ray Oslowski**
Lab ID No.: **P8453-9A**
Job No.: **818453**
COC Log No.: **NO NUMBER**
Batch No.: **23944**
Instrument ID: **GC018**
Analyst ID: **SCOTTF**
Matrix: **SOIL**

MW5 8.5'-10.0'

Analyte	CAS No.	Results (mg/kg)	Rep. Limit (mg/kg)	Dilution (factor)
TPH as Gasoline	N/A	6.8	5.0	5.0

ND = Not detected at or above indicated Reporting Limit

CLS Labs

Analysis Report: **Total Petroleum Hydrocarbons, EPA Method 8015**
Purge and Trap, EPA Method 5030

Client: **Northwest Envirocon, Inc.**
1828 Tribute Road, STE A
Sacramento, Ca 95815

Project: **444 Hegenberger Road**

Date Sampled: **11/24/98**
Date Received: **11/25/98**
Date Extracted: **11/30/98**
Date Analyzed: **12/01/98**
Date Reported: **12/02/98**
Client ID No.: **MW5 13.5'-15.0'**

Project No.: **5-1594**
Contact: **Matthew H. Spielman**
Phone: **(916)649-3570**

Lab Contact: **Ray Oslowski**
Lab ID No.: **P8453-10A**
Job No.: **818453**
COC Log No.: **NO NUMBER**
Batch No.: **23944**
Instrument ID: **GC018**
Analyst ID: **SCOTTF**
Matrix: **SOIL**

MW5 13.5'-15.0'

Analyte	CAS No.	Results (mg/kg)	Rep. Limit (mg/kg)	Dilution (factor)
TPH as Gasoline	N/A	ND	1.0	1.0

ND = Not detected at or above indicated Reporting Limit

CA DOHS ELAP Accreditation/Registration Number 1233

P8453

NORTHWEST ENVIROCON, INC.
1828 TRIBUTE ROAD, SUITE A
SACRAMENTO, CA. 95815
(916) 649-3570 FAX: (916) 649-3819

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

P.O. 98050 - ~~10510~~ CH#5 10511

DATE: 11/25/98 PAGE 1 OF 1

PROJECT NAME 444 Hegenberger Road
PROJECT # 5-1594
SITE ADDRESS 444 Hegenberger Road
Oakland, CA.
PHONE
SAMPLERS SIGNATURE Matthew H. Spiel

ANALYSIS REQUESTED

TURNAROUND REQUIREMENTS
___ 24 hr
___ 48 hr
___ 5 day
X Standard 10 day
___ Other (Specify)
___ Provide Verbal Preliminary Results
Requested Report Date 12/2/98

REPORT REQUIREMENTS
X I. Routine Report
___ II. Report (includes DUP, MS, MSD, as required, may be charged as samples)
___ III. Data Validation Report (includes All Raw Data)
___ RWQCB

SAMPLE I.D.	DATE	TIME	LAB I.D.	SAMPLE MATRIX	NUMBER OF CONTAINERS	TYPE OF CONTAINERS	TPH GAS/BTEX 8015/8020/602	TPHg/TPHd/TPHmo/TPH 8015 MODIFIED DIESEL ☐ FC X GASOLINE ☐	BTEX 602/8020	TRPH EPA 418.1	HALOGENATED VOLATILES 601/8010	VOLATILE ORGANICS GC/MS 624/8240/8260	CAM METALS 6010/7000	MTBE				REMARKS
MW1 8.5'-10.0'	11/23/98	1040		Soil	1	Brass		X	X									Quote R00391 11/19/98
MW1 13.5'-15.0'	11/23/98	1047																
MW2 8.5'-10.0'	11/23/98	1315																
MW2 13.5'-16.0'	11/23/98	1324																
MW4 8.5'-10.0'	11/23/98	1536																
MW4 13.5'-15.0'	11/23/98	1546																
MW3 8.5'-10.0'	11/24/98	0930																
MW3 13.5'-15.0'	11/24/98	0937																
MW5 8.5'-10.0'	11/24/98	1208																
MW5 13.5'-15.0'	11/24/98	1227																

RELINQUISHED BY (SIGN)	PRINT NAME/COMPANY	DATE/TIME	RELINQUISHED BY (SIGN)	PRINT NAME/COMPANY
Matthew H. Spiel	Matthew H. Spielman/WWE	11/25: 1145 am		CONRAD/CLS
	CLS	11/25/98 - 1715		MTHOMPSON/CLS

REC'D AT LAB BY: | DATE/TIME: | CONDITIONS/COMMENTS:

SHIPPED VIA ☐ FED X ☐ UPS ☒ OTHER lab courier AIR BILL #

E:\forms\CHAIN OF CUSTODY_1.dwg

CLS Labs

Northwest Envirocon, Inc.
1828 Tribute Road, STE A
Sacramento, Ca 95815

12/09/98

Attention: **Matthew H. Spielmann**

Reference: **Analytical Results**

Project Name: **444 Hegenberger Road**
Project No.: **5-1594**
Date Received: **12/03/98**
Chain Of Custody: **NO NUMBER**

CLS ID No.: **P8571**
CLS Job No.: **818571**

The following analyses were performed on the above referenced project:

No. of Samples	*Turnaround Time*	*Analysis Description*
5	5 Days	**TPH Diesel by DHS Method - M8015 (water)**
5	5 Days	**TPH as Gasoline, BTEX and MTBE**

These samples were received by CLS Labs in a chilled, intact state and accompanied by a valid chain of custody document.

Calibrations for analytical testing have been performed in accordance to and pass the EPA's criteria for acceptability.

Analysis: Total Petroleum Hydrocarbons, EPA Method 8015
Laboratory Control Samples - One of the Laboratory Control Spike recoveries was low outside laboratory acceptance range. Normally this batch would be re-extracted and re-analyzed, however, the sample was consumed in this analysis.

Analytical results are attached to this letter. Please call if we can provide additional assistance.

Sincerely,

James Liang, Ph.D.
Laboratory Director

CLS Labs

Analysis Report: **Total Petroleum Hydrocarbons, EPA Method 8015**

Client: **Northwest Envirocon, Inc.**
1828 Tribute Road, STE A
Sacramento, Ca 95815

Project: **444 Hegenberger Road**

Date Sampled: **12/02/98**
Date Received: **12/03/98**
Date Extracted: **12/04/98**
Date Analyzed: **12/07/98**
Date Reported: **12/09/98**

Project No.: **5-1594**
Contact: **Matthew H. Spielmann**
Phone: **(916)649-3570**

Lab Contact: **Ray Oslowski**
Lab ID No.: **P8571**
Job No.: **818571**
COC Log No.: **NO NUMBER**
Batch No.: **24027**
Instrument ID: **PGC06**
Analyst ID: **NGOCDUNG**
Matrix: **WATER**

ANALYTICAL RESULTS

Lab / Client ID Analyte	CAS No.	Results (mg/L)	Rep. Limit (mg/L)	Dilution (factor)
1A / MW1 TPH as Diesel	N/A	ND	0.050	1.0
2A / MW2 TPH as Diesel	N/A	0.099	0.050	1.0
3A / MW3 TPH as Diesel	N/A	0.30	0.050	1.0
4A / MW4 TPH as Diesel	N/A	0.15	0.050	1.0
5A / MW5 TPH as Diesel	N/A	0.62	0.050	1.0

ND = Not detected at or above indicated Reporting Limit

CLS Labs

Analysis Report: **Total Petroleum Hydrocarbons, EPA Method 8015**
Purge and Trap, EPA Method 5030

Client: **Northwest Envirocon, Inc.**
1828 Tribute Road, STE A
Sacramento, Ca 95815

Project: **444 Hegenberger Road**

Date Sampled: **12/02/98**
Date Received: **12/03/98**
Date Extracted: **12/04/98**
Date Analyzed: **12/04/98**
Date Reported: **12/08/98**
Client ID No.: **MW1**

Project No.: **5-1594**
Contact: **Matthew H. Spielmann**
Phone: **(916)649-3570**

Lab Contact: **Ray Oslowski**
Lab ID No.: **P8571-1B**
Job No.: **818571**
COC Log No.: **NO NUMBER**
Batch No.: **24021**
Instrument ID: **GC007**
Analyst ID: **SCOTTF**
Matrix: **WATER**

MW1

Analyte	CAS No.	Results (mg/L)	Rep. Limit (mg/L)	Dilution (factor)
TPH as Gasoline	N/A	ND	0.050	1.0

ND = Not detected at or above indicated Reporting Limit

CA DOHS ELAP Accreditation/Registration Number 1233

3249 Fitzgerald Road Rancho Cordova, CA 95742 (916) 638-7301 Fax (916) 638-4510

CLS Labs

Analysis Report: **Total Petroleum Hydrocarbons, EPA Method 8015**
Purge and Trap, EPA Method 5030

Client: **Northwest Envirocon, Inc.**
1828 Tribute Road, STE A
Sacramento, Ca 95815

Project: **444 Hegenberger Road**

Date Sampled: **12/02/98**
Date Received: **12/03/98**
Date Extracted: **12/04/98**
Date Analyzed: **12/04/98**
Date Reported: **12/08/98**
Client ID No.: **MW2**

Project No.: **5-1594**
Contact: **Matthew H. Spielmann**
Phone: **(916)649-3570**

Lab Contact: **Ray Oslowski**
Lab ID No.: **P8571-2B**
Job No.: **818571**
COC Log No.: **NO NUMBER**
Batch No.: **24021**
Instrument ID: **GC007**
Analyst ID: **SCOTTF**
Matrix: **WATER**

MW2

Analyte	CAS No.	Results (mg/L)	Rep. Limit (mg/L)	Dilution (factor)
TPH as Gasoline	N/A	ND	0.050	1.0

ND = Not detected at or above indicated Reporting Limit

CA DOHS ELAP Accreditation/Registration Number 1233

CLS Labs

Analysis Report: **Total Petroleum Hydrocarbons, EPA Method 8015**
Purge and Trap, EPA Method 5030

Client: **Northwest Envirocon, Inc.**
1828 Tribute Road, STE A
Sacramento, Ca 95815

Project: **444 Hegenberger Road**

Date Sampled: **12/02/98**
Date Received: **12/03/98**
Date Extracted: **12/04/98**
Date Analyzed: **12/04/98**
Date Reported: **12/08/98**
Client ID No.: **MW3**

Project No.: **5-1594**
Contact: **Matthew H. Spielmann**
Phone: **(916)649-3570**

Lab Contact: **Ray Oslowski**
Lab ID No.: **P8571-3B**
Job No.: **818571**
COC Log No.: **NO NUMBER**
Batch No.: **24021**
Instrument ID: **GC007**
Analyst ID: **SCOTTF**
Matrix: **WATER**

MW3

Analyte	CAS No.	Results (mg/L)	Rep. Limit (mg/L)	Dilution (factor)
TPH as Gasoline	N/A	0.97	0.050	1.0

MA = Recovery data is outside standard QC limits due to matrix interference. LCS recovery data validates methodology.

ND = Not detected at or above indicated Reporting Limit

CLS Labs

Analysis Report: **Total Petroleum Hydrocarbons, EPA Method 8015**
Purge and Trap, EPA Method 5030

Client: **Northwest Envirocon, Inc.**
1828 Tribute Road, STE A
Sacramento, Ca 95815

Project: **444 Hegenberger Road**

Date Sampled: **12/02/98**
Date Received: **12/03/98**
Date Extracted: **12/04/98**
Date Analyzed: **12/04/98**
Date Reported: **12/08/98**
Client ID No.: **MW4**

Project No.: **5-1594**
Contact: **Matthew H. Spielmann**
Phone: **(916)649-3570**

Lab Contact: **Ray Oslowski**
Lab ID No.: **P8571-4B**
Job No.: **818571**
COC Log No.: **NO NUMBER**
Batch No.: **24021**
Instrument ID: **GC007**
Analyst ID: **SCOTTF**
Matrix: **WATER**

MW4

Analyte	CAS No.	Results (mg/L)	Rep. Limit (mg/L)	Dilution (factor)
TPH as Gasoline	N/A	0.15	0.050	1.0

ND = Not detected at or above indicated Reporting Limit

CA DOHS ELAP Accreditation/Registration Number 1233

3249 Fitzgerald Road Rancho Cordova, CA 95742 (916) 638-7301 Fax (916) 638-4510

CLS Labs

Analysis Report: **Total Petroleum Hydrocarbons, EPA Method 8015**
Purge and Trap, EPA Method 5030

Client: **Northwest Envirocon, Inc.**
1828 Tribute Road, STE A
Sacramento, Ca 95815

Project: **444 Hegenberger Road**

Date Sampled: **12/02/98**
Date Received: **12/03/98**
Date Extracted: **12/04/98**
Date Analyzed: **12/04/98**
Date Reported: **12/08/98**
Client ID No.: **MW5**

Project No.: **5-1594**
Contact: **Matthew H. Spielmann**
Phone: **(916)649-3570**

Lab Contact: **Ray Oslowski**
Lab ID No.: **P8571-5B**
Job No.: **818571**
COC Log No.: **NO NUMBER**
Batch No.: **24021**
Instrument ID: **GC007**
Analyst ID: **SCOTTF**
Matrix: **WATER**

MW5

Analyte	CAS No.	Results (mg/L)	Rep. Limit (mg/L)	Dilution (factor)
TPH as Gasoline	N/A	ND	0.050	1.0

ND = Not detected at or above indicated Reporting Limit

CA DOHS ELAP Accreditation/Registration Number 1233

3249 Fitzgerald Road Rancho Cordova, CA 95742 (916) 638-7301 Fax (916) 638-4510

CLS Labs

Analysis Report: **EPA 8020, BTEX and MTBE**
Purge and Trap, EPA Method 5030

Client: **Northwest Envirocon, Inc.**
1828 Tribute Road, STE A
Sacramento, Ca 95815

Project: **444 Hegenberger Road**

Date Sampled: **12/02/98**
Date Received: **12/03/98**
Date Extracted: **12/04/98**
Date Analyzed: **12/04/98**
Date Reported: **12/08/98**
Client ID No.: **MW1**

Project No.: **5-1594**
Contact: **Matthew H. Spielmann**
Phone: **(916)649-3570**

Lab Contact: **Ray Oslowski**
Lab ID No.: **P8571-1B**
Job No.: **818571**
COC Log No.: **NO NUMBER**
Batch No.: **24021**
Instrument ID: **GC007**
Analyst ID: **SCOTTF**
Matrix: **WATER**

MW1

Analyte	CAS No.	Results (ug/L)	Rep. Limit (ug/L)	Dilution (factor)
Methyl t-butyl ether	1634-04-4	ND	1.0	1.0
Benzene	71-43-2	ND	0.30	1.0
Toluene	108-88-3	ND	0.30	1.0
Ethylbenzene	100-41-4	ND	0.30	1.0
Xylenes, total	1330-20-7	ND	0.60	1.0

ND = Not detected at or above indicated Reporting Limit

CA DOHS ELAP Accreditation/Registration Number 1233

CLS Labs

Analysis Report: **EPA 8020, BTEX and MTBE**
Purge and Trap, EPA Method 5030

Client: **Northwest Envirocon, Inc.**
1828 Tribute Road, STE A
Sacramento, Ca 95815

Project: **444 Hegenberger Road**

Date Sampled: **12/02/98**
Date Received: **12/03/98**
Date Extracted: **12/04/98**
Date Analyzed: **12/04/98**
Date Reported: **12/08/98**
Client ID No.: **MW2**

Project No.: **5-1594**
Contact: **Matthew H. Spielmann**
Phone: **(916)649-3570**

Lab Contact: **Ray Oslowski**
Lab ID No.: **P8571-2B**
Job No.: **818571**
COC Log No.: **NO NUMBER**
Batch No.: **24021**
Instrument ID: **GC007**
Analyst ID: **SCOTTF**
Matrix: **WATER**

MW2

Analyte	CAS No.	Results (ug/L)	Rep. Limit (ug/L)	Dilution (factor)
Methyl t-butyl ether	1634-04-4	ND	1.0	1.0
Benzene	71-43-2	4.6	0.30	1.0
Toluene	108-88-3	0.85	0.30	1.0
Ethylbenzene	100-41-4	0.57	0.30	1.0
Xylenes, total	1330-20-7	5.0	0.60	1.0

ND = Not detected at or above indicated Reporting Limit

CLS Labs

Analysis Report: **EPA 8020, BTEX and MTBE**
Purge and Trap, EPA Method 5030

Client: **Northwest Envirocon, Inc.**
1828 Tribute Road, STE A
Sacramento, Ca 95815

Project: **444 Hegenberger Road**

Date Sampled: **12/02/98**
Date Received: **12/03/98**
Date Extracted: **12/04/98**
Date Analyzed: **12/04/98**
Date Reported: **12/08/98**
Client ID No.: **MW3**

Project No.: **5-1594**
Contact: **Matthew H. Spielmann**
Phone: **(916)649-3570**

Lab Contact: **Ray Oslowski**
Lab ID No.: **P8571-3B**
Job No.: **818571**
COC Log No.: **NO NUMBER**
Batch No.: **24021**
Instrument ID: **GC007**
Analyst ID: **SCOTTF**
Matrix: **WATER**

MW3

Analyte	CAS No.	Results (ug/L)	Rep. Limit (ug/L)	Dilution (factor)
Methyl t-butyl ether	1634-04-4	ND	1.0	1.0
Benzene	71-43-2	160	3.0	10
Toluene	108-88-3	6.5	0.30	1.0
Ethylbenzene	100-41-4	16	3.0	10
Xylenes, total	1330-20-7	9.0	0.60	1.0

ND = Not detected at or above indicated Reporting Limit

CA DOHS ELAP Accreditation/Registration Number 1233

CLS Labs

Analysis Report: **EPA 8020, BTEX and MTBE**
Purge and Trap, EPA Method 5030

Client: **Northwest Envirocon, Inc.**
1828 Tribute Road, STE A
Sacramento, Ca 95815

Project: **444 Hegenberger Road**

Date Sampled: **12/02/98**
Date Received: **12/03/98**
Date Extracted: **12/04/98**
Date Analyzed: **12/04/98**
Date Reported: **12/08/98**
Client ID No.: **MW4**

Project No.: **5-1594**
Contact: **Matthew H. Spielmann**
Phone: **(916)649-3570**

Lab Contact: **Ray Oslowski**
Lab ID No.: **P8571-4B**
Job No.: **818571**
COC Log No.: **NO NUMBER**
Batch No.: **24021**
Instrument ID: **GC007**
Analyst ID: **SCOTTF**
Matrix: **WATER**

MW4

Analyte	CAS No.	Results (ug/L)	Rep. Limit (ug/L)	Dilution (factor)
Methyl t-butyl ether	1634-04-4	ND	1.0	1.0
Benzene	71-43-2	29	1.5	5.0
Toluene	108-88-3	0.78	0.30	1.0
Ethylbenzene	100-41-4	0.38	0.30	1.0
Xylenes, total	1330-20-7	1.1	0.60	1.0

ND = Not detected at or above indicated Reporting Limit

CLS Labs

Analysis Report: **EPA 8020, BTEX and MTBE**
Purge and Trap, EPA Method 5030

Client: **Northwest Envirocon, Inc.**
1828 Tribute Road, STE A
Sacramento, Ca 95815

Project: **444 Hegenberger Road**

Date Sampled: **12/02/98**
Date Received: **12/03/98**
Date Extracted: **12/04/98**
Date Analyzed: **12/04/98**
Date Reported: **12/08/98**
Client ID No.: **MW5**

Project No.: **5-1594**
Contact: **Matthew H. Spielmann**
Phone: **(916)649-3570**

Lab Contact: **Ray Oslowski**
Lab ID No.: **P8571-5B**
Job No.: **818571**
COC Log No.: **NO NUMBER**
Batch No.: **24021**
Instrument ID: **GC007**
Analyst ID: **SCOTTF**
Matrix: **WATER**

MW5

Analyte	CAS No.	Results (ug/L)	Rep. Limit (ug/L)	Dilution (factor)
Methyl t-butyl ether	1634-04-4	ND	1.0	1.0
Benzene	71-43-2	1.1	0.30	1.0
Toluene	108-88-3	0.37	0.30	1.0
Ethylbenzene	100-41-4	ND	0.30	1.0
Xylenes, total	1330-20-7	2.0	0.60	1.0

ND = Not detected at or above indicated Reporting Limit

NORTHWEST ENVIROCON, INC.
1828 TRIBUTE ROAD, SUITE A
SACRAMENTO, CA. 95815
(916) 649-3570 FAX: (916) 649-3819

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

08571

DATE: 12/3/98 PAGE 1 OF 1

PROJECT NAME 444 Hegenberger Road
PROJECT # 5-1594
SITE ADDRESS 444 Hegenberger Road
Oakland, CA.
PHONE
SAMPLERS SIGNATURE Matthew H Spiek

ANALYSIS REQUESTED

TURNAROUND REQUIREMENTS
___ 24 hr
___ 48 hr
X 5 day
___ Standard
___ Other (Specify)
___ Provide Verbal Preliminary Results
Requested Report Date ___

REPORT REQUIREMENTS
X I. Routine Report
___ II. Report (includes DUP, MS, MSD, as required, may be charged as samples)
___ III. Data Validation Report (includes All Raw Data)
___ RWOCB

SAMPLE I.D.	DATE	TIME	LAB I.D.	SAMPLE MATRIX	NUMBER OF CONTAINERS	TYPE OF CONTAINERS	TPH GAS/BTEX 8015/8020/602	DIESEL X TPH/8015 MODIFIED FC □ GASOLINE □	BTEX 602/8020	TRPH EPA 418.1	HALOGENATED VOLATILES 601/8010	VOLATILE ORGANICS GC/MS 624/8240/8260	CAM METALS 6010/7000	MTBE				REMARKS
MW1	12/2/98	1050		water	1	1 Liter		X										Quote # R00391
MW1		1050			3	40ml	X											
MW1		1130			1	1 Liter		X										
MW2		1130			3	40ml	X											
MW3		1241			1	1 Liter		X										
MW3		1242			3	40ml	X											
MW4		1208			1	1 Liter		X										
MW4		1209			3	40ml	X											
MW5		1315			1	1 Liter		X										
MW5	↓	1315		↓	3	40ml	X											↓

RELINQUISHED BY (SIGN)	PRINT NAME/COMPANY	DATE/TIME	RELINQUISHED BY (SIGN)	PRINT NAME/COMPANY
Matthew H Spiek	Matthew H. Spiek / NWE	12/3/98 1430	Elbert Hallmark	E Hallmark / CLS
Elbert Hallmark	E Hallmark / CLS	12-3-98 1510	M Thompson	M Thompson / CLS

REC'D AT LAB BY: | DATE/TIME: | CONDITIONS/COMMENTS:

SHIPPED VIA ☐ FED X ☐ UPS ☒ OTHER CLS Courier AIR BILL #

E:\forms\CHAIN OF CUSTODY_1.dwg