9E

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Quarterly Monitoring Progress Report for the Period October 1991 through December 1991

K/D Cedar Supply Company
22008 Meekland Avenue
Hayward, California

October 31, 1991 BEI Job No. 91157

Prepared by:

Blymyer Engineers, Inc.
1829 Clement Avenue
Alameda, CA 94501

LIMITATIONS

The conclusions and recommendations presented herein were prepared in accordance with generally accepted professional engineering and/or geologic practices and principles. The scope of work for the project was conducted within the limitations prescribed by the client. Blymyer Engineers' opinions are based upon observations made at the site; review of available environmental, climatological, and geological data pertaining to the site; review of bore logs and subsurface data obtained during the investigation; and evaluation of analytical soil and/or groundwater data provided by an approved testing laboratory. All data obtained from investigations of this type are reviewed by the state or local regulatory agencies for conformance with their criteria. Therefore, there is no guarantee that additional bores, soil or groundwater analytical tests, or remedial work will not be required at the site. This warranty is in lieu of all other warranties either expressed or implied pertaining to this project.

Ramon Khu
Environmental Engineer

Harry W. Short
Senior Geologist
CA RG#243 - CEG#130

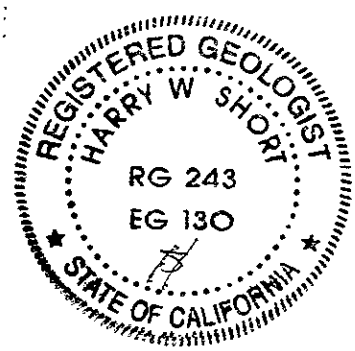


TABLE OF CONTENTS

TABLES

FIGURES

APPENDIX

1.0 INTRODUCTION

Blymyer Engineers, Inc. was retained by K/D Cedar Supply Company to perform quarterly groundwater sampling of three monitoring wells at its facility located at 22008 Meekland Avenue in Hayward, California (Figure 1). The groundwater monitoring program is being conducted as a result of a previous subsurface investigation as required by the San Francisco Bay Regional Water Quality Control Board in its Tri-Regional Guidelines. Details of the investigation may be found in Blymyer Engineers' Phase I Subsurface Investigation report dated August 2, 1991. The wells were originally sampled on July 16, 1991. This report contains water level measurements and groundwater sampling results for the first quarter of monitoring and a summary of all groundwater monitoring results at the site to date.

2.0 DATA COLLECTION

2.1 Groundwater Investigation

2.1.1 Groundwater Sample Collection

Blymyer Engineers, Inc. collected groundwater samples from the three groundwater monitoring wells at the site (MW-1, MW-2, and MW-3, Figure 2) on October 7, 1991. At least three well-volumes were removed prior to sampling using a decontaminated Teflon® bailer. Temperature, pH, and conductivity were measured initially and after the removal of each well-volume. The well was sampled when these measurements were all within 15% of each other for three consecutive well-volumes. The water sample from each well was collected in 40-milliliter glass volatile organic analysis bottles preserved with hydrochloric acid provided by the laboratory, labeled, and placed on ice for transportation to the analytical laboratory. Proper chain-of-custody procedures were observed. All purge water was stored at the site in Department of Transportation (DOT)-approved, 55-gallon drums for later disposal by the owner. A copy of the Well Purging and Sampling Data form for each well is attached as Appendix A.

2.1.2 Analytical Methods and Results

Each groundwater sample was analyzed for Total Petroleum Hydrocarbons (TPH) as gasoline using modified EPA Method 8015 and benzene, toluene, ethylbenzene, and total xylenes (BTEX) using EPA Method 602 by NET Pacific, Inc., a California-certified laboratory, on a standard 5-day turnaround. A summary of the current and past analytical results from each well is found in Table I. The full laboratory analytical report for the current sampling event is presented in Appendix B.

2.1.3 Groundwater Depth Measurements

The depth from the top of the well casing to the water surface was measured in each well prior to well sampling. The top of each well casing has been surveyed relative to an Alameda County Datum, which is referenced to the National Geodetic Vertical Datum (NGVD). The results of these measurements taken from the initial well sampling and the first quarter of monitoring are summarized in Table II. Figures 3 and 4 show the groundwater gradient maps constructed from this data.

3.0 DATA INTERPRETATION

3.1 Discussion of Groundwater Sample Analytical Results

The most recent analyses revealed that the groundwater samples collected from all three wells in August 1991 contained no concentrations of TPH as gasoline or BTEX above the respective reporting limits. TPH as gasoline and BTEX were also not detected above the respective reporting limits in the groundwater samples from the initial well sampling event in July 1991.

3.2 Groundwater Gradient

The depth to groundwater at this site ranged from 36.38 to 36.54 feet below ground surface when it was most recently measured in October 1991. Since the tops of the well casings range in elevation from 63.61 to 63.77 feet NGVD, the groundwater surface elevation was at an elevation of 27.22 to 27.23 feet NGVD at the time of the sampling. The groundwater gradient has changed from a north-northwest direction to a more northwesterly direction since the gradient was first measured in July 1991.

4.0 SUMMARY AND CONCLUSIONS

- TPH as gasoline and BTEX have not been detected above the respective reporting limits in any of the groundwater samples collected from the on-site monitoring wells since they were installed in July 1991.

- The groundwater gradient at the site has been generally toward the northwest since measurements were begun in July 1991.

5.0 RECOMMENDATIONS

- These results should be forwarded to:

  Alameda County Health Care Services Agency
  Department of Environmental Health
  Hazardous Materials Program
  80 Swan Way, Room 200
  Oakland, CA 94621
  Attention: Pamela J. Evans

  San Francisco Bay Regional Water Quality Control Board
  2101 Webster Street, 5th Floor
  Oakland, CA 94612
  Attention: Richard Hiett

- Quarterly sampling of these monitoring wells should continue on schedule as shown in Table III.

Tables

TABLE I, SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
K/D Cedar Supply Company
22008 Meekland Avenue, Hayward, California
BEI Job No. 91157

Sample Identification	Sampling Date	Modified EPA Method 8015 (mg/L)	EPA Method 602 (µg/L)			
		TPH as gasoline	Benzene	Toluene	Ethylbenzene	Xylenes
MW-1	7/16/91	<0.05	<0.5	<0.5	<0.5	<0.5
	10/7/91	<0.05	<0.5	<0.5	<0.5	<0.5
MW-2	7/16/91	<0.05	<0.5	<0.5	<0.5	<0.5
	10/7/91	<0.05	<0.5	<0.5	<0.5	<0.5
MW-3	7/16/91	<0.05	<0.5	<0.5	<0.5	<0.5
	10/7/91	<0.05	<0.5	<0.5	<0.5	<0.5

mg/L = milligrams per liter
µg/L = micrograms per liter
TPH = Total Petroleum Hydrocarbons

For results presented as <x, x represents the reporting limit.

TABLE II, GROUNDWATER ELEVATION MEASUREMENTS
K/D Cedar Supply Company
22008 Meekland Avenue, Hayward, California
BEI Job No. 91157

Well Identification	Date Measured	TOC ELEVATION (feet)*	DEPTH TO WATER (feet from TOC)	WATER SURFACE ELEVATION (feet)*
MW-1	7/16/91	63.77	35.54	28.23
	10/7/91	63.77	36.54	27.23
MW-2	7/16/91	63.61	35.41	28.20
	10/7/91	63.61	36.38	27.23
MW-3	7/16/91	63.63	35.49	28.14
	10/7/91	63.63	36.41	27.22

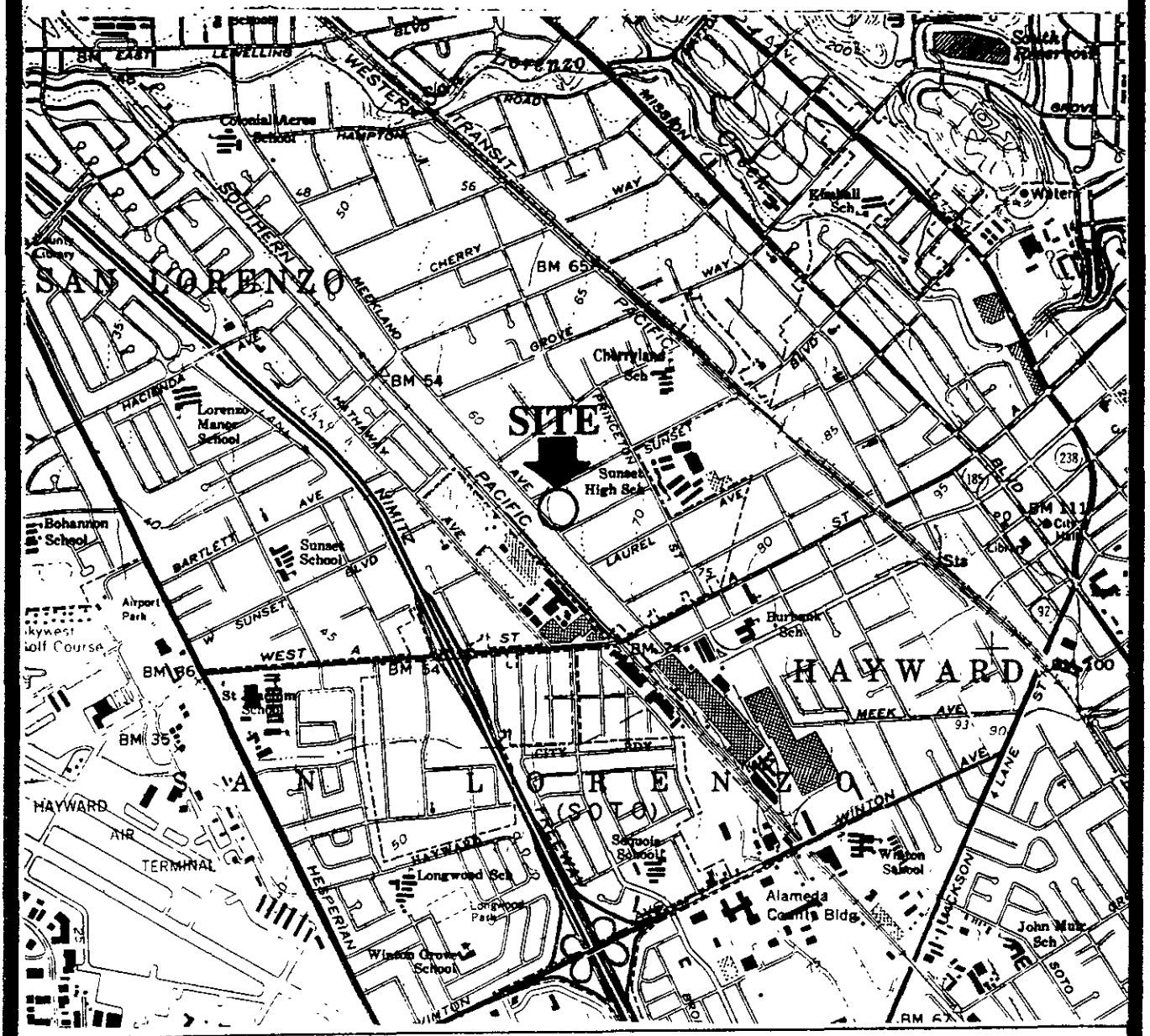
TOC = Top of Well Casing

* = based on Alameda County Datum

TABLE III, PROPOSED QUARTERLY GROUNDWATER SAMPLING SCHEDULE
1991-1992
K/D Cedar Supply Company
22008 Meekland Avenue, Hayward, California
BEI Job No. 91157

	1991						1992							
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
Water Level Measurement	✓			✓			✓			✓			✓	
Water Sampling and Analysis	✓			✓			✓			✓			✓	
Quarterly Sampling Report					✓			✓			✓			✓

Figures



Source: United States Geological Survey, "Hayward, CA", photorevised 1980.

N

0 1000 2000

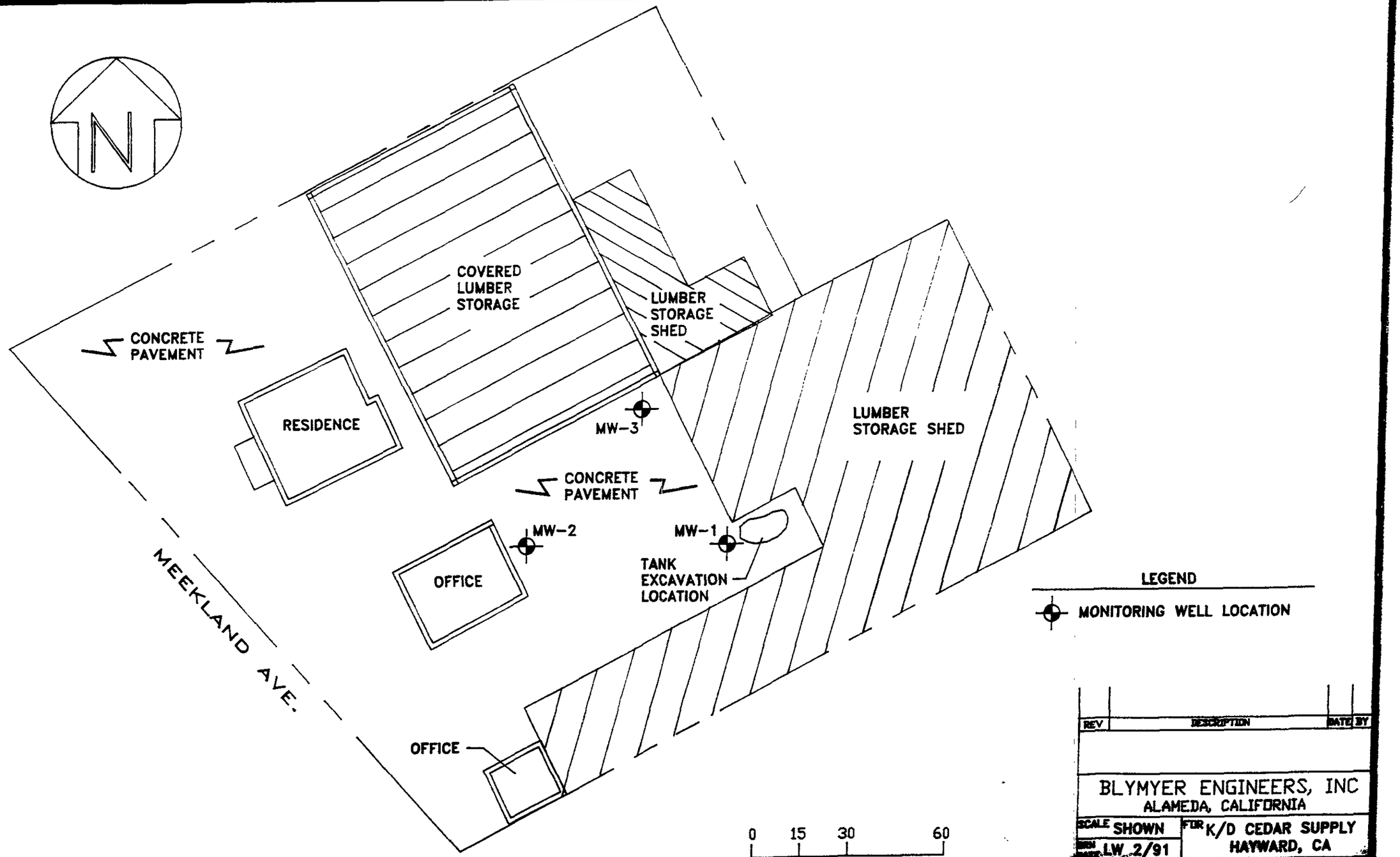
SCALE IN FEET

REV	DESCRIPTION	DATE	BY

K/D CEDAR SUPPLY

BLYMYER ENGINEERS, INC
ALAMEDA, CALIFORNIA

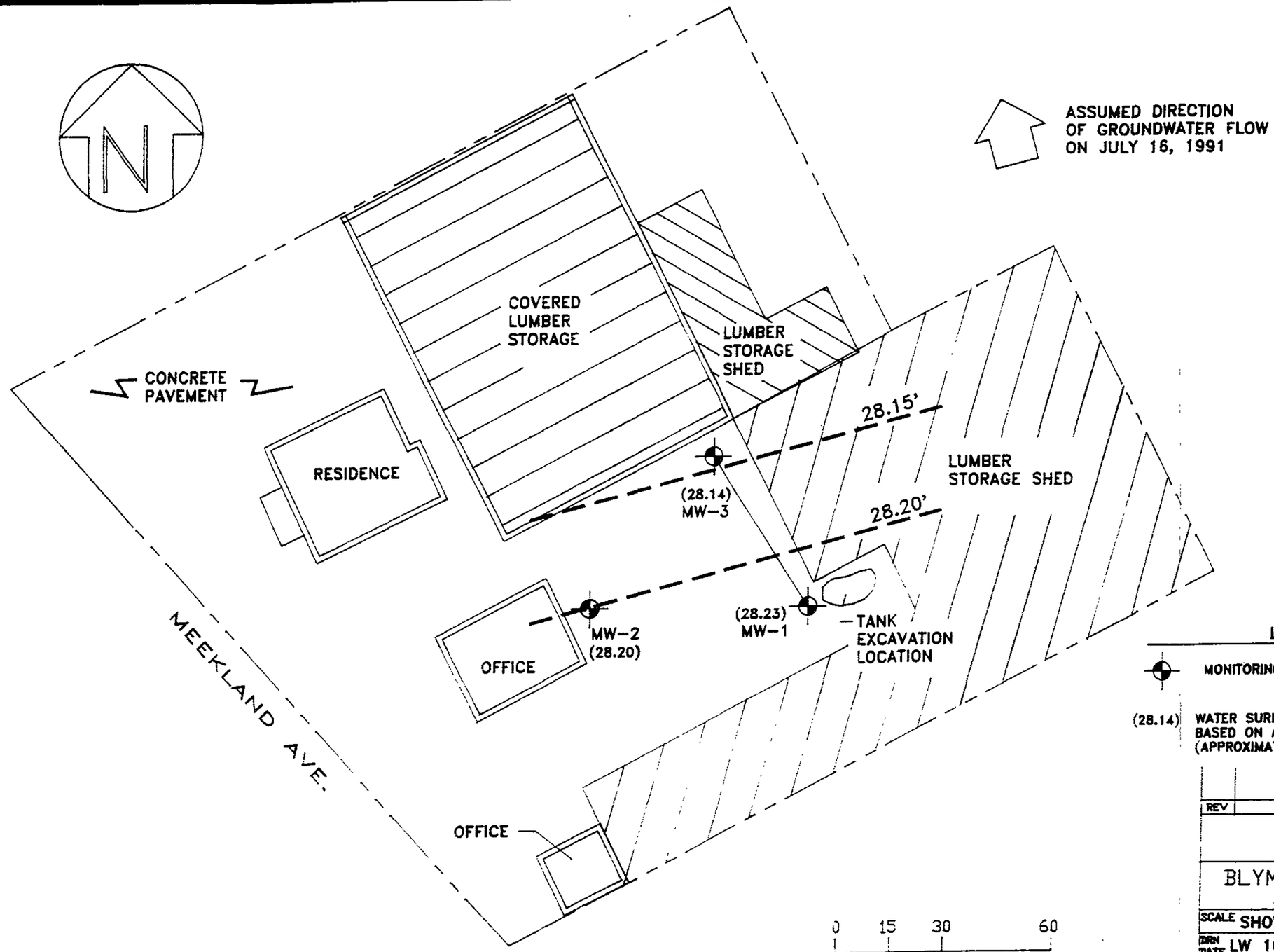
SCALE SHOWN	FOR 22008 MEEKLAND AVE. HAYWARD, CA
DRN LW DATE 10/91	
APPROVED	TITLE SITE LOCATION MAP
JOB 91157	DWG. NO. FIGURE 1



REV	DESCRIPTION	DATE	BY

BLYMYER ENGINEERS, INC
ALAMEDA, CALIFORNIA

SCALE SHOWN	FOR K/D CEDAR SUPPLY HAYWARD, CA
DESIGN LW 2/91	
APPROVED	TITLE SITE PLAN & MONITORING WELL LOCATIONS
JOB 91157	DWG. NO. FIGURE 2



LEGEND

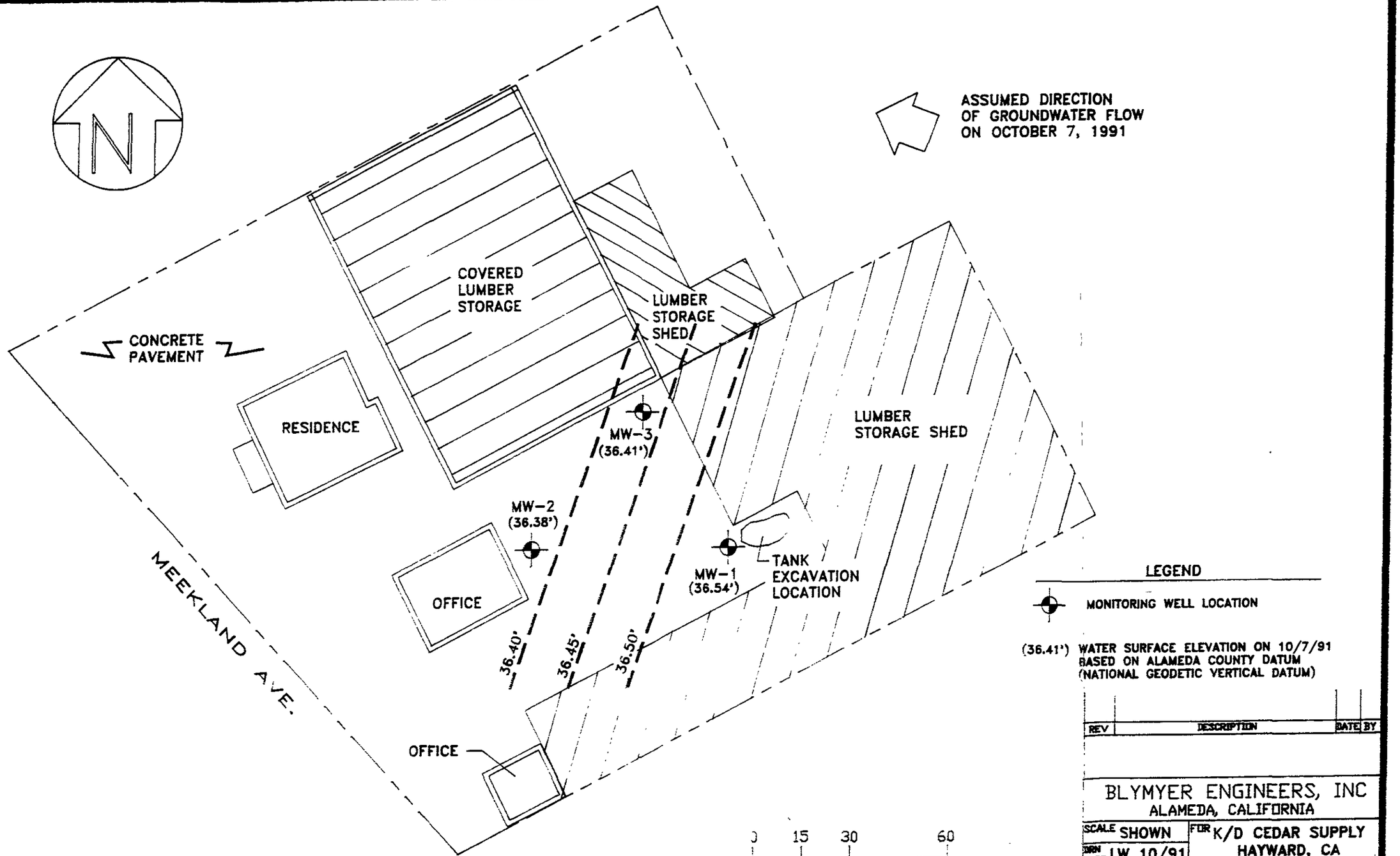
MONITORING WELL LOCATION

(28.14) WATER SURFACE ELEVATION ON 7/16/91 BASED ON ALAMEDA COUNTY DATUM (APPROXIMATELY MEAN SEA LEVEL)

REV	DESCRIPTION	DATE	BY

BLYMYER ENGINEERS, INC
ALAMEDA, CALIFORNIA

SCALE SHOWN	FOR K/D CEDAR SUPPLY HAYWARD, CA
DRN DATE LW 10/91	
APPROVED	TITLE GROUNDWATER GRADIENT MAP JULY 16, 1991
JOB 91157	DWG. NO. FIGURE 3



REV	DESCRIPTION	DATE	BY

BLYMYER ENGINEERS, INC
ALAMEDA, CALIFORNIA

SCALE SHOWN	FOR K/D CEDAR SUPPLY HAYWARD, CA
DRN DATE LW 10/91	
APPROVED	TITLE GROUNDWATER GRADIENT MAP OCTOBER 7, 1991
JOB 91157	DWG. NO. FIGURE 4

Appendix A

WELL PURGING AND SAMPLING DATA

DATE 10/7/91 | PROJECT NUMBER 91157 | PROJECT NAME K/D CEDAR

WELL NUMBER MW-1 | BORING DIAMETER N/A | CASING DIAMETER 2"

Column of Liquid in Well

Depth to product	N/A
Depth to water	36.54
Total depth of well	49.58
Column of water	13.04

Volume to be Removed

Gallon per foot of casing	=	0.17 gal/ft
Column of water	x	13.04
Volume of casing	=	2.2
Number of volumes to remove	x	3
Total volume to remove	=	6.6

Method of measuring liquid OIL/WATER INTERFACE PROBE

Method of purging well TEFLON BAILER rate N/A

Method of decon ALCONOX AND DISTILLED WATER

Physical appearance of water (clarity, color, particulates, odor)

Initial SLIGHTLY SILTY, NO ODOR

During VERY SILTY, NO ODOR

Final VERY SILTY, NO ODOR

Field Analysis	Initial	During		Final
Time	13:03	13:12	13:22	13:32
Conductivity (µs/cm)	9650	9590	9770	9870
pH	6.64	6.69	6.66	6.60
Temperature (°F)	67.0	68.5	65.0	65.2

Method of measurement HYDAC METER

Total of volume purged 6.75 GAL

Comments

Sample Number MW-1 Amount of Sample 3-40ML VOA

Preservative (circle one) None (HCl) HNO_3 H_2SO_4

Signed/Sampler Stephen W Moore Date OCTOBER 7, 1991

Signed/Reviewer Ramon Hui Date 10/17/91

wpsd rev. 1. 5.91

WELL PURGING AND SAMPLING DATA

DATE 10/7/91 | PROJECT NUMBER 91157 | PROJECT NAME K/D CEDAR

WELL NUMBER MW-2 | BORING DIAMETER N/A | CASING DIAMETER 2"

Column of Liquid in Well

Depth to product	N/A
Depth to water	36.38 ft
Total depth of well	48.92 ft
Column of water	12.54 ft

Volume to be Removed

Gallon per foot of casing	=	0.17 ft/gal
Column of water	x	12.54 ft
Volume of casing	=	2.13
Number of volumes to remove	x	3
Total volume to remove	=	6.4

Method of measuring liquid OIL/WATER INTERFACE PROBE

Method of purging well TEFLON BAILER rate N/A

Method of decon ALCONOX AND DISTILLED WATER

Physical appearance of water (clarity, color, particulates, odor)

Initial CLEAR, NO ODOR

During VERY SILTY, NO ODOR

Final VERY SILTY, NO ODOR

Field Analysis	Initial	During	During	Final
Time	14:18	14:23	14:34	14:44
Conductivity (µs/cm)	9920	9610	9310	9560
pH	6.65	6.57	6.63	6.56
Temperature (°F)	66.9	65.4	65.6	65.5

Method of measurement HYDAC METER

Total of volume purged

Comments

Sample Number MW-2 | Amount of Sample 3-40ML VOA

Preservative (circle one) None (HCl) HNO_3 H_2SO_4

Signed/Sampler Stephen W. Moore | Date OCTOBER 7, 1991

Signed/Reviewer Karen Klein | Date 10/17/91

wped rev. 1, 5/91

WELL PURGING AND SAMPLING DATA

DATE 10/7/91 | PROJECT NUMBER 91157 | PROJECT NAME K/D CEDAR

WELL NUMBER MW-3 | BORING DIAMETER N/A | CASING DIAMETER 2"

Column of Liquid in Well

Depth to product	N/A
Depth to water	36.41 ft
Total depth of well	49.46 ft
Column of water	13.05 ft

Volume to be Removed

Gallon per foot of casing	=	0.17 gal/ft
Column of water	x	13.05 ft
Volume of casing	=	2.2 gal
Number of volumes to remove	x	3
Total volume to remove	=	6.6 gal

Method of measuring liquid: OIL/WATER INTERFACE PROBE

Method of purging well: TEFLON BAILER rate N/A

Method of decon: ALCONOX AND DISTILLED WATER

Physical appearance of water (clarity, color, particulates, odor)

Initial: SLIGHTLY SILTY, NO ODOR

During: VERY SILTY, NO ODOR

Final: VERY SILTY, NO ODOR

Field Analysis

	Initial	During		Final
Time	11:50	12:03	12:11	12:21
Conductivity (µs/cm)	1070	1002	9830	9770
pH	690	679	672	667
Temperature (°F)	66.7	65.9	64.8	65.5

Method of measurement: HYDAC METER

Total of volume purged: 6.75 GAL

Comments:

Sample Number MW-3 | Amount of Sample 3-40ML VOA

Preservative (circle one) None (HCl) HNO_3 H_2SO_4

Signed/Sampler: Stephen W Moore | Date OCTOBER 7, 1991

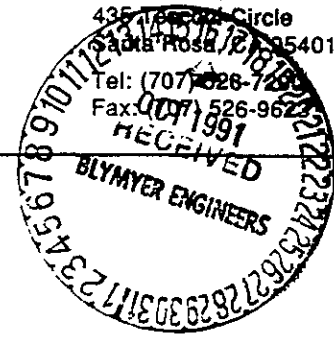
Signed/Reviewer: Lawson Kew | Date 10/17/91

wpsd rev. 1. 5.91

Appendix B

NATIONAL
ENVIRONMENTAL
TESTING, INC.

NET Pacific, Inc.
[illegible] Second Circle
Santa Rosa, CA 95401
Tel: (707) 526-7209
Fax: (707) 526-9623



Ramon Khu
Blymyer Engineers, Inc
1829 Clement Ave
Alameda, CA 94501

Date: 10-15-91
NET Client Acct No: 495
NET Pacific Log No: 1291
Received: 10-08-91 0800

Client Reference Information

K/D Cedar, Job; 91157

Sample analysis in support of the project referenced above has been completed and results are presented on following pages. Please refer to the enclosed "Key to Abbreviations" for definition of terms. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Approved by:

Jules Skamarack
Laboratory Manager

JS:rct
Enclosure(s)

NET Pacific, Inc

Client No: 495
Client Name: Blymyer Engineers, Inc
NET Log No: 1291

Date: 10-15-91
Page: 2

Ref: K/D Cedar, Job; 91157

Parameter	Method	Reporting Limit	Descriptor, Lab No. and Results MW-3 10-07-91 1235 99967	 MW-1 10-07-91 1343 99968	Units
PETROLEUM HYDROCARBONS			--	--	
VOLATILE (WATER)			--	--	
DILUTION FACTOR *			1	1	
DATE ANALYZED			10-09-91	10-09-91	
METHOD GC FID/5030			--	--	
as Gasoline		0.05	ND	ND	mg/L
METHOD 602			--	--	
DILUTION FACTOR *			1	1	
DATE ANALYZED			10-09-91	10-09-91	
Benzene		0.5	ND	ND	ug/L
Ethylbenzene		0.5	ND	ND	ug/L
Toluene		0.5	ND	ND	ug/L
Xylenes, total		0.5	ND	ND	ug/L

NET Pacific, Inc

Client No: 495
Client Name: Blymyer Engineers, Inc
NET Log No: 1291

Date: 10-15-91
Page: 3

Ref: K/D Cedar, Job; 91157

Parameter	Method	Reporting Limit	Descriptor, Lab No. and Results MW-2 10-07-91 1450 99969	Units
PETROLEUM HYDROCARBONS			--	
VOLATILE (WATER)			--	
DILUTION FACTOR *			1	
DATE ANALYZED			10-09-91	
METHOD GC FID/5030			--	
as Gasoline		0.05	ND	mg/L
METHOD 602			--	
DILUTION FACTOR *			1	
DATE ANALYZED			10-09-91	
Benzene		0.5	ND	ug/L
Ethylbenzene		0.5	ND	ug/L
Toluene		0.5	ND	ug/L
Xylenes, total		0.5	ND	ug/L

NET Pacific, Inc

KEY TO ABBREVIATIONS and METHOD REFERENCES

<	:	Less than; When appearing in results column indicates analyte not detected at the value following. This datum supercedes the listed Reporting Limit.
*	:	Reporting Limits are a function of the dilution factor for any given sample. To obtain the actual reporting limits for this sample, multiply the stated Reporting Limits by the dilution factor (but do not multiply reported values).
ICVS	:	Initial Calibration Verification Standard (External Standard).
mean	:	Average; sum of measurements divided by number of measurements.
mg/Kg (ppm)	:	Concentration in units of milligrams of analyte per kilogram of sample, (parts per million).
mg/L	:	Concentration in units of milligrams of analyte per liter of sample.
mL/L/hr	:	Milliliters per liter per hour.
MPN/100 mL	:	Most probable number of bacteria per one hundred milliliters of sample.
N/A	:	Not applicable.
NA	:	Not analyzed.
ND	:	Not detected; the analyte concentration is less than applicable listed reporting limit.
NTU	:	Nephelometric turbidity units.
RPD	:	Relative percent difference, 100 [Value 1 - Value 2]/mean value.
SNA	:	Standard not available.
ug/Kg (ppb)	:	Concentration in units of micrograms of analyte per kilogram of sample, (parts per billion).
ug/L	:	Concentration in units of micrograms of analyte per liter of sample.
umhos/cm	:	Micromhos per centimeter.

Method References

Methods 100 through 493: see "Methods for Chemical Analysis of Water & Wastes", U.S. EPA, 600/4-79-020, rev. 1983.

Methods 601 through 625: see "Guidelines Establishing Test Procedures for the Analysis of Pollutants" U.S. EPA, 40 CFR, Part 136, rev. 1988.

Methods 1000 through 9999: see "Test Methods for Evaluating Solid Waste", U.S. EPA SW-846, 3rd edition, 1986.

SM: see "Standard Methods for the Examination of Water & Wastewater, 17th Edition, APHA, 1989.

BLYMYER
ENGINEERS, INC.
BEI
1829 Clement Avenue
Alameda, CA 94501 (415) 521-3773

(1291)

CHAIN OF CUSTODY RECORD

JOB #: 91157

PROJECT NAME/LOCATION: K/D Cedar

SAMPLERS (SIGNATURE): Steph C.W. Moore

TURNAROUND TIME: 5 day TAT DAY(S)

DATE	TIME	COMP	GRAB	SAMPLE NAME/LOCATION	# OF CONTAINERS	TPH AS GASOLINE + BTXE (MOD EPA 8015/8020)	TPH AS DIESEL (MOD EPA 8015)	VOC (EPA 624/8240)	SEMI-VOC (EPA 625/8270)	TRPH (EPA 418.1)	BTXE (EPA 8020/602)						HOLD	REMARKS
10/7/91	11:30		X	BB-1	3												X	
10/7/91	1235		X	MW3	3	X												
10/7/91	1343		X	MW1	3	X												
10/7/91	1450		X	MW2	3	X												

[Stamp:] ...LED 10/7/91 18:00 J.W.

REQUESTED BY: Ramon Khu

RESULTS AND INVOICE TO: ~~Results to BEI / Ramon Khu~~ Blymyer Engineers, Inc.

RELINQUISHED BY: (SIGNATURE)	DATE / TIME	RECEIVED BY: (SIGNATURE)	RELINQUISHED BY: (SIGNATURE)	DATE / TIME	RECEIVED BY: (SIGNATURE)
Steph C.W. Moore	10/7/91 16:11	Jeff [signature]	Jeff [signature]	10/7 18:00	

RELINQUISHED BY: (SIGNATURE)	DATE / TIME	RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE / TIME	REMARKS:
(via NCS)		[signature]	10/8/91 0800	

WHITE: Accompany Sample YELLOW: BEI, After Lab Signs PINK: Original Sampler