

SITE STATUS REPORT

PREPARED FOR:
PURCELL OIL COMPANY
P.O. BOX 472
W. LEBANON, N.H.

SITE LOCATION:
TC'S GENERAL STORE
JUNCTION RTE. 4 AND RTE. 100
W. BRIDGEWATER, VERMONT

PREPARED BY:
JET-LINE SERVICES, INC.
8 PROGRESS DRIVE
DOVER, N.H. 03820

APR 24 1989

REPORT NO. CDTS589

PURCELL OIL CO./TC'S GENERAL STORE
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INTRODUCTION

This report has been prepared in accordance with the scope of work accepted by Mr. Richard Spiese, State of Vermont, Agency of Natural Resources (ANR), Department of Environmental Conservation (DEC) in his letter to Jet-Line Services, Inc., dated January 30, 1989.

The report provides a preliminary evaluation of the extent of groundwater contamination following the removal of underground gasoline storage tanks during December 1988.

The site is located at the intersection of Rte. 4 and Rte. 100 in West Bridgewater, Vermont. The Ottaquechee River is located approximately 75' downgradient from the property boundary and Monitor Well No. 3.

TEST BORING SOILS

Jet-Line Services contracted Subsurface Technologies, Inc. of Peabody, Massachusetts for the drilling and installation of test borings and monitor wells.

On February 16, 1988, drilling began at locations pre-determined by Mr. Richard Spiese of the State of Vermont, ANR, DEC. Three (3) monitor well locations were selected. Drilling included the advancement of split spoon samples at various intervals. Soils were screened for volatile organic constituents with an HNU PI 101 Photoionization detector. (See enclosed Summary of Analyses Section)

Soil samples collected from MW3 were taken and shipped to the Jet-Line Services, Inc. laboratory for analysis of volatile organic constituents.

MONITOR WELL INSTALLATION

Two inch, flush joint, PVC monitoring wells were installed at each location by Subsurface Technology personnel. A ten (10) foot section of .010" slotted screen was placed in each well followed by a PVC riser. The bottom of the well screen was fitted with a threaded PVC cap. The annular space around the well screen was backfilled with clean granular sand a minimum two (2) feet above the top of the well screen. A one (1) foot bentonite seal was poured at grade level. Each well is protected by a cast metal street box. The locations of all monitor wells are shown on the enclosed Groundwater Contour Map.

TOPOGRAPHIC SURVEY

Drilling and monitor well installation were completed on February 17, 1989. On February 28, 1989, Jet-Line personnel returned to record elevations of the PVC casings and take measurements of the General Store building, pump islands and other site features.

GROUNDWATER ELEVATIONS

All wells were gauged for depth to water and thickness of free phase petroleum with an ORS Interface Probe. The probe measures hydrocarbon or water levels to within 0.01 feet. The gauging, topographic elevations and measurements were used to prepare a groundwater contour map depicting local groundwater flow direction.

LABORATORY SAMPLE COLLECTION AND ANALYSES

Groundwater samples were taken from each well for laboratory analysis. The wells were mechanically bailed using a McCulloch Aqua Mac 45 portable pump. A minimum three (3) volumes of water were removed from each well. Samples were retrieved by use of an eighteen (18) inch acrylic ORS sampler. Approved methods for decontamination of the sampler were followed using distilled water and methanol. Samples were taken by 40 ml. vials and filled to capacity to eliminate headspace. Samples were kept refrigerated during storage and shipment to the laboratory. Chain of Custody was maintained. All samples were shipped to the Jet-Line laboratory in Lowell, Massachusetts for analysis by a modified EPA 602 Method to include analysis for MTBE.

COMMENTS

Free-phase petroleum was not present during this first round of sampling. The groundwater sample from Monitor Well No. 3 exhibited the highest level of dissolved petroleum hydrocarbon contamination at approximately 1.6 ppm. If remediation is required to remove the dissolved petroleum from the groundwater, a treatment system may have to be constructed off-site, on property of others.

We recommend a second round of sampling be performed to confirm all the present data.

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SUMMARY OF FIELD ANALYSES
SOILS SCREENING BY HNU PI 101 PHOTOIONIZATION DETECTOR

BACKGROUND LEVEL .8 PPM

LOCATION	DEPTH	RECORDED LEVELS TOTAL VOC'S
MW2	5-7'	ND
MW2	10-12'	ND
MW2	COMPOSITE	2
MW3	3-5'	14
MW3	10-12'	80
MW3	15'	130
MW5	5-7'	ND
MW5	10-12'	ND

UNITS ARE EXPRESSED IN PPM (parts per million)

VOLATILE ORGANIC ANALYSIS DATA
JET-LINE SERVICES, INC. LABORATORY, LOWELL, MA

MONITOR WELLS (WATER)

COMPOUND	MW2	MW3	MW5	F/W STREAM
BENZENE	ND	345	10	N/D
TOLUENE	50	915	40	N/D
ETHYLBENZENE	10	35	12	N/D
TOTAL XYLENES	ND	265	ND	N/D
METHYL TERT BUTYL ETHER	ND	16	ND	N/D

MONITOR WELLS (SOIL)

COMPOUND	MONITOR WELL #3 DEPTHS		
	3-5'	10-12'	15'
BENZENE	7	ND	15
TOLUENE	44	278	125
ETHYLBENZENE	ND	364	78
TOTAL XYLENES	29	1008	227

SOIL SAMPLES FROM MW2 & MW5 WERE ND
ND = NONE DETECTED



ROUTE 4
EAST
80.50

ROUTE 100 SOUTH
80.50

ROUTE 100 NORTH
81.50

81.00

MW5

MW3

81.00

P

81.50

82.00

UNDER-
GROUND
FUEL
TANKS

P

82.00

TC'S GENERAL STORE
W. BRIDGEWATER
VERMONT

P = FUEL
PUMPS

82.50

VENTS

82.50

MW2

ELEC. POLE

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GROUNDWATER CONTOUR MAP
APPROX. SCALE
1/2" EQUALS 10'

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Water levels have been recorded from the monitor wells at the times and under the conditions as noted in this report. However, it must be noted that fluctuations in the level of groundwater may occur due to variations in rainfall, temperature, and other situations not accounted for at the time measurements were taken.

The analyses and conclusions contained in this report are determined in part on analytical data and are contingent upon their validity. Interpretations of the data are made in this report. Consideration should be given to the possible fluctuation in the types and levels of contaminants, and their flow paths, which may occur as a result of water table variations, past disposal practices and other factors.

The information contained in this report is considered to be privileged and confidential, and has been prepared for the exclusive use of the Purcell Oil Company of W. Lebanon, N.H., in consideration of the environmental remediation project at TC's General Store in W. Bridgewater, Vermont. No other warranty, express or implied, is made.
