



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

Northwest Regional Office • 3190 160th Avenue SE • Bellevue, Washington 98008-5452 • (425) 649-7000

July 5, 2002

Jay Fisher
Principal Capital management
801 Grand Avenue
Des Moines, IA 50392

Dear Mr. Fisher:

Re: Request for Review: Site Assessment Summary and Contamination Cleanup Work Plan
Former Meeker Gas Station, 105 N Washington Avenue, Kent, Washington

This correspondence is in response to SCS Engineers' letter (dated April 2, 2002) on your behalf, notifying the Washington Department of Ecology (Ecology) of the remedial actions for the former Meeker Gas Station at the above subject site. Ecology's Toxics Cleanup Program has reviewed the following information submitted by SCS Engineers:

1. Summary of Site Investigations and Clean-up Remedies, Former Service Station Property, Kent, Washington, February 28, 2002, The Retec Group.

The document listed above will be kept in the Central Records of the Northwest Regional Office (NWRO) of Ecology. The document is available for review by appointment only. Appointments can be made by calling Sally Perkins at (425) 649-7190.

The submitted document has summarized for all the activities regarding site investigations and soil/groundwater remediations conducted at the site since 1989. During the period of 13 years, the cleanup activities have included: to define the contamination plumes and extents in groundwater and soil; to eliminate the contamination sources (underground storage tanks—USTs); to recover free phase petroleum products; to remove the impacted soils; to pump and treat the contaminated ground water; and to monitor the groundwater and the plume migration.

From the document, Ecology is aware that the petroleum-product concentration levels in the groundwater and soil remain exceeding the state's MTCA Method A cleanup criteria within some locations (i.e., Parcel A, B, C and D) at the site. Ecology, therefore, concurs with your consultant to propose performing a long-term groundwater monitoring event at the site. Ecology also believes that it is necessary to continuously remove free product and to further excavate the contaminated source (soil) at Parcel C, as proposed by Retec. The cleanup effort will not be considered to complete till the contamination levels are below or at the MTCA's cleanup levels.

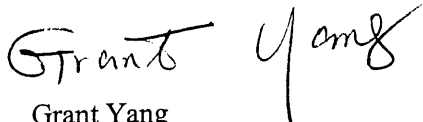
Please submit quarter monitoring reports or any remediation reports to this office for its review. If Ecology believes that the remediation has reached the proposal's goals, it will issue a No Further Action (NFA) determination letter for the site.



Former Meeker Gas Station, 105 N Washington Avenue, Kent, WA
July 5, 2002
Page 2

Again, thank you for taking the initiative to voluntarily address the contamination at your site. Your efforts are recognized by Ecology as a positive step in our work to protect human health and the environment in Washington State. If you have any questions regarding this correspondence, please contact me at (425)-649-7126.

Sincerely,


Grant Yang
Toxics Cleanup Program

Cc: Greg Helland – SCS Engineers

SCS ENGINEERS

April 2, 2002
File No. 04201049.00

Mr. Jay Fisher
Principal Capital Management
801 Grand Avenue
Des Moines, IA 50392-1370

Subject: Site Status of the Former Gas Station Facility, Meeker Square Shopping Center

Dear Jay:

This letter summarizes the investigative work conducted to date at the location of the former gas station at the Meeker Square shopping center in Kent, Washington. Estimates are provided of the volume of contaminated soil and the extent of groundwater contamination.

Background

In early 1991, SCS Engineers conducted a Phase I and Phase II Environmental Site Assessment (ESA) of the adjoining property at 217 North Washington Avenue, on the east end of the Meeker Square property. The Phase I identified the location of a former gas station at 105 North Washington Avenue, the southeast corner of the Meeker Square shopping center. The gas station operated from 1960 until the tanks were removed in 1983. No construction has occurred at the site since the gas station was removed. The site is paved except for landscaped areas at the east and south edges.

Previous Investigations

The 1991 Phase II ESA included collecting soil samples from four bore holes: three in the approximate vicinity of former gasoline tanks and one in the approximate vicinity of former fuel and waste oil tanks on the service station property. A sample taken from the vicinity of the former gasoline tanks, and analyzed using EPA Method 8015 modified, was contaminated with petroleum hydrocarbons above the Washington Model Toxics Control Act (MTCA) Method A clean-up standard effective at that time. The lab identified the hydrocarbons as diesel fuel, though the results may have represented degraded gasoline.

In early 1998, Giles Engineering Associates conducted a Phase II ESA at the former location of the gas station. The scope of the 1998 Giles Phase II included installing thirteen borings to depths ranging from 7 to 10 feet below the ground surface, collecting and classifying continuous soil samples from the borings, constructing groundwater monitoring wells at four of the boring locations, collecting groundwater samples at the monitoring wells and at seven boring locations, and analyzing the soil and groundwater samples. The soil and groundwater sampling provided data that indicated the presence of gasoline and BTEX compounds (benzene, toluene, ethylbenzene, and xylenes) above the MTCA Method A clean-up standards.

In April 2000, SCS Engineers used a direct-push sampling rig to collect soil and groundwater samples at one location on the southern edge of the former gas station location. The groundwater sample at the boring location was contaminated with gasoline and BTEX compounds in excess of MTCA Method A standards.

Table 1 Soil Sample Analytical Results in mg/Kg

Location	Analyte	Concentration	MTCA Method A Cleanup Level
BH2-5' SCS Engineers, April 25, 1991	Petroleum Hydrocarbons (by EPA Method 8015)	1,800 (diesel)	2,000
BH4-10' SCS Engineers, April 25, 1991	Petroleum Hydrocarbons (by EPA Method 418.1)	47	2,000
BH4-15' SCS Engineers, April 25, 1991	Petroleum Hydrocarbons (by EPA Method 418.1)	44	2,000
B1-6' Giles Engineering, January 26, 1998	Gasoline	7	30
	Benzene	<0.1	0.03
	Toluene	<0.1	7
	Ethylbenzene	<0.1	6
	Xylenes	<0.3	9
B3-7' Converted to MW3 Giles Engineering, January 26, 1998	Gasoline	6	30
	Benzene	<0.1	0.03
	Toluene	<0.1	7
	Ethylbenzene	<0.1	6
	Xylenes	<0.3	9
B4-4' Giles Engineering, January 26, 1998	Gasoline	380	30
	Benzene	<0.4	0.03
	Toluene	0.6	7
	Ethylbenzene	2.9	6
	Xylenes	<0.3	9
B8-4' Converted to MW2 Giles Engineering, January 26, 1998	Gasoline	120	30
	Benzene	<0.5	0.03
	Toluene	<0.5	7
	Ethylbenzene	<0.5	6
	Xylenes	<1.5	9
B9-4' Giles Engineering, January 26, 1998	Gasoline	700	30
	Benzene	<0.5	0.03
	Toluene	<0.5	7
	Ethylbenzene	5.7	6
	Xylenes	9.8	9
B10-6' Giles Engineering, March 11, 1998	Gasoline	27	30
	Benzene	<0.1	0.03
	Toluene	<0.1	7
	Ethylbenzene	0.2	6
	Xylenes	0.3	9
B13-3' Converted to MW4 Giles Engineering, March 11, 1998	Gasoline	38	30
	Benzene	3	0.03
	Toluene	0.1	7
	Ethylbenzene	0.1	6
	Xylenes	<0.1	9
DP13-11' SCS Engineers, April 6, 2000	Gasoline	85	30
	Benzene	<0.05	0.03
	Toluene	0.079	7
	Ethylbenzene	1.3	6
	Xylenes	3.1	9
SP3-4' SCS Engineers, January 14, 2002	Gasoline	64	30
	Benzene	<0.02	0.03
	Toluene	<0.05	7
	Ethylbenzene	0.19	6
	Xylenes	0.16	9
SP3-10' SCS Engineers, January 14, 2002	Gasoline	9.4	30
	Benzene	<0.02	0.03
	Toluene	<0.05	7

Location	Analyte	Concentration	MTCA Method A Cleanup Level
DP13 SCS Engineers, April 6, 2000	Gasoline	9,000	800
	Benzene	330	5
	Toluene	12	1,000
	Ethylbenzene	230	700
	Xylenes	860	1,000
MW2 SCS Engineers, January 14, 2002	Gasoline	1,700	800
	Benzene	13	5
	Toluene	<1	1,000
	Ethylbenzene	<1	700
	Xylenes	<1	1,000
SP3 SCS Engineers, January 14, 2002	Gasoline	1,500	800
	Benzene	6.4	5
	Toluene	<1.0	1,000
	Ethylbenzene	<1.0	700
	Xylenes	6.9	1,000
SP4 SCS Engineers, January 14, 2002	Gasoline	1,200	800
	Benzene	5	5
	Toluene	<1.0	1,000
	Ethylbenzene	<1.0	700
	Xylenes	<1.0	1,000
SP5 SCS Engineers, January 14, 2002	Gasoline	160	800
	Benzene	<1.0	5
	Toluene	<1.0	1,000
	Ethylbenzene	<1.0	700
	Xylenes	<1.0	1,000

Bold indicates that the concentration exceeds the MTCA Method A cleanup level.

Groundwater contaminated with gasoline and benzene apparently extends off the Meeker Square property to the southeast. As shown on the attached site plan, sampling location SP4 was located as near as was possible to the property boundary. Given that the present street-widening project will result in the property lines at the former gas station site moving approximately 10 feet north and west, location SP4 will be on city property.

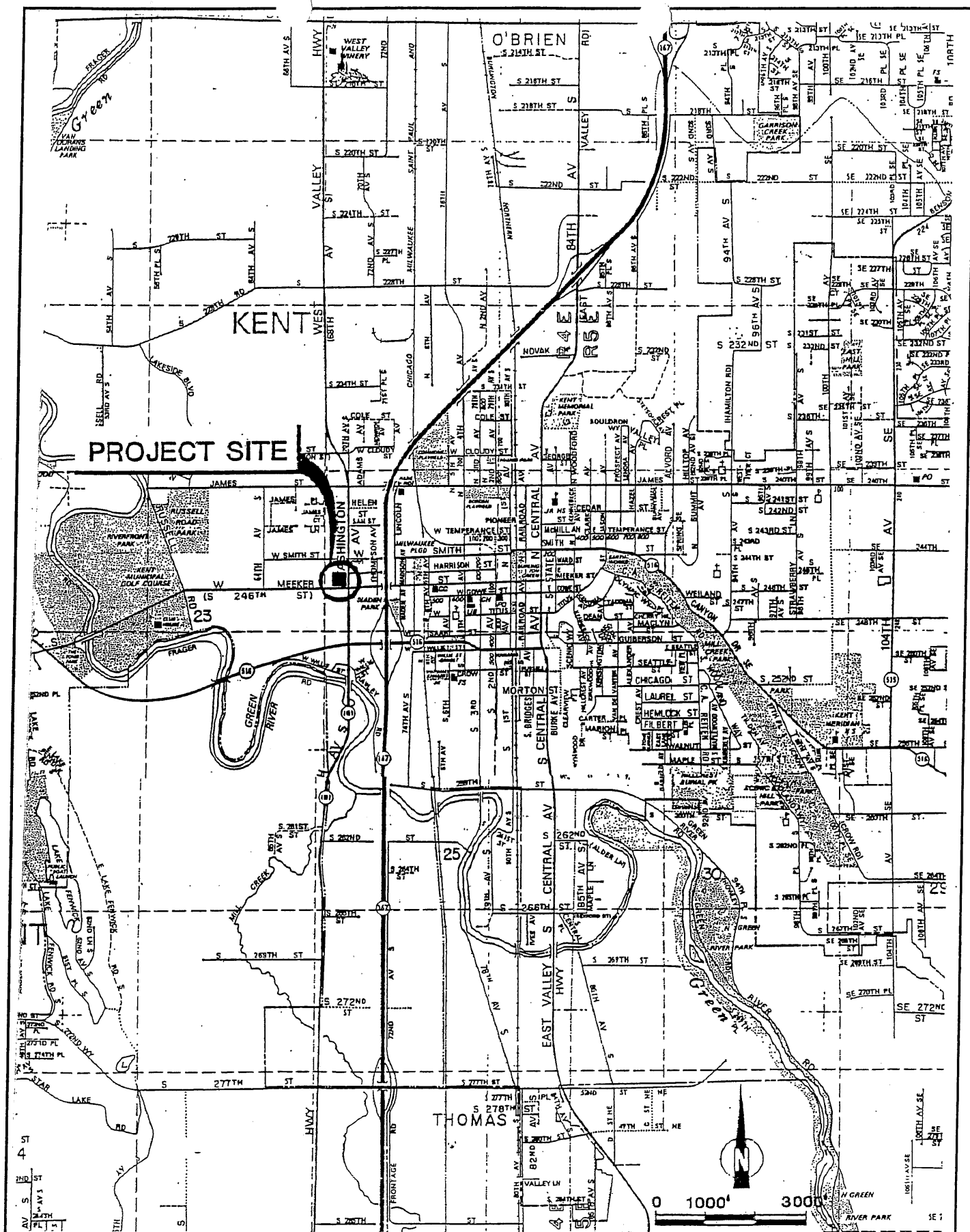
The extent of the groundwater contamination is uncertain. However, the analytical data indicate that the plume narrows at the downgradient property boundary. This narrowing of the plume suggests that the extent of the contaminated groundwater beyond the property boundary is limited, despite the fact that the former service station ceased operation nearly 20 years ago.

Thank you for the opportunity to provide our services. Please do not hesitate to call if you have any questions.

Sincerely,

Brian G. Doan
 Project Scientist
 SCS ENGINEERS

Gregory D. Helland, P.G.
 Project Director
 SCS ENGINEERS



SCS ENGINEERS

STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS, INC.

2405 140TH AVE NE, SUITE 107, BELLEVUE, WA 98005 (425) 746-4600

PROJECT NO.
04201049.01

SCALE
AS SHOWN

CAD FILE
FIG-FRM1

DES BY
B.D.

CHK BY
B.D.

APP BY
G.H.

PROJECT SITE LOCATION
FORMER GASOLINE SERVICE STATION

MEEKER SQUARE, KENT

DATE
FEB 2002

FIGURE

A



0 10 20
Scale in Feet

LEGEND

- BH4 1991 Boring
SCS Engineers
- ⊗ B5 1998 Borings
Giles Eng. Assoc.
- ⊕ MW1 1998 Monitoring Well
Giles Eng. Assoc.
- ⊕ DP13 2000 Boring
SCS Engineers

Paved Parking Area

Grass

B2 ⊗

SP1 ⊕

BH1 ●

MW3 ⊕

Approximate Extent of
Soil Contamination

⊗ B12

⊗ B10

B11 ⊗

BH3 ●

MW1 ⊕

⊗ B4

MW2 ⊕

BH2 ●

SP3 ⊕

B9 ⊗

SP2 ⊕

Grass

DP13 ⊕

MW4 ⊕

SP4 ⊕

SP6 ⊕

SP5 ⊕

WEST MECKER STREET

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS
2405 140TH AVE NE, SUITE 107, BELLEVUE, WA 98005 (425) 746-4600

PROJECT NO. 04201049.00

DES BY B.D.

SCALE

AS SHOWN

CHK BY

G.H.

CAD FILE

XAA01815

APP BY

G.H.

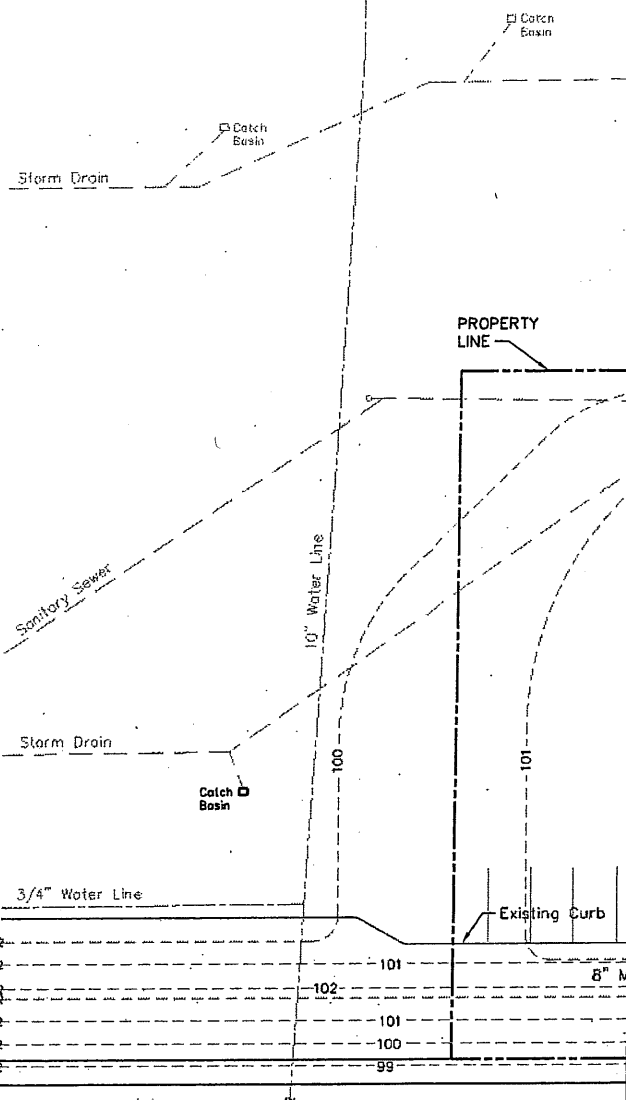
APPROXIMATE EXTENT OF
SOIL CONTAMINATION
FORMER GASOLINE SERVICE STATION
MEEKER SQUARE, KENT

DATE JANUARY 2002

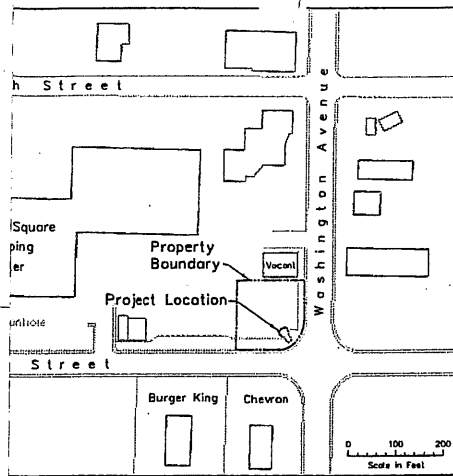
FIGURE

1

WASHINGTON AVENUE



WEST MEEKER



VICINITY MAP

of gasoline-contaminated soil to be
aced with clean soil.
umber for the site is 5436200526.
n of the property is attached (see memo).

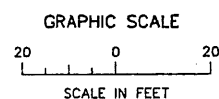
NO.	REVISION	DATE
1		
2		
3		
4		
5		

SHEET TITLE	SITE PLAN
PROJECT TITLE	FORMER GASOLINE SERVICE STATION MEEKER SQUARE, KENT

PRINCIPAL CAPITAL MANAGEMENT

SCS ENGINEERS STEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS, INC.			
PROJ. NO. 04201049.D1	DSN. BY: SY	CHK. BY: EEC	APP. BY: EEC
ACAD FILE: XAAD1825	LEL		

DATE: FEBRUARY 2002
SCALE: 1" = 20'
FIGURE NO. 1A





0 10 20
Scale in Feet

Paved Parking Area

Approximate Extent of
Groundwater Contamination

Groundwater
Flow Direction

BH4

B5

B2

BH3

B11

MW1

BH2

MW2

B4

B12

B10

B9

SP3

SP2

Grass

Grass

SP6

SP5

DP13

SP4

MW4

SP3

SP2

SP1

SP0

SP-1

SP-2

SP-3

SP-4

SP-5

SP-6

SP-7

SP-8

SP-9

SP-10

SP-11

SP-12

SP-13

SP-14

SP-15

SP-16

SP-17

SP-18

LEGEND

- BH4 1991 Boring
SCS Engineers
- B5 1998 Borings
Giles Eng. Assoc.
- MW1 1998 Monitoring Well
Giles Eng. Assoc.
- DP13 2000 Boring
SCS Engineers

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS
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PROJECT NO. 04201049.00
SCALE AS SHOWN
CAD FILE XAA01816

DES BY B.D.
CHK BY G.H.
APP BY G.H.

APPROXIMATE EXTENT OF
GROUNDWATER CONTAMINATION
FORMER GASOLINE SERVICE STATION
MEEKER SQUARE, KENT

DATE JANUARY 2002
FIGURE 2

WEST MEER STREET

Grass

Grass

SP3

SP2

SP1

SP0

SP-1

SP-2

SP-3

SP-4

SP-5

SP-6

SP-7

SP-8

SP-9

SP-10

SP-11

SP-12

SP-13

SP-14

SP-15

SP-16

SP-17

SP-18

WASHINGTON AVENUE