

SCS ENGINEERS

January 9, 2004
File No. 04202001.01

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

Subject: Seventh Quarter, Groundwater Monitoring Event at the Former Chevron
Gasoline Station Site, Meeker Square, Kent, Washington

Dear Jay:

This letter describes the seventh round of quarterly groundwater monitoring at the former Chevron gasoline station site at the Meeker Square shopping center in Kent, Washington. The groundwater sampling was conducted on December 9, 2003.

Background

Standard Oil (Chevron) purchased the subject site and constructed a gasoline station in 1960 and 1961. The station had two fuel island canopies, one facing each of the two adjoining streets. The underground storage tanks (USTs) were removed from the site in 1983 when the business closed. Observations made during the soil remediation excavation suggested that the former fuel supply lines were left in place and the UST excavation was filled with building debris after the tanks were removed. Soil in the suspected former UST excavation was stained gray and had an obvious gasoline odor.

In April 2002, soils contaminated above MTCA Method A soil cleanup levels were removed to the extent practical. Limited contamination was inaccessible in the saturated soil at the center of the excavation, below electrical and irrigation utilities in the east portion of the south wall, and below electrical and irrigation utilities in the west portion of the south wall. Oxygen-Release Compound® (ORC) was mixed into the saturated soil in the base of the excavation. The ORC releases oxygen to the groundwater, thereby providing an environment that is conducive to the growth of naturally-occurring microbes that can degrade the petroleum hydrocarbon contaminants in the groundwater. The Department of Ecology issued a no further action (NFA) designation for the soil on July 29, 2002.

Soil sample analytical results indicated that the contaminants were limited to gasoline-range petroleum hydrocarbons and xylenes. Benzene was detected in soils at the site only during an investigation by others conducted in 1998. No benzene was detected in any of the soil samples analyzed during the soil remediation project in April 2002.

Depending on seasonal variations, the depth to groundwater at the site is approximately 7.5 to 10.5 feet below grade. Water level data from the wells installed during the 1998 investigation indicated a southerly groundwater flow toward West Meeker Street. The Green River is located approximately 0.4 miles farther south.

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Quarterly groundwater monitoring was initiated in June 2002. During the seven quarters of groundwater monitoring, concentrations of benzene and gasoline-range total petroleum hydrocarbons (TPH) were identified in samples collected from well OW3, located at the southeast corner of the property. No contaminants were identified in samples collected from any of the other monitoring wells at the site.

A second application of ORC was accomplished by injection on September 16, 2003, using a limited-access, direct-push sampling rig. Based on the recommendations of the ORC manufacturer, Regenesis, 450 pounds of ORC was injected at the site. The ORC was injected at eight separate points in the southeast portion of the site near the contaminated well (OW3). At each injection point the material was installed from 4 to 12 feet below grade, which provided ORC above and below the present level of the water table.

Dissolved oxygen concentrations were slightly higher when checked three days after the injection (September 19, 2003) and during the subsequent monitoring event (September 30, 2003) compared to DO readings recorded during the previous monitoring event and during the same quarter in 2002. However, the highest DO concentrations were recorded after the contaminated soil was excavated and ORC was installed in the open excavation. The exception is at OW3, on the southeast corner of the site, where a high of 0.86 mg/L DO was recorded in March 2003.

Groundwater Sampling

Four groundwater monitoring wells are present at the site; one well (MW3-GS) remains from a 1998 investigation by others, and three wells (OW1, OW2, and OW3) were installed after the 2002 soil remediation activities. The samples were collected on December 9, 2003.

Low-flow equipment (specifically, a peristaltic pump) was used to purge the wells and produce groundwater samples with minimal turbidity. Groundwater quality parameters (pH, conductivity, dissolved oxygen content, and temperature) were measured during purging to evaluate when the parameters had stabilized. The wells were sampled after parameter stabilization had been achieved. The parameters were measured using a multi-probe, flow-through cell. Dissolved oxygen concentrations in the wells were low, ranging from 0.43 mg/L in OW3 to 1.37 mg/L in MW3GS.

The groundwater samples were collected in laboratory-supplied glassware, placed on ice in a field cooler, and transported to the laboratory with standard chain-of-custody documentation. Severn Trent Laboratory Seattle (STL) analyzed the samples for gasoline-range total petroleum hydrocarbons (TPH) and gasoline-constituent BTEX compounds (benzene, toluene, ethylbenzene, and xylenes). STL is accredited by the Department of Ecology for the analyses performed.

Groundwater Results

A summary of the analytical results of the seventh round of groundwater monitoring is provided below in Table 1. The complete analytical report is attached.

Table 1 Seventh Quarter Groundwater Sample Analytical Results in ug/L (Parts per Billion)

Sample Name	Gasoline-Range TPH	BTEX Compounds			
		Benzene	Toluene	Ethylbenzene	Xylenes
OW1	<100	<0.5	<1	<1	<3
OW2	<100	<0.5	<1	<1	<3
OW3	3,800	111	1.62	115	73.56
MW3-GS	<100	<0.5	<1	<1	<3
MTCA Cleanup Level	800	5	1,000	700	1,000

Bold Indicates the concentration exceeds the MTCA Method A cleanup level.

The results of the seventh quarter of groundwater monitoring indicate that gasoline-range TPH and benzene are present in the groundwater at the southeast corner of the site (OW3). The gasoline concentration at OW3 is 3,800 ug/L, which exceeds the MTCA Method A cleanup level of 800 ug/L in groundwater. Benzene was detected in the same sample at a concentration of 111 ug/L, which exceeds the MTCA Method A cleanup level of 5 ug/L in groundwater. The samples from OW1, OW2, and the earlier-installed MW3-GS did not contain detectable concentrations of gasoline-range TPH or gasoline-constituent BTEX compounds.

Groundwater Flow Direction

Two rounds of groundwater elevation measurements recorded in 2000 indicated a southerly groundwater flow direction toward West Meeker Street and the Green River. The groundwater gradient at the site was nearly flat.

Following the soil remediation in the spring of 2002, site restoration was completed coincident with the final efforts of a street-widening project by the City of Kent. The street project included the installation of small trees and new grass along the south edge of the property. Small trees were also installed on the east side of the property. Irrigation plumbing was installed to ensure the survival of the new plants.

On December 17, 2003, measurements of the depth to groundwater were recorded at each of the four wells at the former Chevron site to facilitate calculating the groundwater flow direction. Depth-to-groundwater, well elevation, and the calculated water table elevations for each well are provided in Table 2.

Table 2 Groundwater Elevation Data, December 2003

Well ID	Depth to Groundwater	Surveyed Well Elevation	Water Table Elevation
OW1	8.58	99.78	91.20
OW2	8.68	99.82	91.14
OW3	8.21	99.25	91.04
MW3-GS	9.17	100.21	91.04

Based on the groundwater elevation data from the December 2003 monitoring event, groundwater appears to be mounding beneath the planted strip west of the former Chevron site at the south edge of the property. At the former Chevron site, the local groundwater flow direction is east. The gradient, due to suspected contribution from the landscape irrigation, was approximately 0.0053 feet per foot. Groundwater elevation data from the first post-remediation groundwater monitoring

event (June 2002) indicated a southerly groundwater flow direction with a flatter gradient consistent with previous data collected in 2000.

Conclusions

Laboratory analytical results from the seventh groundwater monitoring event indicate that gasoline-range TPH is present at the southeast corner of the site (OW3) at a concentration of 3,800 ug/L, which exceeds the MTCA Method A cleanup level of 800 ug/L in groundwater. At the same location, benzene is also present in the groundwater at a concentration of 111 ug/L, which exceeds the MTCA Method A cleanup level of 5 ug/L in groundwater. Groundwater samples from the three other wells at the site did not contain detectable concentrations of gasoline-range TPH or gasoline-constituent BTEX compounds.

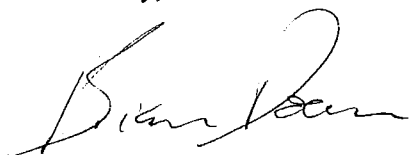
The irrigation applied to the planted strips at the south and east edges of the property is suspected to be increasing surface water infiltration to such an extent that groundwater is mounding beneath the planting strip. Thus, the irrigation water has created a localized change in the groundwater flow direction, causing the groundwater to flow east. Groundwater level data from the first post-remediation groundwater monitoring event (June 2002) indicated a southerly groundwater flow direction consistent with previous data collected in 2000.

The results of the current monitoring event are consistent with those of the first (June 2002) and the previous (September 2003) monitoring events. The concentration of gasoline-range TPH was reported at 4,550 ug/L in June 2002, 3,360 ug/L in September 2003, and 3,800 ug/L for the current monitoring event. The benzene concentration was reported at 125 ug/L in June 2002, 106 ug/L in September 2003, and 111 ug/L for the current monitoring event.

Some variability in the contaminant concentrations has been noted during the seven monitoring events at the former Chevron site. Additional data are needed to evaluate any apparent trends in the contaminant concentrations. It is notable however, that the gasoline and benzene concentrations have declined since the September 2002 monitoring event, when the highest levels were recorded. The monitoring plan for the former Chevron station site at Meeker Square includes one additional monitoring event. The next event is scheduled for March 2004.

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

Sincerely,

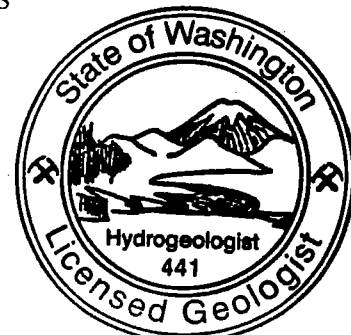


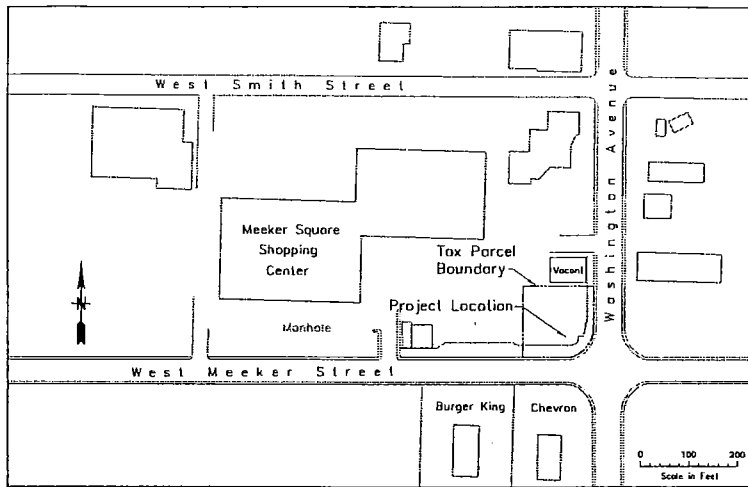
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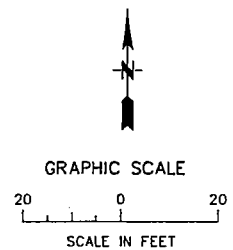
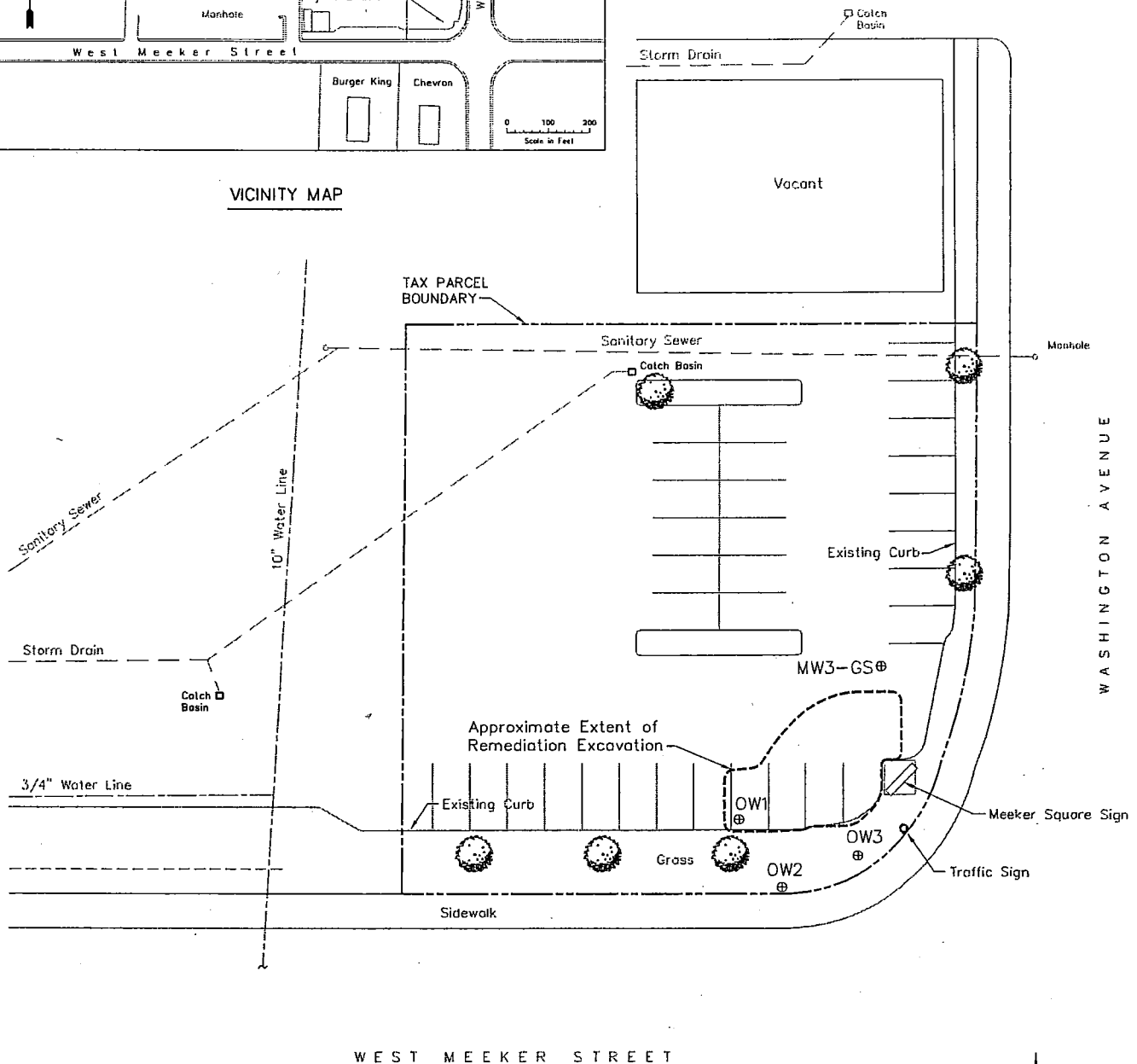
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cc: Tim Wirta, Principal Capital Management
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VICINITY MAP



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PROJECT NO.
04202001.01

DES BY
B.D.

SCALE
AS SHOWN

CHK BY
G.H.

CAD FILE
FIGURE 1

APP BY
G.H.

SITE PLAN

FORMER GASOLINE STATION SITE
MEEKER SQUARE SHOPPING CENTER
KENT, WASHINGTON

DATE
JAN 2003

FIGURE

1