



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

Southwest Region Office
PO Box 47775 • Olympia, WA 98504-7775 • 360-407-6300

August 29, 2023

Joshua Ollinger
Housing Authority of Vancouver
2500 Main Street
Vancouver, WA 98660-2675
jollinger@vhausa.com

Re: No Further Action opinion for the following contaminated Site

Site name: Vancouver Housing Authority NE 62nd
Site address: 3200 NE 62nd Avenue Vancouver, 98661 Clark
Facility/Site ID: 18715
Cleanup Site ID: 11502
VCP Project No.: SW1811

Dear Joshua Ollinger:

The Washington State Department of Ecology (Ecology) received your request on May 1, 2023 for an opinion regarding the sufficiency of your independent cleanup of the Vancouver Housing Authority NE 62nd facility (Site) under the Voluntary Cleanup Program (VCP).¹ This letter provides our opinion and analysis. We are providing this opinion under the authority of the Model Toxics Control Act (MTCA), Chapter [70A.305](#) RCW.²

Opinion

Ecology has determined that no further remedial action is necessary to clean up contamination at the Site. This Site is utilizing Ecology's Model Remedies for Sites with Petroleum Impacts to Groundwater, Remedy 1.

Ecology bases this opinion on an analysis of whether the remedial action meets the substantive requirements of MTCA and its implementing regulations, which are specified in chapter 70A.305 RCW and Chapter [173-340](#) WAC³ (collectively called "MTCA").

¹ <https://ecology.wa.gov/Spills-Cleanup/Contamination-cleanup/Voluntary-Cleanup-Program>

² <https://app.leg.wa.gov/RCW/default.aspx?cite=70A.305>

³ <https://apps.leg.wa.gov/WAC/default.aspx?cite=173-340>

Site Description

This opinion applies only to the Site described below. The Site is defined by the nature and extent of contamination associated with the following release(s):

- Total Petroleum Hydrocarbons as Gasoline Range Organics (TPH-GRO) in soil and groundwater.
- Total Petroleum Hydrocarbons as diesel range organics (TPH-DRO) in soil.
- Toluene, ethylbenzene, and total xylenes (TEX) in soil and groundwater.

Enclosure A includes Site description, history, and diagrams.

Please note that releases from multiple sites can affect a parcel of real property. At this time, Ecology has no information that other sites affect the parcel(s) associated with this Site.

Basis for the Opinion

Ecology bases this opinion on the information contained in the following documents:

- Maul Foster Alongi (MFA), Terrestrial Ecological Evaluation, July 17, 2023.
- PBS Environmental (PBS), Limited Phase II Environmental Site Assessment, January 13, 2010.
- PBS, Confirmatory Soil Testing, April 3, 2001.
- 3 Kings, Decommissioning/Soil Remediation Report, December 2000.
- PBS, Phase II Underground Storage Tank Environmental Assessment, August 24, 2000.

You can request these documents by filing a [records request](#).⁴ For help making a request, contact the Public Records Officer at recordsofficer@ecy.wa.gov or call (360) 407-6040. Before making a request, check if the documents are available on the [Cleanup Site Page](#).⁵

This opinion is void, if information in any of the listed documents is materially false or misleading.

Analysis of the Cleanup

Ecology has concluded that no further remedial action is necessary to clean up contamination at the Site. Ecology bases its conclusion on the following analysis:

⁴ <https://ecology.wa.gov/About-us/Accountability-transparency/Public-records-requests>

⁵ <https://apps.ecology.wa.gov/cleanupsearch/site/11502#site-documents>

Characterizing the Site

Ecology has determined your completed Site characterization is sufficient for setting cleanup standards and selecting a cleanup action. Enclosure A describes the Site.

Lead in Groundwater

Groundwater collected from GP-3 in November 2009 bore concentrations of total lead in excess of the Method A cleanup level. A dissolved lead sample was also collected and did not exceed the Method A cleanup level. Ecology, using best professional judgement,⁶ concurs that based on reportedly elevated turbidity in the GP-3 groundwater sample, the non-detectable concentration of dissolved lead, and the absence of other concomitant petroleum constituents, dissolved lead is representative of Site conditions.⁷

Electronic Information Management (EIM) Data Upload

Site data was uploaded to Ecology's EIM database on June 19, 2023. Ecology accepted the data on 8/8/2023.

Setting cleanup standards

Ecology has determined the cleanup levels and points of compliance you set for the Site meet the substantive requirements of MTCA.

Cleanup Levels. Ecology concurs with the proposed cleanup levels (CULs) for the Site with the following revision.

TPH-GRO Cleanup Level

TPH-GRO was compared to the Method A cleanup level of 100 mg/kg, which is acceptable for Sites without detectable benzene or total TEX detections being less than 1% of the gasoline mixture.⁸ Ecology provides that the November 15, 2000 soil sample VHA-06 had a cumulative TEX value of 3.86 mg/kg, which is more than 1% of the TPH-GRO mixture. Therefore, the more stringent MTCA Method A soil cleanup level of 30 mg/kg for TPH-GRO applies at this Site. For groundwater, the higher Method A TPH-GRO cleanup level, 1,000 µg/L, applies at the Site as benzene has not been detected in groundwater.

⁶ WAC 173-340-360(2)

⁷ WAC 173-340-720(9)(b)

⁸ WAC 173-340-900 Table 830-1. Footnote S, Gasoline Range Organics.

Method A soil⁹ and groundwater¹⁰ CULs for TPH-GRO and TEX are being applied to the Site:

Site Hazardous Substance	MTCA Cleanup Method	Soil Cleanup Level ^a	Groundwater Cleanup Level ^b
TPH-GRO	A	30	1,000
TPH-DRO	A	2,000	500
Toluene	A	7	1,000
Ethylbenzene	A	6	700
Total Xylenes	A	9	1,000
Lead	A	250	15

^a Measured in milligrams per kilogram (mg/kg).

^b Measured in micrograms per liter (µg/L).

Points of Compliance. Points of compliance are the specific locations at the Site where cleanup levels must be attained.

Terrestrial Ecological Evaluation (TEE)

The TEE was ended via exemption on a natural background basis.¹¹ Ecology disagrees with that TEE conclusion but agrees further TEE evaluation for the Site is not needed. Ecology evaluated the Site via simplified TEE. Ecology concludes the TEE ends via contamination analysis.¹²

⁹ WAC 173-340-900 Table 740-1, Method A Soil Cleanup Levels for Unrestricted Land Uses.

¹⁰ WAC 173-340-900 Table 720-1, Method A Cleanup Levels for Ground Water.

¹¹ MFA, Terrestrial Ecological Evaluation, July 17, 2023.

¹² WAC 173-340-7492(2)(c)(i)

Ecology concurs with the following proposed points of compliance for the Site:

Media	Points of Compliance
Soil-Direct Contact	Based on human exposure via direct contact, the standard point of compliance is throughout the Site from ground surface to fifteen feet below the ground surface. WAC 173-340-740(6)(d) Cleanup levels met at the standard point of compliance.
Soil- Protection of Groundwater	Based on the protection of groundwater, the standard point of compliance is throughout the Site. WAC 173-340-747 Cleanup level met at the standard point of compliance.
Soil-Protection of Plants, Animals, and Soil Biota	Based on ecological protection, the standard point of compliance is throughout the Site from ground surface to fifteen feet below the ground surface. WAC 173-340-7490(4)(b) Cleanup level met at the standard point of compliance.
Groundwater	Based on the protection of groundwater quality, the standard point of compliance is throughout the site from the uppermost level of the saturated zone extending vertically to the lowest most depth which could potentially be affected by the site. WAC 173-340-720(8)(b) Cleanup levels met at the standard point of compliance.

Applicable State and Federal Laws. Ecology concurs that the Method A cleanup levels are appropriate for this Site. Ecology did not identify any additional applicable state and federal laws that would require revising or reducing the proposed cleanup levels for the Site.

Selecting the cleanup action

Ecology has determined the cleanup action you selected for the Site meets the substantive requirements of MTCA.

The selected cleanup action included excavation and disposal of petroleum contaminated soil and excavation impounded water disposal.

Implementing the cleanup action

Ecology has determined your cleanup meets the standards set for the Site. In November 2000, a total of 66.74 tons of petroleum contaminated soil (PCS) was excavated and removed from Site for disposal. In addition to PCS excavated from the Site, other material removed from the Site

included the 675-gallon UST, 285-gallon AST, the dispenser, and the product lines. A shop area was demolished to facilitate additional soil removal. Approximately 3,170 gallons of water that accumulated in the excavation pit, which was in contact with PCS, was containerized and removed from Site for disposal. Soil confirmation samples collected from the excavation sidewalls, excavation bottom, and borings beyond the excavation margins indicate all PCS was removed from Site.

The Site qualifies for Ecology's Model Remedies for Sites with Petroleum Impacts to Groundwater Model Remedy 1.¹³ Sites utilizing Ecology's Model Remedies are not required to complete a feasibility study or disproportionate cost analysis.

Listing of the Site

Based on this opinion, Ecology will update the Site status on the Confirmed and Suspected Contaminated Sites List and the Leaking Underground Storage Tanks List to no further action.

Limitations of the Opinion

Opinion does not settle liability with the state.

Liable persons are strictly liable, jointly, and severally, for all remedial action costs and for all natural resource damages resulting from the release or releases of hazardous substances at the Site. This opinion does not:

- Resolve or alter a person's liability to the state.
- Protect liable persons from contribution claims by third parties.

To settle liability with the state and obtain protection from contribution claims, a person must enter into a consent decree with Ecology under RCW [70A.305.040](#)(4).¹⁴

Opinion does not constitute a determination of substantial equivalence.

To recover remedial action costs from other liable persons under MTCA, one must demonstrate that the action is the substantial equivalent of an Ecology-conducted or Ecology-supervised action. This opinion does not determine if the action you performed is substantially equivalent. Courts make that determination. See RCW [70A.305.080](#)¹⁵ and WAC [173-340-545](#).¹⁶

¹³ Ecology, Model Remedies for Sites with Petroleum Impacts to Groundwater, December 2017. Page 20.

¹⁴ <https://app.leg.wa.gov/RCW/default.aspx?cite=70A.305.040>

¹⁵ <https://app.leg.wa.gov/RCW/default.aspx?cite=70A.305.080>

¹⁶ <https://apps.leg.wa.gov/WAC/default.aspx?cite=173-340-545>

State is immune from liability.

The state, Ecology, and its officers and employees are immune from all liability, and no cause of action of any nature may arise from any act or omission in providing this opinion. See RCW [70A.305.170](https://app.leg.wa.gov/RCW/default.aspx?cite=70A.305.170)(6).¹⁷

Termination of Agreement

Thank you for cleaning up the Site under the VCP. This opinion terminates the VCP Agreement governing VCP Project No. 1811.

Questions

If you have any questions about this opinion or the termination of the Agreement, please contact me by phone at 360-407-6266 or email at joseph.kasperski@ecy.wa.gov

Sincerely,



Joe Kasperski, LG
Southwest Region Office,
Toxics Cleanup Program

JKK:jc

Enclosures (1):

A – Site Description, History, and Diagrams

cc:

Emily Hess, LHG, Maul Foster & Alongi, Inc.; ehess@maulfoster.com
Jerome Lambiotte, CPG, Ecology; jerome.lambiotte@ecy.wa.gov
Fiscal, VCP Fiscal Analyst (w/o encl)
TCP, Operating Budget Analyst (w/o encl)
Ecology Site file

¹⁷ <https://app.leg.wa.gov/RCW/default.aspx?cite=70A.305.170>

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Enclosure A

Site Description, History, and Diagrams

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Site Description

The Vancouver Housing Authority NE 62nd site (Site) is located on Clark County parcel 986030088, a 0.64-acre property, which is currently improved with a 14-unit affordable housing complex.

A release associated with an underground storage tank (UST) system was discovered during a Phase II environmental site assessment (ESA).¹⁸ The UST was used from the 1950s to sometime in the 1970s or 1980s for excavation equipment fueling. Petroleum contamination was identified via NWTPH-HCID in soil near the UST and former dispenser location. Groundwater was evaluated and bore detectable concentrations TPH-GRO and TEX at concentrations below their respective Method A cleanup levels. Petroleum contaminated soil (PCS) was located around the UST to north-northwest of the dispenser. A garage which stood above the north-northwest lobe of subsurface soil contamination was demolished to facilitate removal of PCS. Soil contamination was removed via excavation and is horizontally defined by 2001 borings B-5 to the north, B-3 to the east, B-2 to the south,¹⁹ and 2000 sidewall samples VHA-03 and VHA-20 to the west.²⁰ Contamination was vertically delineated by samples collected in 2010 at 7 feet below ground surface (bgs).

Site geology has been mapped as Pleistocene outburst flood deposits (Qfg) associated with glacier-outburst events of Lake Missoula. Deposits include stratified unconsolidated cobbly gravel sands in large bar-and-channel complexes and foresets as steep as 35-degrees. Outburst flood deposits overlie unconsolidated to semi-consolidated round-cobble conglomerate basin-fill deposits.²¹

Site History

The Site principal use was as a residence except for a brief period in the 1980's when an excavation company used the property for unconfirmed use, but likely included equipment maintenance and storage. A Phase I ESA completed in July 2000 identified the possible presence of a UST as a recognized environmental concern. A Phase II ESA to assess the UST and soil conditions was completed in August 2000 after an UST was discovered by ground penetrating radar on the southwest side of the garage approximately 1-1.5 feet bgs. A dispenser, which was reportedly removed in 1998,²² was located approximately 12 feet north of the fill and vent pipes. On August 10, 2000, four soil borings were advanced to 8 feet bgs on the south side of the UST. Samples were collected from each soil boring at 5 and 7 feet bgs and

¹⁸ PBS, Phase II underground Storage Tank Environmental Assessment, August 24, 2000. Field Results and Analytical.

¹⁹ PBS, Confirmatory Soil Testing, April 3, 2001. Table 1.

²⁰ 3 Kings, Decommissioning/Soil Remediation Report, December 2000. Table 1.

²¹ O'Connor, J.E., Cannon, C.M., Mangano, J.F., and Evarts, R.C., 2016, Geologic map of the Vancouver and Orchards quadrangles and parts of the Portland and Mount Tabor quadrangles, Clark County, Washington, and Multnomah County, Oregon: U.S. Geological Survey Scientific Investigations Map 3357, scale 1:24,000

²² PBS, Phase II underground Storage Tank Environmental Assessment, August 24, 2000. Background.

analyzed via NWTPH-HCID.²³ One sample, SS-7, bore detectable concentrations of TPH-DRO (61.7 mg/kg) and concentrations of TPH-GRO (357 mg/kg) exceeding the MTCA Method A cleanup level. Soil sample SS-7 was collected from B-3 at 5 feet bgs, and soil sample SS-6 was collected from B-3 at 7 feet. TPH was not detected in either sample.²⁴ Boring B-3 was located in the approximate dispenser location.

On November 15, 2000, the 675-gallon gasoline UST and a 285-gallon above-ground storage tank were decommissioned, removed from Site, and disposed of at Metro Metals. 15 gallons of oily sludge material from both tanks was removed and disposed of at Oil Re-Refining. Petroleum contaminated soil was identified via visual and olfactory indications at 5 feet bgs under the east end of the UST. Petroleum contaminated soil (PCS) excavation commenced to a depth of 7 to 7.5 feet bgs when a sheen test indicated that the PCS extent had been reached. Additional excavation continued south and east until staining was not visually identified and a negative sheen test was recorded. The shop building abutting the excavation was demolished on November 29, 2000, allowing for additional PCS removal North and west of the UST. Groundwater was observed at 6.5 feet. 8 confirmation soil samples were collected from the soil-groundwater interface.²⁵ 66.74 tons of PCS was thermally treated and transported offsite to TPS Technologies for disposal. 3,170 gallons of water accumulated in the excavation was containerized and disposed of at Oil Re-Refining.²⁶

On March 20, 2001, six additional soil borings and confirmation samples were collected to evaluate interim action effectiveness. Six soil samples and one groundwater sample were collected and the analytical results were compared the MTCA Method A cleanup levels. No samples bore detectable concentrations of TPH-GRO or BTEX.²⁷

On November 23, 2009, four additional borings were advanced beyond the limits of excavation completed in 2000. Soil samples were collected from two borings at equivalent depths of the extent of previously removed PCS and analyzed for total lead. Two groundwater samples were collected to evaluate required constituents²⁸ not previously analyzed including methyl tertiary-butyl ether (MTBE), ethylene dichloride (EDC), 1,2-dibromoethane (EDB), and total and dissolved lead. Lead in soil did not exceed the Method A cleanup level.²⁹ Total lead in groundwater exceeded the Method A CUL at GP-3 but dissolved lead did not exceed.³⁰ No other constituents were detected above their respective method detection limit and/or Method A CUL.

²³ PBS, Phase II underground Storage Tank Environmental Assessment, August 24, 2000. Field Methods/Discussion.

²⁴ PBS, Phase II underground Storage Tank Environmental Assessment, August 24, 2000. Field Results and Analytical.

²⁵ 3 Kings, Decommissioning/Soil Remediation Report, December 2000. Section 2.2.

²⁶ 3 Kings, Decommissioning/Soil Remediation Report, December 2000. Section 4.0.

²⁷ PBS, Confirmatory Soil Testing, April 3, 2001. Table 1.

²⁸ WAC 173-340-900 Table 830-1, Gasoline Range Organics (GRO)

²⁹ PBS, Limited Phase II Environmental Site Assessment, January 13, 2010. Table 1.

³⁰ PBS, Limited Phase II Environmental Site Assessment, January 13, 2010. Table 2.

Site Diagrams

Figure 1	Site Vicinity Plan ³¹
Figure 2	Remediation Map 1 ³²
Figure 3	Remediation Map 2 ³²
Figure 4	Sample Location Map ³³

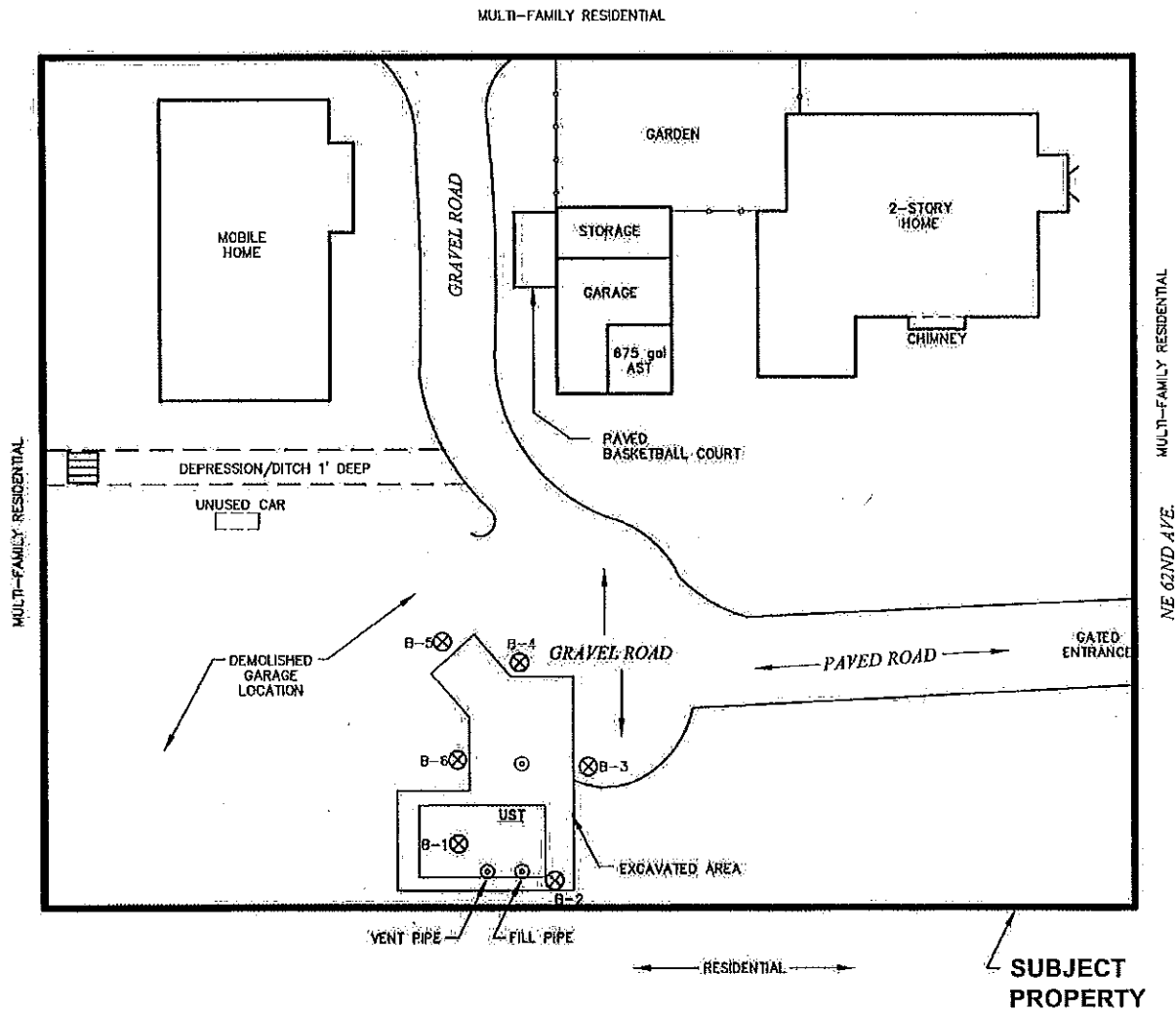
³¹ PBS, Confirmatory Soil Testing, April 3, 2001. Figure 1.

³² 3 Kings, Decommissioning/Soil Remediation Report, December 2000. Section 8.0 Maps.

³³ PBS, Limited Phase II Environmental Site Assessment, January 13, 2010. Figure 2.

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Figure 1 – Site Vicinity Map



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Figure 2 – Remediation Map 1



NE 62nd Avenue

Remediation Map #1

Date: 12/04/00

Decommissioning/
Soil Remediation

Project: Vancouver Housing Authority
3200 NE 62nd
Vancouver, WA

Drawn By: David Borys

Map not to Scale

Single Family
Residence

Garage

Manufactured
Home

Shop

VHA-06
6.5' bgs
NWT PH-G; 286 ppm
Benzene; ND
Toluene; 0.19 ppm
Ethyl Benzene; 1.98 ppm
Xylene; 1.69 ppm

VHA-03
6.5' bgs
NWT PH-G; ND

VHA-02
5' bgs
NWT PH-G; ND

VHA-04
6.5' bgs
NWT PH-G; ND

VHA-01
6.5' bgs
NWT PH-G; ND

VHA-05
6.5' bgs
NWT PH-G; ND

Pit Water-01
NWT PH-G; 251 ppb
Benzene; ND
Toluene; 10 ppb
Ethyl Benzene; 3 ppb
Xylene; 19 ppb

Pocket of Contamination

Property Line

Property Line

Driveway

Figure 3 – Remediation Map 2



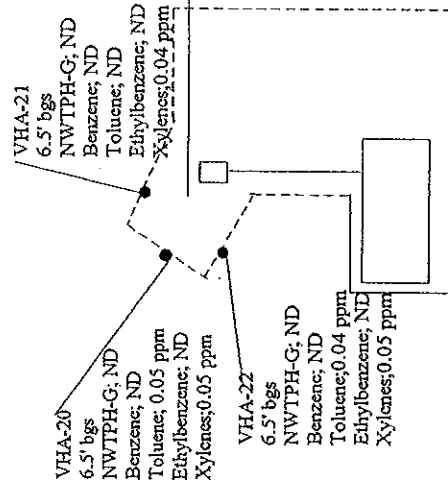
NE 62nd Avenue

Manufactured
Home

Single Family
Residence

Garage

Driveway



Remediation Map #2

Date: 12/04/00

Decommissioning/
Soil Remediation

Project: Vancouver Housing Authority
3200 NE 62nd
Vancouver, WA

Drawn By: David Borys

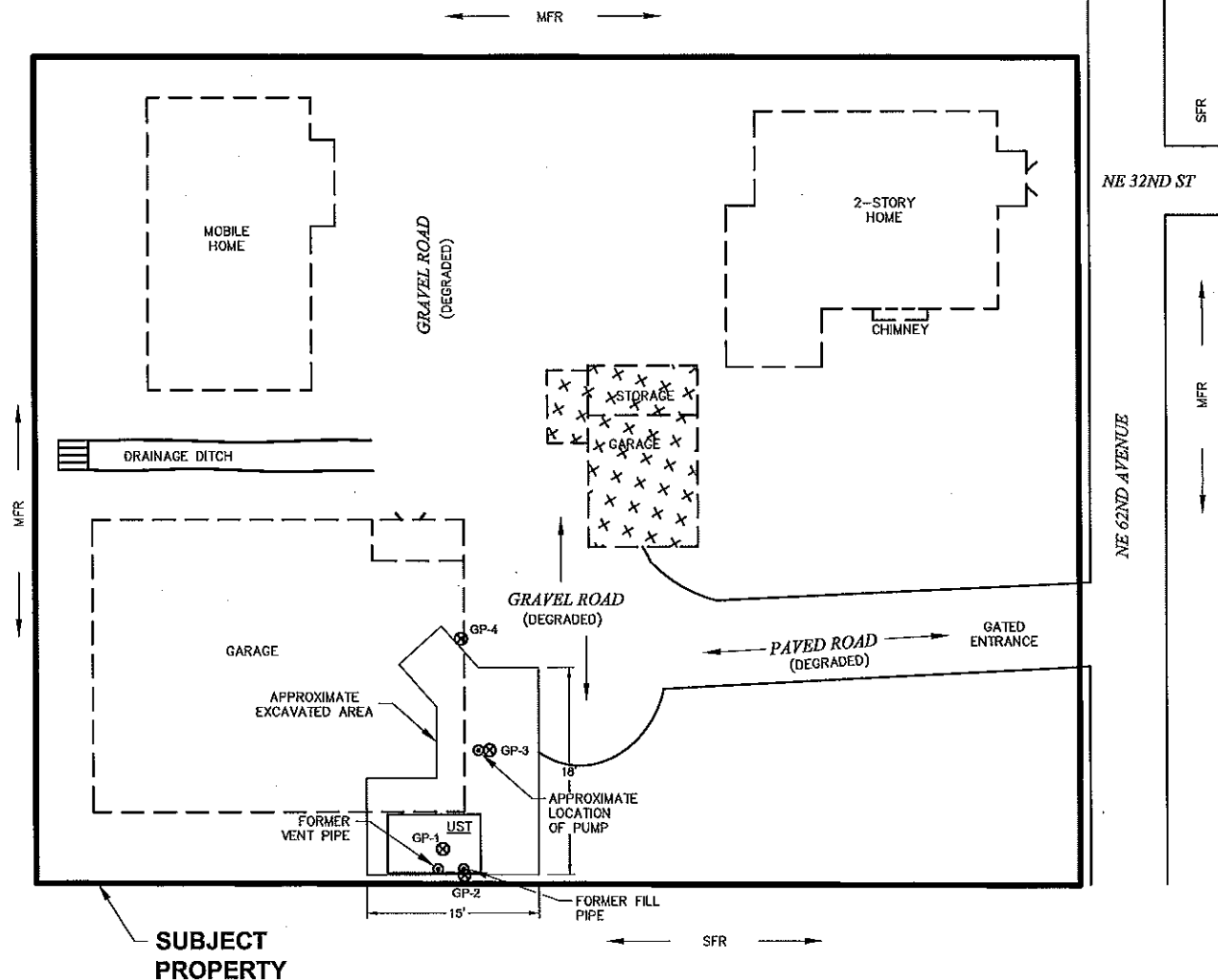
Map not to Scale

Property Line

Property Line

Figure 4 – Sample Location Map

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LEGEND

- REPORTED CATCH BASIN
- SFR SINGLE-FAMILY RESIDENTIAL
- MFR MULTI-FAMILY RESIDENTIAL
- UST UNDERGROUND STORAGE TANK
- GP-1 BORING LOCATION AND NUMBER
- FORMER STRUCTURES
- REMAINING CONCRETE FOUNDATION



SCALE: NONE

Prepared for: COLUMBIA NON-PROFIT HOUSING



PROJECT #
76135.000
DATE
DEC 2009

SAMPLE LOCATION PLAN
3200 NE 62nd AVE
VANCOUVER, WASHINGTON

FIGURE
2