PHASE II ENVIRONMENTAL SITE ASSESSMENT

Subject Property Address

8402 South Hosmer Street

Tacoma, WA 98444

ENCON Project Number

1203114ESAII

Report Date

6/14/2012

Prepared for

BBCN Bank

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Attached please find our PHASE II ENVIRONMENTAL SITE ASSESSMENT, ("the Report") for the above-mentioned Subject Property. This report has been prepared by ENCON for the Client under the professional supervision of the principal and/or senior staff whose seal(s) and signatures appear hereon. Neither ENCON, nor any staff member assigned to this investigation has any interest or contemplated interest, financial or otherwise, in the subject or surrounding properties, or in any entity which owns, leases, or occupies the subject or surrounding properties, and has no personal bias with respect to the parties involved.

The assessment was conducted in a manner consistent with the level of care and skill ordinarily exercised by members of the profession, and in accordance with generally accepted practices of other consultants currently practicing in the same locality under similar conditions. No other representation, expressed or implied, and no warranty or guarantee is included or intended. The Report speaks only as of its date, in the absence of a specific written update of the Report, signed and delivered by ENCON.

There are no intended or unintended third party beneficiaries to this Report, unless specifically named. ENCON is an independent contractor, not an employee of either the issuer or the borrower, and its compensation was not based on the findings or recommendations made in the Report or on the closing of any business transaction. Thank you for the opportunity to prepare this Report, and assist you with this project. Please call us if you have any questions or if we may be of further assistance.

Respectfully Submitted,

Staff Consultant:

Jim Coppernoll

WA State Licensed Geologist and
Certified Assessor

Hyung Kim

Principal Consultant, P.E., REA,
NV-CEM

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ATTACHMENTS

1.0 LIMITATIONS

The opinion expressed herein is based on the information collected during our study, our present understanding of the site conditions and our professional judgment in light of such information at the time of preparation of this report. No warranty is either expressed, implied or made as to the conclusions, advice and recommendations offered in this report.

Our investigation was performed using the degree of care and skill ordinarily exercised, under similar circumstances, by reputable Engineers and Geologists practicing in this or similar localities. The samples taken and used for testing and the observations made are believed representative of the study area; however, soil and/or groundwater samples can vary significantly between borings, test pits, and/or test sample locations.

The interpretations and conclusions contained in this report are based on the results of laboratory tests and analysis intended to detect the presence and concentration of certain chemical constituents in samples taken from the subject property. Such testing and analysis have been conducted by an independent laboratory which is certified by the State of California to conduct such test analyses and which used methodologies mandated by the Environmental Protection Agency or the State Department of Health Services in the performance of such test and analyses. The consultant has no involvement in, or control over, such testing and analysis, and has no non-laboratory means of confirming the accuracy of such laboratory results. The consultant, therefore, disclaims any responsibility for any inaccuracy in such laboratory results.

The findings, conclusions and recommendations in this report are considered valid as of the present date. However, changes in the conditions of the property can occur with the passage of time, due to natural process or the works of man on this or adjacent properties. In addition, changes in applicable or appropriate standards may occur. Accordingly, portions of this report may be invalidated wholly or partially by the changes beyond our control.

INDEPENDANT CONTRACTOR STATUS

In performing Services under the scope of work contained in this Report and agreed Contract/Agreement, ENCON shall operate as, and have the status of, an independent contractor.

PROFESSIONAL RESPONSIBILITY

ENCON shall perform the Services consistent with that level of care and skill ordinarily exercised by other professional consultants under similar circumstances at the time the Services are performed. Client hereby acknowledges that whenever a Project involves hazardous or toxic materials there are certain inherent risk factors involved (such as limitations on laboratory analytical methods, variations in subsurface conditions, economic loss to Client or property owner, a potential obligation for disclosure to regulatory agencies, a potential for a decrease in market value of real property, and the like) that may adversely affect the results of the Project, even though the Services are performed with such skill and care. No other representation, warranty, or guarantee, express or implied, is included or intended by the scope of work contained in this Report and agreed Contract/Agreement.

LIMITATION OF LIABILITY

Client agrees that the liability of ENCON and all officers, employees, agents, and subcontractors of ENCON (the "ENCON Parties") to Client for all claims, suits, arbitration, or other proceedings arising from the performance of the Services under the scope of work contained in this Report and agreed Contract/Agreement, including, but not limited to, ENCON's professional negligence, errors and omissions, or other professional acts, shall be limited to the Fee amount. ENCON Parties are not liable for any indirect, incidental or consequential damages, lost profits, lost revenue, or loss of property value based on the Services provided as part of the scope of work contained in this Report and agreed Contract/Agreement.

HAZARDOUS OR UNSAFE CONDITIONS

Client has fully informed ENCON of the type, quantity, and location of any hazardous, toxic, or dangerous materials or unsafe or unhealthy conditions that may affect the Project which Client knows to exist. If Client hereafter

becomes aware of any such information, Client shall immediately inform ENCON. The discovery of unanticipated hazardous, toxic, or dangerous materials or unsafe or unhealthy conditions constitutes a Changed Condition that may justify a revision to Services and/or Fees. If ENCON takes emergency measures to protect the health and safety of ENCON Parties and/or the public or to prevent undue harm to the environment, the Fee shall be appropriately adjusted to compensate ENCON for the cost of such emergency measures.

RIGHT OF ENTRY

Client agrees to grant or arrange permission for right of entry from time to time by ENCON Parties upon all real property included in the Project Site(s) where the Services are to be performed, whether or not the Project Site(s) is owned by Client. Client recognizes that the use of investigative equipment and practice may unavoidable alter conditions or affect the environment at the existing Project Site(s). ENCON will operate with reasonable care to minimize damage to the Project Site(s). The cost of repairing such damage will be borne by Client, and in not included in the Fee unless otherwise stated.

UNDERGROUND UTILITIES

Client shall correctly designate on plans to be furnished to ENCON, the location of all subsurface structures, such as pipes, tanks, cables, and utilities within the property lines of the Project Site(s) and shall be responsible for any damage inadvertently cause by ENCON to any such structure or utility not so designated.

REPORTING AND DISPOSAL REQUIREMENTS

Nothing contained in this Report shall be construed or interpreted as requiring ENCON to assume the status of an owner, operator, generator, person who arranges for disposal, transportation, storage, treatment, or a disposal facility as those terms appear within any federal or state statute governing the treatment, storage, and disposal of hazardous substances or wastes. Client shall be solely responsible for notifying all appropriate federal, state, municipal, or other governmental agencies of the existence of any hazardous, toxic, or dangerous materials located on or in the Project Site(s), or discovered during the performance of the scope of work contained in this Report and agreed Contract/Agreement. Client agrees that ENCON is not responsible for disclosures, notifications, or reports that may be required to be made to third parties. Client shall be responsible for making and paying for all necessary arrangements to lawfully store, treat, recycle, dispose of, or otherwise handle hazardous or toxic substances or wastes, including but no limited to, samples and cuttings, to be handled in connection with the Project.

SAMPLES AND CUTTINGS

ENCON shall not be obligated to preserve samples such as oil, rock, water, building materials, fluids and other samples obtained from the Project Site(s) for a longer period of time than a laboratory will store the samples for no additional fee. If sample storage is requested by Client beyond standard laboratory time, Client will be responsible for any storage fee for those samples.

HEALTH AND SAFETY

ENCON shall not be responsible for the health and safety of any persons other than ENCON Parties, nor shall it have any responsibility for the operations, procedures, or practices of persons or entities other than ENCON Parties.

2.0 INTRODUCTION

2.1 PROJECT INFORMATION

Project Information	
ITEM	
ENCON Project Number	1203114ESAII
Subject Property Name	Red Lion Hotel
Subject Property Address	8402 South Hosmer Street, Tacoma, Washington
Alternate Addresses	N/A
Pre-Drilling Activity	May 16, 2012
Drilling & Sampling Date	May 16, 2012
Report Date	June 8, 2012
ENCON's Field Technician	Jim Coppernoll, Environmental Consultant, Washington State Licensed Geologist
Project Manager	Hyung Kim, CA Professional Civil Engineer, REA, CHMM
Property Location	The subject property is located on the southwest quadrant of 84th Street Street S and S Hosmer Street in the City of Tacoma, Pierce County, Washington.
Property Type	Hotel (formerly gasoline station).
Assessor's Identification #	0320311800
General Setting	The general setting is commercial.

2.2 OBJECTIVE AND BACKGROUND

The objective of this subsurface investigation was to investigate the subsurface conditions in the area of the former fuel underground storage tanks (USTs) and the former dispenser islands associated with the historical gasoline station located in the southeast section of the site.

Site Background

Summary of Historical Property Use

The north end of the Subject site became improved with a motel in the mid-1960s and a gasoline service station was built about the same time along the eastern margin near the southeast corner of the Subject Site. The gasoline services station was demolished about 1985 and that portion of the Subject Site has been part of the parking area for the motel since that time.

Previous Environmental Assessment:

Phase I Environmental Site Assessment performed by Aerotech Environmental Consulting, Inc., dated November 4, 2011:

Aerotech Environmental Consulting, Inc. (Aerotech) performed a Phase I Environmental Site Assessment at the Subject Site in fall 2011. Aerotech reported that a gasoline station was constructed in the southeast corner of the Subject Site in 1963 and was demolished in 1985. Aerotech reported finding no information regarding UST removal or decommissioning. Aerotech recommended additional investigation.

Phase II Environmental Site Assessment by Envitech, LLC:
Envitech, LLC (Envitech) performed a ground penetrating radar (GPR) survey to locate any remaining USTs and associated structures in the subsurface, then advanced four borings in the area of the former UST excavation and one boring along the southern margin of the Subject Site to depths of 9 to 15 feet below ground surface. A total of five soil samples were submitted for analysis of gasoline-range total petroleum hydrocarbons and benzene, toluene,

ethylbenzene, and toluene by Washington Method NWTPH-Gx and EPA Method 8260. Samples were also analyzed for diesel- and lube oil-range total petroleum hydrocarbons by Washington Method NWTPH-Dext.

Sample results indicated gasoline-range total petroleum hydrocarbons at 7,400 micrograms per kilogram (mg/kg) and 6,700 mg/kg at 14 feet below ground surface in the eastern portion of the former UST excavation. All other sample results were either below method detection limits or below applicable cleanup levels.

Envitech recommended additions subsurface investigation to verify the extent and magnitude of contamination.

2.3 SCOPE OF WORK

To accomplish the stated objective, ENCON performed the following tasks:

Pre-Drilling Activities

- Performed Site Visit to verify existing conditions and pre-mark boring locations and notify Underground Service Alert (USA) of the intent to excavate or drill and use standard care to avoid potential damage to subsurface utilities.
- A Site-specific Health and Safety Plan (Level D Health & Safety according to OSHA CFR 1910.120, Boring Plan and Work-Schedule was also prepared.

Field Investigation & Soil Sampling Procedure

- A total of four borings were drilled using a truck-mounted hollow stem auger drill rig .
    - One soil boring was advanced to 35 feet below ground surface (bgs) in the eastern portion of the former UST excavation between Envitech's boring B2 and B3
    - Two soil borings were advanced south of the former UST excavation to target depths of approximately 20 feet bgs.
    - One soil boring was advanced north the former UST to a target depth of approximately 20 feet bgs.
- Collected soil samples at approximate 5-foot intervals starting from 5 feet bgs in all soil borings except boring EB1 in which sampling started at 15 feet bgs.
- The soil borings were logged using the Unified Soils Classification System under the supervision of ENCON's California Professional Geologist (RG) / California Professional Civil Engineer (PG).
- Collected one groundwater sample from boring EB1 at approximately 35 feet bgs via a temporary well screen.
- Submitted one groundwater sample and four soil samples for analysis of gasoline-range total petroleum hydrocarbons as well as benzene, toluene, ethylbenzene, xylenes via Washington Method NWTPH-Gx and EPA Method 8260. All samples were submitted to a State of Washington Certified Laboratory using Chain of Custody Protocols.
- All samples were collected in accordance with our standard operating and decontamination procedures. All probes and equipment were decontaminated in accordance with industry standard protocol.

Boring Locations

1. EB-1 was located in the east-central part of the former UST excavation between Envitech borings B2 and B3.
2. EB2 was located approximately 19 feet south of EB1 just south of the former UST excavation.
3. EB3 was located approximately 21 feet south of EB2.
4. EB4 was located approximately 18 feet north of EB1 and a few feet north of the former UST excavation.

** See Boring Map for boring locations*

This investigation consisted of a total of four borings in the areas of potential environmental concern.

The purpose and objective of each boring were as follows:

- Boring EB1 was located to assess the soil and groundwater at depth below the former UST excavation and where soil contamination was documented at approximately 14 feet bgs by Envitech borings B2 and B3 for vertical extent and magnitude of petroleum hydrocarbons.
- Borings EB2 and EB3 were located to delineate the lateral extent of petroleum hydrocarbons to the south of the former UST excavation.
- Boring EB4 was located to delineate the lateral extent of petroleum hydrocarbons to the north of the former UST excavation.

**See boring logs in the Appendix for boring locations and detailed descriptions.*

3.0 SUBJECT PROPERTY CHARACTERISTICS

3.1 SITE DESCRIPTION

Property Improvement & Building/Land Description	
ITEM	
General Layout of Property	The subject property, located at 8402 S Hosmer Street in Tacoma, Washington is a roughly rectangular, slightly sloping parcel located on a prominent street corner in a commercial area of Tacoma. The subject site is occupied by a Red Lion Hotel situated on the north end of the property and by paved parking over the southern portion of the property. Access to the property is via two driveways from S Hosmer Street. The area of interest for this investigation is a small portion of the Subject Site located south of the hotel building and between the two driveways from S Hosmer Street. The area of interest, currently part of the paved hotel parking, was occupied by a gasoline service station from approximately 1963 until approximately 1985.
Access to Property	Access to the property is via S Hosmer Street.
Number of Buildings	One large hotel building.
Lot Size & Shape	3.73 acres and roughly rectangular, according to Pierce County Assessor
Total Building Footprint Size	According to the County Assessor's office, the hotel building is 82,244 square feet and is rectangular.
Percent Coverage by Building	Approximately 20%
Other Improvements & Features	Asphalt pavement covers the rest of the property.

3.2 TOPOGRAPHY & LOCAL HYDROGEOLOGY

TOPOGRAPHY

The Subject Quad Map depicted no physical features that may have environmentally impacted the subject property. The subject property and general area are identified as urban developed. The elevation of the property is approximately 200 feet above mean sea level with a slight downward slope to the south-southeast.

GEOLOGY AND HYDROGEOLOGY

The site is situated on a relative highland between the Puget Sound approximately five miles west of the Subject Site and the Puyallup River Valley approximately 10 miles to the east. According to USGS information, the Subject Site is underlain by Pleistocene-age Vashon till consisting of unsorted and unstratified clay-to-boulder sized sediments deposited by glaciers. The Subject Site is very near the contact with Vashon recessional outwash consisting of gravel and sand deposited by meltwater during glacial recession.

Based on topography, the expected groundwater flow direction is toward the south-southeast.

SOURCE OF DATA

Current USGS 7.5 Minute Topographical Map

Jones, M. A., 1998, Geologic Framework for the Puget Sound Aquifer System, Washington and British Columbia, USGS Professional Paper 1424-C.

4.0 FIELD INVESTIGATION

4.1 FIELD INVESTIGATION

To accomplish the stated objectives, ENCON performed the following field investigation activities:

ENCON advanced a total of 4 borings; all borings were drilled via a truck-mounted hollow stem auger rig operated by Holocene Drilling, Inc. of Puyallup, Washington.

- A total of four borings were drilled;
    - One soil boring was advanced in the eastern portion of the former UST excavation to 35 feet bgs.
    - Two soil borings were advanced south of the former UST excavation to 20 feet bgs.
    - One soil boring was advanced north of the former UST excavation to 20 feet bgs.
- Collected soil samples at approximate 5-foot intervals starting from 5 feet bgs in all soil borings except EB1 in which sampling began at the bottom of the former UST excavation at 15 feet bgs.
- The soil borings were logged using the Unified Soils Classification System under the supervision of ENCON's Washington State Licensed Hydrogeologist.
- Collected one groundwater sample from approximately 35 feet bgs in boring EB1 via a temporary well screen.
- Submitted one groundwater sample and four soil samples for analysis of gasoline-range total petroleum hydrocarbons as well as benzene, toluene, ethylbenzene, xylenes by Washington Method NWTPH-Gx and EPA Method 8260. All samples were submitted to a State of Washington Certified Laboratory using Chain of Custody Protocols

All samples were collected in accordance with our standard operating and decontamination procedures. All downhole drilling and sampling equipment was decontaminated in accordance with industry standard protocol.

4.2 METHODOLOGY

Prior to advancing the borings, the property owner and tenants of business units where drilling would be performed were notified of the work schedule. ENCON performed site visits to verify existing conditions and to pre-mark boring locations and notified Underground Service Alert (USA) of the intent to excavate. A Site-specific Health and Safety Plan was prepared and field safety meeting was held among field personnel and drilling crew prior to the start of drilling on May 16, 2012.

Soil samples were collected using stainless steel split-spoon sampler. The sampler is driven beyond the lead auger by dropping a standard 140-lb hammer a specified distance until the sampler reaches approximately 1.5 feet into undisturbed soil. The sampler is then retrieved and opened for sample inspection and logging and samples are collected, and packed in ice chest (with ice for maintaining 4º Centigrade preservation temperature) to minimize potential volatilization prior to delivery to the laboratory.

Undisturbed soil samples were collected at approximate 5-foot intervals starting from a depth of 5 feet bgs for all soil borings except boring EB1, in which sampling started at 15 feet, the approximate depth of the bottom of the former UST excavaiton. Boring EB1 was targeted to a depth of 40 feet bgs or groundwater depth in order to collect a groundwater sample. All other borings were targeted to 20 feet bgs.

A State of Washington-licensed geologist performed all borehole logging. Soil borings are included in Appendix B.

All down-hole soil sampling equipment were decontaminated prior to and following use by washing in a Liquinox solution, followed by tap and de-ionized water rinses. Investigation-derived wastes were placed in 55-gallon steel drums, fitted with lids, and placed on site pending laboratory analysis. The collected samples were labeled with the boring number, the sample number (the samples are numbered sequentially with increasing depth from the top for each boring), and the sampling depth. Care was taken throughout to avoid contamination of both the inside and outside of the sample container and its contents.

All collected soil samples were preserved in an ice chest with ice to keep a 4º Centigrade sample preservation temperature until the shipment of samples at the end of each day to a State Certified Hazardous Waste Laboratory, for analysis. US Environmental Protection Agency approved chain-of-custody records were kept to track the possession of samples from the time they were taken in the field until the time they were analyzed.

4.3 LABORATORY ANALYSIS

One groundwater sample and four soil samples from the four borings were delivered to Onsite Environmental, Inc. laboratory for chemical analysis. Onsite Environmental, Inc. is a State of Washington Certified laboratory. The person collecting the soil and groundwater samples initiated Chain-of-Custody documentation.

All soil and groundwater samples were analyzed for gasoline-range total petroleum hydrocarbons as well as benzene, toluene, ethylbenzene, xylenes via Washington Method NWTPH-Gx and EPA Method 8260.

Laboratory results indicated gasoline-range total petroleum hydrocarbons at 43 milligrams per kilogram (mg/kg) in soil sample EB2-15 from 15 feet bgs. Benzene was detected at 0.044 mg/kg in sample EB1-20 from 20 feet bgs and 0.15 mg/kg in sample EB2-15 from 15 feet bgs. The Department of Ecology soil Method A Cleanup Level for unrestricted land use for benzene is 0.03 mg/kg and for gasoline-range total petroleum hydrocarbons with benzene present is 30 mg/kg. All other analytical results were either below laboratory method detection limits and/or below Method A Cleanup Levels.

Chain-of-Custody documentation and Laboratory Data Sheets are presented in Appendix C, while a tabulated summary of sample analysis is presented in the following table.

4.4 ANALYTICAL RESULTS

TABLE 1
ANALYTICAL RESULTS - SOIL
NWTPH-Gx/BTEX

SAMPLE ID / BORING # AND DEPTH	NWTPH-GX mg/kg	BENZENE mg/kg	TOLUENE mg/kg	ETHYL BENZENE mg/kg	TOTAL XYLENES mg/kg	MTBE mg/kg
S1-9 (Envitech, 2011)	ND	ND	ND	ND	ND	---
S2-14 (Envitech, 2011)	7400	ND	0.1	4.8	31	---
S3-14 (Envitech, 2011)	6700	ND	0.07	1.7	9.7	---
S4-12 (Envitech, 2011)	ND	ND	ND	ND	ND	---
S5-12 (Envitech, 2011)	ND	ND	ND	ND	ND	---
EB1-20	ND	0.044	ND	0.17	0.59	---
EB2-15	43	0.15	ND	0.18	0.22	---
EB3-20	ND	ND	ND	ND	ND	---
EB4-20	ND	ND	ND	ND	0.27	---
Soil Cleanup Levels for MTCA Method A, Unrestricted Land Use (ppm = mg/kg)	30	0.03	6.0	7.0	9.0	0.1

ND : Samples were Non Detect above laboratory practical reporting limits
-- : Samples were not tested

TABLE 2
ANALYTICAL RESULTS - GROUNDWATER
NWTPH-Gx/BTEX

SAMPLE ID / BORING # AND DEPTH	NWTPH-GX ug/L	BENZENE ug/L	TOLUENE ug/L	ETHYL BENZENE ug/L	TOTAL XYLENES ug/L	MTBE ug/L
EB1-Water	ND	ND	6.3	3.0	4.0	---
Soil Cleanup Levels for MTCA Method A, Unrestricted Land Use (ppm = mg/kg)	800	5	1,000	700	1,000	20

ND : Samples were Non Detect above laboratory practical reporting limits
MDL refers to Method Detection Limits (see laboratory analytical results in the Appendix)

-- : Samples were not tested

.

5.0 FINDINGS AND RESULTS

5.1 SUBSURFACE CONDITIONS

In general, all four borings cut through the surface asphalt pavement (approximately 4-inch thick) and intersected sand and gravel fill to approximately 2 feet bgs. From 2 feet to approximately 20 feet bgs, we encountered dense to very dense sandy silt and silty sand with rounded gravel interpreted as glacial till. Boring EB1 encountered till from approximately 15 feet down to approximately 25 feet bgs. At approximately 25 feet bgs, EB1 encountered medium sand with a trace silt. The sand was underlain by till again at about 30 feet. Groundwater was encountered between 25 and 30 feet bgs. Upon completion of the borings and tests, Holocene Drilling, Inc. backfilled the soil borings with hydrated granular bentonite and patched the surface hole opening with concrete.

5.2 ANALYTICAL RESULTS OF SOIL/GROUNDWATER SAMPLES

The analytical results for soil and groundwater samples are summarized in Table 1 and Table 2. The results of ENCON's subsurface investigation are summarized as follows:

- A total of four soil samples and one groundwater sample were sent to the laboratory for analysis.
- Laboratory results indicated gasoline-range total petroleum hydrocarbons at 43 milligrams per kilogram (mg/kg) and benzene at 0.15 mg/kg in soil sample EB2-15 from 15 feet bgs just south of the former UST excavation area. The Department of Ecology soil Method A Cleanup Level for unrestricted land use for benzene is 0.03 mg/kg and for gasoline-range total petroleum hydrocarbons with benzene present is 100 mg/kg. Benzene was also detected in sample EB1- 20 at 20 feet bgs at 0.044 mg/kg.
- Groundwater was encountered in boring EB1 at approximately 25 to 30 feet bgs.
- All other analytical results were either below laboratory method detection limits and/or below Method A Cleanup Levels.

- The analytical results are given in Appendix C of this report.

6.0 RECOMMENDATIONS AND OPINIONS

The objective of this subsurface investigation was to investigate the subsurface soil and groundwater conditions in the area of the former underground storage tanks (USTs) and the dispenser islands near the southeast corner of the site. Results indicate residual gasoline-range total petroleum hydrocarbons and benzene at levels above Method A Cleanup Levels for unrestricted land use remain in the area of the eastern part of the former UST excavation. Based on these results, it appears that gasoline contamination extends to approximately 25 feet bgs in the eastern part of the former UST excavation and at approximately 15 to 20 feet bgs for approximately 20 to the south of the former UST excavation.

Based on these findings, ENCON estimates that approximately 400 cubic yards of soil contaminated with petroleum hydrocarbon and fuel VOCs above Method A Cleanup Levels for unrestricted land use remain in the former gasoline station area of the Subject Site. However, this investigation did not indicate groundwater contamination above cleanup levels in the area of the former UST excavation. Because groundwater is not contaminated above Method A Cleanup Levels, Site-specific cleanup levels can be established for the remaining contaminants using the Method B approach. Once site-specific cleanup levels are established, remedial options may be explored, if necessary.

Soil Cleanup Levels for Unrestricted Land Use Table 740-1 (WAC 173-340-720, 740 and 745), Basis for Model Toxic Control Act (MTCA) Method A, Unrestricted Land Use Soil Value and Table 720-1 Method A Cleanup Levels for Groundwater from MTCA Cleanup Regulation Chapter 173-340 WAC are as follows.

https://fortress.wa.gov/ecy/clarc/FocusSheets/Method%20A%20Notes%20Soil%20Unrestricted.pdf
https://fortress.wa.gov/ecy/clarc/FocusSheets/Table%20720-1.pdf

	Soil Cleanup Levels for MTCA Method A, Unrestricted Land Use (ppm = mg/kg)	Groundwater Cleanup Levels for MTCA Method A (ug/L)
Gasoline with benzene	30	800
Gasoline without benzene	100	1000
Diesel	2000	500
Heavy Oil	2000	500
Benzene	0.03	5
Toluene	6	1000
Ethylbenzene	7	700
Xylene	9	1000
MTBE	0.1	20
PCE	0.05	5
TCE	0.03	5
VC		0.2
1,1,1-TCA	2	200

The objective of this subsurface investigation was to further delineate the lateral and vertical extent of contamination identified by Envitech's subsurface investigation in 2011. Investigative results indicate a zone of soil impacted with gasoline-range total petroleum hydrocarbons exists at about 400 tons.

Based on the results of this investigation, the gasoline impacts to the subsurface are the result of historical gasoline station operations at the property. The absence of volatile gasoline components such as benzene is consistent with an old release such as would be expected given the site history.

The Washington Department of Ecology Model Toxics Control Act (MTCA) provides three methods of determining cleanup levels for contaminated sites. Method A is commonly used for relatively less complex sites with relatively few contaminants. This method provides tables of cleanup values for most common contaminants and is commonly used for gasoline station sites. Method C is reserved for industrial properties. Method B in the universal method and provides for site-specific cleanup levels based on site and contaminant characteristics. In ENCON's experience,

calculated Method B cleanup levels are not significantly higher for gasoline contaminated sites in which benzene is present, especially in groundwater. However, sites such as the subject site in which benzene and other volatile components are not present, Method B may provide a substantially higher cleanup level for total petroleum hydrocarbons.

ENCON recommends excavation of hydrocarbon-contaminated soil above cleanup levels. We estimate the total volume of soil to be excavated would not exceed 300 cubic yards. The excavated soil should be transported to a landfill licensed to accept gasoline contaminated soil, or to a facility for thermal remediation. Confirmation soil samples should be collected from the final limits of the excavation for laboratory analysis to document soil conditions prior to backfilling the excavation with clean imported fill, compacting the fill, and re-surfacing the site.

The proposed excavation area is southeastern portion of the parking lot within the Property, with surface area of 30' x 30' with 10' depth, i.e., 300 cubic yard or 400 tons of soil. This is based on the results of Envitech's and ENCON's soil sample results. Horizontal extent of contamination to the east has not been delineated, but any potential excavation is constrained by the street a short distance away to the east.

Since no indication of significant groundwater contamination was identified, MTCA Method B is likely prudent in calculating a higher site-specific cleanup level for the soil concentrations, which may results in reduce the amount of soil that needs to be excavated.

As the contamination in the subsurface remains at the site, it may pose an unacceptable risk under certain site development activities such as site grading, excavation, or the installation of water wells. If soil excavation is deemed impractical due to current site conditions and business operation or not cost-effective for the owner/operators of the Property, the Department of Ecology may consider issuing a low risk-based closure under certain institutional condition(s) due to the existing levels of petroleum hydrocarbon concentration(s).

Institutional controls are legal mechanisms that impose some restriction on land use to render actual and potential human exposure pathways incomplete. They can also obligate the facility owner to conduct certain activities to maintain protectiveness. These restrictions may include zoning restrictions, structure-use restrictions, excavation restrictions, land-use restrictions and natural resource-use (e.g., groundwater) restrictions. Depending on site-specific circumstances, institutional controls may be the only practical mechanism to afford an adequate level of long-term protection of human health by, for instance, eliminating pathways to contaminants.

Environmental covenants are enforceable agreements to be recorded with the property deed and run with the land in perpetuity, or until the conditions requiring the environmental covenant is resolved. The environmental covenant binds the owner of the land, all successors, and any persons using the land to comply with the use restrictions listed in the covenant to maintain the required level of protection.

The environmental covenant provides the regulatory agency with an enforceable mechanism to ensure that institutional controls that are part of environmental remediation projects are properly implemented and maintained, so that implemented remedies continue to be protective of human health and the environment.

If soil vapor concentration and human health risk assessment is conducted to show moderate risk to the building occupants, Engineering Controls can be considered to further reduce the risk, such as the following:

> Install Barrier to Indoor Migration: Installation of an impermeable vapor barrier can eliminate the migration pathway from the subsurface to indoor air, thereby mitigating the threat of subsurface migration of residual petroleum hydrocarbon vapors through the building slab and into the indoor air.
> Subsurface Depressurization: Passive/active depressurization can be used to lower the vapor pressure under the existing building slab and create an alternative pathway for vapor migration (i.e. other than through the slab and into the indoor air space. This is accomplished by installing vertical vapor collection piping at several locations within the impacted tenant space(s).
> Vapor Traps for Floor Drains: An open floor drain may act as a preferred migration pathway for subsurface vapor migration into the indoor air space. All piping that extends from the tenant space interior into the subsurface should be fitted with a water trap device to prevent direct air to air contact between the subsurface piping and in the interior of the tenant space.

Implementation of any or all of the above Engineering Controls may require laboratory analysis, waste containment and disposal, and/or permitting. Implementation of any Engineering Control may require confirmatory indoor air sampling and ongoing maintenance to ensure proper performance.

7.0 REFERENCES

Reference sources for site-specific information, hydro-geologic setting, technical data, historical research data, environmental reports and other records used are identified throughout this Report in corresponding sections. Any additional reference sources not cited in the preceding sections in this report are disclosed in this section.

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