Phase I Environmental Site Assessment

Reserves B, C, F, & G along Jones Road, Houston, Harris County, Texas 77041

August 27, 2018

PEI Project No.: 201808057



Prepared for:

City of Jersey Village, Mr. Austin Bleess, City Manager 16327 Lakeview Drive Jersey Village, Texas 77040

Prepared by:

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Established in 1993

Nationwide Environmental Site Assessments

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1.0 Executive Summary

1.1 Site Summary

SITE SUMMARY						
Site Element	Comments					
Subject Property Address	Reserves B, C, F, & G along Jones Road, Houston, Harris					
	County, Texas 77041					
Current Use of Subject	Undeveloped land					
Property						
Legal Description	Restricted Reserves "B", "C", "F" and "G" of JONES RD. 290					
	COMMERCIAL RESERVES, John M. Dement Survey, Abstract 228					
Current Owner	Jones Road Holding Ltd					
Current Uses of Adjoining	North: Undeveloped land and a pipeline easement					
Properties:	East: Railroad tracks, a stormwater detention pond and Highway 290					
	including associated frontage roads					
	South: W-Industries, Allied Stone, Bar Stock Specialties, TLC Trucking					
	and Contracting, Industrial Chemical, Weldfit and undeveloped land					
	West: Powertherm Company, Pro Star Metal Buildings and Star					
	Construction Services					
Site Reconnaissance Date	August 24, 2018					
Physical Setting						
Topography	Elevation: Approximately 115-116 feet above mean sea level (msl)					
	General Area Topographic Downgradient: East					
Groundwater Flow Direction	Southeast					
	(See Section 5.3 for more information)					
Depth to Groundwater	Approximately 10 to 15 feet below ground surface (bgs)					
Sub-Surface Geology	Lissie Formation (QI)					
Underlying Aquifer(s)	Gulf Coast Aquifer					
Near Surface Soils	Ad - Addicks loam and Cd - Clodine fine sandy loam, 0 to 1 percent					
	slopes					

Historical Use Subject Property							
Year Range	Property Use(s)	Aerial Photos	Topo Maps	Fire Insurance Maps	Street Directories	Interviews	Regulatory Files / Prior Reports
1904s - Late-1960s	Single-family residential property and undeveloped land	*	•				
Late-1960s - 2018	Vacant land and undeveloped land	>	~			>	

Historical Use Adjoining Properties					
Direction Historical Use Description					
North Adjoining Property	Undeveloped land				

Historical Use Adjoining Properties						
Direction	Historical Use Description					
East Adjoining Property	Railroad tracks, stormwater detention pond, Highway 290 including					
	associated frontage roads (formerly Houston and Hempstead Road),					
	single-family residential property and undeveloped land					
South Adjoining Property	Manufacturing and fabrication facilities, trucking and construction serv					
	yards, chemical processing facility, construction contractors, commercial					
	warehouse property and undeveloped land					
West Adjoining Property	Construction contractor staging facility, commercial sales warehouse					
	property, metal building construction staging facility, dog kennels,					
	manufacturing facilities, single-family residential property and					
	undeveloped land					

1.2 Project Summary

ASTM Standard Considerations						
Report Section	No Further Action	REC	CREC	HREC	Other Environmental Considerations	Suggested Action
1.0 Current Use of Subject Property	*					
1.0 Current Use of Adjoining Properties	*					
4.0 User Provided Information	*					
5.1 Standard Environmental Record Sources	*					
5.4.1 Historical Information on Subject Property	*					
5.4.3 Historical Information on Adjoining Properties	*					
6.0 Site Reconnaissance 7.0 Interviews	*					

1.2.1 Data Gap Summary

A data gap is a lack of or inability to obtain information required by ASTM Practice E1527-13 despite good faith efforts by the environmental professional to gather such information. Data gaps may result from incompleteness in any of the activities required by this practice, including, but not limited to site reconnaissance (for example, an inability to conduct the site visit), and interviews (for example, an inability to interview the key site manager, regulatory officials, etc.).

The following table summarizes general areas of the report that may encounter data gaps during the assessment process.

Report Element	Report Section	Data Gap	Description of Data Gap	Significant
User Responsibilities				
Completion of User	4.1	No		
Questionnaire				
Land Title / Deed Records	5.4.1.4	No		
Regulatory Agency Records	;			
Standard Federal, State,	5.1	No		
Tribal and Local Records				
Review				
Additional Federal, State,	5.2	No		
Tribal and Local Records				
Review				
Historical Sources				
Aerial Photographs	5.4.1.1	No		
Fire Insurance Rate Maps	5.4.1.2	N/A		
Property Tax Records	5.4.1.3	No		
Land Title Records	5.4.1.4	No		
Topographic Maps	5.4.1.5	No		
Street Directories	5.4.1.6	No		
Other Historical Records	5.4.1.7	No		
Historical Use of Subject	5.4.2	No		
Property				
Historical Use of Adjoining	5.4.3	No		
Properties				
Site Reconnaissance				
Observations of Subject	6.0	No		
Property				
Observation of Surrounding	6.0	No		
Properties				
Interviews		•		
Current Owner	7.1	Yes	No property owner	No
Surrent Switch	/	100	information provided.	
Key Property Manager	7.1	No	The state of the s	
Occupant(s)	7.1	N/A		
Past Owners / Managers /	7.1	N/A		
Occupants				
Adjoining Property Owners /	7.1	N/A		
Occupants				
State / Local Health/	7.2	No		
Environmental Department				
Local Fire Department	7.2	No		
Local Building Permit /	7.2	No		
Inspection Department				<u> </u>

Report Element	Report Section	Data Gap	Description of Data Gap	Significant
Local Planning / Zoning	7.2	No		
Department				
Local Water Utility Company	7.2	N/A		

1.3 Findings and Opinions

Summary of Critical Identified Sites

The south adjoining property, addressed as 11714 Charles Road under the name Former Hubco Paving Facility, is a registered AST facility, a registered UST facility and a RDR site.

- A 10,000 gallon UST was reported to have been installed at this facility prior to 1981 and was permanently filled in place in December 1996.
- Two 6,000 gallon diesel ASTs, a 6,200 gallon diesel AST and a 10,000 gallon diesel AST were installed at this facility in August 1997 and were removed from service in March 2016.
- According to information received from the TCEQ, release determination activities conducted at this facility in February 2017 found no indications of a release.

Phase Engineering, Inc. has the opinion that, based on lack of reported releases from release determination activities, the subject property does not appear to have been impacted by this facility.

The south adjoining property, addressed as 11722 Charles Road under the name Industrial Chemical and Scientific Company, is a RCRA generator of hazardous wastes and an IHW registration and reporting facility. There are no RCRA violations on file for this facility with the Environmental Protection Agency (EPA). This facility has an IHW status of "Inactive" and is not undergoing corrective action. Waste Management Units (WMUs) listed for this facility consist of a container storage area with a berm. Generated wastes listed at this facility include organic liquids, paint thinner or petroleum distillates, spent acids without metals, spent caustic, waste halogenated solvent, non-halogenated solvent and lab packs of old chemicals. A complete list of wastes generated at this facility is located in the appendix. Phase Engineering, Inc. has the opinion that, based on lack of reported releases, the subject property does not appear to have been impacted by this facility.

The southeast adjoining property, addressed as 11500 Charles Road under the names Dresser-Rand, Dresser-Rand Power Turbo Products Division and Turbo Products Division-Duplicate Of 34094, is a RCRA generator of hazardous wastes and an IHW registration and reporting facility. There are no RCRA violations on file for this facility with the Environmental Protection Agency (EPA). This facility has an IHW status of "Inactive" and is not undergoing corrective action. Waste Management Units (WMUs) listed for this facility consist of an aboveground storage tank. No generated wastes are currently listed at this facility. Phase Engineering, Inc. has the opinion that, based on lack of reported releases, the subject property does not appear to have been impacted by this facility.

Summary of Critical Identified Sites

The south adjoining property, addressed as 11502 Charles Road under the names Guardsman Products, Inc., Cytex Industries-Houston and Former Cytex Industries Site, is a RCRA generator of hazardous wastes, an IHW registration and reporting facility, a LPST site and a VCP site.

- There are no RCRA violations on file for this facility with the Environmental Protection Agency (EPA).
- This facility has an IHW status of "Inactive" and is not undergoing corrective action. Waste
 Management Units (WMUs) listed for this facility consist of an aboveground 2,000 gallon
 storage tank and three 300 gallon totes. No generated wastes are currently listed at this facility.
 Wastes previously generated at this facility included mixed paint solvents and rinse water with
 mixed paint solvents.
- This facility is reported to have operated as paint, coating and plastics manufacturing facilities since the 1970s. Releases were noted at this facility from incidental spills during delivery and a leaking in-ground pipe chase leading between a tank farm and manufacturing areas. Chemicals of concern identified from releases included benzene, toluene, ethyl-benzene and xylenes (BTEX).
- This facility applied to the VCP in May 2012 and was accepted in September 2012. This facility received LPST closure and final VCP completion status in December 2016. A restrictive covenant was imposed prohibiting use of and exposure to groundwater within a limited area at this facility without prior written approval from the TCEQ. The closest groundwater monitoring wells to the subject property were established at the northwest portion of this facility (MW-7 and MW-12) showed no impact from chemicals of concern at concentrations above regulatory action limits. Elevated concentrations of arsenic were identified in soil and groundwater throughout this facility during sub-surface investigation activities. The elevated concentrations of arsenic are believed to be naturally occurring.

Phase Engineering, Inc. has the opinion that, based on the limited extent of impact, LPST closure and VCP completion status, the subject property does not appear to have been impacted by this facility.

The property located approximately 0.10 mile northeast of the subject property, addressed as 17342 Northwest Freeway under the names Super K Food Store and Stop No Go 2623, is a registered UST facility and a LPST site.

- Two 8,000 gallon gasoline USTs and a 12,000 gallon diesel UST were reported to have been installed at this facility prior to 1981 and were removed from the ground in March 2003. A 20,000 gallon UST with 14,000 gallon and 6,000 gallon compartments containing gasoline was installed at this facility in June 2003 and is currently in use.
- A petroleum product release to soil and groundwater was identified at this facility at the time of UST removal in 2003. This facility received LPST closure in April 2005. Monitoring wells installed at the south and west ends of this facility (MW-2 and MW-4) showed no impact to groundwater from petroleum products at concentrations above regulatory action limits. Historical documentation indicates that operational areas at this facility were located more than 375 feet from the boundary of the subject property.

Historical documentation indicates that operational areas at this facility were located more than 375 feet from the boundary of the subject property. Phase Engineering, Inc. has the opinion that, based on distance, LPST closure and limited extent of impact, the subject property does not appear to have been impacted by this facility.

Summary of Critical Identified Sites

The southwest adjoining property, addressed as 11800 Charles Road under the names Vetco Gray, Fairview Gardens Developments and Fairview Gardens Developments WWTP, is a RCRA generator of hazardous wastes, an IHW registration and reporting facility and an IHW corrective action facility.

- The Environmental Protection Agency (EPA) noted non-compliance violations of the Clean Water Act (CWA) at this facility from July to September 2015, from October to December 2016 and from January to March 2018 and noted significant non-compliance violations from January to June 2017. Violations were listed for discharges of stormwater from this facility in non-compliance with regulations controlling dissolved oxygen content, total suspended solids and pH.
- This facility has an IHW status of "Inactive." Waste Management Units (WMUs) listed for this
 facility consist of a roll off box, a barrel storage area, a container storage area, and a roll off
 container
- Wastes generated at this facility include Samsco water, Samsco sludge, used solvent, paints,
 Mart washer water, Mart washer sludge, grinder filings, used shot peening and glass bead
 blasting media, plant trash, used oil, Instapak component B, sodium hydroxide solution,
 computer equipment, used absorbents and out of date materials. A complete list of wastes
 generated at this facility is located in the appendix.
- A historical discharge of sump water from a truck loading area at this facility was identified by a
 Phase I ESA in 2006. A subsequent Phase II ESA found no impact from chemicals of concern
 aside from elevated concentrations of lead in soil. Concentrations of lead in soil were
 determined to be protective from leaching to groundwater. This facility conducted corrective
 action from August 2011 to November 2011 in the form of an application for final closure of the
 historical release.

Phase Engineering, Inc. has the opinion that, based on completion of IHW corrective action and the limited extent of reported releases, the subject property does not appear to have been impacted by this facility.

The property located approximately 0.12 mile northwest of the subject property, addressed as 7700 Wright Road under the name Sutton Coating Services, Inc., is a RCRA generator of hazardous wastes, an IHW registration and reporting facility and a registered AST facility.

- RCRA compliance violations were noted at this facility by the Environmental Protection Agency (EPA) during the period of October to December 2015.
- This facility has an IHW status of "Inactive" and is not undergoing corrective action. No Waste
 Management Units (WMUs) are currently listed at this facility. Generated wastes listed for this
 facility include spent solvents, thinners, coatings, resins and paints. A complete list of wastes
 generated at this facility is located in the appendix.
- A compliance investigation was conducted at this facility by the TCEQ in July 2015 and a
 compliance investigation file review was conducted in February 2016. The July 2015
 investigation identified a violation for failure to classify spent sandblasting waste generated at
 this facility. No active violations are currently on file for this facility.
- A 2,000 gallon diesel AST was installed at this facility prior to 1991 and is currently in use. The AST is not listed as leaking with the TCEQ.

Phase Engineering, Inc. has the opinion that, based on lack of reported releases, the subject property does not appear to have been impacted by this facility.

Summary of Critical Identified Sites

The east adjoining property, addressed as 17138 Highway 290 under the name U.S. Rentals, Inc., is a registered UST facility and a LPST site. A 5,000 gallon gasoline UST, a 5,000 gallon diesel UST and a 1,500 gallon used oil UST were reported to have been installed at this facility prior to 1981 and were removed from the ground in March 1994. A petroleum product release was identified in tank pit soils at the time of UST removal. No groundwater impact was reported in association with the release. This facility received LPST closure in September 1994. Phase Engineering, Inc. has the opinion that, based on LPST closure and the limited extent of impact, the subject property does not appear to have been impacted by this facility.

None of the remaining sites listed on the database are the subject property or an adjoining property. There is no indication that the sites identified in the ASTM Standard Environmental Record Sources search have had or will have an environmental impact to the subject property. Phase Engineering, Inc. has the opinion that, based on distance, direction, status or other justifications, it does not appear the subject property has been impacted from these remaining facilities.

Summary of Environmental Concerns Identified During Historical and Other Records Review

The Texas Railroad Commission (RRC) map shows a dry hole well surface location at the south adjoining property. This well site was permitted in 1999, 2000 and 2001. Vertical and lateral impact to the subsurface soils and / or groundwater can occur due to drilling operations, mud pit operations and closure, and production operations including excess surface spillage or equipment failure at wells. It is the responsibility of the operator to maintain and operate the well and associated equipment in accordance with all applicable federal, state and local regulations. No oil / gas exploration related surface features such as mud / reserve pits, tank batteries, oil / gas well pads or surface salt-scarring were identified at the subject property or the adjoining properties from historical aerial photographs or topographic maps. Phase Engineering, Inc. has the opinion that, based on the lack of identifiable oil / gas exploration related features from historical documentation, the subject property does not appear to have been impacted by nearby oil / gas exploration activities.

The Texas Railroad Commission (RRC) map shows four abandoned crude oil pipelines traversing the southwest portion of the subject property and two crude oil pipelines traversing the north portion of the subject property. Historical aerial photographs and topographic maps show indications of pipeline easements at the location of the mapped pipelines. A survey, plat map and title commitment provided to Phase Engineering, Inc. by the client indicate the presence of the pipeline easements. Easements for the pipelines were observed at the location of the mapped pipelines during the site visit. See Site Reconnaissance Findings / Opinions in Section 8.3 for further information.

Historical aerial photographs and topographic maps indicate that railroad tracks have been located along the northeast boundary of the subject property from the 1910s to the 2010s. See Site Reconnaissance Findings / Opinions in Section 8.3 for further information.

Historical street directories and aerial photographs indicate the following historical uses of adjoining properties which are managed as registered environmental regulatory agency facilities:

- The south adjoining property, addressed as 11722 Charles Road, was occupied by a chemical processing facility from the early-1980s to the mid-2000s.
- The south adjoining properties, addressed as 11500, 11502 and 11800 Charles Road, were occupied by manufacturing and fabrication facilities from the mid-1970s to the 2010s.

See Regulatory Agency Findings / Opinions in Section 8.1 for further information.

Summary of Environmental Concerns Identified During Historical and Other Records Review

Historical street directories indicate the following historical uses of potential environmental concern at the adjoining properties:

- The west adjoining property, addressed as 7420 Wright Road, was occupied by a manufacturing facility from the mid-2000s to the 2010s.
- The west adjoining property, addressed as 7510 Wright Road, was occupied by a manufacturing facility during the early-2010s.
- The south adjoining property, addressed as 11714 Charles Road, was occupied by manufacturing companies from the mid-1980s to the early-1990s.

Manufacturing and fabrication facilities are known to store, use and dispose of hazardous substances and petroleum products possibly including degreaser solvents, paints, paint thinners, cutting fluid, oil, hydraulic oil, lubricants, gasoline and diesel. No evidence of impact to the subject property was identified in association with these facilities from historical documentation, regulatory agency records or other sources. Phase Engineering, Inc. has the opinion that the subject property does not appear to have been impacted by these historical uses of the adjoining properties.

Historical street directories indicate the following potential concerns associated with historical uses of the adjoining properties which were observed at the time of the site visit:

- The south adjoining property, addressed as 11710 Charles Road, was occupied by manufacturing facilities from the early-1980s to the 1990s.
- The south adjoining property, addressed as 11714 Charles Road, was occupied by a construction service staging facility from the early-1980s to the 2010s.

See Site Reconnaissance Findings / Opinions in Section 8.3 for further information.

The Texas Water Development Board (TWDB) map shows four plugged groundwater monitoring wells in the right-of-way of Highway 290 to the east of the subject property. The wells are addressed at 17504 Highway 290 and are believed to be mis-plotted at their currently displayed location. The wells are associated with a LPST site located at a significant distance to the north of the subject property. Phase Engineering, Inc. has the opinion that, based on distance from relevant operational areas, the subject property does not appear to have been impacted by conditions associated with the wells.

The Texas Water Development Board (TWDB) map shows twelve plugged groundwater monitoring wells at the south adjoining property. The wells are addressed at 11502 Charles Street, were plugged in January 2017 and are associated with prior VCP related investigation activities. See Regulatory Agency Findings / Opinions in Section 8.1 for further information.

The Texas Water Development Board (TWDB) map shows three test wells and seven environmental soil boring wells at the west adjoining property, addressed as 7510, 7518, 7522, 7526 and 7602 Wright Road. The wells were completed and plugged in March 2018. No information is available to determine the purpose of the investigation associated with the wells or the results of that investigation. No release was reported in association with the wells. Phase Engineering, Inc. has the opinion that, based on lack of reported releases, the subject property does not appear to have been impacted by conditions associated with the wells.

Summary of Critical Observed Areas of Environmental Concern

The following facilities of potential environmental concern were observed at adjoining properties at the time of the site visit:

- The south adjoining property, addressed 11710 Charles Road was occupied by a manufacturing facility.
- The south adjoining property, addressed as 11714 Charles Road, was occupied by a trucking and construction service staging yard.
- The west adjoining property, addressed as 7438 Wright Road, was occupied by a metal building fabrication facility.
- The west adjoining property, addressed as 7420 Wright Road, was occupied by a manufacturing facility.

Manufacturing, fabrication and automotive and equipment maintenance facilities are known to store, use and dispose of hazardous substances and petroleum products possibly including degreaser solvents, paints, paint thinners, cutting fluid, oil, hydraulic oil, lubricants, gasoline and diesel. No indications of a release were identified in association with these facilities from observed conditions or historical and regulatory agency documentation reviewed. Phase Engineering, Inc. has the opinion that the subject property does not appear to have been impacted by these facilities.

The following activities were observed at adjoining properties which are being managed as registered environmental regulatory agency facilities:

- The southeast adjoining properties at 11500 and 11502 Charles Road were occupied by manufacturing facilities.
- The southwest adjoining property, addressed as 11800 Charles Road, was occupied by a manufacturing facility.
- The south adjoining property, addressed as 11722 Charles Road, was occupied by a chemical processing facility.

See Regulatory Agency Findings / Opinions in Section 8.1 for further information.

Railroad tracks were observed located along the northeast boundary of the subject property. No indications of a release were identified in association with the railroad tracks from observed conditions or historical and regulatory agency documentation reviewed. Phase Engineering, Inc. has the opinion that the subject property does not appear to have been impacted by the railroad tracks.

Pipeline easements were observed traversing the subject property and the north property boundary. No indications of a release were identified in association with the pipelines from observed conditions or historical and regulatory agency documentation reviewed. Phase Engineering, Inc. has the opinion that the subject property does not appear to have been impacted by the pipelines.

Totes and drums of undetermined contents were observed located at the southeast adjoining properties. No indications of a release were identified in association with the totes and drums. Phase Engineering, Inc. has the opinion that the subject property does not appear to have been impacted by the totes and drums.

Summary of Environmental Concerns Noted During Interviews / Inquiries

The key property manager indicated that pipeline easements are located at the subject property and adjoining properties. See Site Reconnaissance Findings / Opinions in Section 8.3 for further information.

1.4 Conclusions

Phase Engineering, Inc. has performed a Phase I Environmental Site Assessment in conformance with

the scope and limitations of ASTM Practice E 1527-13 of subject property and more fully described within the report. Any exception to, or deletions from, this practice are described in Section 2.0 of the report.

RECs

Recognized Environmental Conditions

Recognized environmental condition is defined in ASTM Standard E 1527-13 as "the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment." Phase Engineering, Inc. has considered all migration pathways including soil, groundwater and vapor during evaluation of all identified environmental conditions. This assessment has revealed no evidence of recognized environmental conditions in connection with the property.

CRECs

Controlled Recognized Environmental Conditions

A controlled recognized environmental condition (CREC) is defined in ASTM Standard E 1527-13 as "a recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls." Controlled recognized environmental conditions are recognized environmental conditions. This assessment has revealed no evidence of controlled recognized environmental conditions in connection with the property.

HRECs

Historical Recognized Environmental Conditions

A historical recognized environmental condition (HREC) is defined in ASTM Standard E 1527-13 as "a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls." A historical recognized environmental condition is not a recognized environmental condition. This assessment has revealed no evidence of historical recognized environmental conditions in connection with the property.

De minimis Conditions

De minimis Conditions

De minimis conditions are defined in ASTM Standard E 1527-13 as conditions "that generally do not present a material risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies." De minimis conditions are not recognized environmental conditions. This assessment has revealed no evidence of de minimis conditions in connection with the property.

1.5 Recommendations

Recommendations

The following recommendation is made with respect to the environmental aspects of the subject property:

No further investigation is required to identify a recognized environmental condition.