

Phase I ESA Recommendations Review Memorandum

**S.R. 0001, Group 03S, Section RC3
Roadway Reconstruction Project
Middletown Township, Langhorne and
Langhorne Manor Boroughs
Bucks County, Pennsylvania**

**Prepared For:
Pennsylvania Department of Transportation
Engineering District 6-0**

**Submitted To:
Johnson, Mirmiran & Thompson, Inc.
220 St. Charles Way, Suite 200
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**Submitted: March 7, 2025
Revised: July 14, 2025
N&W #2402TD031, WO #3**



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1.0 INTRODUCTION

Navarro & Wright Consulting Engineers, Inc. (N&W) was retained by Johnson, Mirmiran & Thompson, Inc. (JMT) to perform a review of the Phase I Environmental Site Assessment (ESA) and Phase I ESA Addendum, prepared by Susquehanna Civil, Inc. (SCI), in comparison to the updated Limit of Disturbance (LOD) files for the State Route (S.R.) 0001, Group 03S, Section RC3 Roadway Reconstruction Project. The S.R. 0001, Group 03S, Section RC3 Project is located in Middletown Township, Langhorne and Langhorne Manor Boroughs, Bucks County, Pennsylvania. N&W has completed this review in association with JMT and on behalf of the Pennsylvania Department of Transportation (PennDOT), Engineering District 6-0.

This Memorandum is part of an effort to investigate the updated LOD files in combination with waste sites documented in the Phase I ESA and Phase I ESA Addendum that have the potential to adversely impact the S.R. 0001, Group 03S, Section RC3 Roadway Reconstruction Project. The Memorandum consists of an introduction, project description, background information, and recommendations. The findings from the updated LOD review are provided in Table 1 – Phase I ESA Addendum Waste Site Recommendations Summary. This work product is in compliance with N&W’s overall quality assurance / quality control (QA/QC) process.

2.0 PROJECT DESCRIPTION

The proposed S.R. 0001, Group 03S, Section RC3, Roadway Reconstruction Project is located in Middletown Township, Langhorne and Langhorne Manor Boroughs, Bucks County, Pennsylvania (Figure 1 – Regional Location Map and Figure 2 – Project Location Map are provided in Appendix A). At the time of the Phase I ESA, the project included reconstruction and widening of multiple areas along S.R. 0001 (Lincoln Highway) including the parallel service (frontage) road, from just north of the S.R. 0001 bridge over Business Route 1 (S.R. 2037)/CSX/SEPTA to approximately 0.2 miles north of the Corn Crib Lane (S.R. 2197) bridge over S.R. 0001. According to the Phase I ESA, the project’s Area of Investigation (AOI) included areas of proposed construction including a portion of S.R. 0001 that is approximately 2.6 miles long, a portion of Old Lincoln Highway near Neshaminy High School and the Bucks County Water and Sewer Authority (BCWSA), and small segments of multiple roads that are perpendicular to S.R. 0001 on the northbound and southbound sides of the road.

Excavation depths associated with proposed construction impacts were not provided in the Phase I ESA or Phase I ESA Addendum. It should be noted that the LOD and project specific impacts have been updated since the approval of these documents. The updated LOD is shown on Figure 3 – Limit of Disturbance Map, provided in Appendix A.

3.0 BACKGROUND INFORMATION

The S.R. 0001, Group 03S, Section RC3 Phase I ESA Report, dated October, 2021, was prepared by SCI and identified sixteen (16) potential waste sites with Areas of Concern (AOC) that

required further investigation based on the proposed project engineering available at the time the Report was written. It should be noted that the Pennsylvania Department of Environmental Protection (PA DEP) file review was limited during the Phase I ESA due to the COVID-19 pandemic. Therefore, a Phase I ESA Addendum, dated September, 2022, was prepared by SCI to provide supplemental information from the PA DEP file review. The Phase I ESA and Phase I ESA Addendum identified twenty (20) potential waste sites. Recommendations and project impacts associated with the twenty (20) potential waste sites provided in the SCI Reports are provided in Table 1 - Phase I ESA Recommendations Review Summary.

The project LOD has been updated since the time of the Phase I ESA and Phase I ESA Addendum. At the direction of PennDOT, N&W was tasked with performing a review of recommendations for twenty (20) potential waste sites that have the presence or likely presence of hazardous substances or petroleum products under conditions that indicate an existing release, a past release, or a material threat of a release of hazardous substances or petroleum products into the structures, on to the ground, into the groundwater, or into the surface water of the project study area.

Using the updated LOD provided by JMT, N&W has determined that the project study area has extended beyond the area previously characterized in the Phase I ESA and Phase I ESA Addendum. In order to determine whether the level of study recommended in the Phase I ESA is still valid, N&W has compared specific areas of concern (AOCs) documented in the Phase I ESA and Phase I ESA Addendum with the project impacts of the new LOD.

It should be noted that the Phase I ESA and Phase I ESA Addendum do not provide mapping for the potential waste sites of concern, waste site boundaries, AOCs, or project impacts, nor do they provide individual waste site maps that depict the location of these specific features. The photos obtained from the limited site reconnaissance and the documented interviews are not linked to specific waste sites of concern within the Report. Therefore, the locations of site-specific AOCs have not been verified in contrast with the project specific impacts.

3.1 Additional Findings

An Environmental Covenant (EC) with Activity and Use Limitations (AULs) was identified for WS-20 and was not previously documented in the Phase I ESA or the Phase I ESA Addendum. The EC identified impacts to subsurface soil including concentrations of ethylbenzene and naphthalene above Residential, Used-Aquifer, Medium Specific Concentrations (MSCs) for Organic Regulated Substances in Soil, Soil-to-Groundwater Numeric Values, Statewide Human Health Standards. The EC also identified impacts to groundwater including concentrations of benzene, ethylbenzene, MTBE, and naphthalene above Residential, Used-Aquifer, MSCs for Organic or Inorganic Regulated Substances in Groundwater, Statewide Human Health Standards. The AULs are identified in the EC as a groundwater use limitation and an asphalt cap must be maintained. Recommendations associated with Waste Site 20 are noted below in Table 1. A copy of the Lukoil (Waste Site 20) Environmental Covenant is provided in Appendix B.

Table 1 – Phase I ESA Recommendations Review Summary

Waste Site ID#	Site/Location	Phase I ESA Addendum Potential Concerns	Phase I ESA Addendum Recommendations	Phase I ESA Addendum Project Impacts	Updated LOD Project Impacts	N&W Recommendation
1	1868 Super Highway – Delaware Quarries Inc. Langhorne Stone	None	This site is not considered a REC for the project; no further action is required. - Files for this property are related to air quality as a result of pallet burning on-site. No additional files were available for this property.	A portion of the property is within the AOI although quarry activities are located outside the AOI.	Pavement removal, roadway and shoulder improvements northwest of site along S.R. 0001. Potential ramp A, pavement removal, shoulder, and roadway construction in northeast portion of the project study area.	No further action. Phase I ESA did not identify RECs within anticipated areas of impact.
2	1732 Super Highway – Flooring Doctor	None	This site is not considered a REC for the project; no further action is required. - Although within the AOI, after review of multiple databases, and having no files available from the PADEP, this property has no indications of environmental incidents and is not a concern for the project.	A portion of the property is within the AOI.	Roadway, shoulder, and ramp B construction is anticipated inside the western portion of the project study area along S.R. 0001. Pavement removal, roadway, and shoulder improvements are anticipated along Park Avenue near the southern portion of the project study area.	No information regarding tank closures of former gas station (adjacent to WS-3); Confirm excavation depths; Phase II/III ESA activities may be recommended.
3	1732 Super Highway (Adjacent)/Park Avenue - Former Gas Station	-Historic gas station	This site is not considered a REC for the project; no further action is required at this time. - Although no records regarding tank closures were found during this investigation, it appears that the building was removed in order to realign Park Avenue. Any tanks encountered during construction should have been removed at that time. Additionally, Park Avenue will be shifted south away from the property at 1732 Super Highway and therefore, this property is not a concern for the project.	A portion of the former gas station building is located within the AOI.	Roadway, shoulder, and ramp B construction is anticipated inside the western portion of the project study area along S.R. 0001. Pavement removal, roadway, and shoulder improvements are anticipated along Park Avenue near the southern portion of the project study area.	No information regarding tank closures of former gas station; Confirm excavation depths; Phase II/III ESA activities may be recommended.
4	1215 Super Highway – Our Lady of Grace Cemetery	-PA Archive UST that was closed without a permit. -Petroleum products	This site is not considered a REC for the project; no further action required. - Only a small portion of this site is located within the AOI. The cemetery and its headstones are relatively new and historical documents have no indication of environmental incidents. In addition, impacts to the cemetery property are not proposed, based on the current project design. Therefore, this property is not a concern for the project. - No files were provided for this site to provide any additional information about potential contamination.	The edge of the cemetery property is within the AOI, but the majority of the cemetery is immediately outside the AOI.	Pavement removal, roadway and shoulder improvements are anticipated along S.R. 0001 near the southeast portion of the project study area.	Confirm excavation depths and location of UST. Phase II/III ESA activities may be recommended.

Table 1 – Phase I ESA Recommendations Review Summary

Waste Site ID#	Site/Location	Phase I ESA Addendum Potential Concerns	Phase I ESA Addendum Recommendations	Phase I ESA Addendum Project Impacts	Updated LOD Project Impacts	N&W Recommendation
5	452 S Bellevue Avenue – Picernos Conoco Gas Station (formerly Rollins Enterprises)	-USTs and a LUST on-site. -Current gasoline tanks on-site. -Known soil and groundwater contamination of gasoline. -Cleanup was completed. -Former gas pumps and a service station building located within the AOI. -RCRA-NonGen/NLR site with indications of undefined and ignitable waste present on-site.	This property is considered a REC for the project; no further action is required at this time. - The property has a history of releases and violations; in addition, gas pumps were previously located within the current footprint of the service (frontage) road. - Over the years, the property changed ownership and operation from ExxonMobil to Rollins Enterprises and to present day Picernos Conoco Gas Station. - A history of contamination has occurred on the property during UST reconstruction activities, pipe closures, and tank modifications. - As of October 2021, the facility has passed inspection. - According to the current design plans, within the AOI, there are no anticipated impacts to this property or to the section of the service (frontage) road in this location. - Since there are no current releases or violations at this site and no anticipated impacts to this section of the AOI, a Phase II investigation is not warranted at this time. However, if design plans change and excavation is to occur: waste should be handled using Special Provisions; suspect soil and/or groundwater should be sampled and tested; and soft dig methods should be used in near-surface portions of excavation around this area of the project area.	According to the current design plans, within the AOI, there are no anticipated impacts to this property or to the section of the service (frontage) road in this location.	Roadway and shoulder improvements are anticipated along S.R. 0001 and Bellevue Avenue near the southeastern portion of the project study area.	Confirm excavation depths. Phase II/III ESA activities are recommended.
6	507 S Bellevue Avenue – Foster Mower Services Inc.	- 55-gallon drums containing used waste oil.	- This site is not considered a REC for the project; no further action is required. - Based on the review of available documents and databases, no indication of hazardous waste spills or incidents were identified at this property.	This property is within the AOI.	No impacts are anticipated.	No further action.

Table 1 – Phase I ESA Recommendations Review Summary

Waste Site ID#	Site/Location	Phase I ESA Addendum Potential Concerns	Phase I ESA Addendum Recommendations	Phase I ESA Addendum Project Impacts	Updated LOD Project Impacts	N&W Recommendation
7	734 North Street (approximate) – historic auto repair shop	-Property formerly site of an auto repair shop circa 1950-1965.	- This site is not considered a REC for the project; no further action is required. - Historic aerial photographs indicate that the building used as an auto repair shop was located immediately outside of the AOI. Current project design proposes using North Street to create an access road onto the existing service (frontage) road; impacts beyond existing North Street are not anticipated.	Current project design proposes using North Street to create an access road onto the existing service (frontage) road; impacts beyond existing North Street are not anticipated.	Roadway and shoulder improvements are anticipated north of the project study area for access to North Street.	Confirm excavation depths in the front of the property. Phase II/III ESA activities may be recommended.
8	531 S Bellevue Avenue – Schardinger Residence	-Known leaking tank containing fuel No. 2. -Cleanup was completed.	- This property is considered a REC for the project; no further action is required at this time; however, additional work is required in the event that this property is impacted. - After the file review was completed, no files were provided for this site to provide any additional information about potential contamination. - If structures are to be demolished, oil tanks will have to be removed and an asbestos survey is recommended. Based on the age of the house, an LPB inspection is also recommended.	The property is not located within the AOI but is within 120 feet of the AOI.	Roadway, shoulder, and sidewalk improvements are anticipated south of the project study area for Bellevue Avenue.	No further action.
9	136 Central Avenue – Orleski Residence	- Heating oil tanks and sump pumps are on the property. - Potential for ACMs and LPBs since house has existed since before 1978. - Access to interior of house not available— potential for unknown/unreported concerns. - Potential for tanks, sump pumps, floor drains, etc.	- This property is considered a REC for the project; no further action is required at this time; however, additional work is required in the event that this property is impacted. - If structures are to be demolished, oil tanks will have to be removed and an asbestos survey is recommended. Based on the age of the house, an LPB inspection is also recommended.	This property is located within the AOI with potential impacts to structures proposed.	Roadway, shoulder, and Ramp E construction is anticipated north of the project study area along Central Avenue.	Confirm excavation depths and property impacts. Phase II/III ESA activities may be recommended.

Table 1 – Phase I ESA Recommendations Review Summary

Waste Site ID#	Site/Location	Phase I ESA Addendum Potential Concerns	Phase I ESA Addendum Recommendations	Phase I ESA Addendum Project Impacts	Updated LOD Project Impacts	N&W Recommendation
10	140 Central Avenue – Kerr Residence	- Heating oil tanks and sump pumps are on the property. - Floor drain in basement on concrete floor – potential for contaminants to enter sewer system. - Potential for LPBs since house has existed prior to 1978. - Access to interior of house and other structures not available—potential for unknown/unreported concerns. - Potential for tanks, sump pumps, floor drains, etc.	- This property is considered a REC for the project; no further action is required at this time; however, additional work is required in the event that this property is impacted. - If structures are to be demolished, oil tanks will have to be removed and an asbestos survey is recommended. Based on the age of the house, anv LPB inspection is also recommended.	This property is located within the AOI with potential impacts to structures proposed.	Roadway, shoulder, and Ramp E construction is anticipated within the project study area.	Confirm excavation depths and property impacts. Phase II/III ESA activities may be recommended.
11	141 Central Avenue – Dewan Residence	- A heating oil tank and sump pumps are on the property.	- This property is considered a REC for the project; no further action is required at this time; however, additional work is required in the event that this property is impacted. - If structures are to be demolished, oil tanks will have to be removed and an asbestos survey is recommended.	This property is located within the AOI with potential impacts to structures proposed.	Roadway, shoulder, and Ramp F construction is anticipated within the project study area. Additionally, potential stormwater basin is proposed.	Confirm excavation depths and property impacts. Phase II/III ESA activities may be recommended.
12	142 Central Avenue – Amrhein Residence	- Heating oil tank, a propane tank, and a sump pump are on the property.	- This property is considered a REC for the project; no further action is required at this time; however, additional work is required in the event that this property is impacted. - If structures are to be demolished, oil tanks will have to be removed and an asbestos survey is recommended.	This property is located within the AOI with potential impacts to structures proposed.	Roadway, shoulder, Ramp E, and Ramp F construction is anticipated within the project study area.	Confirm excavation depths and property impacts. Phase II/III ESA activities may be recommended.

Table 1 – Phase I ESA Recommendations Review Summary

Waste Site ID#	Site/Location	Phase I ESA Addendum Potential Concerns	Phase I ESA Addendum Recommendations	Phase I ESA Addendum Project Impacts	Updated LOD Project Impacts	N&W Recommendation
13	143 Central Avenue – Wilcox Residence	- Heating oil tank, a propane tank, and a sump pump are on the property. - Access to interior of house and other structures not available—potential for unknown/ unreported concerns. - Potential for tanks, sump pumps, floor drains, etc.	- This property is considered a REC for the project; no further action is required at this time; however, additional work is required in the event that this property is impacted. - If structures are to be demolished, oil tanks will have to be removed and an asbestos survey is recommended.	This property is located within the AOI with potential impacts to structures proposed.	Roadway, shoulder, and Ramp F construction is anticipated within the project study area. Additionally, a potential stormwater basin is proposed.	Confirm excavation depths and property impacts. Phase II/III ESA activities may be recommended.
14	514 S Pine Street – Einkenkel Residence	- Access to interior of house not available— potential for unknown/ unreported concerns. -Potential for LPBs since house has existed prior to 1978. -Propane tank is on the property. - Potential for tanks, sump pumps, floor drains, etc.	- This property is considered a REC for the project; no further action is required at this time; however, additional work is required in the event that this property is impacted. - If structures are to be demolished, oil tanks will have to be removed and an asbestos survey is recommended. Based on the age of the house, an LPB inspection is also recommended.	This property is located within the AOI with potential impacts to structures proposed.	Roadway, shoulder, Ramp E, and Ramp F construction is anticipated within the project study area.	Confirm excavation depths and property impacts. Phase II/III ESA activities may be recommended.

Table 1 – Phase I ESA Recommendations Review Summary

Waste Site ID#	Site/Location	Phase I ESA Addendum Potential Concerns	Phase I ESA Addendum Recommendations	Phase I ESA Addendum Project Impacts	Updated LOD Project Impacts	N&W Recommendation
15	500 S Bellevue Avenue – Cotler Property	- Access to interior of house and other structures not available—potential for unknown/ unreported concerns. -Potential for LPBs since house has existed prior to 1978. - Potential for tanks, sump pumps, floor drains, etc.	- This property is considered a REC for the project; no further action is required at this time; however, additional work is required in the event that this property is impacted. - If structures are to be demolished, oil tanks will have to be removed and an asbestos survey is recommended. Based on the age of the house, an LPB inspection is also recommended.	This property is located within the AOI with potential impacts to structures proposed.	Shoulder improvements and pavement removal is anticipated in the northwestern portion of the property along S.R. 0001. Pavement improvements are proposed to the northeast of the property along Bellevue Avenue.	Confirm excavation depths and property impacts. Phase II/III ESA activities may be recommended.
16	40 Martin Gross Drive – The Woods School	- None	- This property is not considered a REC for the project; no further action is required. - Although a portion of the property is located within the AOI, after review of multiple databases and a walkthrough of the potentially impacted area, this property has no indications of environmental incidents and is not a concern for the project. Although the PADEP has indicated that files exist for this property, the files concern radiation protection and are not anticipated to pose a hazardous waste concern. - Files were not reviewed for this property. Files available were only for the Radiation program.	A portion of this property is located within the AOI with potential impacts to the property proposed.	Roadway and shoulder improvements are anticipated north of the project study area along S.R. 0001 and along Corn Crib Lane in the western portion of the project study area.	No further action. Phase I ESA did not identify RECs within anticipated areas of impact.
17	2001 Old Lincoln Highway – Neshaminy High School	- Known contamination after tank removals. - Closure reports available. - Most recent tank removal was in 2015, and no contamination resulted.	- This property is not considered a REC for the project; no further action is required at this time. - This site sits at a slightly higher elevation than the southern-most portion of the project AOI. However, because of its location in relation to the AOI, groundwater flowing south would not flow into the AOI. - It is very unlikely that contamination would be found in the project area near the Neshaminy High School, however, as a conservative measure, any suspect soil and/or groundwater encountered during excavation, should be sampled and tested on a case-by-case basis and should be handled using Special Provisions.	This site sits at a slightly higher elevation than the southern-most portion of the project AOI	Roadway and shoulder improvements are anticipated in the southeast of the project study area along Old Lincoln Highway and along school entrance and exit driveways.	Confirm excavation depths and UST locations in relation to the project. Phase II/III ESA activities may be recommended.

Table 1 – Phase I ESA Recommendations Review Summary

Waste Site ID#	Site/Location	Phase I ESA Addendum Potential Concerns	Phase I ESA Addendum Recommendations	Phase I ESA Addendum Project Impacts	Updated LOD Project Impacts	N&W Recommendation
18	123 North Pine Street	- History of contamination from UST releases. - RACR approval documentation available. - EC with AULs on-site	- This property is not considered a REC for the project; no further action is required at this time. - This site is located approximately 0.19 miles north of the AOI. Groundwater generally flows east, not toward the AOI. - The site has been cleaned up and remediated and it is unlikely potential contamination would migrate from the point of origin to the AOI. -Excavation is not proposed at the property. - If design plans change and excavation is proposed in or closer to these areas, this conclusion should be reevaluated.	This site is located approximately 0.19 miles north of the AOI.	Intersection improvements are proposed at E. Maple Avenue and S Pine Street. Impacts are proposed in the southwest corner of the property boundary	Confirm excavation depths and UST locations in relation to the project. Phase II/III ESA activities may be recommended.
19	110 North Pine Street – Texaco 100926	- Three releases on-site that were remediated using HVE techniques. - RACR approval in 2010. - EC with AULs on-site	- This property is not considered a REC for the project; no further action is required at this time. - This site is located approximately 0.19 miles north of the AOI. Groundwater generally flows east, not toward the AOI. - The site has been cleaned up and remediated and it is unlikely potential contamination would migrate from the point of origin to the AOI. -Excavation is not proposed at the property or the other three properties that were listed in the EC (123 North Pine Street, 152 Maple Avenue, and the portion of the Woods School Campus located at Routes 413/213). - If design plans change and excavation is proposed in or closer to these areas, this conclusion should be reevaluated.	This site is located approximately 0.19 miles north of the AOI.	Intersection improvements are proposed at E. Maple Avenue and S Pine Street. Impacts are proposed in the southeast corner of the property boundary	Confirm excavation depths and location of release in relation to the project. Phase II/III ESA activities may be recommended.

Table 1 – Phase I ESA Recommendations Review Summary

Waste Site ID#	Site/Location	Phase I ESA Addendum Potential Concerns	Phase I ESA Addendum Recommendations	Phase I ESA Addendum Project Impacts	Updated LOD Project Impacts	N&W Recommendation
20	152 Maple Street – Lukoil 69709	- At least three releases of gasoline occurred on-site. - Remediation techniques, such as high vacuum extraction, were performed to clean up contamination. - Monitoring wells were installed to determine the extent of the contamination plume. - The EC with AULs was not previously identified in the Phase I ESA or the Phase I ESA Addendum. The EC documented soil and groundwater concentrations that exceeded the applicable Statewide Health Standards. The AULs in the EC include groundwater use limitations and asphalt cap maintained. The EC for Lukoil is provided in Appendix B.	- This property is not considered a REC for the project; no further action is required at this time. - This site is located approximately 0.13 miles north of the AOI. Groundwater flows north, away from the AOI. - The latest groundwater report is from 2003, however, it is unlikely potential contamination would migrate from the point of origin to the AOI. - Excavation is not proposed at the property. - If design plans change and excavation is proposed in or closer to these areas, this conclusion should be reevaluated.	This site is located approximately 0.13 miles north of the AOI.	Intersection improvements are proposed at E. Maple Avenue and S Pine Street. Impacts are proposed in the southeastern portion of the property boundary	Confirm excavation depths and location of release in relation to the project. Phase II/III ESA activities may be recommended. Based on discovery of EC with AULs on-site Phase II/III ESA may be required.

4.0 RECOMMENDATIONS

N&W has reviewed the Phase I ESA and Phase I ESA Addendum Reports in combination with the updated LOD for the S.R. 0001, Group 03S, Section RC3 Roadway Reconstruction Project. Since the time of these environmental due diligence (EDD) reports, the LOD has expanded in several locations. Project impacts related to the updated LOD include pavement, roadway, ramp, and shoulder improvements. Excavation depths associated with these impacts were not available at the time of this review. N&W's revised recommendations associated with specific potential waste sites are provided in Table 1 – Phase I ESA Recommendation Review Summary. As a general note, it is recommended that specific project impacts and excavation depths be confirmed prior to finalization of recommendations for additional action (Phase II or Phase III ESA studies). The Phase I ESA and Phase I ESA Addendum do not provide index maps showing potential waste sites of concern, waste site boundaries, AOCs, or project impacts, nor do they provide individual waste site maps that depict the location of these specific features as required by PennDOT Publication 281. The photos obtained from the limited site reconnaissance and the documented interviews were not linked to specific waste sites of concern within the EDD reports. During this review, N&W was not able to verify the location of site-specific AOCs in relation to project specific impacts. Locating the environmental concerns and project impacts will allow for an appropriate evaluation of risk to the transportation project. Coordination with PennDOT is recommended to determine the reporting requirements to address the updated LOD and Phase I ESA Recommendations.

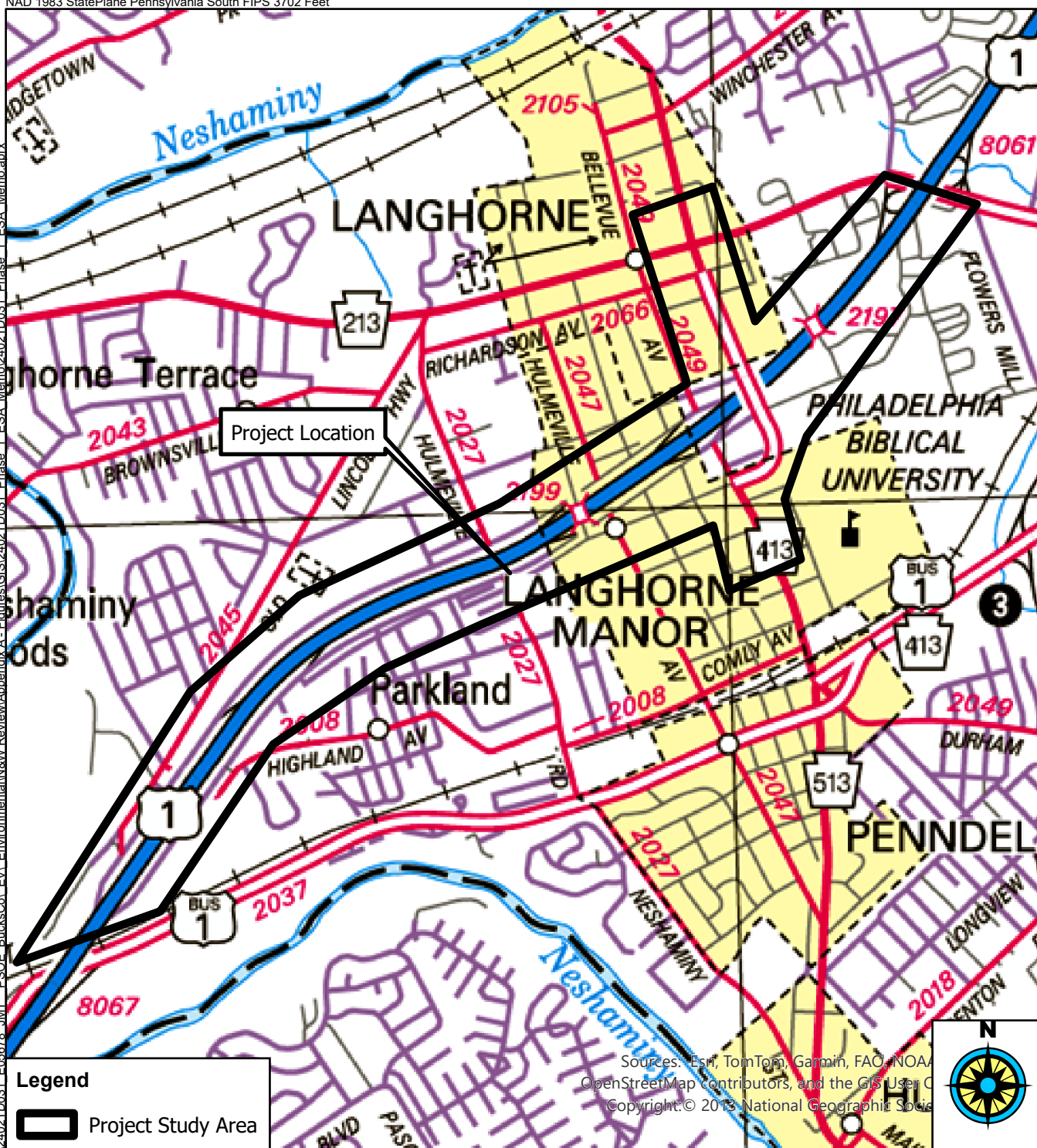
REFERENCES

Pennsylvania Department of Transportation, 2024. Bucks County General Highway Map, Type 10 Map, Bureau of Planning and Research, Geographic Information Division.

APPENDIX A

FIGURES

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Regional Location Map

S.R. 0001, Group 03S, Section RC3
Roadway Reconstruction Project
Middletown Township, Langhorne and Langhorne Manor Boroughs
Bucks County, Pennsylvania

Source: 2024 Pennsylvania Type 10 Map, Bucks County.



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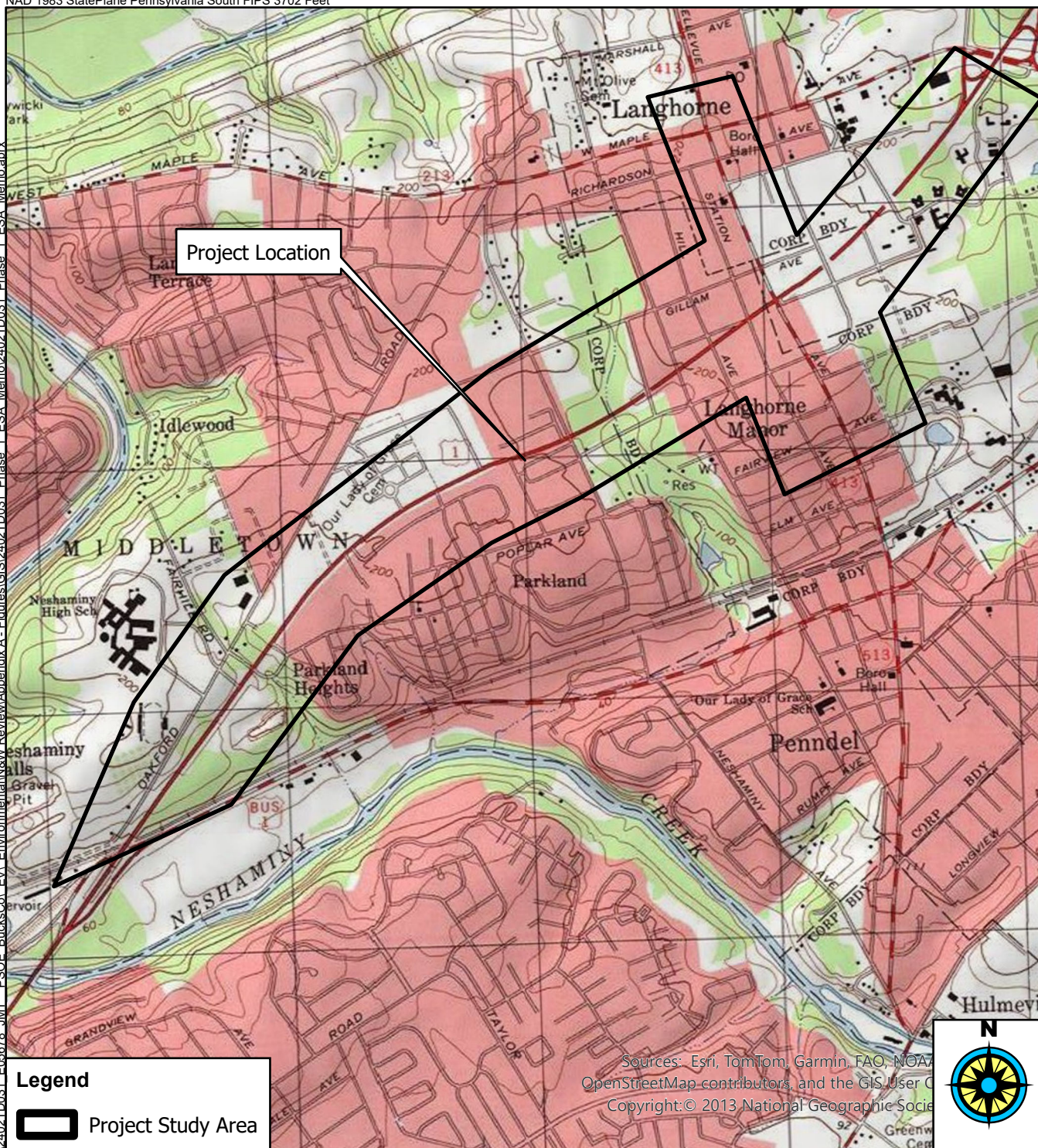
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Date: 3/7/2025

Drawn by: EG

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Legend

 Project Study Area

Project Location Map

S.R. 0001, Group 03S, Section RC3
Roadway Reconstruction Project
Middletown Township, Langhorne and Langhorne Manor Boroughs
Bucks County, Pennsylvania

Source: ESRI 2024, USA Topo Base Layer



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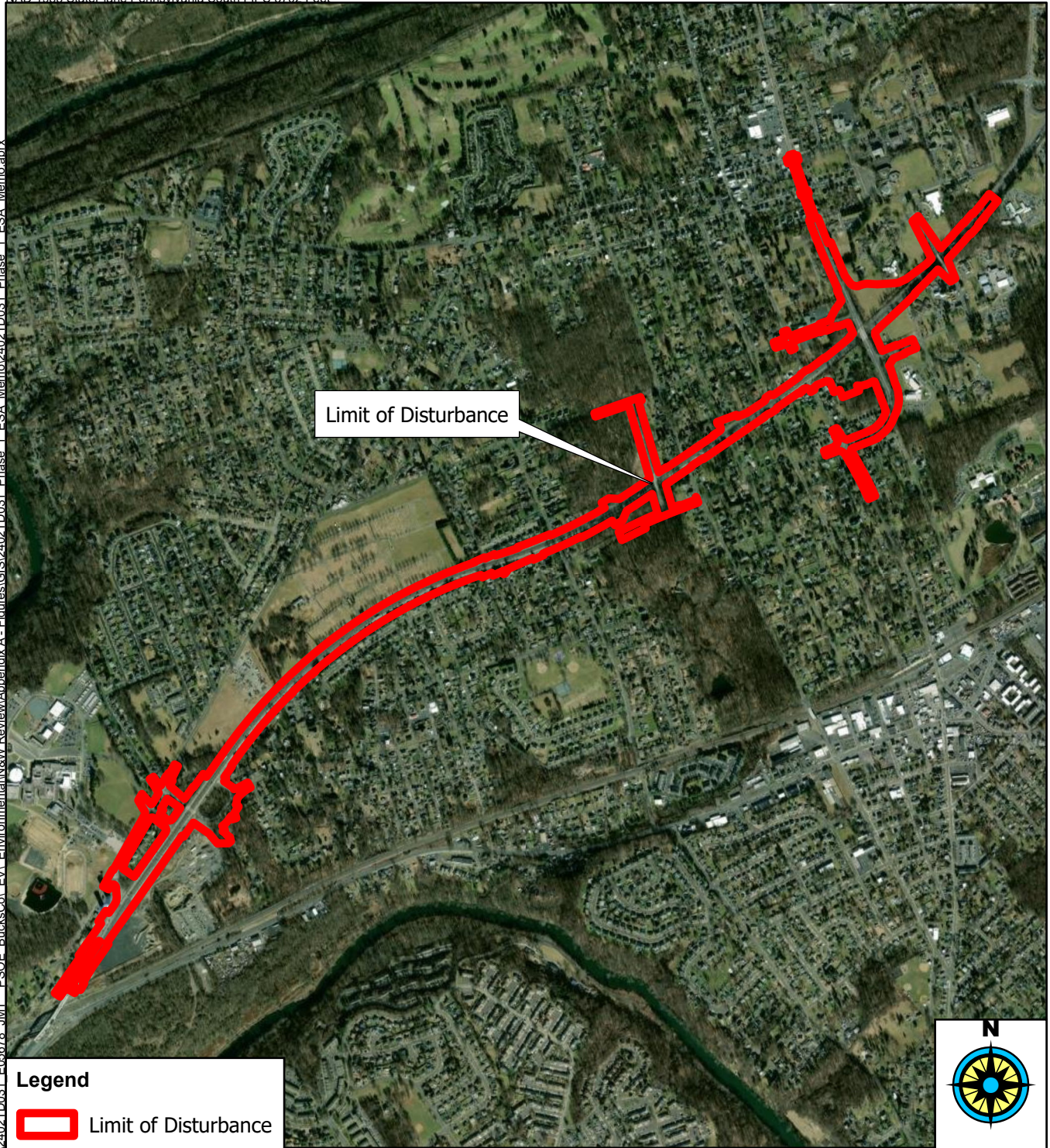
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Date: 3/7/2025

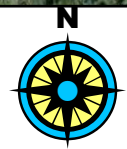
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Legend

 Limit of Disturbance



Limit of Disturbance Map

S.R. 0001, Group 03S, Section RC3
Roadway Reconstruction Project
Middletown Township, Langhorne and Langhorne Manor Boroughs
Bucks County, Pennsylvania

Figure:
3

Scale:
1:20,416

Source: ESRI 2024, World Imagery Base Layer



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Date: 3/7/2025

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APPENDIX B

LUKOIL (WASTE SITE 20) ENVIRONMENTAL COVENANT

Prepared by: Tyree Environmental Corp.
3000 Midlantic Drive, Suite 105
Mount Laurel, NJ 08054

CERTIFIED PROPERTY IDENTIFICATION NUMBERS	
18-004-180-	LANGHORNE BOR
CERTIFIED 11/20/2013 BY SEC	

Return to: Tyree Environmental Corp.
3000 Midlantic Drive, Suite 105
Mount Laurel, NJ 08054
Attn: Tim Norris

Record Return (1st)
American Legal Abstract, LLC

13250 Trevoise Road
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CPN #18-4-180

800-305-7119

ALAPA-2709

The County Parcel Identification No. of the Property is: 18-4-180

GRANTOR: Mr. Edward Reese

PROPERTY ADDRESS: 152 East Maple Avenue, Langhorne, Pennsylvania 19047

ENVIRONMENTAL COVENANT

This Environmental Covenant is executed pursuant to the Pennsylvania Uniform Environmental Covenants Act, Act No. 68 of 2007, 27 Pa. C.S. §§ 6501 – 6517 (UECA). This Environmental Covenant subjects the Property identified in Paragraph 1 to the activity and/or use limitations in this document. As indicated later in this document, this Environmental Covenant has been approved by the Pennsylvania Department of Environmental Protection (Department).

1. **Property affected.** The property affected (Property) by this Environmental Covenant is located in Langhorne Borough, Bucks County.

The postal street address of the Property [if any] is: 152 East Maple Avenue, Langhorne, PA 19047-2835.

The latitude and longitude of the center of the Property affected by this Environmental Covenant is: 40.176343 and -74.917670.

The Property has been known by the following name(s): Lukoil North America LLC #69709, Getty Petroleum Marketing Inc. #69709, Mobil Oil 16-DME

The PADEP Tank Facility ID# is: 09-43615

The DEP Primary Facility ID# is: 583291

A complete description of the Property is attached to this Environmental Covenant as Exhibit A. A map of the Property and Area of Impact is attached to this Environmental Covenant as Exhibit B.

2. **Property Owner / GRANTOR.** Mr. Edward Reese is/are the owner(s) of the Property and the GRANTOR of this Environmental Covenant.

3. **Holder(s) / GRANTEE(S).** The following is/are the GRANTEE(s) and a "holder," as that term is defined in 27 Pa. C.S. § 6502, of this Environmental Covenant: Lukoil North America LLC, 302 Harper Drive, Suite 303, Moorestown, NJ 08057.

4. **Description of Contamination & Remedy.** The current impact to the subsurface soil associated with the Property includes absorbed-phase concentrations of ethylbenzene and naphthalene above Residential, Used-Aquifer, Medium Specific Concentrations (MSCs) for Organic Regulated Substances in Soil, Soil-to-Groundwater Numeric Values, Statewide Human Health Standards. A site specific standard via pathway elimination for soil at the Property was proposed in the February 2012 Remedial Action Completion Report. The Department approved the February 2012 RACR in correspondence dated May 11, 2012.

The current impact to the subsurface groundwater associated with the Property includes dissolved-phase concentrations of benzene, ethylbenzene, MTBE, and naphthalene above Residential, Used-Aquifer, MSCs for Organic or Inorganic Regulated Substances in Groundwater, Statewide Human Health Standards (GWSHWS). Stable and/or decreasing trends for these compounds were observed at the time of the February 2012 RACR. Groundwater fate and transport analysis indicates plume(s) will attain to applicable GWSHWS and or Practical Quantitation Limits at two off-site properties currently/formerly used as a retail gasoline facilities, the former Shell-branded station location at 110 North Pine Street (County Parcel ID No. 18-004-112) and the active Exxon Station located at 123 North Pine Street (County Parcel ID No. 18-004-123) where site specific standards are already established. A site specific standard via pathway elimination for groundwater at the Property was proposed in the February 2012 Remedial Action Completion Report. The Department approved the February 2012 RACR in correspondence dated May 11, 2012.

The Property and all properties within 2,500 feet of the Property are currently connected to the local public water supply (per information obtained from Middletown Township). The closest water supply well is located approximately 2,067 feet north of the Property. Vapor Intrusion investigations and associated Johnson and Ettinger modeling eliminated any potential pathway to indoor air at the Property and/or neighboring properties. No complete ecological exposure pathways were identified.

5. **Activity & Use Limitations.** The Property is subject to the following activity and use limitations, which the then current owner of the Property, and its tenants, agents, employees and other persons under its control, shall abide by:

- The groundwater at and beneath the Property shall not be used for any/all purposes.
- The asphalt cap shall be inspected and maintained

6. **Notice of Limitations in Future Conveyances.** Each instrument hereafter conveying any interest in the Property subject to this Environmental Covenant shall contain a notice of the activity and use limitations set forth in this Environmental Covenant and shall provide the recorded location of this Environmental Covenant.

7. **Compliance Reporting.** After written request by the Department or by the end of every January following the Department's approval of this Environmental Covenant, the then current owner of the Property shall submit, to the Department and any Holder listed in Paragraph 3, written documentation stating whether or not the activity and use limitations in this

Environmental Covenant are being abided by. In addition, within 1 month after any of the following events, the then current owner of the Property shall submit, to the Department and any Holder listed in Paragraph 3, written documentation: noncompliance with the activity and use limitations in this Environmental Covenant; transfer of the Property; changes in use of the Property; or filing of applications for building permits for the Property and any proposals for any site work, if the building or proposed site work will affect the contamination on the Property subject to this Environmental Covenant.

8. **Access by the Department.** In addition to any rights already possessed by the Department, this Environmental Covenant grants to the Department a right of reasonable access of the Property in connection with implementation or enforcement of this Environmental Covenant.

9. **Recording & Proof & Notification.** Within 30 days after the date of the Department's approval of this Environmental Covenant, Tyree Environmental Corp., as consultant for and on behalf of Lukoil North America LLC (Holder), shall file this Environmental Covenant with the Recorder of Deeds for each County in which the Property is located, and send a file-stamped copy of this Environmental Covenant to the Department within 60 days of recording. Within that time period, Tyree Environmental Corp., as consultant for and on behalf of Lukoil North America LLC (Holder), also shall send a file-stamped copy to each of the following: Langhorne Borough; Bucks County; any Holder with recorded interest in the Property as identified in this Environmental Covenant listed in Paragraph 3; and any persons in possession of the Property as identified in Paragraph 2 in this Environmental Covenant.

10. **Termination or Modification.**

(a) This Environmental Covenant may only be terminated or modified in accordance with 27 Pa. C.S. §§ 6509 or 6510, or in accordance with this paragraph.

(b) This Environmental Covenant may be amended or terminated as to any portion of the Property that is acquired for use as state highway right-of-way by the Commonwealth provided that: (1) the Department waives the requirements for an environmental covenant and for conversion pursuant to 27 Pa. C.S. §6517 to the same extent that this Environmental Covenant is amended or terminated; (2) the Department determines that termination or modification of this Environmental Covenant will not adversely affect human health or the environment; and (3) the Department provides 30-days advance written notice to the current property owner, each holder, and, as practicable, each person that originally signed the Environmental Covenant or successors in interest to such persons.

(c) This Environmental Covenant shall terminate upon attainment, in accordance with 35 P.S. §§ 6026.101 – 6026.908, with an unrestricted use remediation standard for the above-described contamination at the Property. The Department must approve, in writing, of such termination.

(d) In accordance with 27 Pa. C.S. § 6510(a)(3)(i), Grantor hereby waives the right to consent to any amendment or termination of the Environmental Covenant by consent; it being

intended that any amendment to or termination of this Environmental Covenant by consent in accordance with this Paragraph requires only the following signatures on the instrument amending or terminating this Environmental Covenant: (i) the Holder at the time of such amendment or termination; (ii) the then current owner of the Property and (iii) the Department.

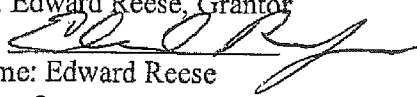
11. Department's address. Communications with the Department regarding this Environmental Covenant shall be sent to: Mr. Stephan Sinding, Program Manager, Southeast Regional Office, Environmental Cleanup and Brownfields, 2 East Main Street, Norristown, Pennsylvania 19401.

12. Severability. The paragraphs of this Environmental Covenant shall be severable and should any part hereof be declared invalid or unenforceable, the remainder shall continue in full force and effect between the parties.

ACKNOWLEDGMENTS by Owner(s) and any Holder(s), in the following form:

Date:

Mr. Edward Reese, Grantor

By: 

Name: Edward Reese

Title: Owner

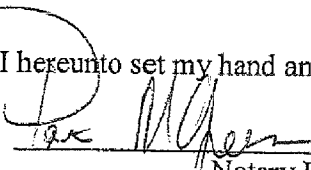
COMMONWEALTH OF PENNSYLVANIA)

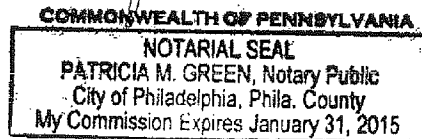
COUNTY OF PHILA)

) SS:

On this 2nd day of November, 2013 before me, the undersigned officer, personally appeared Mr. Edward Reese [Owner, Grantor] who acknowledged himself/herself to be the person whose name is subscribed to this Environmental Covenant, and acknowledged that s/he executed same for the purposes therein contained.

In witness whereof, I hereunto set my hand and official seal.


Notary Public



Date: 11.8.2013

Lukoil North America LLC, Grantee

By: Michelle J. Barbaro

Name: Michelle Barbaro

Title: Environmental Site Manager

STATE OF New Jersey)
COUNTY OF Burlington) SS:

On this 8 day of November, 2013 before me, the undersigned officer, personally appeared Michelle Barbaro, Environmental Site Manager, Lukoil North America LLC, [Holder, Grantee] who acknowledged himself/herself to be the person whose name is subscribed to this Environmental Covenant, and acknowledged that s/he executed same for the purposes therein contained.

In witness whereof, I hereunto set my hand and official seal.



Tara O'Brien
Notary Public

APPROVED, by Commonwealth of Pennsylvania,
Department of Environmental Protection
Date: 11/12/13 By: [Signature]
Name: Stephan Sinding
Title: Program Manager, Southeast Regional Office,
Environmental Cleanup and Brownfields

COMMONWEALTH OF PENNSYLVANIA)

COUNTY OF _____)

* See attached ✓
SS:

On this ____ day of _____, 20__, before me, the undersigned officer,
personally appeared Stephan Sinding, who acknowledged himself/herself to be the Program
Manager of the Commonwealth of Pennsylvania, Department of Environmental Protection,
Southeast Regional Office, Environmental Cleanup and Brownfields, whose name is subscribed
to this Environmental Covenant, and acknowledged that s/he executed same for the purposes
therein contained.

In witness whereof, I hereunto set my hand and official seal.

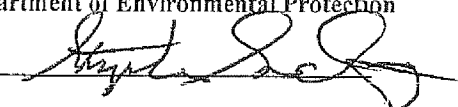
Notary Public

Property Owner: Mr. Edward Reese
Property Address: 152 East Maple Avenue
Langhorne Borough
Bucks County

APPROVED, by Commonwealth of Pennsylvania,

Department of Environmental Protection

Date: 11/12/13

By: 

Name: Stephan Sinding

Title: Environmental Cleanup & Brownfields Program Manager

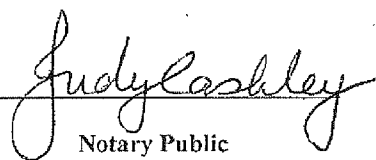
PA DEP - Southeast Regional Office

COMMONWEALTH OF PENNSYLVANIA

COUNTY OF MONTGOMERY

On this 12th day of November, 2013, before me, the undersigned officer, personally appeared Stephan Sinding who acknowledged himself to be the person whose name is subscribed to this Environmental Covenant, and acknowledged that he executed same for the purposes therein contained.

In witness whereof, I hereunto set my hand and official seal.


Notary Public

COMMONWEALTH OF PENNSYLVANIA

Notarial Seal

Judy Lashley, Notary Public

Norristown Boro, Montgomery County

My Commission Expires July 28, 2016

MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES

EXHIBIT A
PROPERTY DESCRIPTION

ALL THAT CERTAIN lot or piece of ground with the buildings and improvements thereon erected, situated in the Borough of Langhorne, County of Bucks, Commonwealth of Pennsylvania, bounded and described according to a plan of survey made for Mobil Oil Corporation by Czop/Specter, Inc. Civil Engineers and Surveyors, Worcester, Pennsylvania on December 12, 1998 to wit:

BEGINNING at a point at the intersection of the Southwesterly side of Pine Street (50 feet wide), and the Southerly line of Maple Avenue (60 feet wide); THENCE extending from said point of beginning along the said side of Pine Street, South 16 degrees 05 minutes 30 seconds East, a distance of 180.84 feet to a point;

THENCE extending South 77 degrees 08 minutes 30 seconds West, a distance of 138.70 feet to a point;

THENCE extending North 17 degrees 24 minutes West, a distance of 182.58 feet to a point in the Southerly line of Maple Avenue;

THENCE extending along the said Maple Avenue, North 77 degrees 43 minutes 30 seconds East, a distance of 142.97 feet to a point in the Southwesterly side of Pine Street, being the first mentioned point and place of beginning.

PARCEL NUMBER 18-4-180

BEING the same premises which Mobil Oil Corporation, a New York Corporation, by Indenture dated January 15, 1999 and recorded January 22, 1999 in the Office of the Recorder of Deeds in and for the County of Bucks in Land Record Book 1760 page 820, granted and conveyed unto Edward Reese.

AND the said Edward Reese entered into a Lease Agreement with Mobil Oil Corporation, by Memorandum of Lease dated January 18, 1999 and recorded in land Record Book, 1770 page 514.

Memorandum of Lease recorded in Land Record Book 1770 page 514; Assignment and Assumption of Lease between Mobil Oil Corporation and Circle K Stores, Inc. dated 3/1/2000 and recorded 3/21/2000 in Land Record Book 2026 page 1024; Assignment and Assumption of Lease from Circle K Stores Inc. to ConocoPhillips Company recorded in Land Record Book 3840 page 548.

EXHIBIT B
MAP OF PROPERTY AND AREA OF IMPACT

EXHIBIT B SITE PLAN AND AREAS OF IMPACT	DRAFTED BY: LS
LUKOIL FACILITY #69709 152 EAST MAPLE AVENUE LANGHORNE, PENNSYLVANIA	REVISION DATE: 2-23-12

BUCKS COUNTY RECORDER OF DEEDS

55 East Court Street
Doylestown, Pennsylvania 18901
(215) 348-6209

Instrument Number - 2013093784

Recorded On 11/20/2013 At 1:42:54 PM

* Total Pages - 12

* Instrument Type - DEED AGREEMENT - NO PROPERTY TRANSFER

Invoice Number - 630758

User - SMC

* Grantor - REESE, EDWARD

* Grantee - PENNA COMWTH DEPT ENVIRONMENTAL PROTECTION

* Customer - SIMPLIFILE LC E-RECORDING

*** FEES**

RECORDING FEES \$82.00

TOTAL PAID \$82.00

Bucks County UPI Certification
On November 20, 2013 By SEC

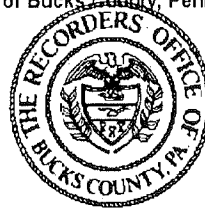
This is a certification page

DO NOT DETACH

This page is now part
of this legal document.

RETURN DOCUMENT TO:
AMERICAN LEGAL ABSTRACT, LLC
13250 TREVOSE ROAD, 2ND FLOOR
PHILADELPHIA, PA 19116

I hereby CERTIFY that this document is
recorded in the Recorder of Deeds Office
of Bucks County, Pennsylvania.



Joseph J. Szafran, Jr.
Recorder of Deeds

* - Information denoted by an asterisk may change during
the verification process and may not be reflected on this page.

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