PERIODIC REVIEW REPORT

for the

QUANTA RESOURCES SITE
2802-2810 Lodi Street
City of Syracuse
Onondaga County, New York
NYSDEC Site Number: 7-34-013

Prepared for:

QUANTA RESOURCES / SYRACUSE PRP GROUP

Prepared by:

8232 Loop Road
Baldwinsville, NY 13027
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PLUMLEY ENGINEERING

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(315) 281-1005

Project No. 2015127

July 2022

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ATTACHMENTS

INTRODUCTION

This Periodic Review Report (PRR) is for the Quanta Resources Site at 2802-2810 Lodi Street in the City of Syracuse, Onondaga County, New York (the "site"). The site consists of approximately 0.4 acres owned by Quanta Resources, Inc. and is currently vacant. The site is a former waste oil recycling facility, located in a mixed commercial and industrial area. Refer to *Figure 1 – Site Location Map* and *Figure 2 – Site Plan – October 2020 Sampling Event* for additional information.

Environmental remediation was completed by the Quanta Resources/Syracuse Potentially Responsible Party (PRP) Group. This site was issued a Certificate of Completion (COC) by the New York State Department of Environmental Conservation (DEC) on May 5, 2015. This PRR is required by the DEC to verify that the requirements contained in the COC, more fully described in the Site Management Plan (SMP), are being adhered to. This is the sixth PRR for the site and covers the period from June 22, 2021 to June 22, 2022.

REMEDY PERFORMANCE, EFFECTIVENESS AND PROTECTIVENESS

The site remediation was accomplished through completion of a source removal project completed in 2012. Approximately 8,709 tons of impacted soil were removed from the site as part of a remedial excavation. The excavation was backfilled with clean soil and a minimum 1-foot thick clean soil cap was placed over the entire site.

A vacuum-enhanced free product recovery system was installed and connected to eight recovery wells to address residual free product [motor oil-like viscosity with polychlorinated biphenyls (PCBs) in the bedrock approximately 30 feet below grade]. The system commenced operation in September 2012, with manual bailing of free product from the recovery wells. A total of approximately 17.7 gallons of free product was recovered through January 2014, but recovery rates declined from over 2 gallons per month in early 2013 to less than 0.3 gallons per month by late 2013. Absorbent socks were placed in the wells in lieu of manual bailing in January 2014. An additional estimated 9.6 gallons of free product were recovered during the absorbent program through August 2015, but the recovery rate remained low. In September 2015, the DEC approved discontinuing free product recovery operations and the performance of quarterly monitoring of free product thickness in the wells to assess the need for continuing recovery efforts. Monitoring

showed free product accumulation in one well (MW-1S) and to a lesser degree in three other wells (MW-2, MW-7 and MW-10). After discussions with the DEC, absorbent socks were installed in these four wells in March 2017 and quarterly monitoring of free product thickness and recovery using absorbents has been ongoing. These wells were inspected for free product during this reporting period in July and October of 2021 and March 2022. The total volume of free product recovered since initiating the program in March 2017 is approximately 34 gallons, the majority of which was removed from MW-1S. Approximately 0.6 gallons was recovered during the current reporting period, all from MW-1S.

Groundwater samples were most recently collected from seven site monitoring wells (MW-1D, MW-2, MW-5, MW-6, MW-9, MW-10 and MW-12) on October 8, 2020. The results were provided and discussed in the March 2021 Progress Report submitted to the DEC. VOC concentration trends in the monitoring wells over the approximate 12-year monitoring period exhibit either declining trends or have remained stable.

The October 2020 sampling event also included analyses of 1,4-dioxane and per- and poly-fluoroalkyl substances (PFAS), collectively referred to as "emerging contaminants," as requested by the DEC. Sampling for these compounds involved three key monitoring wells (MW-9, MW-10 and MW-12), in accordance with an approved June 2018 Sampling and Analysis Work Plan. Sampling and analysis for emerging contaminants from these three wells was completed three times (December 2018, September 2019 and October 2020) with similar results. The October 2020 results were provided in the March 2021 Progress Report.

Overall, the remedy has performed satisfactorily to date and has been effective in protecting public health and the environment.

INSTITUTIONAL / ENGINEERING CONTROL PLAN COMPLIANCE

The following Institutional and Engineering Controls (IECs) were stipulated for the site in the SMP:

- Cover System.

- Vacuum-Enhanced Oil Recovery System.
- Industrial Use Restriction.
- Groundwater Use Restriction.
- All future activities on the site that will disturb remaining contaminated material must be conducted in accordance with the SMP.
- The potential for soil vapor intrusion must be evaluated for any buildings developed anywhere on the site.
- Vegetable gardens and farming on the site are prohibited.

The vacuum-enhanced oil recovery system was shut down in 2015 per DEC approval. The groundwater remedy was changed to recovery using absorbent socks in March 2017, which has been ongoing on an approximate quarterly schedule.

There are no IEC deficiencies as of this reporting period. No changes to the IECs are recommended.

MONITORING PLAN COMPLIANCE

The following monitoring requirements were stipulated for the site in the SMP and subsequent modifications approved by the DEC:

- *Oil Recovery System:* Monthly free product thickness and water level measurements subsequently modified to quarterly.
- *Groundwater Quality Monitoring:* Quarterly for one year after completion of the free product recovery program, then twice per year subsequently modified to biennially (every other year)
- *Cover System Monitoring:* Annual inspection of cap integrity.

The oil recovery program is ongoing. Plumley Engineering is continuing quarterly monitoring of free product thickness and changing absorbent bags or socks as needed.

A recommendation was given in the March 2021 Progress Report to extend the groundwater monitoring frequency from annual to once every two years. The DEC accepted this request and has asked that the sampling event be conducted in the late summer or early fall of 2022. The DEC has also accepted the request to remove emerging contaminants from the scheduled testing, citing low or below MCL levels reported on the last three consecutive sampling events. These agreements were communicated in the April 7, 2021 DEC project review letter. The next groundwater sampling and analysis event will be completed in September 2022, as requested by the DEC, and thereafter in 2024.

Recently completed inspections of the cap did not indicate any disturbances.

There are no deficiencies with the monitoring program as of this reporting period.

OPERATION AND MAINTENANCE COMPLIANCE

The operation and maintenance requirements in the SMP were associated with the vacuum enhanced oil recovery system that has been shut down since September 2015. There are no deficiencies with the operation and maintenance program as of this reporting period.

CONCLUSIONS AND RECOMMENDATIONS

No areas of non-compliance with the remedial program have been identified.

No additional remedial measures or other improvements are recommended at this time.

The requirements for the site for this reporting period have been met. Refer to the attached *Institutional and Engineering Controls Certification Form.*

It is recommended that the PRR frequency be changed to biannual, consistent with the groundwater monitoring program. The next PRR would be due in 2024.

ATTACHMENTS

N

REF.: USGS - SYRACUSE WEST (NY) QUAD., 2010, 7.5 MIN. SCALE: 1"=2000'

DEC SITE NO.: 7-34-013

PLUMLEY ENGINEERING
Civil and Environmental Engineering

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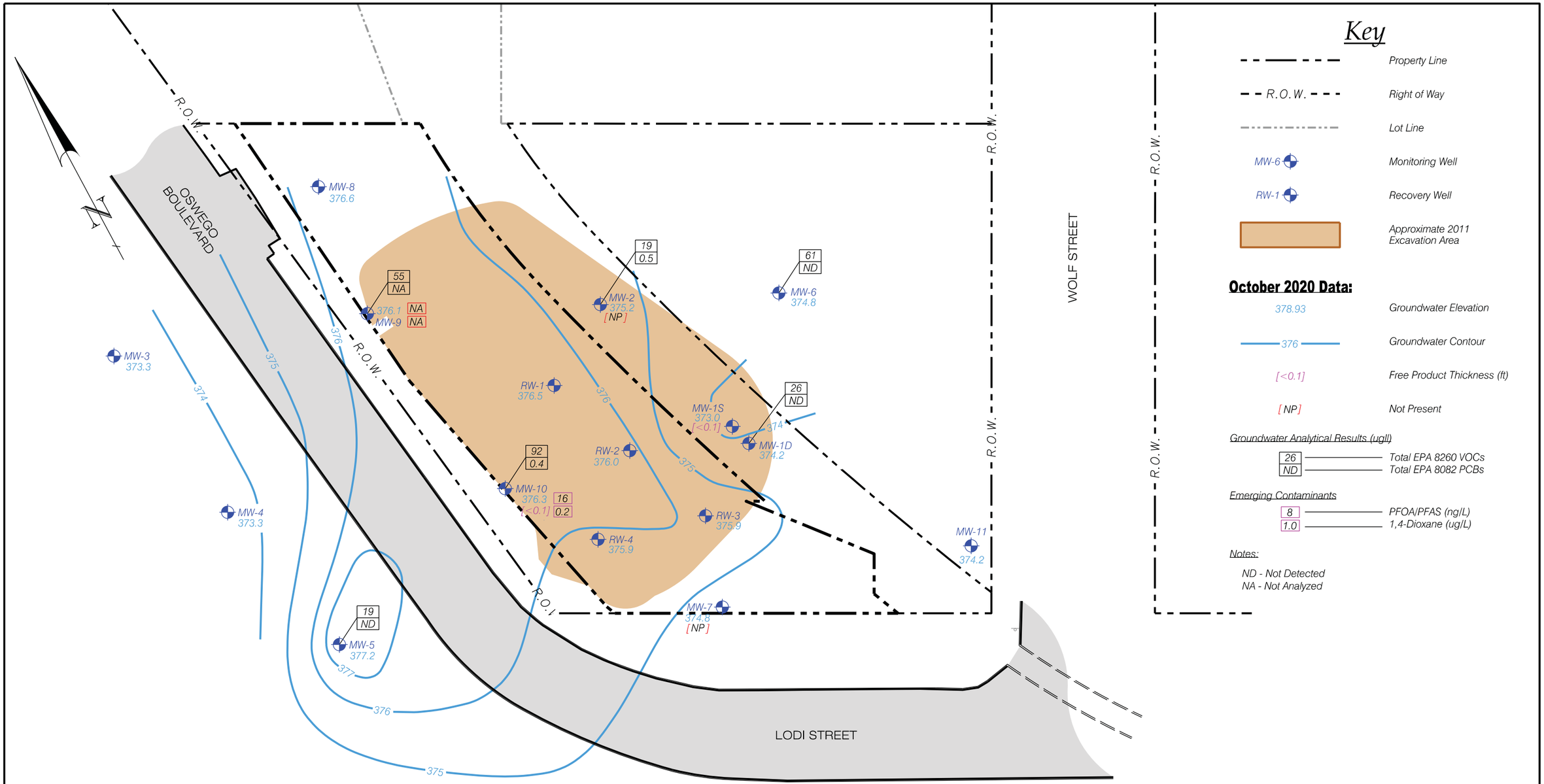
PROJECT: QUANTA RESOURCES SITE

DWG. TITLE: SITE LOCATION MAP

CLIENT: 2802-2810 LODI STREET

LOCATION: CITY OF SYRACUSE, ONONDAGA COUNTY, NEW YORK

PROJECT No.:	2015127
FILE NAME.:	FIGURE 1
SCALE:	AS NOTED
DATE:	AUG. 2016
ENG'D BY:	DRV
DRAWN BY:	JMD
CHECKED BY:	DRV



Basemap Reference:

"Boundary and Topographic Survey, Part of Lots 1 and 9 , Block 12, City of Syracuse, Onondaga County, State of New York", Prepared by: CNY Land Surveying, Dated: 10/08/08, File No.: 08.117.

Plan View

1" = 40' SCALE: 20 0 20 40 FEET

DEC SITE NO.: 7-34-013

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Civil and Environmental Engineering

REVISIONS:	DATE:	BY:
A PROGRESS REPORT	10/17/19	FAK
B PROGRESS REPORT	12/20	FAK

PROJECT: QUANTA RESOURCES

DWG. TITLE: SITE PLAN - OCTOBER 2020 SAMPLING EVENT

CLIENT: QUANTA RESOURCES / SYRACUSE PRP GROUP

LOCATION: CITY OF SYRACUSE, ONONDAGA COUNTY, NEW YORK

PROJECT No.:	2015127
FILE NAME.:	FIGURE 2
SCALE:	AS NOTED
DATE:	OCT. 2020
ENG'D BY:	FAK
DRAWN BY:	JJL
CHECKED BY:	DRV

SHEET NO.: FIGURE 2

Enclosure 2
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Site Management Periodic Review Report Notice
Institutional and Engineering Controls Certification Form

Site Details **Box 1**

Site No. 734013

Site Name Quanta Resources

Site Address: 2802-2810 Lodi Street Zip Code: 13208
City/Town: Syracuse
County: Onondaga
Site Acreage: 0.413

Reporting Period: June 22, 2021 to June 22, 2022

	YES	NO
1. Is the information above correct?	☒	☐
If NO, include handwritten above or on a separate sheet.		
2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?	☐	☒
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?	☐	☒
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	☐	☒
If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.		
5. Is the site currently undergoing development?	☐	☒

Box 2

	YES	NO
6. Is the current site use consistent with the use(s) listed below? Industrial	☒	☐
7. Are all ICs in place and functioning as designed?	☒	☐

IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

_____ _____
Signature of Owner, Remedial Party or Designated Representative Date

SITE NO. 734013 **Box 3**

Description of Institutional Controls

Parcel	Owner	Institutional Control
02-01-08	QUANTA RESOURCES/Syracuse PRP Group	Ground Water Use Restriction Soil Management Plan Landuse Restriction Monitoring Plan Site Management Plan O&M Plan IC/EC Plan

INSTITUTIONAL CONTROLS

A series of Institutional Controls is required by the ROD to: (1) implement, maintain and monitor Engineering Control systems; (2) prevent future exposure to remaining contamination by controlling disturbances of the subsurface contamination; and, (3) limit the use and development of the site to industrial uses only. Adherence to these Institutional Controls on the site is required by the Environmental Easement and will be implemented under this Site Management Plan. These Institutional Controls are:

Compliance with the Environmental Easement and this SMP by the Grantor and the Grantor's successors and assigns;

All Engineering Controls must be operated and maintained as specified in this SMP.

All Engineering Controls on the Controlled Property must be inspected at a frequency and in a manner defined in the SMP.

Soil vapor intrusion evaluation or monitoring associated with any future development of buildings at the Site must be performed as defined in this SMP.

Data and information pertinent to Site Management of the Controlled Property must be reported at the frequency and in a manner defined in this SMP.

Institutional Controls identified in the Environmental Easement may not be discontinued without an amendment to or extinguishment of the Environmental Easement.

The site has a series of Institutional Controls in the form of site restrictions. Adherence to these Institutional Controls is required by the Environmental Easement. Site restrictions that apply to the Controlled Property are:

The property may only be used for industrial use subject to local zoning and provided that the long-term Engineering and Institutional Controls included in this SMP are employed.

The property may not be used for a higher level of use, such as unrestricted residential or commercial use without additional remediation and amendment of the Environmental Easement, as approved by the NYSDEC. The post-remedial confirmation soil sampling indicated the remaining soils meet both industrial and commercial cleanup objectives. Commercial uses of the site may be possible, pending submission and approval of the request to the DEC, completion of any additional investigation and remediation tasks, if any, that may be required and modification of the Environmental Easement.

All future activities on the property that will disturb remaining contaminated material must be conducted in accordance with this SMP.

The use of the groundwater underlying the property is prohibited without treatment rendering it safe for intended use.

The potential for vapor intrusion must be evaluated for any buildings developed anywhere on the Site and any potential impacts that are identified must be monitored or mitigated.

Vegetable gardens and farming on the property are prohibited.

The Site owner or remedial party will submit to NYSDEC a written statement that certifies, under penalty of perjury, that: (1) controls employed at the Controlled Property are unchanged from the previous certification or that any changes to the controls were approved by the NYSDEC; and, (2) nothing has occurred that impairs the ability of the controls to protect public health and environment or that constitute a violation or failure to comply with the SMP. NYSDEC retains the right to access such Controlled Property at any time in order to evaluate the continued maintenance of any and all controls. This certification shall be submitted annually, or an alternate period of time that NYSDEC may allow and will be made by an expert that the NYSDEC finds acceptable.

Excavation Work Plan

The Site has been remediated for restricted industrial use. Any future intrusive work that will penetrate the soil cover system or disturbing any of the remaining underlying soils, including any modifications or repairs to the existing soil cap will be performed in compliance with the Excavation Work Plan (EWP) that is attached as Appendix B to this SMP. Any work conducted pursuant to the EWP must also be conducted in accordance with the procedures defined in a Health and Safety Plan (HASP) and Community Air Monitoring Plan (CAMP) prepared for the Site. A sample HASP is attached as Appendix C and a CAMP is attached as Appendix D to this SMP that are in current compliance with DER-10, 29 CFR 1910, 29 CFR 1926, and all other applicable Federal, State and local regulations. Based on future changes to State and Federal health and safety requirements, and specific methods employed by future contractors, the HASP and CAMP will be updated and re-submitted with the notification provided in Section A-1 of the EWP. Any intrusive construction work will be performed in compliance with the EWP, HASP and CAMP, and will be included in the periodic inspection and certification reports submitted under the Site Management Reporting Plan (refer to Section 5).

The Site owner and associated parties preparing the remedial documents submitted to the State, and parties performing this work, are completely responsible for the safe performance of all intrusive work, the structural integrity of excavations, proper disposal of excavation de-water, control of runoff from open excavations into remaining contamination, and for structures that may be affected by excavations (such as building foundations and bridge footings). The Site owner will ensure that site development activities will not interfere with, or otherwise impair or compromise, the engineering controls described in the SMP.

Soil Vapor Intrusion Evaluation

Prior to the construction of any enclosed structures anywhere on the Site, a soil vapor intrusion (SVI) evaluation will be performed to determine whether any mitigation measures are necessary to eliminate potential exposure to vapors in the proposed structure. Alternatively, an SVI mitigation system may be installed as an element of the building foundation without first conducting an investigation. This mitigation system will include a vapor barrier and passive subslab depressurization system that is capable of being converted to an active system.

Prior to conducting an SVI investigation or installing a mitigation system, a work plan will be developed and submitted to the NYSDEC and NYSDOH for approval. This work plan will be developed in accordance with the most recent NYSDOH “Guidance for Evaluating Vapor Intrusion in the State of New York”. Measures to be employed to mitigate potential vapor intrusion will be evaluated, selected, designed, installed and maintained based on the SVI evaluation, the NYSDOH guidance and construction details of the proposed structure.

Preliminary (unvalidated) SVI sampling data will be forwarded to the NYSDEC and NYSDOH for initial review and interpretation. Upon validation, the final data will be transmitted to the agencies, along with a recommendation for follow-up action, such as mitigation.

SVI sampling results, evaluations and follow-up actions will also be summarized in the next Periodic Review Report.

Box 4

Description of Engineering Controls

Parcel
02-01-08

Engineering Control

Groundwater Treatment System
Cover System

ENGINEERING CONTROLS
Cover System
Exposure to remaining contamination in soils at the site is prevented by a soil cover system placed over the site. The cover system is comprised of a minimum of 12 inches of clean soil placed on a black, demarcation soil separation fabric. The Excavation Work Plan in Appendix B (of the SMP)outlines the procedures required to be implemented in the event the cover system is breached, penetrated or temporarily removed, and any underlying remaining contamination is disturbed. Procedures for the inspection and maintenance of this cover are provided in the Monitoring Plan included in Section 4 of the SMP.

Vacuum-Enhanced Oil Recovery System (ORS)
Free product occurs as a LNAPL on the bedrock water table. The system is comprised of eight recovery wells installed with well screens that transect the bedrock water table. The wells are installed at depths of 35 to 40 feet with well screens that are 15 to 20 feet long. The water table is at an average depth of 27 feet below grade. The regenerative blower system, installed in the building, is used to apply a small vacuum in the wells to enhance the potential flow of free product from the low permeability shale bedrock. The air discharge from the blower is being treated with a granular activated carbon drum. Future monitoring may indicate this element of the system can be removed. Free product is monitored in the wells and manually removed when appropriate. The manifold piping and control system provides flexibility of applying cyclic vacuum versus full time application and controlling the number of wells on line and the distribution of vacuum among the wells. Figures 8, 9 and 10 show the locations of the free product recovery system components and equipment design details.

Criteria for Completion of Remediation/Termination of Remedial Systems

Generally, remedial processes are considered completed when effectiveness monitoring indicates that the remedy has achieved the remedial action objectives identified by the decision document.

Composite Cover System
The composite cover system is a permanent control and the quality and integrity of this system will be inspected at defined, regular intervals in perpetuity.

Vacuum Enhanced Oil Recovery System (ORS)
The ORS will not be discontinued unless prior written approval is granted by the NYSDEC. In the event that monitoring data indicates that the ORS system is no longer required, a proposal to discontinue the system will be submitted. Conditions that warrant discontinuing the ORS system will include documenting the recovery of free product has reached an asymptotic low level after all modes of operation have been tried and that the NYSDEC has determined that the ORS system has reached the limit of its effectiveness. The ORS will remain in place and operational until permission to discontinue its use is granted in writing by the NYSDEC.

Box 5

Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

   a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the Engineering Control certification;

   b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and compete.

YES	NO
☒	☐

2. For each Engineering control listed in Box 4, I certify by checking "YES" below that all of the following statements are true:

   (a) The Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

   (b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

   (c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

   (d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

   (e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES	NO
☒	☐

IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

_____ _____

Signature of Owner, Remedial Party or Designated Representative Date

IC CERTIFICATIONS
SITE NO. 734013

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1,2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Gilberto Márquez Sosa (print name) at 290 Town Center Drive, Suite 800 Dearborn, Michigan 48126 (print business address),

am certifying as Remedial Party (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.

DocuSigned by:
Gilberto Marquez sosa
79983680934B4D3...

Signature of Owner, Remedial Party, or Designated Representative Rendering Certification

Jul-18-2022
Date

EC CERTIFICATIONS

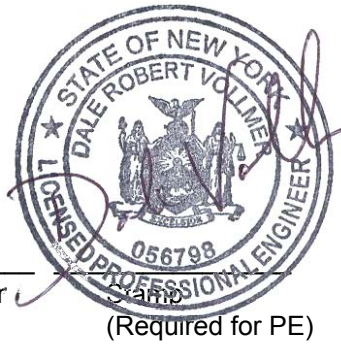
Box 7

Professional Engineer Signature

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Dale R. Vollmer, P.E. (print name) at PLUMLEY ENGINEERING, P.C. 8232 Loop Road, Baldwinsville, NY 13027 (print business address),

am certifying as a Professional Engineer for the Quanta Resources/ Syracuse PRP Group (Owner or Remedial Party)



Dale Vollmer — 07/19/22

Signature of Professional Engineer, for the Owner or Remedial Party, Rendering Certification — Stamp (Required for PE) — Date