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# Solvent Recovery Services of New England, Inc. Superfund Site

# Southington, CT

# Annual State of Compliance Report #1

October 30, 2008 through October 31, 2009

**April 2010**

**Table of Contents**



**Tables:**



**Figures:**



**Attachments:**

Note: The following is a comprehensive listing of the acronyms and abbreviations used in this Annual Report and associated attachments.

| | |
|---|---|
| 1,1-DCE | 1,1-dichloroethene |
| 1,1,1-TCA | 1,1,1-trichloroethane |
| 1,2-DCA | 1,2-dichloroethane |
| 2,3,7,8-TCDD | 2,3,7,8-tetrachlorodibenzo-p-dioxin |
| ALEP | Action Level Exceedance Plan |
| AOC | Administrative Order on Consent |
| AQC | Air Quality Control System |
| ARARs | Applicable or Relevant and Appropriate Requirements |
| ATSDR | Agency for Toxic Substance and Disease Registry |
| B&M | Boston & Maine |
| BACT | Best Available Control Technology |
| BBL | Blasland, Bouck & Lee, Inc. |
| bgs | below ground surface |
| BTEX | Benzene, Toluene, Ethylbenzene and Xylenes |
| BTU | British Thermal Unit |
| °C | degrees Celsius |
| CA | chloroethane |
| CBYD | Call Before You Dig |
| cc | cubic centimeter |
| cDCE | cis-1,2-dichloroethene |
| CD | Consent Decree |
| CEMS | Continuous Emissions Monitoring System |
| CERCLA | Comprehensive Environmental Response, Compensation and Liability Act |
| CERCLIS | Comprehensive Environmental Response, Compensation and Liability Information System |
| $CH_4$ | methane |
| CL&P | Connecticut Light & Power |
| $CO_2$ | carbon dioxide |
| COCs | Constituents of Concern |
| CT | carbon tetrachloride |
| CTDEP | Connecticut Department of Environmental Protection |
| CTDPH | Connecticut Department of Public Health |
| CVOCs | Chlorinated Volatile Organic Compounds |
| CWA | Clean Water Act |
| DCE | dichloroethene |
| DCM | dichloromethane |
| DCP | Demonstration of Compliance Plan |
| ddms | *de maximis* Data Management Solutions |

| | |
|---|---|
| DHC | Dehalococcoides |
| DNAPL | dense non-aqueous phase liquid |
| DO | dissolved oxygen |
| DQA | Data Quality Assessment |
| DQOs | Data Quality Objectives |
| DRE | Destruction/Removal Efficiency |
| DRO | Diesel Range Organics |
| EISB | Enhanced In-Situ Bioremediation |
| ELUR | Environmental Land Use Restriction |
| °F | degrees Fahrenheit |
| $Fe(OH)_3$ | ferrous hydroxide |
| $f_{oc}$ | fraction of solid organic carbon in soil |
| FS | Feasibility Study |
| FSP | Field Sampling Plan |
| PMC | Pollutant Mobility Criteria applicable to designated Class “GA” groundwater areas |
| GAC | granular activated carbon |
| GCTEOS | Groundwater Containment and Treatment Evaluation and Optimization Study |
| gpm | gallons per minute |
| GRO | Gasoline Range Organics |
| GWPC | Groundwater Protection Criteria |
| GWTF | Groundwater Treatment Facility |
| H | Henry’s Law Constant |
| $H_2$ | hydrogen |
| $H_2O$ | water |
| $H_2S$ | hydrogen sulfide |
| HAP | hazardous air pollutant |
| HCl | hydrochloric acid |
| HCTS | Hydraulic Containment and Treatment System |
| HDPE | High-Density Polyethylene |
| HLVs | Hazard Limiting Values |
| HZ | Heated Zone |
| ID | inner diameter |
| IFT | interfacial tension |
| IMS | Interim Monitoring and Sampling |
| IQAT | Independent Quality Assurance Team |
| IRIS | Integrated Risk Information System |
| ISTD | In-Situ Thermal Desorption |
| ISTR | In-Situ Thermal Remediation |
| J&E | Johnson & Ettinger |
| $K_d$ | soil-water partition coefficient |
| kg | kilogram |
| $K_{oc}$ | chemical-specific organic carbon partition coefficient |

| | |
|---|---|
| LAER | Lowest Achievable Emission Rate |
| lbs | pounds |
| LNAPL | light non-aqueous phase liquid |
| MAROS | Monitoring and Remediation Optimization System |
| MASC | Maximum Allowable Stack Concentration |
| MCLs | Maximum Contaminant Levels |
| MCLG | Maximum Contaminant Level Goal |
| mg/kg | milligrams per kilogram |
| mg/L | milligrams per liter |
| MIBK | 4-methyl-2-pentanone (methyl isobutyl ketone) |
| mL | milliliter |
| MNA | Monitored Natural Attenuation |
| MOA | Memorandum of Agreement |
| $N_2$ | nitrogen |
| NA | Natural Attenuation |
| NAPL | non-aqueous phase liquid |
| ng/L | nanograms per liter |
| $NH_4^+$ | ammonia |
| NOAA | National Oceanic and Atmospheric Administration |
| $NO_2^-$ | nitrite |
| $NO_3^-$ | nitrate |
| NSR | New Source Review |
| NTCRA | Non-Time-Critical Removal Action |
| $O_2$ | oxygen |
| O&M | Operations and Maintenance |
| OD | outer diameter |
| $OH^-$ | hydroxyl radical |
| OIS | On-Site Interceptor System |
| OMM | Operation, Maintenance and Monitoring |
| ONOGU | Observed NAPL in the Overburden Groundwater Unit |
| ORP | oxidation-reduction potential |
| OSHA | Occupational Safety and Health Administration |
| OSWER | Office of Solid Waste and Emergency Response |
| PAHs | polycyclic aromatic hydrocarbons |
| PCBs | polychlorinated biphenyls |
| PCDDs | polychlorinated dibenzo-p-dioxins |
| PCDFs | polychlorinated dibenzofurans |
| PCE | tetrachloroethylene |
| PCR | Polymerase Chain Reaction |
| PEL | Permissible Exposure Limit |
| PFD | process flow diagram |
| PID | photoionization detector |
| PIPP | Pre-ISTR Preparation Plan |
| PLC | Programmable Logic Controller |

| | |
|---|---|
| POP | Project Operations Plan |
| ppb | parts per billion |
| PPE | personal protective equipment |
| ppm | parts per million |
| PSD | Prevention of Significant Deterioration |
| psig | pounds per square inch, gauge |
| PVC | polyvinyl chloride |
| QAPP | Quality Assurance Project Plan |
| $R^2$ | correlation coefficient |
| RAOs | Response Action Objectives |
| RAWP | Remedial Action Work Plan |
| RCRA | Resource Conservation and Recovery Act |
| RDWP | Remedial Design Work Plan |
| RD/RA | Remedial Design/Remedial Action |
| Redox | Reduction-Oxidation |
| RDEC | Residential Direct Exposure Criteria |
| RH | Relative Humidity |
| RI | Remedial Investigation |
| ROD | Record of Decision |
| RSRs | Remediation Standard Regulations |
| SAP | Sampling and Analysis Plan |
| SCAP | Supplemental Containment Action Plan |
| SCM | Site Conceptual Model |
| $SO_4^{2-}$ | sulfate |
| SOP | Standard Operating Procedure |
| SOW | Statement of Work |
| SPLP | Synthetic Precipitation Leaching Procedure |
| SRSNE | Solvents Recovery Service of New England, Inc. |
| SSO | Site Safety Officer |
| SVOCs | semi-volatile organic compounds |
| SWD | Southington Water Department |
| SWPC | Surface Water Protection Criteria |
| TAL | Target Analyte List |
| TCE | trichloroethylene |
| TCH | thermal conduction heating |
| TCLP | Toxicity Characteristic Leaching Procedure |
| TEFs | Toxic Equivalency Factors |
| TEQ | Toxic Equivalence Quotient |
| TEX | Toluene, Ethylbenzene and Xylenes |
| TSCA | Toxic Substances Control Act |
| TTZ | thermal treatment zone |
| ug/L | micrograms per liter |
| USEPA | United States Environmental Protection Agency |
| USFWS | United States Fish and Wildlife Service |

| | |
|---|---|
| USGS | United States Geological Survey |
| UV | ultraviolet |
| VC | vinyl chloride |
| VI | Vapor Intrusion |
| VOC | volatile organic compound |
| WHO | World Health Organization |

## A. Introduction

On October 30, 2008, the United States Environmental Protection Agency (USEPA) lodged a Consent Decree (CD) with the United States District Court for the District of Connecticut in connection with Civil Actions No. 3:08cv1509 (SRU) and No. 3:08cv1504 (WWE). The CD was entered by the Court on March 26, 2009. The CD addresses Remedial Design/Remedial Action (RD/RA) activities for the Solvents Recovery Service of New England, Inc. (SRSNE) Superfund Site in Southington, Connecticut (Site). Appendix B to the CD is a Statement of Work (SOW) that defines the required RD/RA activities and deliverables.

Section VIII.B of the SOW requires the Settling Defendants to submit an Annual State of Compliance Report one year after lodging of the CD and annually thereafter, to USEPA for approval or modification, after reasonable opportunity for review and comment by Connecticut Department of Environmental Protection (CTDEP). Section 62.e of the CD requires a demonstration of the amounts of the Rolling Oversight Cost Cap and the Available Balance. This ***Annual State of Compliance Report #1*** (report) has been prepared on behalf of the SRSNE Site Group, an unincorporated association of Settling Defendants to the CD, to address these CD and SOW requirements. This report documents Site activities during the period of October 30, 2008 through October 31, 2009 (the "reporting period").

As specified in SOW Section VIII.B, this report includes a comprehensive evaluation of all monitoring required by this SOW, including, but not limited to:

- compliance with the Performance Standards of the Hydraulic Containment and Treatment System and Severed Plume;
- Institutional Controls;
- construction, operation and maintenance;
- habitat restoration;
- hydraulic containment;
- the Memorandum of Agreement with Southington Water Department / Town of Southington; and
- groundwater monitoring program, including monitored natural attenuation.

Also required in the report is an assessment of the progress being made towards achieving the Performance Standards, as well as recommendations for changes to any monitoring program to address deficiencies identified during the evaluation.

Proposals for reductions in monitoring, along with justifications, are also to be provided as appropriate.

## B. Background

The SRSNE Site is located on approximately 14 acres of land along Lazy Lane in Southington, Hartford County, Connecticut, approximately 15 miles southwest of the city of Hartford (Figure 1). The physical setting of the Site – including the regional geology, overburden geology, bedrock geology, hydrogeology, groundwater use and classification, drainage, and surface water use and classification – is summarized below. This information is also described in detail in prior report submittals, including the *Remedial Investigation Report* (Blasland, Bouck & Lee, Inc. [BBL] 1998) and the *Feasibility Study Report* (BBL and USEPA 2005), and the draft Remedial Design Work Plan (RDWP) (ARCADIS, April 2009).

The SRSNE Site includes portions of several properties/areas that are referred to within the RDWP consistent with terminology established in prior Site-related documents. These properties/areas include the former SRSNE Operations Area, the former Boston & Maine railroad right-of-way, the former Cianci Property, and the Town of Southington Well Field Property (Town Well Field Property). These areas are shown on Figure 2, and further described below:

- **Former SRSNE Operations Area:** The former SRSNE Operations Area comprises approximately 2.5 paved acres on a 3.7-acre lot South of Lazy Lane in the Quinnipiac River basin approximately 600 feet west of the Quinnipiac River channel. This is the area where SRSNE historically performed solvent recovery and related operations. The Operations Area is bordered on the east (downhill) by an abandoned railroad right-of-way and the former Cianci Property; to the north by commercial businesses; to the west (uphill) by private property; and to the south by private property, the Connecticut Light & Power (CL&P) electrical transmission line easement, and the Town Well Field Property.

- **Railroad Right-of-Way:** The railroad right-of-way is an approximately 50-foot wide corridor running north-south that separates the former Operations Area (to the west) from the former Cianci Property (to the east). The railroad was historically owned and operated by Boston & Maine, but is presently abandoned and the rails have been removed. CT DEP purchased the right-of-way in this area in support of extending the Farmington Canal Heritage Trail, a rails-to-trails greenway, from New Haven to the Massachusetts border (draft *Preliminary Reuse Assessment* [USEPA 2003]).

- **Former Cianci Property:** The former Cianci Property is a 10-acre parcel located immediately east of the Operations Area and railroad right-of-way. The Quinnipiac

River borders the eastern edge of the former Cianci Property. Lazy Lane is to the north, and the Town Well Field Property borders the property to the south.

- **Town Well Field Property:** The Town Well Field Property consists of approximately 28 acres of undeveloped land south of the former Cianci Property and southeast of the Operations Area. The well field is bounded to the east by the Quinnipiac River and to the south by the Quinnipiac River and Curtiss Street. The railroad right-of-way and the Delahunty Property border the western perimeter of the well field. The CL&P easement runs northwest-southeast through the northern portion of the Town Well Field Property.

  Town Production Wells No. 4 and 6 are approximately 2,000 and 1,400 feet south of the SRSNE Property, respectively. The Quinnipiac River divides the area between Wells No. 4 and 6. Production Well No. 6 is accessible using dirt roads originating from Lazy Lane or Curtiss Street, while Well No. 4 is only accessible from Curtiss Street. Production Well No. 4 was installed in August 1965 and provided drinking water to the Town of Southington from July 1966 to December 1977. Production Well No. 6 was installed in April 1976 and was pumped from May through October 1978, May through July 1979, and March 1980. Both wells have been inactive since that time.

  Within these areas, “the Site” includes areas where Site-related constituents have come to be present in soil (including wetland soil) and groundwater at concentrations exceeding SOW-specified cleanup levels. This includes observed and interpreted non-aqueous phase liquid- (NAPL-) containing areas, impacted soils in the Operations Area, railroad right-of-way, and Cianci Property, and areas of impacted groundwater in both the overburden and bedrock zones. These areas, shown on Figures 3A (overburden) and 3B (bedrock), are generally described as follows:

- **Overburden NAPL Area:** This is the area where NAPL has been observed or inferred to exist in overburden soils based on the findings of prior investigations. The estimated extent of the Overburden NAPL Area includes portions of the Operations Area, the railroad right-of-way, and a portion of the Cianci Property, as shown on Figure 3A. This area has been further delineated in the northwest corner of the former Operations Area as component of the pre-design investigations referenced in the RDWP.

- **Overburden Groundwater Area:** The Overburden Groundwater Area is the portion of the Site where dissolved volatile organic compounds (VOC) concentrations in the overburden aquifer exceed cleanup goals. While the overburden groundwater is typically considered in three zones (each approximately one-third of the saturated thickness), the composite extent of this area (based on *Feasibility Study Report* [BBL and USEPA 2005] data) is depicted on Figure 3A. The overburden groundwater VOC plume extends south to the Town Well Field Property. The extent

of the overburden groundwater area, particularly to the east of the Quinnipiac River, is subject to further assessment and delineation as part of the investigations referenced in the RDWP.

- **Bedrock NAPL Area:** The Bedrock NAPL Area is the area where NAPL has been observed or is inferred to exist based on prior site investigations. This includes a majority of the former SRSNE Operations Area and Cianci Property, as shown on Figure 3B.

- **Bedrock Groundwater Area:** This includes the portion of the Site where dissolved VOC concentrations in the bedrock aquifer exceed groundwater cleanup goals (based on *Feasibility Study Report* [BBL and USEPA 2005] data). The bedrock groundwater VOC plume extends south into the central portion of the Town Well Field Property (Figure 3B).

- **Severed Plume:** The portion of the affected groundwater zone that is outside the groundwater capture zone of the Non-Time-Critical Removal Action 1 (NTCRA 1) and NTCRA 2 extraction systems (described below), which contains Site-related constituents (primarily VOCs) above detectable levels is referred to as the severed plume. The approximate location and extent of the severed plume is shown on Figure 3A.

Other key Site features referenced include the Hydraulic Containment and Treatment System (HCTS). The HCTS consists of the on-site groundwater treatment system and the two groundwater extraction systems described as follows:

- **NTCRA 1 Groundwater Extraction System:** The NTCRA 1 groundwater extraction system ("NTCRA 1 system") is located within the NTCRA containment area on the Cianci Property east of the Operations Area (Figure 4). It consists of a steel sheet pile wall through the overburden to the top of bedrock, and 12 overburden groundwater extraction wells (RW-1 through RW-12) west (formerly upgradient) of the sheet pile wall. Groundwater is extracted from the wells to maintain hydraulic gradient reversal across the sheet pile wall. This system was installed in 1995 pursuant to Administrative Order on Consent (AOC) I-94-1045, effective October 4, 1994. Pumping from the NTCRA 1 system was initiated in July 1995.

- **NTCRA 2 Groundwater Extraction System:** The NTCRA 2 groundwater extraction system ("NTCRA 2 system") consists of two overburden extraction wells (RW-13 and RW-14) and one bedrock extraction well (RW-1R) just north of the CL&P easement (Figure 4). These wells were installed pursuant to AOC 1-97-1000, effective February 18, 1997, and began operating in 1999, 2007, and 2001, respectively. The NTCRA 2 system includes a groundwater extraction well in the bedrock (RW-1R) and two overburden groundwater extraction wells (RW-13 and RW-14). This

extraction well cluster is located in the Town Well Field Property north of the CL&P easement.

In 2009, the combined NTCRA 1 and NTCRA 2 groundwater extraction systems generally pumped between 20 and 35 gallons per minute. The capture zones created by the NTCRA 1 and 2 groundwater extraction systems are shown on Figure 3A (overburden) and Figure 3B (bedrock). The operation of the combined NTCRA 1 and NTCRA 2 systems has successfully contained the overburden and bedrock VOC plumes, creating the severed plume within the Town Well Field Property.

**On-site Groundwater Treatment System:** The combined operations of the extraction systems and the treatment facility were previously referred to as the "NTCRA 1 and NTCRA 2 Groundwater Extraction and Treatment System" or "NTCRA 1/2 Groundwater System." Following entry of the CD, continued operation of the NTCRA 1/2 Groundwater System became part of the ROD-specified remedial approach for groundwater, and the system is now referred to as the HCTS (SOW Section V.A).

Groundwater extracted from the NTCRA 1 and 2 systems is treated on site with a process that was originally constructed as part of the NTCRA 1 system (Figure 4). The groundwater extracted by the NTCRA-1 and 2 containment systems is pumped directly to the groundwater treatment facility. The treatment system consists of the following unit processes: metals pretreatment, filtration, ultraviolet oxidation (UV), and granular activated carbon adsorption. Vapor phase carbon adsorption is also used to capture contaminants that volatize during treatment. The system precipitates and extracts metals, reduces suspended solids, and destroys and captures volatile organic contaminants. Treated water is discharged to the Quinnipiac River in accordance with the Revised Connecticut Department of Environmental Protection (CTDEP) Substantive Requirements for Discharge of Pre-Treated Groundwater issued 6 November 1995.

## C. Site Operational History

The SRSNE facility began operations in Southington in 1955 (ATSDR 1992). From approximately 1955 until the facility's closure in 1991, spent solvents were received from customers and distilled to remove impurities, and the recovered solvents were returned to the customer or sold to others for reuse. Based on a partial record of materials processed at the SRSNE facility (excluding pre-1967 operations files, which were destroyed in a fire), SRSNE handled in excess of 41 million gallons of waste solvents, fuels, paints, etc. Additional details regarding the operational history are provided in the *Remedial Investigation Report* (BBL 1998).

## D. Regulatory Status

The SRSNE Site was added to the National Priorities List (NPL) on September 8, 1983. Since that time USEPA and the State of Connecticut have implemented a variety of enforcement, regulatory and response actions, culminating with the issuance of the Proposed Plan and Record of Decision (ROD) in September 2005. After issuing the ROD, the USEPA and SRSNE Site Group negotiated the terms of the CD.

Key regulatory milestones in the recent history of the Site, based on lists included on USEPA's project website (USEPA 2009) and in the fact sheet USEPA developed in support of the 2005 Proposed Plan (USEPA 2005b), are as follows:

| Regulatory Milestone | Year |
|---|---|
| USEPA adds the Site to the NPL; SRSNE signs a consent decree with USEPA to install a groundwater recovery system and store/manage hazardous waste on site. | 1983 |
| USEPA and the State of Connecticut take enforcement action to require cleanup of the facility operations and the property. | 1983-1988 |
| USEPA initiates the Remedial Investigation for the Site, conducting three phases of investigation that are presented in a four-volume report (HNUS 1994). | 1990 |
| SRSNE operations cease. | 1991 |
| USEPA conducts a Time-Critical Removal Action to remove contaminated soils from the railroad grade drainage ditch and to remove some chemicals stored at the property to an off-site location. | 1992 |
| USEPA and the SRSNE Group enter into an Administrative Order on Consent (AOC) for Removal Action to construct and operate a pump and treat system to contain the principally contaminated overburden groundwater (the NTCRA 1 work). Other work conducted under this AOC included the construction of a mitigation wetland in the northeast corner of the Cianci Property, implementation of a full-scale phytoremediation study within the NTCRA 1 sheet pile wall, and extension of public water to three buildings adjacent to the Site. | 1994 |
| USEPA issues an Action Memorandum for a second NTCRA (NTCRA 2) to hydraulically contain VOC-impacted bedrock groundwater down gradient of the NTCRA 1 system. | 1995 |
| USEPA and the SRSNE Site Group enter into a second AOC for Removal Action and Remedial Investigation/Feasibility Study (RI/FS) to expand the groundwater containment system and complete site investigations. Work under this AOC resulted in the completion of the Site RI/FS, implementation of NTCRA 2, and the decontamination, demolition and removal of the remaining buildings and tanks from | 1996 |

| | |
|---|---|
| the Operations Area. | |
| SRSNE Site Group operates groundwater controls in the overburden and bedrock aquifers, completes remedial investigations, and conducts feasibility studies. | 1996 - 2004 |
| USEPA issues the Proposed Plan in June and holds two public meetings; the public comment period runs from June through August. | 2005 |
| USEPA issues the ROD for the Site, which describes the final remedy. | 2005 |
| USEPA and SRSNE Site Group sign CD to implement the RD/RA activities. | 2008 |
| Court enters CD; Remedial Design work initiated. | 2009 |

## E. Selected Remedy

The overall purpose of RD/RA activities is to design and implement the selected remedial approach for the Site. The selected remedy, developed by combining components of different alternatives for source control and management of migration to obtain a comprehensive approach for Site remediation, was described in the ROD. Key elements are summarized as follows:

- Treat waste oil and solvents – where present as NAPL in the subsurface in the overburden aquifer (i.e., the Overburden NAPL Area) – using in-situ thermal treatment.

- Following in-situ thermal treatment, cap the former SRSNE Operations Area and the railroad right-of-way. The cap will be low-permeability and multi-layered and is to be designed, constructed, and maintained to meet the requirements of Resource Conservation and Recovery Act (RCRA) Subtitle C.

- Excavate soils exceeding cleanup levels from certain discrete portions of the former Cianci Property. The estimated limits of soil removal on the former Cianci Property (five discrete excavation areas) are shown on Figure G-1 of the *Post-Excavation Confirmatory Sampling Plan* (Attachment G to the RDWP); these limits are subject to modification based on additional sampling proposed as part of remedial design. Provided that concentrations of polychlorinated biphenyls (PCBs) do not warrant off-site disposal, soils excavated from the former Cianci Property (and from other areas excavated outside the cap limits as part of other RD/RA activities) may be relocated to the former SRSNE Operations Area for placement beneath the cap.

- Capture and treat (on site) groundwater in both the overburden and bedrock aquifers that exceeds applicable federal drinking water standards and risk-based levels. This will be achieved through continued operation, maintenance, and modification (as needed) of the HCTS.

- Monitored natural attenuation of the groundwater plume outside the capture zones (i.e., the severed plume, shown on Figure 3A of the RDWP) that exceeds cleanup levels.

- Monitor natural degradation of constituents in the groundwater plume inside the capture zones and within the Bedrock NAPL Area (shown on Figure 3B of the RDWP).

- Implement institutional controls (i.e., Environmental Land Use Restrictions) to minimize the potential for human exposure to Site-related constituents in the subsurface soils and to prohibit activities that might affect the performance or integrity of the cap.

- Monitor groundwater and maintain the cap over the long term.

**F. Performance Standards**

Section IV of the SOW establishes Performance Standards for the various affected media at the SRSNE Site. It also establishes Performance Standards for other aspects of the RD/RA, including subsurface NAPL in the overburden and bedrock aquifers, performance of the multi-layer cap, hydraulic containment and treatment, the severed plume, habitat restoration, environmental monitoring, and institutional controls. These non-media-specific Performance Standards are summarized and addressed (to the extent applicable at this point in the RD/RA process) in the various task-specific work plans summarized in the RDWP.

Performance Standards for soil, wetland soil, and groundwater have been reviewed and compared to the current applicable USEPA and CTDEP standards and guidance. Based on this review, it was concluded that none of the USEPA or CTDEP criteria for Site-related constituent have been revised since the ROD was issued. However, the CTDEP has published a lower detection limit for 1,2,4-trichlorobenzene in water (0.5 micrograms per liter [ug/L] rather than the prior value of 2 ug/L). Because the detection limit is the cleanup level for groundwater (discussed below), this modification is noted on the copy of Table L-1 from the ROD that is provided as Appendix 1 to the RDWP. No other modifications were warranted to Tables L-1 or L-2 of the ROD to reflect current published guidance and standards.

The only monitoring to evaluate compliance with Performance Standards during this reporting period was that conducted for the HCTS, as discussed below in section I and in Attachment 2 to this report.

## G. Summary of Activities Completed This Reporting Period

A summary of activities completed during this reporting period is provided within the attached Table 1.

## H. Updated Schedule

An updated project schedule is included as Attachment 1 to this report.

## I. Hydraulic Containment & Treatment System Operations and Maintenance

The HCTS achieved compliance during this reporting period with the Demonstration of Compliance Requirements (see Attachment B to the SOW). Details of the operation are provided as Attachment 2 to this report.

In addition to the parameters required by the Demonstration of Compliance Requirements, groundwater temperature data have been collected within the sheetpile wall to provide a baseline dataset of temperature variation over time. These data are being collected pursuant to Section 5.3.3 of Appendix N of the RDWP (Monitoring Well Network Evaluation and Groundwater Monitoring Program).

Future reports will include map views and cross-sections to demonstrate hydraulic containment in accordance with EPA guidance from January 2008 entitled *A Systematic Approach for Evaluation of Capture Zones at Pump and Treat Systems* (EPA/600/R-08/003).

## J. Institutional Controls / Access Agreements

Institutional controls are already in place on the Operations Area and Cianci Properties that prohibit all uses except for those associated with environmental response actions, as further described in CD paragraph 26. No additional institution controls were implemented during this reporting period. The SRSNE Site Group initiated a process to take over the Voting Trusts that control the Operations Area Property and the Cianci Property, which will allow the implementation of additional institutional controls on those properties when appropriate. An initial meeting was held with CT DEP this reporting period to discuss the need to implement institutional controls on the Railroad Right-of-Way, which is State owned. Additional institutional controls will be implemented pursuant to the Institutional Control Plan that will be developed as required by SOW Section V.B.7.

Access agreements needed to conduct RD activities were requested from ten property owners during this reporting period. Access was granted to six; negotiations for access to the remaining four properties are ongoing.

**K. Construction, Operation and Maintenance Activities**

A scope of construction for new monitoring wells and abandonment of existing wells was proposed in RDWP Appendix N. This work will be performed in the next reporting period. Operation and maintenance activities were initiated during this reporting period, specifically, the evaluation of the existing monitoring well network as detailed in Section 2.2.1 of the Field Sampling Plan (Attachment B of the RD Project Operations Plan). Rehabilitation of the existing monitoring well network will be performed during the first half of the next reporting period.

**L. Habitat Restoration**

No habitat restoration activities were conducted during this reporting period. A pre-remediation assessment of the types, extent and condition of existing habitats on site was conducted in June 2009 pursuant to RDWP Attachment H (Habitat Restoration Work Plan).

**M. Memorandum of Agreement (MOA) with Southington Water Department / Town of Southington**

A draft MOA was prepared during this reporting period as required by SOW Section V.B.3. This draft MOA was submitted for USEPA review on September 16, 2009.

**N. Groundwater Monitoring Program**

A comprehensive groundwater monitoring program was scoped in RDWP Attachment N. The first comprehensive groundwater sampling event will occur during April/May 2010, during the next reporting period. A summary of the planned sampling frequency is provided in the attached Table N-1 from the RDWP.

The first comprehensive ground sampling event will support the first Five-Year Review, which is due in 2010. In addition, this sampling event will provide data for the first Monitored Natural Attenuation Report. The scope of this report is provided in RDWP Attachment L (Monitored Natural Attenuation Plan).

**O. Recommendations of Changes to any Monitoring Program**

No changes are recommended to any monitoring program.

**P. Groundwater Containment and Treatment Optimization Studies**

No optimization studies were conducted during this reporting period.

**Q. Costs Incurred this Reporting Period**

Paragraph 62 of the CD sets forth “Additional Provisions Regarding Settling Defendants’ Payments of U.S. Oversight Costs and State Oversight Costs.” Pursuant to this paragraph, an interest bearing “Oversight Costs Payment Subaccount” of the Remedial Trust Account was established on April 27, 2009, in the amount of $5,700,000. The

balance in this subaccount at the end of reporting period was $5,703,480.88. Other defined terms in this paragraph include:

- "Rolling Oversight Cap" – defined as 15% of the total costs incurred by the Settling Defendants in performing the Work through the end of the Oversight Billing Period.
- "Available Balance" equals the Rolling Oversight Cap less the sum of all Settling Defendants prior payments for U.S Oversight Cost and State Oversight Costs.

Paragraph 62.e states that the Settling Defendants shall have the burden of calculating annually the Rolling Oversight Cap and Available Balance.

The total costs incurred in performing the Work during the reporting period are: **$1,900,643**

Accordingly, the Rolling Oversight Cap amount for this reporting period is: **$285,096**

No oversight cost bills were received or oversight cost payments made to USEPA during this reporting period, so the Available Balance is equal to the Rolling Oversight Cap.

## R. References

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# Tables

**TABLE 1.0**
**Summary of Activities Completed**
**October 30, 2008 through October 31, 2009**

| Document Name / Activity | Author(s) | Date Submitted | Date Approved | Type |
|---|---|---|---|---|
| Submitted notification for de maximis as Supervising Contractor and Remedial Design (RD) Contractors (ARCADIS and Weston Solutions).to the U.S. Environmental Protection Agency (EPA) and the State of Connecticut | de maximis, inc | 11/7/2009 | 12/22/2009 | Notification |
| Submitted proof on of insurance to the Agencies | de maximis, inc | 12/2/2009 | NA | Notification |
| Submitted notification to the U.S. Environmental Protection Agency (EPA) and the State of Connecticut that the Settling Defendants have retained TerraTherm to design and perform the In-Situ Thermal Remediation (ISTR) portion of the Site remedy. | de maximis, inc | 1/15/2009 | 4/6/2009 | Notification |
| Existing Conditions Survey | de maximis, inc | 1/15/2009 | NA | Field Work- Survey |
| Demonstration of Compliance Report #60 for the Non-Time-Critical Removal Action No. 1 and No. 2 Groundwater Containment and Treatment System. | Weston Solutions | 2/23/2009 | NA | Report |
| Remedial Design Project Operations Plan/Remedial Design Work Plan | de maximis/ ARCADIS/TerraTherm/ Weston | 4/21/2009 | NA | Work Plan Submittal |
| Submitted documentation on April 27, 2009 evidencing that that Trusts have been fully funded. | Trustee | 4/27/2009 | NA | Notification |
| Submitted documentation on April 27, 2009 evidencing that that Oversight Costs Payment Subaccount has been fully funded. | Trustee | 4/27/2009 | NA | Notification |
| Submitted documentation on April 27, 2009 that Past Costs and Natural Resource Damages had been paid. | Trustee | 4/27/2009 | NA | Notification |
| EPA comments on the draft well inventory scope of work [Remedial Design Work Plan (RDWP) Sections 2.2.1.1thru 2.2.1.3, 3.6.6 and 3.7 and appendix B-1-1 of the field sampling plan (attachment B to the POP) and section 3.3 of Attachment N to the RDWP] Plan (received via email) | EPA | 6/5/2009 | NA | Agency Comments |
| EPA approval of the draft NAPL delineation program (Attachment A to the RDWP) | EPA | 4/21/2009 | 6/8/2009 | Agency Approval |
| EPA/CT DEP Comments on RDWP Attachment M | EPA | 6/8/2009 | NA | Agency Comments |
| Response to Agency Comments on Select Attachments to the Remedial Design Work Plan and Remedial Design Project Operations Plan | ARCADIS | 6/11/2009 | NA | Response to Comments |
| Response to EPA comments on the well inventory scope of work | ARCADIS | 6/17/2009 | NA | Response to Comments |
| Monitoring Well Evaluation | ARCADIS | 6/18/2009 | 9/15/2009 | Field Work |
| Field Trailer Mobilized to Site | de maximis, inc | 6/29/2009 | NA | Field Work |

**TABLE 1.0**
**Summary of Activities Completed**
**October 30, 2008 through October 31, 2009**

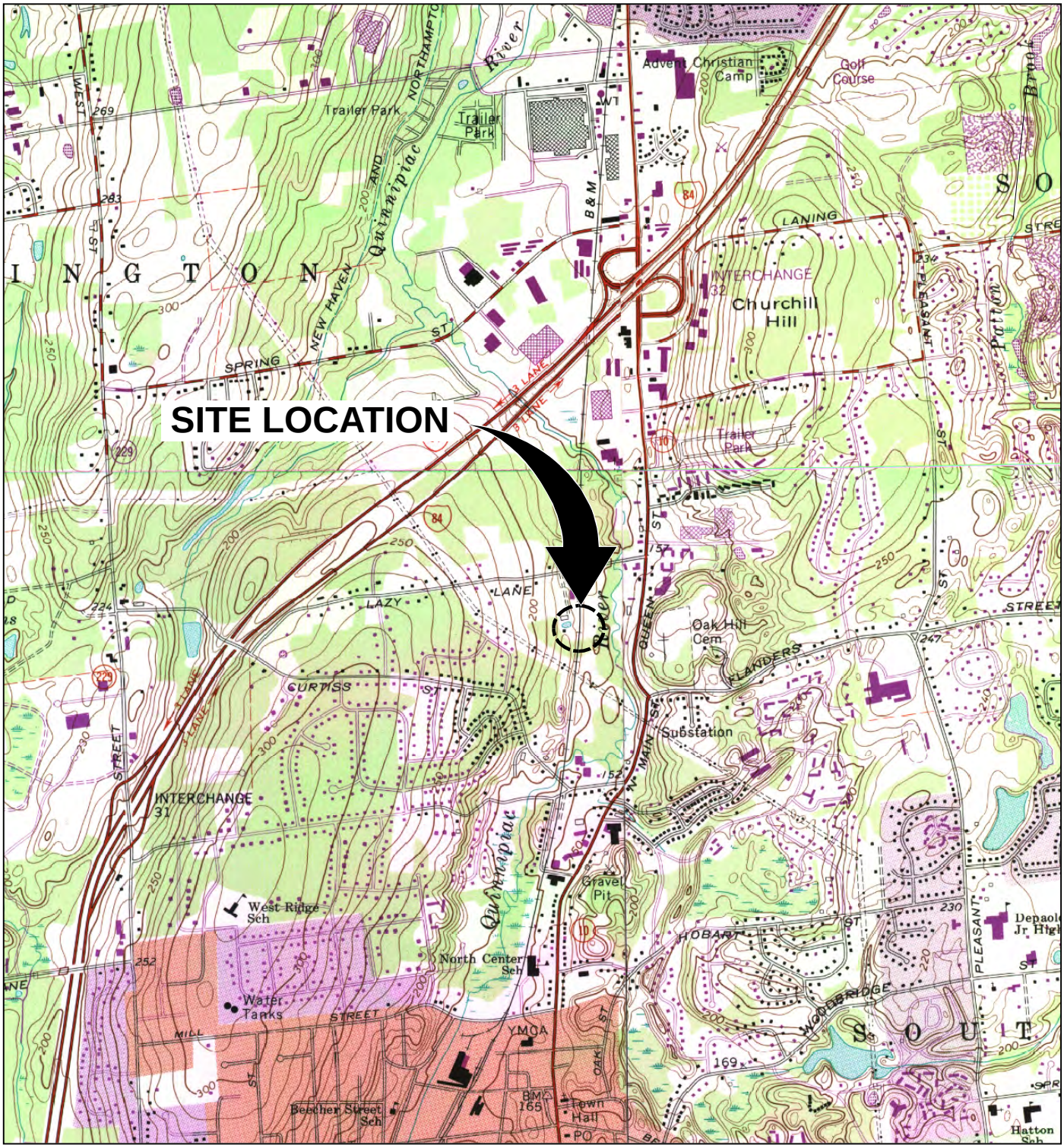
| Document Name / Activity | Author(s) | Date Submitted | Date Approved | Type |
|---|---|---|---|---|
| EPA/CT DEP Comments RDWP attach N, section 3.3; POP attach B, sections 2.2.1.1 to 2.2.1.3, 3.6.6, 3.7,appendix B-1-1 (for well inventory) | EPA | 6/22/2009 | NA | Agency Comments |
| Received draft comments from EPA by the U.S. Fish and Wildlife Service on the pre-remediation habitat survey (RDWP Attachment H) | EPA | 6/25/2009 | NA | Agency Comments |
| Response to comments from EPA by the U.S. Fish and Wildlife Service on the pre-remediation habitat survey (RDWP Attachment H) | ARCADIS | 6/26/2009 | NA | Response to Comments |
| EPA Approval of RDWP Attachment H, field work for habitat delineation. | EPA | 4/21/2009 | 6/29/2009 | Agency Approval with Comments |
| EPA/CT DEP Approval of Access Letters | EPA | 4/21/2009 | 8/7/2009 | Agency Approval |
| EPA/CT DEP Approval of RDWP Attachment M | EPA | 4/21/2009 | 8/11/2009 | Agency Approval with Comments |
| EPA/CT DEP Comments on RDWP Attachments L, N and O Additional Comments on POP Attachments B and C | EPA | 4/21/2009 | 8/18/2009 | Comments on RD Work Plans |
| On-Site Overburden NAPL Delineation | de maximis/ARCADIS | 7/6/09 - 7/7/09 | NA | Field Work |
| PIPP Sampling along Rail Road Right of Way | ARCADIS | 7/6/09 - 7/7/09 | NA | Field Work |
| Wetlands Boundary Survey | ARCADIS | 7/6/09 - 7/7/09 | NA | Field Work |
| Access Letter to Off-Site Properties Issued | de maximis | 8/13/2009 | NA | Access Agreement |
| Received Access to 94 Queen Street | M&J Realty | 8/17/2009 | NA | Access Agreement |
| www.srsnesite.com Website opened to Public | ddms, inc | 8/28/2009 | NA | Public Relations |
| Response to EPA Comments- EPA/CT DEP Comments on RDWP Attachments L, N and O Additional Comments on POP Attachments B and C | de maximis | 9/9/2009 | NA | Response to Comments |
| Draft MOA to EPA | SRSNE Site Group | 9/16/2009 | pending | Deliverable under SOW |
| Monitoring Well Evaluation Summary Memorandum | de maximis/ARCADIS | 10/21/2009 | pending | Pre-Design Study |
| Off-Site Overburden NAPL Delineation | de maximis/ARCADIS | 10/28/2009 | NA | Field Work |

**Table N-1.**
**Groundwater Monitoring Network and Sampling Events**
**SRSNE Superfund Site, Southington, CT**

| Well Group | # Wells | Sampling Period | Sampling Frequency | Analytical Parameters |
|---|---|---|---|---|
| "C" wells | 81 | first comprehensive event * | 1 event | VOCs, alcohols, 1,4-dioxane, TAL metals, PAHs, PCBs |
| "R" wells | 26 | | | VOCs, alcohols, 1,4-dioxane, TAL metals, PAHs, PCBs, MNA parameters |
| "N" wells | 10 | | | VOCs, alcohols, 1,4-dioxane, TAL metals, PAHs, PCBs, MNA parameters |
| "M" wells | 5 | | | TAL metals, MNA parameters (background) |
| "B" wells | 3 | | | TAL metals (background) |
| "C" wells | 81 | subsequent comprehensive events | every 5 years | VOCs, 1,4-dioxane, TAL metals |
| "R" wells | 26 | | | VOCs, 1,4-dioxane, TAL metals, MNA parameters |
| "N" wells | 10 | | | VOCs, 1,4-dioxane, TAL metals, MNA parameters |
| "M" wells | 5 | | | TAL metals, MNA parameters |
| "B" wells | 3 | | | TAL metals |
| "R" wells | 26 | after first comprehensive event | annual | VOCs |
| | | | biennial | MNA parameters |
| "M" wells | 5 | after first comprehensive event | biennial | TAL metals (background) |
| | | | biennial | MNA parameters (background) |
| "N" wells - overburden | 8 | before thermal treatment | biennial | VOCs, MNA parameters |
| | | during thermal treatment | annual | VOCs, MNA parameters |
| | | after thermal, before equilibrium | 3x / year | VOCs, MNA parameters |
| | | after equilibrium | annual | VOCs |
| | | | biennial | MNA parameters |
| "N" wells - bedrock | 2 | before thermal treatment | annual | VOCs, MNA parameters |
| | | during thermal treatment | annual | VOCs, MNA parameters |
| | | after thermal, before equilibrium | 3x / year | VOCs, MNA parameters |
| | | after equilibrium | annual | VOCs |
| | | | biennial | MNA parameters |
| "W" wells | 36 | all comprehensive events | every 5 years | Water levels only - during all comprehensive events |

Notes: 1) biennial = once every two years.
* - Shallow overburden wells MW-501C, MW-903S, and MW-904S will be re-sampled approximately 6 months after the first comprehensive sampling event.

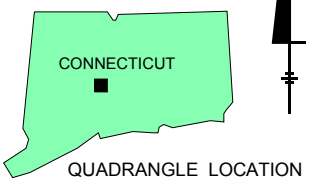
# Figures




**REFERENCE:** SOUTHINGTON, CONN. USGS QUAD. 1968 PR 1992, MERIDEN, CONN. USGS QUAD. 1966 PR 1984, NEW BRITAIN, CONN. USGS QUAD. 1966 PR 1984, & BRISTOL, CONN. USGS QUAD 1967 PR 1984

2000' 0 2000'

APPROX. SCALE: 1" = 2000'




QUADRANGLE LOCATION

**DRAFT**

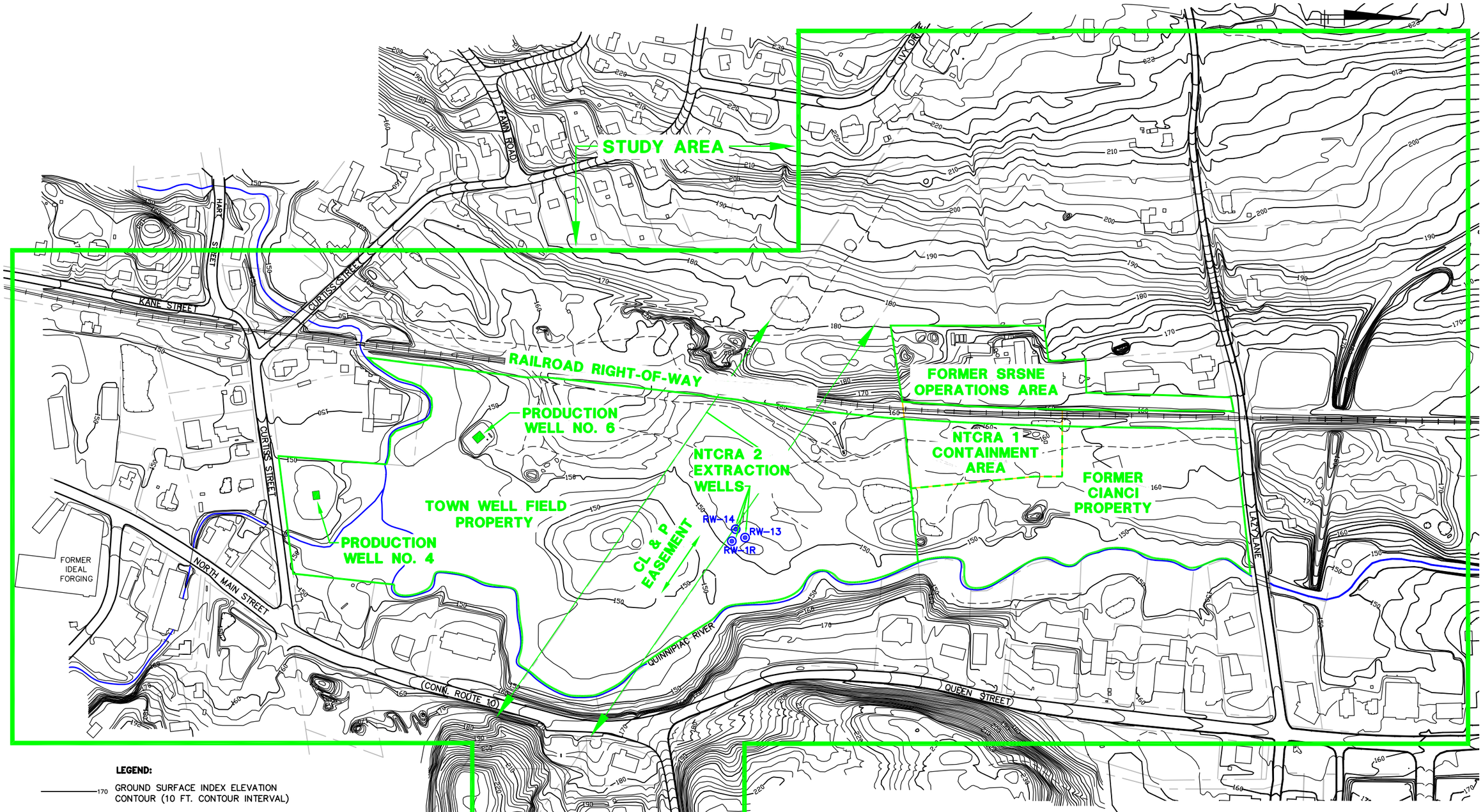
SRSNE SUPERFUND SITE
SOUTHINGTON, CONNECTICUT
**REMEDIAL DESIGN WORK PLAN**

## SITE LOCATION MAP

ARCADIS

FIGURE
**1**

02/27/09 SYRACUSE, NY-ENV/CAD DJH, LJP
B005463410000100001CDR\RDWP\54634N01.CDR




**LEGEND:**

170 GROUND SURFACE INDEX ELEVATION CONTOUR (10 FT. CONTOUR INTERVAL)

GROUND SURFACE INTERMEDIATE ELEVATION CONTOUR (2 FT. CONTOUR INTERVAL)

**NOTE:**

MAPPING BASED ON FIGURE "SOLVENT RECOVERY SERVICE OF NEW ENGLAND REMEDIAL INVESTIGATION/FEASIBILITY STUDY, LAZY LANE, SOUTHINGTON, CONNECTICUT" DATED 6-28-93 BY DIVERSIFIED TECHNOLOGIES CORPORATION.

**DRAFT**

0 300' 600'

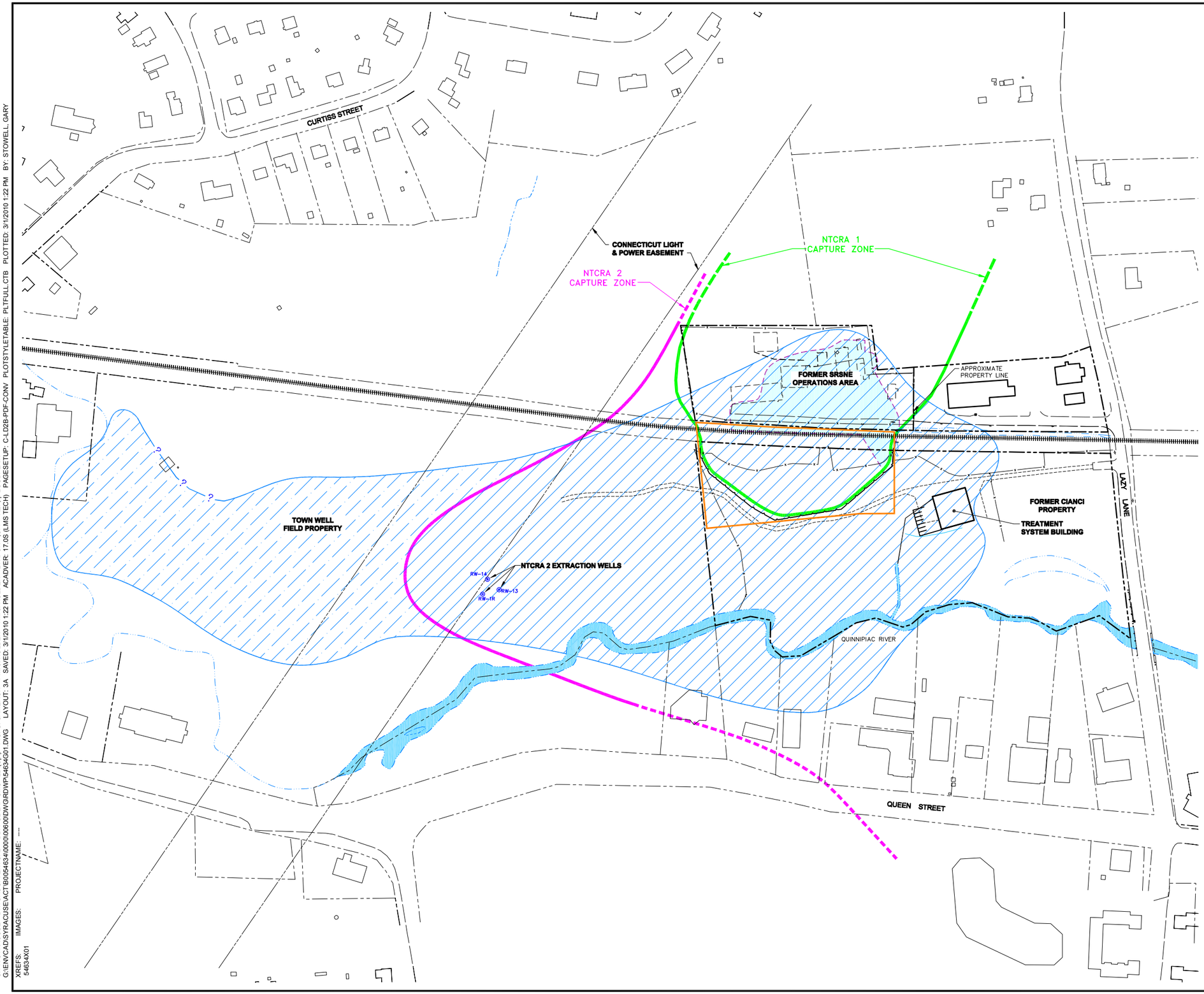
GRAPHIC SCALE

SRSNE SUPERFUND SITE
SOUTHINGTON, CONNECTICUT
**REMEDIAL DESIGN WORK PLAN**

**STUDY AREA**

ARCADIS

FIGURE **2**




LEGEND:

- PROPERTY LINE
- PROPERTY LINE – ADJOINER
- BUILDING
- BUILDING – ADJOINER
- FORMER BUILDING
- RAILROAD
- ROAD
- GRAVEL ROAD
- DRAINAGE SWALE
- RIVER
- EASEMENT
- CHAINLINK FENCE
- SHEETPILE
- NTCRA 1 CONTAINMENT AREA
- OVERBURDEN GROUNDWATER AREA (FROM FIGURE 2-4 OF FEASIBILITY STUDY [BBL AND USEPA 2005])
- SEVERED PLUME (FROM FIGURE 2-4 OF FEASIBILITY STUDY [BBL AND USEPA 2005])
- OVERBURDEN NAPL AREA (FROM FIGURE 2-3 OF FEASIBILITY STUDY [BBL AND USEPA 2005])

NOTES:

1. BASEMAP INFORMATION OBTAINED FROM A FIGURE CREATED BY CONKLIN & SOROKA, INC., ENTITLED "TOPOGRAPHIC SURVEY" DATED 1/13/09 AT A SCALE OF 1"=50'.
2. ALL LOCATIONS ARE APPROXIMATE.
3. THIS FIGURE PRESENTS AN OVERLAY OF THE ESTIMATED EXTENTS OF THE GROUNDWATER PLUME IN THREE MONITORED OVERBURDEN ZONES, BASED ON PLUME DELINEATION LIMITS PRESENTED IN THE FEASIBILITY STUDY (BBL AND USEPA 2005).

DRAFT

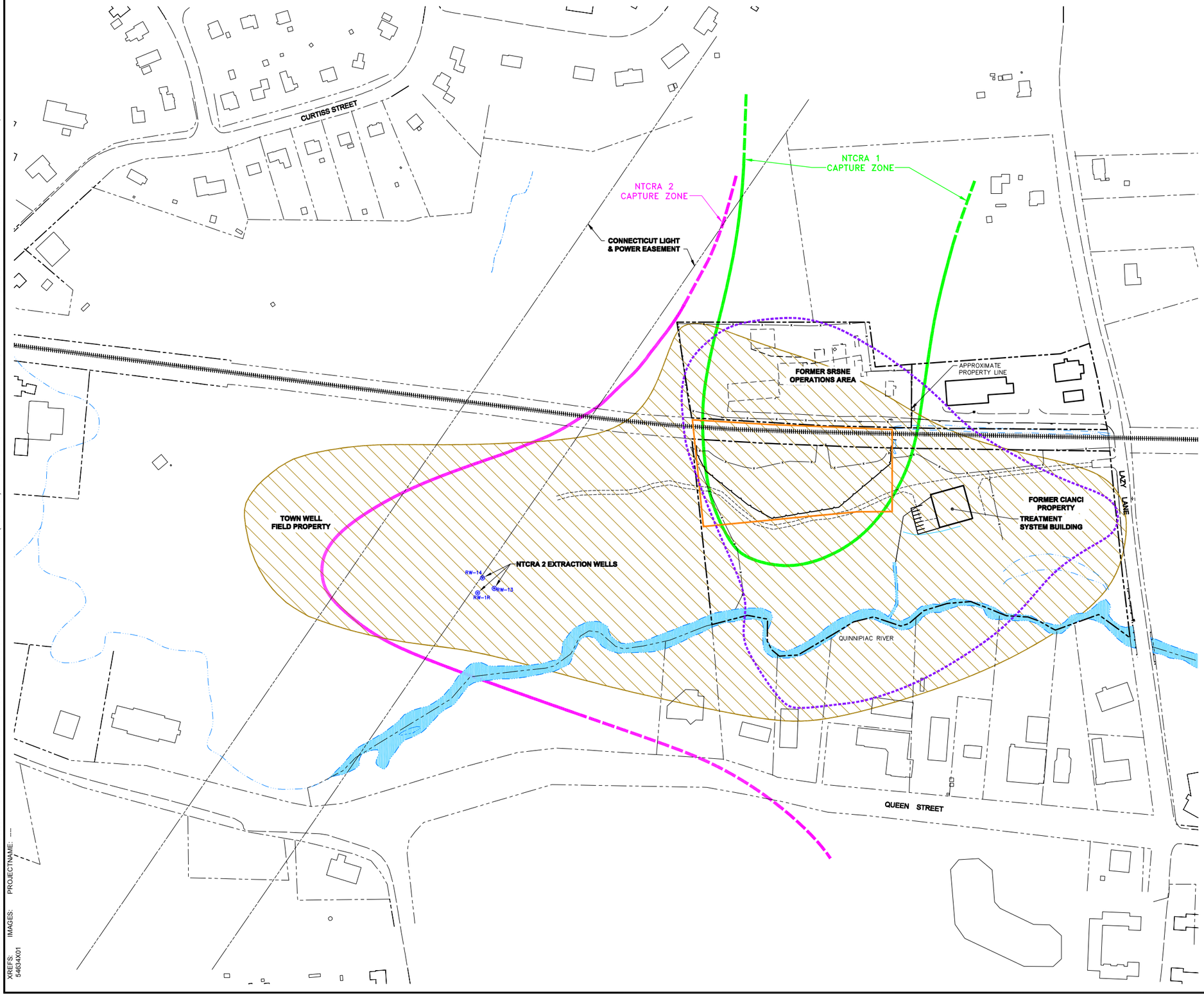
0 120' 240'
GRAPHIC SCALE

SRSNE SUPERFUND SITE
SOUTHINGTON, CONNECTICUT
**REMEDIAL DESIGN WORK PLAN**

# ESTIMATED GROUNDWATER PLUME AND NAPL AREAS - OVERBURDEN

ARCADIS

FIGURE
**3A**




**LEGEND:**

- PROPERTY LINE
- PROPERTY LINE – ADJOINER
- BUILDING
- BUILDING – ADJOINER
- FORMER BUILDING
- RAILROAD
- ROAD
- GRAVEL ROAD
- DRAINAGE SWALE
- RIVER
- EASEMENT
- CHAINLINK FENCE
- SHEETPILE
- NTCRA 1 CONTAINMENT AREA
- BEDROCK NAPL AREA (FROM FIGURE 2-5 OF FEASIBILITY STUDY [BBL AND USEPA 2005])
- BEDROCK GROUNDWATER AREA (FROM FIGURE 2-6 OF FEASIBILITY STUDY [BBL AND USEPA 2005])

NOTES:

1. BASEMAP INFORMATION OBTAINED FROM A FIGURE CREATED BY CONKLIN & SOROKA, INC., ENTITLED "TOPOGRAPHIC SURVEY" DATED 1/13/09 AT A SCALE OF 1"=50'.
2. ALL LOCATIONS ARE APPROXIMATE.
3. THIS FIGURE PRESENTS AN OVERLAY OF THE ESTIMATED EXTENTS OF THE GROUNDWATER PLUME IN TWO MONITORED BEDROCK ZONES, BASED ON PLUME DELINEATION LIMITS PRESENTED IN THE FEASIBILITY STUDY (BBL AND USEPA 2005).

**DRAFT**

0 120' 240'
GRAPHIC SCALE

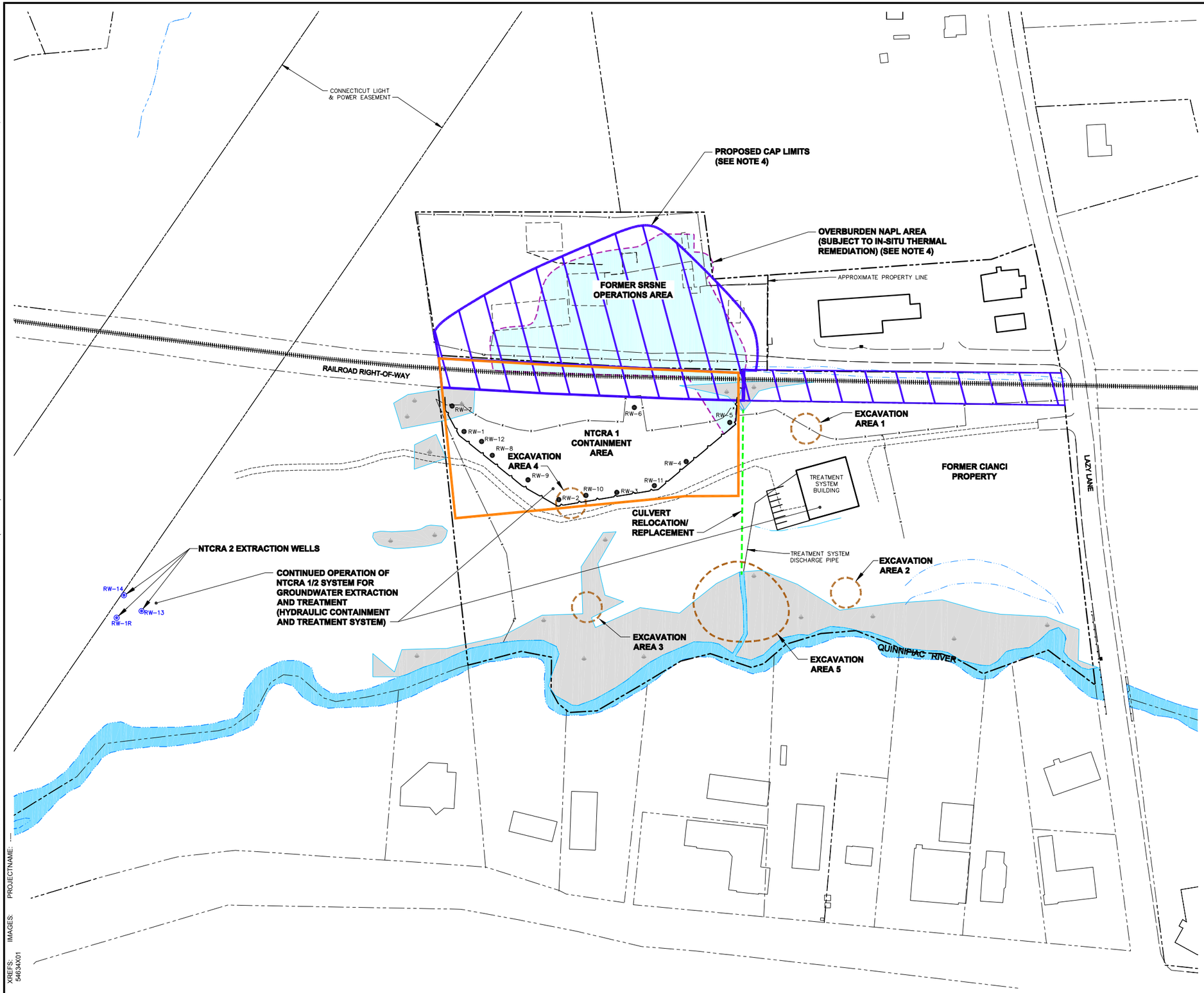
SRSNE SUPERFUND SITE
SOUTHINGTON, CONNECTICUT
**REMEDIAL DESIGN WORK PLAN**

# ESTIMATED GROUNDWATER PLUME AND NAPL AREAS - BEDROCK

ARCADIS

FIGURE
**3B**

CITY: SYRACUSE DIV/GROUP: ENVCAD DB: PGL LAF GMS LD:(Opt) PIC: G. CAMERON PM: J. HOLDEN TM: J. HOLDEN LYR: ON="OFF"=REF; |FLOODPLAIN
G:\ENVCAD\SYRACUSE\ACT\B0054634\0000\00600\DWG\RDWP\54634G02.DWG LAYOUT: 3B SAVED: 3/1/2010 1:25 PM ACADVER: 17.0S (LMS TECH) PAGESETUP: C:\LD2B-PDF-CONV PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 3/1/2010 1:25 PM BY: STOWELL, GARY
XREFS: IMAGES: PROJECTNAME: ---
54634X01




LEGEND:

- PROPERTY LINE
- PROPERTY LINE – ADJOINER
- BUILDING
- BUILDING – ADJOINER
- FORMER BUILDING
- RAILROAD
- ROAD
- GRAVEL ROAD
- DRAINAGE SWALE
- RIVER
- EASEMENT
- CHAINLINK FENCE
- AREA OF DISCRETE SOIL REMOVAL ON FORMER CIANCI PROPERTY (SEE NOTE 4)
- SHEETPILE
- WETLAND
- RW-1 NTCRA 1 OVERBURDEN EXTRACTION WELL

NOTES:

1. SITE PLAN TAKEN FROM DIVERSIFIED TECHNOLOGIES CORP., 556 WASHINGTON AVE., NORTH HAVEN, CT, DATED 6/93. TOPOGRAPHY REPORTED TO HAVE BEEN DIGITIZED FROM TOWN OF SOUTHINGTON TOPOGRAPH MAPS G-7, G-8, G-9; PHOTOGRAPHY DATED NOV. 1978, SCALE: 1"=100'. PROPERTY LINES REPORTED TO HAVE BEEN DIGITIZED AND LOT NUMBERS TAKEN FROM "PROPERTY MAP, TOWN OF SOUTHINGTON" MAPS 134 & 147, SCALE: 1"=100' BY DIVERSIFIED TECHNOLOGIES CORPORATION.
2. BENCHMARK #1 IS AT ELEVATION 164.03. PK NAIL; S'LY SIDE; POLE #9049.
3. WETLAND AREAS WERE TAKEN FROM THE FINAL REMEDIAL INVESTIGATION REPORT (HNUS 1994).
4. THE LIMITS OF REMEDIAL ACTIVITIES ARE PRELIMINARY AND ARE SUBJECT TO CONFIRMATION/MODIFICATION BASED ON REMEDIAL DESIGN ACTIVITIES.

DRAFT

0 80' 160'
GRAPHIC SCALE

SRSNE SUPERFUND SITE
SOUTHINGTON, CONNECTICUT
**REMEDIAL DESIGN WORK PLAN**

# PLANNED REMEDIAL ACTIVITIES

ARCADIS

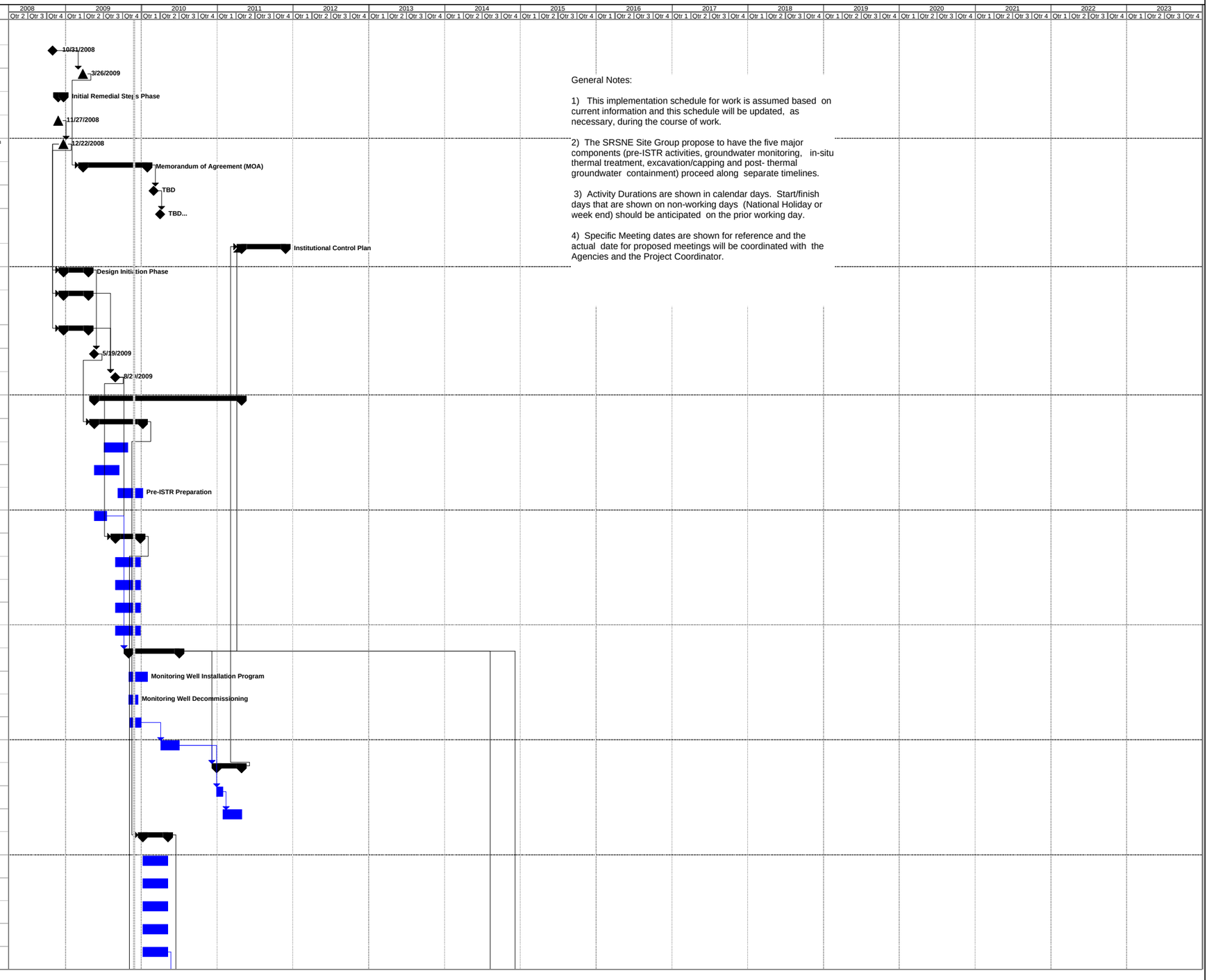
FIGURE
**4**

# Attachments

de maximis, inc.

# SRSNE RD/RA Project Schedule
## Annual State of Compliance Report #1

| ID | Deliverable/Activity | Trigger | Time Frame |
|---|---|---|---|
| 0 | **RDRA Schedule** | | |
| 1 | **Lodging of the Consent Decree** | | |
| 2 | **Entry of the CD** | | |
| 3 | **Initial Remedial Steps Phase** | EPA Approval of Contractors | |
| 4 | **Notification of Supervising Contractor/Project Coordinator** | Lodging of the CD | Satisfied in the draft SOW. |
| 5 | **Notification/Selection of a Remedial Design Contractor** | Lodging of the CD | Notification/Selection of a Remedial Design Contractor |
| 6 | **Memorandum of Agreement (MOA)** | Entry of the CD. | Within 180 days of Entry of CD |
| 10 | **Supplemental Containment Action Plan** | EPA Approval of MOA | Within 30 days of signed MOA. |
| 11 | **Implementation of Supplemental Containment Action Plan (TBD)** | Upon notification by EPA, and consistent with the terms of the Memorandum of Agreement | As specified by EPA. |
| 12 | **Institutional Control Plan** | Completion of Vapor Intrusion Study | Within 30 days of completion of Vapor Intrusion Study |
| 19 | **Design Initiation Phase** | | |
| 20 | **Remedial Design Work Plan (RD WP)** | EPA approval of RD Contractor. | Within one hundred twenty (120) days of receipt of EPA's written notice of authorization to proceed |
| 37 | **Remedial Design Project Operations Plan (POP)** | EPA approval of RD Contractor. | Within 120 days of EPA approval. |
| 43 | **Agency Review and Comment on Accelerated Pre Design Studies** | | |
| 44 | **Agency Review and Comment on Remedial Design Work Plan and POP** | | |
| 45 | **Pre-Design Studies** | | |
| 46 | **Accelerated Pre-Design Studies** | | |
| 47 | Overburden NAPL Delineation Study | | |
| 48 | Habitat Restoration Study | | |
| 49 | Pre-ISTR Preparation | | |
| 50 | Groundwater Monitoring Well Network Evaluation | | |
| 51 | **Non Accelerated Pre-Design Studies** | | |
| 52 | Thermal Treatment Monitoring Study | | |
| 53 | Vapor Treatment Bench Scale Study Design | | |
| 54 | System Design Evaluation Study | | |
| 55 | Soils Delineation Study | | |
| 56 | **Groundwater Pre-design Studies** | | |
| 57 | Monitoring Well Installation Program | | |
| 58 | Monitoring Well Decommissioning | | |
| 59 | Monitoring Well Development | | |
| 60 | Initial Comprehensive Sampling Event | | |
| 61 | **Vapor Intrusion Study** | | |
| 62 | Follow-up Groundwater Sampling Round | 6 Months Following Initial Sampling Event | |
| 63 | Vapor Intrusion Study | | |
| 64 | **Pre-ISTR Final Design Package (100 % Design)** | EPA approval or modification of Conceptual Design. | Within 90 days of notice by EPA. |
| 65 | NAPL Delineation Investigation Report | | |
| 66 | Culvert Relocation Design | | |
| 67 | ISTR Area Surface Grading Design | | |
| 68 | HCTS Modifications Plan and Final Design Report | | |
| 69 | Utility Plan | | |




General Notes:

1) This implementation schedule for work is assumed based on current information and this schedule will be updated, as necessary, during the course of work.

2) The SRSNE Site Group propose to have the five major components (pre-ISTR activities, groundwater monitoring, in-situ thermal treatment, excavation/capping and post- thermal groundwater containment) proceed along separate timelines.

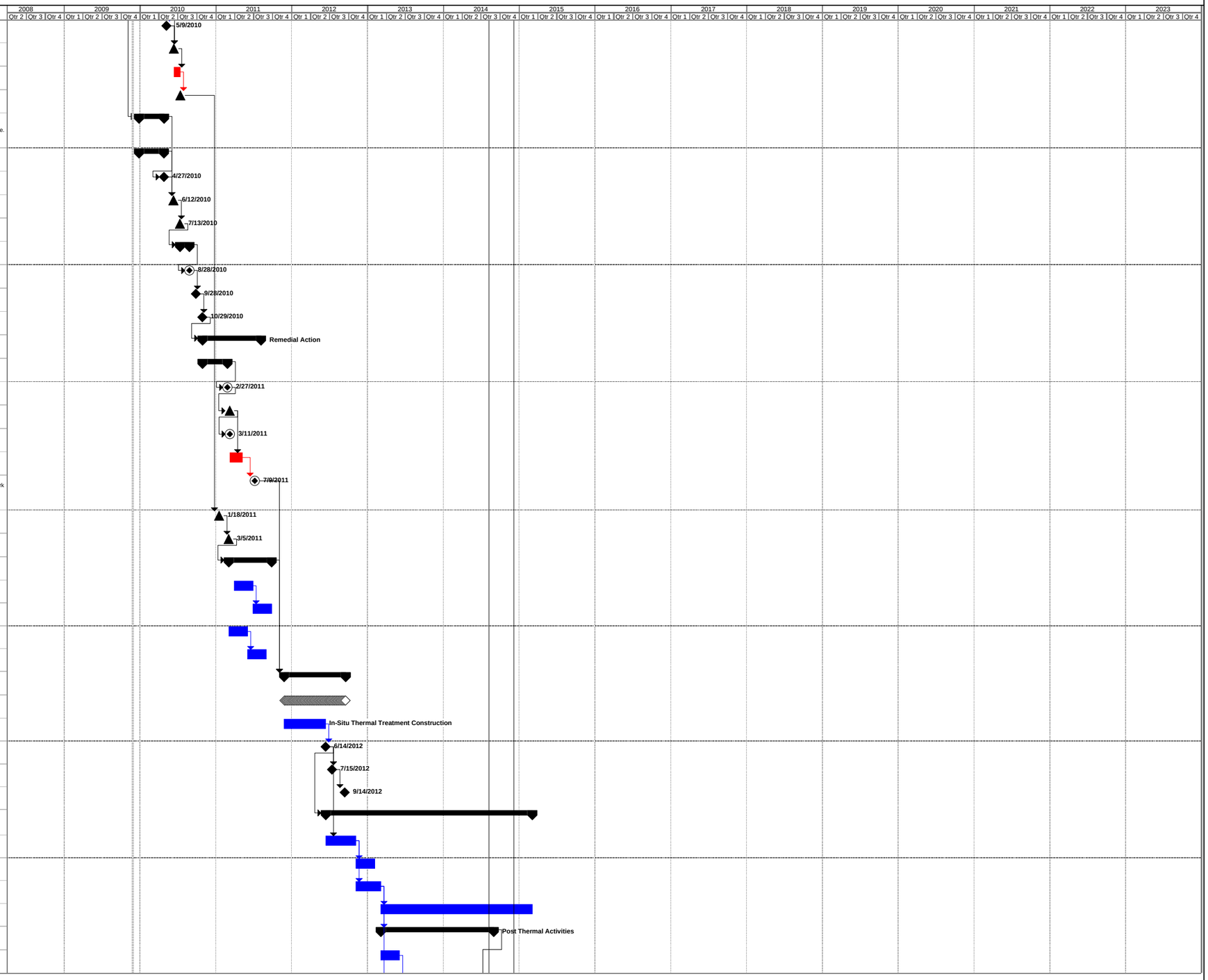
3) Activity Durations are shown in calendar days. Start/finish days that are shown on non-working days (National Holiday or week end) should be anticipated on the prior working day.

4) Specific Meeting dates are shown for reference and the actual date for proposed meetings will be coordinated with the Agencies and the Project Coordinator.

*de maximis, inc.*

# SRSNE RD/RA Project Schedule
## Annual State of Compliance Report #1

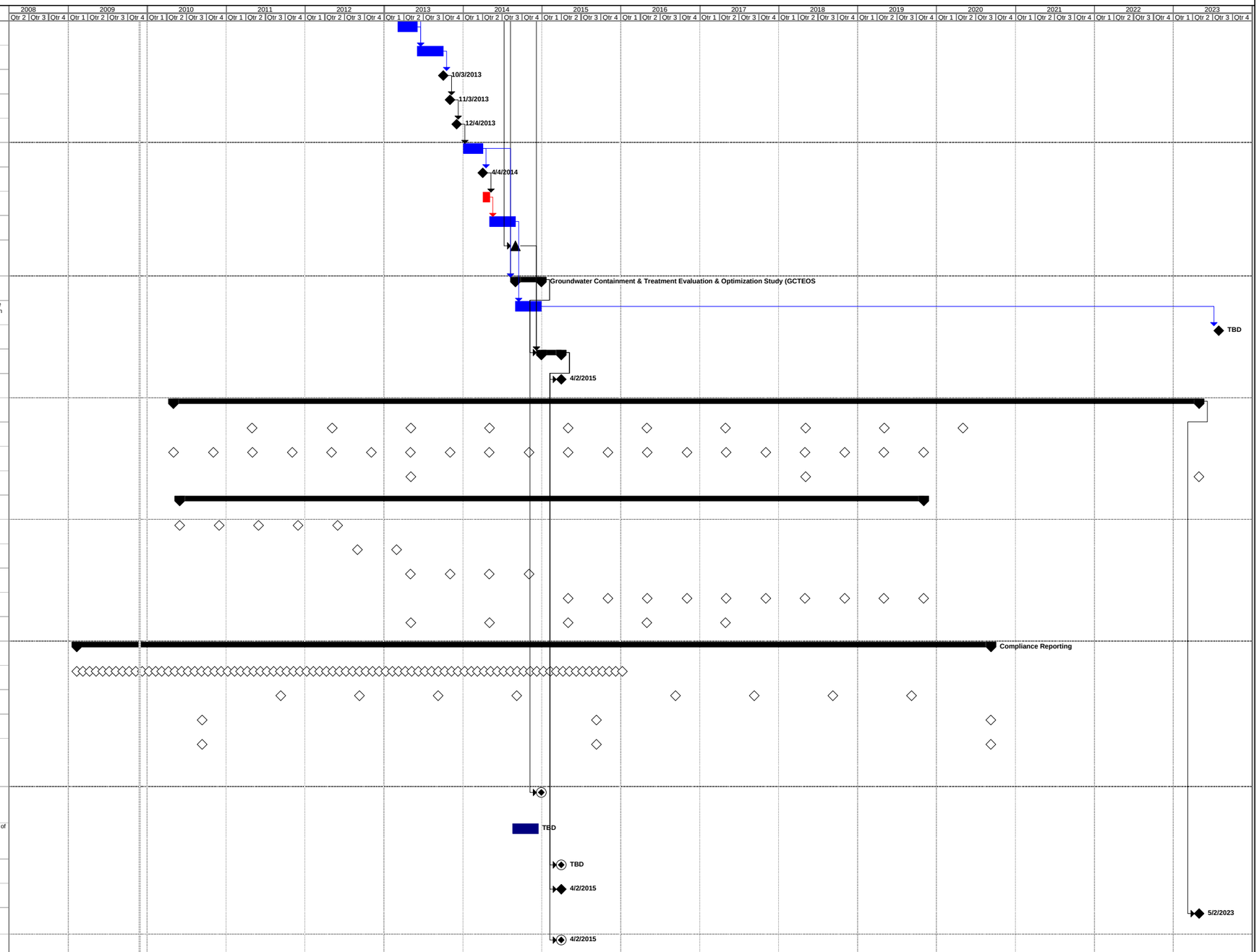
| ID | Deliverable/Activity | Trigger | Time Frame |
|---|---|---|---|
| 70 | Submit 100% Design Package | | |
| 71 | **Technical Information Meeting** | Submittal of 100% Design. | |
| 72 | **Agency Review/Comment** | | |
| 73 | **Agency Approval of Pre-ISTR Package (100% Design) with Comments** | | |
| 74 | **ISTR Conceptual Design Package (75% Design)** | EPA approval or modification of RD Work Plan. | Within 120 days of EPA approval that necessary pre-design studies to be described in the RD Work Plan are complete. |
| 75 | **Pre-Design Activities Reports** | | |
| 80 | **Submit 75% Design Package** | | |
| 81 | **Technical Information Meeting** | | |
| 82 | **Agency Approval of 75% Design Package with Comments** | | |
| 83 | **ISTR Final Design Package (100% Design)** | | |
| 86 | **Submit ISTR Final Draft Package (100% Design)** | | |
| 87 | **Technical Information Meeting** | | |
| 88 | **Agency Approval of ISTR Design Package (100% Design) with Comments** | | |
| 89 | **Remedial Action** | EPA approval or modification of the Final Remedial Design. | Within 120 days of notice by EPA. |
| 90 | **Draft RA Work Plan and Revised POP** | | |
| 94 | **Submit Final Draft RA Work Plan and Revised POP** | | |
| 95 | **Technical Information Meeting** | | |
| 96 | **RA Implementation Schedule** | EPA approval or modification of Final Design. | Within 30 days of notice by EPA. |
| 97 | **Agency Review and Comment on Draft RA Work Plan and POP** | | |
| 98 | **Submit Final Remedial Action Work Plan (s) and Revised POP(s)** | | Within sixty (60) days of receiving EPA's approval or modification of the draft RA Work Plan(s)) and Revised POP(s). |
| 99 | **Pre-construction Conference(s)** | EPA approval or modification of Final Design. | Within 30 days of notice by EPA. |
| 100 | **Pre-construction Public Meeting(s)** | EPA approval or modification of Final Design. | Within 45 days of notice by EPA. |
| 101 | **Accelerated ISTR Construction Activities** | | |
| 102 | AT&T Fiber Optic Relocation | | |
| 103 | Partial CP-2 (culvert relocation) Construction | | |
| 104 | OAR-2 Surface Preparation for ISTR Work | | |
| 105 | Thermal Infrastructure Installation (gas, sewer, power) | | |
| 106 | **Initiation of Remedial Action Construction Activities (ISTR and Soils)** | **EPA approval or modification of Final Design.** | **Within 60 days of notice by EPA.** |
| 107 | **Meetings During Construction** | **Start of Construction** | **Weekly during construction** |
| 151 | In-Situ Thermal Treatment Construction | | |
| 152 | Thermal Final Construction Inspection | Within 60 days of notice by Settling Defendants. | |
| 153 | Submit Construction Completion Report | Within 30 days of Final Construction Inspection. | Within 30 Days |
| 154 | Agency Approval of Completion Report | | |
| 155 | **Thermal Treatment** | | |
| 156 | Implementation of Thermal Treatment | | |
| 157 | Thermal Treatment Verification Sampling, Analysis, and Reporting | | |
| 158 | Additional Operation of Thermal Treatment System (if required) | | |
| 159 | Time to Achieve Equilibrium | | |
| 160 | **Post Thermal Activities** | | |
| 161 | **Soil Investigation** | After In-Situ Thermal to re-assess the size of the area to be capped | |



de maximis, inc.

# SRSNE RD/RA Project Schedule
## Annual State of Compliance Report #1

| ID | Deliverable/Activity | Trigger | Time Frame |
|---|---|---|---|
| 162 | **Vapor Control System Evaluation** | After In-Situ Thermal to determine whether (or not) a vapor control system is needed below the cap. | |
| 163 | **Final Soil & RCRA C Cap Conceptual Design** | | |
| 164 | **Final Soil & Multi Layer Cap Submit 75% Design Package** | | |
| 165 | **Technical Information Meeting** | | |
| 166 | **Agency Approval of 75% Final Soil & Multi Layer Cap Design Package with Comments** | | |
| 167 | **Final Soil & Multi Layer Cap 100% Design Submittal** | | |
| 168 | **Technical Information Meeting** | | |
| 169 | **Agency Approval of Final Soil & Multi Layer Cap 100% Design** | | |
| 170 | **Final Soil & Multi Layer Cap Construction** | | |
| 171 | **Final Construction Inspection** | Settling Defendants conclude construction complete. | Within 60 days of notice by Settling Defendants. |
| 172 | **Groundwater Containment & Treatment Evaluation & Optimization Study (GCTEOS** | | |
| 173 | **Optimization Studies** | Upon completion of the in-situ Thermal Treatment and capping components of the remedy | As directed by the EPA, or proposed by the Settling Defendants, no less frequently than every 10 years |
| 174 | **Additional Optimization Study(s) (TBD)** | | |
| 175 | **Completion Report** | Final construction inspection. | Within 30 days of inspection. |
| 191 | **Commencement of Operation and Maintenance** | EPA approval or modification of Construction Completion Report. | Immediately upon notice by EPA. |
| 192 | **Compliance Monitoring (CM)** | | |
| 193 | **Annual Groundwater Sampling Event** | | |
| 205 | **Biennial Groundwater Sampling Event** | | |
| 226 | **Five-Year Review Sampling Event** | | |
| 230 | **Sampling between Railroad Tracks and NTCRA 1 Sheet Pile Wall** | | |
| 231 | **Pre ISTR Sampling** | | |
| 237 | **ISTR Sampling** | | |
| 240 | **Post ISTR Sampling (During Time to Achieve Equilibrium)** | | |
| 245 | **Post ISTR Equilibrium Sampling** | | |
| 256 | **Background Sampling Event (Metals Only)** | | |
| 262 | **Compliance Reporting** | | |
| 263 | **Monthly Progress Reports** | **Lodging of the CD.** | **On the 10th day following lodging and monthly thereafter.** |
| 348 | **Annual State of Compliance Reports** | **One Year After the Lodging of the Consent Decree** | **Annually** |
| 360 | **Five Year Review Reports** | **Five Years after the date of the Record of Decision** | **Every Five years** |
| 364 | **Compliance Monitoring (CM) Work Plan Evaluation(s)** | **No less frequently than once after implementation of the excavation and capping component, and long-term groundwater containment and treatment system.** | **As part of the five-year reviews.** |
| 368 | **Interim Remedial Action Report** | EPA determination that long-term groundwater containment and treatment system is operational and functional. | Within 90 days of notice by EPA. |
| 369 | **Determination of Background Metals in Groundwater (TBD)** | Compliance with Interim Cleanup Levels for Groundwater. | No sooner than 365 days prior to submittal of Demonstration of Compliance Report. |
| 370 | **Demonstration of Compliance Report (TBD)** | Compliance with cleanup levels. | As demonstrated by Settling Defendants. |
| 371 | **Risk Assessment** | | |
| 372 | **Site Closure (TBD)** | | |
| 373 | **Summary of Cost Information (TBD)** | Compliance with cleanup levels. | As demonstrated by Settling Defendants. |



# *Hydraulic Containment and Treatment System Annual Demonstration of Compliance Report No. 1*

## *31 October 2008 Through 30 October 2009*

Solvents Recovery Service of New England, Inc.
Superfund Site
Southington, Connecticut

**Prepared for:**
SRSNE PRP Group

**Prepared by:**

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# HYDRAULIC CONTAINMENT AND TREATMENT SYSTEM ANNUAL DEMONSTRATION OF COMPLIANCE REPORT 31 OCTOBER 2008 THROUGH 30 OCTOBER 2009

# SOLVENTS RECOVERY SERVICE OF NEW ENGLAND, INC. SUPERFUND SITE SOUTHINGTON, CONNECTICUT

## TABLE OF CONTENTS



**Tables**

**Figures**

# 1.0 INTRODUCTION

This is the first annual Hydraulic Containment and Treatment System (HCTS) Demonstration of Compliance Report (DCR) to be issued after lodging of the Consent Decree and submitted in accordance with the RD/RA Statement of Work (SOW). This DCR follows 60 previously submitted DCRs prepared initially on a quarterly basis and subsequently changed to Annual submissions in 2003.

This DCR was prepared by Weston Solutions, Inc. (WESTON) on behalf of the Solvents Recovery Service of New England, Inc. (SRSNE) Superfund Site PRP Group. The DCR documents the effectiveness of the Non-Time-Critical Removal Action No. 1 and 2 (NTCRA-1 and NTCRA-2) Hydraulic Containment and Treatment System at the SRSNE Site in Southington, Connecticut, based on data collected during the period of 31 October 2008 through 30 October 2009. The data presented in this DCR were obtained in accordance with the United States Environmental Protection Agency (USEPA)-approved Demonstration of Compliance Plans (DCP) for NTCRA-1 and NTCRA-2 (BBL, June 1995 and November 1999), respectively. The data acquisition schedule, reporting, and evaluation requirements for this and future DCRs were described in these DCPs.

## 1.1 NTCRA-1 BACKGROUND

The NTCRA-1 groundwater containment system is installed in the Containment Area (Figure 1A), which was defined in the NTCRA-1 Statement of Work (SOW). The containment system includes an array of 12 overburden groundwater extraction wells (RW-1 through RW-12), and a downgradient hydraulic barrier (steel sheet piling) that hydraulically and physically contain overburden groundwater entering the Containment Area from the SRSNE Operations Area.

The pre-design investigation results and the designs of the hydraulic barrier wall, extraction wells, and treatment system are described in detail in the NTCRA-1 100% Groundwater Containment and Treatment System Design Report (100% Design Report, BBL, January 1994). The NTCRA-1 system was constructed between February and July 1995, and brought online in accordance with the USEPA-approved schedule on 19 July 1995.

## 1.2 NTRCA-2 BACKGROUND

The NTCRA-2 groundwater containment system is installed south of the NTCRA-1 Containment Area (Figure 1A), as defined in the NTCRA-2 SOW. The NTCRA-2 Containment Area encompasses the majority of the northern portion of the Town of Southington Well field Property and includes the shallow and deep bedrock, extending to a depth of 100 feet below the top of bedrock in the northern portion of this property (Figure 1A). Further upgradient (north), the NTCRA-2 Containment Area extends over 170 feet below the top of bedrock and over 200 feet below ground surface (BBL, November 1999).

The NTCRA-2 groundwater containment system initially included two groundwater extraction wells (RW-13 and RW-1R) that, in combination with the NTCRA-1 containment system, hydraulically contain bedrock groundwater migrating from the SRSNE Operations Area (Figure 1A). The design of the overburden and bedrock extraction wells RW-13 and RW-1R, respectively, are described in the NTCRA-2 100% Design Report (BBL, November 1999). Overburden recovery well RW-13 has been on-line since 14 July 1999 and bedrock recovery well RW-1R has been on-line since 5 September 2001.

A third groundwater extraction well (RW-14) was added to the NTCRA-2 well field (Figure 1A) to further enhance long-term hydraulic containment of the overburden and bedrock groundwater in the NTCRA-2 well field. The design of the additional overburden extraction well is described in the RW-14 Completion Report (WESTON, November 2007). This new overburden recovery well has been on-line since 24 September 2007.

### 1.3 GROUNDWATER TREATMENT SYSTEM

The groundwater extracted by the NTCRA-1 and 2 containment systems is pumped directly to the groundwater treatment facility (Figure 1A). The treatment system consists of the following unit processes: metals pretreatment, filtration, ultraviolet oxidation (UV), and granular activated carbon adsorption. Vapor phase carbon adsorption is also used to capture contaminants that volatize during treatment. The system precipitates and extracts metals, reduces suspended solids, and destroys and captures volatile organic contaminants. Treated water is discharged to the Quinnipiac River in accordance with the Revised Connecticut Department of Environmental Protection (CTDEP) Substantive Requirements for Discharge of Pre-Treated Groundwater issued 6 November 1995.

### 1.4 REPORT ORGANIZATION

Section 2 of this report summarizes the acquisition and evaluation of field data used to verify the effectiveness of the HCTS and Section 3 provides an overview of operations and maintenance activities conducted at the site during this O&M period.

## 2.0 DATA ACQUISITION AND RESULTS

The data required to demonstrate the effectiveness of the Hydraulic Containment and Treatment System were obtained in the form of hydraulic head measurements from wells and piezometers installed in the area of the containment system, flow measurements from the extraction well array, treatment system flow rates and analytical results.

## 2.1 NTCRA-1 CONTAINMENT SYSTEM MONITORING

The satisfactory performance of the NTCRA-1 containment system is verified through two reversals of gradient tests that determine whether groundwater flow has been reversed. These tests are demonstrated by comparing hydraulic head measurements at several monitoring locations. The specific wells and piezometers used for these comparisons are discussed in Sections 2.1.1 and 2.1.2. The gradient tests are:

**Reversal of Gradient Test No 1 (RGT-1)**: Confirms that overburden groundwater east and downgradient of the Operations Area is flowing in the direction of the groundwater extraction wells.

**Reversal of Gradient Test No 2 (RGT-2)**: Confirms that overburden groundwater flow is reversed and maintained in the direction of the groundwater extraction wells within the area enclosed by the hydraulic divide installed adjacent to the groundwater containment system. RGT-2 is more crucial to a demonstration of compliance as it requires that overburden groundwater elevations within the barrier are at least 0.3 feet lower than those outside the wall in NTCRA-1.

### 2.1.1 RGT-1 RESULTS

To confirm that overburden groundwater east and downgradient of the Operations Area and within the Containment Area is flowing in the direction of the groundwater extraction wells, hydraulic head measurements were collected at the following overburden wells/piezometers located in the vicinity of the groundwater containment system.

- Extraction Wells RW-1 through RW-12;
- Monitoring Wells MW-409, MW-415, MWL-301, MWL-304, MWL-305, MWL-307, MWL-308, MWL-310, P-16, and P-2B; and
- Piezometers PZO-1, PZO-2, and PZO-3.

Overburden groundwater elevations were also measured at the following wells to assess the hydraulic response in the area between the hydraulic barrier wall and the Quinnipiac River:

- MWL-302, MWL-306, MWL-309, MWL-311, and TW-7A.

Monthly overburden hydraulic head data measured at the specified wells and compliance for the period of 31 October 2008 through 30 October 2009 are presented in Table 1. The resulting groundwater contour maps are presented as Figures 1A through 12A. The contours indicate the horizontal hydraulic gradient between the SRSNE Operations Area and the extraction wells was eastward toward the extraction wells, fulfilling RGT-1.

The vertical hydraulic gradient between the overburden and bedrock in the vicinity of the groundwater containment system is also evaluated to confirm satisfactory recovery well operation. Groundwater elevations were measured at the following wells/piezometers installed in the bedrock: MW-408, MW-414, MW-416, PZR-1, PZR-2, and PZR-4. Comparison of these hydraulic head data to those measured at nearby overburden wells/piezometers on the same dates indicates that the vertical component of the hydraulic gradient between the bedrock and the overburden was generally downward from the overburden to the bedrock at these locations within the Containment Area.

Hydraulic head data is also compared at overburden compliance piezometers CPZ-1, CPZ-3, CPZ-5, CPZ-7, and CPZ-9 and adjacent bedrock piezometers CPZ-1R, CPZ-3R, CPZ-5R, CPZ-7R, and CPZ-9R. Monitoring indicates that the gradient was generally upward from the bedrock to the overburden in the vicinity of the pumping wells and the hydraulic barrier wall throughout the period covered by this DCR.

### 2.1.2 RGT-2 RESULTS

To confirm that groundwater flow is reversed and maintained in the direction of the groundwater extraction wells, hydraulic head measurements were collected weekly at 10 fully penetrating overburden compliance piezometers (CPZ-1 2A, 3, 4A, 5, 6, 7, 8, 9, and 10). As stated in the DCP, the hydraulic gradient is considered reversed, and inward across the hydraulic barrier wall, when the hydraulic head data measured at each compliance piezometer located inside the hydraulic barrier wall (CPZ-1, CPZ-3, CPZ-5, CPZ-7, and CPZ-9) is at least 0.3 foot lower than the head measured at the corresponding compliance piezometer located outside the hydraulic barrier wall (CPZ-2A, CPZ-4A, CPZ-6, CPZ-8, and CPZ-10, respectively).

Both recovery wells RW-5 and 6 were intentionally turned off on 2 February 2009 to confirm if NTCRA-1 compliance could be maintained with both of these recovery wells off in preparation for the future remedial action work. Based on weekly hydraulic head measurements, the required 0.3-foot head differential was achieved in all five pairs (CPZ-1/CPZ-2A, CPZ-3/CPZ-4A, CPZ-5/CPZ-6, CPZ-7/CPZ-8 and CPZ-9/CPZ-10) of overburden compliance piezometers for the entire period covered in this report even with recovery wells RW-5 and RW-6 off following the 2 February 2009 shutdown. Weekly compliance pair results are presented in Table 5.
To verify the continuity of gradient reversal, daily hydraulic head measurements are also recorded via a data logger at compliance piezometers CPZ-5 and CPZ-6.

Measurements collected in 8-hour intervals (3 times/day) as recorded by a data logger installed at compliance piezometers CPZ-5 and CPZ-6 also demonstrated compliance for the entire period covered in this report, with exception to two periods of non-compliance encompassing a total of 4-days. A hydrograph of the data logger measurements from compliance pair CPZ-5 and CPZ-6 is presented as Figure 13 for the monitoring period.

A summary of NTCRA-1 non-compliance occurrences experienced between 31 October 2008 and 30 October 2009 is presented below, along with an explanation of the cause and corrective measures taken to correct the problem.

| NTCRA-1 – Non-Compliance Summary – 31 October 2008 to 30 October 2009 | | |
|---|---|---|
| **Date** | **Cause** | **Corrective Actions** |
| 8-9 December 2008 | All NTCRA-1 and 2 recovery wells were turned off due to a failure with the Ultraviolet Oxidation (UV) Treatment System Control Panel | WESTON replaced the UV control panel programmable logic controller (PLC) and two power supplies to restore its operation and enable activation of the recovery wells. |
| 11 - 12 June 2009 | Recovery Well RW-2 was out of service for redevelopment as part of planned recovery well maintenance. | No corrective action was warranted. This brief period of non-compliance was expected during recovery well redevelopment (maintenance) activities |

## 2.2 NTCRA-2 CONTAINMENT SYSTEM MONITORING

The satisfactory performance of the NTCRA-2 groundwater containment system is verified through two containment tests that compare hydraulic head measurements in NTCRA-2. The specific locations used for hydraulic head comparisons are presented in Sections 2.2.1 and 2.2.2. The containment tests are:

**Containment Test Part 1 (CT-1):** Confirms that within the NTCRA-2 Containment Area, bedrock groundwater east and downgradient of the Operations Area is flowing in the direction of the groundwater containment system; and

**Containment Test Part 2 (CT-2):** Confirms that bedrock groundwater flow downgradient of the NTCRA-2 extraction system within the Containment Area is reversed and maintained in the direction of the groundwater containment system.

### 2.2.1 CT-1 RESULTS

To confirm that VOC-impacted bedrock groundwater east and downgradient of the Operations Area and within the Containment Area is flowing in the direction of the extraction wells, hydraulic head measurements were obtained at the following pairs of wells/piezometers located upgradient of the groundwater containment system.

- Shallow bedrock – MW-704R and MW-121A; and
- Deep Bedrock – MW-704DR and MW-705DR.

The hydraulic gradient is considered to be towards the extraction wells when the hydraulic head measured at the shallow (MW-704R) and deep (MW-704DR) bedrock monitoring wells located adjacent to extraction wells RW-13, RW-1R and RW-14 is lower than hydraulic head measurements at wells MW-121A and MW-705DR, respectively.

Monthly rounds of hydraulic head data measurements collected from 31 October 2008 to 30 October 2009 are presented in Table 1. The resulting contour maps for shallow bedrock and deep bedrock monitoring wells and piezometers are presented as contours on Figures 1B through 12B and Figures 1C through 12C, respectively. The contours indicate that groundwater flow in the shallow and deep bedrock is inward toward the NTCRA-2 extraction wells, fulfilling Containment Test Requirement No.1.

### 2.2.2 CT-2 RESULTS

To confirm that bedrock groundwater flow downgradient of the extraction system within the Containment Area is reversed and maintained in the direction of the extraction wells, hydraulic head measurements were obtained at the following locations:

- Shallow bedrock – MW-704R, MW-204A, PZR-2R, and PZR-4R; and
- Deep Bedrock – MW-704DR, PZR-2DR, and PZR-4DR.

The hydraulic gradient is considered reversed and inward toward the Containment Area when the hydraulic head measured at the shallow and deep bedrock monitoring wells MW-704R, and MW-704DR, which are located adjacent to extraction wells RW-13, RW-1R and RW-14, is lower than the hydraulic head measurements at the remaining shallow and deep bedrock monitoring wells and piezometers listed above. Measurements taken at these locations are presented in Table 1 and as groundwater contours in Figures 1B through 12B and 1C through 12C.

To verify the continuity of gradient reversal, daily hydraulic head measurements are recorded via a data logger at the following locations:

- Shallow bedrock – MW-704R and PZR-2R; and
- Deep Bedrock – MW-704DR and PZR-2DR.

Daily hydraulic head measurements recorded via data loggers installed in NTCRA-2 compliance pairs MW-704R and PZR-2R (shallow bedrock) and MW-704DR and PZR-2DR (deep bedrock) indicated that the NTCRA-2 containment system met CT-2 for the monitoring period, with the exception to four periods of non-compliance outlined herein encompassing a total of 7-days.

Hydrographs of the data logger measurements obtained for shallow and deep bedrock compliance points between 31 October 2008 and 30 October 2009 are included as Figures 14A and 14B, respectively.

A summary of NTCRA-2 non-compliance occurrences experienced between 31 October 2008 and 30 October 2009 is presented below, along with an explanation of the cause and corrective measures taken to correct the problem.

**NTCRA-2 – Non-Compliance Summary – 31 October 2008 to 30 October 2009**

| Date | Cause | Corrective Actions |
|---|---|---|
| 8-9 December 2008 | All NTCRA-1 and 2 recovery wells were turned off due to a failure with the Ultraviolet Oxidation (UV) Treatment System Control Panel | WESTON replaced the UV control panel programmable logic controller (PLC) and two power supplies to restore its operation and enable activation of the recovery wells. |
| 12-13 December 2008 | Loss of compliance occurred in the shallow bedrock of NTCRA-2 as a result of excessive heavy rains, which caused NTCRA-2 recovery well flooding. Due to the severe flooding the NTCRA-2 recovery wells were shutdown until flood conditions subsided. | Compliance was restored following the rain/flood event and restarting of the NTCRA-2 recovery wells. No corrective action was required. |
| 16-17 June 2009 | Recovery Well RW-13 was out of service for redevelopment as part of planned recovery well maintenance. | No corrective action was warranted. This period of non-compliance was expected during recovery well redevelopment (maintenance) activities |
| 3 July 2009 | Loss of compliance occurred in the shallow bedrock of NTCRA-2 as a result of excessive heavy rains, which caused NTCRA-2 recovery well flooding. Due to the severe flooding the NTCRA-2 recovery wells were shutdown until flood conditions subsided. | Compliance was restored following the rain/flood event and restarting of the NTCRA-2 recovery wells. No corrective action was required. |

## 2.3 TREATMENT SYSTEM MONITORING

HCTS influent and effluent flow measurements and laboratory analytical data are obtained during the monitoring period. These flow and analytical data are presented and discussed in Sections 2.3.1 and 2.3.2 respectively.

### 2.3.1 HCTS INFLUENT AND EFFLUENT FLOW DATA

The influent and effluent flow rates of the groundwater treatment system were each recorded continuously using an in-line totalizing flow meter and strip chart recorder. The NTCRA-1 and NTCRA-2 recovery wells ran continuously throughout the monitoring period, with the exception of minor shutdowns, during maintenance, individual recovery well failures or HCTS alarm shutdowns. In June 2009 ten (10) NTCRA-1 recovery wells (RW-1, 2, 3, 4, 7, 8, 9, 10, 11 and 12) and two (2) NTCRA-2 recovery wells (RW-13 and 14) were redeveloped to maintain acceptable drawdown and groundwater hydraulic control during the monitoring period.

Approximately 15,415,000 gallons of groundwater were extracted, treated and discharged between 31 October 2008 and 30 October 2009. Refer to Table 2 for a summary of influent and effluent flow rates and totals. Throughout the period covered in this report, the system treated and discharged an average of 29.3 gallons per minute.

### 2.3.2 HCTS INFLUENT AND EFFLUENT ANALYTICAL DATA

Samples of groundwater treatment system influent and effluent were collected twice per month and analyzed for metals, VOCs, alcohols and total suspended solids. For the process effluent, the first round each month was also analyzed for total PCBs. Once every quarter additional effluent samples were collected and tested for dioxins/furans. Analytical results from the influent and effluent sampling are summarized in Tables 3 and 4 respectively. In Table 4, the effluent sampling results are compared with the discharge limits established by the CTDEP in the Substantive Requirements for Discharge, dated 6 November 1995. As shown in Table 4, the treatment system effluent water quality was below discharge limits for the monitoring period.

In addition to the analyses discussed previously, effluent samples were collected and submitted for acute and chronic toxicity analysis in January, April, July and October 2009. The submitted effluent samples passed the acute and chronic toxicity test for both Daphnia Pulex and fathead minnows. Both species had survival rates ranging from 96% to 100% at 100% effluent concentration.

Process influent and effluent sampling for 1,4 dioxane, was monitored quarterly during the monitoring period to collect additional data concerning this compound. Currently no discharge limit exists for 1,4-dioxane. Quarterly sample results for the year are presented herein. 1,4-dioxane was detected in both the plant influent and effluent in all quarterly samples.

| SRSNE - 1,4-Dioxane Sampling Summary | | |
|---|---|---|
| **Date** | **Influent (ppb)** | **Effluent (ppb)** |
| 6-Jan-09 | 27 | 9.7 |
| 1-Apr-09 | 85 | 18 |
| 7-Jul-09 | 46 | 57 |
| 7-Oct-09 | 88 | 101 |

# 3.0 HYDRAULIC CONTAINMENT AND TREATMENT SYSTEM (HCTS) OPERATIONS AND MAINTENANCE SUMMARY

The HCTS Operations and Maintenance summary is divided into two sections. Section 3.1 highlights the major O&M related activities performed between 31 October 2008 and 30 October 2009. Section 3.2 discusses Operations and Maintenance issues that are on-going or anticipated during the future activities at the site.

## 3.1 OPERATIONS AND MAINTENANCE SUMMARY

During the monitoring period no major facility enhancements were required or implemented. The following briefly describes important HCTS operations and maintenance activities conducted during the reporting period.

1. **Ultraviolet Oxidation System:** The following summarizes the major maintenance performed on the UV Equipment during the monitoring period:

    - 11 UV lamps were replaced during the reporting period. All lamps were removed or replaced due to failure, excessive amperage draw or excessive hours. Lamps that did not operate for the minimum 3000 hour manufacture warrantee period were replaced by the manufacturer on a pro-rated, performance (actual vs. warrantee) basis.

    - 6 quartz tubes were replaced because of failure during the monitoring period.

    - In December 2008 the UV Programmable Logic Controller (PLC) experienced a failure and required replacement along with two integral low voltage power supplies. The cause of the failure is unknown. The equipment was replaced on 9 December to restore system operations. No additional problems have since occurred.

    At the end of this monitoring period, UV-1 had 10 fully functional reactor circuits out of 12. UV- 2 has seven functioning circuits out of 12. One additional reactor was taken off line because the reactor chamber (No. 23) was damaged during a lamp failure in 2008. It is believed that the ballast side of this reactor is functional.

2. **Other Process Equipment Maintenance or Replacement:** During the year the following major maintenance tasks were completed on the facility equipment.

    - **Oxidation Pump P-301 VFD** – The variable frequency drive (VFD) failed in November 2008. The drive was replaced in December 2008.

- **Process Instruments and Controls** – In September 2009 additional sand filter process control enhancements were implemented at the plant control system to enable sand filter bursting from the SCADA computer.

- **Filter Press Cloth Replacement** – Two filter press plate cloths experienced failure in 2008. These cloths were replaced to maintain press operation. In 2009 all remaining cloths except for the end plate were replaced.

- **Sludge Transfer Pump (P-900 and P-901) Replacement –** Operations staff could not restore operation of either pump. Both diaphragm pumps were subsequently replaced in October and December 2008 respectively.

- **Primary and Secondary Liquid Phase Carbon –** The carbon in the primary and secondary liquid phase carbon systems were replaced in April and May 2009 respectively.

## 3.2 FUTURE HCTS OPERATIONS AND MAINTENANCE ACTION ITEMS

WESTON will continue to evaluate the overall HCTS system and make recommendations for process improvements or modifications in the coming year. These recommendations will be summarized in the Monthly Operations and Maintenance HCTS report submissions. The following HCTS improvements are potential future action items identified at this time:

1. **Vapor Phase Carbon Replacement and Exhaust Stack Support Improvements:** The vapor phase carbon system will be replaced. As part of this replacement, a separate exhaust stack support will be constructed to take the stack load off the vessels.

2. **Tank Access Man Ways:** To enable safer access to the Clarifier Feed Tank, Flash Mix Tank and Flocculation Tank, new side mounted access man ways will be installed. It is likely that this work will require a 1-3 day shutdown of the Groundwater Extraction and Treatment System.

3. **Recovery Well Redevelopment:** Based on historical redevelopment frequencies it is likely that a portion of the recovery wells will be redeveloped during the next year maintain appropriate performance.

4. **Process Room Heater Replacement:** Two electric heaters have failed in the process room. These heaters will be replaced in the next month prior to the cold weather season.

| Measuring Location | Location Elevation | 24-Nov-08 | | 30-Dec-08 | | 27-Jan-09 | | 25-Feb-09 | | 30-Mar-09 | | 29-Apr-09 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Depth to Water | Water Elevation | Depth to Water | Water Elevation | Depth to Water | Water Elevation | Depth to Water | Water Elevation | Depth to Water | Water Elevation | Depth to Water | Water Elevation |
| CPZ-1 | 159.73 | 7.12 | 152.61 | 5.61 | 154.12 | 6.10 | 153.63 | 7.01 | 152.72 | 6.91 | 152.82 | 6.99 | 152.74 |
| CPZ-1R | 161.32 | 0.00 | 161.32 | 0.00 | 161.32 | 0.00 | 161.32 | 0.00 | 161.32 | 0.00 | 161.32 | 0.00 | 161.32 |
| CPZ-2* | 158.64 | 5.42 | 153.22 | 3.47 | 155.17 | 4.88 | 153.76 | 5.11 | 153.53 | 4.82 | 153.82 | 5.08 | 153.56 |
| CPZ-2A | 158.86 | 5.41 | 153.45 | 3.40 | 155.46 | 4.68 | 154.18 | 5.12 | 153.74 | 4.70 | 154.16 | 4.97 | 153.89 |
| CPZ-2R | 160.79 | 0.00 | 160.79 | 0.19 | 160.60 | 0.00 | 160.79 | 0.00 | 160.79 | 0.40 | 160.39 | 0.00 | 160.79 |
| CPZ-3 | 159.49 | 9.06 | 150.43 | 8.50 | 150.99 | 9.30 | 150.19 | 9.61 | 149.88 | 9.17 | 150.32 | 9.20 | 150.29 |
| CPZ-3R | 160.83 | 5.99 | 154.84 | 4.01 | 156.82 | 5.91 | 154.92 | 5.71 | 155.12 | 5.84 | 154.99 | 5.82 | 155.01 |
| CPZ-4* | 158.80 | 7.29 | 151.51 | 5.92 | 152.88 | 8.01 | 150.79 | 7.75 | 151.05 | 7.81 | 150.99 | 7.92 | 150.88 |
| CPZ-4A | 159.47 | 8.10 | 151.37 | 6.16 | 153.31 | 7.73 | 151.74 | 7.70 | 151.77 | 7.40 | 152.07 | 7.78 | 151.69 |
| CPZ-4R | 158.73 | 6.34 | 152.39 | 4.47 | 154.26 | 5.88 | 152.85 | 5.99 | 152.74 | 5.79 | 152.94 | 5.97 | 152.76 |
| CPZ-5 | 158.60 | 14.90 | 143.70 | 16.04 | 142.56 | 16.66 | 141.94 | 16.18 | 142.42 | 16.11 | 142.49 | 16.04 | 142.56 |
| CPZ-5R | 158.52 | 11.06 | 147.46 | 10.28 | 148.24 | 10.80 | 147.72 | 11.01 | 147.51 | 10.67 | 147.85 | 11.22 | 147.30 |
| CPZ-6 | 154.47 | 4.09 | 150.38 | 2.88 | 151.59 | 4.30 | 150.17 | 3.91 | 150.56 | 3.81 | 150.66 | 4.20 | 150.27 |
| CPZ-6A* | 158.17 | 7.61 | 150.56 | 6.36 | 151.81 | 7.73 | 150.44 | 7.44 | 150.73 | 7.22 | 150.95 | 7.64 | 150.53 |
| CPZ-6R | 154.49 | 5.30 | 149.19 | 3.80 | 150.69 | 5.11 | 149.38 | 4.90 | 149.59 | 5.00 | 149.49 | 5.20 | 149.29 |
| CPZ-7 | 159.54 | 7.60 | 151.94 | 6.90 | 152.64 | 7.74 | 151.80 | 7.48 | 152.06 | 7.46 | 152.08 | 7.50 | 152.04 |
| CPZ-7R | 158.61 | 1.41 | 157.20 | 0.00 | 158.61 | 0.00 | 158.61 | 0.90 | 157.71 | 1.08 | 157.53 | 1.01 | 157.60 |
| CPZ-8 | 160.35 | 5.81 | 154.54 | 5.29 | 155.06 | 6.09 | 154.26 | 6.83 | 153.52 | 5.80 | 154.55 | 6.02 | 154.33 |
| CPZ-8R | 160.80 | 6.58 | 154.22 | 5.81 | 154.99 | 6.70 | 154.10 | 6.50 | 154.30 | 6.38 | 154.42 | 6.60 | 154.20 |
| CPZ-9 | 160.56 | 3.72 | 156.84 | 3.41 | 157.15 | 4.20 | 156.36 | 3.41 | 157.15 | 3.31 | 157.25 | 3.52 | 157.04 |
| CPZ-9R | 162.45 | 2.50 | 159.95 | 1.36 | 161.09 | 2.56 | 159.89 | 2.22 | 160.23 | 2.42 | 160.03 | 2.51 | 159.94 |
| CPZ-10 | 160.97 | 2.02 | 158.95 | 2.80 | 158.17 | 3.31 | 157.66 | 3.11 | 157.86 | 3.00 | 157.97 | 3.20 | 157.77 |
| CPZ-10R | 160.97 | 0.22 | 160.75 | 0.00 | 160.97 | 0.00 | 160.97 | 0.00 | 160.97 | 0.28 | 160.69 | 0.31 | 160.66 |
| MW-121A | 152.87 | 5.16 | 147.71 | 3.69 | 149.18 | 4.97 | 147.90 | 4.75 | 148.12 | 4.87 | 148.00 | 4.99 | 147.88 |
| MW-125A* | 157.87 | 2.37 | 155.50 | 0.92 | 156.95 | 1.01 | 156.86 | 1.64 | 156.23 | 1.43 | 156.44 | 1.70 | 156.17 |
| MW-125C* | 157.99 | 6.99 | 151.00 | 5.81 | 152.18 | 7.73 | 150.26 | 6.41 | 151.58 | 6.81 | 151.18 | 6.80 | 151.19 |
| MW-204A | 150.68 | 3.62 | 147.06 | 2.40 | 148.28 | 3.21 | 147.47 | 2.97 | 147.71 | 2.94 | 147.74 | 3.08 | 147.60 |
| MW-408 | 159.36 | 9.17 | 150.19 | 8.27 | 151.09 | 9.19 | 150.17 | 8.74 | 150.62 | 9.15 | 150.21 | 9.20 | 150.16 |
| MW-409 | 159.41 | 4.58 | 154.83 | 3.51 | 155.90 | 4.70 | 154.71 | 4.22 | 155.19 | 3.96 | 155.45 | 4.37 | 155.04 |
| MW-414 | 161.18 | 10.18 | 151.00 | 9.40 | 151.78 | 10.34 | 150.84 | 9.82 | 151.36 | 9.99 | 151.19 | 10.12 | 151.06 |
| MW-415 | 160.65 | 5.29 | 155.36 | 4.11 | 156.54 | 5.41 | 155.24 | 4.90 | 155.75 | 4.70 | 155.95 | 5.02 | 155.63 |
| MW-416 | 159.84 | 7.86 | 151.98 | 6.80 | 153.04 | 6.02 | 153.82 | 7.58 | 152.26 | 7.70 | 152.14 | 7.80 | 152.04 |
| MW-704D* | 153.38 | 6.68 | 146.70 | 5.28 | 148.10 | 6.12 | 147.26 | 5.80 | 147.58 | 7.76 | 145.62 | 5.90 | 147.48 |
| MW-704M* | 152.71 | 5.76 | 146.79 | 4.33 | 148.22 | 5.30 | 147.41 | 5.01 | 147.70 | 5.01 | 147.70 | 5.06 | 147.65 |
| MW-704R | 151.58 | 5.49 | 146.09 | 4.26 | 147.32 | 5.28 | 146.30 | 4.80 | 146.78 | 4.71 | 146.87 | 4.82 | 146.76 |
| MW-704DR | 152.99 | 33.32 | 119.67 | 32.22 | 120.77 | 32.68 | 120.31 | 32.18 | 120.81 | 32.78 | 120.21 | 32.61 | 120.38 |
| MW-705DR | 160.89 | 3.50 | 157.39 | 1.97 | 158.92 | 3.16 | 157.73 | 3.18 | 157.71 | 3.10 | 157.79 | 3.19 | 157.70 |
| MWL-301 | 160.33 | 3.13 | 157.20 | 2.99 | 157.34 | 3.44 | 156.89 | 3.27 | 157.06 | 3.15 | 157.18 | 3.32 | 157.01 |
| MWL-302 | 161.60 | 6.42 | 155.18 | 6.04 | 155.56 | 6.64 | 154.96 | 6.52 | 155.08 | 7.40 | 154.20 | 6.55 | 155.05 |
| MWL-304 | 159.99 | 3.78 | 156.21 | 2.96 | 157.03 | 4.03 | 155.96 | 3.39 | 156.60 | 3.28 | 156.71 | 3.53 | 156.46 |
| MWL-305 | 159.01 | 4.56 | 154.45 | 4.40 | 154.61 | 4.81 | 154.20 | 4.34 | 154.67 | 4.22 | 154.79 | 4.28 | 154.73 |
| MWL-306 | 155.39 | 5.60 | 149.79 | 3.59 | 151.80 | 6.30 | 149.09 | 4.46 | 150.93 | 3.61 | 151.78 | 5.56 | 149.83 |
| MWL-307 | 159.09 | 3.93 | 155.16 | 2.48 | 156.61 | 3.95 | 155.14 | 3.56 | 155.53 | 3.31 | 155.78 | 3.72 | 155.37 |
| MWL-308 | 158.63 | 3.18 | 155.45 | 2.35 | 156.28 | 3.39 | 155.24 | 2.99 | 155.64 | 2.68 | 155.95 | 3.09 | 155.54 |
| MWL-309 | 154.61 | 3.43 | 151.18 | 2.28 | 152.33 | 3.74 | 150.87 | 2.94 | 151.67 | 2.59 | 152.02 | 3.74 | 150.87 |
| MWL-310 | 159.66 | 6.32 | 153.34 | 4.83 | 154.83 | 5.85 | 153.81 | 6.18 | 153.48 | 5.95 | 153.71 | 6.22 | 153.44 |
| MWL-311 | 157.33 | 6.42 | 150.91 | 4.77 | 152.56 | 6.69 | 150.64 | 5.85 | 151.48 | 6.44 | 150.89 | 6.30 | 151.03 |

| Measuring Location | Location Elevation | 24-Nov-08 | | 30-Dec-08 | | 27-Jan-09 | | 25-Feb-09 | | 30-Mar-09 | | 29-Apr-09 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | *Depth to Water* | *Water Elevation* | *Depth to Water* | *Water Elevation* | *Depth to Water* | *Water Elevation* | *Depth to Water* | *Water Elevation* | *Depth to Water* | *Water Elevation* | *Depth to Water* | *Water Elevation* |
| P-2B | 165.93 | 7.33 | 158.60 | 3.40 | 162.53 | 6.81 | 159.12 | 6.80 | 159.13 | 5.80 | 160.13 | 6.11 | 159.82 |
| P-5A* | 157.61 | 8.80 | 148.81 | 7.70 | 149.91 | 8.71 | 148.90 | 8.40 | 149.21 | 8.49 | 149.12 | 8.71 | 148.90 |
| P-5B* | 158.17 | 5.26 | 152.91 | 3.72 | 154.45 | 5.90 | 152.27 | 4.48 | 153.69 | 4.99 | 153.18 | 5.35 | 152.82 |
| P-6 | 153.77 | 4.70 | 149.07 | 3.22 | 150.55 | 4.30 | 149.47 | 4.32 | 149.45 | 4.34 | 149.43 | 4.49 | 149.28 |
| P-16* | 164.88 | 7.36 | 157.52 | 6.74 | 158.14 | 6.51 | 158.37 | 7.38 | 157.50 | 7.30 | 157.58 | 7.48 | 157.40 |
| PZO-1 | 158.54 | 4.48 | 154.06 | 3.71 | 154.83 | 4.88 | 153.66 | 4.50 | 154.04 | 4.38 | 154.16 | 4.52 | 154.02 |
| PZO-2 | 159.85 | 5.76 | 154.09 | 5.25 | 154.60 | 6.49 | 153.36 | 6.16 | 153.69 | 6.08 | 153.77 | 6.21 | 153.64 |
| PZO-3 | 160.40 | 5.91 | 154.49 | 4.81 | 155.59 | 5.90 | 154.50 | 5.32 | 155.08 | 5.18 | 155.22 | 5.42 | 154.98 |
| PZR-1 | 159.32 | 8.47 | 150.85 | 7.48 | 151.84 | 8.50 | 150.82 | 8.21 | 151.11 | 8.41 | 150.91 | 8.53 | 150.79 |
| PZR-2 | 159.29 | 7.09 | 152.20 | 5.62 | 153.67 | 7.00 | 152.29 | 6.50 | 152.79 | 6.75 | 152.54 | 6.90 | 152.39 |
| PZR-2R | 153.64 | 6.80 | 146.84 | 5.55 | 148.09 | 6.57 | 147.07 | 6.36 | 147.28 | 6.38 | 147.26 | 6.42 | 147.22 |
| PZR-2DR | 154.88 | 7.61 | 147.27 | 6.51 | 148.37 | 7.38 | 147.50 | 7.16 | 147.72 | 7.18 | 147.70 | 7.31 | 147.57 |
| PZR-4 | 159.02 | 4.91 | 154.11 | 3.40 | 155.62 | 4.90 | 154.12 | 4.47 | 154.55 | 4.70 | 154.32 | 4.70 | 154.32 |
| PZR-4R | 153.87 | 6.09 | 147.78 | 4.72 | 149.15 | 5.82 | 148.05 | 5.71 | 148.16 | 5.70 | 148.17 | 5.71 | 148.16 |
| PZR-4DR | 153.25 | 1.68 | 151.57 | 0.00 | 153.25 | 0.51 | 152.74 | 1.12 | 152.13 | 1.08 | 152.17 | 1.10 | 152.15 |
| RW-1 | 157.56 | 17.36 | 140.20 | 17.09 | 140.47 | 16.88 | 140.68 | 18.03 | 139.53 | 17.70 | 139.86 | 16.40 | 141.16 |
| RW-2 | 156.51 | 18.38 | 138.13 | 18.51 | 138.00 | 19.61 | 136.90 | 17.40 | 139.11 | 16.85 | 139.66 | 17.17 | 139.34 |
| RW-3 | 157.24 | 18.12 | 139.12 | 17.97 | 139.27 | 17.91 | 139.33 | 18.80 | 138.44 | 22.23 | 135.01 | 18.06 | 139.18 |
| RW-4 | 158.19 | 17.01 | 141.18 | 15.11 | 143.08 | 15.50 | 142.69 | 15.10 | 143.09 | 16.44 | 141.75 | 16.80 | 141.39 |
| RW-5 | 159.90 | 15.12 | 144.78 | 16.08 | 143.82 | 15.61 | 144.29 | 2.58 | 157.32 | 2.32 | 157.58 | 2.88 | 157.02 |
| RW-6 | 159.23 | 15.03 | 144.20 | 16.99 | 142.24 | 17.86 | 141.37 | 2.91 | 156.32 | 3.42 | 155.81 | 2.86 | 156.37 |
| RW-7 | 157.16 | 16.88 | 140.28 | 15.68 | 141.48 | 15.93 | 141.23 | 17.22 | 139.94 | 16.10 | 141.06 | 18.13 | 139.03 |
| RW-8 | 156.92 | 18.37 | 138.55 | 17.88 | 139.04 | 18.79 | 138.13 | 21.60 | 135.32 | 18.12 | 138.80 | 17.55 | 139.37 |
| RW-9 | 156.68 | 17.26 | 139.42 | 18.12 | 138.56 | 19.86 | 136.82 | 19.12 | 137.56 | 18.50 | 138.18 | 19.40 | 137.28 |
| RW-10 | 156.47 | 17.58 | 138.89 | 17.86 | 138.61 | 19.46 | 137.01 | 19.38 | 137.09 | 17.23 | 139.24 | 18.14 | 138.33 |
| RW-11* | 157.82 | 17.66 | 140.16 | 16.90 | 140.92 | 17.66 | 140.16 | 18.90 | 138.92 | 17.54 | 140.28 | 19.20 | 138.62 |
| RW-12* | 158.50 | 17.05 | 141.45 | 16.77 | 141.73 | 16.71 | 141.79 | 17.90 | 140.60 | 15.96 | 142.54 | 17.14 | 141.36 |
| RW-13* | 149.29 | 49.90 | 99.39 | 44.90 | 104.39 | 52.34 | 96.95 | 47.07 | 102.22 | 45.26 | 104.03 | 45.55 | 103.74 |
| RW-14 | 151.67 | 28.97 | 122.70 | 27.77 | 123.90 | 27.83 | 123.84 | 24.00 | 127.67 | 28.18 | 123.49 | 28.79 | 122.88 |
| RW-1R* | 151.56 | 33.41 | 118.15 | 32.97 | 118.59 | 32.01 | 119.55 | 32.72 | 118.84 | 35.80 | 115.76 | 33.12 | 118.44 |
| TW-7A | 158.72 | 6.53 | 152.19 | 5.71 | 153.01 | 6.81 | 151.91 | 6.58 | 152.14 | 6.48 | 152.24 | 6.80 | 151.92 |
| SG-702* | 148.00 | | 148.00 | | 148.00 | | 148.00 | | 148.00 | | 148.00 | | 148.00 |
| MW-702DR* | 181.30 | 14.02 | 167.28 | 8.72 | 172.58 | 15.01 | 166.29 | 13.19 | 168.11 | 14.50 | 166.80 | 13.41 | 167.89 |
| P-8A* | 181.62 | 14.30 | 167.32 | 8.21 | 173.41 | 15.42 | 166.20 | 13.24 | 168.38 | 14.76 | 166.86 | 13.42 | 168.20 |
| MW-707D* | 156.04 | 9.21 | 146.83 | 8.26 | 147.78 | 8.99 | 147.05 | 8.86 | 147.18 | 8.80 | 147.24 | 8.98 | 147.06 |
| MW-707R* | 156.00 | 8.90 | 147.10 | 7.80 | 148.20 | 8.58 | 147.42 | 8.40 | 147.60 | 8.38 | 147.62 | 8.49 | 147.51 |
| MW-707DR* | 156.72 | 9.89 | 146.83 | 8.64 | 148.08 | 9.66 | 147.06 | 9.50 | 147.22 | 9.53 | 147.19 | 9.58 | 147.14 |
| PZ-02D* | 154.18 | 7.02 | 147.16 | 5.93 | 148.25 | 6.80 | 147.38 | 6.62 | 147.56 | 6.60 | 147.58 | 6.71 | 147.47 |
| PZ-O2M* | 154.74 | 7.60 | 147.14 | 6.49 | 148.25 | 7.38 | 147.36 | 7.16 | 147.58 | 7.18 | 147.56 | 7.30 | 147.44 |
| MW-3* | 153.92 | 7.18 | 146.74 | 6.21 | 147.71 | 6.97 | 146.95 | 6.87 | 147.05 | 6.80 | 147.12 | 6.98 | 146.94 |
| MW-708R* | 225.60 | 75.51 | 150.09 | 74.90 | 150.70 | 74.40 | 151.20 | 74.51 | 151.09 | 74.52 | 151.08 | 74.60 | 151.00 |
| MW-708DR* | 224.85 | 75.36 | 149.49 | 74.76 | 150.09 | 74.81 | 150.04 | 74.82 | 150.03 | 74.85 | 150.00 | 74.99 | 149.86 |

[redacted]

| Measuring Location | Location Elevation | 27-May-09 | | 30-Jun-09 | | 29-Jul-09 | | 25-Aug-09 | | 29-Sep-09 | | 29-Oct-09 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Depth to Water | Water Elevation | Depth to Water | Water Elevation | Depth to Water | Water Elevation | Depth to Water | Water Elevation | Depth to Water | Water Elevation | Depth to Water | Water Elevation |
| CPZ-1 | 159.73 | 7.13 | 152.60 | 6.97 | 152.76 | 6.31 | 153.42 | 7.14 | 152.59 | 8.75 | 150.98 | 7.75 | 151.98 |
| CPZ-1R | 161.32 | 1.10 | 160.22 | 0.00 | 161.32 | 0.00 | 161.32 | 1.48 | 159.84 | 4.79 | 156.53 | 2.93 | 158.39 |
| CPZ-2* | 158.64 | 5.84 | 152.80 | 5.40 | 153.24 | 4.15 | 154.49 | 5.88 | 152.76 | 7.67 | 150.97 | 6.50 | 152.14 |
| CPZ-2A | 158.86 | 5.70 | 153.16 | 5.30 | 153.56 | 4.04 | 154.82 | 5.80 | 153.06 | 7.52 | 151.34 | 6.45 | 152.41 |
| CPZ-2R | 160.79 | 0.61 | 160.18 | 0.11 | 160.68 | 0.00 | 160.79 | 0.38 | 160.41 | 3.81 | 156.98 | 1.99 | 158.80 |
| CPZ-3 | 159.49 | 10.18 | 149.31 | 9.87 | 149.62 | 9.97 | 149.52 | 10.37 | 149.12 | 10.66 | 148.83 | 9.93 | 149.56 |
| CPZ-3R | 160.83 | 6.72 | 154.11 | 5.81 | 155.02 | 4.92 | 155.91 | 6.70 | 154.13 | 8.32 | 152.51 | 7.08 | 153.75 |
| CPZ-4* | 158.80 | 8.91 | 149.89 | 8.09 | 150.71 | 6.90 | 151.90 | 9.05 | 149.75 | 10.41 | 148.39 | 8.08 | 150.72 |
| CPZ-4A | 159.47 | 8.40 | 151.07 | 7.95 | 151.52 | 6.85 | 152.62 | 8.65 | 150.82 | 9.95 | 149.52 | 8.70 | 150.77 |
| CPZ-4R | 158.73 | 6.63 | 152.10 | 6.13 | 152.60 | 5.15 | 153.58 | 6.68 | 152.05 | 8.15 | 150.58 | 7.77 | 150.96 |
| CPZ-5 | 158.60 | 16.44 | 142.16 | 15.87 | 142.73 | 16.20 | 142.40 | 16.02 | 142.58 | 16.02 | 142.58 | 15.65 | 142.95 |
| CPZ-5R | 158.52 | 11.45 | 147.07 | 10.85 | 147.67 | 10.53 | 147.99 | 11.30 | 147.22 | 11.81 | 146.71 | 10.02 | 148.50 |
| CPZ-6 | 154.47 | 4.40 | 150.07 | 3.79 | 150.68 | 3.21 | 151.26 | 4.26 | 150.21 | 4.68 | 149.79 | 3.65 | 150.82 |
| CPZ-6A* | 158.17 | 7.83 | 150.34 | 7.25 | 150.92 | 6.81 | 151.36 | 7.90 | 150.27 | 8.18 | 149.99 | 7.08 | 151.09 |
| CPZ-6R | 154.49 | 5.61 | 148.88 | 5.12 | 149.37 | 4.40 | 150.09 | 5.63 | 148.86 | 6.37 | 148.12 | 5.20 | 149.29 |
| CPZ-7 | 159.54 | 6.81 | 152.73 | 7.37 | 152.17 | 7.69 | 151.85 | 7.02 | 152.52 | 8.04 | 151.50 | 6.90 | 152.64 |
| CPZ-7R | 158.61 | 1.92 | 156.69 | 1.12 | 157.49 | 0.00 | 158.61 | 2.08 | 156.53 | 3.59 | 155.02 | 1.74 | 156.87 |
| CPZ-8 | 160.35 | 6.15 | 154.20 | 5.78 | 154.57 | 5.40 | 154.95 | 5.80 | 154.55 | 6.40 | 153.95 | 5.01 | 155.34 |
| CPZ-8R | 160.80 | 6.95 | 153.85 | 6.56 | 154.24 | 5.96 | 154.84 | 6.83 | 153.97 | 7.71 | 153.09 | 6.21 | 154.59 |
| CPZ-9 | 160.56 | 3.90 | 156.66 | 3.56 | 157.00 | 3.13 | 157.43 | 3.85 | 156.71 | 4.69 | 155.87 | 3.20 | 157.36 |
| CPZ-9R | 162.45 | 3.16 | 159.29 | 2.40 | 160.05 | 1.80 | 160.65 | 3.28 | 159.17 | 5.01 | 157.44 | 2.98 | 159.47 |
| CPZ-10 | 160.97 | 3.48 | 157.49 | 3.16 | 157.81 | 2.87 | 158.10 | 3.48 | 157.49 | 4.46 | 156.51 | 2.80 | 158.17 |
| CPZ-10R | 160.97 | 1.08 | 159.89 | 0.12 | 160.85 | 0.00 | 160.97 | 1.15 | 159.82 | 3.10 | 157.87 | 0.81 | 160.16 |
| MW-121A | 152.87 | 5.31 | 147.56 | 4.83 | 148.04 | 4.48 | 148.39 | 5.21 | 147.66 | 6.11 | 146.76 | 5.28 | 147.59 |
| MW-125A* | 157.87 | 1.93 | 155.94 | 2.40 | 155.47 | 1.28 | 156.59 | 1.63 | 156.24 | 3.35 | 154.52 | 3.58 | 154.29 |
| MW-125C* | 157.99 | 7.38 | 150.61 | 6.42 | 151.57 | 6.50 | 151.49 | 7.19 | 150.80 | 7.68 | 150.31 | 7.50 | 150.49 |
| MW-204A | 150.68 | 3.46 | 147.22 | 3.54 | 147.14 | 2.77 | 147.91 | 3.53 | 147.15 | 4.05 | 146.63 | 2.92 | 147.76 |
| MW-408 | 159.36 | 9.78 | 149.58 | 9.29 | 150.07 | 8.83 | 150.53 | 10.01 | 149.35 | 10.71 | 148.65 | 9.11 | 150.25 |
| MW-409 | 159.41 | 4.64 | 154.77 | 4.66 | 154.75 | 4.06 | 155.35 | 4.85 | 154.56 | 5.45 | 153.96 | 3.54 | 155.87 |
| MW-414 | 161.18 | 10.47 | 150.71 | 10.27 | 150.91 | 9.83 | 151.35 | 10.53 | 150.65 | 11.12 | 150.06 | 9.25 | 151.93 |
| MW-415 | 160.65 | 5.41 | 155.24 | 5.30 | 155.35 | 4.67 | 155.98 | 5.55 | 155.10 | 6.26 | 154.39 | 4.27 | 156.38 |
| MW-416 | 159.84 | 8.20 | 151.64 | 7.92 | 151.92 | 7.38 | 152.46 | 8.25 | 151.59 | 9.11 | 150.73 | 7.20 | 152.64 |
| MW-704D* | 153.38 | 6.30 | 147.08 | 6.54 | 146.84 | 5.69 | 147.69 | 6.44 | 146.94 | 7.02 | 146.36 | 5.70 | 147.68 |
| MW-704M* | 152.71 | 5.55 | 147.16 | 5.80 | 146.91 | 4.91 | 147.80 | 5.64 | 147.07 | 6.28 | 146.43 | 4.89 | 147.82 |
| MW-704R | 151.58 | 5.30 | 146.28 | 6.01 | 145.57 | 4.92 | 146.66 | 5.61 | 145.97 | 6.17 | 145.41 | 4.90 | 146.68 |
| MW-704DR | 152.99 | 33.74 | 119.25 | 32.29 | 120.70 | 33.30 | 119.69 | 33.91 | 119.08 | 34.07 | 118.92 | 34.09 | 118.90 |
| MW-705DR | 160.89 | 3.61 | 157.28 | 3.20 | 157.69 | 2.40 | 158.49 | 3.59 | 157.30 | 5.08 | 155.81 | 4.58 | 156.31 |
| MWL-301 | 160.33 | 3.50 | 156.83 | 3.22 | 157.11 | 2.95 | 157.38 | 3.40 | 156.93 | 4.11 | 156.22 | 2.85 | 157.48 |
| MWL-302 | 161.60 | 6.67 | 154.93 | 6.33 | 155.27 | 6.03 | 155.57 | 6.41 | 155.19 | 6.81 | 154.79 | 5.44 | 156.16 |
| MWL-304 | 159.99 | 3.97 | 156.02 | 3.69 | 156.30 | 3.08 | 156.91 | 3.96 | 156.03 | 4.73 | 155.26 | 3.09 | 156.90 |
| MWL-305 | 159.01 | 4.64 | 154.37 | 4.98 | 154.03 | 4.37 | 154.64 | 4.74 | 154.27 | 5.18 | 153.83 | 3.59 | 155.42 |
| MWL-306 | 155.39 | 6.78 | 148.61 | 5.02 | 150.37 | 4.27 | 151.12 | 7.11 | 148.28 | 7.44 | 147.95 | 3.56 | 151.83 |
| MWL-307 | 159.09 | 4.06 | 155.03 | 3.91 | 155.18 | 3.21 | 155.88 | 4.28 | 154.81 | 5.01 | 154.08 | 2.82 | 156.27 |
| MWL-308 | 158.63 | 3.33 | 155.30 | 3.38 | 155.25 | 2.90 | 155.73 | 3.58 | 155.05 | 4.13 | 154.50 | 2.36 | 156.27 |
| MWL-309 | 154.61 | 4.41 | 150.20 | 3.20 | 151.41 | 2.55 | 152.06 | 4.18 | 150.43 | 4.38 | 150.23 | 2.38 | 152.23 |
| MWL-310 | 159.66 | 6.48 | 153.18 | 6.44 | 153.22 | 5.72 | 153.94 | 6.78 | 152.88 | 8.06 | 151.60 | 6.25 | 153.41 |
| MWL-311 | 157.33 | 7.42 | 149.91 | 6.20 | 151.13 | 5.48 | 151.85 | 7.65 | 149.68 | 8.77 | 148.56 | 4.97 | 152.36 |

| Measuring Location | Location Elevation | 27-May-09 | | 30-Jun-09 | | 29-Jul-09 | | 25-Aug-09 | | 29-Sep-09 | | 29-Oct-09 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | *Depth to Water* | *Water Elevation* | *Depth to Water* | *Water Elevation* | *Depth to Water* | *Water Elevation* | *Depth to Water* | *Water Elevation* | *Depth to Water* | *Water Elevation* | *Depth to Water* | *Water Elevation* |
| P-2B | 165.93 | 8.55 | 157.38 | 6.80 | 159.13 | 4.96 | 160.97 | 8.81 | 157.12 | 9.99 | 155.94 | 8.40 | 157.53 |
| P-5A* | 157.61 | 9.28 | 148.33 | 8.72 | 148.89 | 8.31 | 149.30 | 9.28 | 148.33 | 9.26 | 148.35 | 8.47 | 149.14 |
| P-5B* | 158.17 | 5.99 | 152.18 | 4.33 | 153.84 | 3.96 | 154.21 | 5.28 | 152.89 | 5.28 | 152.89 | 3.97 | 154.20 |
| P-6 | 153.77 | 4.81 | 148.96 | 4.40 | 149.37 | 3.70 | 150.07 | 4.90 | 148.87 | 5.34 | 148.43 | 4.44 | 149.33 |
| P-16* | 164.88 | 8.03 | 156.85 | 7.51 | 157.37 | 6.98 | 157.90 | 7.96 | 156.92 | 8.88 | 156.00 | 7.37 | 157.51 |
| PZO-1 | 158.54 | 4.34 | 154.20 | 4.82 | 153.72 | 4.33 | 154.21 | 4.63 | 153.91 | 5.18 | 153.36 | 3.14 | 155.40 |
| PZO-2 | 159.85 | 5.85 | 154.00 | 6.57 | 153.28 | 6.25 | 153.60 | 6.51 | 153.34 | 6.81 | 153.04 | 4.61 | 155.24 |
| PZO-3 | 160.40 | 5.20 | 155.20 | 5.91 | 154.49 | 4.83 | 155.57 | 5.70 | 154.70 | 6.15 | 154.25 | 5.06 | 155.34 |
| PZR-1 | 159.32 | 9.04 | 150.28 | 8.53 | 150.79 | 8.24 | 151.08 | 8.99 | 150.33 | 9.51 | 149.81 | 7.86 | 151.46 |
| PZR-2 | 159.29 | 7.63 | 151.66 | 6.42 | 152.87 | 6.31 | 152.98 | 7.41 | 151.88 | 8.26 | 151.03 | 7.02 | 152.27 |
| PZR-2R | 153.64 | 6.89 | 146.75 | 6.51 | 147.13 | 5.80 | 147.84 | 6.80 | 146.84 | 7.51 | 146.13 | 6.47 | 147.17 |
| PZR-2DR | 154.88 | 7.63 | 147.25 | 7.50 | 147.38 | 6.72 | 148.16 | 7.61 | 147.27 | 8.12 | 146.76 | 6.96 | 147.92 |
| PZR-4 | 159.02 | 5.65 | 153.37 | 4.72 | 154.30 | 4.11 | 154.91 | 5.61 | 153.41 | 6.90 | 152.12 | 5.65 | 153.37 |
| PZR-4R | 153.87 | 6.25 | 147.62 | 5.81 | 148.06 | 5.10 | 148.77 | 6.22 | 147.65 | 7.06 | 146.81 | 5.81 | 148.06 |
| PZR-4DR | 153.25 | 1.71 | 151.54 | 1.20 | 152.05 | 0.28 | 152.97 | 1.63 | 151.62 | 3.19 | 150.06 | 2.62 | 150.63 |
| RW-1 | 157.56 | 16.50 | 141.06 | 17.16 | 140.40 | 16.40 | 141.16 | 20.22 | 137.34 | 22.40 | 135.16 | 18.06 | 139.50 |
| RW-2 | 156.51 | 16.80 | 139.71 | 16.60 | 139.91 | 19.03 | 137.48 | 17.04 | 139.47 | 17.12 | 139.39 | 16.90 | 139.61 |
| RW-3 | 157.24 | 17.12 | 140.12 | 19.06 | 138.18 | 17.81 | 139.43 | 17.66 | 139.58 | 16.40 | 140.84 | 17.90 | 139.34 |
| RW-4 | 158.19 | 17.02 | 141.17 | 15.30 | 142.89 | 17.18 | 141.01 | 15.03 | 143.16 | 15.08 | 143.11 | 18.02 | 140.17 |
| RW-5 | 159.90 | 2.87 | 157.03 | 2.85 | 157.05 | 1.96 | 157.94 | 2.87 | 157.03 | 2.81 | 157.09 | 2.41 | 157.49 |
| RW-6 | 159.23 | 2.91 | 156.32 | 2.95 | 156.28 | 2.11 | 157.12 | 2.61 | 156.62 | 2.84 | 156.39 | 1.97 | 157.26 |
| RW-7 | 157.16 | 17.81 | 139.35 | 16.46 | 140.70 | 16.55 | 140.61 | 15.40 | 141.76 | 18.20 | 138.96 | 18.12 | 139.04 |
| RW-8 | 156.92 | 19.06 | 137.86 | 18.96 | 137.96 | 19.67 | 137.25 | 18.50 | 138.42 | 17.74 | 139.18 | 19.26 | 137.66 |
| RW-9 | 156.68 | 18.44 | 138.24 | 20.33 | 136.35 | 19.49 | 137.19 | 19.03 | 137.65 | 18.60 | 138.08 | 19.60 | 137.08 |
| RW-10 | 156.47 | 18.70 | 137.77 | 16.44 | 140.03 | 19.06 | 137.41 | 19.12 | 137.35 | 18.90 | 137.57 | 18.50 | 137.97 |
| RW-11* | 157.82 | 18.46 | 139.36 | 18.21 | 139.61 | 18.46 | 139.36 | 20.21 | 137.61 | 16.26 | 141.56 | 19.12 | 138.70 |
| RW-12* | 158.50 | 15.96 | 142.54 | 17.12 | 141.38 | 17.12 | 141.38 | 19.06 | 139.44 | 19.02 | 139.48 | 20.31 | 138.19 |
| RW-13* | 149.29 | 47.10 | 102.19 | 52.56 | 96.73 | 46.99 | 102.30 | 49.99 | 99.30 | 47.51 | 101.78 | 45.39 | 103.90 |
| RW-14 | 151.67 | 28.74 | 122.93 | 27.61 | 124.06 | 27.36 | 124.31 | 28.50 | 123.17 | 30.70 | 120.97 | 28.85 | 122.82 |
| RW-1R* | 151.56 | 35.20 | 116.36 | 34.62 | 116.94 | 34.72 | 116.84 | 34.40 | 117.16 | 34.40 | 117.16 | 34.02 | 117.54 |
| TW-7A | 158.72 | 6.90 | 151.82 | 6.51 | 152.21 | 5.99 | 152.73 | 6.82 | 151.90 | 7.15 | 151.57 | 5.98 | 152.74 |
| SG-702* | 148.00 | | 148.00 | | 148.00 | | 148.00 | | 148.00 | | 148.00 | | 148.00 |
| MW-702DR* | 181.30 | 16.31 | 164.99 | 13.31 | 167.99 | 16.48 | 164.82 | 16.92 | 164.38 | 20.79 | 160.51 | 16.16 | 165.14 |
| P-8A* | 181.62 | 16.55 | 165.07 | 13.37 | 168.25 | 10.21 | 171.41 | 17.30 | 164.32 | 21.04 | 160.58 | 16.32 | 165.30 |
| MW-707D* | 156.04 | 9.25 | 146.79 | 8.94 | 147.10 | 8.38 | 147.66 | 9.11 | 146.93 | 9.51 | 146.53 | 8.35 | 147.69 |
| MW-707R* | 156.00 | 8.90 | 147.10 | 8.70 | 147.30 | 8.00 | 148.00 | 8.81 | 147.19 | 9.36 | 146.64 | 8.18 | 147.82 |
| MW-707DR* | 156.72 | 10.01 | 146.71 | 9.59 | 147.13 | 8.96 | 147.76 | 9.96 | 146.76 | 10.52 | 146.20 | 9.40 | 147.32 |
| PZ-02D* | 154.18 | 7.15 | 147.03 | 6.80 | 147.38 | 6.16 | 148.02 | 7.02 | 147.16 | 7.53 | 146.65 | 6.33 | 147.85 |
| PZ-O2M* | 154.74 | 7.71 | 147.03 | 7.33 | 147.41 | 6.77 | 147.97 | 7.58 | 147.16 | 8.08 | 146.66 | 6.83 | 147.91 |
| MW-3* | 153.92 | 7.28 | 146.64 | 6.92 | 147.00 | 6.33 | 147.59 | 7.17 | 146.75 | 7.52 | 146.40 | 6.36 | 147.56 |
| MW-708R* | 225.60 | 74.90 | 150.70 | 74.70 | 150.90 | 74.58 | 151.02 | 74.99 | 150.61 | 75.10 | 150.50 | 75.18 | 150.42 |
| MW-708DR* | 224.85 | 75.28 | 149.57 | 75.08 | 149.77 | 74.96 | 149.89 | 75.27 | 149.58 | 75.64 | 149.21 | 75.36 | 149.49 |

## *Influent and Effluent GWCT System Flow Data Summary*

| Date | Influent Flow Summary (NCTRA 1 and 2 Combined) | | | NCTRA-1 Flow Summary [2] | NCTRA-2 Flow Summary | | | Effluent Flow Summary (NTCRA 1 and 2 Combined) | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | *Total Cumulative Flow (gallons)* | *Total Flow Since Previous (gallons)* | *Avg. Rate Since Prev. (GPM)* | *Avg. Rate Since Prev. (GPM)* | *Total Cumulative Flow (gallons)* | *Total Flow Since Previous (gallons)* | *Avg. Rate Since Prev. (GPM)* | *Total Cumulative Flow (gallons)* | *Total Flow Since Previous (gallons)* | *Avg. Rate Since Prev. (GPM)* |
| 10/30/2008 | 171,244,000 | | | | 63,028,560 | | | 178,520,000 | | |
| 11/28/2008 | 172,613,000 | 1,369,000 | 32.8 | 4.5 | 64,209,360 | 1,180,800 | 28.3 | 179,937,000 | 1,417,000 | 33.9 |
| 12/30/2008 | 174,212,000 | 1,599,000 | 35 | 15 | 65,111,660 | 902,300 | 20 | 181,603,000 | 1,666,000 | 36.154514 |
| 1/30/2009 | 175,673,000 | 1,461,000 | 32.7 | 15.9 | 65,863,960 | 752,300 | 16.9 | 183,154,000 | 1,551,000 | 34.7 |
| 2/27/2009 | 176,721,000 | 1,048,000 | 26.0 | 11.0 | 66,470,260 | 606,300 | 15.0 | 184,239,000 | 1,085,000 | 26.9 |
| 3/31/2009 | 177,884,000 | 1,163,000 | 25.2 | 9.6 | 67,190,860 | 720,600 | 15.6 | 185,451,000 | 1,212,000 | 26.3 |
| 4/30/2009 | 178,958,000 | 1,074,000 | 24.9 | 6.2 | 67,995,660 | 804,800 | 18.6 | 186,574,000 | 1,123,000 | 26.0 |
| 5/29/2009 | 179,937,000 | 979,000 | 23.4 | 5.0 | 68,764,260 | 768,600 | 18.4 | 187,600,000 | 1,026,000 | 24.6 |
| 6/30/2009 | 181,104,000 | 1,167,000 | 25.3 | 6.1 | 69,648,160 | 883,900 | 19.2 | 188,813,000 | 1,213,000 | 26.3 |
| 7/31/2009 | 182,734,000 | 1,630,000 | 36.5 | 10.5 | 70,807,760 | 1,159,600 | 26.0 | 190,519,000 | 1,706,000 | 38.2 |
| 8/31/2009 | 184,064,000 | 1,330,000 | 29.8 | 8.1 | 71,774,960 | 967,200 | 21.7 | 191,912,000 | 1,393,000 | 31.2 |
| 9/30/2009 | 185,091,000 | 1,027,000 | 23.8 | -3.3 | 72,945,060 | 1,170,100 | 27.1 | 192,992,000 | 1,080,000 | 25.0 |
| 10/30/2009 | 185,982,000 | 891,000 | 20.6 | -0.3 | 73,851,160 | 906,100 | 21.0 | 193,935,000 | 943,000 | 21.8 |
| Yearly Averages [1] | | | **28.0** | **7.4** | | | **20.6** | | | **29.3** |
| Cumulative Totals: | **185,982,000** | **14,738,000** | | | **73,851,160** | **10,822,600** | | **193,935,000** | **15,415,000** | |

Notes:

1: The average yearly flows are calculated by dividing the total cumulative annual flow by the duration in minutes.

2: The NTCRA-2 Flow Meter is reading higher than actual causing the calculated NTCRA-1 flow to be lower than actual.

***SRSNE NTCRA 1 and NTCRA 2 GWTC System Influent Results***

| Parameter/ Concentration (mg/L) | Sample Dates | |
|---|---|---|
| | 11/7/2008 | 11/21/2008 |
| **A. ORGANIC PARAMETERS** | | |
| ***Volatile Organic Compounds*** | *(mg/L)* | *(mg/L)* |
| Trichloroethene (mg/L) | <0.01 | <0.01 |
| Tetrachloroethene (mg/L) | <0.01 | <0.01 |
| Toluene (mg/L) | 0.9 | 1.08 |
| Ethylbenzene (mg/L) | 0.28 | 0.27 |
| Xylenes, Total (mg/L) | 0.27 | 0.24 |
| Vinyl chloride (mg/L) | 0.33 | 0.28 |
| 1,1-Dichloroethene (mg/L) | <0.01 | <0.01 |
| Tetrahydrofuran (mg/L) | <0.50 | <0.50 |
| 1,2-Dichloroethene[1] (mg/L) | 1 | 1.09 |
| 1,2-Dichloroethane (mg/L) | <0.01 | <0.01 |
| 1,1,1-Trichloroethane (mg/L) | 0.06 | 0.05 |
| 1,1,2-Trichloroethane (mg/L) | <0.01 | <0.01 |
| Methylene chloride (mg/L) | 0.15 | 0.01 |
| Styrene (mg/L) | <0.01 | <0.01 |
| ***Alcohols*** | | |
| Ethanol (mg/L) | <5.0 | <5.0 |
| Methanol (mg/L) | <5.0 | <5.0 |
| 2-Butanol (sec-Butanol) (mg/L) | <5.0 | <5.0 |
| 2-Propanol (Isopropanol) (mg/L) | <5.0 | <5.0 |
| ***Ketones*** | | |
| Acetone (mg/L) | <0.50 | <0.50 |
| 2-Butanone (Methyl Ethyl Ketone) (mg/L) | <0.50 | <0.50 |
| 4-Methyl-2-pentanone (Methyl Isobutyl Ketone) (mg/L) | <0.50 | <0.50 |
| **Total VOCs** | **2.99** | **3.02** |
| **B. INORGANIC PARAMETERS** | | |
| ***Metals*** | | |
| Copper, Total (mg/L) | 0.02 | <0.01 |
| Iron, Total (mg/L) | 4.7 | 0.44 |
| Lead, Total (mg/L) | <0.005 | <0.005 |
| Nickel, Total (mg/L) | <0.05 | <0.05 |
| Zinc, Total (mg/L) | <0.05 | <0.05 |

NOTES:

mg/L = Milligrams per liter unless otherwise noted.

[1] = 1,2-Dichloroethene represents total cis and trans 1,2-Dichloroethene.

***SRSNE NTCRA 1 and NTCRA 2 GWTC System Influent Results***

| Parameter/ Concentration (mg/L) | Sample Dates | |
|---|---|---|
| | 12/5/2008 | 12/19/2008 |
| **A. ORGANIC PARAMETERS** | | |
| ***Volatile Organic Compounds*** | *(mg/L)* | *(mg/L)* |
| Trichloroethene (mg/L) | <0.01 | <0.01 |
| Tetrachloroethene (mg/L) | <0.01 | <0.01 |
| Toluene (mg/L) | 1.62 | 1.72 |
| Ethylbenzene (mg/L) | 0.38 | 0.76 |
| Xylenes, Total (mg/L) | 0.32 | 0.46 |
| Vinyl chloride (mg/L) | 0.35 | 0.7 |
| 1,1-Dichloroethene (mg/L) | 0.01 | 0.01 |
| Tetrahydrofuran (mg/L) | <0.50 | <0.50 |
| 1,2-Dichloroethene[1] (mg/L) | 1.26 | 1.94 |
| 1,2-Dichloroethane (mg/L) | <0.01 | <0.01 |
| 1,1,1-Trichloroethane (mg/L) | 0.09 | 0.18 |
| 1,1,2-Trichloroethane (mg/L) | <0.01 | <0.01 |
| Methylene chloride (mg/L) | 0.04 | 0.08 |
| Styrene (mg/L) | <0.01 | <0.01 |
| ***Alcohols*** | | |
| Ethanol (mg/L) | <5.0 | <5.0 |
| Methanol (mg/L) | <5.0 | <5.0 |
| 2-Butanol (sec-Butanol) (mg/L) | <5.0 | <5.0 |
| 2-Propanol (Isopropanol) (mg/L) | <5.0 | <5.0 |
| ***Ketones*** | | |
| Acetone (mg/L) | <0.50 | <0.50 |
| 2-Butanone (Methyl Ethyl Ketone) (mg/L) | <0.50 | <0.50 |
| 4-Methyl-2-pentanone (Methyl Isobutyl Ketone) (mg/L) | <0.50 | <0.50 |
| **Total VOCs** | **4.07** | **5.85** |
| **B. INORGANIC PARAMETERS** | | |
| ***Metals*** | | |
| Copper, Total (mg/L) | <0.01 | <0.01 |
| Iron, Total (mg/L) | 5.01 | 4.47 |
| Lead, Total (mg/L) | <0.005 | <0.005 |
| Nickel, Total (mg/L) | <0.05 | <0.05 |
| Zinc, Total (mg/L) | <0.05 | <0.05 |

NOTES:

mg/L = Milligrams per liter unless otherwise noted.

[1] = 1,2-Dichloroethene represents total cis and trans 1,2-Dichloroethene.

***SRSNE NTCRA 1 and NTCRA 2 GWTC System Influent Results***

| Parameter/ Concentration (mg/L) | Sample Dates | |
|---|---|---|
| | 1/6/2009 | 1/23/2009 |
| **A. ORGANIC PARAMETERS** | | |
| ***Volatile Organic Compounds*** | *(mg/L)* | *(mg/L)* |
| Trichloroethene (mg/L) | <0.01 | <0.01 |
| Tetrachloroethene (mg/L) | <0.01 | <0.01 |
| Toluene (mg/L) | 1.49 | 1.93 |
| Ethylbenzene (mg/L) | 0.39 | 0.51 |
| Xylenes, Total (mg/L) | 0.33 | 0.38 |
| Vinyl chloride (mg/L) | 0.47 | 0.54 |
| 1,1-Dichloroethene (mg/L) | <0.01 | 0.01 |
| Tetrahydrofuran (mg/L) | <0.50 | <0.50 |
| 1,2-Dichloroethene[1] (mg/L) | 1.36 | 1.08 |
| 1,2-Dichloroethane (mg/L) | <0.01 | <0.01 |
| 1,1,1-Trichloroethane (mg/L) | 0.24 | 0.11 |
| 1,1,2-Trichloroethane (mg/L) | <0.01 | <0.01 |
| Methylene chloride (mg/L) | <0.01 | 0.04 |
| Styrene (mg/L) | <0.01 | <0.01 |
| ***Alcohols*** | | |
| Ethanol (mg/L) | <5.0 | <5.0 |
| Methanol (mg/L) | <5.0 | <5.0 |
| 2-Butanol (sec-Butanol) (mg/L) | <5.0 | <5.0 |
| 2-Propanol (Isopropanol) (mg/L) | <5.0 | <5.0 |
| ***Ketones*** | | |
| Acetone (mg/L) | <0.50 | <0.50 |
| 2-Butanone (Methyl Ethyl Ketone) (mg/L) | <0.50 | <0.50 |
| 4-Methyl-2-pentanone (Methyl Isobutyl Ketone) (mg/L) | <0.50 | <0.50 |
| **Total VOCs** | **4.28** | **4.6** |
| **B. INORGANIC PARAMETERS** | | |
| ***Metals*** | | |
| Copper, Total (mg/L) | <0.01 | <0.01 |
| Iron, Total (mg/L) | 4.23 | 2.93 |
| Lead, Total (mg/L) | <0.005 | <0.005 |
| Nickel, Total (mg/L) | <0.05 | <0.05 |
| Zinc, Total (mg/L) | <0.05 | <0.05 |

NOTES:

mg/L = Milligrams per liter unless otherwise noted.

[1] = 1,2-Dichloroethene represents total cis and trans 1,2-Dichloroethene.

***SRSNE NTCRA 1 and NTCRA 2 GWTC System Influent Results***

| Parameter/ Concentration (mg/L) | Sample Dates | |
|---|---|---|
| | 2/6/2009 | 2/20/2009 |
| **A. ORGANIC PARAMETERS** | | |
| ***Volatile Organic Compounds*** | *(mg/L)* | *(mg/L)* |
| Trichloroethene (mg/L) | <0.01 | <0.01 |
| Tetrachloroethene (mg/L) | <0.01 | <0.01 |
| Toluene (mg/L) | 1.15 | 1.71 |
| Ethylbenzene (mg/L) | 0.27 | 0.45 |
| Xylenes, Total (mg/L) | 0.2 | 0.42 |
| Vinyl chloride (mg/L) | 0.31 | 0.49 |
| 1,1-Dichloroethene (mg/L) | <0.01 | <0.01 |
| Tetrahydrofuran (mg/L) | <0.50 | <0.50 |
| 1,2-Dichloroethene[1] (mg/L) | 0.94 | 1.38 |
| 1,2-Dichloroethane (mg/L) | <0.01 | <0.01 |
| 1,1,1-Trichloroethane (mg/L) | 0.11 | 0.14 |
| 1,1,2-Trichloroethane (mg/L) | <0.01 | <0.01 |
| Methylene chloride (mg/L) | 0.04 | 0.03 |
| Styrene (mg/L) | <0.01 | <0.01 |
| ***Alcohols*** | | |
| Ethanol (mg/L) | <5.0 | <5.0 |
| Methanol (mg/L) | <5.0 | <5.0 |
| 2-Butanol (sec-Butanol) (mg/L) | <5.0 | <5.0 |
| 2-Propanol (Isopropanol) (mg/L) | <5.0 | <5.0 |
| ***Ketones*** | | |
| Acetone (mg/L) | <0.50 | <0.50 |
| 2-Butanone (Methyl Ethyl Ketone) (mg/L) | <0.50 | <0.50 |
| 4-Methyl-2-pentanone (Methyl Isobutyl Ketone) (mg/L) | <0.50 | <0.50 |
| **Total VOCs** | **3.02** | **4.62** |
| **B. INORGANIC PARAMETERS** | | |
| ***Metals*** | | |
| Copper, Total (mg/L) | <0.01 | <0.01 |
| Iron, Total (mg/L) | 6.54 | 6.45 |
| Lead, Total (mg/L) | <0.005 | <0.005 |
| Nickel, Total (mg/L) | <0.05 | <0.05 |
| Zinc, Total (mg/L) | <0.05 | <0.05 |

NOTES:

mg/L = Milligrams per liter unless otherwise noted.

[1] = 1,2-Dichloroethene represents total cis and trans 1,2-Dichloroethene.

***SRSNE NTCRA 1 and NTCRA 2 GWTC System Influent Results***

| Parameter/ Concentration (mg/L) | Sample Dates | |
|---|---|---|
| | 3/6/2009 | 3/20/2009 |
| **A. ORGANIC PARAMETERS** | | |
| ***Volatile Organic Compounds*** | *(mg/L)* | *(mg/L)* |
| Trichloroethene (mg/L) | <0.01 | <0.01 |
| Tetrachloroethene (mg/L) | <0.01 | <0.01 |
| Toluene (mg/L) | 1.25 | 1.27 |
| Ethylbenzene (mg/L) | 0.47 | 0.36 |
| Xylenes, Total (mg/L) | 0.35 | 0.29 |
| Vinyl chloride (mg/L) | 0.51 | 0.62 |
| 1,1-Dichloroethene (mg/L) | <0.01 | <0.01 |
| Tetrahydrofuran (mg/L) | <0.50 | <0.50 |
| 1,2-Dichloroethene[1] (mg/L) | 0.68 | 1.09 |
| 1,2-Dichloroethane (mg/L) | <0.01 | <0.01 |
| 1,1,1-Trichloroethane (mg/L) | 0.08 | 0.1 |
| 1,1,2-Trichloroethane (mg/L) | <0.01 | <0.01 |
| Methylene chloride (mg/L) | 0.04 | 0.05 |
| Styrene (mg/L) | <0.01 | <0.01 |
| ***Alcohols*** | | |
| Ethanol (mg/L) | <5.0 | <5.0 |
| Methanol (mg/L) | <5.0 | <5.0 |
| 2-Butanol (sec-Butanol) (mg/L) | <5.0 | <5.0 |
| 2-Propanol (Isopropanol) (mg/L) | <5.0 | <5.0 |
| ***Ketones*** | | |
| Acetone (mg/L) | <0.50 | <0.50 |
| 2-Butanone (Methyl Ethyl Ketone) (mg/L) | <0.50 | <0.50 |
| 4-Methyl-2-pentanone (Methyl Isobutyl Ketone) (mg/L) | <0.50 | <0.50 |
| **Total VOCs** | **3.38** | **3.78** |
| **B. INORGANIC PARAMETERS** | | |
| ***Metals*** | | |
| Copper, Total (mg/L) | <0.01 | <0.01 |
| Iron, Total (mg/L) | 7.48 | 6.99 |
| Lead, Total (mg/L) | <0.005 | <0.005 |
| Nickel, Total (mg/L) | <0.05 | <0.05 |
| Zinc, Total (mg/L) | <0.05 | <0.05 |

NOTES:

mg/L = Milligrams per liter unless otherwise noted.

[1] = 1,2-Dichloroethene represents total cis and trans 1,2-Dichloroethene.

***SRSNE NTCRA 1 and NTCRA 2 GWTC System Influent Results***

| Parameter/ Concentration (mg/L) | Sample Dates | |
|---|---|---|
| | 4/1/2009 | 4/17/2009 |
| **A. ORGANIC PARAMETERS** | | |
| ***Volatile Organic Compounds*** | *(mg/L)* | *(mg/L)* |
| Trichloroethene (mg/L) | <0.01 | <0.01 |
| Tetrachloroethene (mg/L) | <0.01 | <0.01 |
| Toluene (mg/L) | 0.97 | 1.9 |
| Ethylbenzene (mg/L) | 0.28 | 0.66 |
| Xylenes, Total (mg/L) | 0.18 | 0.38 |
| Vinyl chloride (mg/L) | 0.27 | 0.54 |
| 1,1-Dichloroethene (mg/L) | <0.01 | 0.01 |
| Tetrahydrofuran (mg/L) | <0.50 | <0.50 |
| 1,2-Dichloroethene[1] (mg/L) | 0.82 | 1.23 |
| 1,2-Dichloroethane (mg/L) | <0.01 | <0.01 |
| 1,1,1-Trichloroethane (mg/L) | 0.06 | 0.08 |
| 1,1,2-Trichloroethane (mg/L) | <0.01 | <0.01 |
| Methylene chloride (mg/L) | 0.03 | 0.12 |
| Styrene (mg/L) | <0.01 | <0.01 |
| ***Alcohols*** | | |
| Ethanol (mg/L) | <5.0 | <5.0 |
| Methanol (mg/L) | <5.0 | <5.0 |
| 2-Butanol (sec-Butanol) (mg/L) | 9 | <5.0 |
| 2-Propanol (Isopropanol) (mg/L) | <5.0 | <5.0 |
| ***Ketones*** | | |
| Acetone (mg/L) | <0.50 | <0.50 |
| 2-Butanone (Methyl Ethyl Ketone) (mg/L) | <0.50 | <0.50 |
| 4-Methyl-2-pentanone (Methyl Isobutyl Ketone) (mg/L) | <0.50 | <0.50 |
| **Total VOCs** | **11.61** | **4.92** |
| **B. INORGANIC PARAMETERS** | | |
| ***Metals*** | | |
| Copper, Total (mg/L) | <0.01 | <0.01 |
| Iron, Total (mg/L) | 15.5 | 6.4 |
| Lead, Total (mg/L) | <0.005 | <0.005 |
| Nickel, Total (mg/L) | <0.05 | <0.05 |
| Zinc, Total (mg/L) | <0.05 | <0.05 |

NOTES:

mg/L = Milligrams per liter unless otherwise noted.

[1] = 1,2-Dichloroethene represents total cis and trans 1,2-Dichloroethene.

***SRSNE NTCRA 1 and NTCRA 2 GWTC System Influent Results***

| Parameter/ Concentration (mg/L) | Sample Dates | |
|---|---|---|
| | 5/1/2009 | 5/14/2009 |
| **A. ORGANIC PARAMETERS** | | |
| ***Volatile Organic Compounds*** | *(mg/L)* | *(mg/L)* |
| Trichloroethene (mg/L) | <0.01 | 0.01 |
| Tetrachloroethene (mg/L) | <0.01 | <0.01 |
| Toluene (mg/L) | 1.69 | 1.21 |
| Ethylbenzene (mg/L) | 0.54 | 0.39 |
| Xylenes, Total (mg/L) | 0.32 | 0.23 |
| Vinyl chloride (mg/L) | 0.46 | 0.24 |
| 1,1-Dichloroethene (mg/L) | 0.01 | <0.01 |
| Tetrahydrofuran (mg/L) | <0.50 | <0.50 |
| 1,2-Dichloroethene[1] (mg/L) | 1.8 | 0.62 |
| 1,2-Dichloroethane (mg/L) | <0.01 | <0.01 |
| 1,1,1-Trichloroethane (mg/L) | 0.1 | 0.03 |
| 1,1,2-Trichloroethane (mg/L) | <0.01 | <0.01 |
| Methylene chloride (mg/L) | 0.04 | 0.01 |
| Styrene (mg/L) | <0.01 | <0.01 |
| ***Alcohols*** | | |
| Ethanol (mg/L) | <5.0 | <5.0 |
| Methanol (mg/L) | <5.0 | <5.0 |
| 2-Butanol (sec-Butanol) (mg/L) | <5.0 | <5.0 |
| 2-Propanol (Isopropanol) (mg/L) | <5.0 | <5.0 |
| ***Ketones*** | | |
| Acetone (mg/L) | <0.50 | <0.50 |
| 2-Butanone (Methyl Ethyl Ketone) (mg/L) | <0.50 | <0.50 |
| 4-Methyl-2-pentanone (Methyl Isobutyl Ketone) (mg/L) | <0.50 | <0.50 |
| **Total VOCs** | **4.96** | **2.74** |
| **B. INORGANIC PARAMETERS** | | |
| ***Metals*** | | |
| Copper, Total (mg/L) | <0.01 | <0.01 |
| Iron, Total (mg/L) | 8.66 | 5.24 |
| Lead, Total (mg/L) | <0.005 | <0.005 |
| Nickel, Total (mg/L) | <0.05 | <0.05 |
| Zinc, Total (mg/L) | <0.05 | <0.05 |

NOTES:

mg/L = Milligrams per liter unless otherwise noted.

[1] = 1,2-Dichloroethene represents total cis and trans 1,2-Dichloroethene.

***SRSNE NTCRA 1 and NTCRA 2 GWTC System Influent Results***

| Parameter/ Concentration (mg/L) | Sample Dates | |
|---|---|---|
| | 6/4/2009 | 6/18/2009 |
| **A. ORGANIC PARAMETERS** | | |
| ***Volatile Organic Compounds*** | *(mg/L)* | *(mg/L)* |
| Trichloroethene (mg/L) | <0.01 | <0.01 |
| Tetrachloroethene (mg/L) | <0.01 | <0.01 |
| Toluene (mg/L) | 1.84 | 2.23 |
| Ethylbenzene (mg/L) | 0.55 | 0.72 |
| Xylenes, Total (mg/L) | 0.34 | 0.4 |
| Vinyl chloride (mg/L) | 0.6 | 0.77 |
| 1,1-Dichloroethene (mg/L) | <0.01 | <0.01 |
| Tetrahydrofuran (mg/L) | <0.50 | <0.50 |
| 1,2-Dichloroethene[1] (mg/L) | 0.82 | 1.29 |
| 1,2-Dichloroethane (mg/L) | <0.01 | <0.01 |
| 1,1,1-Trichloroethane (mg/L) | 0.05 | 0.07 |
| 1,1,2-Trichloroethane (mg/L) | <0.01 | <0.01 |
| Methylene chloride (mg/L) | 0.06 | 0.05 |
| Styrene (mg/L) | <0.01 | <0.01 |
| ***Alcohols*** | | |
| Ethanol (mg/L) | <5.0 | <5.0 |
| Methanol (mg/L) | <5.0 | <5.0 |
| 2-Butanol (sec-Butanol) (mg/L) | <5.0 | <5.0 |
| 2-Propanol (Isopropanol) (mg/L) | <5.0 | <5.0 |
| ***Ketones*** | | |
| Acetone (mg/L) | <0.50 | <0.50 |
| 2-Butanone (Methyl Ethyl Ketone) (mg/L) | <0.50 | <0.50 |
| 4-Methyl-2-pentanone (Methyl Isobutyl Ketone) (mg/L) | <0.50 | <0.50 |
| **Total VOCs** | **4.26** | **5.53** |
| **B. INORGANIC PARAMETERS** | | |
| ***Metals*** | | |
| Copper, Total (mg/L) | <0.01 | <0.01 |
| Iron, Total (mg/L) | 7.24 | 7.76 |
| Lead, Total (mg/L) | <0.005 | <0.005 |
| Nickel, Total (mg/L) | <0.05 | <0.05 |
| Zinc, Total (mg/L) | <0.05 | <0.05 |

NOTES:

mg/L = Milligrams per liter unless otherwise noted.

[1] = 1,2-Dichloroethene represents total cis and trans 1,2-Dichloroethene.

***SRSNE NTCRA 1 and NTCRA 2 GWTC System Influent Results***

| Parameter/ Concentration (mg/L) | Sample Dates | |
|---|---|---|
| | 7/7/2009 | 7/23/2009 |
| **A. ORGANIC PARAMETERS** | | |
| ***Volatile Organic Compounds*** | *(mg/L)* | *(mg/L)* |
| Trichloroethene (mg/L) | <0.01 | <0.01 |
| Tetrachloroethene (mg/L) | <0.01 | <0.01 |
| Toluene (mg/L) | 2.58 | 1.95 |
| Ethylbenzene (mg/L) | 0.76 | 0.57 |
| Xylenes, Total (mg/L) | 0.46 | 0.35 |
| Vinyl chloride (mg/L) | 0.92 | 0.62 |
| 1,1-Dichloroethene (mg/L) | 0.03 | <0.01 |
| Tetrahydrofuran (mg/L) | <0.50 | <0.50 |
| 1,2-Dichloroethene[1] (mg/L) | 2.96 | 1.29 |
| 1,2-Dichloroethane (mg/L) | <0.01 | <0.01 |
| 1,1,1-Trichloroethane (mg/L) | 0.14 | 0.07 |
| 1,1,2-Trichloroethane (mg/L) | <0.01 | <0.01 |
| Methylene chloride (mg/L) | 0.06 | 0.05 |
| Styrene (mg/L) | <0.01 | <0.01 |
| ***Alcohols*** | | |
| Ethanol (mg/L) | <5.0 | <5.0 |
| Methanol (mg/L) | <5.0 | <5.0 |
| 2-Butanol (sec-Butanol) (mg/L) | <5.0 | <5.0 |
| 2-Propanol (Isopropanol) (mg/L) | <5.0 | <5.0 |
| ***Ketones*** | | |
| Acetone (mg/L) | <0.50 | <0.50 |
| 2-Butanone (Methyl Ethyl Ketone) (mg/L) | <0.50 | <0.50 |
| 4-Methyl-2-pentanone (Methyl Isobutyl Ketone) (mg/L) | <0.50 | <0.50 |
| **Total VOCs** | **7.91** | **4.9** |
| **B. INORGANIC PARAMETERS** | | |
| ***Metals*** | | |
| Copper, Total (mg/L) | 0.01 | <0.01 |
| Iron, Total (mg/L) | 5.78 | 5.53 |
| Lead, Total (mg/L) | <0.005 | <0.005 |
| Nickel, Total (mg/L) | <0.05 | <0.05 |
| Zinc, Total (mg/L) | <0.05 | <0.05 |

NOTES:

mg/L = Milligrams per liter unless otherwise noted.

[1] = 1,2-Dichloroethene represents total cis and trans 1,2-Dichloroethene.

***SRSNE NTCRA 1 and NTCRA 2 GWTC System Influent Results***

| Parameter/ Concentration (mg/L) | Sample Dates | |
|---|---|---|
| | 8/4/2009 | 8/21/2009 |
| **A. ORGANIC PARAMETERS** | | |
| ***Volatile Organic Compounds*** | *(mg/L)* | *(mg/L)* |
| Trichloroethene (mg/L) | <0.01 | <0.01 |
| Tetrachloroethene (mg/L) | <0.01 | <0.01 |
| Toluene (mg/L) | 2.36 | 1.12 |
| Ethylbenzene (mg/L) | 0.47 | 0.24 |
| Xylenes, Total (mg/L) | 0.48 | 0.18 |
| Vinyl chloride (mg/L) | 1 | 0.62 |
| 1,1-Dichloroethene (mg/L) | 0.02 | <0.01 |
| Tetrahydrofuran (mg/L) | <0.50 | <0.50 |
| 1,2-Dichloroethene[1] (mg/L) | 3.04 | 0.77 |
| 1,2-Dichloroethane (mg/L) | <0.01 | <0.01 |
| 1,1,1-Trichloroethane (mg/L) | 0.11 | 0.03 |
| 1,1,2-Trichloroethane (mg/L) | <0.01 | <0.01 |
| Methylene chloride (mg/L) | 0.03 | 0.02 |
| Styrene (mg/L) | <0.01 | <0.01 |
| ***Alcohols*** | | |
| Ethanol (mg/L) | <5.0 | <5.0 |
| Methanol (mg/L) | <5.0 | <5.0 |
| 2-Butanol (sec-Butanol) (mg/L) | <5.0 | <5.0 |
| 2-Propanol (Isopropanol) (mg/L) | <5.0 | <5.0 |
| ***Ketones*** | | |
| Acetone (mg/L) | <0.50 | <0.50 |
| 2-Butanone (Methyl Ethyl Ketone) (mg/L) | <0.50 | <0.50 |
| 4-Methyl-2-pentanone (Methyl Isobutyl Ketone) (mg/L) | <0.50 | <0.50 |
| **Total VOCs** | **7.51** | **2.98** |
| **B. INORGANIC PARAMETERS** | | |
| ***Metals*** | | |
| Copper, Total (mg/L) | <0.01 | 0.01 |
| Iron, Total (mg/L) | 12.8 | 5.2 |
| Lead, Total (mg/L) | <0.005 | <0.005 |
| Nickel, Total (mg/L) | <0.05 | <0.05 |
| Zinc, Total (mg/L) | <0.05 | <0.05 |

NOTES:

mg/L = Milligrams per liter unless otherwise noted.

[1] = 1,2-Dichloroethene represents total cis and trans 1,2-Dichloroethene.

***SRSNE NTCRA 1 and NTCRA 2 GWTC System Influent Results***

| Parameter/ Concentration (mg/L) | Sample Dates | |
|---|---|---|
| | 9/4/2009 | 9/18/2009 |
| **A. ORGANIC PARAMETERS** | | |
| ***Volatile Organic Compounds*** | *(mg/L)* | *(mg/L)* |
| Trichloroethene (mg/L) | <0.01 | <0.01 |
| Tetrachloroethene (mg/L) | <0.01 | <0.01 |
| Toluene (mg/L) | 2.82 | 2.13 |
| Ethylbenzene (mg/L) | 1.01 | 0.45 |
| Xylenes, Total (mg/L) | 0.52 | 0.26 |
| Vinyl chloride (mg/L) | 2.08 | 1.03 |
| 1,1-Dichloroethene (mg/L) | <0.01 | <0.01 |
| Tetrahydrofuran (mg/L) | <0.50 | <0.50 |
| 1,2-Dichloroethene[1] (mg/L) | 1.51 | 0.99 |
| 1,2-Dichloroethane (mg/L) | <0.01 | <0.01 |
| 1,1,1-Trichloroethane (mg/L) | 0.08 | 0.05 |
| 1,1,2-Trichloroethane (mg/L) | <0.01 | <0.01 |
| Methylene chloride (mg/L) | 0.06 | 0.05 |
| Styrene (mg/L) | <0.01 | <0.01 |
| ***Alcohols*** | | |
| Ethanol (mg/L) | <5.0 | <5.0 |
| Methanol (mg/L) | <5.0 | <5.0 |
| 2-Butanol (sec-Butanol) (mg/L) | <5.0 | <5.0 |
| 2-Propanol (Isopropanol) (mg/L) | <5.0 | <5.0 |
| ***Ketones*** | | |
| Acetone (mg/L) | <0.50 | <0.50 |
| 2-Butanone (Methyl Ethyl Ketone) (mg/L) | <0.50 | <0.50 |
| 4-Methyl-2-pentanone (Methyl Isobutyl Ketone) (mg/L) | <0.50 | <0.50 |
| **Total VOCs** | **8.08** | **4.96** |
| **B. INORGANIC PARAMETERS** | | |
| ***Metals*** | | |
| Copper, Total (mg/L) | <0.01 | <0.01 |
| Iron, Total (mg/L) | 6.33 | 3.7 |
| Lead, Total (mg/L) | <0.005 | <0.005 |
| Nickel, Total (mg/L) | <0.05 | <0.05 |
| Zinc, Total (mg/L) | <0.05 | <0.05 |

NOTES:

mg/L = Milligrams per liter unless otherwise noted.

[1] = 1,2-Dichloroethene represents total cis and trans 1,2-Dichloroethene.

***SRSNE NTCRA 1 and NTCRA 2 GWTC System Influent Results***

| Parameter/ Concentration (mg/L) | Sample Dates | |
|---|---|---|
| | 10/7/2009 | 10/23/2009 |
| **A. ORGANIC PARAMETERS** | | |
| ***Volatile Organic Compounds*** | *(mg/L)* | *(mg/L)* |
| Trichloroethene (mg/L) | <0.01 | <0.01 |
| Tetrachloroethene (mg/L) | <0.01 | <0.01 |
| Toluene (mg/L) | 5.05 | 6.24 |
| Ethylbenzene (mg/L) | 1.47 | 0.99 |
| Xylenes, Total (mg/L) | 0.82 | 0.53 |
| Vinyl chloride (mg/L) | 2.02 | 0.83 |
| 1,1-Dichloroethene (mg/L) | 0.05 | 0.03 |
| Tetrahydrofuran (mg/L) | <0.50 | <0.50 |
| 1,2-Dichloroethene[1] (mg/L) | 2.74 | 4.77 |
| 1,2-Dichloroethane (mg/L) | <0.01 | <0.01 |
| 1,1,1-Trichloroethane (mg/L) | 0.11 | 0.09 |
| 1,1,2-Trichloroethane (mg/L) | <0.01 | <0.01 |
| Methylene chloride (mg/L) | 0.09 | 0.09 |
| Styrene (mg/L) | <0.01 | <0.01 |
| ***Alcohols*** | | |
| Ethanol (mg/L) | <5.0 | <5.0 |
| Methanol (mg/L) | <5.0 | <5.0 |
| 2-Butanol (sec-Butanol) (mg/L) | <5.0 | <5.0 |
| 2-Propanol (Isopropanol) (mg/L) | <5.0 | <5.0 |
| ***Ketones*** | | |
| Acetone (mg/L) | <0.50 | <0.50 |
| 2-Butanone (Methyl Ethyl Ketone) (mg/L) | <0.50 | <0.50 |
| 4-Methyl-2-pentanone (Methyl Isobutyl Ketone) (mg/L) | <0.50 | <0.50 |
| **Total VOCs** | **12.35** | **13.57** |
| **B. INORGANIC PARAMETERS** | | |
| ***Metals*** | | |
| Copper, Total (mg/L) | <0.01 | <0.01 |
| Iron, Total (mg/L) | 2.14 | 8.74 |
| Lead, Total (mg/L) | <0.005 | <0.005 |
| Nickel, Total (mg/L) | <0.05 | <0.05 |
| Zinc, Total (mg/L) | <0.05 | <0.05 |

NOTES:

mg/L = Milligrams per liter unless otherwise noted.

[1] = 1,2-Dichloroethene represents total cis and trans 1,2-Dichloroethene.

# Table 4

November 2008

***SRSNE NTCRA 1 and NTCRA 2 GWTC System Effluent Results***

| Parameter/ Concentration (mg/L) | Substantive Requirement Discharge Limits | Sample Dates | |
|---|---|---|---|
| | | 11/7/2008 | 11/21/2008 |
| **A. ORGANIC PARAMETERS** | | | |
| ***Volatile Organic Compounds*** | *(mg/L)* | *(mg/L)* | *(mg/L)* |
| Trichloroethene (mg/L) | **0.973** | <0.001 | <0.001 |
| Tetrachloroethene (mg/L) | **0.106** | <0.001 | <0.001 |
| Toluene (mg/L) | **4.000** | <0.001 | <0.001 |
| Ethylbenzene (mg/L) | **1.000** | <0.001 | <0.001 |
| Xylenes, Total (mg/L) | **0.500** | <0.001 | <0.001 |
| Vinyl chloride (mg/L) | **4.500** | <0.001 | <0.001 |
| 1,1-Dichloroethene (mg/L) | **0.058** | 0.001 | <0.001 |
| Tetrahydrofuran (mg/L) | **0.500** | <0.050 | <0.050 |
| 1,2-Dichloroethene[1] (mg/L) | **5.000** | 0.200 | 0.170 |
| 1,2-Dichloroethane (mg/L) | **0.250** | 0.002 | 0.002 |
| 1,1,1-Trichloroethane (mg/L) | **4.000** | 0.094 | 0.075 |
| 1,1,2-Trichloroethane (mg/L) | **0.250** | <0.001 | <0.001 |
| Methylene chloride (mg/L) | **15.000** | 0.007 | 0.003 |
| Styrene (mg/L) | **0.500** | <0.001 | <0.001 |
| ***Alcohols*** | | | |
| Ethanol (mg/L) | **20.0** | <5.0 | <5.0 |
| Methanol (mg/L) | **10.0** | <5.0 | <5.0 |
| 2-Butanol (sec-Butanol) (mg/L) | **30.0** | <5.0 | <5.0 |
| 2-Propanol (Isopropanol) (mg/L) | **10.0** | <5.0 | <5.0 |
| ***Ketones*** | | | |
| Acetone (mg/L) | **35.0** | <0.05 | <0.05 |
| 2-Butanone (Methyl Ethyl Ketone) (mg/L) | **10.0** | <0.05 | <0.05 |
| 4-Methyl-2-pentanone (Methyl Isobutyl Ketone) (mg/L) | **2.0** | <0.05 | <0.05 |
| **Total VOCs[2]** | | **0.304** | **0.25** |
| **B. INORGANIC PARAMETERS** | | | |
| ***Metals*** | *(mg/L) or (g/day)* | *(mg/L) or (g/day)* | *(mg/L) or (g/day)* |
| Copper, Total (g/day)[3] | **15.8 g/day** | 0.02 mg/l or 3.7 g/day | <0.01 mg/l or <1.85 g/day |
| Iron, Total (mg/l) | **5.0** | <0.05 | 0.1 |
| Lead, Total (g/day)[3] | **3.2 g/day** | <0.005 mg/l or <0.92 g/day | <0.005 mg/l or <0.92 g/day |
| Nickel, Total (mg/l) | **0.5** | <0.05 | <0.05 |
| Zinc, Total (g/day)[3] | **40.3 g/day** | <0.05 mg/l or <9.25 g/day | <0.05 mg/l or <9.25 g/day |
| ***OTHER*** | | | |
| Hydrogen Peroxide (mg/L) | **1.0** | <0.2 | 0.2 |
| Total PCBs (µg/L) | **NL** | <1 | NS |
| pH (s.u.) | **6.0 - 9.0 s.u.** | 6.81 | 6.82 |
| Total Suspended Solids (mg/L) | **30** | 2 | 3 |
| Dioxins (pg/L) | **NL** | NS | NS |
| Furans (pg/L) | **NL** | NS | NS |

NOTES:

1 = 1,2-Dichloroethene represents total cis and trans 1,2-Dichloroethene.

2 = Total VOCs is the total sum of detected compounds (mg/l)

3 = Inorganic results reported in grams per day are based on average monthly effluent flow

NL = no limit specified.

NS = not sampled (total PCBs analysis required monthly; dioxin/furan analysis required quarterly).

mg/L = Milligrams per liter

µg/L = micrograms per liter

pg/L = picograms per liter

g/day = grams per day

s.u. = Standard pH units



DRAFT

11/5/09

***SRSNE NTCRA 1 and NTCRA 2 GWTC System Effluent Results***

| Parameter/ Concentration (mg/L) | Substantive Requirement Discharge Limits | Sample Dates | |
|---|---|---|---|
| | | 12/5/2008 | 12/19/2008 |
| **A. ORGANIC PARAMETERS** | | | |
| ***Volatile Organic Compounds*** | *(mg/L)* | *(mg/L)* | *(mg/L)* |
| Trichloroethene (mg/L) | **0.973** | <0.001 | <0.001 |
| Tetrachloroethene (mg/L) | **0.106** | <0.001 | <0.001 |
| Toluene (mg/L) | **4.000** | <0.001 | <0.001 |
| Ethylbenzene (mg/L) | **1.000** | <0.001 | <0.001 |
| Xylenes, Total (mg/L) | **0.500** | <0.001 | <0.001 |
| Vinyl chloride (mg/L) | **4.500** | <0.001 | 0.005 |
| 1,1-Dichloroethene (mg/L) | **0.058** | <0.001 | <0.001 |
| Tetrahydrofuran (mg/L) | **0.500** | <0.050 | <0.050 |
| 1,2-Dichloroethene[1] (mg/L) | **5.000** | 0.147 | 0.235 |
| 1,2-Dichloroethane (mg/L) | **0.250** | 0.002 | 0.004 |
| 1,1,1-Trichloroethane (mg/L) | **4.000** | 0.070 | 0.118 |
| 1,1,2-Trichloroethane (mg/L) | **0.250** | <0.001 | <0.001 |
| Methylene chloride (mg/L) | **15.000** | 0.004 | 0.010 |
| Styrene (mg/L) | **0.500** | <0.001 | <0.001 |
| ***Alcohols*** | | | |
| Ethanol (mg/L) | **20.0** | <5.0 | <5.0 |
| Methanol (mg/L) | **10.0** | <5.0 | <5.0 |
| 2-Butanol (sec-Butanol) (mg/L) | **30.0** | <5.0 | <5.0 |
| 2-Propanol (Isopropanol) (mg/L) | **10.0** | <5.0 | <5.0 |
| ***Ketones*** | | | |
| Acetone (mg/L) | **35.0** | <0.05 | <0.05 |
| 2-Butanone (Methyl Ethyl Ketone) (mg/L) | **10.0** | <0.05 | <0.05 |
| 4-Methyl-2-pentanone (Methyl Isobutyl Ketone) (mg/L) | **2.0** | <0.05 | <0.05 |
| **Total VOCs[2]** | | **0.223** | **0.372** |
| **B. INORGANIC PARAMETERS** | | | |
| ***Metals*** | *(mg/L) or (g/day)* | *(mg/L) or (g/day)* | *(mg/L) or (g/day)* |
| Copper, Total (g/day)[3] | **15.8 g/day** | <0.01 mg/l or <1.97 g/day | <0.01 mg/l or< 1.97 g/day |
| Iron, Total (mg/l) | **5.0** | 0.1 | <0.05 |
| Lead, Total (g/day)[3] | **3.2 g/day** | <0.005 mg/l or <0.99 g/day | <0.005 mg/l or <0.99 g/day |
| Nickel, Total (mg/l) | **0.5** | <0.05 | <0.05 |
| Zinc, Total (g/day)[3] | **40.3 g/day** | <0.05 mg/l or <9.85 g/day | <0.05 mg/l or <9.85 g/day |
| ***OTHER*** | | | |
| Hydrogen Peroxide (mg/L) | **1.0** | 0.0 | 0.2 |
| Total PCBs (µg/L) | **NL** | <1 | NS |
| pH (s.u.) | **6.0 - 9.0 s.u.** | 6.82 | 6.87 |
| Total Suspended Solids (mg/L) | **30** | 1 | 3 |
| Dioxins (pg/L) | **NL** | NS | NS |
| Furans (pg/L) | **NL** | NS | NS |

NOTES:

1 = 1,2-Dichloroethene represents total cis and trans 1,2-Dichloroethene.

2 = Total VOCs is the total sum of detected compounds (mg/l)

3 = Inorganic results reported in grams per day are based on average monthly effluent flow

NL = no limit specified.

NS = not sampled (total PCBs analysis required monthly; dioxin/furan analysis required quarterly).

mg/L = Milligrams per liter

µg/L = micrograms per liter

pg/L = picograms per liter

g/day = grams per day

s.u. = Standard pH units

***SRSNE NTCRA 1 and NTCRA 2 GWTC System Effluent Results***

| Parameter/ Concentration (mg/L) | Substantive Requirement Discharge Limits | Sample Dates | |
|---|---|---|---|
| | | 1/6/09 | 1/23/09 |
| **A. ORGANIC PARAMETERS** | | | |
| ***Volatile Organic Compounds*** | *(mg/L)* | *(mg/L)* | *(mg/L)* |
| Trichloroethene (mg/L) | **0.973** | <0.001 | <0.001 |
| Tetrachloroethene (mg/L) | **0.106** | <0.001 | <0.001 |
| Toluene (mg/L) | **4.000** | <0.001 | <0.001 |
| Ethylbenzene (mg/L) | **1.000** | <0.001 | <0.001 |
| Xylenes, Total (mg/L) | **0.500** | <0.001 | <0.001 |
| Vinyl chloride (mg/L) | **4.500** | 0.002 | <0.001 |
| 1,1-Dichloroethene (mg/L) | **0.058** | <0.001 | 0.002 |
| Tetrahydrofuran (mg/L) | **0.500** | <0.050 | <0.050 |
| 1,2-Dichloroethene[1] (mg/L) | **5.000** | 0.328 | 0.239 |
| 1,2-Dichloroethane (mg/L) | **0.250** | 0.004 | 0.003 |
| 1,1,1-Trichloroethane (mg/L) | **4.000** | 0.246 | 0.163 |
| 1,1,2-Trichloroethane (mg/L) | **0.250** | <0.001 | <0.001 |
| Methylene chloride (mg/L) | **15.000** | 0.01 | 0.014 |
| Styrene (mg/L) | **0.500** | <0.001 | <0.001 |
| ***Alcohols*** | | | |
| Ethanol (mg/L) | **20.0** | <5.0 | <5.0 |
| Methanol (mg/L) | **10.0** | <5.0 | <5.0 |
| 2-Butanol (sec-Butanol) (mg/L) | **30.0** | <5.0 | <5.0 |
| 2-Propanol (Isopropanol) (mg/L) | **10.0** | <5.0 | <5.0 |
| ***Ketones*** | | | |
| Acetone (mg/L) | **35.0** | <0.05 | <0.05 |
| 2-Butanone (Methyl Ethyl Ketone) (mg/L) | **10.0** | <0.05 | <0.05 |
| 4-Methyl-2-pentanone (Methyl Isobutyl Ketone) (mg/L) | **2.0** | <0.05 | <0.05 |
| **Total VOCs[2]** | | **0.59** | **0.421** |
| **B. INORGANIC PARAMETERS** | | | |
| ***Metals*** | *(mg/L) or (g/day)* | *(mg/L) or (g/day)* | *(mg/L) or (g/day)* |
| Copper, Total (g/day)[3] | **15.8 g/day** | <0.01 mg/l or <1.89 g/day | <0.01 mg/l or <1.89 g/day |
| Iron, Total (mg/l) | **5.0** | <0.05 | 0.22 |
| Lead, Total (g/day)[3] | **3.2 g/day** | <0.005 mg/l or <0.95 g/day | <0.005 mg/l or <0.95 g/day |
| Nickel, Total (mg/l) | **0.5** | <0.05 | <0.05 |
| Zinc, Total (g/day)[3] | **40.3 g/day** | <0.05 mg/l or <9.47 g/day | <0.05 mg/l or <9.47 g/day |
| ***OTHER*** | | | |
| Hydrogen Peroxide (mg/L) | **1.0** | 0.2 | 0.2 |
| Total PCBs (µg/L) | **NL** | <1 | NS |
| pH (s.u.) | **6.0 - 9.0 s.u.** | 6.80 | 6.79 |
| Total Suspended Solids (mg/L) | **30** | <1 | <1 |
| Dioxins (pg/L) | **NL** | <51.2 | NS |
| Furans (pg/L) | **NL** | <53.6 | NS |

NOTES:

1 = 1,2-Dichloroethene represents total cis and trans 1,2-Dichloroethene.

2 = Total VOCs is the total sum of detected compounds (mg/l)

3 = Inorganic results reported in grams per day are based on average monthly effluent flow

NL = no limit specified.

NS = not sampled (total PCBs analysis required monthly; dioxin/furan analysis required quarterly).

mg/L = Milligrams per liter

µg/L = micrograms per liter

pg/L = picograms per liter

g/day = grams per day

s.u. = Standard pH units

***SRSNE NTCRA 1 and NTCRA 2 GWTC System Effluent Results***

| Parameter/ Concentration (mg/L) | Substantive Requirement Discharge Limits | Sample Dates | |
|---|---|---|---|
| | | 2/6/09 | 2/20/09 |
| **A. ORGANIC PARAMETERS** | | | |
| ***Volatile Organic Compounds*** | *(mg/L)* | *(mg/L)* | *(mg/L)* |
| Trichloroethene (mg/L) | **0.973** | <0.001 | <0.001 |
| Tetrachloroethene (mg/L) | **0.106** | <0.001 | <0.001 |
| Toluene (mg/L) | **4.000** | <0.001 | <0.001 |
| Ethylbenzene (mg/L) | **1.000** | <0.001 | <0.001 |
| Xylenes, Total (mg/L) | **0.500** | <0.001 | <0.001 |
| Vinyl chloride (mg/L) | **4.500** | <0.001 | <0.001 |
| 1,1-Dichloroethene (mg/L) | **0.058** | <0.001 | 0.003 |
| Tetrahydrofuran (mg/L) | **0.500** | <0.050 | <0.050 |
| 1,2-Dichloroethene[1] (mg/L) | **5.000** | 0.239 | 0.226 |
| 1,2-Dichloroethane (mg/L) | **0.250** | <0.001 | <0.001 |
| 1,1,1-Trichloroethane (mg/L) | **4.000** | 0.116 | 0.107 |
| 1,1,2-Trichloroethane (mg/L) | **0.250** | <0.001 | <0.001 |
| Methylene chloride (mg/L) | **15.000** | 0.005 | 0.006 |
| Styrene (mg/L) | **0.500** | <0.001 | <0.001 |
| ***Alcohols*** | | | |
| Ethanol (mg/L) | **20.0** | <5.0 | <5.0 |
| Methanol (mg/L) | **10.0** | <5.0 | <5.0 |
| 2-Butanol (sec-Butanol) (mg/L) | **30.0** | <5.0 | <5.0 |
| 2-Propanol (Isopropanol) (mg/L) | **10.0** | <5.0 | <5.0 |
| ***Ketones*** | | | |
| Acetone (mg/L) | **35.0** | <0.05 | <0.05 |
| 2-Butanone (Methyl Ethyl Ketone) (mg/L) | **10.0** | <0.05 | <0.05 |
| 4-Methyl-2-pentanone (Methyl Isobutyl Ketone) (mg/L) | **2.0** | <0.05 | <0.05 |
| **Total VOCs[2]** | | **0.36** | **0.342** |
| **B. INORGANIC PARAMETERS** | | | |
| ***Metals*** | *(mg/L) or (g/day)* | *(mg/L) or (g/day)* | *(mg/L) or (g/day)* |
| Copper, Total (g/day)[3] | **15.8 g/day** | <0.01 mg/l or <1.47 g/day | <0.01 mg/l or <1.47 g/day |
| Iron, Total (mg/l) | **5.0** | <0.05 | 0.09 |
| Lead, Total (g/day)[3] | **3.2 g/day** | <0.005 mg/l or <0.73 g/day | <0.005 mg/l or <0.73 g/day |
| Nickel, Total (mg/l) | **0.5** | <0.05 | <0.05 |
| Zinc, Total (g/day)[3] | **40.3 g/day** | <0.05 mg/l or <7.33 g/day | <0.05 mg/l or <7.33 g/day |
| ***OTHER*** | | | |
| Hydrogen Peroxide (mg/L) | **1.0** | 0.2 | 0.2 |
| Total PCBs (µg/L) | **NL** | <1 | NS |
| pH (s.u.) | **6.0 - 9.0 s.u.** | 7.20 | 7.16 |
| Total Suspended Solids (mg/L) | **30** | <1 | <1 |
| Dioxins (pg/L) | **NL** | NS | NS |
| Furans (pg/L) | **NL** | NS | NS |

NOTES:

1 = 1,2-Dichloroethene represents total cis and trans 1,2-Dichloroethene.

2 = Total VOCs is the total sum of detected compounds (mg/l)

3 = Inorganic results reported in grams per day are based on average monthly effluent flow

NL = no limit specified.

NS = not sampled (total PCBs analysis required monthly; dioxin/furan analysis required quarterly).

mg/L = Milligrams per liter

µg/L = micrograms per liter

pg/L = picograms per liter

g/day = grams per day

s.u. = Standard pH units

***SRSNE NTCRA 1 and NTCRA 2 GWTC System Effluent Results***

| Parameter/ Concentration (mg/L) | Substantive Requirement Discharge Limits | Sample Dates | |
|---|---|---|---|
| | | 3/6/09 | 3/20/09 |
| **A. ORGANIC PARAMETERS** | | | |
| ***Volatile Organic Compounds*** | *(mg/L)* | *(mg/L)* | *(mg/L)* |
| Trichloroethene (mg/L) | **0.973** | <0.001 | <0.001 |
| Tetrachloroethene (mg/L) | **0.106** | <0.001 | <0.001 |
| Toluene (mg/L) | **4.000** | 0.16 | <0.001 |
| Ethylbenzene (mg/L) | **1.000** | 0.055 | <0.001 |
| Xylenes, Total (mg/L) | **0.500** | 0.041 | <0.001 |
| Vinyl chloride (mg/L) | **4.500** | 0.067 | <0.001 |
| 1,1-Dichloroethene (mg/L) | **0.058** | 0.001 | <0.001 |
| Tetrahydrofuran (mg/L) | **0.500** | <0.050 | <0.050 |
| 1,2-Dichloroethene[1] (mg/L) | **5.000** | 0.091 | 0.247 |
| 1,2-Dichloroethane (mg/L) | **0.250** | <0.001 | <0.001 |
| 1,1,1-Trichloroethane (mg/L) | **4.000** | 0.009 | 0.092 |
| 1,1,2-Trichloroethane (mg/L) | **0.250** | <0.001 | <0.001 |
| Methylene chloride (mg/L) | **15.000** | 0.007 | 0.009 |
| Styrene (mg/L) | **0.500** | <0.001 | <0.001 |
| ***Alcohols*** | | | |
| Ethanol (mg/L) | **20.0** | <5.0 | <5.0 |
| Methanol (mg/L) | **10.0** | <5.0 | <5.0 |
| 2-Butanol (sec-Butanol) (mg/L) | **30.0** | <5.0 | <5.0 |
| 2-Propanol (Isopropanol) (mg/L) | **10.0** | <5.0 | <5.0 |
| ***Ketones*** | | | |
| Acetone (mg/L) | **35.0** | <0.05 | <0.05 |
| 2-Butanone (Methyl Ethyl Ketone) (mg/L) | **10.0** | <0.05 | <0.05 |
| 4-Methyl-2-pentanone (Methyl Isobutyl Ketone) (mg/L) | **2.0** | <0.05 | <0.05 |
| **Total VOCs[2]** | | **0.431** | **0.348** |
| **B. INORGANIC PARAMETERS** | | | |
| ***Metals*** | *(mg/L) or (g/day)* | *(mg/L) or (g/day)* | *(mg/L) or (g/day)* |
| Copper, Total (g/day)[3] | **15.8 g/day** | <0.01 mg/l or <1.43 g/day | <0.01 mg/l or <1.43 g/day |
| Iron, Total (mg/l) | **5.0** | 0.18 | 0.19 |
| Lead, Total (g/day)[3] | **3.2 g/day** | <0.005 mg/l or <0.72 g/day | <0.005 mg/l or <0.72 g/day |
| Nickel, Total (mg/l) | **0.5** | <0.05 | <0.05 |
| Zinc, Total (g/day)[3] | **40.3 g/day** | <0.05 mg/l or <7.17 g/day | <0.05 mg/l or <7.17 g/day |
| ***OTHER*** | | | |
| Hydrogen Peroxide (mg/L) | **1.0** | 0.2 | 0.2 |
| Total PCBs (µg/L) | **NL** | <1 | NS |
| pH (s.u.) | **6.0 - 9.0 s.u.** | 7.11 | 6.90 |
| Total Suspended Solids (mg/L) | **30** | <1 | <1 |
| Dioxins (pg/L) | **NL** | NS | NS |
| Furans (pg/L) | **NL** | NS | NS |

NOTES:

1 = 1,2-Dichloroethene represents total cis and trans 1,2-Dichloroethene.

2 = Total VOCs is the total sum of detected compounds (mg/l)

3 = Inorganic results reported in grams per day are based on average monthly effluent flow

NL = no limit specified.

NS = not sampled (total PCBs analysis required monthly; dioxin/furan analysis required quarterly).

mg/L = Milligrams per liter

µg/L = micrograms per liter

pg/L = picograms per liter

g/day = grams per day

s.u. = Standard pH units

***SRSNE NTCRA 1 and NTCRA 2 GWTC System Effluent Results***

| Parameter/ Concentration (mg/L) | Substantive Requirement Discharge Limits | Sample Dates | |
|---|---|---|---|
| | | 4/1/09 | 4/17/09 |
| **A. ORGANIC PARAMETERS** | | | |
| ***Volatile Organic Compounds*** | *(mg/L)* | *(mg/L)* | *(mg/L)* |
| Trichloroethene (mg/L) | **0.973** | <0.001 | <0.001 |
| Tetrachloroethene (mg/L) | **0.106** | <0.001 | <0.001 |
| Toluene (mg/L) | **4.000** | <0.001 | <0.001 |
| Ethylbenzene (mg/L) | **1.000** | <0.001 | <0.001 |
| Xylenes, Total (mg/L) | **0.500** | <0.001 | <0.001 |
| Vinyl chloride (mg/L) | **4.500** | <0.001 | 0.016 |
| 1,1-Dichloroethene (mg/L) | **0.058** | <0.001 | <0.001 |
| Tetrahydrofuran (mg/L) | **0.500** | <0.050 | <0.050 |
| 1,2-Dichloroethene[1] (mg/L) | **5.000** | 0.242 | 0.332 |
| 1,2-Dichloroethane (mg/L) | **0.250** | <0.001 | 0.002 |
| 1,1,1-Trichloroethane (mg/L) | **4.000** | 0.094 | 0.094 |
| 1,1,2-Trichloroethane (mg/L) | **0.250** | <0.001 | <0.001 |
| Methylene chloride (mg/L) | **15.000** | 0.005 | 0.034 |
| Styrene (mg/L) | **0.500** | <0.001 | <0.001 |
| ***Alcohols*** | | | |
| Ethanol (mg/L) | **20.0** | <5.0 | <5.0 |
| Methanol (mg/L) | **10.0** | <5.0 | <5.0 |
| 2-Butanol (sec-Butanol) (mg/L) | **30.0** | <5.0 | <5.0 |
| 2-Propanol (Isopropanol) (mg/L) | **10.0** | <5.0 | <5.0 |
| ***Ketones*** | | | |
| Acetone (mg/L) | **35.0** | <0.05 | <0.05 |
| 2-Butanone (Methyl Ethyl Ketone) (mg/L) | **10.0** | <0.05 | <0.05 |
| 4-Methyl-2-pentanone (Methyl Isobutyl Ketone) (mg/L) | **2.0** | <0.05 | <0.05 |
| **Total VOCs[2]** | | **0.341** | **0.478** |
| **B. INORGANIC PARAMETERS** | | | |
| ***Metals*** | *(mg/L) or (g/day)* | *(mg/L) or (g/day)* | *(mg/L) or (g/day)* |
| Copper, Total (g/day)[3] | **15.8 g/day** | 0.02 mg/l or 2.83 g/day | <0.01 mg/l or <1.42 g/day |
| Iron, Total (mg/l) | **5.0** | 0.05 | 0.05 |
| Lead, Total (g/day)[3] | **3.2 g/day** | <0.005 mg/l or <0.71 g/day | <0.005 mg/l or <0.71 g/day |
| Nickel, Total (mg/l) | **0.5** | <0.05 | <0.05 |
| Zinc, Total (g/day)[3] | **40.3 g/day** | <0.05 mg/l or <7.08 g/day | <0.05 mg/l or <7.08 g/day |
| ***OTHER*** | | | |
| Hydrogen Peroxide (mg/L) | **1.0** | 0.2 | 0.2 |
| Total PCBs (µg/L) | **NL** | <1 | NS |
| pH (s.u.) | **6.0 - 9.0 s.u.** | 6.83 | 6.88 |
| Total Suspended Solids (mg/L) | **30** | <1 | 3.00 |
| Dioxins (pg/L) | **NL** | <100 | NS |
| Furans (pg/L) | **NL** | <100 | NS |

NOTES:

1 = 1,2-Dichloroethene represents total cis and trans 1,2-Dichloroethene.

2 = Total VOCs is the total sum of detected compounds (mg/l)

3 = Inorganic results reported in grams per day are based on average monthly effluent flow

NL = no limit specified.

NS = not sampled (total PCBs analysis required monthly; dioxin/furan analysis required quarterly).

mg/L = Milligrams per liter

µg/L = micrograms per liter

pg/L = picograms per liter

g/day = grams per day

s.u. = Standard pH units

***SRSNE NTCRA 1 and NTCRA 2 GWTC System Effluent Results***

| Parameter/ Concentration (mg/L) | Substantive Requirement Discharge Limits | Sample Dates | |
|---|---|---|---|
| | | 5/1/09 | 5/14/09 |
| **A. ORGANIC PARAMETERS** | | | |
| ***Volatile Organic Compounds*** | *(mg/L)* | *(mg/L)* | *(mg/L)* |
| Trichloroethene (mg/L) | **0.973** | <0.001 | <0.001 |
| Tetrachloroethene (mg/L) | **0.106** | <0.001 | <0.001 |
| Toluene (mg/L) | **4.000** | <0.001 | <0.001 |
| Ethylbenzene (mg/L) | **1.000** | <0.001 | <0.001 |
| Xylenes, Total (mg/L) | **0.500** | <0.001 | <0.001 |
| Vinyl chloride (mg/L) | **4.500** | <0.001 | 0.001 |
| 1,1-Dichloroethene (mg/L) | **0.058** | <0.001 | <0.001 |
| Tetrahydrofuran (mg/L) | **0.500** | <0.050 | <0.050 |
| 1,2-Dichloroethene[1] (mg/L) | **5.000** | 0.686 | 0.131 |
| 1,2-Dichloroethane (mg/L) | **0.250** | 0.003 | <0.001 |
| 1,1,1-Trichloroethane (mg/L) | **4.000** | 0.086 | 0.023 |
| 1,1,2-Trichloroethane (mg/L) | **0.250** | <0.001 | <0.001 |
| Methylene chloride (mg/L) | **15.000** | 0.028 | 0.019 |
| Styrene (mg/L) | **0.500** | <0.001 | <0.001 |
| ***Alcohols*** | | | |
| Ethanol (mg/L) | **20.0** | <5.0 | <5.0 |
| Methanol (mg/L) | **10.0** | <5.0 | <5.0 |
| 2-Butanol (sec-Butanol) (mg/L) | **30.0** | <5.0 | <5.0 |
| 2-Propanol (Isopropanol) (mg/L) | **10.0** | <5.0 | <5.0 |
| ***Ketones*** | | | |
| Acetone (mg/L) | **35.0** | <0.05 | <0.05 |
| 2-Butanone (Methyl Ethyl Ketone) (mg/L) | **10.0** | <0.05 | <0.05 |
| 4-Methyl-2-pentanone (Methyl Isobutyl Ketone) (mg/L) | **2.0** | <0.05 | <0.05 |
| **Total VOCs[2]** | | **0.803** | **0.174** |
| **B. INORGANIC PARAMETERS** | | | |
| ***Metals*** | *(mg/L) or (g/day)* | *(mg/L) or (g/day)* | *(mg/L) or (g/day)* |
| Copper, Total (g/day)[3] | **15.8 g/day** | <0.01 mg/l or 1.34 g/day | 0.01 mg/l or 1.34 g/day |
| Iron, Total (mg/l) | **5.0** | 0.1 | 0.08 |
| Lead, Total (g/day)[3] | **3.2 g/day** | <0.005 mg/l or <0.67 g/day | <0.005 mg/l or <0.67 g/day |
| Nickel, Total (mg/l) | **0.5** | <0.05 | <0.05 |
| Zinc, Total (g/day)[3] | **40.3 g/day** | <0.05 mg/l or <6.7 g/day | <0.05 mg/l or <6.7 g/day |
| ***OTHER*** | | | |
| Hydrogen Peroxide (mg/L) | **1.0** | 0.2 | 0.2 |
| Total PCBs (µg/L) | **NL** | <1 | NS |
| pH (s.u.) | **6.0 - 9.0 s.u.** | 7.06 | 6.82 |
| Total Suspended Solids (mg/L) | **30** | <1 | <1 |
| Dioxins (pg/L) | **NL** | NS | NS |
| Furans (pg/L) | **NL** | NS | NS |

NOTES:

1 = 1,2-Dichloroethene represents total cis and trans 1,2-Dichloroethene.

2 = Total VOCs is the total sum of detected compounds (mg/l)

3 = Inorganic results reported in grams per day are based on average monthly effluent flow

NL = no limit specified.

NS = not sampled (total PCBs analysis required monthly; dioxin/furan analysis required quarterly).

mg/L = Milligrams per liter

µg/L = micrograms per liter

pg/L = picograms per liter

g/day = grams per day

s.u. = Standard pH units

***SRSNE NTCRA 1 and NTCRA 2 GWTC System Effluent Results***

| Parameter/ Concentration (mg/L) | Substantive Requirement Discharge Limits | Sample Dates | |
|---|---|---|---|
| | | 6/4/09 | 6/18/09 |
| **A. ORGANIC PARAMETERS** | | | |
| ***Volatile Organic Compounds*** | *(mg/L)* | *(mg/L)* | *(mg/L)* |
| Trichloroethene (mg/L) | **0.973** | <0.001 | <0.001 |
| Tetrachloroethene (mg/L) | **0.106** | <0.001 | <0.001 |
| Toluene (mg/L) | **4.000** | <0.001 | <0.001 |
| Ethylbenzene (mg/L) | **1.000** | <0.001 | <0.001 |
| Xylenes, Total (mg/L) | **0.500** | <0.001 | <0.001 |
| Vinyl chloride (mg/L) | **4.500** | 0.003 | <0.001 |
| 1,1-Dichloroethene (mg/L) | **0.058** | <0.001 | <0.001 |
| Tetrahydrofuran (mg/L) | **0.500** | <0.050 | <0.050 |
| 1,2-Dichloroethene[1] (mg/L) | **5.000** | 0.001 | 0.015 |
| 1,2-Dichloroethane (mg/L) | **0.250** | <0.001 | <0.001 |
| 1,1,1-Trichloroethane (mg/L) | **4.000** | <0.001 | <0.001 |
| 1,1,2-Trichloroethane (mg/L) | **0.250** | <0.001 | <0.001 |
| Methylene chloride (mg/L) | **15.000** | 0.009 | 0.025 |
| Styrene (mg/L) | **0.500** | <0.001 | <0.001 |
| ***Alcohols*** | | | |
| Ethanol (mg/L) | **20.0** | <5.0 | <5.0 |
| Methanol (mg/L) | **10.0** | <5.0 | <5.0 |
| 2-Butanol (sec-Butanol) (mg/L) | **30.0** | <5.0 | <5.0 |
| 2-Propanol (Isopropanol) (mg/L) | **10.0** | <5.0 | <5.0 |
| ***Ketones*** | | | |
| Acetone (mg/L) | **35.0** | <0.05 | <0.05 |
| 2-Butanone (Methyl Ethyl Ketone) (mg/L) | **10.0** | <0.05 | <0.05 |
| 4-Methyl-2-pentanone (Methyl Isobutyl Ketone) (mg/L) | **2.0** | <0.05 | <0.05 |
| **Total VOCs[2]** | | **0.013** | **0.04** |
| **B. INORGANIC PARAMETERS** | | | |
| ***Metals*** | *(mg/L) or (g/day)* | *(mg/L) or (g/day)* | *(mg/L) or (g/day)* |
| Copper, Total (g/day)[3] | **15.8 g/day** | <0.01 mg/l or <1.43 g/day | <0.01 mg/l or 1.43 g/day |
| Iron, Total (mg/l) | **5.0** | 0.08 | 0.06 |
| Lead, Total (g/day)[3] | **3.2 g/day** | <0.005 mg/l or <0.72 g/day | <0.005 mg/l or <0.72 g/day |
| Nickel, Total (mg/l) | **0.5** | <0.05 | <0.05 |
| Zinc, Total (g/day)[3] | **40.3 g/day** | <0.05 mg/l or <7.17 g/day | <0.05 mg/l or <7.17 g/day |
| ***OTHER*** | | | |
| Hydrogen Peroxide (mg/L) | **1.0** | 0.2 | 0.2 |
| Total PCBs (µg/L) | **NL** | <1 | NS |
| pH (s.u.) | **6.0 - 9.0 s.u.** | 6.83 | 6.84 |
| Total Suspended Solids (mg/L) | **30** | 1.00 | <1 |
| Dioxins (pg/L) | **NL** | NS | NS |
| Furans (pg/L) | **NL** | NS | NS |

NOTES:

1 = 1,2-Dichloroethene represents total cis and trans 1,2-Dichloroethene.

2 = Total VOCs is the total sum of detected compounds (mg/l)

3 = Inorganic results reported in grams per day are based on average monthly effluent flow

NL = no limit specified.

NS = not sampled (total PCBs analysis required monthly; dioxin/furan analysis required quarterly).

mg/L = Milligrams per liter

µg/L = micrograms per liter

pg/L = picograms per liter

g/day = grams per day

s.u. = Standard pH units

***SRSNE NTCRA 1 and NTCRA 2 GWTC System Effluent Results***

| Parameter/ Concentration (mg/L) | Substantive Requirement Discharge Limits | Sample Dates | |
|---|---|---|---|
| | | 7/7/09 | 7/23/09 |
| **A. ORGANIC PARAMETERS** | | | |
| ***Volatile Organic Compounds*** | *(mg/L)* | *(mg/L)* | *(mg/L)* |
| Trichloroethene (mg/L) | **0.973** | <0.001 | <0.001 |
| Tetrachloroethene (mg/L) | **0.106** | <0.001 | <0.001 |
| Toluene (mg/L) | **4.000** | <0.001 | <0.001 |
| Ethylbenzene (mg/L) | **1.000** | <0.001 | <0.001 |
| Xylenes, Total (mg/L) | **0.500** | <0.001 | <0.001 |
| Vinyl chloride (mg/L) | **4.500** | <0.001 | <0.001 |
| 1,1-Dichloroethene (mg/L) | **0.058** | <0.001 | <0.001 |
| Tetrahydrofuran (mg/L) | **0.500** | <0.050 | <0.050 |
| 1,2-Dichloroethene[1] (mg/L) | **5.000** | 0.484 | 0.537 |
| 1,2-Dichloroethane (mg/L) | **0.250** | <0.001 | <0.001 |
| 1,1,1-Trichloroethane (mg/L) | **4.000** | 0.022 | 0.024 |
| 1,1,2-Trichloroethane (mg/L) | **0.250** | <0.001 | <0.001 |
| Methylene chloride (mg/L) | **15.000** | 0.033 | <0.001 |
| Styrene (mg/L) | **0.500** | <0.001 | <0.001 |
| ***Alcohols*** | | | |
| Ethanol (mg/L) | **20.0** | <5.0 | <5.0 |
| Methanol (mg/L) | **10.0** | <5.0 | <5.0 |
| 2-Butanol (sec-Butanol) (mg/L) | **30.0** | <5.0 | <5.0 |
| 2-Propanol (Isopropanol) (mg/L) | **10.0** | <5.0 | <5.0 |
| ***Ketones*** | | | |
| Acetone (mg/L) | **35.0** | <0.05 | <0.05 |
| 2-Butanone (Methyl Ethyl Ketone) (mg/L) | **10.0** | <0.05 | <0.05 |
| 4-Methyl-2-pentanone (Methyl Isobutyl Ketone) (mg/L) | **2.0** | <0.05 | <0.05 |
| **Total VOCs[2]** | | **0.539** | **0.561** |
| **B. INORGANIC PARAMETERS** | | | |
| ***Metals*** | *(mg/L) or (g/day)* | *(mg/L) or (g/day)* | *(mg/L) or (g/day)* |
| Copper, Total (g/day)[3] | **15.8 g/day** | <0.01 mg/l or <2.08 g/day | <0.01 mg/l or <2.08 g/day |
| Iron, Total (mg/l) | **5.0** | 0.25 | 0.07 |
| Lead, Total (g/day)[3] | **3.2 g/day** | <0.005 mg/l or <1.04 g/day | <0.005 mg/l or <1.04 g/day |
| Nickel, Total (mg/l) | **0.5** | <0.05 | <0.05 |
| Zinc, Total (g/day)[3] | **40.3 g/day** | <0.05 mg/l or <10.41 g/day | <0.05 mg/l or <10.41 g/day |
| ***OTHER*** | | | |
| Hydrogen Peroxide (mg/L) | **1.0** | 0.2 | 0.2 |
| Total PCBs (µg/L) | **NL** | <1 | NS |
| pH (s.u.) | **6.0 - 9.0 s.u.** | 6.82 | 6.81 |
| Total Suspended Solids (mg/L) | **30** | 1.00 | <1 |
| Dioxins (pg/L) | **NL** | <95.2 | NS |
| Furans (pg/L) | **NL** | <95.2 | NS |

NOTES:

1 = 1,2-Dichloroethene represents total cis and trans 1,2-Dichloroethene.

2 = Total VOCs is the total sum of detected compounds (mg/l)

3 = Inorganic results reported in grams per day are based on average monthly effluent flow

NL = no limit specified.

NS = not sampled (total PCBs analysis required monthly; dioxin/furan analysis required quarterly).

mg/L = Milligrams per liter

µg/L = micrograms per liter

pg/L = picograms per liter

g/day = grams per day

s.u. = Standard pH units

***SRSNE NTCRA 1 and NTCRA 2 GWTC System Effluent Results***

| Parameter/ Concentration (mg/L) | Substantive Requirement Discharge Limits | Sample Dates | |
|---|---|---|---|
| | | 8/4/09 | 8/21/09 |
| **A. ORGANIC PARAMETERS** | | | |
| ***Volatile Organic Compounds*** | *(mg/L)* | *(mg/L)* | *(mg/L)* |
| Trichloroethene (mg/L) | **0.973** | <0.001 | <0.001 |
| Tetrachloroethene (mg/L) | **0.106** | <0.001 | <0.001 |
| Toluene (mg/L) | **4.000** | 0.002 | <0.001 |
| Ethylbenzene (mg/L) | **1.000** | <0.001 | <0.001 |
| Xylenes, Total (mg/L) | **0.500** | <0.001 | <0.001 |
| Vinyl chloride (mg/L) | **4.500** | <0.001 | <0.001 |
| 1,1-Dichloroethene (mg/L) | **0.058** | <0.001 | <0.001 |
| Tetrahydrofuran (mg/L) | **0.500** | <0.050 | <0.050 |
| 1,2-Dichloroethene[1] (mg/L) | **5.000** | 0.755 | 0.77 |
| 1,2-Dichloroethane (mg/L) | **0.250** | 0.003 | <0.001 |
| 1,1,1-Trichloroethane (mg/L) | **4.000** | 0.039 | 0.031 |
| 1,1,2-Trichloroethane (mg/L) | **0.250** | <0.001 | <0.001 |
| Methylene chloride (mg/L) | **15.000** | 0.022 | 0.016 |
| Styrene (mg/L) | **0.500** | <0.001 | <0.001 |
| ***Alcohols*** | | | |
| Ethanol (mg/L) | **20.0** | <5.0 | <5.0 |
| Methanol (mg/L) | **10.0** | <5.0 | <5.0 |
| 2-Butanol (sec-Butanol) (mg/L) | **30.0** | <5.0 | <5.0 |
| 2-Propanol (Isopropanol) (mg/L) | **10.0** | <5.0 | <5.0 |
| ***Ketones*** | | | |
| Acetone (mg/L) | **35.0** | <0.05 | <0.05 |
| 2-Butanone (Methyl Ethyl Ketone) (mg/L) | **10.0** | <0.05 | <0.05 |
| 4-Methyl-2-pentanone (Methyl Isobutyl Ketone) (mg/L) | **2.0** | <0.05 | <0.05 |
| **Total VOCs[2]** | | **0.821** | **0.817** |
| **B. INORGANIC PARAMETERS** | | | |
| ***Metals*** | *(mg/L) or (g/day)* | *(mg/L) or (g/day)* | *(mg/L) or (g/day)* |
| Copper, Total (g/day)[3] | **15.8 g/day** | <0.01 mg/l or 1.7 g/day | <0.01 mg/l or <1.7 g/day |
| Iron, Total (mg/l) | **5.0** | 0.09 | 0.15 |
| Lead, Total (g/day)[3] | **3.2 g/day** | <0.005 mg/l or <0.85 g/day | <0.005 mg/l or <0.85 g/day |
| Nickel, Total (mg/l) | **0.5** | <0.05 | <0.05 |
| Zinc, Total (g/day)[3] | **40.3 g/day** | <0.05 mg/l or <8.5 g/day | <0.05 mg/l or <8.5 g/day |
| ***OTHER*** | | | |
| Hydrogen Peroxide (mg/L) | **1.0** | 0.2 | 0.2 |
| Total PCBs (µg/L) | **NL** | <1 | NS |
| pH (s.u.) | **6.0 - 9.0 s.u.** | 6.83 | 6.61 |
| Total Suspended Solids (mg/L) | **30** | 4.00 | <1 |
| Dioxins (pg/L) | **NL** | NS | NS |
| Furans (pg/L) | **NL** | NS | NS |

NOTES:

1 = 1,2-Dichloroethene represents total cis and trans 1,2-Dichloroethene.

2 = Total VOCs is the total sum of detected compounds (mg/l)

3 = Inorganic results reported in grams per day are based on average monthly effluent flow

NL = no limit specified.

NS = not sampled (total PCBs analysis required monthly; dioxin/furan analysis required quarterly).

mg/L = Milligrams per liter

µg/L = micrograms per liter

pg/L = picograms per liter

g/day = grams per day

s.u. = Standard pH units

***SRSNE NTCRA 1 and NTCRA 2 GWTC System Effluent Results***

| Parameter/ Concentration (mg/L) | Substantive Requirement Discharge Limits | Sample Dates | |
|---|---|---|---|
| | | 9/4/09 | 9/18/09 |
| **A. ORGANIC PARAMETERS** | | | |
| ***Volatile Organic Compounds*** | *(mg/L)* | *(mg/L)* | *(mg/L)* |
| Trichloroethene (mg/L) | **0.973** | <0.001 | <0.001 |
| Tetrachloroethene (mg/L) | **0.106** | <0.001 | <0.001 |
| Toluene (mg/L) | **4.000** | <0.001 | <0.001 |
| Ethylbenzene (mg/L) | **1.000** | <0.001 | <0.001 |
| Xylenes, Total (mg/L) | **0.500** | <0.001 | <0.001 |
| Vinyl chloride (mg/L) | **4.500** | <0.001 | <0.001 |
| 1,1-Dichloroethene (mg/L) | **0.058** | 0.004 | 0.002 |
| Tetrahydrofuran (mg/L) | **0.500** | <0.050 | <0.050 |
| 1,2-Dichloroethene[1] (mg/L) | **5.000** | 0.909 | 0.627 |
| 1,2-Dichloroethane (mg/L) | **0.250** | <0.001 | <0.001 |
| 1,1,1-Trichloroethane (mg/L) | **4.000** | 0.036 | 0.027 |
| 1,1,2-Trichloroethane (mg/L) | **0.250** | <0.001 | <0.001 |
| Methylene chloride (mg/L) | **15.000** | 0.031 | 0.015 |
| Styrene (mg/L) | **0.500** | <0.001 | <0.001 |
| ***Alcohols*** | | | |
| Ethanol (mg/L) | **20.0** | <5.0 | <5.0 |
| Methanol (mg/L) | **10.0** | <5.0 | <5.0 |
| 2-Butanol (sec-Butanol) (mg/L) | **30.0** | <5.0 | <5.0 |
| 2-Propanol (Isopropanol) (mg/L) | **10.0** | <5.0 | <5.0 |
| ***Ketones*** | | | |
| Acetone (mg/L) | **35.0** | <0.05 | <0.05 |
| 2-Butanone (Methyl Ethyl Ketone) (mg/L) | **10.0** | <0.05 | <0.05 |
| 4-Methyl-2-pentanone (Methyl Isobutyl Ketone) (mg/L) | **2.0** | <0.05 | <0.05 |
| **Total VOCs[2]** | | **0.98** | **0.671** |
| **B. INORGANIC PARAMETERS** | | | |
| ***Metals*** | *(mg/L) or (g/day)* | *(mg/L) or (g/day)* | *(mg/L) or (g/day)* |
| Copper, Total (g/day)[3] | **15.8 g/day** | <0.01 mg/l or 1.36 g/day | <0.01 mg/l or <1.36 g/day |
| Iron, Total (mg/l) | **5.0** | 0.08 | <0.05 |
| Lead, Total (g/day)[3] | **3.2 g/day** | <0.005 mg/l or <0.68 g/day | <0.005 mg/l or <0.68 g/day |
| Nickel, Total (mg/l) | **0.5** | <0.05 | <0.05 |
| Zinc, Total (g/day)[3] | **40.3 g/day** | <0.05 mg/l or <6.81 g/day | <0.05 mg/l or <6.81 g/day |
| ***OTHER*** | | | |
| Hydrogen Peroxide (mg/L) | **1.0** | 0.2 | 0.2 |
| Total PCBs (µg/L) | **NL** | <1 | NS |
| pH (s.u.) | **6.0 - 9.0 s.u.** | 7.18 | 7.06 |
| Total Suspended Solids (mg/L) | **30** | <1 | <1 |
| Dioxins (pg/L) | **NL** | NS | NS |
| Furans (pg/L) | **NL** | NS | NS |

NOTES:

1 = 1,2-Dichloroethene represents total cis and trans 1,2-Dichloroethene.

2 = Total VOCs is the total sum of detected compounds (mg/l)

3 = Inorganic results reported in grams per day are based on average monthly effluent flow

NL = no limit specified.

NS = not sampled (total PCBs analysis required monthly; dioxin/furan analysis required quarterly).

mg/L = Milligrams per liter

µg/L = micrograms per liter

pg/L = picograms per liter

g/day = grams per day

s.u. = Standard pH units

***SRSNE NTCRA 1 and NTCRA 2 GWTC System Effluent Results***

| Parameter/ Concentration (mg/L) | Substantive Requirement Discharge Limits | Sample Dates | |
|---|---|---|---|
| | | 10/7/09 | 10/23/09 |
| **A. ORGANIC PARAMETERS** | | | |
| ***Volatile Organic Compounds*** | *(mg/L)* | *(mg/L)* | *(mg/L)* |
| Trichloroethene (mg/L) | **0.973** | <0.001 | <0.001 |
| Tetrachloroethene (mg/L) | **0.106** | <0.001 | <0.001 |
| Toluene (mg/L) | **4.000** | <0.001 | <0.001 |
| Ethylbenzene (mg/L) | **1.000** | <0.001 | <0.001 |
| Xylenes, Total (mg/L) | **0.500** | <0.001 | <0.001 |
| Vinyl chloride (mg/L) | **4.500** | <0.001 | <0.001 |
| 1,1-Dichloroethene (mg/L) | **0.058** | 0.002 | <0.001 |
| Tetrahydrofuran (mg/L) | **0.500** | <0.050 | <0.050 |
| 1,2-Dichloroethene[1] (mg/L) | **5.000** | 0.554 | 0.454 |
| 1,2-Dichloroethane (mg/L) | **0.250** | <0.001 | <0.001 |
| 1,1,1-Trichloroethane (mg/L) | **4.000** | 0.026 | 0.027 |
| 1,1,2-Trichloroethane (mg/L) | **0.250** | <0.001 | <0.001 |
| Methylene chloride (mg/L) | **15.000** | 0.009 | 0.026 |
| Styrene (mg/L) | **0.500** | <0.001 | <0.001 |
| ***Alcohols*** | | | |
| Ethanol (mg/L) | **20.0** | <5.0 | <5.0 |
| Methanol (mg/L) | **10.0** | <5.0 | <5.0 |
| 2-Butanol (sec-Butanol) (mg/L) | **30.0** | <5.0 | <5.0 |
| 2-Propanol (Isopropanol) (mg/L) | **10.0** | <5.0 | <5.0 |
| ***Ketones*** | | | |
| Acetone (mg/L) | **35.0** | <0.05 | <0.05 |
| 2-Butanone (Methyl Ethyl Ketone) (mg/L) | **10.0** | <0.05 | <0.05 |
| 4-Methyl-2-pentanone (Methyl Isobutyl Ketone) (mg/L) | **2.0** | <0.05 | <0.05 |
| **Total VOCs[2]** | | **0.591** | **0.507** |
| **B. INORGANIC PARAMETERS** | | | |
| ***Metals*** | *(mg/L) or (g/day)* | *(mg/L) or (g/day)* | *(mg/L) or (g/day)* |
| Copper, Total (g/day)[3] | **15.8 g/day** | <0.01 mg/l or <1.19 g/day | <0.01 mg/l or <1.19 g/day |
| Iron, Total (mg/l) | **5.0** | 0.06 | 0.08 |
| Lead, Total (g/day)[3] | **3.2 g/day** | <0.005 mg/l or <0.59 g/day | <0.005 mg/l or <0.59 g/day |
| Nickel, Total (mg/l) | **0.5** | <0.05 | <0.05 |
| Zinc, Total (g/day)[3] | **40.3 g/day** | <0.05 mg/l or <5.95 g/day | <0.05 mg/l or <5.95 g/day |
| ***OTHER*** | | | |
| Hydrogen Peroxide (mg/L) | **1.0** | 0.2 | 0.2 |
| Total PCBs (µg/L) | **NL** | <1 | NS |
| pH (s.u.) | **6.0 - 9.0 s.u.** | 6.66 | 6.69 |
| Total Suspended Solids (mg/L) | **30** | 2.00 | <1 |
| Dioxins (pg/L) | **NL** | <101 | NS |
| Furans (pg/L) | **NL** | <101 | NS |

NOTES:

1 = 1,2-Dichloroethene represents total cis and trans 1,2-Dichloroethene.

2 = Total VOCs is the total sum of detected compounds (mg/l)

3 = Inorganic results reported in grams per day are based on average monthly effluent flow

NL = no limit specified.

NS = not sampled (total PCBs analysis required monthly; dioxin/furan analysis required quarterly).

mg/L = Milligrams per liter

µg/L = micrograms per liter

pg/L = picograms per liter

g/day = grams per day

s.u. = Standard pH units

# TABLE 5

31 October 2008 through 30 October 2009

## *Weekly NTCRA-1 Compliance Piezometer Pair Summary*

| Date | CPZ-1/CPZ-2A | CPZ-3/CPZ-4A | CPZ-5/CPZ-6 | CPZ-7/CPZ-8 | CPZ-9/CPZ-10 |
|---|---|---|---|---|---|
| 4-Nov-08 | 0.30 | 1.43 | 8.45 | 2.47 | 1.29 |
| 12-Nov-08 | 0.44 | 1.15 | 7.64 | 2.44 | 1.41 |
| 19-Nov-08 | 0.84 | 1.26 | 6.85 | 2.74 | 1.29 |
| 24-Nov-08 | 0.84 | 0.94 | 6.68 | 2.60 | 2.11 |
| 2-Dec-08 | 1.23 | 1.20 | 7.73 | 2.06 | 0.89 |
| 11-Dec-08 | 1.24 | 0.73 | 7.87 | 2.04 | 0.94 |
| 16-Dec-08 | 1.70 | 2.67 | 8.59 | 2.26 | 1.55 |
| 26-Dec-08 | 1.37 | 2.19 | 8.66 | 2.61 | 0.96 |
| 30-Dec-08 | 1.34 | 2.32 | 9.03 | 2.42 | 1.02 |
| 5-Jan-09 | 1.24 | 2.00 | 9.25 | 2.03 | 0.81 |
| 13-Jan-09 | 1.08 | 1.87 | 8.98 | 2.40 | 1.03 |
| 22-Jan-09 | 0.75 | 1.61 | 7.89 | 2.38 | 1.20 |
| 27-Jan-09 | 0.55 | 1.55 | 8.23 | 2.46 | 1.30 |
| 2-Feb-09 | 0.45 | 1.65 | 7.50 | 2.56 | 1.36 |
| 9-Feb-09 | 0.49 | 1.23 | 8.22 | 2.70 | 0.96 |
| 16-Feb-09 | 0.90 | 1.89 | 9.75 | 2.76 | 0.76 |
| 25-Feb-09 | 1.02 | 1.89 | 8.14 | 1.46 | 0.71 |
| 4-Mar-09 | 1.19 | 1.80 | 7.87 | 2.44 | 0.63 |
| 11-Mar-09 | 1.50 | 1.30 | 7.37 | 1.89 | 0.99 |
| 17-Mar-09 | 1.55 | 2.07 | 7.79 | 2.18 | 0.61 |
| 24-Mar-09 | 1.33 | 1.83 | 8.09 | 2.23 | 0.65 |
| 30-Mar-09 | 1.34 | 1.75 | 8.17 | 2.47 | 0.72 |
| 2-Apr-09 | 1.22 | 1.86 | 7.77 | 2.04 | 0.74 |
| 8-Apr-09 | 1.21 | 1.54 | 8.15 | 1.22 | 0.71 |
| 15-Apr-09 | 0.92 | 1.49 | 8.26 | 2.30 | 0.75 |
| 20-Apr-09 | 0.75 | 1.37 | 7.80 | 1.50 | 0.79 |
| 29-Apr-09 | 1.15 | 1.40 | 7.71 | 2.29 | 0.73 |
| 4-May-09 | 0.93 | 1.19 | 7.12 | 2.26 | 0.79 |
| 11-May-09 | 1.14 | 1.30 | 7.97 | 1.91 | 0.77 |
| 19-May-09 | 0.81 | 1.93 | 8.10 | 1.92 | 0.76 |
| 27-May-09 | 0.56 | 1.76 | 7.91 | 1.47 | 0.83 |
| 1-Jun-09 | 0.30 | 0.93 | 5.62 | 1.97 | 0.81 |
| 8-Jun-09 | 0.34 | 0.86 | 6.68 | 1.91 | 0.82 |
| 15-Jun-09 | 0.92 | 0.78 | 8.31 | 2.22 | 0.90 |
| 26-Jun-09 | 0.93 | 1.79 | 6.91 | 2.10 | 0.83 |
| 30-Jun-09 | 0.80 | 1.90 | 7.95 | 2.40 | 0.81 |
| 2-Jul-09 | 1.00 | 1.91 | 7.84 | 2.90 | 0.89 |
| 8-Jul-09 | 1.92 | 2.80 | 7.97 | 2.06 | 0.71 |
| 14-Jul-09 | 1.67 | 2.43 | 7.77 | 1.90 | 0.69 |
| 20-Jul-09 | 1.60 | 2.46 | 7.91 | 2.73 | 0.74 |
| 29-Jul-09 | 1.40 | 3.10 | 8.86 | 3.10 | 0.67 |
| 5-Aug-09 | 1.21 | 2.51 | 9.64 | 2.15 | 0.70 |
| 11-Aug-09 | 1.00 | 2.21 | 8.97 | 3.15 | 0.77 |
| 21-Aug-09 | 0.43 | 1.59 | 7.57 | 2.96 | 0.77 |
| 25-Aug-09 | 0.47 | 1.70 | 7.63 | 2.03 | 0.78 |
| 1-Sep-09 | 0.39 | 1.61 | 8.49 | 2.78 | 0.80 |
| 8-Sep-09 | 0.51 | 1.40 | 6.57 | 2.28 | 0.77 |
| 15-Sep-09 | 0.40 | 1.32 | 6.76 | 2.38 | 0.77 |
| 22-Sep-09 | 0.33 | 0.54 | 7.83 | 3.20 | 0.75 |
| 29-Sep-09 | 0.36 | 0.69 | 7.21 | 2.45 | 0.64 |
| 5-Oct-09 | 0.77 | 0.77 | 7.22 | 2.38 | 0.63 |
| 13-Oct-09 | 0.39 | 0.78 | 7.17 | 1.72 | 0.67 |
| 19-Oct-09 | 0.33 | 0.87 | 7.72 | 2.09 | 0.67 |
| 29-Oct-09 | 0.43 | 1.21 | 7.87 | 2.70 | 0.81 |

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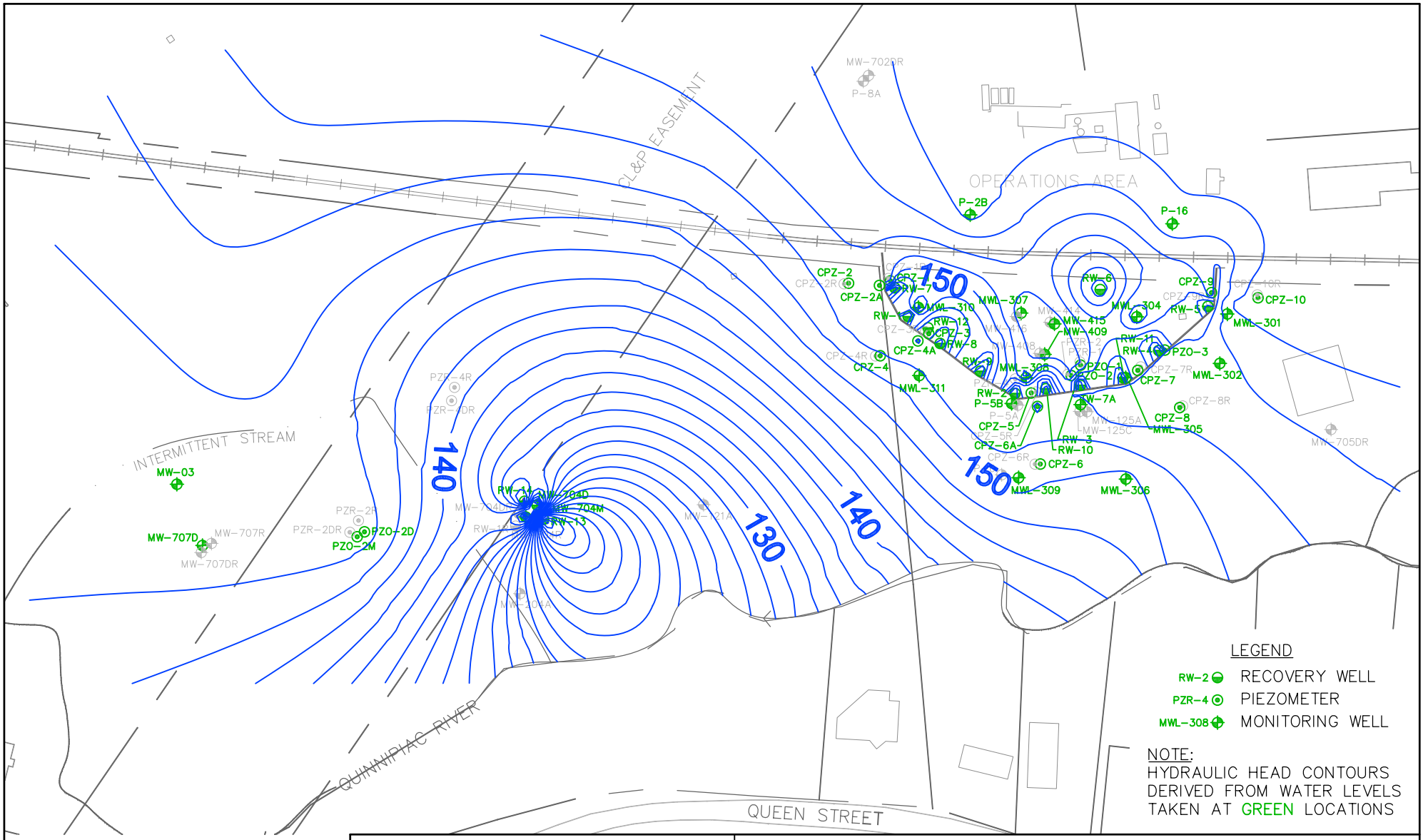


LEGEND

RW-2 RECOVERY WELL

PZR-4 PIEZOMETER

MWL-308 MONITORING WELL

NOTE:
HYDRAULIC HEAD CONTOURS DERIVED FROM WATER LEVELS TAKEN AT GREEN LOCATIONS

GRAPHIC SCALE

200 100 0 100 200

APPROXIMATE SCALE IN FEET

# OVERBURDEN HYDRAULIC HEAD CONTOURS NOVEMBER 24, 2008

SRSNE
SOUTHINGTON, CONNECTICUT

WESTON SOLUTIONS

MANCHESTER NEW HAMPSHIRE

| DRAWN | DATE | DES. ENG. | DATE | W.O. NO. |
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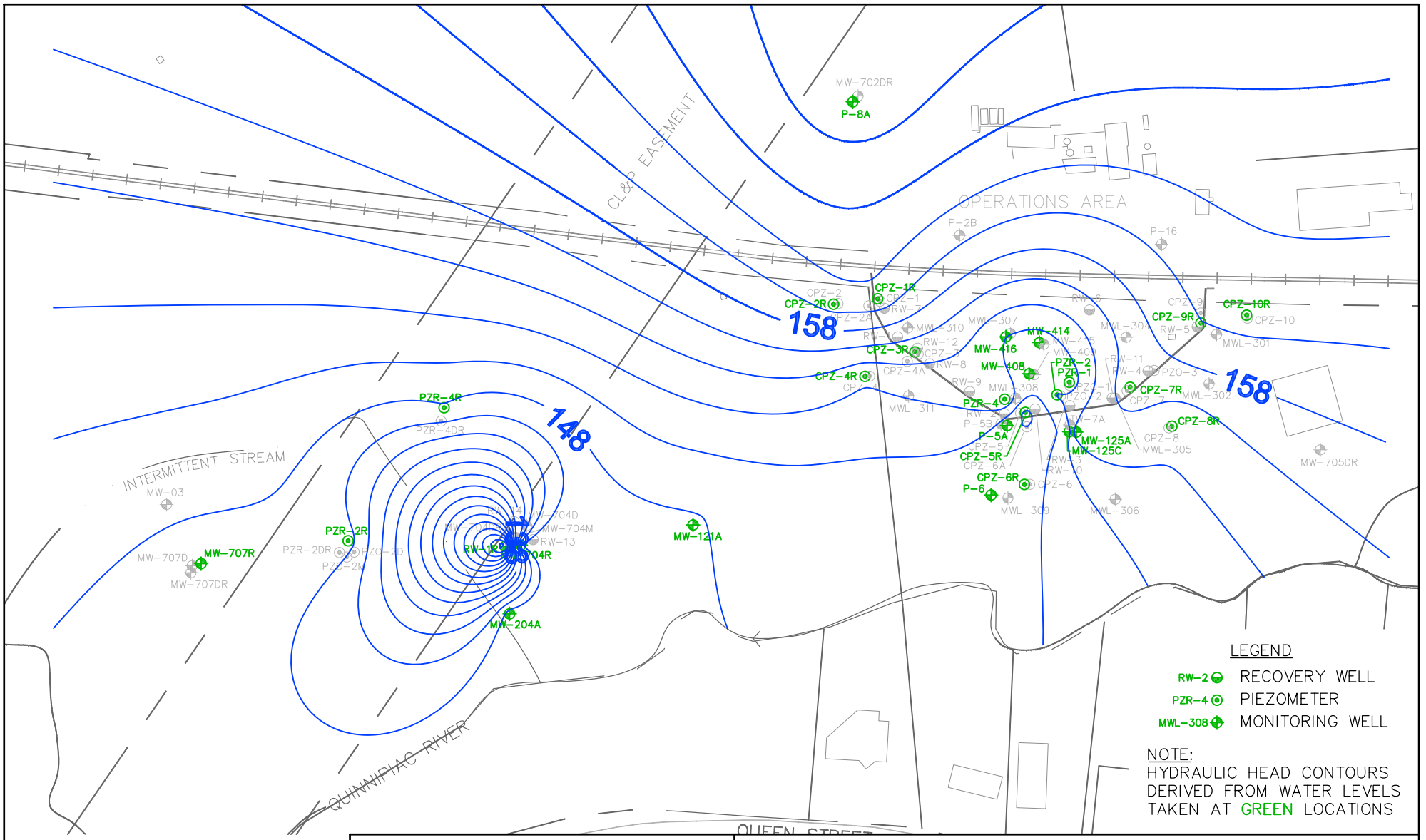


LEGEND

RW-2 RECOVERY WELL

PZR-4 PIEZOMETER

MWL-308 MONITORING WELL

NOTE:
HYDRAULIC HEAD CONTOURS DERIVED FROM WATER LEVELS TAKEN AT GREEN LOCATIONS

GRAPHIC SCALE

200 100 0 100 200

APPROXIMATE SCALE IN FEET

# SHALLOW BEDROCK HYDRAULIC HEAD CONTOURS NOVEMBER 24, 2008

SRSNE
SOUTHINGTON, CONNECTICUT

WESTON SOLUTIONS

MANCHESTER NEW HAMPSHIRE

| DRAWN | DATE | DES. ENG. | DATE | W.O. NO. |
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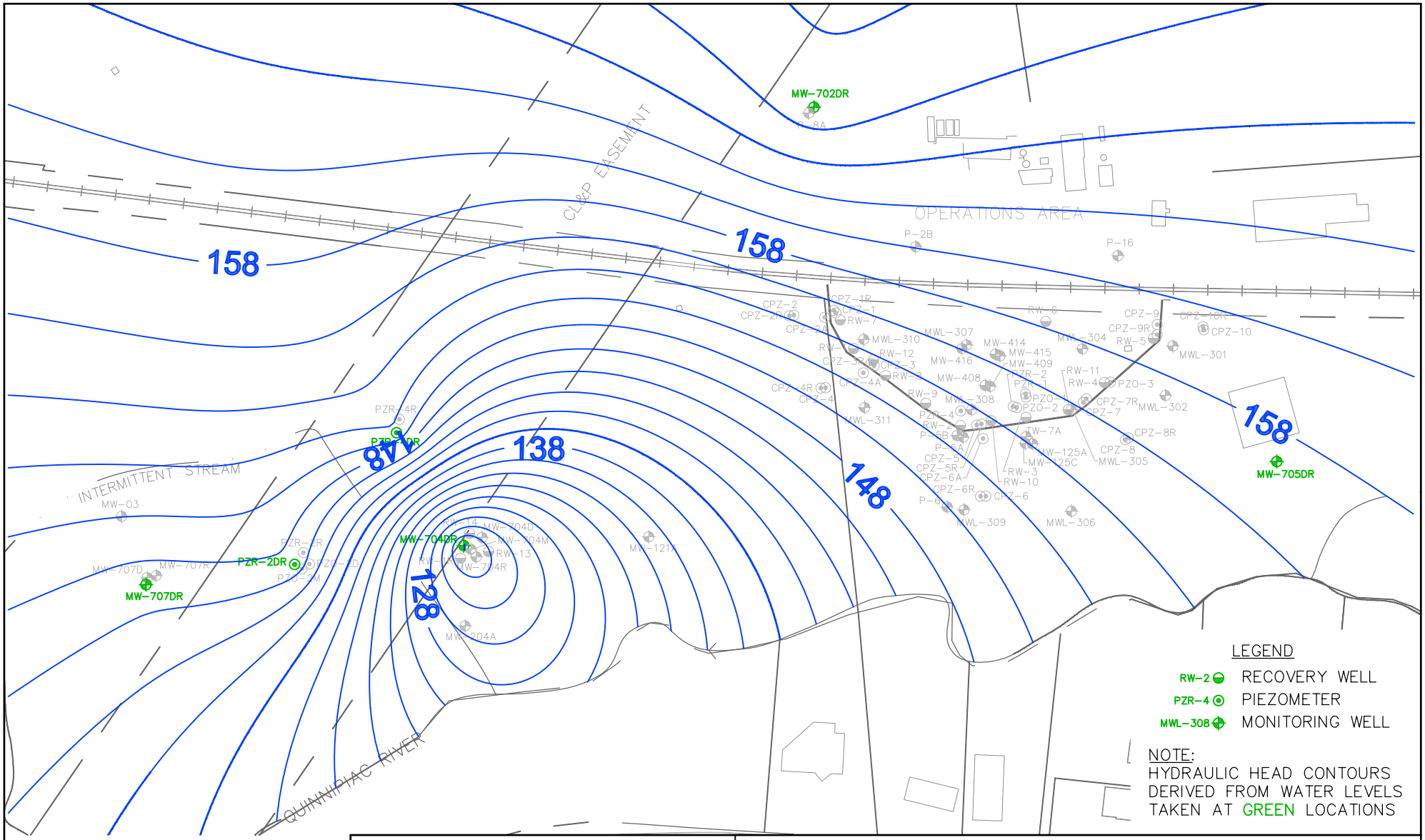


GRAPHIC SCALE

200 100 0 100 200

APPROXIMATE SCALE IN FEET

# DEEP BEDROCK HYDRAULIC HEAD CONTOURS NOVEMBER 24, 2008

SRSNE
SOUTHINGTON, CONNECTICUT

WESTON SOLUTIONS

MANCHESTER NEW HAMPSHIRE

| DRAWN | DATE | DES. ENG. | DATE | W.O. NO. |
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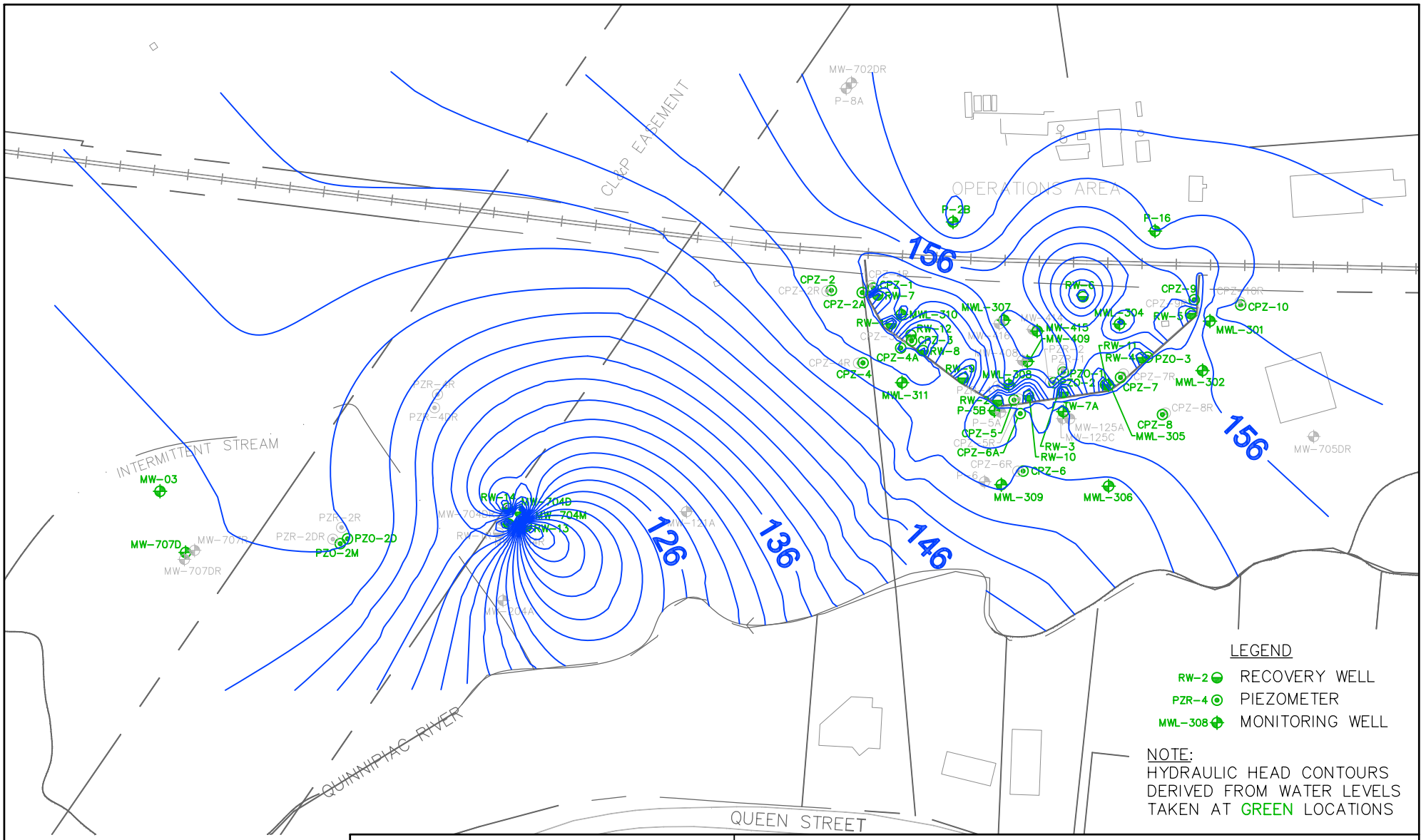


GRAPHIC SCALE

200 100 0 100 200

APPROXIMATE SCALE IN FEET

# OVERBURDEN HYDRAULIC HEAD CONTOURS DECEMBER 30, 2008

SRSNE
SOUTHINGTON, CONNECTICUT

WESTON SOLUTIONS

MANCHESTER NEW HAMPSHIRE

| DRAWN | DATE | DES. ENG. | DATE | W.O. NO. |
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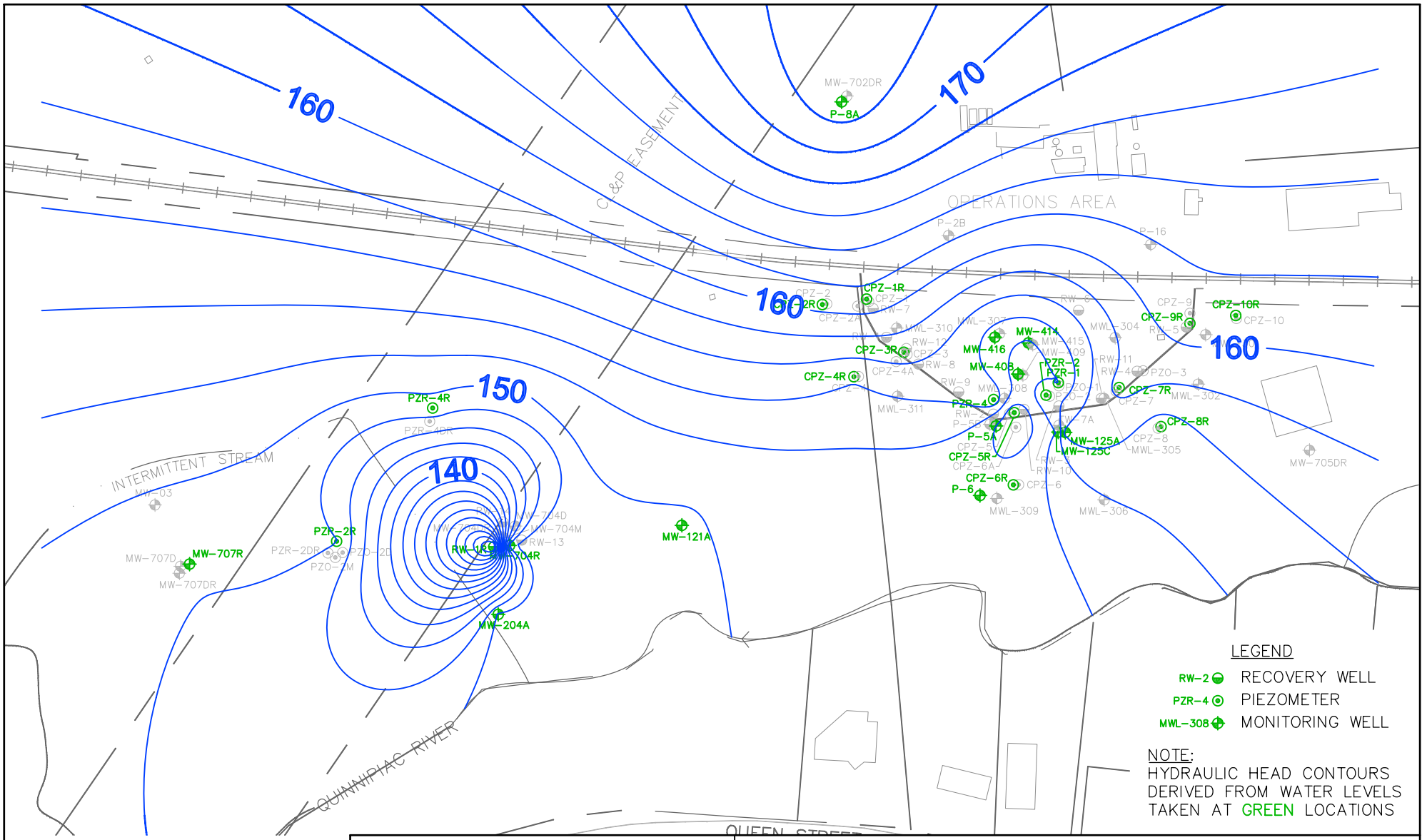


LEGEND

RW-2 RECOVERY WELL

PZR-4 PIEZOMETER

MWL-308 MONITORING WELL

NOTE:
HYDRAULIC HEAD CONTOURS DERIVED FROM WATER LEVELS TAKEN AT GREEN LOCATIONS

GRAPHIC SCALE

200 100 0 100 200

APPROXIMATE SCALE IN FEET

# SHALLOW BEDROCK HYDRAULIC HEAD CONTOURS DECEMBER 30, 2008

SRSNE
SOUTHINGTON, CONNECTICUT

WESTON SOLUTIONS

MANCHESTER NEW HAMPSHIRE

| DRAWN | DATE | DES. ENG. | DATE | W.O. NO. |
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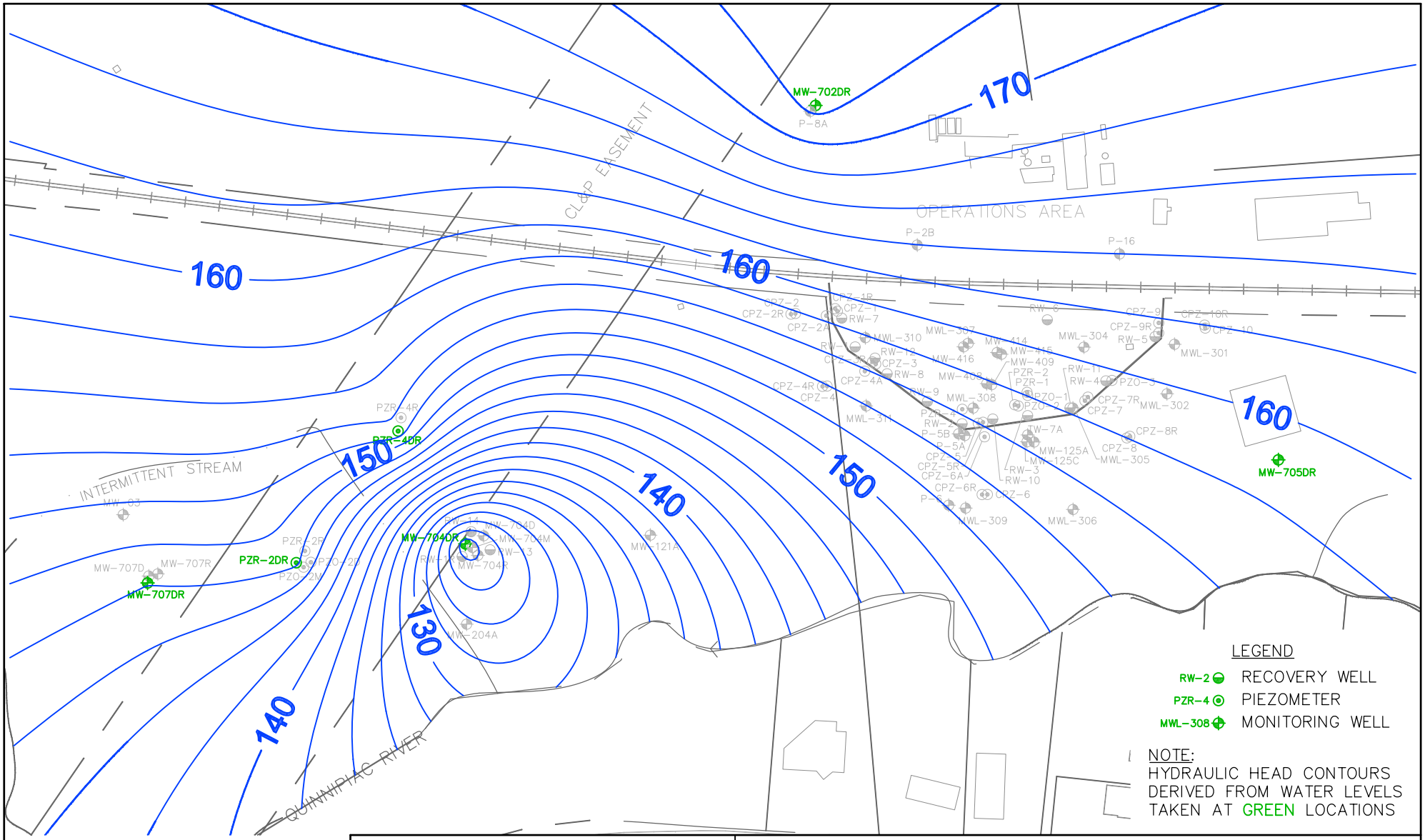


GRAPHIC SCALE

200 100 0 100 200

APPROXIMATE SCALE IN FEET

# DEEP BEDROCK HYDRAULIC HEAD CONTOURS DECEMBER 30, 2008

SRSNE
SOUTHINGTON, CONNECTICUT

WESTON SOLUTIONS

MANCHESTER NEW HAMPSHIRE

| DRAWN | DATE | DES. ENG. | DATE | W.O. NO. |
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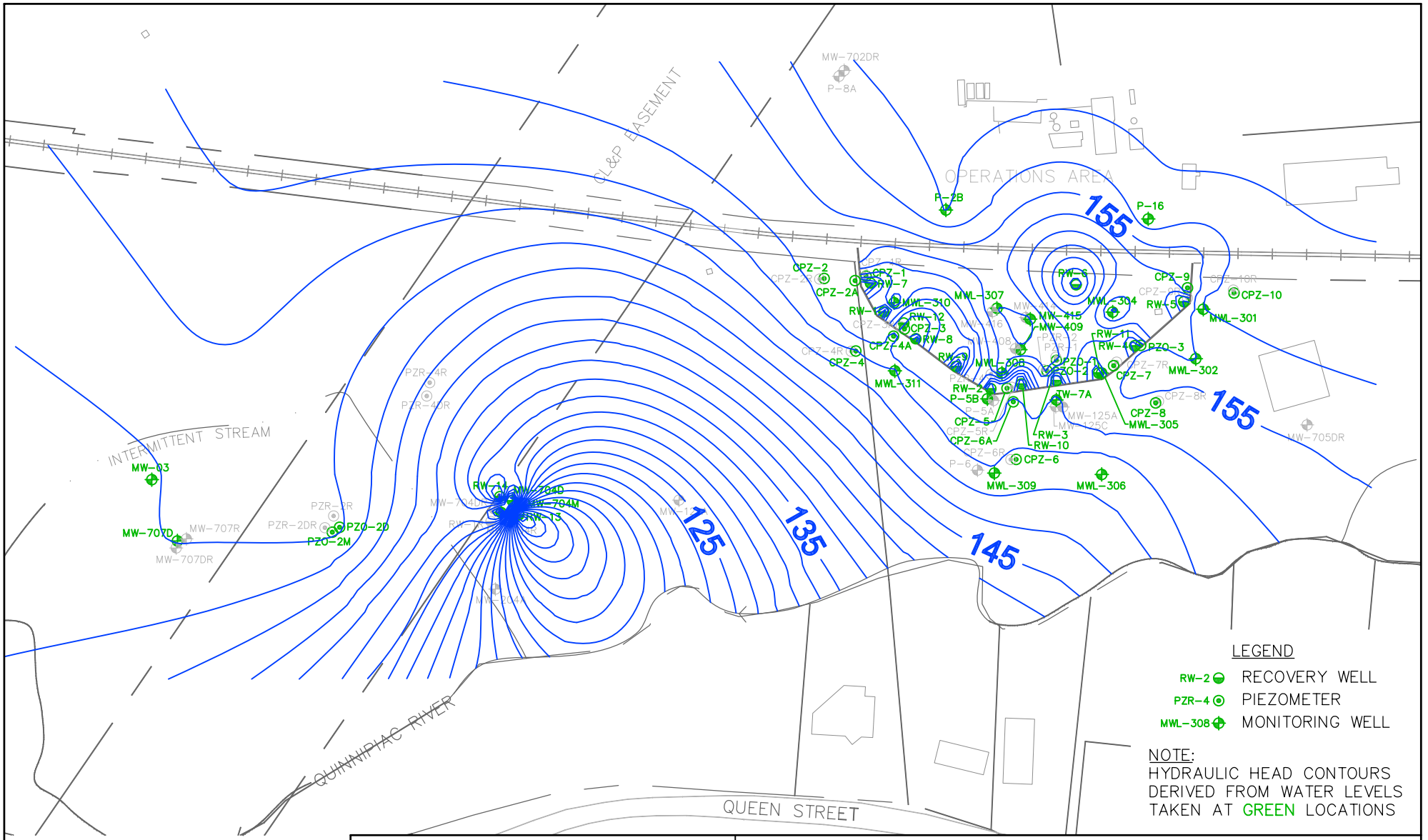


GRAPHIC SCALE

200 100 0 100 200

APPROXIMATE SCALE IN FEET

# OVERBURDEN HYDRAULIC HEAD CONTOURS JANUARY 27, 2009

SRSNE
SOUTHINGTON, CONNECTICUT

WESTON SOLUTIONS

MANCHESTER NEW HAMPSHIRE

| DRAWN | DATE | DES. ENG. | DATE | W.O. NO. |
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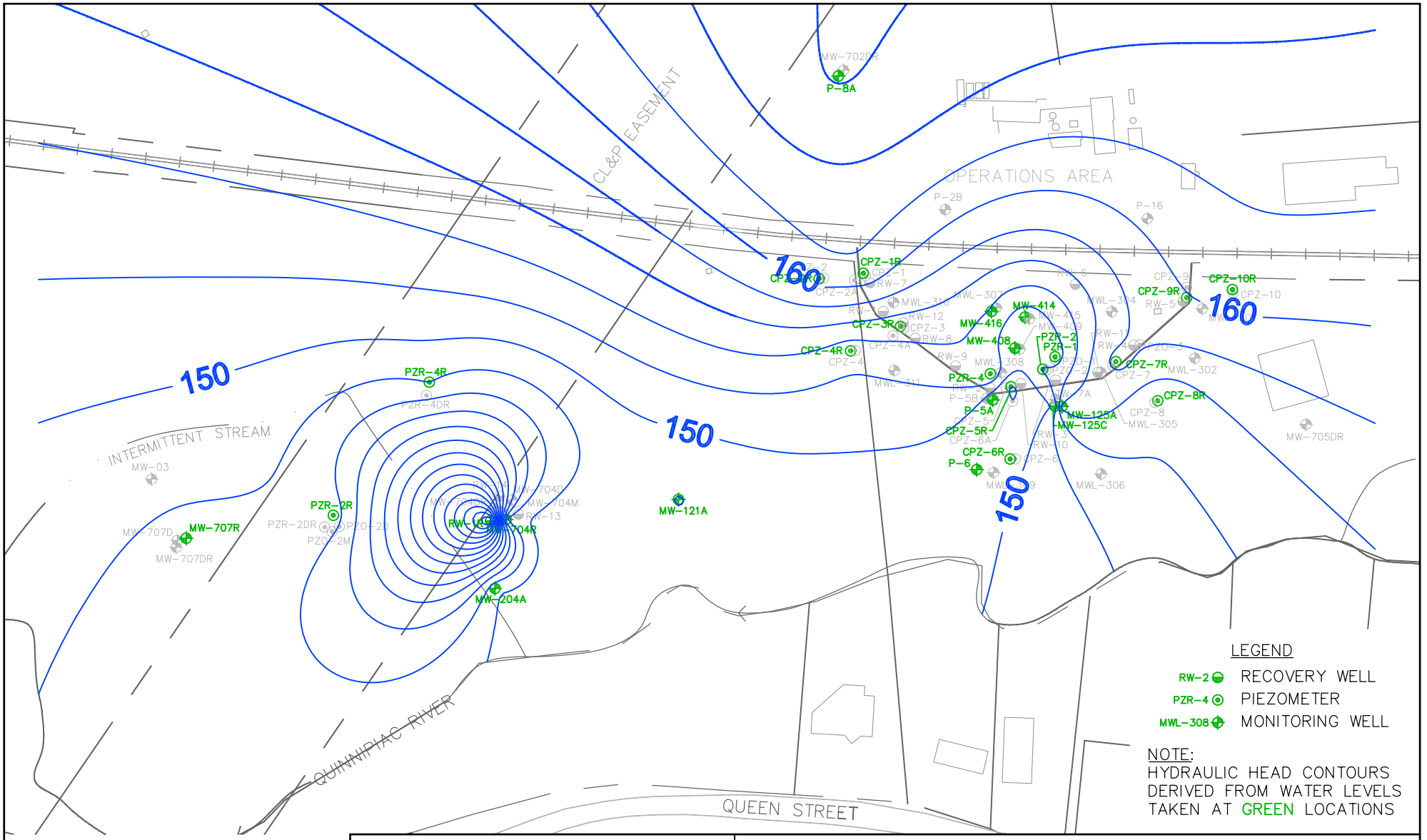


GRAPHIC SCALE

200 100 0 100 200

APPROXIMATE SCALE IN FEET

# SHALLOW BEDROCK HYDRAULIC HEAD CONTOURS JANUARY 27, 2009

SRSNE
SOUTHINGTON, CONNECTICUT

WESTON SOLUTIONS

MANCHESTER NEW HAMPSHIRE

| DRAWN | DATE | DES. ENG. | DATE | W.O. NO. |
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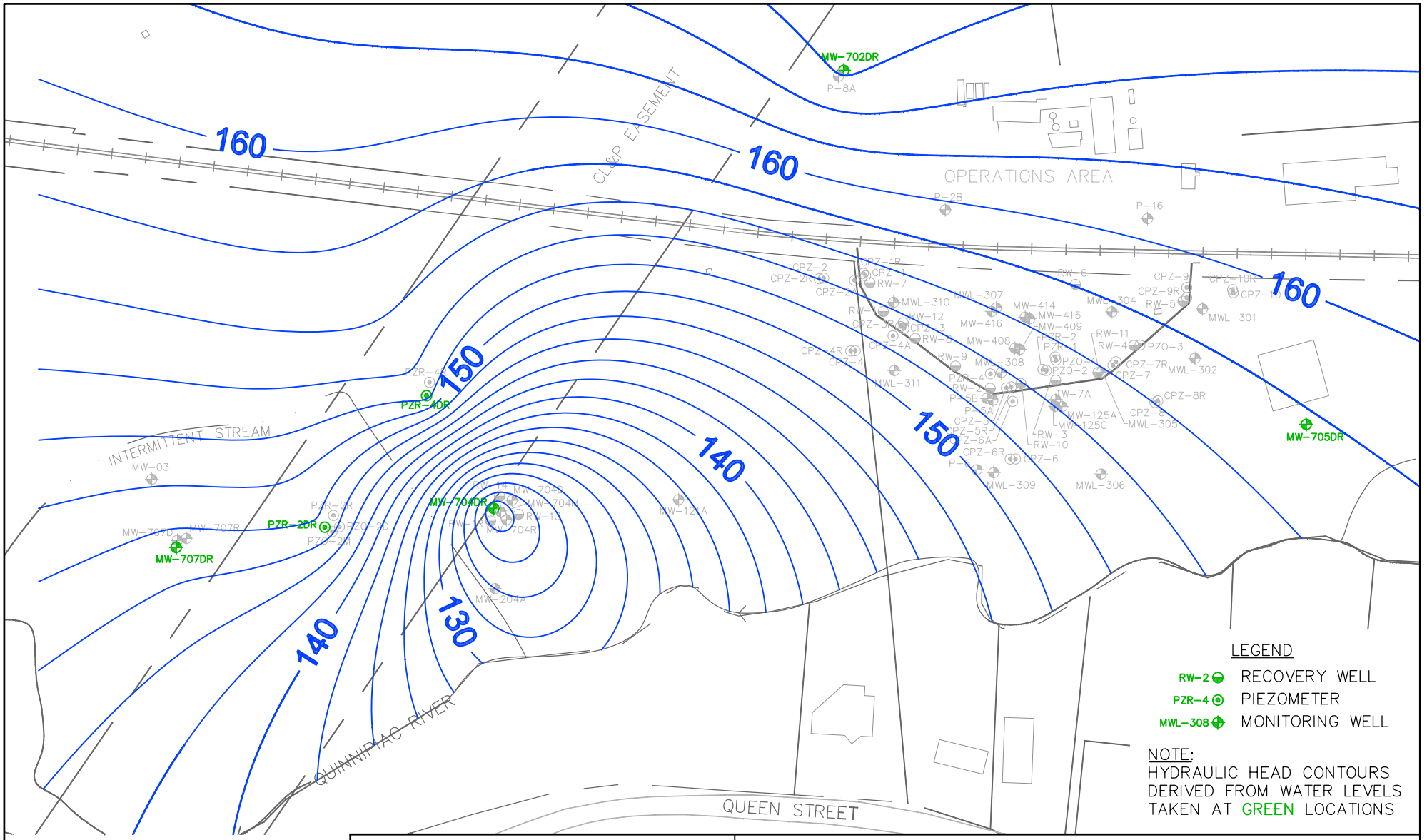


GRAPHIC SCALE

200 100 0 100 200

APPROXIMATE SCALE IN FEET

# DEEP BEDROCK HYDRAULIC HEAD CONTOURS JANUARY 27, 2009

SRSNE
SOUTHINGTON, CONNECTICUT

WESTON SOLUTIONS

MANCHESTER NEW HAMPSHIRE

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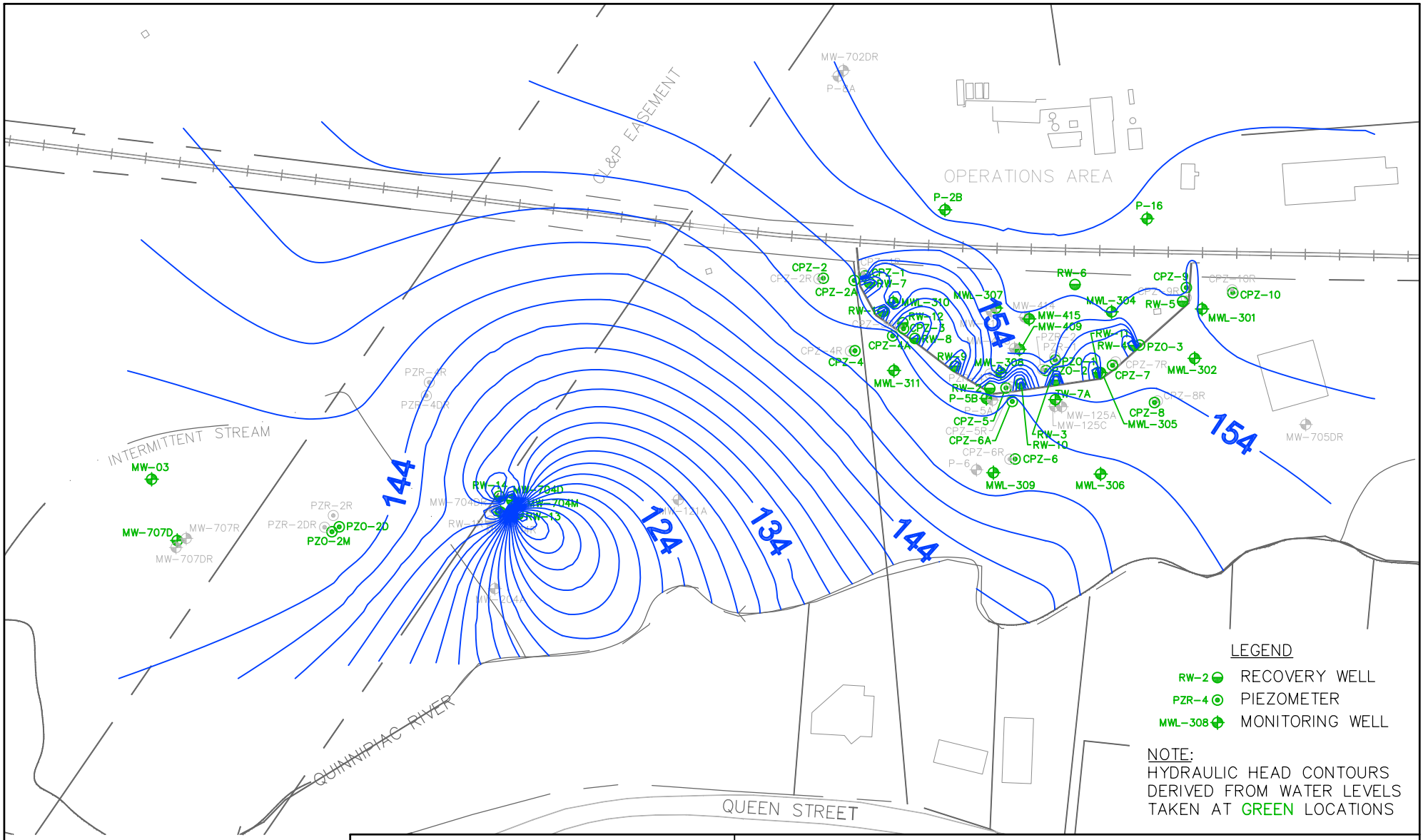


LEGEND

RW-2 RECOVERY WELL

PZR-4 PIEZOMETER

MWL-308 MONITORING WELL

NOTE:
HYDRAULIC HEAD CONTOURS DERIVED FROM WATER LEVELS TAKEN AT GREEN LOCATIONS

GRAPHIC SCALE

200 100 0 100 200

APPROXIMATE SCALE IN FEET

# OVERBURDEN HYDRAULIC HEAD CONTOURS FEBRUARY 25, 2009

SRSNE
SOUTHINGTON, CONNECTICUT

WESTON SOLUTIONS

MANCHESTER NEW HAMPSHIRE

| DRAWN | DATE | DES. ENG. | DATE | W.O. NO. |
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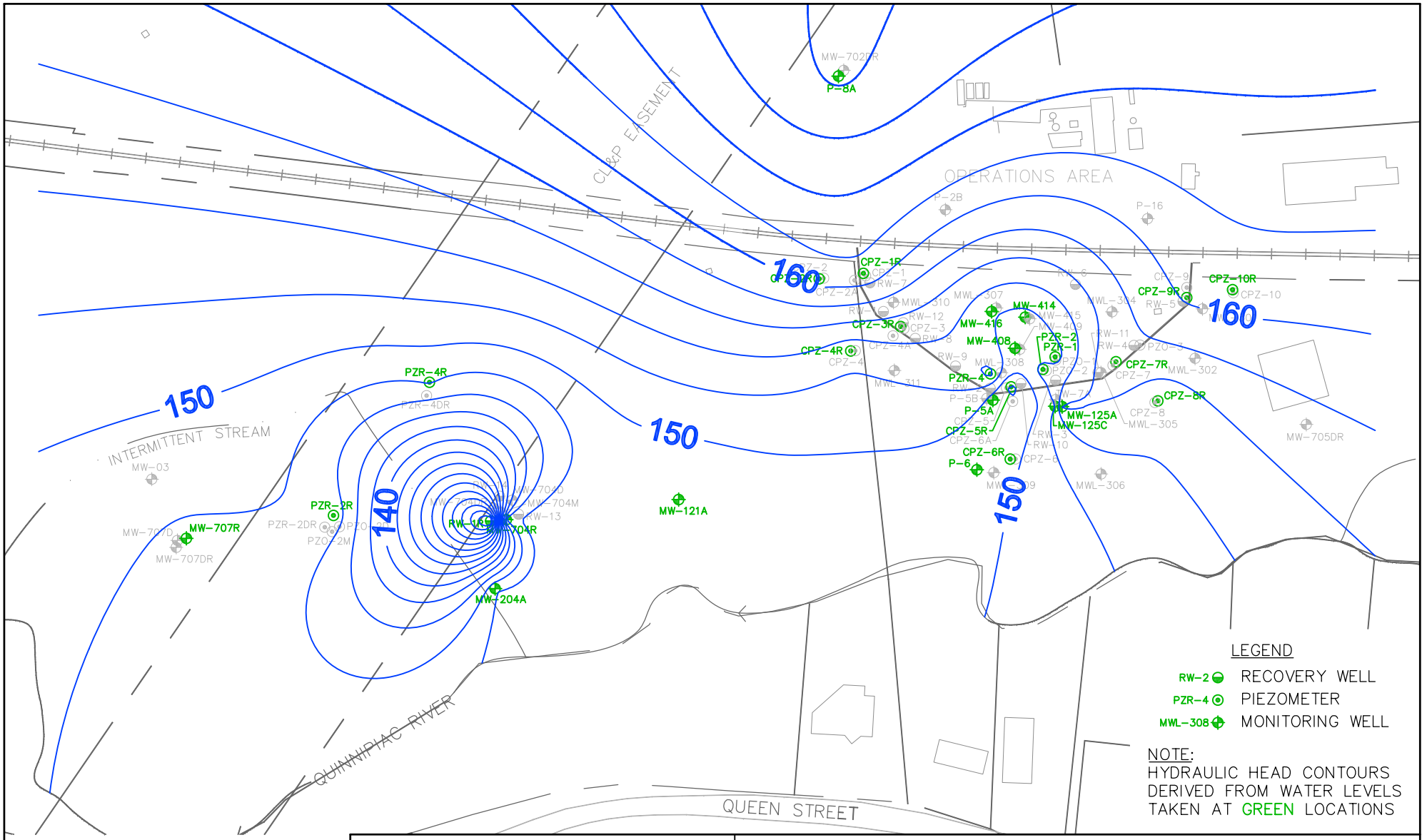


LEGEND

RW-2 RECOVERY WELL

PZR-4 PIEZOMETER

MWL-308 MONITORING WELL

NOTE:
HYDRAULIC HEAD CONTOURS DERIVED FROM WATER LEVELS TAKEN AT GREEN LOCATIONS

GRAPHIC SCALE

200 100 0 100 200

APPROXIMATE SCALE IN FEET

# SHALLOW BEDROCK HYDRAULIC HEAD CONTOURS FEBRUARY 25, 2009

SRSNE
SOUTHINGTON, CONNECTICUT

WESTON SOLUTIONS

MANCHESTER NEW HAMPSHIRE

| DRAWN | DATE | DES. ENG. | DATE | W.O. NO. |
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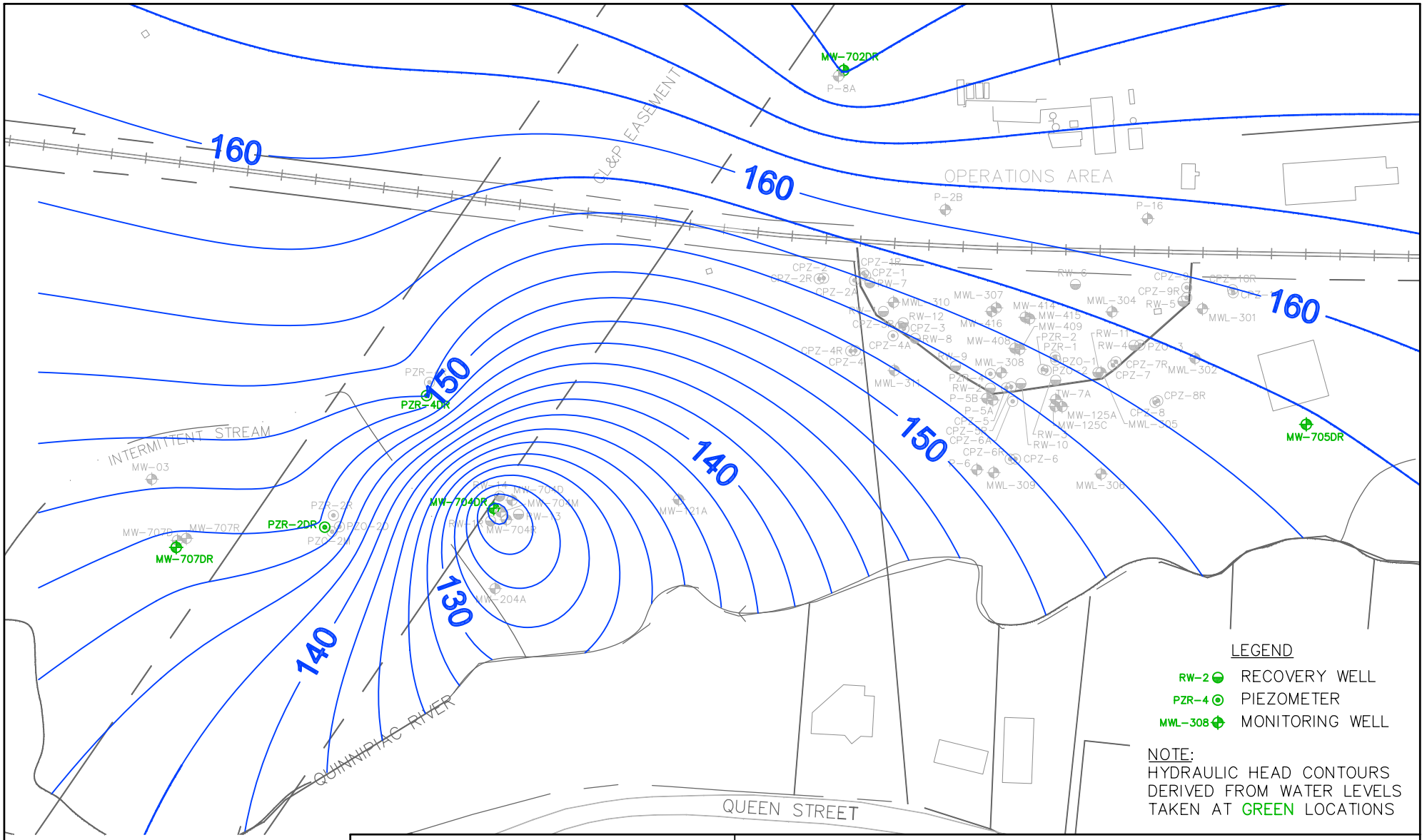


GRAPHIC SCALE

200 100 0 100 200

APPROXIMATE SCALE IN FEET

# DEEP BEDROCK HYDRAULIC HEAD CONTOURS FEBRUARY 25, 2009

SRSNE
SOUTHINGTON, CONNECTICUT

WESTON SOLUTIONS

MANCHESTER NEW HAMPSHIRE

| DRAWN | DATE | DES. ENG. | DATE | W.O. NO. |
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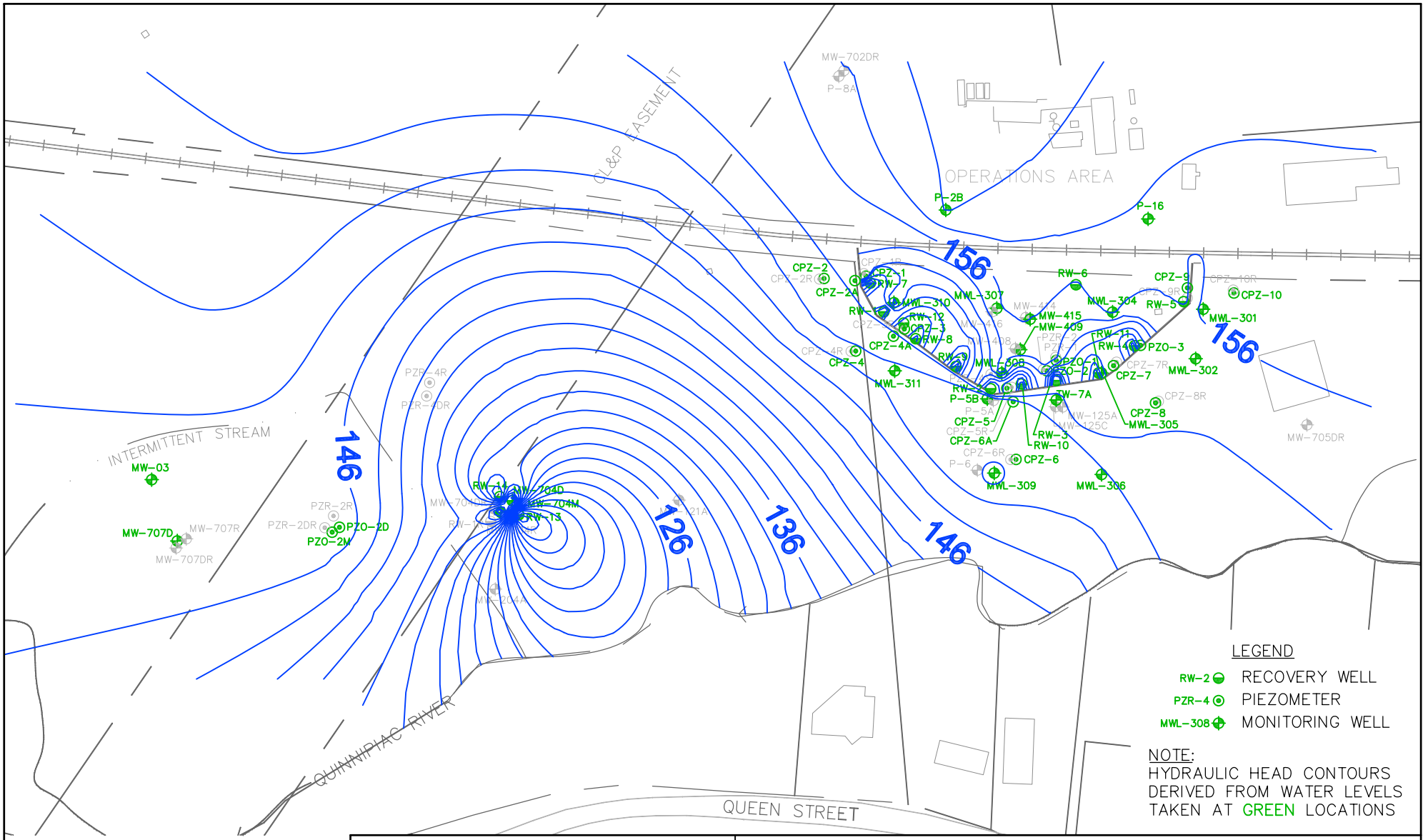


# OVERBURDEN HYDRAULIC HEAD CONTOURS MARCH 30, 2009

SRSNE
SOUTHINGTON, CONNECTICUT

WESTON SOLUTIONS
MANCHESTER NEW HAMPSHIRE

| DRAWN | DATE | DES. ENG. | DATE | W.O. NO. |
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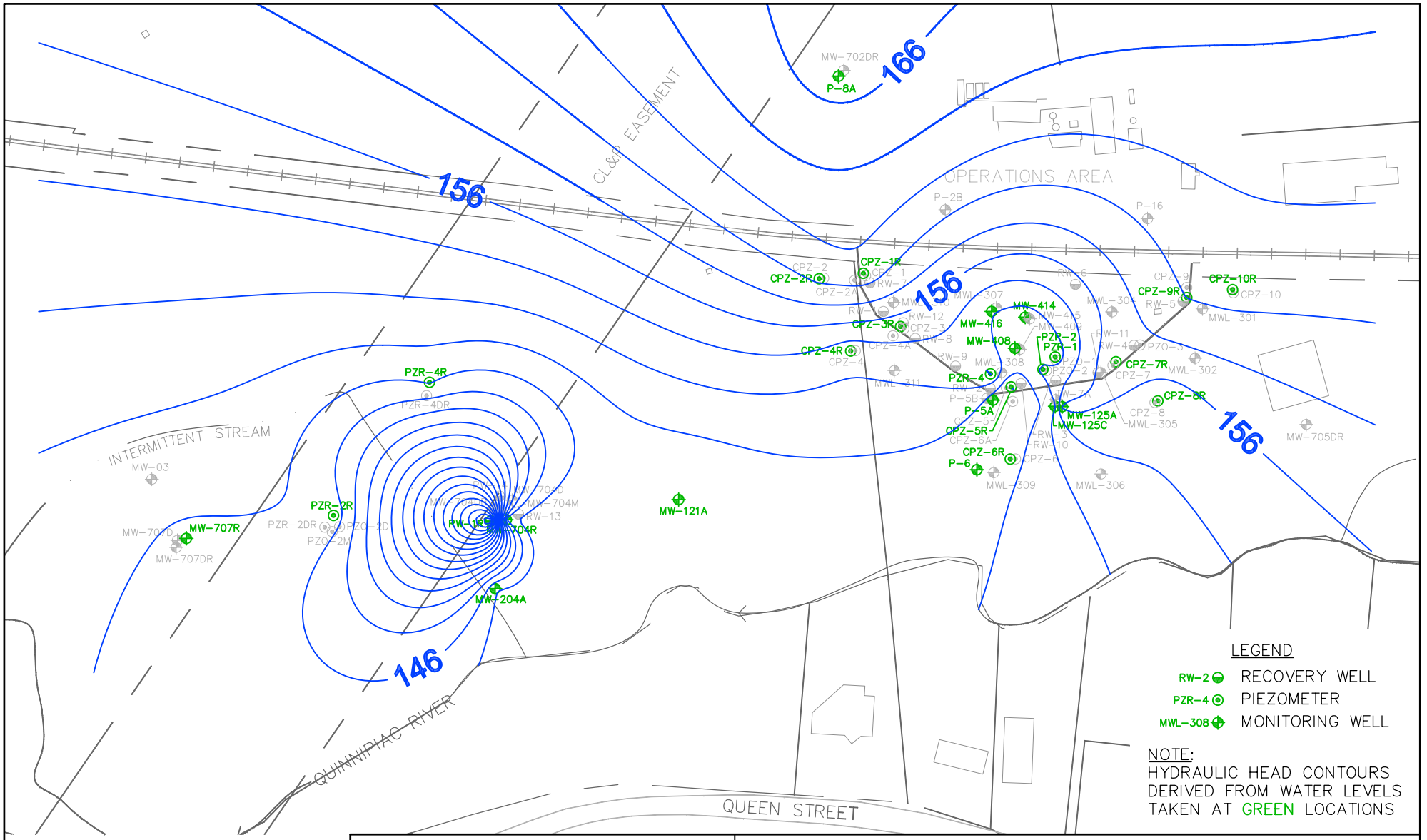


GRAPHIC SCALE

200 100 0 100 200

APPROXIMATE SCALE IN FEET

# SHALLOW BEDROCK HYDRAULIC HEAD CONTOURS MARCH 30, 2009

SRSNE
SOUTHINGTON, CONNECTICUT

WESTON SOLUTIONS

MANCHESTER NEW HAMPSHIRE

| DRAWN | DATE | DES. ENG. | DATE | W.O. NO. |
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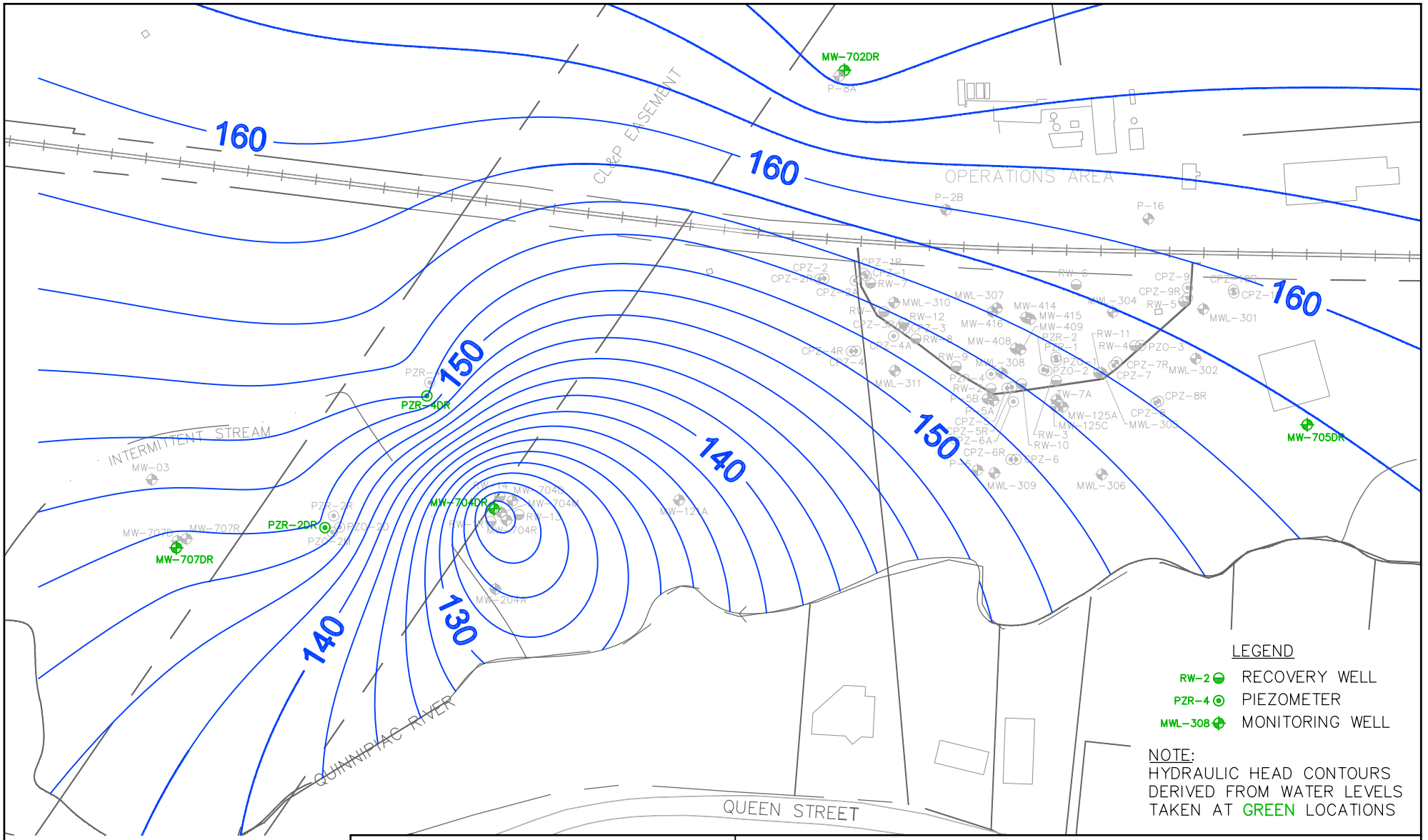


GRAPHIC SCALE

200 100 0 100 200

APPROXIMATE SCALE IN FEET

# DEEP BEDROCK HYDRAULIC HEAD CONTOURS MARCH 30, 2009

SRSNE
SOUTHINGTON, CONNECTICUT

WESTON SOLUTIONS

MANCHESTER NEW HAMPSHIRE

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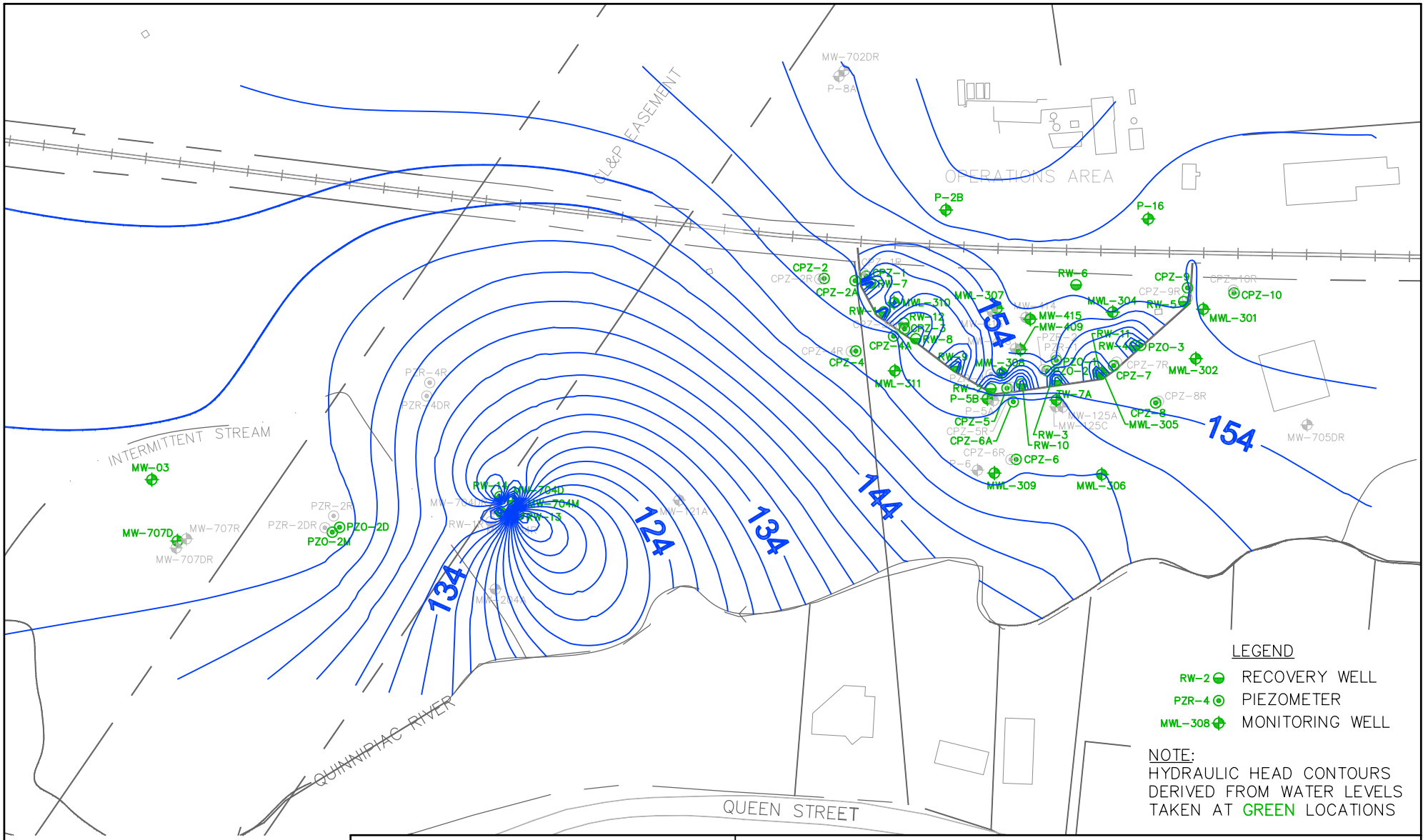


LEGEND

RW-2 RECOVERY WELL

PZR-4 PIEZOMETER

MWL-308 MONITORING WELL

NOTE:
HYDRAULIC HEAD CONTOURS DERIVED FROM WATER LEVELS TAKEN AT GREEN LOCATIONS

GRAPHIC SCALE

200 100 0 100 200

APPROXIMATE SCALE IN FEET

# OVERBURDEN HYDRAULIC HEAD CONTOURS APRIL 29, 2009

SRSNE
SOUTHINGTON, CONNECTICUT

WESTON SOLUTIONS

MANCHESTER NEW HAMPSHIRE

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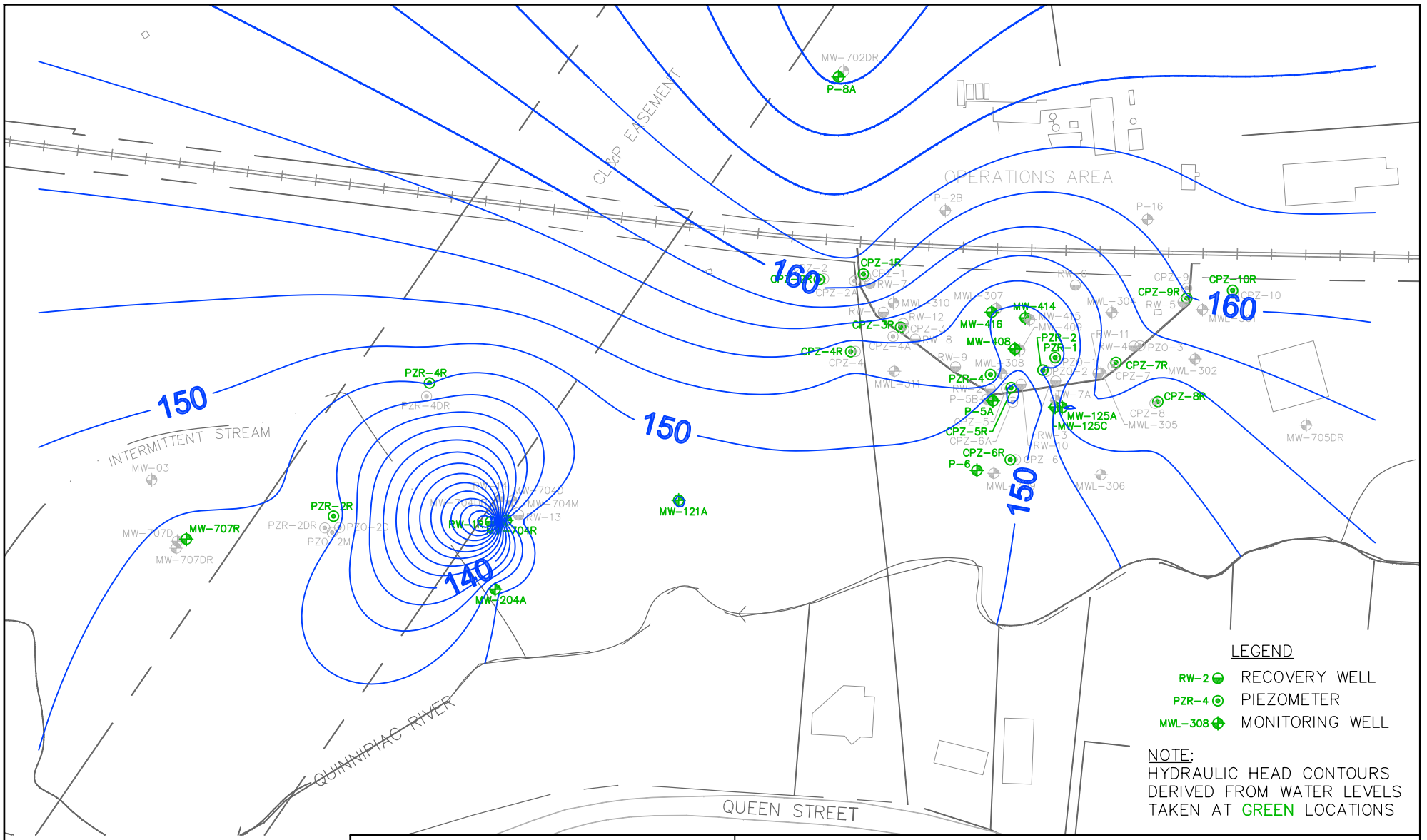


LEGEND

RW-2 RECOVERY WELL

PZR-4 PIEZOMETER

MWL-308 MONITORING WELL

NOTE:
HYDRAULIC HEAD CONTOURS DERIVED FROM WATER LEVELS TAKEN AT GREEN LOCATIONS

GRAPHIC SCALE

200 100 0 100 200

APPROXIMATE SCALE IN FEET

# SHALLOW BEDROCK HYDRAULIC HEAD CONTOURS APRIL 29, 2009

SRSNE
SOUTHINGTON, CONNECTICUT

WESTON SOLUTIONS

MANCHESTER NEW HAMPSHIRE

| DRAWN | DATE | DES. ENG. | DATE | W.O. NO. |
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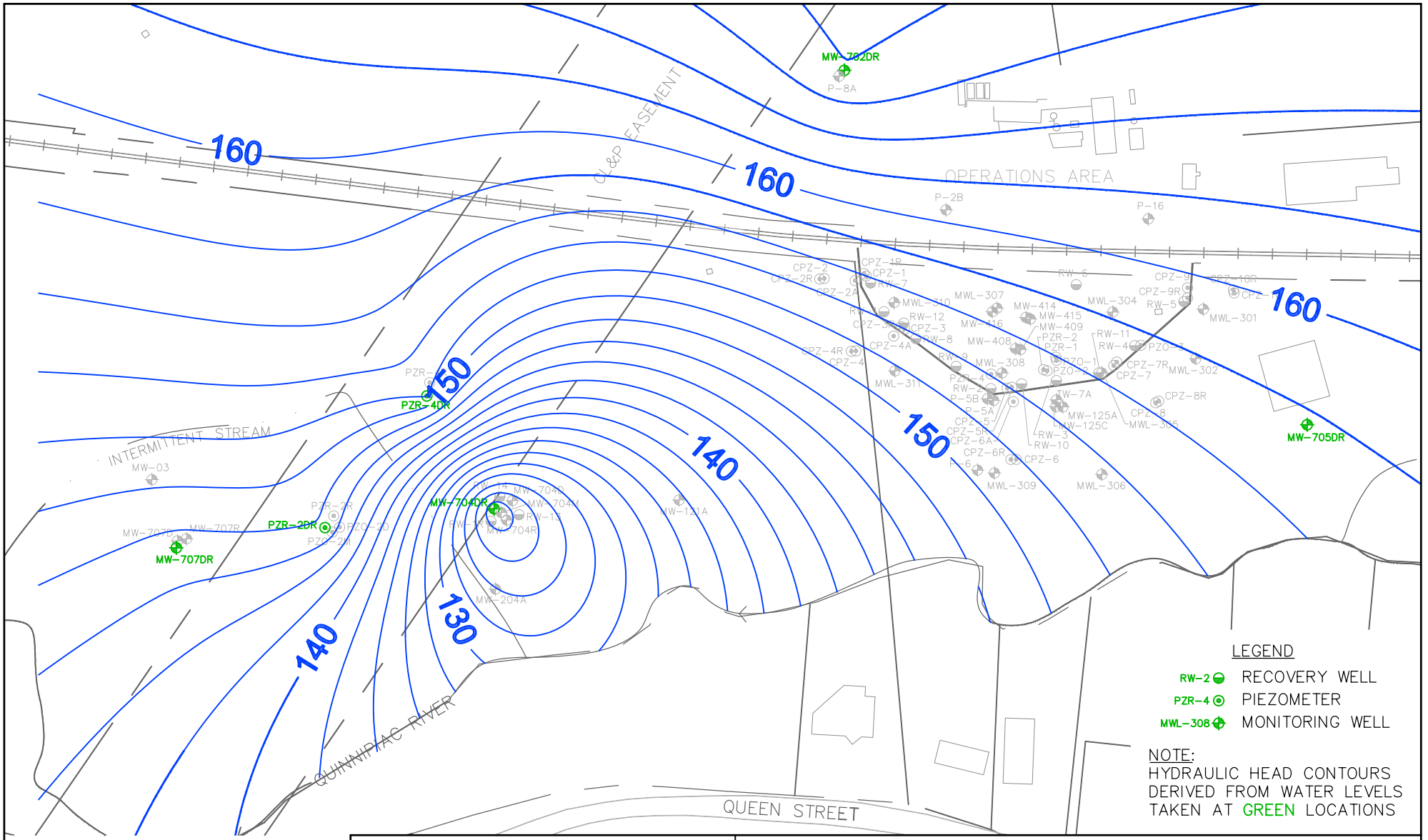


GRAPHIC SCALE

200 100 0 100 200

APPROXIMATE SCALE IN FEET

# DEEP BEDROCK HYDRAULIC HEAD CONTOURS APRIL 29, 2009

SRSNE
SOUTHINGTON, CONNECTICUT

WESTON SOLUTIONS

MANCHESTER NEW HAMPSHIRE

| DRAWN | DATE | DES. ENG. | DATE | W.O. NO. |
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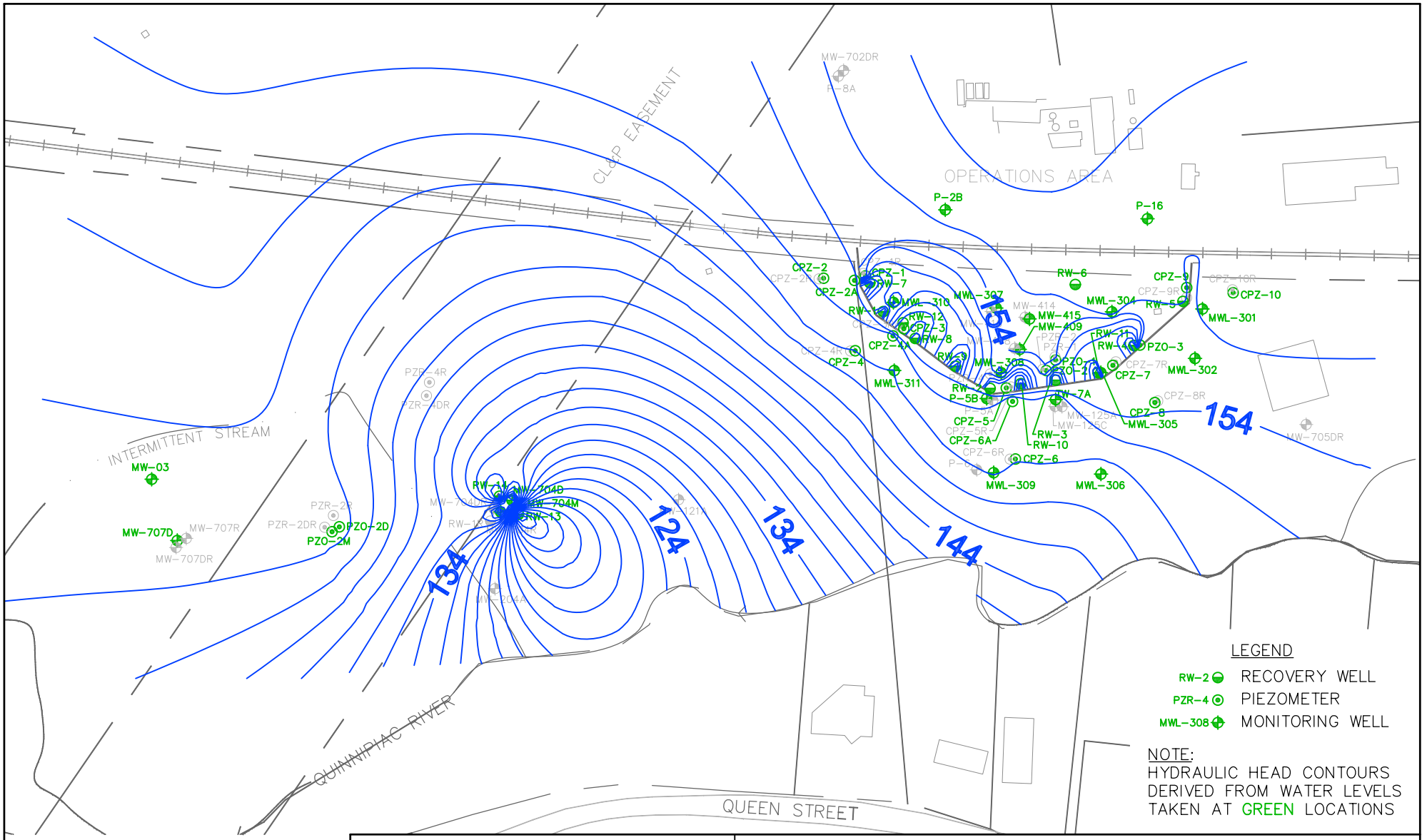


LEGEND

RW-2 RECOVERY WELL

PZR-4 PIEZOMETER

MWL-308 MONITORING WELL

NOTE:
HYDRAULIC HEAD CONTOURS DERIVED FROM WATER LEVELS TAKEN AT GREEN LOCATIONS

GRAPHIC SCALE

200 100 0 100 200

APPROXIMATE SCALE IN FEET

# OVERBURDEN HYDRAULIC HEAD CONTOURS MAY 27, 2009

SRSNE
SOUTHINGTON, CONNECTICUT

WESTON SOLUTIONS

MANCHESTER NEW HAMPSHIRE

| DRAWN | DATE | DES. ENG. | DATE | W.O. NO. |
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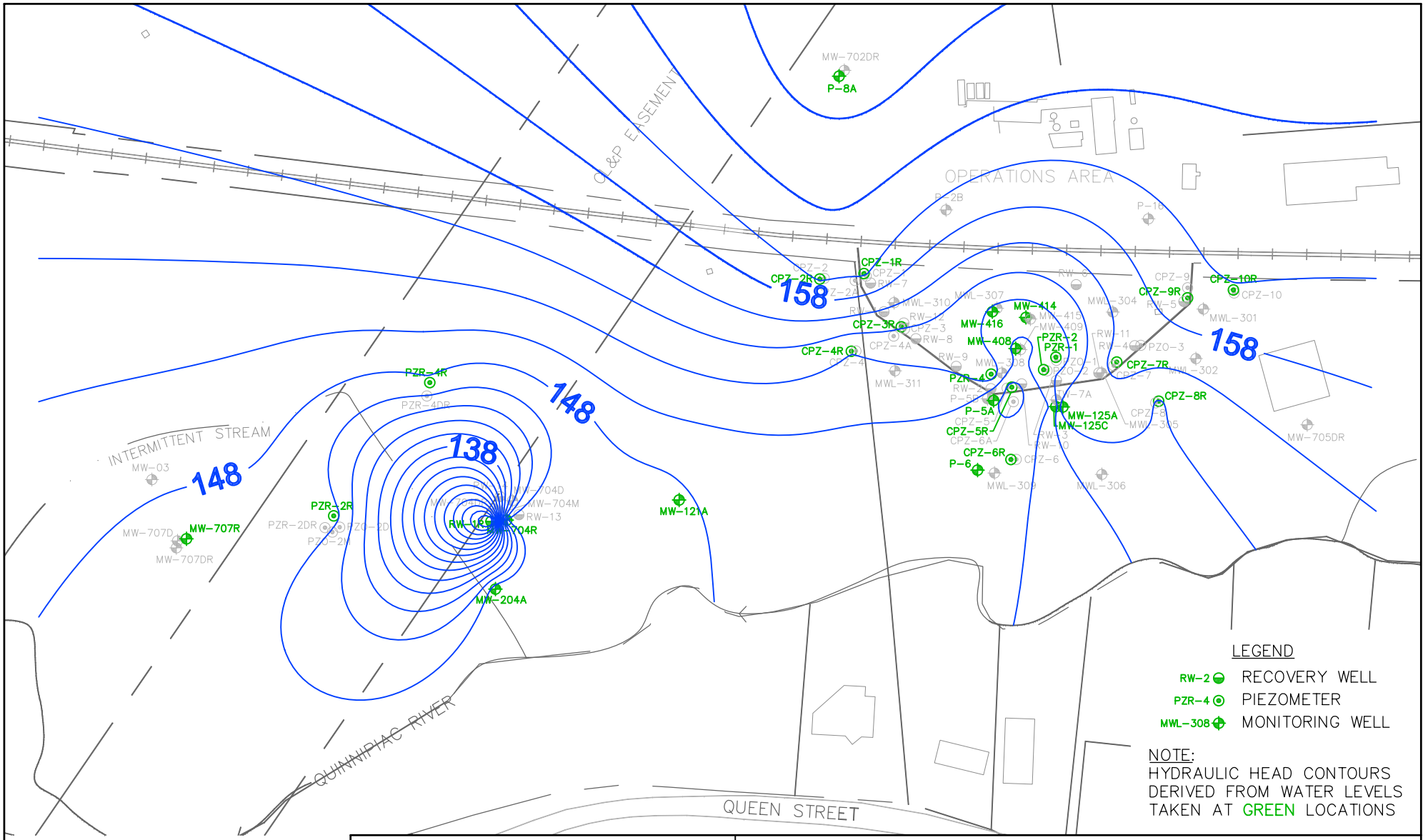


LEGEND

RW-2 RECOVERY WELL

PZR-4 PIEZOMETER

MWL-308 MONITORING WELL

NOTE:
HYDRAULIC HEAD CONTOURS DERIVED FROM WATER LEVELS TAKEN AT GREEN LOCATIONS

GRAPHIC SCALE

200 100 0 100 200

APPROXIMATE SCALE IN FEET

# SHALLOW BEDROCK HYDRAULIC HEAD CONTOURS MAY 27, 2009

SRSNE
SOUTHINGTON, CONNECTICUT

WESTON SOLUTIONS

MANCHESTER NEW HAMPSHIRE

| DRAWN | DATE | DES. ENG. | DATE | W.O. NO. |
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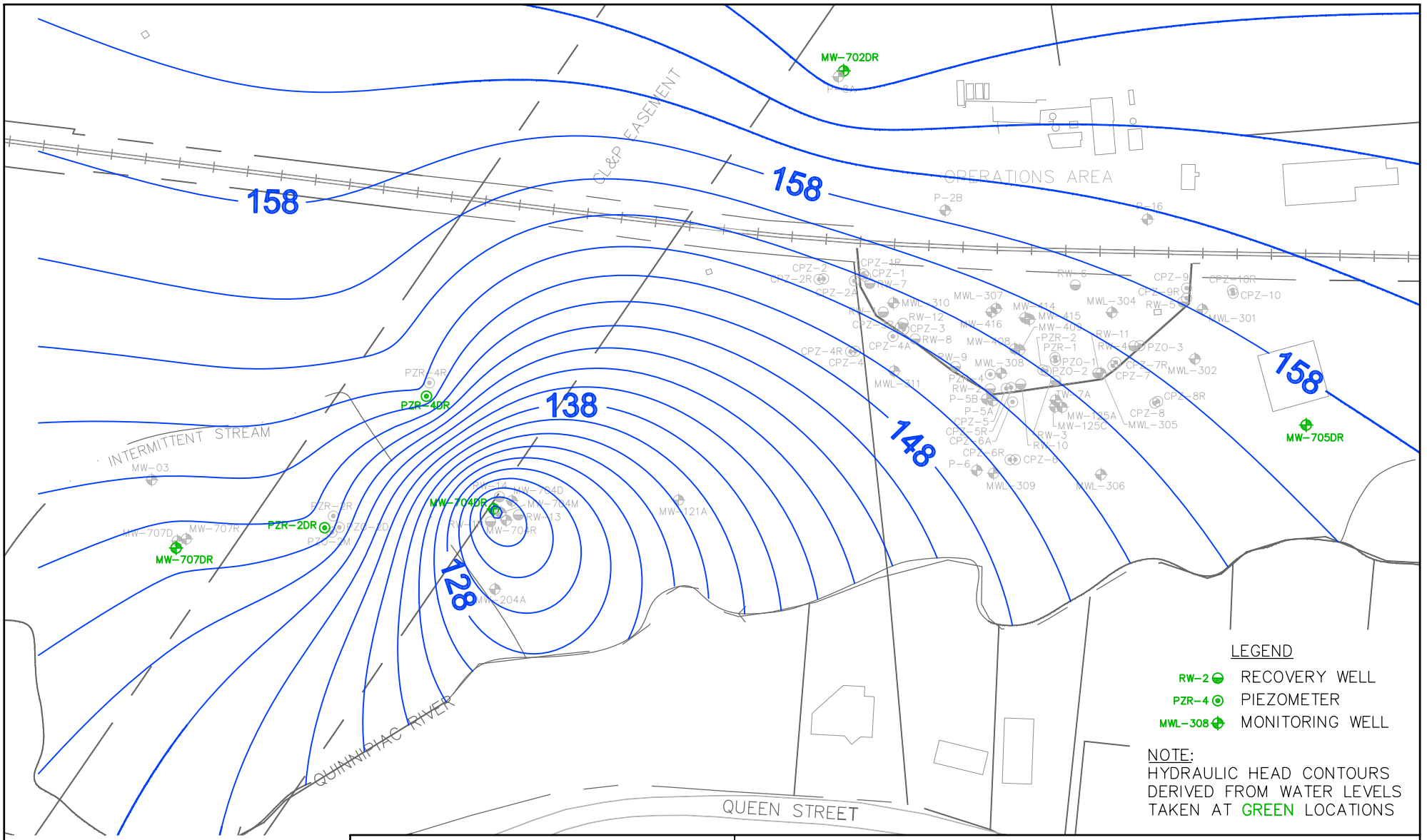


GRAPHIC SCALE

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APPROXIMATE SCALE IN FEET

# DEEP BEDROCK HYDRAULIC HEAD CONTOURS MAY 27, 2009

SRSNE
SOUTHINGTON, CONNECTICUT

WESTON SOLUTIONS

MANCHESTER NEW HAMPSHIRE

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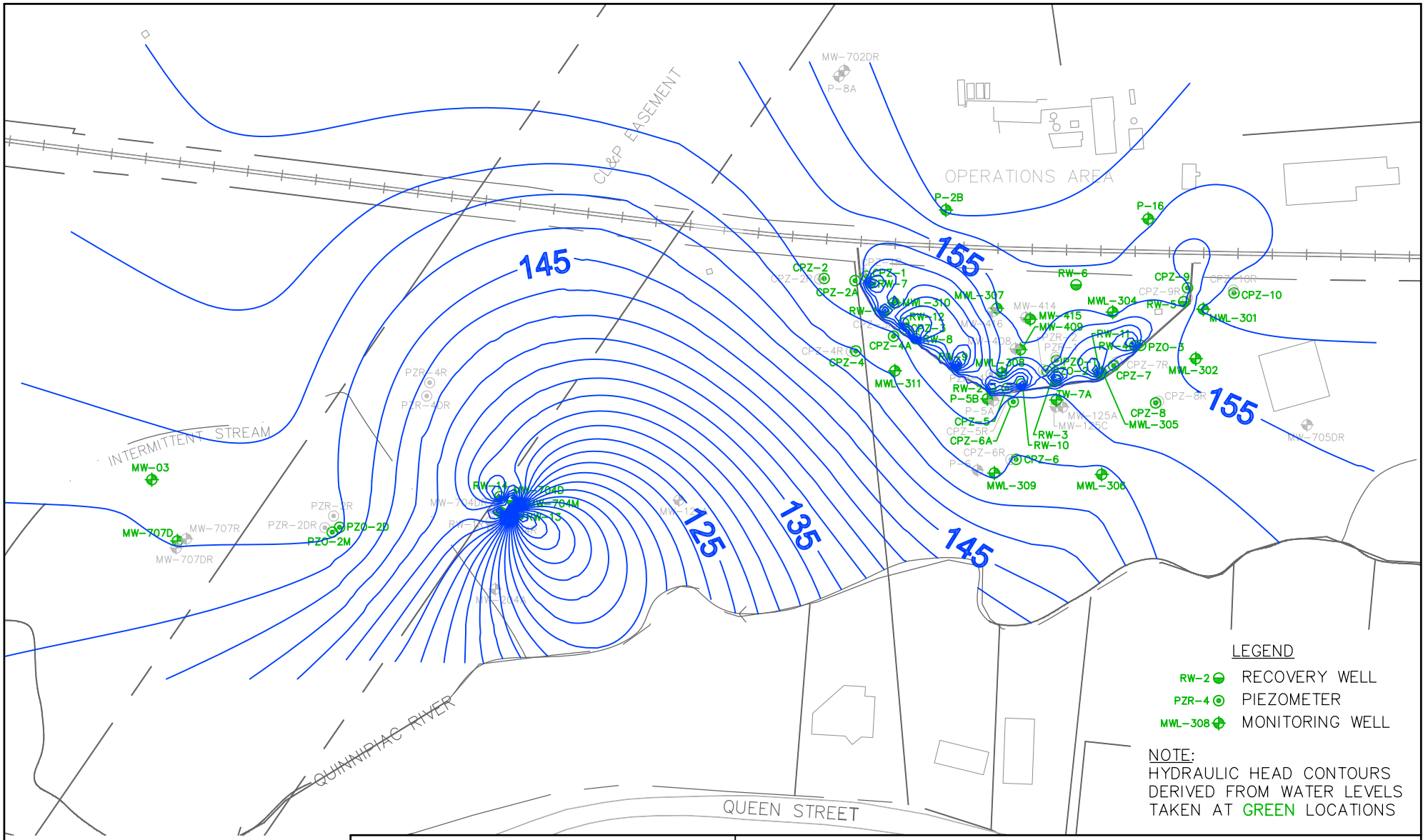


LEGEND

RW-2 RECOVERY WELL

PZR-4 PIEZOMETER

MWL-308 MONITORING WELL

NOTE:
HYDRAULIC HEAD CONTOURS DERIVED FROM WATER LEVELS TAKEN AT GREEN LOCATIONS

GRAPHIC SCALE

200 100 0 100 200

APPROXIMATE SCALE IN FEET

# OVERBURDEN HYDRAULIC HEAD CONTOURS JUNE 30, 2009

SRSNE
SOUTHINGTON, CONNECTICUT

WESTON SOLUTIONS

MANCHESTER NEW HAMPSHIRE

| DRAWN | DATE | DES. ENG. | DATE | W.O. NO. |
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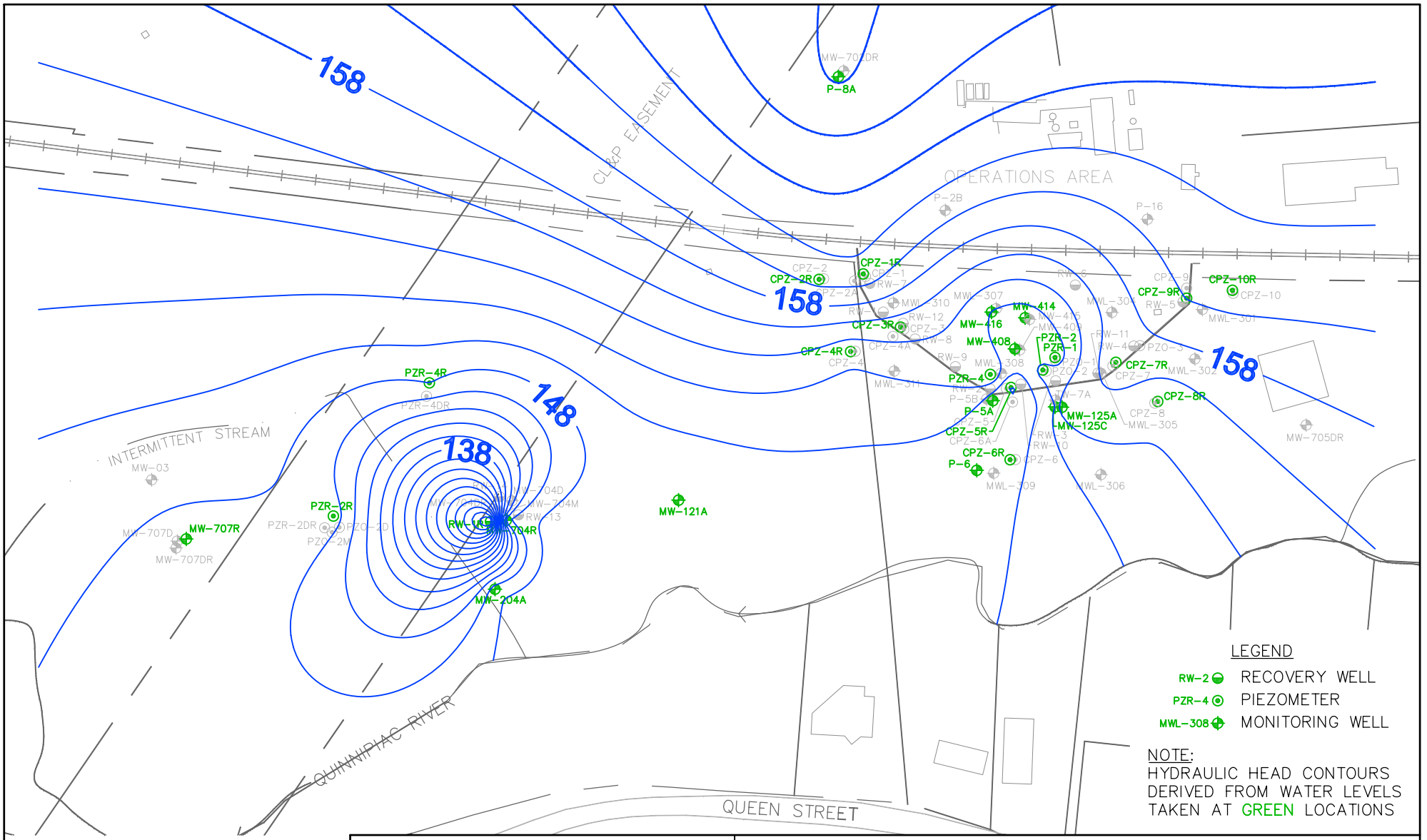


LEGEND

RW-2 RECOVERY WELL

PZR-4 PIEZOMETER

MWL-308 MONITORING WELL

NOTE:
HYDRAULIC HEAD CONTOURS DERIVED FROM WATER LEVELS TAKEN AT GREEN LOCATIONS

GRAPHIC SCALE

200 100 0 100 200

APPROXIMATE SCALE IN FEET

# SHALLOW BEDROCK HYDRAULIC HEAD CONTOURS JUNE 20, 2009

SRSNE
SOUTHINGTON, CONNECTICUT

WESTON SOLUTIONS

MANCHESTER NEW HAMPSHIRE

| DRAWN | DATE | DES. ENG. | DATE | W.O. NO. |
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| BEG | JUL 2009 | | | 13056.001.011 |
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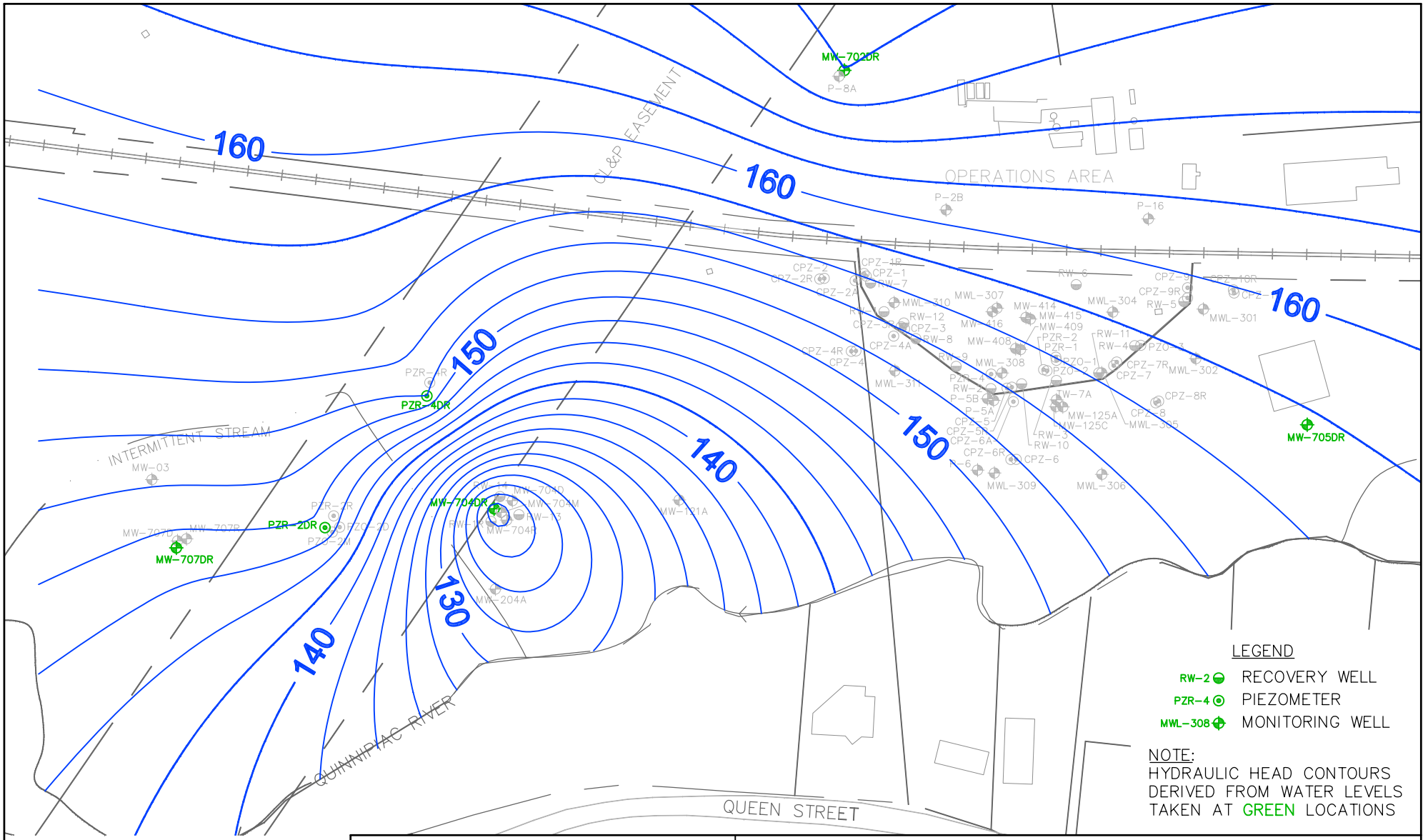


GRAPHIC SCALE

200 100 0 100 200

APPROXIMATE SCALE IN FEET

# DEEP BEDROCK HYDRAULIC HEAD CONTOURS JUNE 30, 2009

SRSNE
SOUTHINGTON, CONNECTICUT

WESTON SOLUTIONS

MANCHESTER NEW HAMPSHIRE

| DRAWN | DATE | DES. ENG. | DATE | W.O. NO. |
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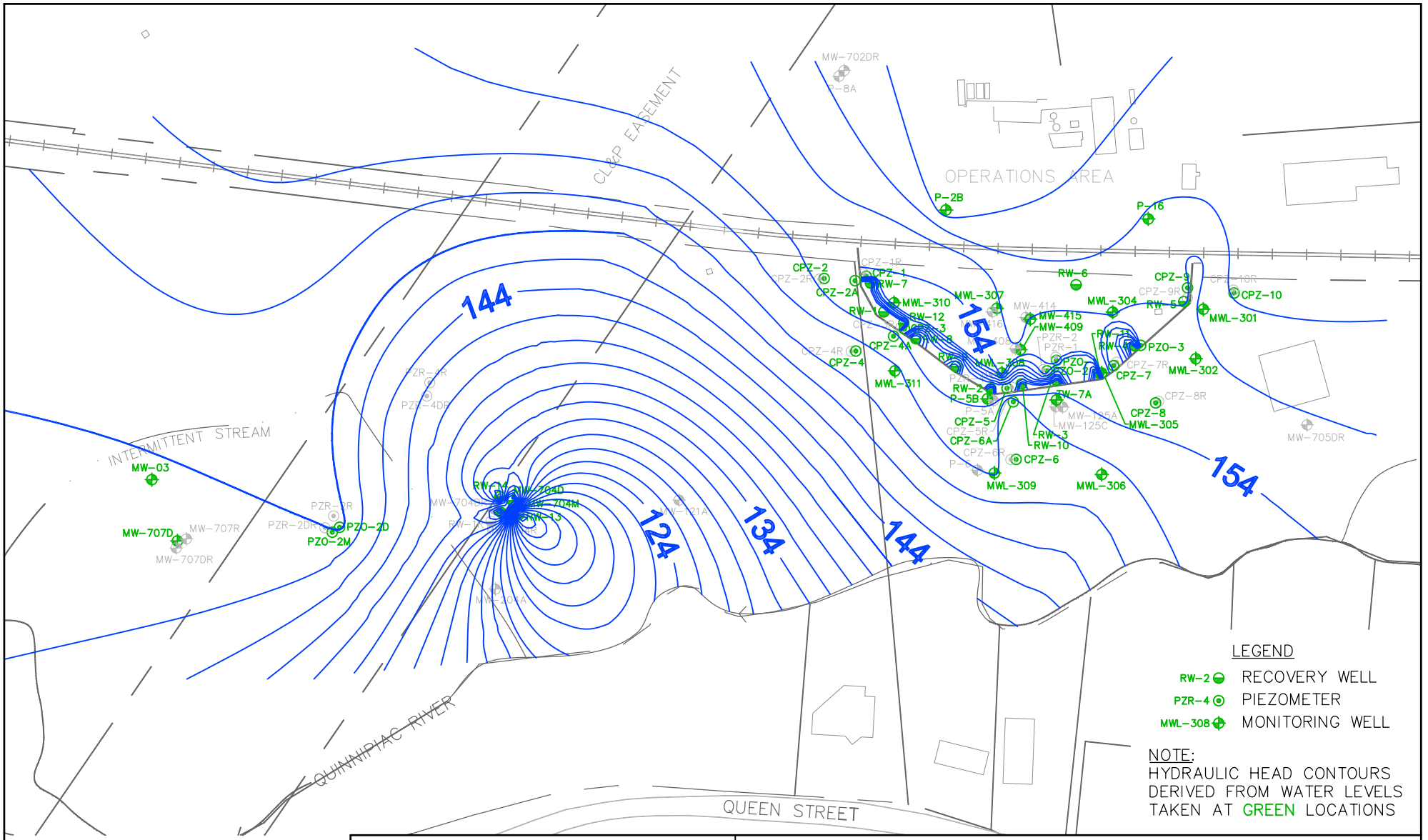


LEGEND

RW-2 RECOVERY WELL

PZR-4 PIEZOMETER

MWL-308 MONITORING WELL

NOTE:
HYDRAULIC HEAD CONTOURS DERIVED FROM WATER LEVELS TAKEN AT GREEN LOCATIONS

GRAPHIC SCALE

200 100 0 100 200

APPROXIMATE SCALE IN FEET

# OVERBURDEN HYDRAULIC HEAD CONTOURS JULY 29, 2009

SRSNE
SOUTHINGTON, CONNECTICUT

WESTON SOLUTIONS

MANCHESTER NEW HAMPSHIRE

| DRAWN | DATE | DES. ENG. | DATE | W.O. NO. |
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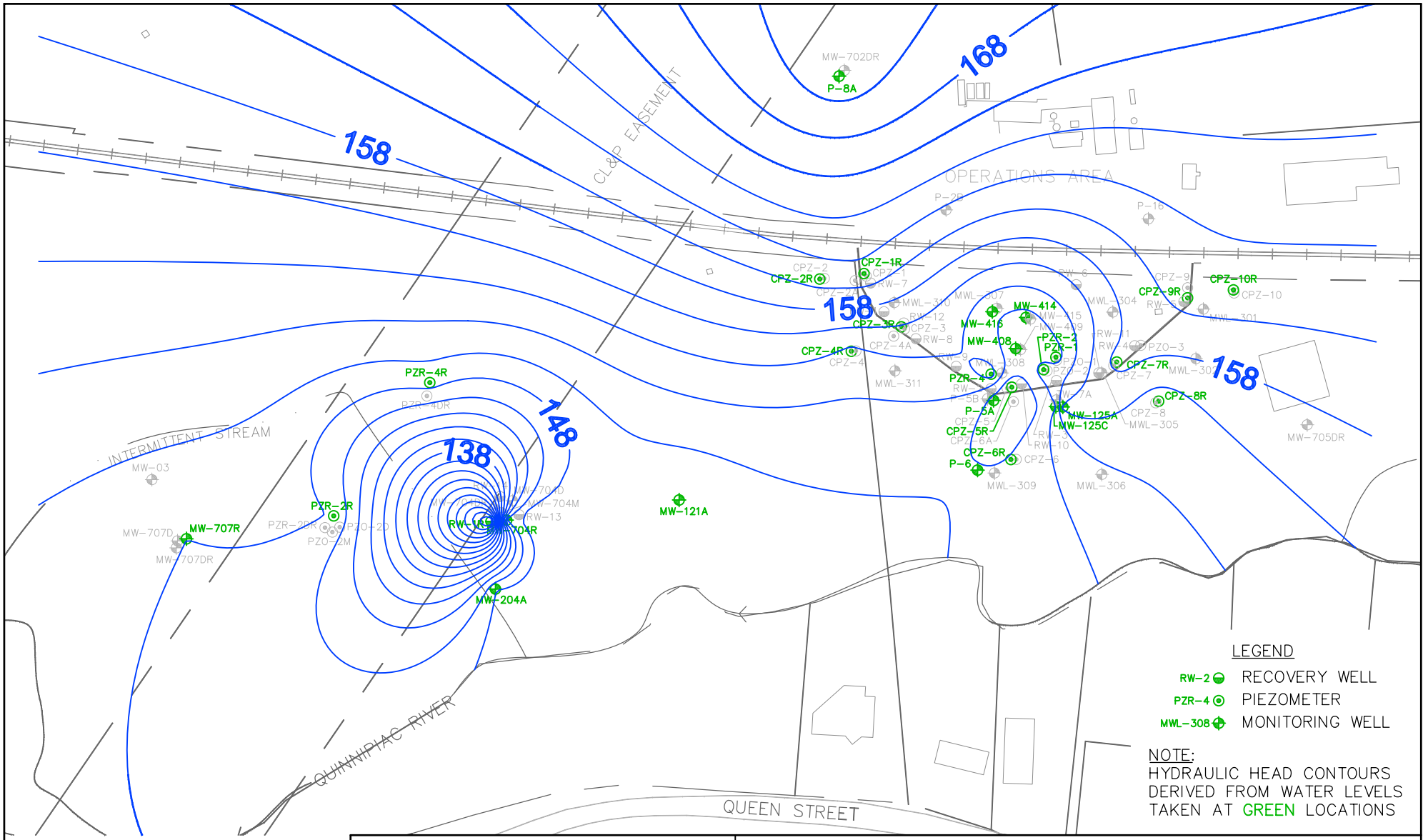


GRAPHIC SCALE

200 100 0 100 200

APPROXIMATE SCALE IN FEET

# SHALLOW BEDROCK HYDRAULIC HEAD CONTOURS JULY 29, 2009

SRSNE
SOUTHINGTON, CONNECTICUT

WESTON SOLUTIONS

MANCHESTER NEW HAMPSHIRE

| DRAWN | DATE | DES. ENG. | DATE | W.O. NO. |
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DRAFT

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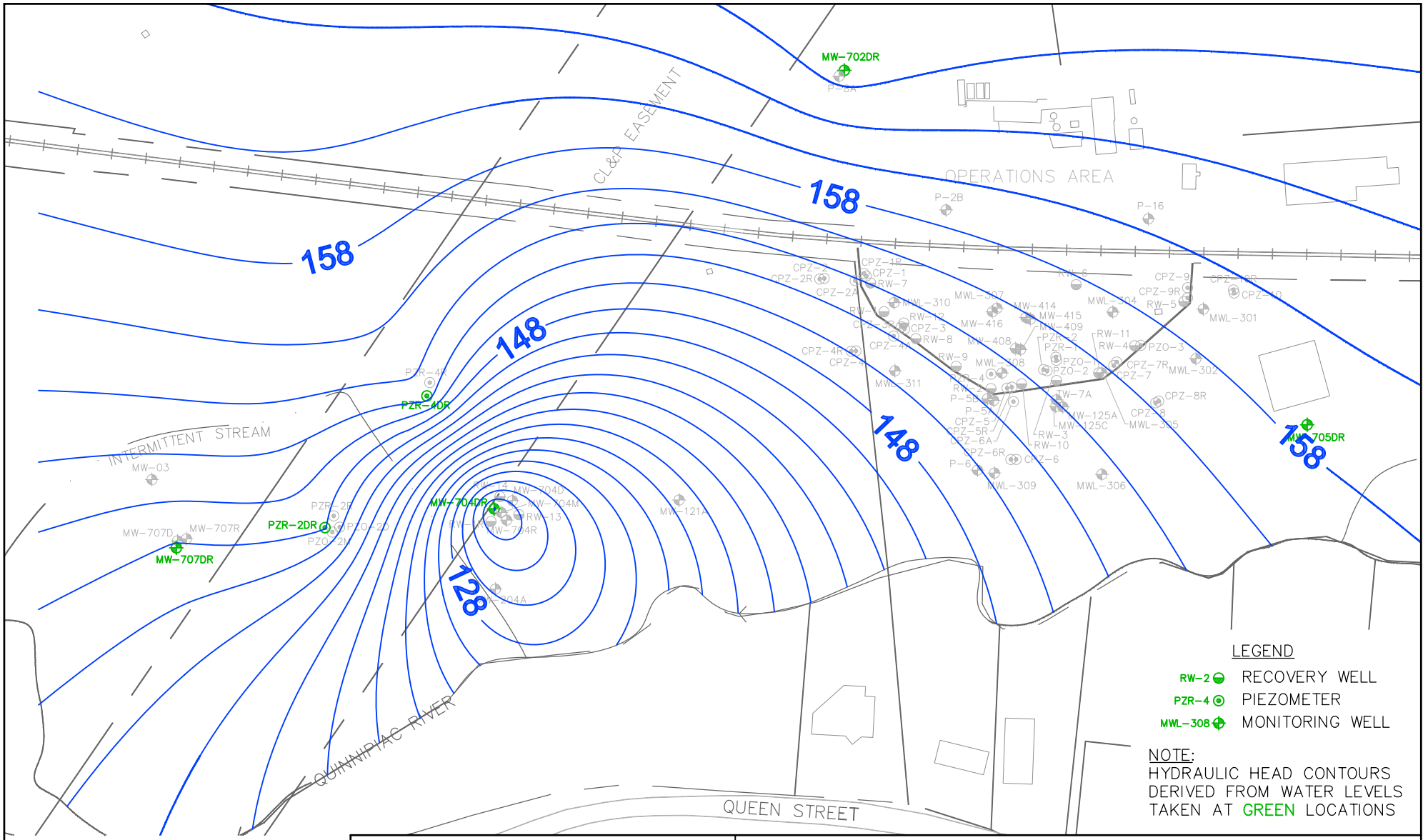


GRAPHIC SCALE

200 100 0 100 200

APPROXIMATE SCALE IN FEET

# DEEP BEDROCK HYDRAULIC HEAD CONTOURS JULY 29, 2009

SRSNE
SOUTHINGTON, CONNECTICUT

WESTON SOLUTIONS

MANCHESTER NEW HAMPSHIRE

| DRAWN | DATE | DES. ENG. | DATE | W.O. NO. |
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DRAFT

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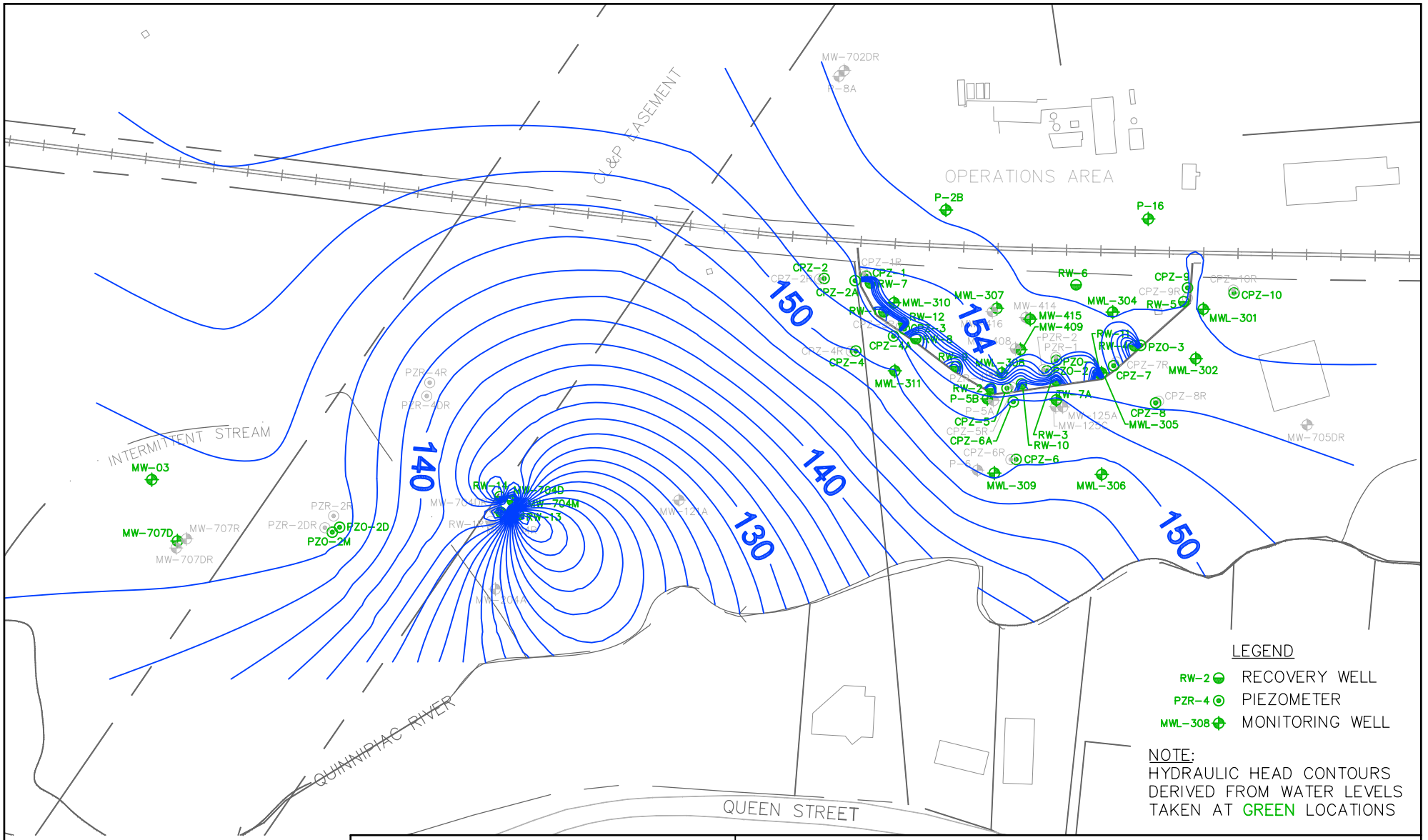


GRAPHIC SCALE

200 100 0 100 200

APPROXIMATE SCALE IN FEET

# OVERBURDEN HYDRAULIC HEAD CONTOURS AUGUST 25, 2009

SRSNE
SOUTHINGTON, CONNECTICUT

WESTON SOLUTIONS

MANCHESTER NEW HAMPSHIRE

| DRAWN | DATE | DES. ENG. | DATE | W.O. NO. |
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DRAFT

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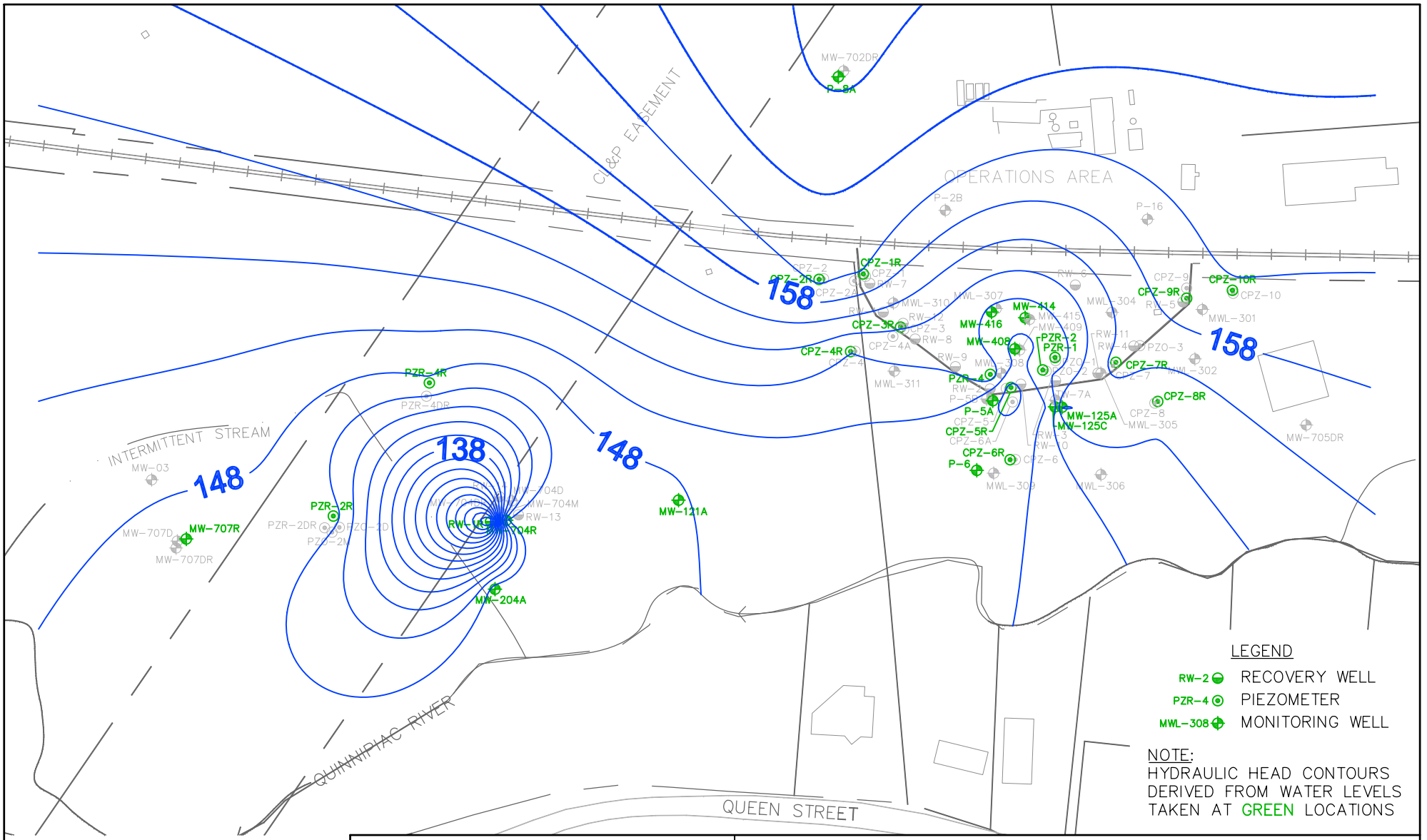


LEGEND

RW-2 RECOVERY WELL

PZR-4 PIEZOMETER

MWL-308 MONITORING WELL

NOTE:
HYDRAULIC HEAD CONTOURS DERIVED FROM WATER LEVELS TAKEN AT GREEN LOCATIONS

GRAPHIC SCALE

200 100 0 100 200

APPROXIMATE SCALE IN FEET

# SHALLOW BEDROCK HYDRAULIC HEAD CONTOURS AUGUST 25, 2009

SRSNE
SOUTHINGTON, CONNECTICUT

WESTON SOLUTIONS

MANCHESTER NEW HAMPSHIRE

| DRAWN | DATE | DES. ENG. | DATE | W.O. NO. |
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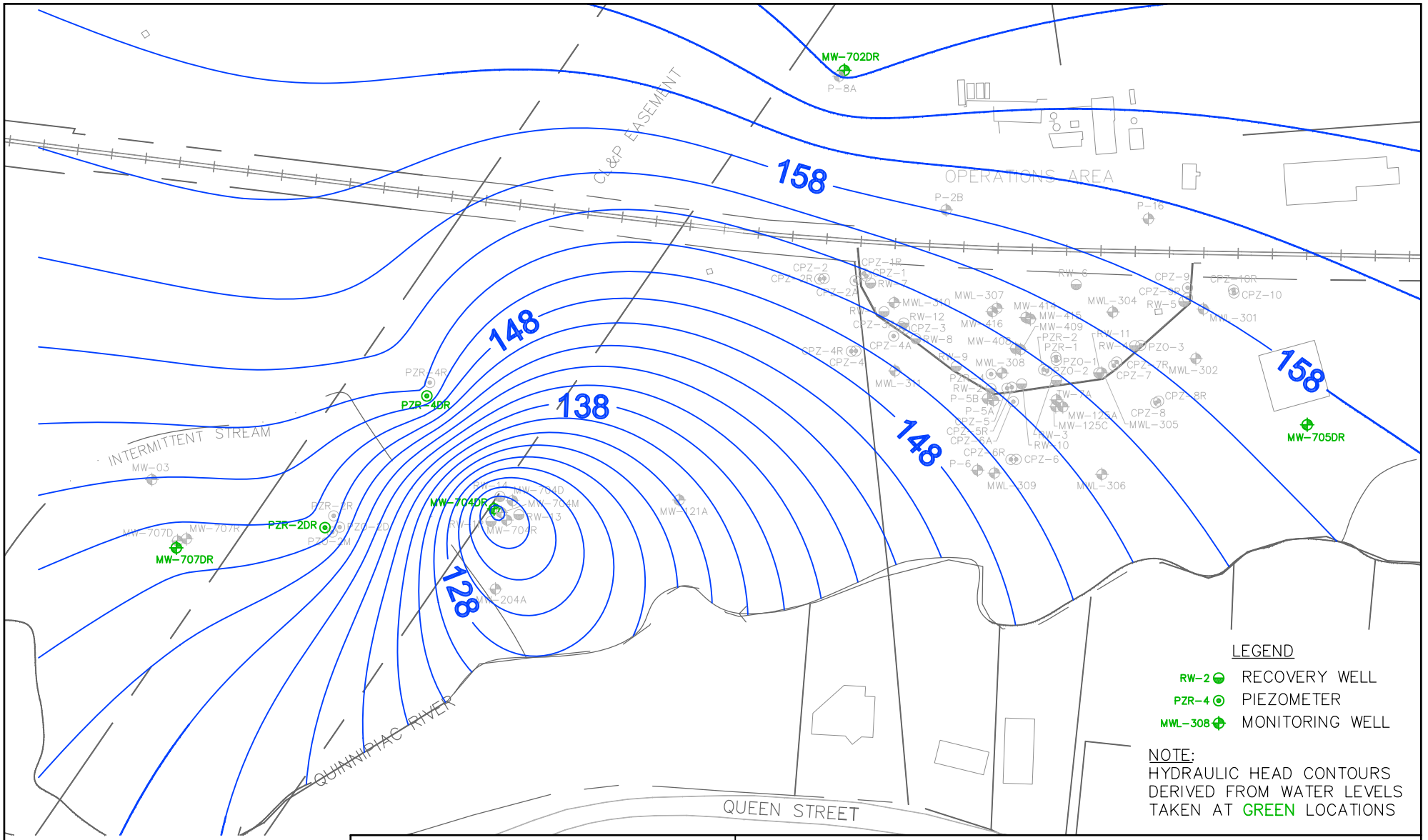


LEGEND

RW-2 RECOVERY WELL

PZR-4 PIEZOMETER

MWL-308 MONITORING WELL

NOTE:
HYDRAULIC HEAD CONTOURS DERIVED FROM WATER LEVELS TAKEN AT GREEN LOCATIONS

GRAPHIC SCALE

200 100 0 100 200

APPROXIMATE SCALE IN FEET

# DEEP BEDROCK HYDRAULIC HEAD CONTOURS AUGUST 25, 2009

SRSNE
SOUTHINGTON, CONNECTICUT

WESTON SOLUTIONS

MANCHESTER NEW HAMPSHIRE

| DRAWN | DATE | DES. ENG. | DATE | W.O. NO. |
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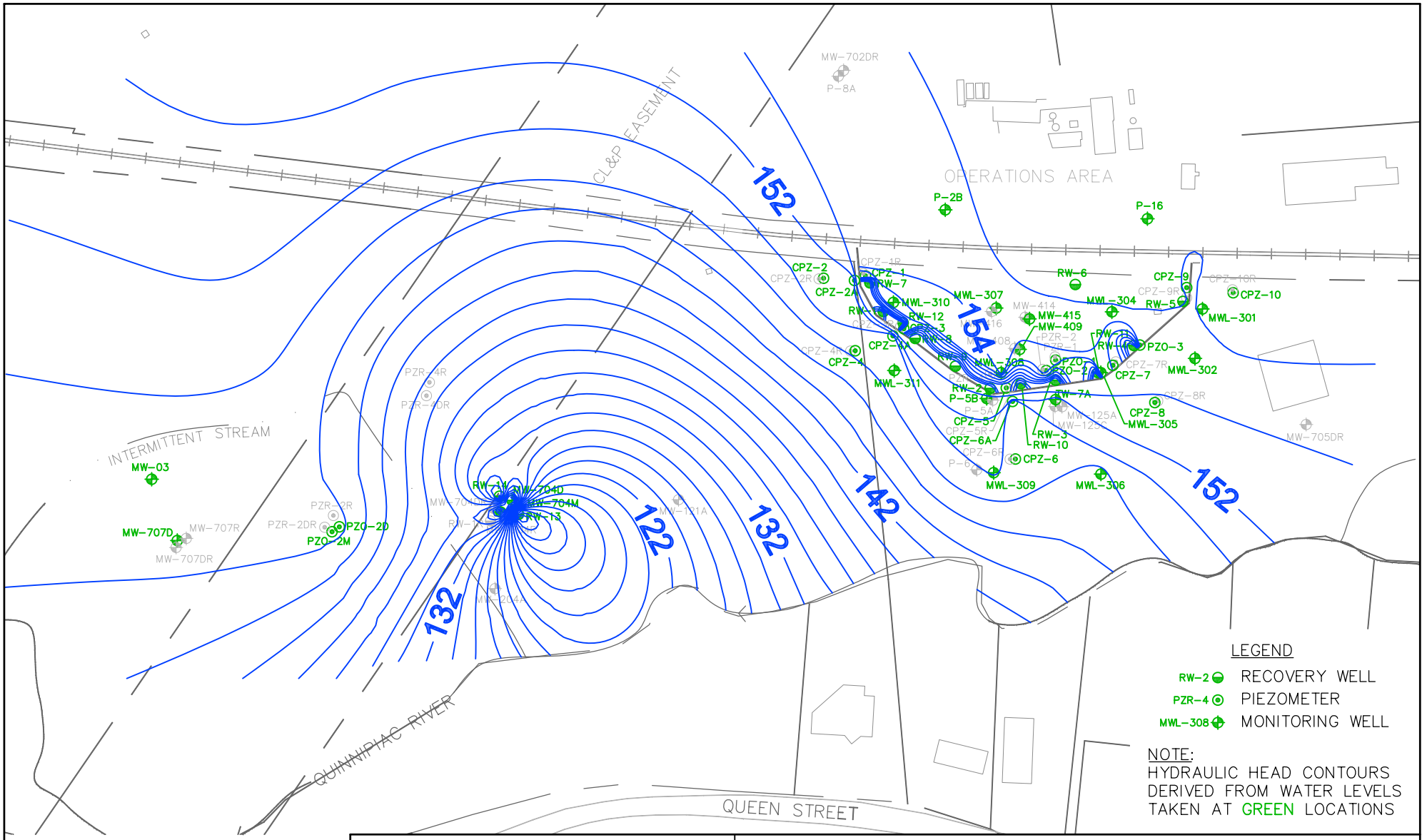


# OVERBURDEN HYDRAULIC HEAD CONTOURS SEPTEMBER 29, 2009

SRSNE
SOUTHINGTON, CONNECTICUT

WESTON SOLUTIONS
MANCHESTER NEW HAMPSHIRE

| DRAWN | DATE | DES. ENG. | DATE | W.O. NO. |
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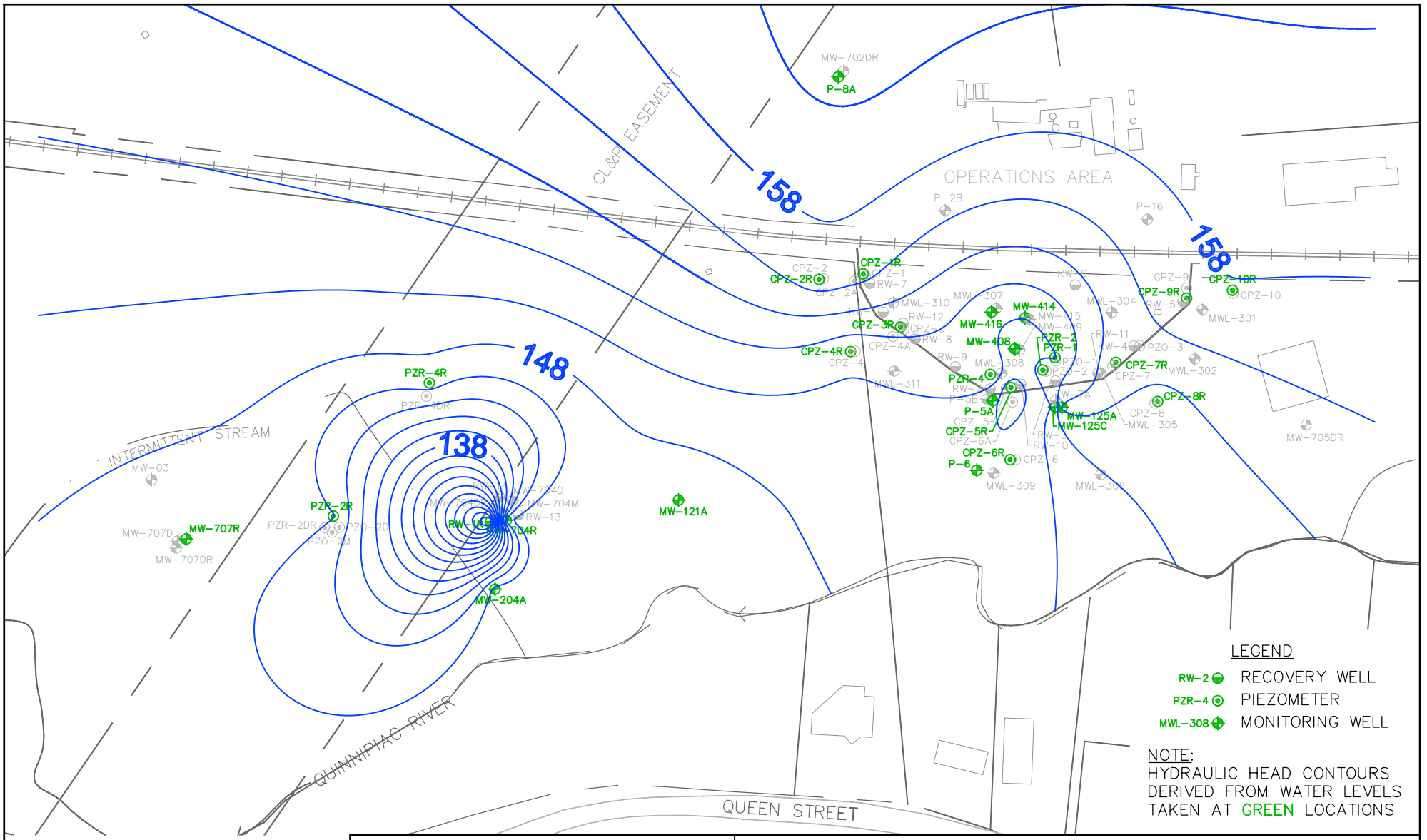


LEGEND

RW-2 RECOVERY WELL

PZR-4 PIEZOMETER

MWL-308 MONITORING WELL

NOTE:
HYDRAULIC HEAD CONTOURS DERIVED FROM WATER LEVELS TAKEN AT GREEN LOCATIONS

GRAPHIC SCALE

200 100 0 100 200

APPROXIMATE SCALE IN FEET

# SHALLOW BEDROCK HYDRAULIC HEAD CONTOURS SEPTEMBER 29, 2009

SRSNE
SOUTHINGTON, CONNECTICUT

WESTON SOLUTIONS

MANCHESTER NEW HAMPSHIRE

| DRAWN | DATE | DES. ENG. | DATE | W.O. NO. |
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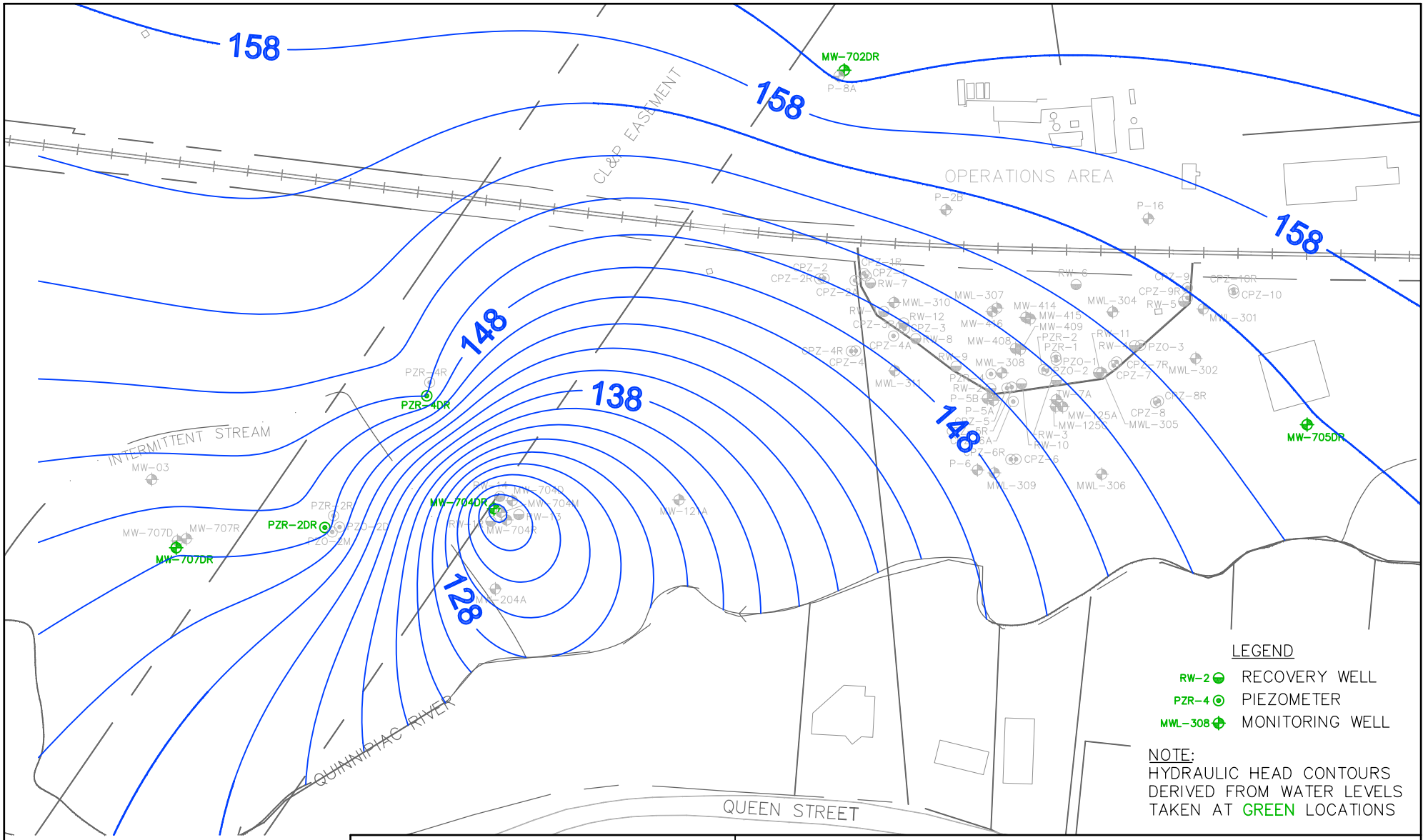


LEGEND

RW-2 RECOVERY WELL

PZR-4 PIEZOMETER

MWL-308 MONITORING WELL

NOTE:
HYDRAULIC HEAD CONTOURS DERIVED FROM WATER LEVELS TAKEN AT GREEN LOCATIONS

GRAPHIC SCALE

200 100 0 100 200

APPROXIMATE SCALE IN FEET

# DEEP BEDROCK HYDRAULIC HEAD CONTOURS SEPTEMBER 29, 2009

SRSNE
SOUTHINGTON, CONNECTICUT

WESTON SOLUTIONS

MANCHESTER NEW HAMPSHIRE

| DRAWN | DATE | DES. ENG. | DATE | W.O. NO. |
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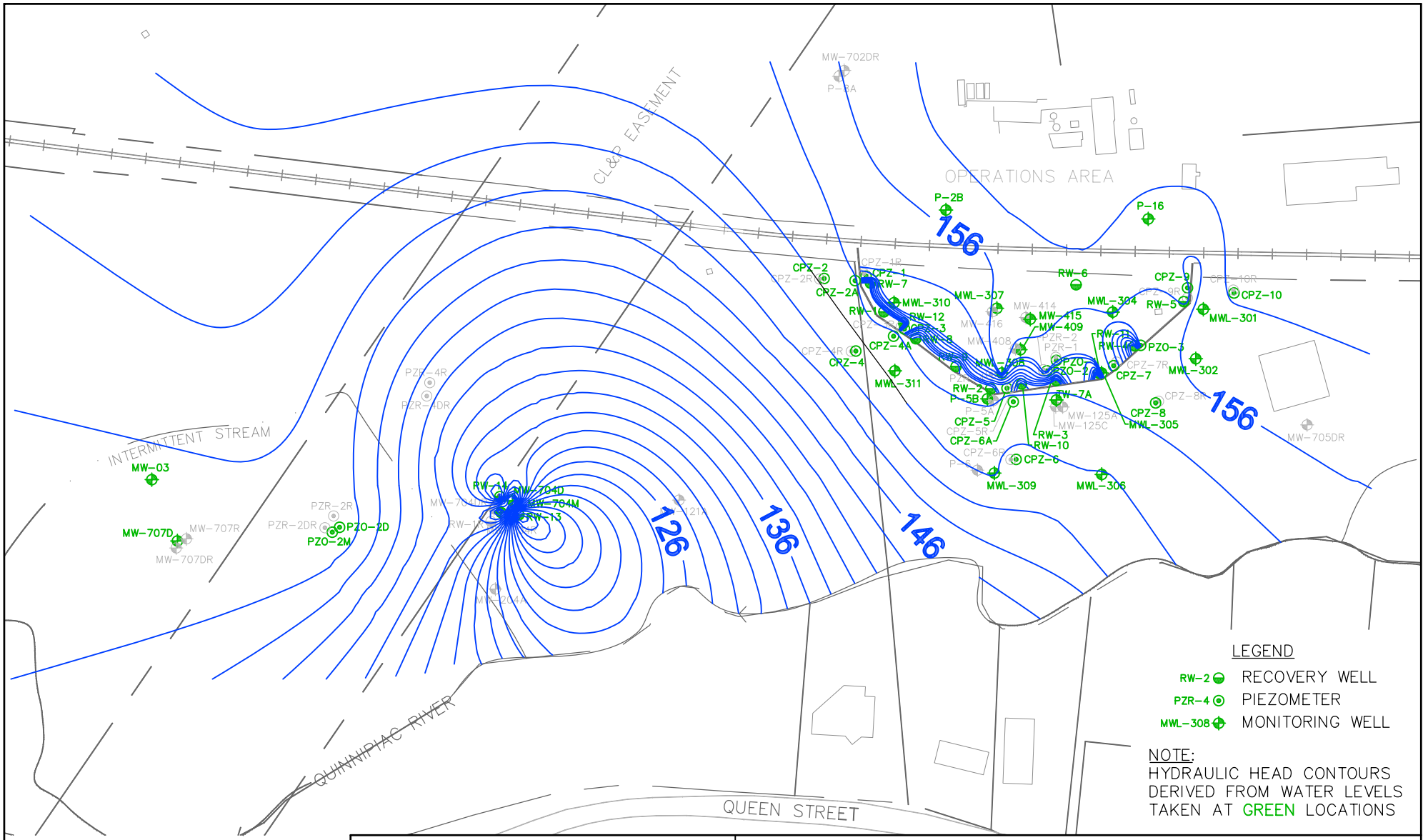


GRAPHIC SCALE

200 100 0 100 200

APPROXIMATE SCALE IN FEET

# OVERBURDEN HYDRAULIC HEAD CONTOURS OCTOBER 29, 2009

SRSNE
SOUTHINGTON, CONNECTICUT

WESTON SOLUTIONS

MANCHESTER NEW HAMPSHIRE

| DRAWN | DATE | DES. ENG. | DATE | W.O. NO. |
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| CHECKED | DATE | SCALE | REVISION | FIGURE NO. |
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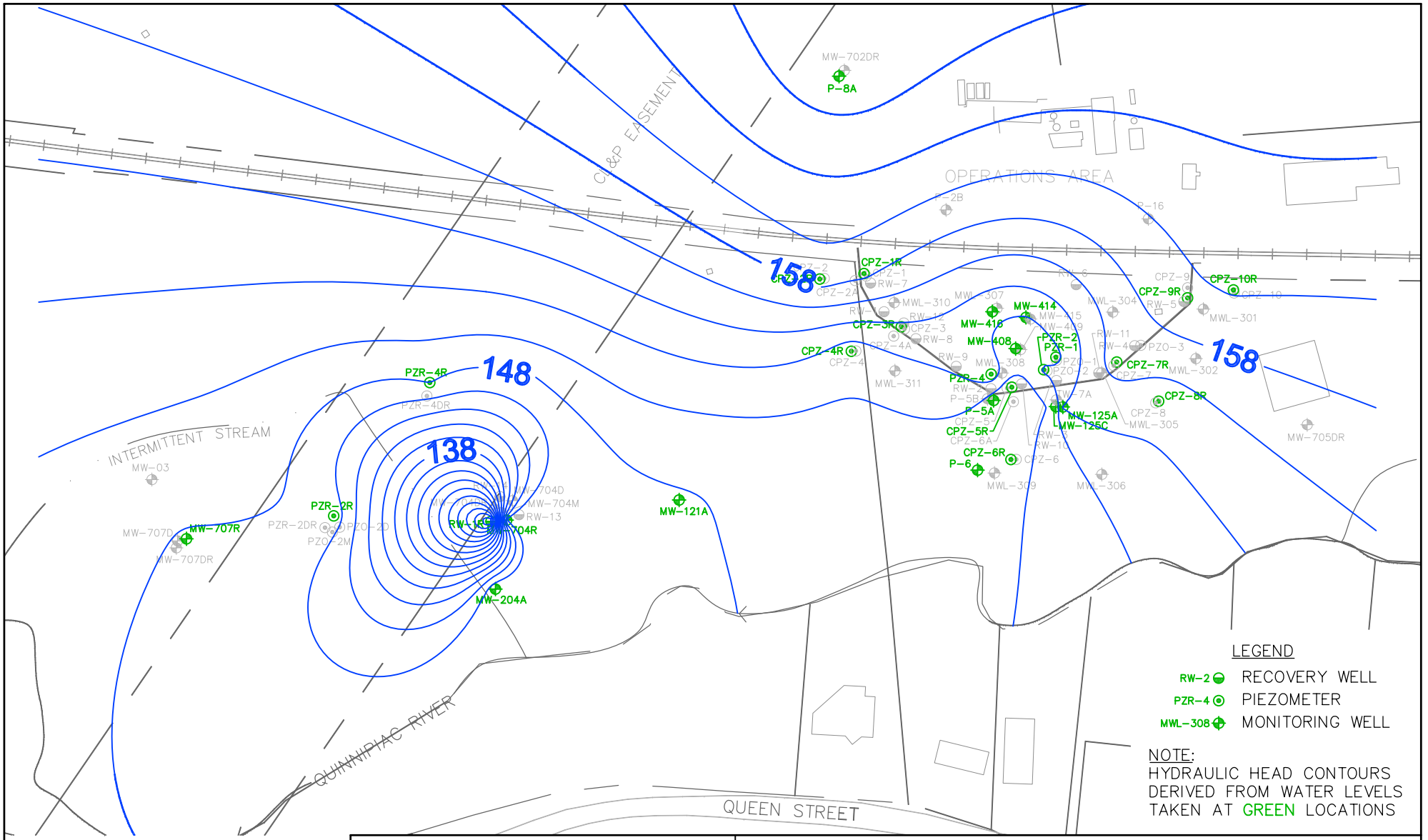


# SHALLOW BEDROCK HYDRAULIC HEAD CONTOURS OCTOBER 29, 2009

SRSNE
SOUTHINGTON, CONNECTICUT

WESTON SOLUTIONS
MANCHESTER NEW HAMPSHIRE

| DRAWN | DATE | DES. ENG. | DATE | W.O. NO. |
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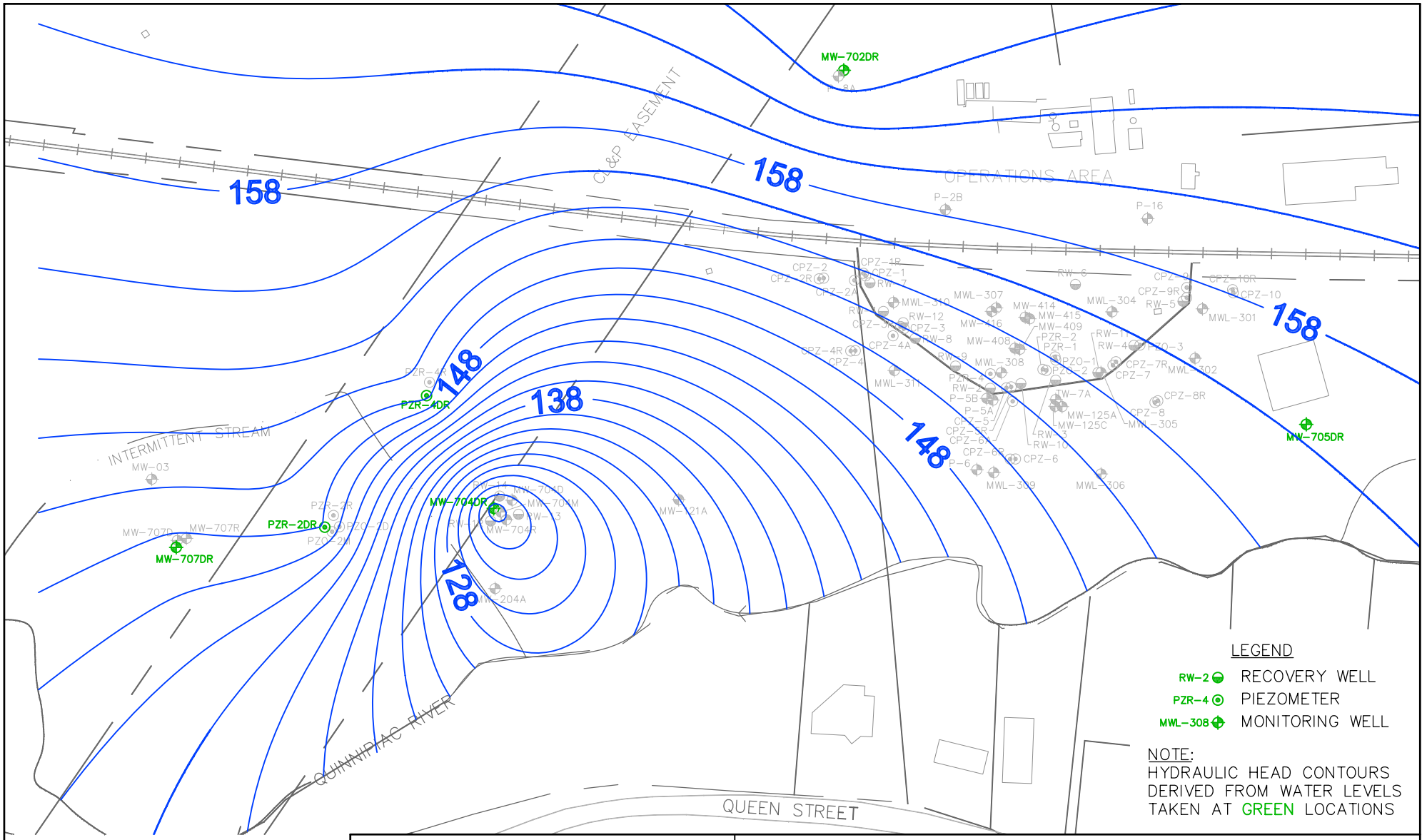


GRAPHIC SCALE

200 100 0 100 200

APPROXIMATE SCALE IN FEET

# DEEP BEDROCK HYDRAULIC HEAD CONTOURS OCTOBER 29, 2009

SRSNE
SOUTHINGTON, CONNECTICUT

WESTON SOLUTIONS

MANCHESTER NEW HAMPSHIRE

| DRAWN | DATE | DES. ENG. | DATE | W.O. NO. |
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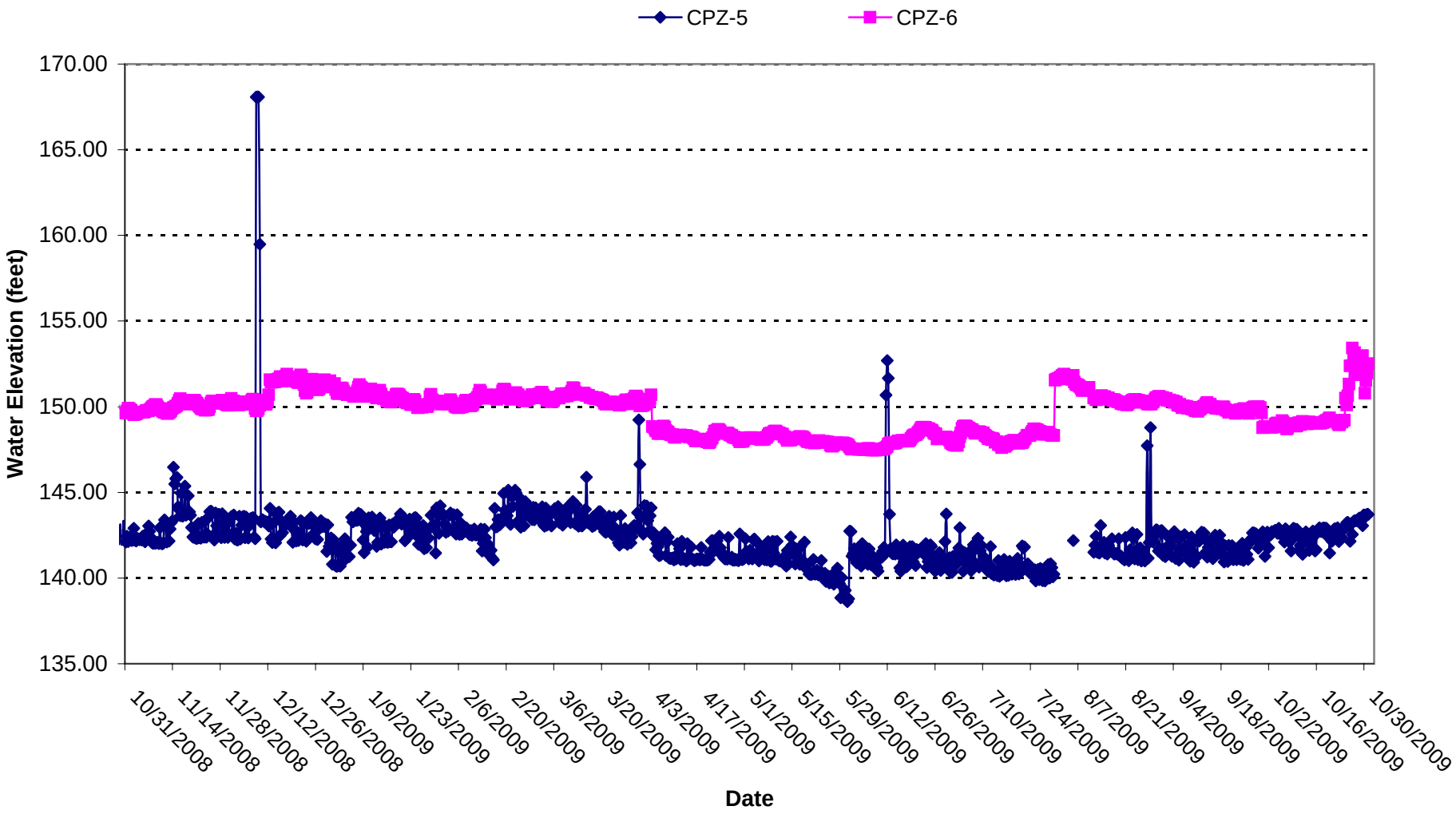
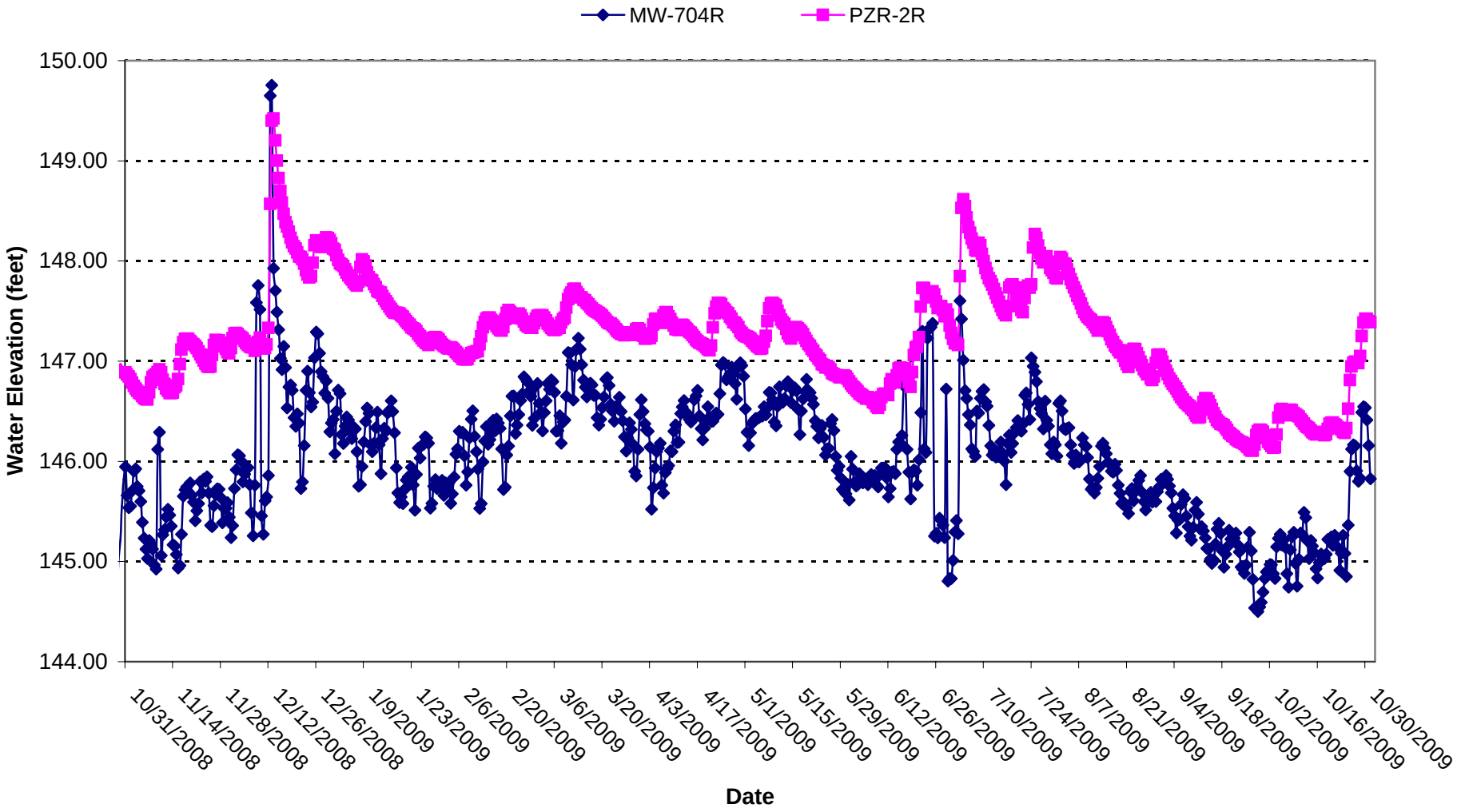
DRAFT

## *Hydraulic Gradient Between CPZ-05 and CPZ-06*
## *NTCRA-1 Overburdern Compliance Pair*



## *Hydraulic Gradient Between MW-704R and PZR-2R*
## *NTCRA-2 Shallow Bedrock Compliance Pair*



## *Hydraulic Gradient Between MW-704DR and PZR-2DR*
## *NTCRA-2 Deep Bedrock Compliance Pair*