MACTEC

November 1, 2006

3410050344

James A. Moras, P.E.
New York State Department of Environmental Conservation
Division of Environmental Remediation
625 Broadway
Albany, New York 12233-7013

RE: **Proposed Scope of Work (Rev. 2)**
Additional Site Investigation Activities
Alexander Schmigel Site
Hoosick Falls, New York
NYSDEC Site ID No. 442002
Honeywell Project #30103

Dear Mr. Moras:

MACTEC Engineering and Consulting, Inc. ("MACTEC") has prepared this letter on behalf of Honeywell International Inc. ("Honeywell") to identify the proposed scope of work for additional environmental investigation activities at the Alexander Schmigel Site ("site") in Hoosick Falls, New York. The scope of work has been revised based on our recent correspondence, including your email dated October 6, 2006. This letter replaces our previous scope of work letter dated September 25, 2006. It is our understanding that the proposed scope of work, upon acceptance by NYSDEC, will be completed under a Consent Order between Honeywell and NYSDEC.

The proposed work will be completed to address existing gaps in site characterization data. If appropriate based on the results of the additional investigation, it is our intent to use the results, combined with data generated during previous site investigation work, to support a petition to remove the site from the New York State Registry of Inactive Hazardous Waste Disposal Sites ("Registry").

PROJECT BACKGROUND

The site is the location of a former depression that was reportedly filled with residential refuse and demolition debris between 1977 and 1995. Exact dimensions of the disposal area have not been confirmed. Previous documents provided varying information, with the most recent records indicating the area covers approximately 0.23 acre and the fill/waste material is present to a maximum depth of 12 feet below ground surface. During the recent site visit, Mr. Robert Brenenstuhl (the property owner) estimated that the disposal area is much smaller (possibly as small as 20 feet by 20 feet) and that the disposed material includes household wastes, building debris and scrap metal.

Mr. Alexander Schmigel, the former property owner, has reportedly stated that over an approximate two-week period in 1977 he allowed the disposal of 55-gallon drums containing various chemicals at the site. He indicated that the drums were from the former Norplex Oak Materials facility located in Hoosick Falls. Mr. Schmigel has been interviewed by various parties

MACTEC Engineering and Consulting, Inc.
Carnegie Office Park, Bldg. 4, 700 N. Bell Avenue, Suite 200 • Pittsburgh, PA 15106
412-279-6661 • Fax: 412-279-8567

numerous times over the years and he has not been consistent with his statements regarding the number of drums reportedly brought to the site for disposal. His estimates have ranged from between 100 to 200 drums, and he has reported that at least some of these drums were emptied on the site and the empty drums were then taken off site for reuse. The remainder of the drums were reportedly crushed and placed in the open pit. The drummed materials reportedly contained methyl cellosolve, acetone, polymer resin, and 2-methoxyl ethyl ester. Mr. Brenenstuhl (Mr. Schmigel's son-in-law) stated during the site visit that he believes Mr. Schmigel overestimated the number of drums that were disposed at the site. Mr. Brenenstuhl believes that very few drums were buried on site due to the limited size of the disposal area and because he believes the majority of the drums were removed for recycling.

Numerous environmental investigations have been conducted at the site since 1986. These investigations are described in Parson's March 31, 2004 "Petition to Delist" submittal and include:

- installation of groundwater monitoring wells and collection of soil, groundwater and surface water samples in 1986;
- completion of a magnetometer survey and excavation of test pits within the disposal area in 1987 (which yielded much metallic debris and scrap materials but only one intact drum of material that was overpacked and taken offsite for disposal and two crushed empty drums);
- additional sampling of groundwater and surface water in 1989;
- routine groundwater monitoring conducted between 1989 and 1994 and from 1999 to 2003;
- testing of nearby residential water wells between 1986 and 1994; and
- the 1998 "Final Site Inspection Prioritization Report" prepared by Roy F. Weston, Inc. for USEPA.

The 2004 Petition to Delist submittal concluded that the site should be removed from the Registry based on the following:

- No significant accumulation of buried drums has been identified at the site and no major sources of contamination have been identified within the disposal area;
- Soil sample analytical results indicate that the site soil does not present a threat to human health or the environment;
- VOC concentrations in groundwater have decreased significantly over time to the point that the most recent analytical results from 2003 were all below NYSDEC groundwater criteria; and
- The most recent analytical results for residential water well samples met NYSDEC groundwater criteria.

NYSDEC responded to the 2004 Petition in a letter to Parsons dated January 26, 2005. The letter denied the request for the following reasons:

1. Only the current or former owner or operator of the site may make the petition (Honeywell is none of these).

2. Additional investigations need to be completed to fully define the extent of contamination. Specifically, the source of contamination was never removed, no upgradient wells have been installed, the extent of downgradient groundwater contamination has not been determined, no groundwater contour maps have been produced, and no bedrock wells have been installed (despite the presence of shallow bedrock at the site).

In response to NYSDEC's denial letter, Honeywell has directed MACTEC to identify a scope of work for additional site characterization to address the identified data gaps and support a new petition to remove the site from the Registry with the cooperation of the site owner or operator.

PROPOSED SCOPE OF WORK

MACTEC has developed the following scope of work based on our review of the previous reports and file documents obtained from Honeywell and NYSDEC. The scope of work includes the following tasks:

- Excavation of test pits to confirm the dimensions of the disposal area and determine if any ongoing sources of contamination (such as intact buried drums) exist.

- Installation of three additional groundwater monitoring wells (one upgradient and two downgradient of the disposal area).

- Completion of a land survey to support the preparation of a "to scale" site plan and groundwater contour maps.

- Collection of two rounds of groundwater samples from the site monitoring wells.

- Preparation of a report to document the results of the site investigation activities and, if appropriate, a petition to remove the site from the Registry.

These tasks are described in detail in the following sections:

Task 1 – Test Pit Excavation

Previous limited test pit activities encountered a large amount of metallic debris within the disposal area. These activities identified only one intact 55-gallon drum and several crushed empty drums, indicating that, as believed by Mr. Brenenstuhl, the previous estimates that 100 to 200 drums were buried at this location were inaccurate. Thus, additional test pit work is proposed to confirm the lateral and vertical extent of the fill material and to determine if significant quantities of intact drums of waste are in fact present at the site.

The maximum estimated dimensions of the former disposal area are given as 0.23 acre (or 10,300 square feet) with a maximum fill depth of approximately 12 feet. Observations made during the site visit and statements made by the property owner indicate that the actual disposal area is much smaller. Bedrock is reportedly located at the base of the fill material. MACTEC proposes to excavate up to 12 test pits with a small backhoe. The test pits will be spaced evenly across the reported disposal area. A MACTEC field geologist/engineer will visually inspect each excavation. If intact drums are encountered, an attempt will be made to determine the number of drums and/or the extent of drum disposal. Other information that can be obtained regarding the contents of the drums will be gathered based on visual observation. A GPS unit will be used to record the locations of buried drums. Each test pit will be backfilled with the excavated material upon completion. Intact drums, if any are encountered, will not be opened, sampled, or removed during this phase of the investigation unless they are damaged or disturbed during the test pit activities, in which case they will be overpacked and profiled for future disposal. Provisions will be made to return to the site under a separate work plan to remove intact buried drums in a manner consistent with applicable regulations and standards.

Logs will be prepared for each test pit, indicating materials encountered, photoionization detector (PID) readings, and other pertinent information. Photographs of each test pit will also be taken. Test pit locations will be surveyed as described in Task 3.

One sample will be collected from the soil or other materials encountered in each of the test pits. MACTEC's field representative will select the sample location/depth within the test pit based on where potentially contaminated materials are encountered. Each soil/solid sample will be analyzed for Target Compound List (TCL) volatile organic compounds (VOCs), including methyl cellosolve, by SW-846 Method 8260. If materials from compromised drums are encountered, samples will also be collected, if in the opinion of MACTEC it can be done safely, for TCLP analysis to determine if the materials are characteristic hazardous waste.

Samples will be managed, packaged, and shipped with chain-of-custody forms in accordance with NYSDEC and Honeywell protocol to a state-licensed laboratory. The samples will be analyzed using standard laboratory turnaround time (approximately 3 weeks).

Task 2 – Installation of Additional Monitoring Wells

Three monitoring wells exist on the site (OW-27, OW-28, and OW-29). Wells OW-27 and OW-28 were installed on the western side of the disposal area within the fill material. Well OW-29 was installed to the west of the entrance road, southwest of the disposal area in the expected downgradient direction. The stickup protective casing at Well OW-29 was observed to be bent during the site visit. Each of these wells is screened within the overburden. To expand on the available groundwater data, MACTEC proposes to install three additional monitoring wells near the site. The proposed locations of the new wells were discussed and agreed to by all parties (NYSDEC, Honeywell, and MACTEC) during the September 5, 2006 site visit and are marked on the attached Parsons Site Plan. The well locations may be adjusted in the field based on site conditions, including utility locations and access requirements. The location and associated reason for installing each of the proposed new wells is summarized as follows:

- Well MW-1 will be located near the northeastern corner of the fill area (but outside of the fill). Based on topography, this area is expected to be upgradient of the disposal area. Thus, the well will be used to characterize upgradient groundwater quality.

- Well MW-2 will be installed southwest of the fill area near State Route 67 (in the vicinity of the former Bentley residence). The location of this well may vary depending on whether property access can be obtained from the property owner. This well will be used to characterize the quality of groundwater downgradient of the disposal area.

- Well MW-3 will be installed south of the fill area near on the western side of the gravel entrance road along State Route 67. Overhead utility lines are present near this area. As discussed with NYSDEC, the well may be moved to the other side of the entrance road if necessary to avoid the overhead utility lines. This well will be used to characterize groundwater quality downgradient of the disposal area.

Based on information provided in previous reports, it is understood that bedrock at the site is present at depths of less than 15 feet below ground surface. Previous investigations indicate that the upper zone of saturation occurs at the interface of the overburden and weathered bedrock. The most recent sampling of nearby residential wells, which are reportedly completed in bedrock at depths between 170 and 225 feet, has not identified site-related constituents. The 1998 Weston report indicates that the permeability of the unsaturated portion of the Walloomsac Shale located between the base of the disposal area and the bedrock aquifer ranges from 10^{-6} to 10^{-8} cm/sec. The contaminants of concern at the site do not have specific gravities of greater than 1 (i.e., they are not "sinkers"). Therefore, it is expected that groundwater contamination associated with the disposal area (if present) would exist in the upper zone of saturation as groundwater migrates downhill from the site along the steeply sloping terrain. Thus, the proposed new monitoring wells will be installed by drilling through the overburden and a limited distance into bedrock to intercept the upper groundwater zone.

The well drilling activities will be performed by a qualified drilling contractor under the direct supervision of MACTEC personnel. Each well boring will be advanced through the overburden and into weathered bedrock with a rotary drill rig using 4.25-inch I.D. hollow stem augurs. Soil samples will be collected at continuous intervals using split-barrel samplers in accordance with ASTM Standard Method D1586-84 (Standard Method for Penetration Test and Split-Barrel Sampling of Soils). The soil samples will be visually characterized in the field in accordance with USCS protocol. Boring logs will be prepared for each well boring based on the visual descriptions of the soil samples and other observations made during drilling.

Upon reaching auger refusal, the well borings will be advanced a limited distance into bedrock using an air rotary drill bit. Because bedrock outcrops were observed in the proposed area of the upgradient well (MW-1), very little overburden is expected to exist at this location. Thus, this well will be advanced into competent bedrock approximately 20 feet below auger refusal. More overburden will be encountered at the locations of wells MW-2 and MW-3; thus, these wells will be advanced into competent bedrock approximately 10 feet below the depth of auger refusal.

Drill cuttings will be placed on the ground at the test boring locations unless there is evidence of impact from site contaminants (such as odor, elevated PID readings, staining, free phase material), in which case the cuttings will be containerized for management in accordance with applicable regulations.

If, after reaching the termination depth, no measurable groundwater accumulates in the well boring after leaving the hole open for a minimum of 12 hours), the boring will be backfilled to grade with bentonite and no monitoring well will be installed at that location.

If any of the proposed monitoring wells cannot be installed at the proposed depths due to lack of groundwater, Honeywell will review the available data with NYSDEC to determine what additional steps are necessary to complete the site characterization process.

Each well will be constructed of 2-inch diameter flush-threaded Schedule 40 PVC. The well screens will consist of 0.020-inch slotted screen placed across the water table. The screen length for each well will be determined in the field and will depend on the depth and thickness of the saturated zone. In no case will the well screen length exceed 15 feet. The grain size of the sand pack will be suitable for retention by the screen and will be placed around the well screen to at least 0.5 feet above the top of screen. A bentonite pellet seal with a minimum thickness of one foot will be placed on top of the sand pack and hydrated with clean water. The remaining annular space around the riser pipe will be sealed with bentonite-cement grout to the ground surface. Each well riser will extend above ground within a steel protective casing. The well cover will be cemented in place. A watertight locking well cap will be placed on the top of the well riser.

At least 24 hours after completion of well construction, each well will be developed using a bailer or submersible pump. The pump or bailer will be used to surge the well during development to suspend and remove fine sediment. Groundwater will be removed until the water is clear of suspended particles and indicator parameters (pH, temperature, and conductivity) have stabilized such that three successive measurements are within 10% for each parameter and quantitative turbidity monitoring indicates that turbidity has been reduced to 50 nepholometric units (NTUs) or less, if possible. Well development water will be discharged onto the ground surface of the disposal area in a controlled manner that prevents runoff, unless evidence of contamination (separate phase liquids, sheen, or odor) is observed, in which case the water will be containerized for management in accordance with applicable regulations.

Task 3 – Land Surveying

Upon completion of well construction activities, a New York State-registered surveyor will establish the horizontal and vertical locations of the monitoring wells. Horizontal locations will be established with respect to site features so that a scaled site plan can be developed. The vertical locations of the top of well casings will be recorded to the nearest 0.01 foot (both the new monitoring wells and previously existing monitoring wells). This information will be used to prepare sample location plans and groundwater contour maps that will be included in the report.

Task 4 – Groundwater Monitoring

Two rounds of groundwater samples will be collected from the existing monitoring wells (OW-27, OW-28 and OW-29, assuming that a sample can be obtained from each) and the three new wells (MW-1, MW-2 and MW-3) for laboratory analyses. The first sampling event will be conducted at least 48-hours following well development. The second sampling event will occur approximately one month after the initial sampling episode.

Water level measurements will be made in each monitoring well immediately prior to collection of groundwater samples. Measurements will be made with an electronic water level meter and referenced to the top of the well riser (or other reference point, if appropriate).

After water level measurements have been recorded, each monitoring well will be purged using a bailer or submersible pump. Purging will continue until the water is visibly free of sediment and until indicator parameters (pH, temperature and conductivity) have stabilized as described above and turbidity has been reduced to 50 NTUs or less, if possible. Samples will be placed in appropriately labeled sample containers provided by the laboratory. Purge water will be discharged onto the ground surface of the disposal area in a controlled manner that prevents runoff, unless evidence of contamination (separate phase liquids, sheen, or odor) are observed, in which case the water will be will be containerized for management in accordance with applicable regulations.

Upon completion of purging, groundwater samples will be collected and submitted to a NYSDOH ELAP-certified laboratory for analyses for TCL VOCs, including methyl cellosolve, in accordance with SW-846 Method 8260B. The groundwater samples will be collected using a bailer or submersible pump. When collecting the samples, care will be taken to minimize loss of VOCs due to sample aeration by adjusting the pump to the lowest sustainable flow or utilizing a low-flow discharge attachment with the bailer.

In addition, a grab water sample will be collected during each of the two proposed groundwater sampling events from the "cistern" reportedly located to the southwest of the disposal area (see attached site plan), provided that it can be located. The cistern could not be located during the September 5, 2006 site visit. MACTEC will make an additional effort to locate the cistern during the first of the proposed groundwater sampling events. The "cistern" sample, if collected, will be analyzed for the same parameters as the groundwater samples collected from the monitoring wells.

The samples will be handled, labeled and preserved in accordance with USEPA approved protocols. Samples will be analyzed using the subcontracted laboratory's standard turnaround time of approximately 3 weeks. The analytical results will be provided in a standard laboratory report that includes QC sample data.

The sampling and laboratory testing will be completed in accordance with the Quality Assurance Project Plan (QAPP) provided as Attachment A.

Task 5 – Report Preparation

Upon completion of the field activities and laboratory analyses, MACTEC will prepare a bound report that documents the completion of the site investigation activities, summarizes the field and analytical data, and presents conclusions and recommendations for additional investigation activities (if any). The report will include tables, figures and appendixes as appropriate.

ANTICIPATED SCHEDULE

Honeywell will be prepared to proceed with the described work upon receiving NYSDEC's approval of the scope of work proposed herein. We anticipate that the proposed work will be completed within approximately six months. It should be noted that factors beyond the control of

MACTEC and Honeywell, such as weather and subcontractor availability, could influence the schedule.

HEALTH AND SAFETY

Prior to the start of field work, MACTEC will prepare a site-specific Health and Safety Plan (HASP). The HASP will be used by MACTEC employees and will address the potential hazards associated with the proposed work. The HASP will be prepared in accordance with OSHA standards and will include an identification of the anticipated site hazards, requirements for personal protective equipment (PPE) and air monitoring, action levels for upgrading PPE levels, and emergency procedures. MACTEC will require visitors to the Property to comply with MACTEC's HASP or provide their own HASP.

MACTEC personnel will meet OSHA training and medical monitoring requirements for hazardous site operations. Prior to the start of field work or any new field activity, MACTEC's Site Safety Officer (SSO) will conduct a tailgate health and safety meeting for all field personnel. These meetings will be documented in MACTEC's master copy of the HASP kept on site and in the field notebook.

We look forward to working with NYSDEC on this project. Please contact John Scrabis of MACTEC at 412-279-6661 or Tim Metcalf of Honeywell at 973-455-4107 should you have any questions or require additional information at this time.

Sincerely,

MACTEC Engineering and Consulting, Inc.

John M. Scrabis
Principal Engineer

Pat Pontoriero
Vice President

JMS/PP:jmw

cc: T. Metcalf (Honeywell)

Attachments

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FIGURE

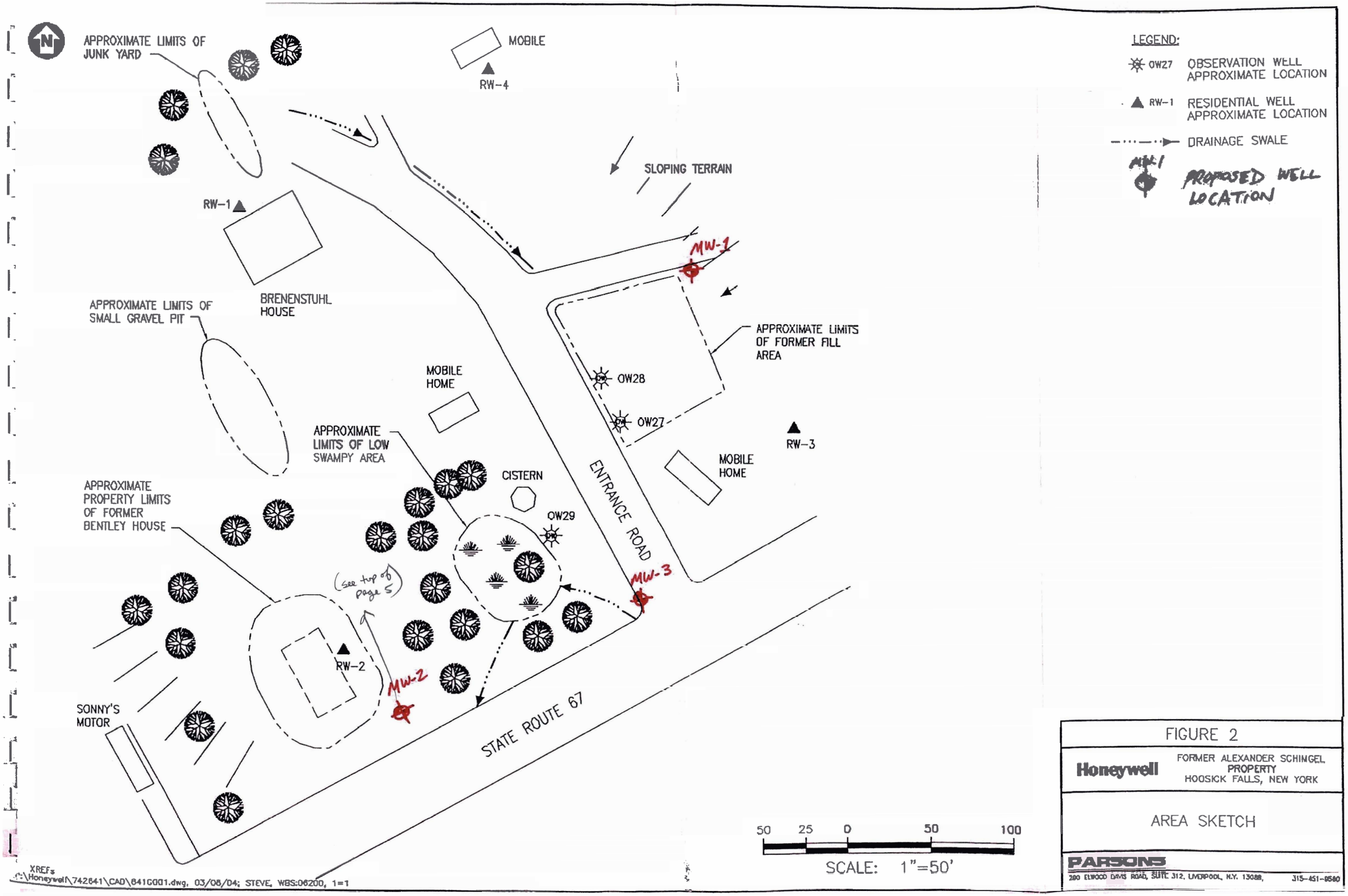

FIGURE 2

Honeywell

FORMER ALEXANDER SCHINGEL PROPERTY
HOOSICK FALLS, NEW YORK

AREA SKETCH

PARSONS
200 ELWOOD DAVIS ROAD, SUITE 312, LIVERPOOL, N.Y. 13088, 315-451-9560