RFI ADDENDUM
VI STUDY OF OFFSITE INVESTIGATIONAL AREA

RADIO MATERIALS CORPORATION
ATTICA, INDIANA

MAY 13, 2011
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1.0 INTRODUCTION

1.1 BACKGROUND

Conestoga-Rovers & Associates (CRA), on behalf of Kraft Foods Global, Inc. (Kraft Foods), conducted a Phase IIB Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI) of the Radio Materials Corporation (RMC) Facility (Facility or Site), located in west-central Indiana at 1095 East Summit Street in the eastern portion of the City of Attica, in Fountain County, Section 5, Township 21 North, Range 7 West (Figure 1.1).

The purpose of the Phase IIB RFI was to investigate the extent of contamination within and potentially migrating from five solid waste management units (SWMUs) and three areas of concern (AOCs) at the Site. On May 21, 2010, we submitted the Phase IIB RFI report to the United States Environmental Protection Agency (U.S. EPA).

The Phase IIB RFI included, among other work, the investigation of groundwater; soil vapor; and residential subslab, crawlspace and indoor air in a defined area (Study Area) west and northwest of the Site. The vapor intrusion (VI) Study Area is bounded to the west by 5th and Columbia Streets, Park Avenue to the south, Taylor Street to the north and Avenue 6th to the east. The boundaries of the Study Area, along with the locations of the groundwater monitoring wells and soil vapor monitoring points, are shown on Figure 1.2. The multi-phase VI investigation continued through April 2011.

1.2 PURPOSE

In a January 6, 2011 letter, U.S. EPA requested that a comprehensive report be submitted summarizing VI investigations at and beyond the defined Study Area, and the conclusions derived from those investigations. In a January 28, 2011 letter, CRA on behalf of Kraft Foods, requested a 60-day extension to allow for the re-sampling of indoor air and subslab vapor from the residence located at 501 6th Street, near the western boundary of the Study Area. CRA sampled the indoor and subslab air from this residence and provided the results to U.S. EPA in the March 2011 Interim Corrective Measures (ICM) Monthly Status Report. On March 1, 2011, U.S. EPA conditionally approved the request for an extension. A copy of the March 1, 2011 U.S. EPA conditional approval letter is provided in Appendix A.

The conditions U.S. EPA placed on its approval included requiring the sampling and testing of indoor air and subslab vapors in four residences within the Elmdale

Subdivision and the installation and sampling of a nested set of soil vapor probes at 501 6th Street. This report summarizes the investigations performed to date to define the Study Area and summarizes the investigations performed as a condition of U.S. EPA's approval.

1.3 SUMMARY OF VI INVESTIGATIONS AND DATA

The VI investigations have been completed using a phased approach and have included investigation of groundwater, soil vapor, and air samples collected from residences (crawl space, subslab vapors, and indoor air). The VI investigations performed before 2011 are described in the following documents previously submitted to U.S. EPA:

- Soil Vapor Study Data Transmittal and Proposed Vapor Intrusion Study Addendum dated April 7, 2010
- Phase IIB RCRA Facility Investigation Report, submitted to U.S. EPA on May 21, 2010
- Soil Vapor Study Data Transmittal Report dated October 21, 2010

Additional VI work performed in 2011 included the installation of two soil vapor probes (VP-49S and VP-49D) on 6th Street, the collection and analysis of soil vapor samples, and the sampling of indoor air at select residences in the Elmdale subdivision. The results of these additional studies are described in this report.

2.0 DECISION METHODOLOGY AND CRITERIA

Consistent with U.S. EPA guidance, multiple lines of evidence have been used to determine the potential for vapor intrusion to residences in and around the Study Area. In a January 15, 2009 guidance memorandum U.S. EPA stated that:

> "*Our experience with vapor intrusion investigations indicates that no single media data set, whether it be ground water, soil gas, sub-slab gas or indoor air, can be used reliably to fully evaluate the potential for risks from VI above health risk-based levels due to the large number of variables affecting the transport of vapors from the subsurface to indoor air and the confounding influence of indoor sources of common subsurface contaminants*
>
> *All these factors strongly suggest that multiples lines of evidence are important to evaluate VI as an exposure pathway of concern at sites where hazardous VOCs have been released to the subsurface*."

The following four steps are necessary for a completed VI exposure pathway to occur:

1. Dissolved phase VOC concentrations in groundwater are above screening levels and may partition into the vapor phase
2. Vapor phase concentrations in subsurface soil are above screening levels in proximity to buildings
3. Preferential vapor migration pathways are present through building floors and walls that allow VOCs to enter indoor air
4. The concentrations of VOCs in indoor air are above the risk-based Site-specific action levels due to migration from the subsurface (as opposed to an indoor air or ambient air source)

Due to the variability inherent in VI and the confounding influence of indoor sources, the evaluation of each media alone cannot be used reliably to evaluate the potential for risks from VI. Further, the identified distribution of VOCs in indoor air must be indicative of a subsurface source as opposed to an indoor air or background ambient air source (i.e., similar or higher concentrations of VOCs on the lower floors as compared to the upper floors of the building) to view VI as a potentially Site-related condition.

This VI evaluation considered all of these media in keeping with U.S. EPA's preference for multiple lines of evidence. Analytical data for groundwater, soil vapor, and air samples collected from residences (crawl space, subslab vapors, and indoor air) were all

used to evaluate the potential VI pathway to determine if a completed pathway exists. U.S. EPA approved Site-specific risk-based action levels for several chlorinated volatile organic compounds (cVOCs) for subslab vapor, crawlspace air, and indoor air media as summarized in the report entitled *Vapor Intrusion Mitigation Interim Corrective Measures Work Plan* (CRA, December 2009). The cVOCs included tetrachloroethene (PCE), trichloroethene (TCE), cis-1,2-dichloroethene (cDCE), trans-1,2-dichloroethene (tDCE), 1,1-dichloroethene (1,1-DCE) and vinyl chloride.

Table 2.1 provides a summary of U.S. EPA-approved, thirty-year, Site-specific action levels for indoor air and subslab vapors for PCE, TCE and vinyl chloride. Paired subslab vapor and basement air results were used to calculate average Site-specific attenuation factors for TCE (20) and PCE (25). The derivations of these Site-specific attenuation factors are shown on Table 2.2 and Table 2.3. These calculated attenuation factors are higher than the default attenuation factor of 10 established by U.S. EPA and the Indiana Department of Environmental Management (IDEM). Therefore, the use of the default attenuation factor of 10 is conservative and appropriate. Here, the subslab action level for TCE and PCE were derived by multiplying the thirty-year Site-specific indoor air action levels by an attenuation factor of 10. The derivation of these thirty-year Site-specific action levels was detailed in the *Vapor Intrusion Mitigation Interim Corrective Measures Work Plan*, dated December 28, 2009 previously submitted to U.S. EPA.

Additionally, IDEM's published VI guidance includes residential screening levels for groundwater and soil vapor.[1] Detected soil vapor concentrations in and near the VI Study Area were compared to IDEM's residential screening levels (prompt action) for a thirty-year residential exposure duration (IDEM, February 4, 2010, page 23). Groundwater concentrations were compared to the Residential Ground Water Screening Levels for Selected Chlorinated Compounds (IDEM, February 4, 2010, page 21). As shown in Figure 2.1, the depth to groundwater at the western and northern limits of the VI Study Area is generally much greater than 15 feet. Therefore, IDEM's groundwater screening levels for groundwater at a depth greater than 15 feet in sand soil were used to screen the groundwater concentrations for VI pathway evaluation.

[1] Draft Vapor Intrusion Pilot Program Guidance, February 4, 2010 Supplement, Indiana Department of Environmental Management

3.0 VI PATHWAY EVALUATION

3.1 GROUNDWATER MONITORING NETWORK

Numerous groundwater monitoring wells have been installed both on-Site and off-Site of the RMC Facility to delineate the extent of cVOC impacts to groundwater. These monitoring wells are installed in both overburden and bedrock water-bearing zones. Numerous rounds of sampling have been completed to date. Currently, most of these monitoring wells are gauged and sampled on a biannual basis. The locations of these monitoring wells are illustrated on Figure 1.2. Groundwater sample results were used as one line of evidence, since the predominant source for VOCs in residences in the Study Area is off-gassing of dissolved phase cVOCs in groundwater.

3.2 SOIL VAPOR SAMPLING

Between May 2005 and April 2011, soil vapor probes VP-1 to VP-49 were installed and soil vapor samples were collected and analyzed for cVOCs. These investigations were documented to U.S. EPA in the April 7, 2010 Soil Vapor Study Data Transmittal and Proposed Vapor Intrusion Study Addendum and the May 21, 2010 Phase IIB RFI Report U.S. EPA. Soil vapor probes installed and sampled after the Phase IIB RFI were detailed to U.S. EPA in the October 21, 2010 Soil Vapor Study Data Transmittal Report.

In their March 2011 approval letter, U.S. EPA requested that a "nested" set of soil vapor probes be installed and sampled near the residence at 501 6th Street. These nested soil gas probes (VP-49S and VP-49D) were installed on April 1, 2011. The installation, sampling, and results of this vapor probe investigation are included in Appendix B of this report.

This work was completed consistent with the procedures described in the scope of work detailed in the April 7, 2010 Soil Vapor Study Data Transmittal and Proposed Vapor Intrusion Study Addendum and the subsequent clarifications of June 15, 2010 that were provided in response to U.S. EPA's May 20, 2010 comments.

3.3 RESIDENTIAL SAMPLING

As stated previously, analytical data for groundwater, soil vapor, and air samples from residences (crawl space, subslab vapors, and indoor air) were all used to determine if a potentially completed VI pathway exists. This work was performed consistent with the

December 2009 Vapor Intrusion Mitigation Interim Corrective Measures Work Plan, which focused on addressing the VOCs (primarily PCE and TCE) present in residences located to the west and northwest of the RMC Site. These cVOCs were viewed as potentially the result of vapor diffusion from VOCs in groundwater, as noted above. This document also specified the interim measures to be implemented and the objectives of these interim measures.

In its March 1, 2011 approval letter, U.S. EPA requested indoor and subslab vapor samples be collected from residences located at 461, 501, 519, and 525 Avenue 6. On February 22, 2011, we sent access letters to the owners of these residences and followed up with phone calls and personal visits. Access was granted to all of those residences except 525 Avenue 6. On March 25, 2011, we sampled the residences with access agreements. The results of this sampling event are provided in Appendix C of this report. The residence located at 501 Avenue 6 was in the process of being renovated. This renovation included painting, varnishing and installation of new carpet. Due to the potential for interference from background VOCs, indoor air was not sampled in this residence. Instead, a subslab vapor sample was collected from the residence at 501 Avenue 6.

To date, we have collected samples from 120 residences and completed mitigation at 56 residences. Additional mitigation work is ongoing. The residential data were used to repeatedly evaluate the VI pathway at the Study Area boundaries. A summary of the residential analytical data obtained to date is provided in Appendix C. The sampling and testing was consistent with the methods and procedures outlined in the December 24, 2009 Quality Assurance Project Plan for the Phase IIB RFI and the October 5, 2009 Vapor Mitigation Interim Corrective Measures (Rev. 2,), both of which U.S. EPA had approved.

4.0 VI PATHWAY EVALUATION RESULTS

4.1 GROUNDWATER ANALYTICAL DATA

We have obtained numerous groundwater samples from monitoring wells located within and surrounding the VI Study Area. The most recent groundwater monitoring was performed in October 2010 and was documented to U.S. EPA in the October 2010 Monitoring Event Report. Figure 2.1 shows the location and screening status for monitoring wells both within and surrounding the VI Study area. The results of the groundwater sampling and testing were compared to IDEM residential VI screening levels (thirty-year exposure, sands, and depth to water 15 feet). Monitoring wells on the Site and within the Study Area have concentrations of cVOCs above IDEM residential groundwater screening levels.

The extent of groundwater above IDEM residential groundwater screening levels is delineated to the north by monitoring wells OB-43S, OB-45, OB-46, and BW-16 and to the south by monitoring wells BW-20, OB-40, OB-41, and OB-35. Groundwater cVOC concentrations in these wells are below the thirty-year residential screening levels. To the east of the Study Area, the extent of groundwater above IDEM thirty-year residential groundwater screening levels is delineated by groundwater monitoring wells OB-39, OB-33, OB-11, and OB-1. Along the western boundary of the Study Area, there are two monitoring wells, OB-44 and OB-54 that have concentrations of cVOCs above IDEM's thirty-year residential groundwater screening levels. However, the depth of groundwater in this area is approximately 60 feet. Due to the depth to the groundwater and the presence of interbedded silt layers in the subsurface in this area, it is unlikely off-gassing of cVOCs from the groundwater could act as a source of vapor migration west of the Study Area. However, the area west of the Study Area was investigated further using soil vapor and indoor air as additional lines of evidence. As discussed in the next section, this data is supported by the absence of soil gas in vapor probes above the Site-specific action levels. The data from the October 2010 groundwater monitoring wells sampling event are summarized on Table 4.1.

4.2 SOIL VAPOR DATA

We collected soil vapor samples from probes installed around the perimeter of the Study Area. The locations of these probes are shown on Figure 4.1.

Four soil vapor probes (VP-36R, VP-37, VP-38, and VP-39) delineated the northern boundary of the Study Area. The concentrations of cVOCs in soil vapor were below

IDEM's thirty-year residential screening levels (prompt action) at each of these vapor probe locations. The location and analytical result for these vapor probes are summarized on Table 4.2 and shown on Figure 4.2.

Eleven soil vapor probes (VP-29R, VP-30, VP-31, VP-32, VP-35, VP-36R, VP-39, VP-40, VP-41, VP-49S, and VP-49D) delineated the western boundary of the Study Area. Soil vapor samples collected from these points had concentrations of cVOCs below IDEM's thirty-year residential screening levels. The locations and cVOC concentrations of soil gas vapor probes installed west of the Study Area boundary are illustrated on Figure 4.3. The analytical data for soil gas samples collected from these vapor points are summarized on Table 4.3.

Twelve soil vapor probes (VP-16 to VP-20 and VP-42 to VP-48) delineated the eastern boundary of the Study Area. The concentrations of cVOCs in the soil gas samples collected from VP-16R, VP-44, VP-45, VP-46, VP-47, and VP-48 were all below IDEM's thirty-year residential screening levels. The locations of these vapor probes and the analytical results are summarized on Table 4.4 and shown on Figure 4.4.

The results from VP-17R call for more discussion. For VP-17R, the TCE concentration was above the IDEM thirty-year residential soil gas screening level. Historically, the TCE concentration in soil vapor samples obtained from VP-17R has ranged from 1,500 micrograms per cubic meter ($\mu g/m^3$) to 2,100 $\mu g/m^3$. The TCE concentration in the soil vapors collected from VP-17R is anomalously high compared to the concentrations observed in the soil vapor samples collected from the surrounding vapor probes (see previous paragraph). Moreover, as discussed in Section 4.1, TCE was not detected in the groundwater sample from OB-39 (which is near VP-17R), indicating off-gassing from the groundwater is not the source of TCE vapors at VP-17R.

While the source of the TCE detections in soil vapor at VP-17R is not definitive, it is unlikely to be from the Site. The following demonstrate the Site is not the source: flow is towards the west-northwest, the absence of cVOCs detected in groundwater at OB-39 during recent groundwater monitoring, and the absence of a preferential migration pathway along utility conduits to convey vapors from the RMC property to VP-17R. The best explanation for the TCE impacts at VP-17R is a local source of TCE in soil at or near this location, most likely in an upgradient direction. Vapor probe VP-17R is located approximately 200 feet west of an automobile salvage/repair facility located at the northwest corner of the intersection of Avenue 8 and Forrest Drive. However, the history of chlorinated solvent use at the automobile salvage/repair facility is unknown.

Copies of soil vapor probes construction diagrams are included as Appendix D.

4.3 RESIDENTIAL DATA

4.3.1 NORTHERN BOUNDARY AREA

Based on PCE present in subslab soil vapor at 900 Taylor Street, we sampled the indoor and subslab air at the adjacent residence located at 204 Hollovy for cVOCs on June 2, 2010. The subslab vapor concentration of PCE and TCE were below the thirty-year Site-specific action levels of 41 and 120 µg/m^3, respectively. However PCE was detected in the indoor basement air sample at a concentration of 6.8 µg/m^3, which is above the thirty-year Site-specific action level of 4.1 µg/m^3. A vapor intrusion mitigation system was installed at 204 Hollovy and subsequent indoor air sampling on January 12, 2011, showed the system was effective because the indoor air PCE and TCE concentrations were below the thirty-year Site-specific action level.

CRA was unable to obtain access to the two residences (200 Hollovy and 201 Hollovy) directly north of 204 Hollovy. Therefore, CRA obtained access to two neighboring residences at 805 North Street and 903 North Street. On December 8, 2011 we sampled the indoor air at 805 North Street. The floors in the basement of 805 North were soil, so no subslab vapor sample could be obtained from this residence. Sampling of the indoor air in the basement revealed low concentrations (0.18 µg/m^3) of PCE in basement air. On January 21, 2011, we sampled the indoor and subslab air at 903 North Street. Similarly, the residence at 903 North Street had subslab vapor concentrations of PCE (27 and 42 µg/m^3) that on average were below the thirty-year Site-specific action level.

The indoor and crawlspace air at the residences located at 206 West Street and 915 North Street were sampled to determine cVOCs concentrations on January 20 and February 4, 2009, respectively. Concentrations of cVOCs in crawlspace and indoor air samples at both locations were well below the thirty-year Site-specific action levels. Indoor, subslab, and crawlspace air analytical data are shown on Figure 4.5. Given all of these results, the northern boundary of the VI Study Area has been defined.

4.3.2 WESTERN BOUNDARY AREA

Along the western boundary, we collected indoor, subslab, and/or crawlspace air samples at thirteen residences within the Study Area along Columbia Avenue and 6th Street. Two of the thirteen residences, 501 6th and 310 Columbia were passively mitigated, with no active venting of subslab vapor concentrations in 2010. The

January 2011 sampling of subslab vapor from 501 6th Street revealed a concentration of PCE of 34 µg/m^3, which is well below the thirty-year Site-specific action level of 122 µg/m^3. PCE and TCE were not detected in subslab vapor samples collected from 310 Columbia during the last two sampling events conducted in July and December 2010. Currently, twelve of the thirteen residences are below the thirty-year Site-specific action levels for subslab vapor.

One residence, 304 Columbia, was mitigated by actively venting the subslab. Consequently, current subslab vapor concentrations do not reflect shallow soil gas concentrations at equilibrium with the subsurface environment. The May 2010 subslab sample collected from 304 Columbia before the mitigation system was installed contained PCE at a concentration of 77 µg/m^3, which is above the twenty- and thirty-year Site-specific subslab action levels. The closest monitoring well to 304 Columbia is OB-54 (approximately 175 feet to the west-northwest). Although, monitoring well OB-54 is not sampled during the semiannual monitoring events, historically, the only cVOC detected above IDEM's thirty-year residential groundwater screening levels at OB-54 was TCE. Monitoring well OB-54 was sampled seven times during the period from January 2008 to October 2009, and PCE was not detected in any of these groundwater samples. PCE was detected at concentrations above the thirty-year groundwater residential screening criteria at monitoring well OB-44, which is located approximately 210 feet hydraulically up-gradient (south-southeast) of 304 Columbia (that is, OB-44 is downgradient of 304 Columbia). The depth to groundwater in the vicinity of 304 Columbia is greater than 60 feet, and the detection of PCE is anomalous because the nearest well to this location does not contain PCE. Given all of these results, the western boundary of the VI Study Area has been defined.

The locations of these residences and the analytical data from indoor air sampling are shown on Figure 4.6.

4.3.3 EASTERN BOUNDARY AREA

Based on their proximity to the RMC Facility and the detections of cVOCs in soil vapor probes VP-42, VP-43 and VP-46, U.S. EPA requested that VI samples be collected from the residences located at 537, 461, 501, and 519 Avenue 6. Analytical results from indoor air samples collected from 461, 519 and 537 Avenue 6 were all below the thirty-year Site-specific residential action levels. Crawlspace air samples collected from 461 and 519 Avenue 6 were also below the thirty-year Site-specific action levels. Due to the recent painting, varnishing, and carpeting activities at 501 Avenue 6, we did not sample indoor air there. Instead, we obtained a subslab sample, and no cVOCs were detected in this

subslab sample. Given all of these results, the eastern boundary of the VI Study Area has been defined.

The location of these residences and the results of indoor and subslab sampling are illustrated on Figure 4.7. A copy of the laboratory report is provided in Appendix E.

5.0 CONCLUSIONS

Residences within the VI Study Area have been investigated, and where appropriate, vapor mitigation systems have been or will be installed. Figure 5.1 shows the mitigation status of residences within the VI Study Area, as well as the location and status of soil vapor points. U.S. EPA has requested this comprehensive report to document subsurface conditions at and beyond the VI Study Area. Consistent with U.S. EPA guidance, CRA has used multiple lines of evidence, including groundwater, soil gas, subslab vapor and indoor air testing to document VI conditions at the boundary areas.

Northern Study Boundary

Based on the low concentration of cVOCs in the groundwater north of the Study Area boundary, the potential for vapor intrusion due to groundwater off-gassing is minimal. Additionally, groundwater analytical data indicate TCE is the primary cVOC of concern in the groundwater in this area, and TCE concentrations are relatively low (i.e., single-digit part per billion (ppb) concentrations). Therefore, significant off-gassing of cVOCs from groundwater is not expected, and cVOCs were not detected at concentrations above the thirty-year residential screening levels in samples from soil vapor probes installed north of the VI Study Area.

The indoor air samples from the tested residences north of the VI Study Area did not reveal concentrations above Site-specific residential action levels. The residences at 903 North and 204 Hollovy each had one out of two subslab soil vapor samples slightly above thirty-year residential action level for PCE. The detection of PCE above the IDEM thirty-year soil vapor screening level is anomalous since PCE is not a compound of concern in the groundwater in this area. The second subslab soil vapor samples from 903 North and 204 Hollovy were well below Site-specific thirty-year residential action levels for both PCE and TCE.

Multiple lines of evidence, including the absence of cVOCs above screening criteria in soil gas (VP-37, VP-38) and in groundwater (OB-37 and OB-45) samples, show there is not a completed vapor intrusion pathway near these residences. The detections of PCE at these locations are anomalous and suggest a source other than off-gassing of cVOCs from the groundwater.

Western Study Boundary

Soil vapor and groundwater analytical data from monitoring wells (OB-43S and OB-45S) and soil vapor samples (VP-35, VP-36R, VP-39, VP-40, and VP-49S) demonstrate the

absence of cVOC detections above residential screening criteria and indicate that a completed VI pathway attributable to off-gassing from the groundwater is not present.

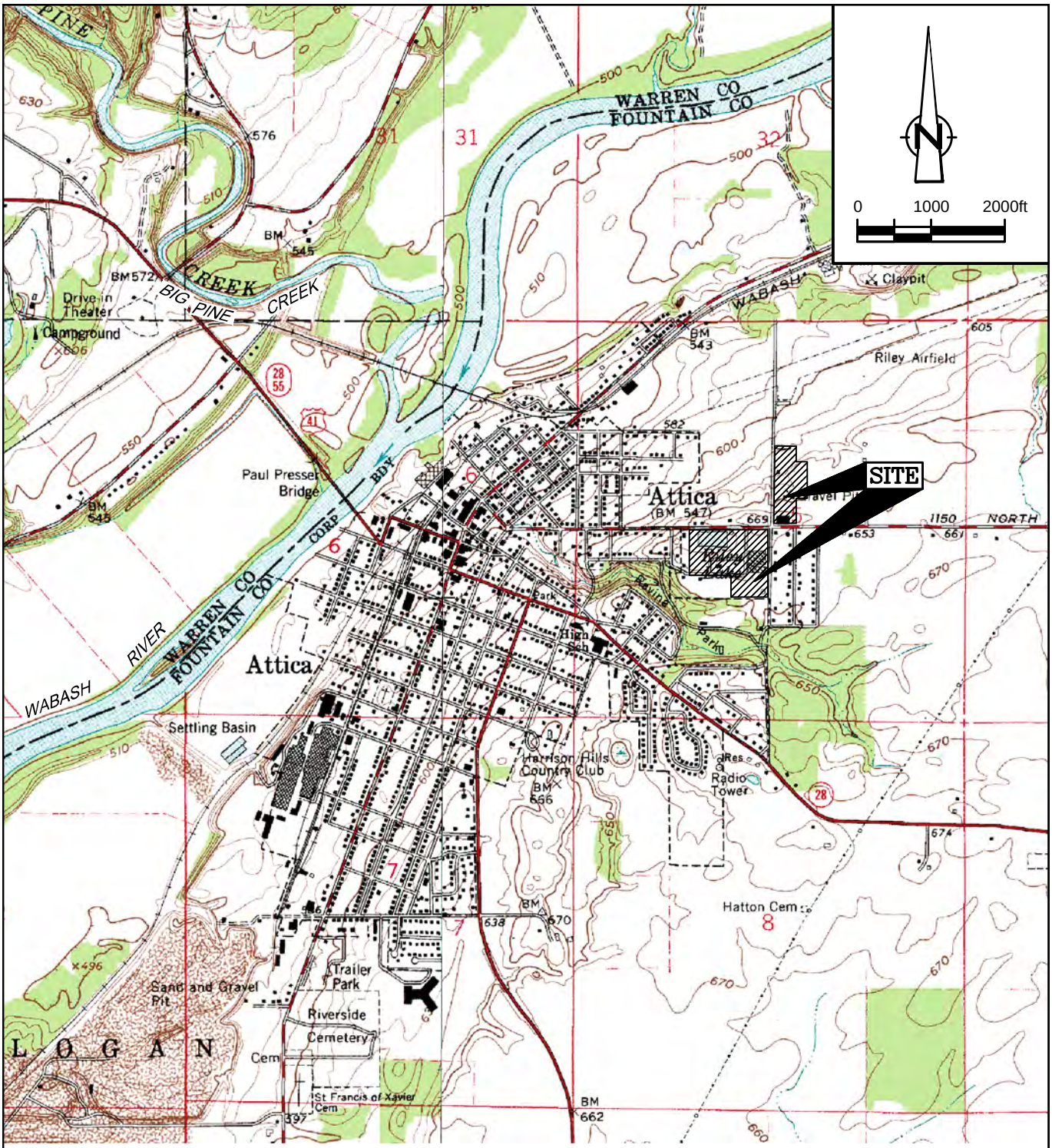
The residence 501 6th was passively mitigated, with no active venting of subslab vapor concentrations. This residence once had a subslab detection of TCE above the thirty-year Site-specific action level, but this result was not repeated in the subsequent subslab sample collected at this location. Vapor probe VP-49S located in front of this residence did not have concentrations of TCE or PCE.

The concentrations of PCE and TCE at OB-44 and TCE at OB-54 are above the conservative thirty-year residential groundwater screening levels. PCE was detected in one subslab sample in one residence located along Columbia Street (304 Columbia) above the thirty-year Site-specific action levels. One other residence (310 Columbia) once had a subslab detection of PCE above the thirty-year Site-specific action levels, but this result was not repeated in subsequent subslab samples collected at this location. The closest monitoring well to 304 Columbia (OB-54) was sampled seven times from January 2008 to October 2009, and PCE was not detected in any of these groundwater samples. PCE was detected at monitoring well OB-44 located southeast of 304 Columbia.

The depth to groundwater in the vicinity of 304 Columbia is greater than 60 feet, and the detection of PCE is anomalous because the nearest well to this location does not contain PCE. Additionally, soil vapor probes near this location (VP-31, VP-35, and VP-41) do not contain cVOCs at concentrations above IDEM's conservative thirty-year residential screening levels. Therefore, based on all of the data, it is unlikely PCE sub-slab detections were due to groundwater off-gassing in this location.

Eastern Study Boundary

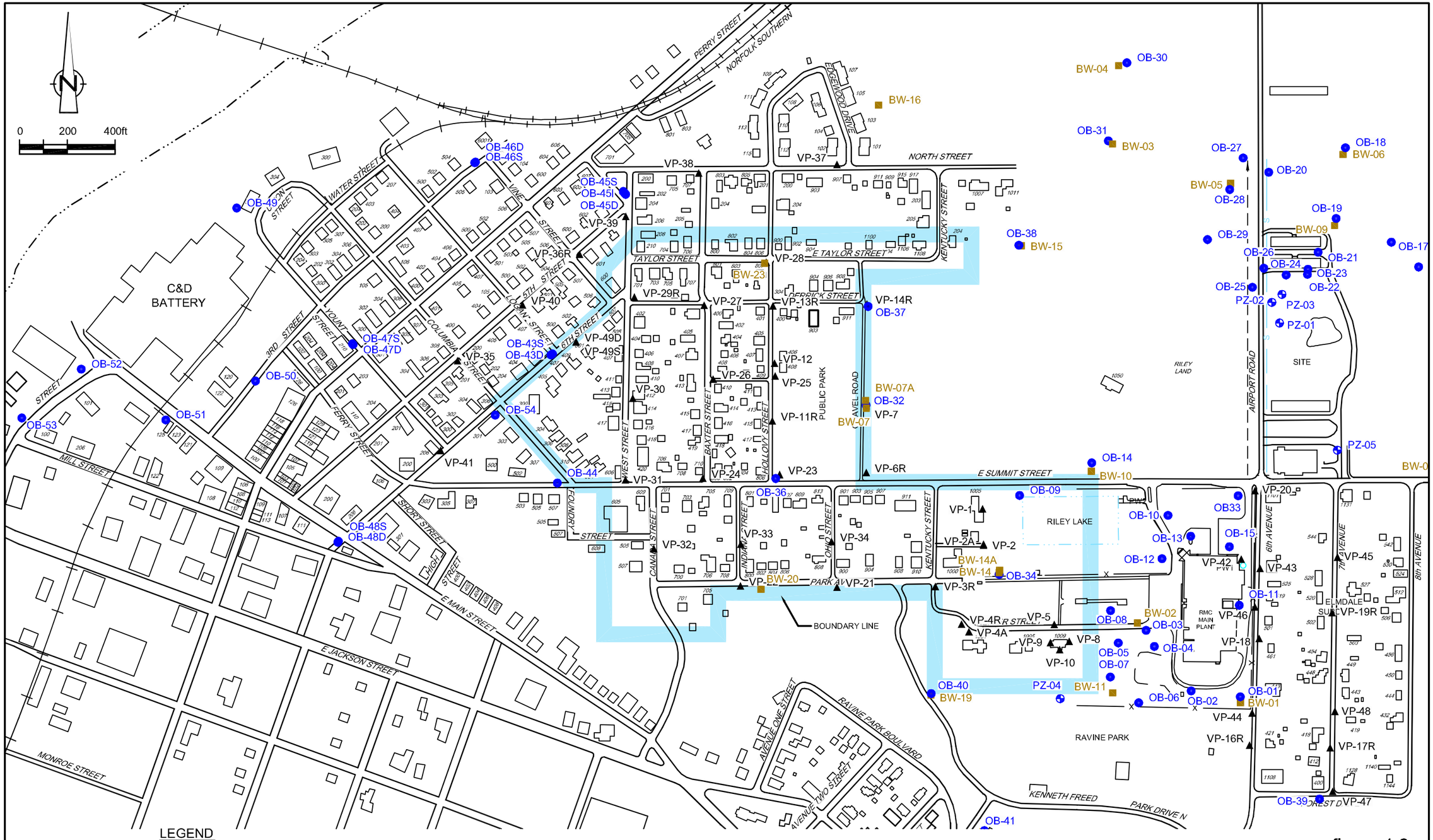
Groundwater analytical data does not indicate groundwater off-gassing is a potential source of contaminant transport east of the RMC Facility. Analytical results of soil vapor probes do not indicate that cVOCs are migrating from the RMC Facility through the vadose zone soil to the east. The analytical results from indoor air, subslab, and crawlspace testing of residences within the Elmdale subdivision did not reveal concentrations above any Site-specific screening criteria. Multiple lines of evidence, including soil gas, subslab vapor, and groundwater analytical results, show there is not a completed vapor transport pathway from the RMC Site to the residences east of the Study Area boundary.



SOURCE: ATTICA AND WILLIAMSPORT, INDIANA
U.S.G.S. TOPOGRAPIC MAPS

figure 1.1

SITE LOCATION
RADIO MATERIALS CORPORATION
Attica, Indiana



LEGEND

OB-34 ● EXISTING OVERBURDEN MONITORING WELL LOCATION AND IDENTIFIER

BW-7 ■ EXISTING BEDROCK MONITORING WELL LOCATION AND IDENTIFIER

PZ-01 ◓ EXISTING OVERBURDEN PIEZOMETER LOCATION

VP-1 ▲ EXISTING VAPOR MONITORING PROBE LOCATION/IDENTIFIER

figure 1.2

LIMITS OF INVESTIGATION AREA
RADIO MATERIALS CORPORATION
Attica, Indiana

19190-02(046)GN-WA002 APR 21/2011

0 200 500ft

LEGEND

- OB-34 ● EXISTING OVERBURDEN MONITORING WELL LOCATION AND IDENTIFIER
- BW-7 ■ EXISTING BEDROCK MONITORING WELL LOCATION AND IDENTIFIER
- PZ-01 ⊕ EXISTING OVERBURDEN PIEZOMETER LOCATION
- 50 DEPTH TO GROUNDWATER CONTOUR
- (62.91) DEPTH TO GROUNDWATER
- LESS THAN IDEM GROUNDWATER SCREENING LEVELS FOR RESIDENTAIL, 30-YEAR EXPOSURE, SANDS, BASED ON DEPTH TO GROUNDWATER
- GRATER THAN IDEM GROUNDWATER SCREENING LEVELS FOR RESIDENTAIL, 30-YEAR EXPOSURE, SANDS, BASED ON DEPTH TO GROUNDWATER

NOTE:
GROUNDWATER ANALYTICAL OF THE WELLS SCREENED IN THE UPPER WATER BEARING ZONE. ANALYTICAL RESULTS FROM THE OCTOBER 2010 GROUNDWATER SAMPLING EVENT. GROUNDWATER ANALYTICAL FOR OB-35, OB-43S, AND OB-54 ARE BASED ON LAST SAMPLING OF THESE WELLS IN 2009.

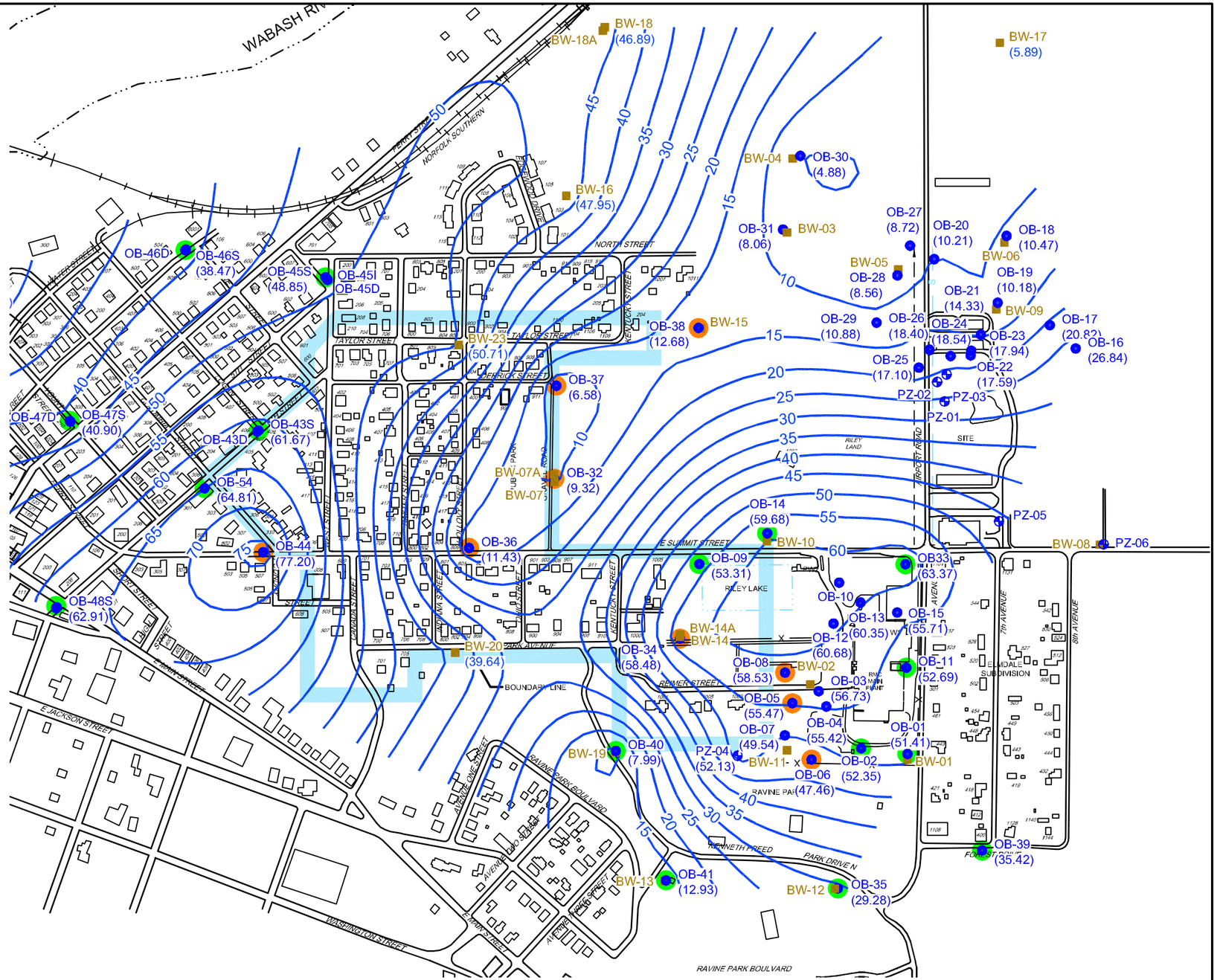
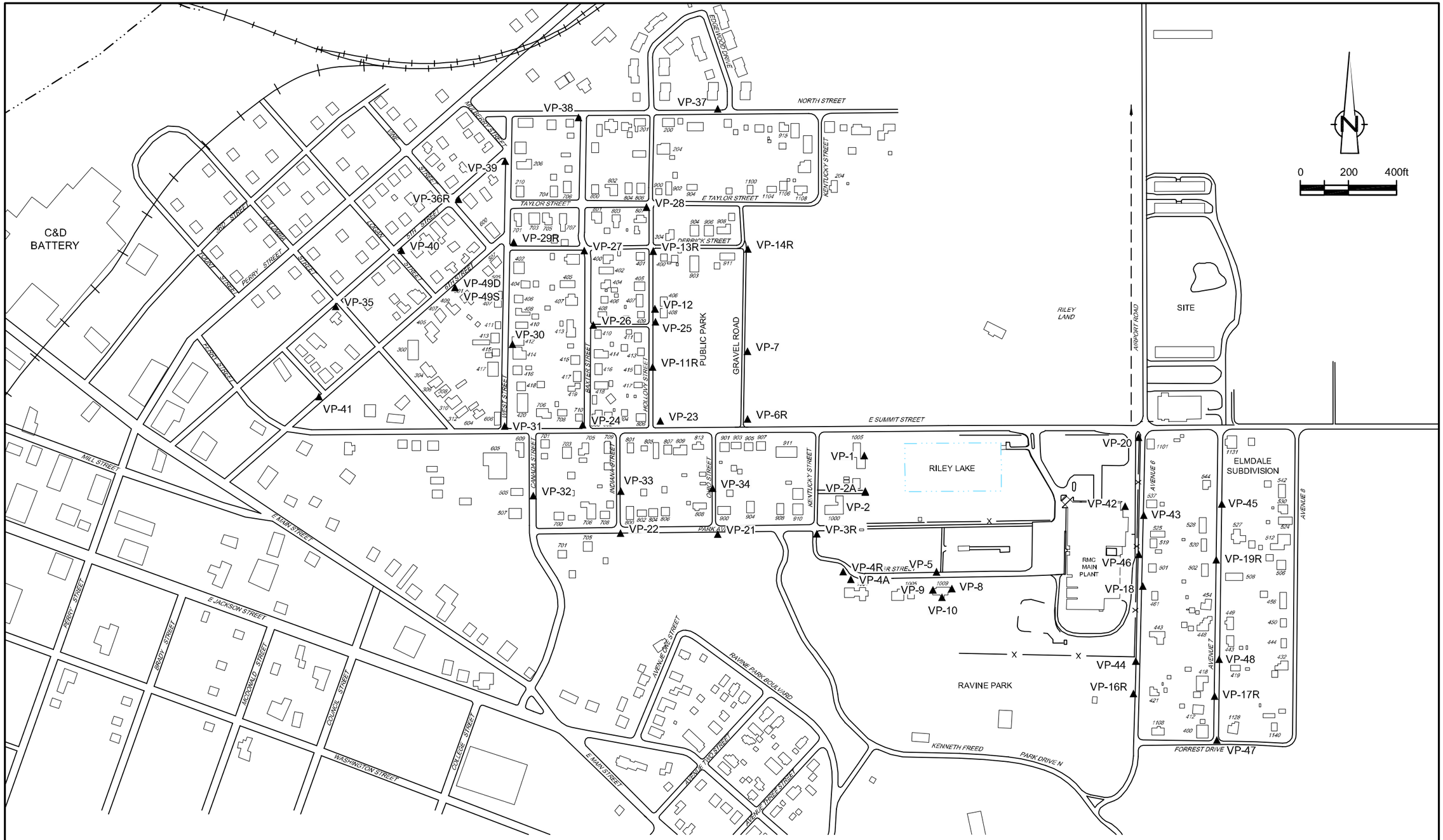


figure 2.1

GROUNDWATER SCREENING VI COMPARISON
RADIO MATERIALS CORPORATION
Attica, Indiana

CRA



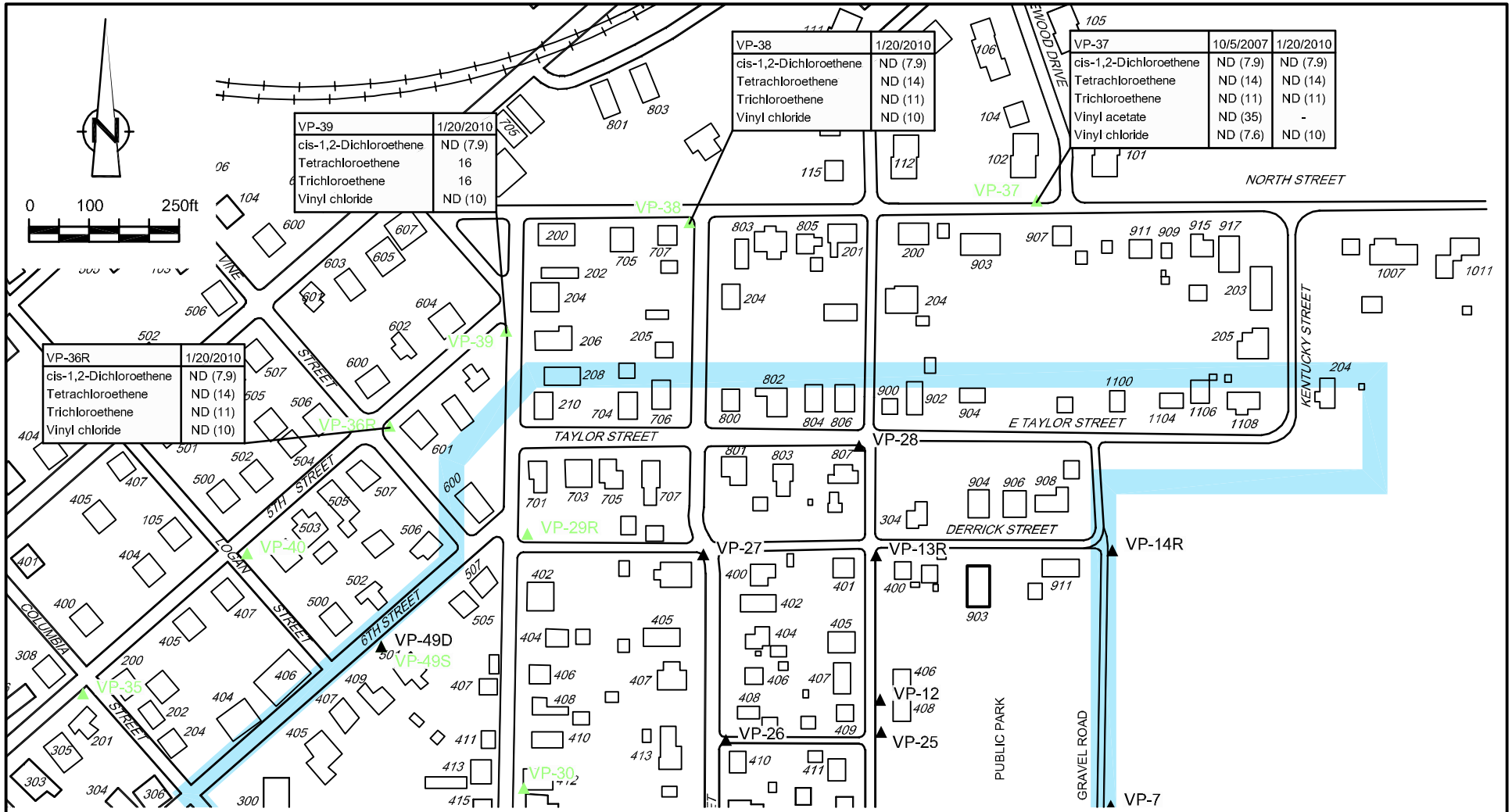
LEGEND

VP-1 ▲ EXISTING VAPOR MONITORING PROBE LOCATION/IDENTIFIER

figure 4.1

SOIL VAPOR PROBE LOCATIONS
RADIO MATERIALS CORPORATION
Attica, Indiana

19190-02(046)GN-WA010 MAY 10/2011



LEGEND

VP-1 ▲ EXISTING VAPOR MONITORING PROBE LOCATION/IDENTIFIER

VP-35 ▲ VAPOR PROBE BELOW IDEM 30-YEAR RESIDENTIAL SCREENING LEVEL (PROMPT ACTION)

VP-39	1/20/2010
cis-1,2-Dichloroethene	ND (7.9)
Tetrachloroethene	16
Trichloroethene	16
Vinyl chloride	ND (10)

SAMPLE LOCATION

SAMPLE DATE

RESULT (ug/m³)

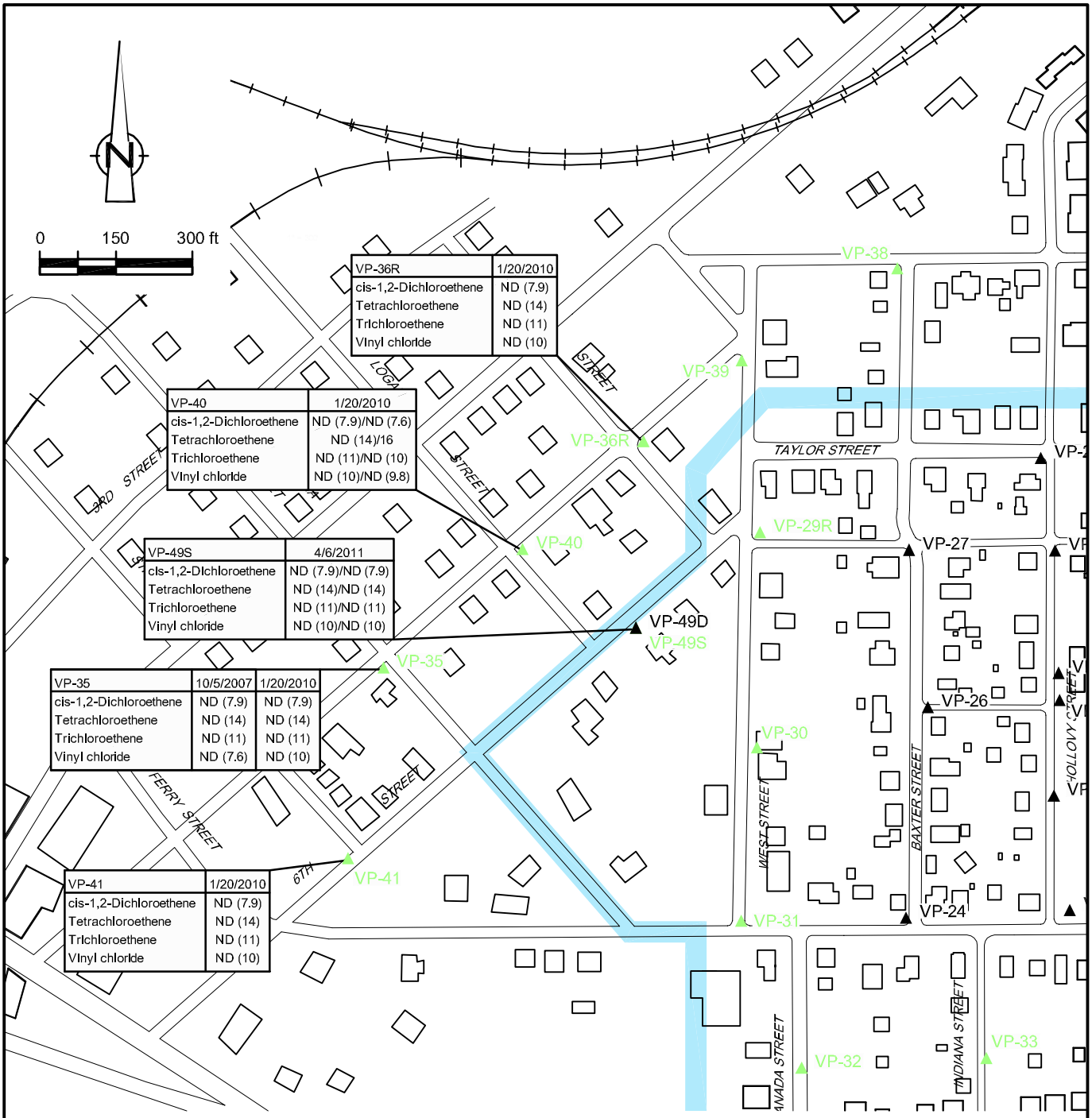
PARAMETER

figure 4.2

NORTHERN BOUNDARY AREA SOIL VAPOR ANALYTICAL MAP RADIO MATERIALS CORPORATION

Attica, Indiana

19190-02(046)GN-WA005 MAY 10/2011



LEGEND

VP-1 ▲ EXISTING VAPOR MONITORING PROBE LOCATION/IDENTIFIER

VP-32 ▲ VAPOR PROBE BELOW IDEM 30-YEAR RESIDENTIAL SCREENING LEVEL (PROMPT ACTION)

VP-41	1/20/2010
Tetrachloroethene	ND (14)
Trichloroethene	ND (11)

SAMPLE LOCATION
SAMPLE DATE
CONCENTRATION (ug/m³)
PARAMETER

NOTES:
RDCL - RESIDENTIAL DEFAULT CLOSURE LEVEL
* - ASTERISK DENOTES A RESULT BELOW THE RDCL

figure 4.3

WESTERN BOUNDARY AREA SOIL VAPOR ANALYTICAL MAP RADIO MATERIALS CORPORATION

Attica, Indiana

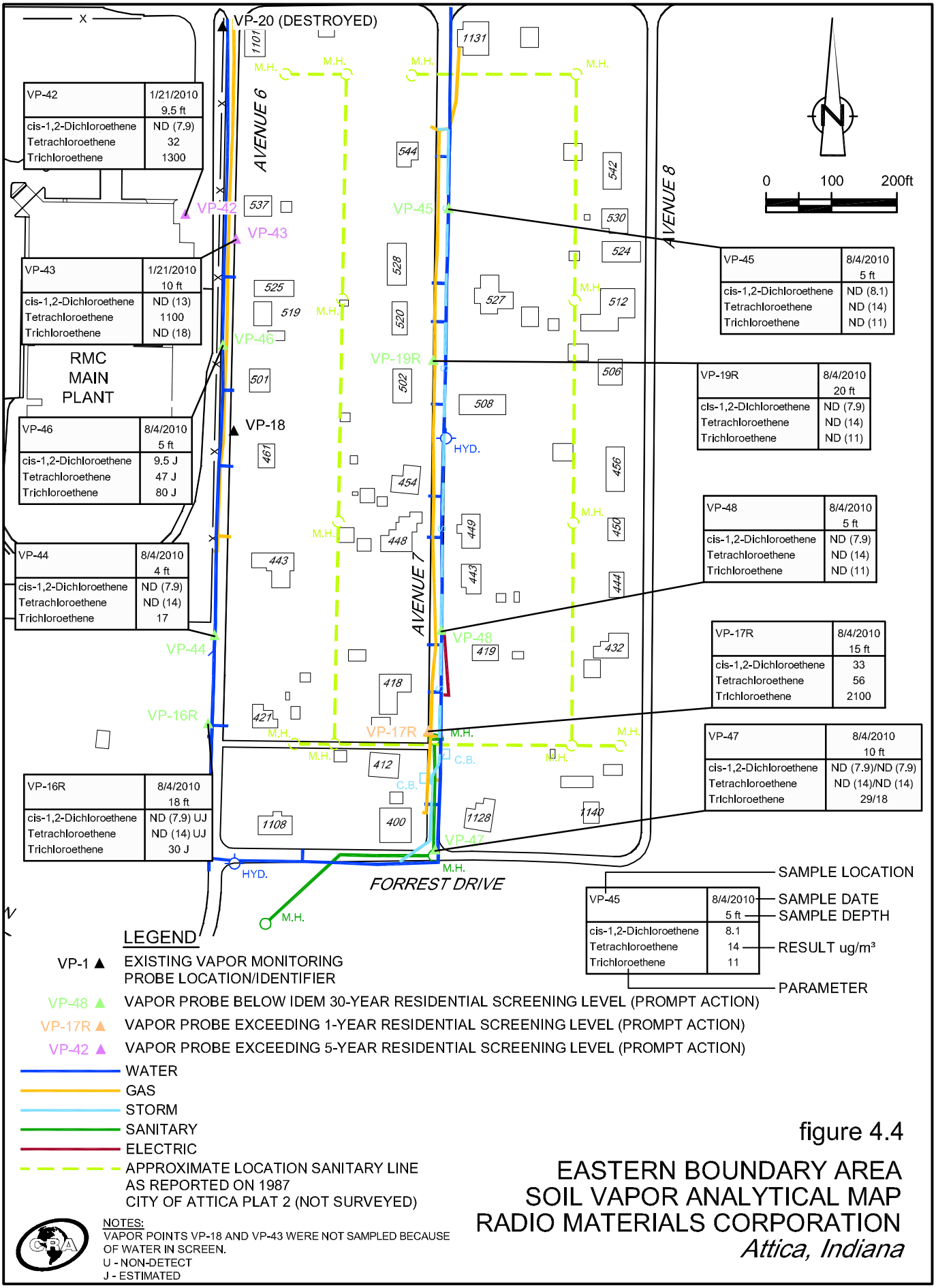
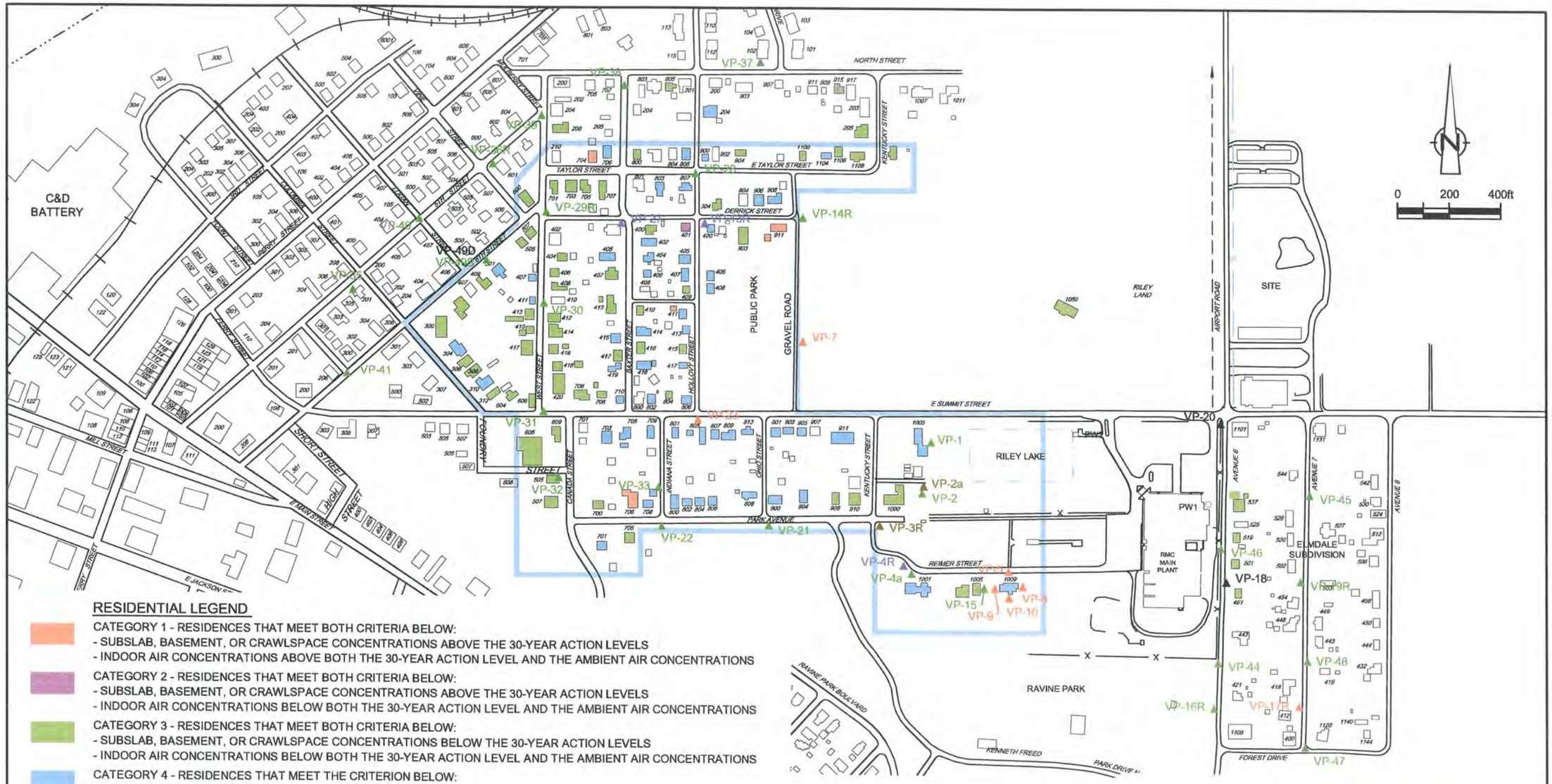


figure 4.4

EASTERN BOUNDARY AREA SOIL VAPOR ANALYTICAL MAP RADIO MATERIALS CORPORATION

Attica, Indiana

19190-02(046)GN-WA006 MAY 10/2011



RESIDENTIAL LEGEND

CATEGORY 1 - RESIDENCES THAT MEET BOTH CRITERIA BELOW:
- SUBSLAB, BASEMENT, OR CRAWLSPACE CONCENTRATIONS ABOVE THE 30-YEAR ACTION LEVELS
- INDOOR AIR CONCENTRATIONS ABOVE BOTH THE 30-YEAR ACTION LEVEL AND THE AMBIENT AIR CONCENTRATIONS

CATEGORY 2 - RESIDENCES THAT MEET BOTH CRITERIA BELOW:
- SUBSLAB, BASEMENT, OR CRAWLSPACE CONCENTRATIONS ABOVE THE 30-YEAR ACTION LEVELS
- INDOOR AIR CONCENTRATIONS BELOW BOTH THE 30-YEAR ACTION LEVEL AND THE AMBIENT AIR CONCENTRATIONS

CATEGORY 3 - RESIDENCES THAT MEET BOTH CRITERIA BELOW:
- SUBSLAB, BASEMENT, OR CRAWLSPACE CONCENTRATIONS BELOW THE 30-YEAR ACTION LEVELS
- INDOOR AIR CONCENTRATIONS BELOW BOTH THE 30-YEAR ACTION LEVEL AND THE AMBIENT AIR CONCENTRATIONS

CATEGORY 4 - RESIDENCES THAT MEET THE CRITERION BELOW:
- VAPOR MITIGATION SYSTEMS ALREADY INSTALLED

NOTE: COLORS REPRESENT STATUS OF RESIDENCES ON AUGUST 23, 2010

SOIL GAS LEGEND

VP-5 ▲ VAPOR PROBE EXCEEDING IDEM 1-YEAR PROMPT SOIL GAS ACTION LEVEL FOR PCE (3,600 µg/m3) OR TCE (2,000 µg/m3) IN AT LEAST ONE SOIL GAS SAMPLE

VP-16R ▲ VAPOR PROBE EXCEEDING IDEM 10-YEAR PROMPT SOIL GAS ACTION LEVEL FOR PCE (680 µg/m3) OR TCE (270 µg/m3) IN AT LEAST ONE SOIL GAS SAMPLE
VP-2A ▲ VAPOR PROBE EXCEEDING IDEM 20-YEAR PROMPT SOIL GAS ACTION LEVEL FOR PCE (430 µg/m3) OR TCE (170 µg/m3) IN AT LEAST ONE SOIL GAS SAMPLE
VP-4 ▲ VAPOR PROBE EXCEEDING IDEM 30-YEAR PROMPT SOIL GAS ACTION LEVEL FOR PCE (320 µg/m3) OR TCE (120 µg/m3) IN AT LEAST ONE SOIL GAS SAMPLE
VP-1 ▲ VAPOR PROBE BELOW IDEM 30-YEAR PROMPT SOIL GAS ACTION LEVEL FOR PCE (320 µg/m3) OR TCE (120 µg/m3) IN ALL SOIL GAS SAMPLES
VP-18 ▲ VAPOR PROBE NOT SAMPLED

figure 5.1

SOIL GAS AND RESIDENTIAL AIR ANALYTICAL RESULTS SUMMARY (MAY 2011)
RADIO MATERIALS CORPORATION
Attica, Indiana

TABLE 2.1

SUMMARY OF INDOOR AIR, CRAWLSPACE, AND SUBSLAB VAPOR ACTION LEVELS
RADIO MATERIALS CORPORATION
ATTICA, INDIANA

Potential Indoor Air	*Units*[1]	*Exposure Duration (Years)* 1	5	10	20	30
Tetrachloroethene	($\mu g/m^3$)	123.7	24.7	12.4	6.2	4.1
Trichloroethene	($\mu g/m^3$)	365	73.0	36.5	18.3	12.2
Vinyl Chloride	($\mu g/m^3$)	83	16.6	8.3	4.1	2.8
cis-1,2-dichloroethene	($\mu g/m^3$)	60	60	60	60	60
trans-1,2-dichloroethene	($\mu g/m^3$)	60	60	60	60	60
1,1-dichloroethene	($\mu g/m^3$)	200	200	200	200	200

Potential Crawl Space	*Units*	*Exposure Duration (Years)* 1	5	10	20	30
Tetrachloroethene	($\mu g/m^3$)	4.1 to 124	4.1 to 24.7	4.1 to 12.4	4.1 to 6.2	4.1
Trichloroethene	($\mu g/m^3$)	12.2 to 365	12.2 to 73	12.2 to 36.5	12.2 to 18.3	12.2
Vinyl Chloride	($\mu g/m^3$)	2.8 to 83	2.8 to 16.6	2.8 to 8.3	2.8 to 4.1	2.8
cis-1,2-dichloroethene	($\mu g/m^3$)	60	60	60	60	60
trans-1,2-dichloroethene	($\mu g/m^3$)	60	60	60	60	60
1,1-dichloroethene	($\mu g/m^3$)	200	200	200	200	200

Potential Subslab	*Units*	*Exposure Duration (Years)* 1	5	10	20	30
Tetrachloroethene	($\mu g/m^3$)	41 to 1240	41 to 247	41 to 124	41 to 62	41
Trichloroethene	($\mu g/m^3$)	122 to 3650	122 to 730	122 to 365	122 to 183	122
Vinyl Chloride	($\mu g/m^3$)	28 to 830	28 to 166	28 to 83	28 to 41	28
cis-1,2-dichloroethene	($\mu g/m^3$)	600	600	600	600	600
trans-1,2-dichloroethene	($\mu g/m^3$)	600	600	600	600	600
1,1-dichloroethene	($\mu g/m^3$)	2000	2000	2000	2000	2000

1. $\mu g/m^3$ – micrograms per cubic meter

TABLE 4.1

SUMMARY OF OVERBURDEN GROUNDWATER ANALYTICAL RESULTS
OCTOBER 2010 MONITORING EVENT
RADIO MATERIALS CORPORATION
ATTICA, INDIANA

Sample Location:				*OB-01*	*OB-02*	*OB-05*	*OB-06*	*OB-08*	*OB-09*	*OB-11*
Sample Date:				*10/13/2010*	*10/13/2010*	*10/14/2010*	*10/14/2010*	*10/14/2010*	*10/12/2010*	*10/13/2010*
Sample ID:				*GW-101310-NH-047*	*GW-101310-NH-049*	*GW-101410-NH-055*	*GW-101410-NH-058*	*GW-101410-NH-054*	*GW-101210-NH-040*	*GW-101310-NH-046*
Parameters	*Units*	*IDEM RDCL[1] a*	*EPA MCL[2] b*							
Volatile Organic Compounds										
1,1,1,2-Tetrachloroethane	mg/L	0.0069	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0025)	ND(0.0005)	ND(0.0005)	ND(0.0005)
1,1,1-Trichloroethane	mg/L	0.2	0.2	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0025)	ND(0.0005)	ND(0.0005)	ND(0.0005)
1,1,2,2-Tetrachloroethane	mg/L	0.0009	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0025)	ND(0.0005)	ND(0.0005)	ND(0.0005)
1,1,2-Trichloroethane	mg/L	0.005	0.005	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0025)	ND(0.0005)	ND(0.0005)	ND(0.0005)
1,1-Dichloroethane	mg/L	0.99	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0025)	ND(0.0005)	ND(0.0005)	ND(0.0005)
1,1-Dichloroethene	mg/L	0.007	0.007	ND(0.0005)	ND(0.0005)	0.00076	0.0036	0.00015 J	ND(0.0005)	ND(0.0005)
1,1-Dichloropropene	mg/L	-	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0025)	ND(0.0005)	ND(0.0005)	ND(0.0005)
1,2,3-Trichlorobenzene	mg/L	-	-	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.01)	ND(0.002)	ND(0.002)	ND(0.002)
1,2,3-Trichloropropane	mg/L	-	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0025)	ND(0.0005)	ND(0.0005)	ND(0.0005)
1,2,4-Trichlorobenzene	mg/L	0.07	0.07	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.01)	ND(0.002)	ND(0.002)	ND(0.002)
1,2,4-Trimethylbenzene	mg/L	0.016	-	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.01)	ND(0.002)	ND(0.002)	ND(0.002)
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	-	-	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.01)	ND(0.002)	R	ND(0.002)
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.00005	0.00005	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.01)	ND(0.002)	ND(0.002)	ND(0.002)
1,2-Dichlorobenzene	mg/L	0.6	0.6	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0025)	ND(0.0005)	ND(0.0005)	ND(0.0005)
1,2-Dichloroethane	mg/L	0.005	0.005	ND(0.0005)	ND(0.0005)	ND(0.0005) UJ	ND(0.0025) UJ	ND(0.0005) UJ	ND(0.0005)	ND(0.0005)
1,2-Dichloropropane	mg/L	0.005	0.005	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0025)	ND(0.0005)	ND(0.0005)	ND(0.0005)
1,3,5-Trimethylbenzene	mg/L	0.016	-	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.01)	ND(0.002)	ND(0.002)	ND(0.002)
1,3-Dichlorobenzene	mg/L	0.08	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0025)	ND(0.0005)	ND(0.0005)	ND(0.0005)
1,3-Dichloropropane	mg/L	-	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0025)	ND(0.0005)	ND(0.0005)	ND(0.0005)
1,4-Dichlorobenzene	mg/L	0.075	0.075	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0025)	ND(0.0005)	ND(0.0005)	ND(0.0005)
2,2-Dichloropropane	mg/L	-	-	ND(0.0005)	ND(0.0005)	ND(0.0005) UJ	ND(0.0025) UJ	ND(0.0005) UJ	ND(0.0005)	ND(0.0005)
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	8.4	-	R	R	R	R	R	R	R
2-Chlorotoluene	mg/L	-	-	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.01)	ND(0.002)	ND(0.002)	ND(0.002)
2-Hexanone	mg/L	-	-	ND(0.02)	ND(0.02)	R	R	R	R	ND(0.02)
2-Phenylbutane (sec-Butylbenzene)	mg/L	-	-	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.01)	ND(0.002)	ND(0.002)	ND(0.002)
4-Chlorotoluene	mg/L	-	-	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.01)	ND(0.002)	ND(0.002)	ND(0.002)
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	2.2	-	R	R	ND(0.02)	ND(0.1)	ND(0.02)	R	R
Acetone	mg/L	6.9	-	R	R	R	R	R	R	R
Benzene	mg/L	0.005	0.005	ND(0.0005)	0.0001 J	ND(0.0005)	ND(0.0025)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Bromobenzene	mg/L	-	-	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.01)	ND(0.002)	ND(0.002)	ND(0.002)
Bromodichloromethane	mg/L	0.08	0.08	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0025)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Bromoform	mg/L	0.08	0.08	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0025)	ND(0.0005)	ND(0.0005) UJ	ND(0.0005)
Bromomethane (Methyl bromide)	mg/L	0.011	-	ND(0.0005)	ND(0.0005)	ND(0.0005) UJ	ND(0.0025) UJ	ND(0.0005) UJ	ND(0.0005)	ND(0.0005)
Carbon disulfide	mg/L	1.3	-	ND(0.0005)	0.00039 J	ND(0.0005)	ND(0.0025)	ND(0.0005)	ND(0.0005) UJ	ND(0.0005)
Carbon tetrachloride	mg/L	0.005	0.005	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0025)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Chlorobenzene	mg/L	0.1	0.1	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0025)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Chlorobromomethane	mg/L	-	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0025)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Chloroethane	mg/L	0.062	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0025)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Chloroform (Trichloromethane)	mg/L	0.08	0.08	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0025)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Chloromethane (Methyl chloride)	mg/L	-	-	ND(0.0005)	ND(0.0005)	ND(0.0005) UJ	ND(0.0025) UJ	ND(0.0005) UJ	ND(0.0005)	ND(0.0005)

TABLE 4.1

SUMMARY OF OVERBURDEN GROUNDWATER ANALYTICAL RESULTS
OCTOBER 2010 MONITORING EVENT
RADIO MATERIALS CORPORATION
ATTICA, INDIANA

Sample Location:				*OB-01*	*OB-02*	*OB-05*	*OB-06*	*OB-08*	*OB-09*	*OB-11*
Sample Date:				*10/13/2010*	*10/13/2010*	*10/14/2010*	*10/14/2010*	*10/14/2010*	*10/12/2010*	*10/13/2010*
Sample ID:				*GW-101310-NH-047*	*GW-101310-NH-049*	*GW-101410-NH-055*	*GW-101410-NH-058*	*GW-101410-NH-054*	*GW-101210-NH-040*	*GW-101310-NH-046*
Parameters	*Units*	*IDEM RDCL[1] a*	*EPA MCL[2] b*							
Volatile Organic Compounds										
cis-1,2-Dichloroethene	mg/L	0.07	0.07	ND(0.0005)	ND(0.0005)	**0.34[ab]**	**1.3[ab]**	**0.081[ab]**	ND(0.0005)	ND(0.0005)
cis-1,3-Dichloropropene	mg/L	-	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0025)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Cymene (p-Isopropyltoluene)	mg/L	-	-	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.01)	ND(0.002)	ND(0.002)	ND(0.002)
Dibromochloromethane	mg/L	-	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0025)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Dibromomethane	mg/L	-	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0025)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Dichlorodifluoromethane (CFC-12)	mg/L	-	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0025)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Ethylbenzene	mg/L	0.7	0.7	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0025)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Hexachlorobutadiene	mg/L	0.011	-	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.01)	ND(0.002)	ND(0.002)	ND(0.002)
Isopropyl benzene	mg/L	0.83	-	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.01)	ND(0.002)	ND(0.002)	ND(0.002)
m&p-Xylenes	mg/L	-	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0025)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Methylene chloride	mg/L	0.005	0.005	ND(0.002)	ND(0.002)	ND(0.002)	0.0011 J	ND(0.002)	ND(0.002)	ND(0.002)
Naphthalene	mg/L	0.0083	-	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.01)	0.00013 J	ND(0.002)	ND(0.002)
N-Butylbenzene	mg/L	-	-	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.01)	ND(0.002)	ND(0.002)	ND(0.002)
N-Propylbenzene	mg/L	0.31	-	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.01)	ND(0.002)	ND(0.002)	ND(0.002)
o-Xylene	mg/L	-	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0025)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Styrene	mg/L	0.1	0.1	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0025)	ND(0.0005)	ND(0.0005)	ND(0.0005)
tert-Butylbenzene	mg/L	-	-	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.01)	ND(0.002)	ND(0.002)	ND(0.002)
Tetrachloroethene	mg/L	0.005	0.005	ND(0.0005)	0.00019 J	**0.049[ab]**	**0.035[ab]**	**0.052[ab]**	0.0025	ND(0.0005)
Toluene	mg/L	1	1	ND(0.0005)	ND(0.0005) U	ND(0.0005) U	ND(0.0025)	ND(0.0005) U	ND(0.0005) U	ND(0.0005)
trans-1,2-Dichloroethene	mg/L	0.1	0.1	ND(0.0005)	ND(0.0005)	0.0039	0.018	0.0008	ND(0.0005)	ND(0.0005)
trans-1,3-Dichloropropene	mg/L	-	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0025)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Trichloroethene	mg/L	0.005	0.005	0.005	0.0022	**0.12[ab]**	**0.68[ab]**	**0.45[ab]**	0.0025	ND(0.0005)
Trichlorofluoromethane (CFC-11)	mg/L	-	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0025)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Vinyl chloride	mg/L	0.002	0.002	ND(0.0005)	ND(0.0005)	0.00013 J	**0.0079[ab]**	ND(0.0005)	ND(0.0005)	ND(0.0005)

TABLE 4.1

SUMMARY OF OVERBURDEN GROUNDWATER ANALYTICAL RESULTS
OCTOBER 2010 MONITORING EVENT
RADIO MATERIALS CORPORATION
ATTICA, INDIANA

Sample Location:				*OB-14*	*OB-16*	*OB-18*	*OB-19*	*OB-25*	*OB-27*	*OB-28*
Sample Date:				*10/12/2010*	*10/11/2010*	*10/5/2010*	*10/5/2010*	*10/5/2010*	*10/5/2010*	*10/5/2010*
Sample ID:				*GW-101210-NH-038*	*GW-101110-NH-031*	*GW-100510-NH-001*	*GW-100510-NH-002*	*GW-100510-NH-007*	*GW-100510-NH-003*	*GW-100510-NH-006*
Parameters	*Units*	*IDEM RDCL[1] a*	*EPA MCL[2] b*							
Volatile Organic Compounds										
1,1,1,2-Tetrachloroethane	mg/L	0.0069	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
1,1,1-Trichloroethane	mg/L	0.2	0.2	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
1,1,2,2-Tetrachloroethane	mg/L	0.0009	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
1,1,2-Trichloroethane	mg/L	0.005	0.005	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
1,1-Dichloroethane	mg/L	0.99	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
1,1-Dichloroethene	mg/L	0.007	0.007	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
1,1-Dichloropropene	mg/L	-	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
1,2,3-Trichlorobenzene	mg/L	-	-	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
1,2,3-Trichloropropane	mg/L	-	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
1,2,4-Trichlorobenzene	mg/L	0.07	0.07	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
1,2,4-Trimethylbenzene	mg/L	0.016	-	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	-	-	ND(0.002) UJ	R	R	R	ND(0.002) UJ	ND(0.002) UJ	ND(0.002) UJ
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.00005	0.00005	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
1,2-Dichlorobenzene	mg/L	0.6	0.6	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
1,2-Dichloroethane	mg/L	0.005	0.005	ND(0.0005) UJ	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005) UJ	ND(0.0005) UJ	ND(0.0005) UJ
1,2-Dichloropropane	mg/L	0.005	0.005	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
1,3,5-Trimethylbenzene	mg/L	0.016	-	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
1,3-Dichlorobenzene	mg/L	0.08	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
1,3-Dichloropropane	mg/L	-	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
1,4-Dichlorobenzene	mg/L	0.075	0.075	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
2,2-Dichloropropane	mg/L	-	-	ND(0.0005) UJ	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005) UJ	ND(0.0005) UJ	ND(0.0005) UJ
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	8.4	-	R	R	R	R	R	R	R
2-Chlorotoluene	mg/L	-	-	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
2-Hexanone	mg/L	-	-	R	R	R	R	R	R	R
2-Phenylbutane (sec-Butylbenzene)	mg/L	-	-	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
4-Chlorotoluene	mg/L	-	-	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	2.2	-	ND(0.02)	R	R	R	ND(0.02)	ND(0.02)	ND(0.02)
Acetone	mg/L	6.9	-	R	R	R	R	R	R	R
Benzene	mg/L	0.005	0.005	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Bromobenzene	mg/L	-	-	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
Bromodichloromethane	mg/L	0.08	0.08	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Bromoform	mg/L	0.08	0.08	ND(0.0005)	ND(0.0005) UJ	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Bromomethane (Methyl bromide)	mg/L	0.011	-	ND(0.0005)	ND(0.0005)	ND(0.0005) UJ	ND(0.0005) UJ	ND(0.0005)	ND(0.0005)	ND(0.0005)
Carbon disulfide	mg/L	1.3	-	ND(0.0005)	ND(0.0005) UJ	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Carbon tetrachloride	mg/L	0.005	0.005	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Chlorobenzene	mg/L	0.1	0.1	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Chlorobromomethane	mg/L	-	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Chloroethane	mg/L	0.062	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Chloroform (Trichloromethane)	mg/L	0.08	0.08	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Chloromethane (Methyl chloride)	mg/L	-	-	ND(0.0005) UJ	ND(0.0005)	ND(0.0005) U	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005) U

TABLE 4.1

SUMMARY OF OVERBURDEN GROUNDWATER ANALYTICAL RESULTS
OCTOBER 2010 MONITORING EVENT
RADIO MATERIALS CORPORATION
ATTICA, INDIANA

Sample Location:				*OB-14*	*OB-16*	*OB-18*	*OB-19*	*OB-25*	*OB-27*	*OB-28*
Sample Date:				*10/12/2010*	*10/11/2010*	*10/5/2010*	*10/5/2010*	*10/5/2010*	*10/5/2010*	*10/5/2010*
Sample ID:				*GW-101210-NH-038*	*GW-101110-NH-031*	*GW-100510-NH-001*	*GW-100510-NH-002*	*GW-100510-NH-007*	*GW-100510-NH-003*	*GW-100510-NH-006*
Parameters	*Units*	*IDEM RDCL[1] a*	*EPA MCL[2] b*							
Volatile Organic Compounds										
cis-1,2-Dichloroethene	mg/L	0.07	0.07	ND(0.0005)	ND(0.0005)	ND(0.0005)	0.022	ND(0.0005)	0.019	0.00032 J
cis-1,3-Dichloropropene	mg/L	-	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Cymene (p-Isopropyltoluene)	mg/L	-	-	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
Dibromochloromethane	mg/L	-	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Dibromomethane	mg/L	-	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Dichlorodifluoromethane (CFC-12)	mg/L	-	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Ethylbenzene	mg/L	0.7	0.7	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Hexachlorobutadiene	mg/L	0.011	-	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
Isopropyl benzene	mg/L	0.83	-	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
m&p-Xylenes	mg/L	-	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Methylene chloride	mg/L	0.005	0.005	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
Naphthalene	mg/L	0.0083	-	ND(0.002)	ND(0.002)	ND(0.002) U	ND(0.002)	0.00012 J	ND(0.002)	0.00011 J
N-Butylbenzene	mg/L	-	-	ND(0.002)	ND(0.002)	ND(0.002) UJ	ND(0.002) UJ	ND(0.002)	ND(0.002)	ND(0.002)
N-Propylbenzene	mg/L	0.31	-	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
o-Xylene	mg/L	-	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Styrene	mg/L	0.1	0.1	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
tert-Butylbenzene	mg/L	-	-	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
Tetrachloroethene	mg/L	0.005	0.005	ND(0.0005) U	ND(0.0005)	0.00012 J	**0.24[ab]**	**0.01[ab]**	**0.13[ab]**	**0.051[ab]**
Toluene	mg/L	1	1	ND(0.0005) U	ND(0.0005) U	0.00008 J	ND(0.0005)	ND(0.0005)	ND(0.0005)	0.00006 J
trans-1,2-Dichloroethene	mg/L	0.1	0.1	ND(0.0005)	ND(0.0005)	ND(0.0005)	0.00012 J	ND(0.0005)	0.00013 J	ND(0.0005)
trans-1,3-Dichloropropene	mg/L	-	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Trichloroethene	mg/L	0.005	0.005	0.0049	ND(0.0005)	ND(0.0005)	**0.05[ab]**	0.0013	**0.094[ab]**	0.0043
Trichlorofluoromethane (CFC-11)	mg/L	-	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	0.00023 J	ND(0.0005)	ND(0.0005)
Vinyl chloride	mg/L	0.002	0.002	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)

TABLE 4.1

SUMMARY OF OVERBURDEN GROUNDWATER ANALYTICAL RESULTS
OCTOBER 2010 MONITORING EVENT
RADIO MATERIALS CORPORATION
ATTICA, INDIANA

Sample Location:				*OB-30*	*OB-31*	*OB-32*	*OB-33*	*OB-34*	*OB-36*	*OB-37*
Sample Date:				*10/5/2010*	*10/5/2010*	*10/5/2010*	*10/13/2010*	*10/14/2010*	*10/6/2010*	*10/5/2010*
Sample ID:				*GW-100510-NH-004*	*GW-100510-NH-005*	*GW-100510-NH-008*	*GW-101310-NH-045*	*GW-101410-NH-051*	*GW-100610-NH-012*	*GW-100510-NH-009*
Parameters	*Units*	*IDEM RDCL[1] a*	*EPA MCL[2] b*							
Volatile Organic Compounds										
1,1,1,2-Tetrachloroethane	mg/L	0.0069	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
1,1,1-Trichloroethane	mg/L	0.2	0.2	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
1,1,2,2-Tetrachloroethane	mg/L	0.0009	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
1,1,2-Trichloroethane	mg/L	0.005	0.005	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
1,1-Dichloroethane	mg/L	0.99	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
1,1-Dichloroethene	mg/L	0.007	0.007	0.00091	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
1,1-Dichloropropene	mg/L	-	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
1,2,3-Trichlorobenzene	mg/L	-	-	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
1,2,3-Trichloropropane	mg/L	-	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
1,2,4-Trichlorobenzene	mg/L	0.07	0.07	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
1,2,4-Trimethylbenzene	mg/L	0.016	-	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	-	-	ND(0.002) UJ	ND(0.002) UJ	ND(0.002) UJ	ND(0.002)	ND(0.002)	ND(0.002) UJ	ND(0.002) UJ
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.00005	0.00005	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
1,2-Dichlorobenzene	mg/L	0.6	0.6	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
1,2-Dichloroethane	mg/L	0.005	0.005	ND(0.0005) UJ	ND(0.0005) UJ	ND(0.0005) UJ	ND(0.0005)	ND(0.0005) UJ	ND(0.0005) UJ	ND(0.0005) UJ
1,2-Dichloropropane	mg/L	0.005	0.005	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
1,3,5-Trimethylbenzene	mg/L	0.016	-	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
1,3-Dichlorobenzene	mg/L	0.08	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
1,3-Dichloropropane	mg/L	-	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
1,4-Dichlorobenzene	mg/L	0.075	0.075	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
2,2-Dichloropropane	mg/L	-	-	ND(0.0005) UJ	ND(0.0005) UJ	ND(0.0005) UJ	ND(0.0005)	ND(0.0005) UJ	ND(0.0005) UJ	ND(0.0005) UJ
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	8.4	-	R	R	R	R	R	R	R
2-Chlorotoluene	mg/L	-	-	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
2-Hexanone	mg/L	-	-	R	R	R	ND(0.02)	R	R	R
2-Phenylbutane (sec-Butylbenzene)	mg/L	-	-	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
4-Chlorotoluene	mg/L	-	-	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	2.2	-	ND(0.02)	ND(0.02)	ND(0.02)	R	ND(0.02)	ND(0.02)	ND(0.02)
Acetone	mg/L	6.9	-	R	R	R	R	R	R	R
Benzene	mg/L	0.005	0.005	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Bromobenzene	mg/L	-	-	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
Bromodichloromethane	mg/L	0.08	0.08	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	0.00064	ND(0.0005)
Bromoform	mg/L	0.08	0.08	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Bromomethane (Methyl bromide)	mg/L	0.011	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005) UJ	ND(0.0005)	ND(0.0005)
Carbon disulfide	mg/L	1.3	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Carbon tetrachloride	mg/L	0.005	0.005	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Chlorobenzene	mg/L	0.1	0.1	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Chlorobromomethane	mg/L	-	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Chloroethane	mg/L	0.062	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Chloroform (Trichloromethane)	mg/L	0.08	0.08	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	0.0022	ND(0.0005)
Chloromethane (Methyl chloride)	mg/L	-	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005) UJ	ND(0.0005) U	ND(0.0005)

TABLE 4.1

SUMMARY OF OVERBURDEN GROUNDWATER ANALYTICAL RESULTS
OCTOBER 2010 MONITORING EVENT
RADIO MATERIALS CORPORATION
ATTICA, INDIANA

Sample Location:				*OB-30*	*OB-31*	*OB-32*	*OB-33*	*OB-34*	*OB-36*	*OB-37*
Sample Date:				*10/5/2010*	*10/5/2010*	*10/5/2010*	*10/13/2010*	*10/14/2010*	*10/6/2010*	*10/5/2010*
Sample ID:				*GW-100510-NH-004*	*GW-100510-NH-005*	*GW-100510-NH-008*	*GW-101310-NH-045*	*GW-101410-NH-051*	*GW-100610-NH-012*	*GW-100510-NH-009*
Parameters	*Units*	*IDEM RDCL[1] a*	*EPA MCL[2] b*							
Volatile Organic Compounds										
cis-1,2-Dichloroethene	mg/L	0.07	0.07	**0.24[ab]**	0.0039	0.00024 J	ND(0.0005)	0.0029	0.00032 J	0.00038 J
cis-1,3-Dichloropropene	mg/L	-	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Cymene (p-Isopropyltoluene)	mg/L	-	-	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
Dibromochloromethane	mg/L	-	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Dibromomethane	mg/L	-	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Dichlorodifluoromethane (CFC-12)	mg/L	-	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Ethylbenzene	mg/L	0.7	0.7	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Hexachlorobutadiene	mg/L	0.011	-	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
Isopropyl benzene	mg/L	0.83	-	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
m&p-Xylenes	mg/L	-	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Methylene chloride	mg/L	0.005	0.005	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	0.0003 J	ND(0.002)
Naphthalene	mg/L	0.0083	-	ND(0.002)	0.00012 J	0.00009 J	ND(0.002)	ND(0.002)	0.00012 J	ND(0.002)
N-Butylbenzene	mg/L	-	-	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
N-Propylbenzene	mg/L	0.31	-	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
o-Xylene	mg/L	-	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Styrene	mg/L	0.1	0.1	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
tert-Butylbenzene	mg/L	-	-	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
Tetrachloroethene	mg/L	0.005	0.005	**0.069[ab]**	**0.0091[ab]**	**0.04[ab]**	0.00035 J	**0.034[ab]**	**0.067[ab]**	0.0029
Toluene	mg/L	1	1	ND(0.0005)	0.0001 J	0.00006 J	ND(0.0005) U	ND(0.0005) U	ND(0.0005) U	0.00007 J
trans-1,2-Dichloroethene	mg/L	0.1	0.1	0.0013	ND(0.0005)	ND(0.0005)	ND(0.0005)	0.0001 J	ND(0.0005)	ND(0.0005)
trans-1,3-Dichloropropene	mg/L	-	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Trichloroethene	mg/L	0.005	0.005	**0.24[ab]**	**0.0086[ab]**	**0.029[ab]**	0.0047	**0.097[ab]**	**0.015[ab]**	**0.012[ab]**
Trichlorofluoromethane (CFC-11)	mg/L	-	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Vinyl chloride	mg/L	0.002	0.002	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)

TABLE 4.1

SUMMARY OF OVERBURDEN GROUNDWATER ANALYTICAL RESULTS
OCTOBER 2010 MONITORING EVENT
RADIO MATERIALS CORPORATION
ATTICA, INDIANA

Sample Location:				*OB-38*	*OB-39*	*OB-40*	*OB-41*	*OB-43D*	*OB-44*	*OB-44*
Sample Date:				*10/6/2010*	*10/11/2010*	*10/6/2010*	*10/6/2010*	*10/8/2010*	*10/12/2010*	*10/12/2010*
Sample ID:				*GW-100610-NH-013*	*GW-101110-NH-030*	*GW-100610-NH-010*	*GW-100610-NH-011*	*GW-100810-NH-025*	*GW-101210-NH-035*	*GW-101210-NH-036 Duplicate*
Parameters	*Units*	*IDEM RDCL[1] a*	*EPA MCL[2] b*							
Volatile Organic Compounds										
1,1,1,2-Tetrachloroethane	mg/L	0.0069	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
1,1,1-Trichloroethane	mg/L	0.2	0.2	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
1,1,2,2-Tetrachloroethane	mg/L	0.0009	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
1,1,2-Trichloroethane	mg/L	0.005	0.005	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
1,1-Dichloroethane	mg/L	0.99	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
1,1-Dichloroethene	mg/L	0.007	0.007	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
1,1-Dichloropropene	mg/L	-	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
1,2,3-Trichlorobenzene	mg/L	-	-	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
1,2,3-Trichloropropane	mg/L	-	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
1,2,4-Trichlorobenzene	mg/L	0.07	0.07	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
1,2,4-Trimethylbenzene	mg/L	0.016	-	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	-	-	ND(0.002) UJ	R	ND(0.002) UJ	ND(0.002) UJ	R	ND(0.002) UJ	ND(0.002) UJ
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.00005	0.00005	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
1,2-Dichlorobenzene	mg/L	0.6	0.6	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
1,2-Dichloroethane	mg/L	0.005	0.005	ND(0.0005) UJ	ND(0.0005)	ND(0.0005) UJ	ND(0.0005) UJ	ND(0.0005)	ND(0.0005) UJ	ND(0.0005) UJ
1,2-Dichloropropane	mg/L	0.005	0.005	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
1,3,5-Trimethylbenzene	mg/L	0.016	-	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
1,3-Dichlorobenzene	mg/L	0.08	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
1,3-Dichloropropane	mg/L	-	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
1,4-Dichlorobenzene	mg/L	0.075	0.075	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
2,2-Dichloropropane	mg/L	-	-	ND(0.0005) UJ	ND(0.0005)	ND(0.0005) UJ	ND(0.0005) UJ	ND(0.0005)	ND(0.0005) UJ	ND(0.0005) UJ
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	8.4	-	R	R	R	R	R	R	R
2-Chlorotoluene	mg/L	-	-	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
2-Hexanone	mg/L	-	-	R	R	R	R	R	R	R
2-Phenylbutane (sec-Butylbenzene)	mg/L	-	-	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
4-Chlorotoluene	mg/L	-	-	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	2.2	-	ND(0.02)	R	ND(0.02)	ND(0.02)	R	ND(0.02)	ND(0.02)
Acetone	mg/L	6.9	-	R	R	R	R	R	R	R
Benzene	mg/L	0.005	0.005	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Bromobenzene	mg/L	-	-	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
Bromodichloromethane	mg/L	0.08	0.08	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Bromoform	mg/L	0.08	0.08	ND(0.0005)	ND(0.0005) UJ	ND(0.0005)	ND(0.0005)	ND(0.0005) UJ	ND(0.0005)	ND(0.0005)
Bromomethane (Methyl bromide)	mg/L	0.011	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Carbon disulfide	mg/L	1.3	-	ND(0.0005)	ND(0.0005) UJ	ND(0.0005)	ND(0.0005)	ND(0.0005) UJ	ND(0.0005)	ND(0.0005)
Carbon tetrachloride	mg/L	0.005	0.005	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Chlorobenzene	mg/L	0.1	0.1	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Chlorobromomethane	mg/L	-	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Chloroethane	mg/L	0.062	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Chloroform (Trichloromethane)	mg/L	0.08	0.08	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005) U	ND(0.0005) U
Chloromethane (Methyl chloride)	mg/L	-	-	ND(0.0005)	ND(0.0005)	ND(0.0005) U	ND(0.0005) U	ND(0.0005)	ND(0.0005) UJ	ND(0.0005) UJ

TABLE 4.1

SUMMARY OF OVERBURDEN GROUNDWATER ANALYTICAL RESULTS
OCTOBER 2010 MONITORING EVENT
RADIO MATERIALS CORPORATION
ATTICA, INDIANA

Sample Location:				*OB-38*	*OB-39*	*OB-40*	*OB-41*	*OB-43D*	*OB-44*	*OB-44*
Sample Date:				*10/6/2010*	*10/11/2010*	*10/6/2010*	*10/6/2010*	*10/8/2010*	*10/12/2010*	*10/12/2010*
Sample ID:				*GW-100610-NH-013*	*GW-101110-NH-030*	*GW-100610-NH-010*	*GW-100610-NH-011*	*GW-100810-NH-025*	*GW-101210-NH-035*	*GW-101210-NH-036 Duplicate*
Parameters	*Units*	*IDEM RDCL[1] a*	*EPA MCL[2] b*							
Volatile Organic Compounds										
cis-1,2-Dichloroethene	mg/L	0.07	0.07	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	0.00075	0.0073	0.0073
cis-1,3-Dichloropropene	mg/L	-	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Cymene (p-Isopropyltoluene)	mg/L	-	-	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
Dibromochloromethane	mg/L	-	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Dibromomethane	mg/L	-	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Dichlorodifluoromethane (CFC-12)	mg/L	-	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Ethylbenzene	mg/L	0.7	0.7	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Hexachlorobutadiene	mg/L	0.011	-	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
Isopropyl benzene	mg/L	0.83	-	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
m&p-Xylenes	mg/L	-	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Methylene chloride	mg/L	0.005	0.005	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
Naphthalene	mg/L	0.0083	-	0.00009 J	ND(0.002)	0.0001 J	0.00012 J	ND(0.002)	ND(0.002)	ND(0.002)
N-Butylbenzene	mg/L	-	-	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
N-Propylbenzene	mg/L	0.31	-	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
o-Xylene	mg/L	-	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Styrene	mg/L	0.1	0.1	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
tert-Butylbenzene	mg/L	-	-	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
Tetrachloroethene	mg/L	0.005	0.005	ND(0.00072) U	ND(0.0005)	ND(0.0005) U	ND(0.0005) U	ND(0.0005)	**0.034[ab]**	**0.034[ab]**
Toluene	mg/L	1	1	ND(0.0005) U	ND(0.0005) U	ND(0.0005)	ND(0.0005) U	ND(0.0005) U	ND(0.0005) U	ND(0.0005) U
trans-1,2-Dichloroethene	mg/L	0.1	0.1	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	0.00076	0.00067
trans-1,3-Dichloropropene	mg/L	-	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Trichloroethene	mg/L	0.005	0.005	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	**0.0068[ab]**	**0.032[ab]**	**0.033[ab]**
Trichlorofluoromethane (CFC-11)	mg/L	-	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Vinyl chloride	mg/L	0.002	0.002	**0.013[ab]**	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)

TABLE 4.1

SUMMARY OF OVERBURDEN GROUNDWATER ANALYTICAL RESULTS
OCTOBER 2010 MONITORING EVENT
RADIO MATERIALS CORPORATION
ATTICA, INDIANA

Sample Location:				*OB-45S*	*OB-46D*	*OB-46S*	*OB-47D*	*OB-47S*	*OB-48D*	*OB-48S*
Sample Date:				*10/8/2010*	*10/7/2010*	*10/7/2010*	*10/7/2010*	*10/7/2010*	*10/8/2010*	*10/8/2010*
Sample ID:				*GW-100810-NH-026*	*GW-100710-NH-021*	*GW-100710-NH-022*	*GW-100710-NH-020*	*GW-100710-NH-019*	*GW-100810-NH-023*	*GW-100810-NH-024*
Parameters	*Units*	*IDEM RDCL[1] a*	*EPA MCL[2] b*							
Volatile Organic Compounds										
1,1,1,2-Tetrachloroethane	mg/L	0.0069	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
1,1,1-Trichloroethane	mg/L	0.2	0.2	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
1,1,2,2-Tetrachloroethane	mg/L	0.0009	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
1,1,2-Trichloroethane	mg/L	0.005	0.005	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
1,1-Dichloroethane	mg/L	0.99	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
1,1-Dichloroethene	mg/L	0.007	0.007	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
1,1-Dichloropropene	mg/L	-	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
1,2,3-Trichlorobenzene	mg/L	-	-	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
1,2,3-Trichloropropane	mg/L	-	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
1,2,4-Trichlorobenzene	mg/L	0.07	0.07	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002) U	ND(0.002)	ND(0.002)
1,2,4-Trimethylbenzene	mg/L	0.016	-	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	-	-	R	ND(0.002) UJ	ND(0.002) UJ	ND(0.002) UJ	ND(0.002) UJ	R	R
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.00005	0.00005	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
1,2-Dichlorobenzene	mg/L	0.6	0.6	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
1,2-Dichloroethane	mg/L	0.005	0.005	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005) UJ	ND(0.0005) UJ	ND(0.0005)	ND(0.0005)
1,2-Dichloropropane	mg/L	0.005	0.005	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
1,3,5-Trimethylbenzene	mg/L	0.016	-	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
1,3-Dichlorobenzene	mg/L	0.08	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
1,3-Dichloropropane	mg/L	-	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
1,4-Dichlorobenzene	mg/L	0.075	0.075	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
2,2-Dichloropropane	mg/L	-	-	ND(0.0005)	ND(0.0005) UJ	ND(0.0005) UJ	ND(0.0005) UJ	ND(0.0005) UJ	ND(0.0005)	ND(0.0005)
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	8.4	-	R	R	R	R	R	R	R
2-Chlorotoluene	mg/L	-	-	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
2-Hexanone	mg/L	-	-	R	R	R	R	R	R	R
2-Phenylbutane (sec-Butylbenzene)	mg/L	-	-	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
4-Chlorotoluene	mg/L	-	-	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	2.2	-	R	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	R	R
Acetone	mg/L	6.9	-	R	R	R	R	R	R	R
Benzene	mg/L	0.005	0.005	0.00006 J	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Bromobenzene	mg/L	-	-	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
Bromodichloromethane	mg/L	0.08	0.08	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	0.00077
Bromoform	mg/L	0.08	0.08	ND(0.0005) UJ	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005) UJ	ND(0.0005) UJ
Bromomethane (Methyl bromide)	mg/L	0.011	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Carbon disulfide	mg/L	1.3	-	0.00019 J	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005) UJ	ND(0.0005) UJ
Carbon tetrachloride	mg/L	0.005	0.005	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	0.0006	ND(0.0005)	ND(0.0005)
Chlorobenzene	mg/L	0.1	0.1	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Chlorobromomethane	mg/L	-	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Chloroethane	mg/L	0.062	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Chloroform (Trichloromethane)	mg/L	0.08	0.08	0.00008 J	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	0.0001 J	0.0011
Chloromethane (Methyl chloride)	mg/L	-	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)

TABLE 4.1

SUMMARY OF OVERBURDEN GROUNDWATER ANALYTICAL RESULTS
OCTOBER 2010 MONITORING EVENT
RADIO MATERIALS CORPORATION
ATTICA, INDIANA

Sample Location:				*OB-45S*	*OB-46D*	*OB-46S*	*OB-47D*	*OB-47S*	*OB-48D*	*OB-48S*
Sample Date:				*10/8/2010*	*10/7/2010*	*10/7/2010*	*10/7/2010*	*10/7/2010*	*10/8/2010*	*10/8/2010*
Sample ID:				*GW-100810-NH-026*	*GW-100710-NH-021*	*GW-100710-NH-022*	*GW-100710-NH-020*	*GW-100710-NH-019*	*GW-100810-NH-023*	*GW-100810-NH-024*
Parameters	*Units*	*IDEM RDCL[1] a*	*EPA MCL[2] b*							
Volatile Organic Compounds										
cis-1,2-Dichloroethene	mg/L	0.07	0.07	ND(0.0005)	ND(0.0005)	ND(0.0005)	0.0003 J	ND(0.0005)	ND(0.0005)	0.00012 J
cis-1,3-Dichloropropene	mg/L	-	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Cymene (p-Isopropyltoluene)	mg/L	-	-	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
Dibromochloromethane	mg/L	-	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Dibromomethane	mg/L	-	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Dichlorodifluoromethane (CFC-12)	mg/L	-	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Ethylbenzene	mg/L	0.7	0.7	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Hexachlorobutadiene	mg/L	0.011	-	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
Isopropyl benzene	mg/L	0.83	-	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
m&p-Xylenes	mg/L	-	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Methylene chloride	mg/L	0.005	0.005	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
Naphthalene	mg/L	0.0083	-	ND(0.002)	0.00011 J	0.00012 J	ND(0.002)	0.00009 J	ND(0.002)	ND(0.002)
N-Butylbenzene	mg/L	-	-	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
N-Propylbenzene	mg/L	0.31	-	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
o-Xylene	mg/L	-	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Styrene	mg/L	0.1	0.1	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
tert-Butylbenzene	mg/L	-	-	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
Tetrachloroethene	mg/L	0.005	0.005	ND(0.0005)	0.00013 J	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	0.0001 J
Toluene	mg/L	1	1	ND(0.0005)	0.00009 J	0.00006 J	0.00011 J	0.00008 J	ND(0.0005) U	ND(0.0005) U
trans-1,2-Dichloroethene	mg/L	0.1	0.1	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
trans-1,3-Dichloropropene	mg/L	-	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Trichloroethene	mg/L	0.005	0.005	0.005	0.0018	0.0025	**0.0071[ab]**	0.00025 J	0.00026 J	0.0023
Trichlorofluoromethane (CFC-11)	mg/L	-	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Vinyl chloride	mg/L	0.002	0.002	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)

TABLE 4.1

SUMMARY OF OVERBURDEN GROUNDWATER ANALYTICAL RESULTS
OCTOBER 2010 MONITORING EVENT
RADIO MATERIALS CORPORATION
ATTICA, INDIANA

Sample Location:				*OB-50*	*OB-51*	*OB-52*	*OB-53*	*OB-53*	*PZ-04*
Sample Date:				*10/7/2010*	*10/6/2010*	*10/6/2010*	*10/6/2010*	*10/6/2010*	*10/14/2010*
Sample ID:				*GW-100710-NH-018*	*GW-100610-NH-017*	*GW-100610-NH-016*	*GW-100610-NH-014*	*GW-100610-NH-015 Duplicate*	*GW-101410-NH-056*
Parameters	*Units*	*IDEM RDCL[1] a*	*EPA MCL[2] b*						
Volatile Organic Compounds									
1,1,1,2-Tetrachloroethane	mg/L	0.0069	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
1,1,1-Trichloroethane	mg/L	0.2	0.2	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
1,1,2,2-Tetrachloroethane	mg/L	0.0009	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	0.0003 J
1,1,2-Trichloroethane	mg/L	0.005	0.005	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
1,1-Dichloroethane	mg/L	0.99	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
1,1-Dichloroethene	mg/L	0.007	0.007	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	0.00079
1,1-Dichloropropene	mg/L	-	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
1,2,3-Trichlorobenzene	mg/L	-	-	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
1,2,3-Trichloropropane	mg/L	-	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
1,2,4-Trichlorobenzene	mg/L	0.07	0.07	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
1,2,4-Trimethylbenzene	mg/L	0.016	-	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
1,2-Dibromo-3-chloropropane (DBCP)	mg/L	-	-	ND(0.002) UJ	ND(0.002) UJ	ND(0.002) UJ	ND(0.002) UJ	ND(0.002) UJ	ND(0.002)
1,2-Dibromoethane (Ethylene dibromide)	mg/L	0.00005	0.00005	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
1,2-Dichlorobenzene	mg/L	0.6	0.6	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
1,2-Dichloroethane	mg/L	0.005	0.005	ND(0.0005) UJ	ND(0.0005) UJ	ND(0.0005) UJ	ND(0.0005) UJ	ND(0.0005) UJ	0.00009 J
1,2-Dichloropropane	mg/L	0.005	0.005	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
1,3,5-Trimethylbenzene	mg/L	0.016	-	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
1,3-Dichlorobenzene	mg/L	0.08	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
1,3-Dichloropropane	mg/L	-	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
1,4-Dichlorobenzene	mg/L	0.075	0.075	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
2,2-Dichloropropane	mg/L	-	-	ND(0.0005) UJ	ND(0.0005) UJ	ND(0.0005) UJ	ND(0.0005) UJ	ND(0.0005) UJ	ND(0.0005) UJ
2-Butanone (Methyl ethyl ketone) (MEK)	mg/L	8.4	-	R	R	R	R	R	R
2-Chlorotoluene	mg/L	-	-	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
2-Hexanone	mg/L	-	-	R	R	R	R	R	R
2-Phenylbutane (sec-Butylbenzene)	mg/L	-	-	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
4-Chlorotoluene	mg/L	-	-	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	mg/L	2.2	-	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)
Acetone	mg/L	6.9	-	R	R	R	R	R	R
Benzene	mg/L	0.005	0.005	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Bromobenzene	mg/L	-	-	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
Bromodichloromethane	mg/L	0.08	0.08	ND(0.0005)	0.00013 J	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Bromoform	mg/L	0.08	0.08	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Bromomethane (Methyl bromide)	mg/L	0.011	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005) UJ
Carbon disulfide	mg/L	1.3	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Carbon tetrachloride	mg/L	0.005	0.005	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Chlorobenzene	mg/L	0.1	0.1	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Chlorobromomethane	mg/L	-	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Chloroethane	mg/L	0.062	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Chloroform (Trichloromethane)	mg/L	0.08	0.08	0.0001 J	0.00035 J	0.00012 J	0.00011 J	0.00012 J	0.0011
Chloromethane (Methyl chloride)	mg/L	-	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005) UJ

TABLE 4.1

SUMMARY OF OVERBURDEN GROUNDWATER ANALYTICAL RESULTS
OCTOBER 2010 MONITORING EVENT
RADIO MATERIALS CORPORATION
ATTICA, INDIANA

Sample Location:				*OB-50*	*OB-51*	*OB-52*	*OB-53*	*OB-53*	*PZ-04*
Sample Date:				*10/7/2010*	*10/6/2010*	*10/6/2010*	*10/6/2010*	*10/6/2010*	*10/14/2010*
Sample ID:				*GW-100710-NH-018*	*GW-100610-NH-017*	*GW-100610-NH-016*	*GW-100610-NH-014*	*GW-100610-NH-015 Duplicate*	*GW-101410-NH-056*
Parameters	*Units*	*IDEM RDCL[1] a*	*EPA MCL[2] b*						
Volatile Organic Compounds									
cis-1,2-Dichloroethene	mg/L	0.07	0.07	0.0087	0.0011	0.0005	0.00022 J	0.00024 J	**0.47[ab]**
cis-1,3-Dichloropropene	mg/L	-	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Cymene (p-Isopropyltoluene)	mg/L	-	-	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
Dibromochloromethane	mg/L	-	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Dibromomethane	mg/L	-	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Dichlorodifluoromethane (CFC-12)	mg/L	-	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Ethylbenzene	mg/L	0.7	0.7	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Hexachlorobutadiene	mg/L	0.011	-	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
Isopropyl benzene	mg/L	0.83	-	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
m&p-Xylenes	mg/L	-	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Methylene chloride	mg/L	0.005	0.005	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
Naphthalene	mg/L	0.0083	-	0.00009 J	0.00009 J	0.00009 J	ND(0.002)	ND(0.002)	ND(0.002)
N-Butylbenzene	mg/L	-	-	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
N-Propylbenzene	mg/L	0.31	-	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
o-Xylene	mg/L	-	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Styrene	mg/L	0.1	0.1	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
tert-Butylbenzene	mg/L	-	-	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
Tetrachloroethene	mg/L	0.005	0.005	ND(0.0005)	ND(0.0005) U	ND(0.0005) U	ND(0.0005) U	ND(0.0005) U	**0.069[ab]**
Toluene	mg/L	1	1	0.00008 J	ND(0.0005) U	ND(0.0005) U	ND(0.0005) U	ND(0.0005)	ND(0.0005) U
trans-1,2-Dichloroethene	mg/L	0.1	0.1	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	0.003
trans-1,3-Dichloropropene	mg/L	-	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Trichloroethene	mg/L	0.005	0.005	**0.029[ab]**	**0.012[ab]**	**0.012[ab]**	0.0048	0.0047	**0.41[ab]**
Trichlorofluoromethane (CFC-11)	mg/L	-	-	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)
Vinyl chloride	mg/L	0.002	0.002	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	ND(0.0005)	0.00043 J

Notes
[1]IDEM RDCL - Indiana Department of Environmental Management Residential Default Closure Limit
[2]EPA MCL - U.S. Environmental Protection Agency Maximum Contaminant Level
mg/L - Milligrams per liter
ND ( ) - Compound not detected at the quantitation limit stated in parentheses
J - Estimated
R - Rejected Data
U - Non-detect at associated value
UJ - Estimated reporting limit

TABLE 4.2

NORTHERN BOUNDARY AREAS
SOIL GAS ANALYTICAL RESULTS SUMMARY
RADIO MATERIALS CORPORATION
ATTICA, INDIANA

Sample Location:		*VP-36R*	*VP-37*	*VP-37*	*VP-38*	*VP-39*
Sample ID:		*GS-012010-NH-008*	*SG-100507-MG-026*	*GS-012010-NH-001*	*GS-012010-NH-002*	*GS-012010-NH-003*
Sample Date:		*1/20/2010*	*10/5/2007*	*1/20/2010*	*1/20/2010*	*1/20/2010*
Parameters	***Units***					
Volatile Organic Compounds						
cis-1,2-Dichloroethene	ug/m^3	ND (7.9)	ND (7.9)	ND (7.9)	ND (7.9)	ND (7.9)
Tetrachloroethene	ug/m^3	ND (14)	ND (14)	ND (14)	ND (14)	16
Trichloroethene	ug/m^3	ND (11)	ND (11)	ND (11)	ND (11)	16
Vinyl chloride	ug/m^3	ND (10)	ND (7.6)	ND (10)	ND (10)	ND (10)

Notes

ug/m3 - Micrograms per cubic meter

ND ( ) - Compound not detected at the quantitation limit stated in parentheses

TABLE 4.3

WESTERN BOUNDARY AREAS
SOIL GAS ANALYTICAL RESULTS SUMMARY
RADIO MATERIALS CORPORATION
ATTICA, INDIANA

Sample Location:		*VP-35*	*VP-35*	*VP-36R*	*VP-40*	*VP-40*	*VP-41*	*VP-49S*	*VP-49S*
Sample ID:		*SG-100507-MG-023*	*GS-012010-NH-011*	*GS-012010-NH-008*	*GS-012010-NH-009*	*GS-012010-NH-010*	*GS-012010-NH-012*	*GS-040611-MG-001*	*GS-040611-MG-002*
Sample Date:		*10/5/2007*	*1/20/2010*	*1/20/2010*	*1/20/2010*	*1/20/2010 (Duplicate)*	*1/20/2010*	*4/6/2011*	*4/6/2011 (Duplicate)*
Parameters	***Units***								
Volatile Organic Compounds									
cis-1,2-Dichloroethene	ug/m^3	ND (7.9)	ND (7.9)	ND (7.9)	ND (7.9)	ND (7.6)	ND (7.9)	ND (7.9)	ND (7.9)
Tetrachloroethene	ug/m^3	ND (14)	ND (14)	ND (14)	ND (14)	16	ND (14)	ND (14)	ND (14)
Trichloroethene	ug/m^3	ND (11)	ND (11)	ND (11)	ND (11)	ND (10)	ND (11)	ND (11)	ND (11)
Vinyl chloride	ug/m^3	ND (7.6)	ND (10)	ND (10)	ND (10)	ND (9.8)	ND (10)	ND (10)	ND (10)

Notes

ug/m3 - Micrograms per cubic meter

ND ( ) - Compound not detected at the quantitation limit stated in parentheses

TABLE 4.4

EASTERN BOUNDARY AREA
SOIL GAS ANALYTICAL RESULTS SUMMARY
RADIO MATERIALS CORPORATION
ATTICA, INDIANA

Sample Location:		*VP-16R*	*VP-16R*	*VP-16R*	*VP-17R*	*VP-17R*	*VP-17R*
Sample ID:		*SG-100307-MG-006*	*GS-012110-NH-018*	*GS-080410-NH-008*	*SG-100307-MG-005*	*GS-012110-NH-017*	*GS-080410-NH-004*
Sample Date:		*10/3/2007*	*1/21/2010*	*8/4/2010*	*10/3/2007*	*1/21/2010*	*8/4/2010*
Parameters	*Units*						
Volatile Organic Compounds							
1,1-Dichloroethene	ug/m^3	ND (0.0079)	ND (0.0079)	ND (0.0079) UJ	0.021	ND (0.0079)	ND (0.0086)
cis-1,2-Dichloroethene	ug/m^3	ND (0.0079)	ND (0.0079)	ND (0.0079) UJ	ND (0.0079)	ND (0.0079)	0.033
Isopropyl alcohol	ug/m^3	ND (0.024)	ND (0.025)	0.039	ND (0.024)	ND (0.025)	ND (0.027)
Tetrachloroethene	ug/m^3	ND (0.014)	ND (0.014)	ND (0.014) UJ	0.052	0.039	0.056
trans-1,2-Dichloroethene	ug/m^3	ND (0.0079)	ND (0.0079)	ND (0.0079) UJ	ND (0.0079)	ND (0.0079)	ND (0.0086)
Trichloroethene	ug/m^3	0.41	0.026	0.03 J	1.5	1.5	2.1
Vinyl chloride	ug/m^3	ND (0.0076)	ND (0.01)	ND (0.01) UJ	ND (0.0076)	ND (0.01)	ND (0.011)

TABLE 4.4

EASTERN BOUNDARY AREA
SOIL GAS ANALYTICAL RESULTS SUMMARY
RADIO MATERIALS CORPORATION
ATTICA, INDIANA

Sample Location:		*VP-19R*	*VP-19R*	*VP-42*	*VP-43*	*VP-44*	*VP-45*
Sample ID:		*GS-012110-NH-016*	*GS-080410-NH-002*	*GS-012110-NH-015*	*GS-012110-NH-013*	*GS-080410-NH-007*	*GS-080410-NH-001*
Sample Date:		*1/21/2010*	*8/4/2010*	*1/21/2010*	*1/21/2010*	*8/4/2010*	*8/4/2010*
Parameters	*Units*						
Volatile Organic Compounds							
1,1-Dichloroethene	ug/m^3	ND (0.0079)	ND (0.0079)	ND (0.0079)	ND (0.013)	ND (0.0079)	ND (0.0081)
cis-1,2-Dichloroethene	ug/m^3	ND (0.0079)	ND (0.0079)	ND (0.0079)	ND (0.013)	ND (0.0079)	ND (0.0081)
Isopropyl alcohol	ug/m^3	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.04)	ND (0.025)	ND (0.025)
Tetrachloroethene	ug/m^3	ND (0.014)	ND (0.014)	0.032	1.1	ND (0.014)	ND (0.014)
trans-1,2-Dichloroethene	ug/m^3	ND (0.0079)	ND (0.0079)	ND (0.0079)	ND (0.013)	ND (0.0079)	ND (0.0081)
Trichloroethene	ug/m^3	ND (0.011)	ND (0.011)	1.3	ND (0.018)	0.017	ND (0.011)
Vinyl chloride	ug/m^3	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.017)	ND (0.01)	ND (0.01)

TABLE 4.4

EASTERN BOUNDARY AREA
SOIL GAS ANALYTICAL RESULTS SUMMARY
RADIO MATERIALS CORPORATION
ATTICA, INDIANA

Sample Location:		*VP-46*	*VP-47*	*VP-47*	*VP-48*
Sample ID:		*GS-080410-NH-006*	*GS-080410-NH-009*	*GS-080410-NH-010*	*GS-080410-NH-003*
Sample Date:		*8/4/2010*	*8/4/2010*	*8/4/2010 (Duplicate)*	*8/4/2010*
Parameters	*Units*				
Volatile Organic Compounds					
1,1-Dichloroethene	ug/m^3	ND (0.0079) UJ	ND (0.0079)	ND (0.0079)	ND (0.0079)
cis-1,2-Dichloroethene	ug/m^3	0.0095 J	ND (0.0079)	ND (0.0079)	ND (0.0079)
Isopropyl alcohol	ug/m^3	0.14	ND (0.025)	ND (0.025)	ND (0.025)
Tetrachloroethene	ug/m^3	0.047 J	ND (0.014)	ND (0.014)	ND (0.014)
trans-1,2-Dichloroethene	ug/m^3	ND (0.0079) UJ	ND (0.0079)	ND (0.0079)	ND (0.0079)
Trichloroethene	ug/m^3	0.08 J	0.029	0.018	ND (0.011)
Vinyl chloride	ug/m^3	ND (0.01) UJ	ND (0.01)	ND (0.01)	ND (0.01)

Notes

ug/m3 - Micrograms per cubic meter

ND ( ) - Compound not detected at the quantitation limit stated in parentheses

J - Estimated

UJ - Estimated reporting limit

APPENDIX A

JANUARY 28, 2011 U.S. EPA CONDITIONAL APPROVAL LETTER

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

VIA Certified MAIL, RETURN RECEIPT REQUESTED

REPLY TO THE ATTENTION OF:

3/01/11

LU - 9J

Steven Wanner
CONESTOGA-ROVERS & ASSOCIATES
6520 Corporate Drive
Indianapolis, Indiana 46278

Radio Materials Corporation
c/o Joseph F. Riley, Jr.
1095 E. Summit St.
Attica , IN 47918

Re: Comments on the Soil Vapor Study Data Transmittal Report
Radio Materials Facility (Attica, Indiana)
EPA No. IND 005 477 021

Mssrs. Wanner and Riley:

In its letter dated January 28, 2011, Conestoga-Rovers & Associates (CRA) on behalf of Kraft, requested a 60 day extension to the January 30, 2011 deadline for the comprehensive offsite soil vapor investigation report (VI Soil gas report) submittal. EPA approves the extension with the following conditions and a renewed deadline April 29, 2011. Conditions are added to address data gaps from the previous soil gas investigations and to complete offsite vapor intrusion pathway investigation. The VI Soil gas report will be considered an addendum to the RFI report submitted in May 2010.The conditions and rationale for the conditions are provided below:

1. The soil gas data east of the facility at the Elmdale subdivision along Avenue 6 detected TCE and PCE at shallow soil depths at locations VP-46 and VP- 44. Due to the close proximity of these residents to the site, RMC is required to take subslab and indoor air samples at the following residences : 461, 501, 519 and 525 at Avenue 6.

2. VP-17R detected a high concentration of TCE in the soil gas which neither correlates with the neighboring probes VP-47 /VP -48 nor with groundwater data. The exceedance of soil gas criteria in this location is considered an anomaly possibly relating to an up gradient source.

3. In order to conclusively define the soil gas contaminant plume along the mitigation boundary bordering 6th street at the west side of the facility, EPA requires RMC/Kraft to install a nested soil gas probe. The probe should be installed along the sixth street for

future monitoring purposes and to define the fate and transport of chlorinated volatiles from groundwater. The work plan for the installation of nested vapor probe should be submitted by March 15, 2011.

4. The VI soil gas report should address all other comments in EPA's letter dated January 5, 2011.

Contact me if you have any questions at sundar.bhooma@epa.gov or at 312-886-1660.

Sincerely yours,

Bhooma Sundar

Bhooma Sundar
RCRA Corrective Action
USEPA
Region 5

APPENDIX B

INSTALLATION AND SAMPLING OF NESTED VAPOR POINTS VP-49S AND VP-49D

APPENDIX B
INSTALLATION AND SAMPLING OF NESTED SOIL VAPOR POINTS VP-49S & VP-49D

B.1 PURPOSE

Historically, three residences located (501 6th, 407 West and 411 West) near the western boundary of the Study Area have had concentrations of chlorinated volatile organic compounds (cVOCs) in subslab vapor samples that are relatively high compared to neighboring properties and nearby soil vapor probes. For Radio Materials Corporation (RMC) to be the source of cVOCs in the subslab vapor samples, contaminants would have to have migrated downgradient in groundwater and then volatilized into the overlying unsaturated soil. However, cVOC concentrations in groundwater near this downgradient boundary area (OB-43D) are low [0.0068 milligrams per liter (mg/l) trichloroethene (TCE)] and the depth to groundwater is relatively deep (62.12 feet). The purpose of this investigation is to establish if there is a completed vapor migration pathway from groundwater to the subslab soil gas by investigating the vertical gradient of volatile organic compounds (VOCs) in soil gas near this downgradient boundary.

B.2 SUBSURFACE ENVIRONMENT

Stratigraphy beneath Attica consists of unconsolidated overburden deposits of glacial origin overlying bedrock. The overburden consists of alternating deposits of silt and sand and gravel. The surficial deposit consists of a silt unit, which is generally less than 10 feet thick near 6th Street (Study Area). Alternating layers of silt and sand and gravel underlie the surficial silt unit. Based on nearby soil borings (OB-43S and OB-43D), there is an upper sand unit from 7 to 24 feet below grade and a second sand unit from 43 to 83 feet below grade. Groundwater is encountered in the second sand unit at a depth of approximately 61 feet. Groundwater flow in the overburden deposits is towards the west-northwest to the northwest. A third water saturated sand unit is present from 125 feet to bedrock at 150 feet. A copy of the boring logs for OB-43S and OB-43D are attached.

B.3 SOIL VAPOR PROBE INSTALLATION

Two soil vapor probes (VP-49S and VP-49D) were installed to investigate the potential for vertical migration of cVOCs from groundwater to soil vapor near building structures. The vapor probes were located in the right-of-way in front of 501 6th Street. The soil vapor probes were installed and sampled using the same methodology outlined

in the April 7, 2010 Soil Vapor Study Data Transmittal and Proposed Vapor Intrusion Study Addendum.

The soil vapor probes were installed using the Geoprobe® sampling system. The Geoprobe® soil sampler was advanced to depth to collect soil for classification. The drill rods were removed from the borehole and an expendable vapor point holder was attached to the rod string. The point holder was advanced to depth. Once at depth a stainless steel vapor screen and attached polyvinyl chloride (PVC) tubing was lowered down the inside of the drill rods and was threaded onto the expendable point. The expendable point was deployed and the attached screen and tubing remained were anchored at the desired depth. A silica sand pack was installed around the vapor screen, as the rods were removed from the borehole. The vapor screen was sealed from the surface with bentonite.

The screened interval for each soil vapor probe was 1 foot in length and was set at the bottom 1 foot of each borehole. Since sand units have higher porosity and lower organic content they are typically more susceptible to contaminate transport in the vapor phase; therefore, the vapor probe screens were installed in sand units. One vapor probe was screened in the upper sand unit approximately 20 feet below grade and the second vapor probe was screened in a deeper sand unit 49 feet below grade. Copies of the vapor probe construction diagrams are attached. A geological cross section showing the screening of the vapor probes in relation to soil types and occurrence of water is shown on Figure B.1. The soil types observed during the soil vapor probe installation were logged in accordance with the Unified Soil Classification System (USCS).

B.4 SOIL VAPOR PROBE SAMPLING

The soil vapor samples were collected using 6-liter capacity Summa™ canisters fitted with a laboratory calibrated flow regulation device sized to allow the collection of the soil vapor sample over a 1-hour sample collection time. The Summa™ canisters were attached to vapor probe hose barb using a short length of silicone tubing. Once the canister was attached to the probe, the valve was opened to permit flow from the probe to the Summa™ canister. Then, the Summa™ canister flow regulator was opened to permit collection of the soil vapor sample.

The 1-hour sample collection time for a 6-liter capacity Summa™ canister corresponds to a maximum soil vapor sample collection flow rate of approximately 200 milliliters per minute (ml/min). A maximum flow rate of 200 ml/min is recommended to limit VOC stripping from soil and/or groundwater, prevent the short-circuiting of ambient air from ground surface that would dilute the soil vapor sample, and increase confidence

regarding the location from which the sample is obtained. The low flow rate of 200 ml/min provides the most representative sample of in-situ conditions.

To ensure some residual vacuum in each canister following sample collection, the canister pressures were measured at approximately 50 minutes after start of sample collection using a vacuum gauge provided by the laboratory. A maximum residual vacuum of 10-inch mercury (Hg) is allowed. The residual Summa™ canister vacuum pressures were measured and recorded. The vacuum gauge provided by laboratory was returned with the canister samples to check residual vacuum pressure in the laboratory prior to sample analysis and is recorded on the analytical data report.

Prior to sample collection, soil vapor probe purging was conducted at a maximum flow rate of 200 ml/min. Two soil vapor probe volumes (calculated based on casing and sand pack volume) were purged to remove potentially stagnant air from the internal volume of the probe to ensure that the sample collected was representative of the formation drawn into the soil vapor probe.

The soil vapor samples were analyzed using the U.S. EPA TO-14A gas chromatograph/mass spectrometer (GC/MS) methodology. Quality control/quality assurance (QA/QC) measures implemented during the soil vapor sampling event included maintaining a minimum negative pressure in the Summa™ canisters following sample collection, collection of one field duplicate sample, and collection of an ambient air sample.

B.5 VP-49 SOIL GAS ANALYTICAL RESULTS

The vapor probes were installed on April 1, 2011 and sampled on April 6, 2011. The summa canister connected to the deep vapor probe VP-49D maintained a vacuum for an extended period of time. Although it was installed in a sand unit there was little air flow through the vapor point and an air sample could not be collected. A soil gas vapor sample and duplicate sample were collected from vapor point VP-49S. The analytical results did not reveal concentrations of cVOCs above the laboratories method detection limits. A copy of the laboratory analytical report is attached.

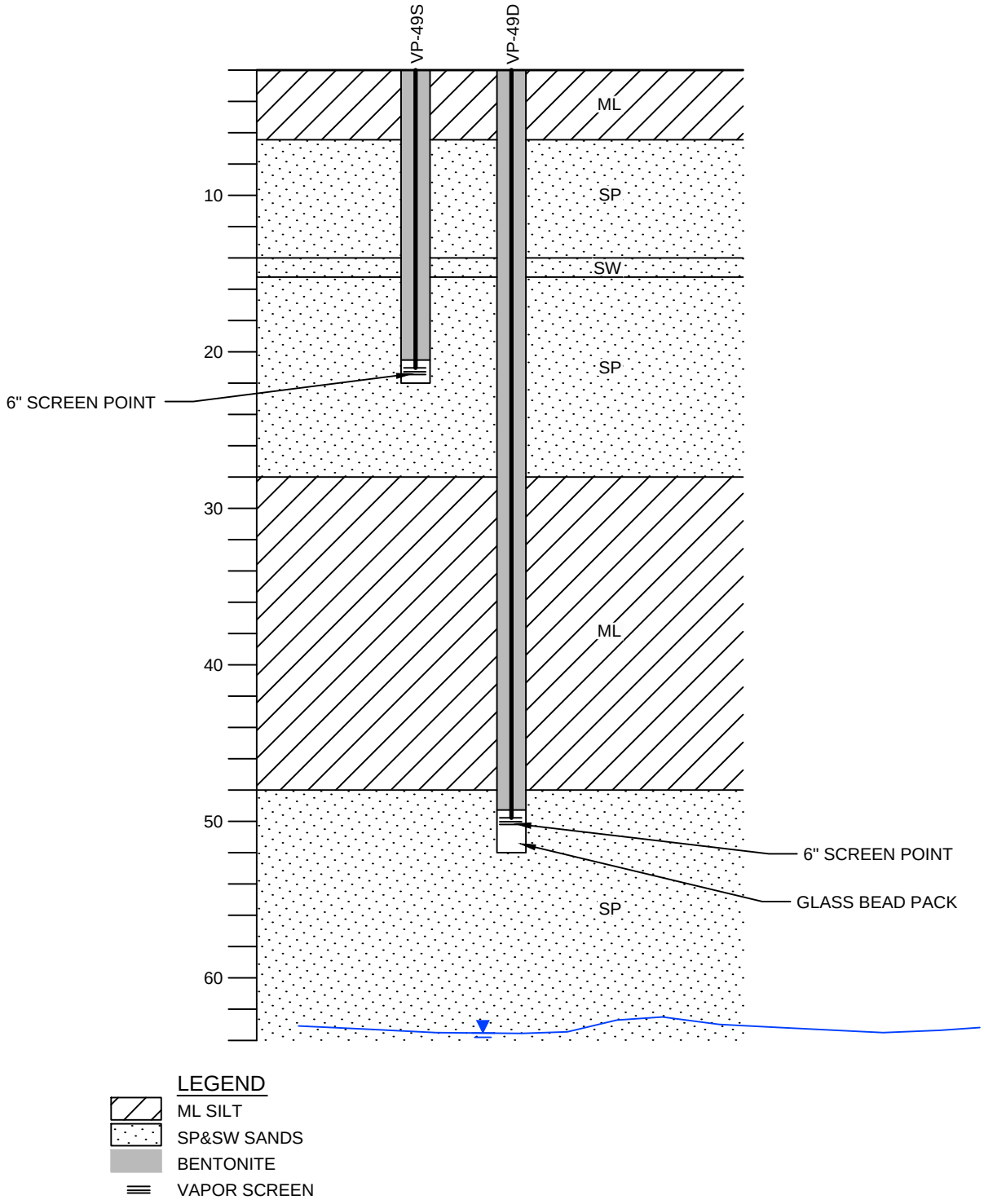


figure B-1

CROSS-SECTION OF NESTED SOIL VAPOR PROBES
RADIO MATERIALS CORPORATION
Attica, Indiana

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Radio Materials Corporation
PROJECT NUMBER: 019190
CLIENT: Radio Materials Corporation
LOCATION: Attica, Indiana
DRILLING CONTRACTOR: Boart Longyear

HOLE DESIGNATION: OB-43S
DATE COMPLETED: July 18, 2005
DRILLING METHOD: 4 1/4-inch ID HSA
FIELD PERSONNEL: M. Groves

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft AMSL
	GROUND SURFACE	552.7
	TOP OF CASING	552.4
0	CONCRETE	552.1
	- FILL, sand and gravel, drain tile, debris from 0.6 to 2.0ft BGS	
	ML SILT, some sand and gravel, low plasticity, brown, very moist	
5	- trace sand and gravel, moist at 4.8ft BGS	
	SP SAND, with gravel, some silt, compact, medium grained, poorly graded, brown, moist	545.2
10	- trace gravel at 8.9ft BGS	
	- with gravel, sand, no silt, dense, medium to coarse grained at 12.8ft BGS	
15	- some gravel at 14.7ft BGS	
20	- some silt at 23.1ft BGS	
	ML SILT, some sand, trace gravel, trace clay, stiff, low plasticity, brown, slightly moist	528.7
25	- some clay, gray at 25.2ft BGS	
30	- trace sand, hard at 30.5ft BGS	
35		
40		
	SP SAND, compact, fine grained, poorly graded, brown, moist	509.7
45		
50		
55		

OVERBURDEN WELL: Concrete; Surface Seal Bentonite Grout; Bentonite Chips

SAMPLE NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)
1		0.0		–
2		1.3	10	0
3		1.0	4	0
4		1.2	21	0
5		1.3	23	0
6		1.3	168	0
7		1.5	30	0
8		1.5	29	0
9		1.2	27	0
10		0.3	49	0
11		0.3	–	–
12		1.2	17	0
13		2.0	48	0
14		1.7	84	0
15		2.0	21	0
16		2.0	65	0
17		2.0	47	0
18		2.0	32	0
19		1.7	50	0
20		1.5	32	0
21		2.0	77	0
22		1.5	124	0
23				
24				
25				
26				
27				
28		1.3	88	0
29				
30				

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 019190-MW.GPJ CRA_CORP.GDT 4/9/10

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Radio Materials Corporation
PROJECT NUMBER: 019190
CLIENT: Radio Materials Corporation
LOCATION: Attica, Indiana
DRILLING CONTRACTOR: Boart Longyear

HOLE DESIGNATION: OB-43S
DATE COMPLETED: July 18, 2005
DRILLING METHOD: 4 1/4-inch ID HSA
FIELD PERSONNEL: M. Groves

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft AMSL	OVERBURDEN WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
65	- trace gravel at 66.8ft BGS		Sand Pack Well Screen	31				
70				32				
75				33				
80				34		1.5	64	0
85	CL CLAY, silt, clay, trace sand, hard, low plasticity, gray, slightly moist	469.7		35				
90	END OF BOREHOLE @ 86.0ft BGS	466.7		36				
95				37				
100				38				
105				39		1.3	62	0
110				40				
115				41				
				42				
				43		2.7	66	0

WELL DETAILS
Screened interval:
489.7 to 479.7ft AMSL
63.0 to 73.0ft BGS
Length: 10ft
Diameter: 2in
Slot Size: 10
Material: Factory-slotted Schedule 40 PVC
Seal:
551.7 to 492.7ft AMSL
1.0 to 60.0ft BGS
Material: Bentonite
Sand Pack:
492.7 to 466.7ft AMSL
60.0 to 86.0ft BGS
Material: #5 Silica Sand

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 019190-MW.GPJ CRA_CORP.GDT 4/9/10

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

PROJECT NAME: Radio Materials Corporation
PROJECT NUMBER: 019190
CLIENT: Radio Materials Corporation
LOCATION: Attica, Indiana
DRILLING CONTRACTOR: Boart Longyear

HOLE DESIGNATION: OB-43D
DATE COMPLETED: August 18, 2005
DRILLING METHOD: 4 1/4-inch ID HSA
FIELD PERSONNEL: M. Groves

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft AMSL	OVERBURDEN WELL	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE TOP OF CASING	552.7 552.3						
0	Lithology based on stratigraphy information from OB-43S from 0.0 to 86.0ft BGS		Concrete Surface Seal					
5								
10								
15								
20								
25								
30								
35								
40								
45			Bentonite Grout					
50								
55								
60								
65								
70								
75								
80								
85	CL CLAY, with some silt, trace sand, hard, dark gray, slightly moist			1		1.8	66	0

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STATIC WATER LEVEL ▼ 8/17/05

OVERBURDEN LOG 019190-MW.GPJ CRA_CORP.GDT 4/9/10

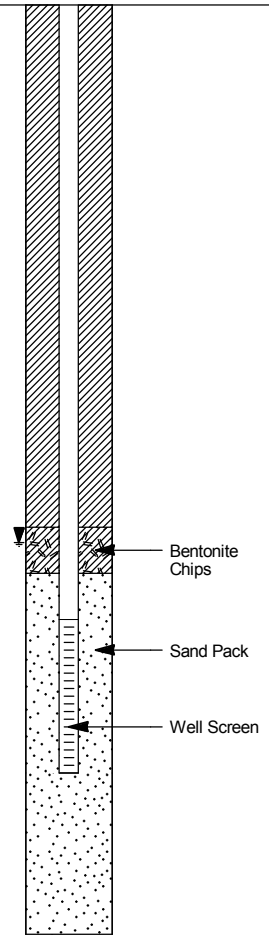
STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Radio Materials Corporation
PROJECT NUMBER: 019190
CLIENT: Radio Materials Corporation
LOCATION: Attica, Indiana
DRILLING CONTRACTOR: Boart Longyear

HOLE DESIGNATION: OB-43D
DATE COMPLETED: August 18, 2005
DRILLING METHOD: 4 1/4-inch ID HSA
FIELD PERSONNEL: M. Groves

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft AMSL
95		
100		
105		
110		
115	- stiff at 115.0ft BGS	
120		
125	SP SAND, trace gravel, compact, coarse grained, poorly graded, brown, wet	427.7
130		
135	- some gravel, medium to coarse grained, dense, at 135.0ft BGS	
140		
145		
150	SANDSTONE, medium grained, tan	402.7
	END OF BOREHOLE @ 150.5ft BGS	402.2
155		
160		
165		
170		
175		

OVERBURDEN WELL



WELL DETAILS
Screened interval:
523.7 to 513.7ft AMSL
29.0 to 39.0ft BGS
Length: 10ft
Diameter: 2in
Slot Size: 10
Material: Factory-slotted Schedule 40 PVC
Seal:
551.7 to 525.7ft AMSL
1.0 to 27.0ft BGS
Material: Bentonite
Sand Pack:
525.7 to 512.7ft AMSL
27.0 to 40.0ft BGS
Material: #5 Silica Sand

SAMPLE NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)
2	X	1.3	100	0
3	X	1.5	89	0
4	X	1.0	18	0
5	X	1.5	14	0
6	X	1.8	46	0
7	X	1.0	22	0

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STATIC WATER LEVEL ▼ 8/17/05

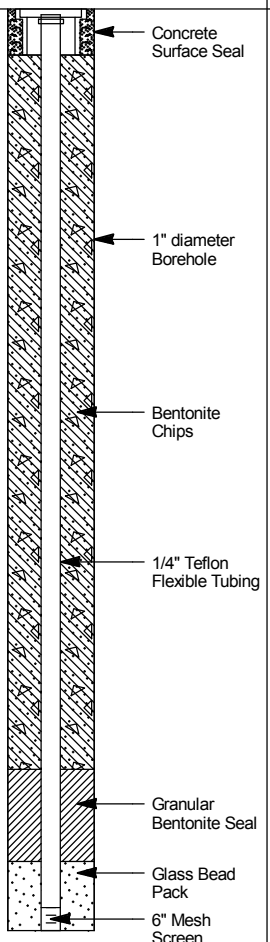
OVERBURDEN LOG 019190-MW.GPJ CRA_CORP.GDT 4/9/10

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Radio Materials Corporation
PROJECT NUMBER: 019190
CLIENT:
LOCATION: Attica, Indiana
DRILLING CONTRACTOR: CRA Services

HOLE DESIGNATION: VP-49S
DATE COMPLETED: April 1, 2011
DRILLING METHOD: Geoprobe
FIELD PERSONNEL: N. Hill

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS
0	ASPHALT, gravel	0.5
	ML SILT, trace sand, firm, slight plasticity, dark brown, moist - becomes gravelly and sandy at 1.0ft BGS	
4.5	SP SAND, fine gravel, loose, fine to medium grained, poorly graded, light brown, dry - cobble at 5.5ft BGS	
12.0	SW SAND, compact, fine grained, well graded, light tan, moist	13.0
	SP SAND, gravelly, trace silt, loose, fine to medium grained, poorly graded, light brown, dry	
20.0	END OF BOREHOLE @ 20.0ft BGS	



WELL DETAILS
Screened interval:
19.5 to 20.0ft BGS
Length: 0.5ft
Diameter: 0.5in
Slot Size: 0.25
Material: Factory-slotted 316 Stainless Steel
Seal:
16.5 to 18.5ft BGS
Material: Bentonite Granules
Sand Pack:
18.5 to 20.0ft BGS
Material: Glass Beads (60-100 Mesh)

SAMPLE NUMBER	INTERVAL	REC (ft)	'N' VALUE
1	P/S	4.0	
2	P/S	1.0	
3	P/S	3.0	
4	P/S	1.0	

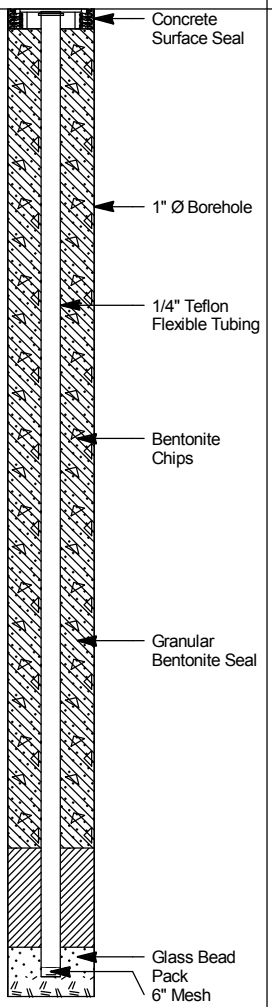
NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Radio Materials Corporation
PROJECT NUMBER: 019190
CLIENT:
LOCATION: Attica, Indiana
DRILLING CONTRACTOR: CRA Services

HOLE DESIGNATION: VP-49D
DATE COMPLETED: April 1, 2011
DRILLING METHOD: Geoprobe
FIELD PERSONNEL: N. Hill

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS
0	ASPHALT, gravel	0.5
	- becomes gravelly and sandy at 1.0ft BGS	
	ML SILT, trace sand, firm, slight plasticity, dark brown, moist	4.5
5	SP SAND, fine gravel, loose, fine to medium grained, poorly graded, light brown, dry	
	- cobble at 5.5ft BGS	
10		12.0
	SW SAND, compact, fine grained, well graded, light tan, moist	13.0
15	SP SAND, gravelly, trace silt, loose, fine to medium grained, poorly graded, light brown, dry	
20		
25		26.0
	ML SILT, with (fine) sand, trace (fine) gravel, dense, no plasticity, brown, moist	
30	- trace fine grained sand, dense/very dense, becomes dark gray, slight odor at 27.0ft BGS	
35		
40		
45		46.0
	SP SAND, compact, fine to medium grained, poorly graded, light brown, moist	
50	END OF BOREHOLE @ 50.0ft BGS	50.0
55		
60		
65		



WELL DETAILS
Screened interval:
48.5 to 49.0ft BGS
Length: 0.5ft
Diameter: 0.5in
Slot Size: 0.25
Material: Factory-slotted 316 Stainless Steel
Seal:
42.5 to 47.5ft BGS
Material: Bentonite Granules
Sand Pack:
47.5 to 49.0ft BGS
Material: Glass Beads (60-100 Mesh)

SAMPLE NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)
1	P/S	4.0		
2	P/S	1.0		
3	P/S	3.0		
4	P/S	1.0		
5	P/S	1.0		
6	P/S	3.0		0
27'-30'				
30'-32'				0
7	P/S	5.0		0
32'-35'				
35'-37'				0
8	P/S	5.0		0
37'-40'				
9	P/S	5.0		
10	P/S	5.0		

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 019190-VP.GPJ CRA_CORP.GDT 4/20/11

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

3585 Cadillac Avenue, Suite A Costa Mesa, CA 92626 * 714-258-8610 * Fax 714-258-0921

April 05, 2011

LABORATORY REPORT

Client:
Conestoga Rovers & Associates, Inc. Indianapolis
6520 Corporate Drive
Indianapolis, IN 46278
Attn: Michael Richardson

Work Order:	LUC0296
Project Name:	RMC / Attica, Indiana
Project Number:	019190-01 / Indoor Air/Soil Gas Sampling
Date Received:	03/28/11

If you have any questions relating to this analytical report, please contact your Laboratory Project Manager at 714-258-8610.

Approved By:

DRAFT REPORT
DATA SUBJECT TO CHANGE

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Conestoga Rovers & Associates, Inc. Indianapolis
6520 Corporate Drive
Indianapolis, IN 46278
Michael Richardson

Work Order: LUC0296
Project: RMC / Attica, Indiana
Project Number: 019190-01 / Indoor Air/Soil Gas Sampling

Received: 03/28/11 11:00
Reported: 04/05/11 10:35

SAMPLE IDENTIFICATION	LAB NUMBER	COLLECTION	MATRIX	CONTAINER TYPE
DRAFT: GU-032511-NH-001	LUC0296-01	03/25/11 09:52	Air	Passivated Canister
DRAFT: IA-032511-NH-001	LUC0296-02	03/25/11 10:29	Air	Passivated Canister
DRAFT: IA-032511-NH-002	LUC0296-03	03/25/11 10:30	Air	Passivated Canister
DRAFT: IA-032511-NH-006	LUC0296-04	03/25/11 11:42	Air	Passivated Canister
DRAFT: AC-032511-NH-001	LUC0296-05	03/25/11 10:31	Air	Passivated Canister
DRAFT: AC-032511-NH-002	LUC0296-06	03/25/11 11:43	Air	Passivated Canister

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Michael Richardson

Work Order: LUC0296
Project: RMC / Attica, Indiana
Project Number: 019190-01 / Indoor Air/Soil Gas Sampling

Received: 03/28/11 11:00
Reported: 04/05/11 10:35

ANALYTICAL REPORT

Analyte	Result	Data Qualifiers	Units	RL	Dilution	Date Analyzed	Instrument	Analyst	QC Batch
Sample ID: LUC0296-01 (DRAFT: GU-032511-NH-001 - Air)							**Sampled: 03/25/11 09:52**		
DRAFT: EPA TO15 (Med-level) - Volatile Organic Compounds by GC/MS									
cis-1,2-Dichloroethene	ND		ug/m3	7.9	1.0	04/01/11 14:56	MSA	DLK	11D0010
trans-1,2-Dichloroethene	ND		ug/m3	7.9	1.0	04/01/11 14:56	MSA	DLK	11D0010
1,1-Dichloroethene	ND		ug/m3	7.9	1.0	04/01/11 14:56	MSA	DLK	11D0010
2-Propanol	ND		ug/m3	25	1.0	04/01/11 14:56	MSA	DLK	11D0010
Tetrachloroethene	ND		ug/m3	14	1.0	04/01/11 14:56	MSA	DLK	11D0010
Trichloroethene	ND		ug/m3	11	1.0	04/01/11 14:56	MSA	DLK	11D0010
Vinyl chloride	ND		ug/m3	10	1.0	04/01/11 14:56	MSA	DLK	11D0010
Surr: 4-Bromofluorobenzene (70-130%)	*100 %*					04/01/11 14:56	MSA	DLK	11D0010
Surr: 1,2-Dichloroethane-d4 (70-130%)	*113 %*					04/01/11 14:56	MSA	DLK	11D0010
Surr: Toluene-d8 (70-130%)	*98 %*					04/01/11 14:56	MSA	DLK	11D0010

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Project: RMC / Attica, Indiana
Project Number: 019190-01 / Indoor Air/Soil Gas Sampling

Received: 03/28/11 11:00
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ANALYTICAL REPORT

Analyte	Result	Data Qualifiers	Units	RL	Dilution	Date Analyzed	Instrument	Analyst	QC Batch
Sample ID: LUC0296-02 (DRAFT: IA-032511-NH-001 - Air)							**Sampled: 03/25/11 10:29**		
DRAFT: EPA TO15 - Volatile Organic Compounds by GC/MS (SIM)									
cis-1,2-Dichloroethene	ND		ug/m3	0.055	1.0	03/31/11 20:05	MSD	DLK	11D0002
trans-1,2-Dichloroethene	ND		ug/m3	0.055	1.0	03/31/11 20:05	MSD	DLK	11D0002
1,1-Dichloroethene	ND		ug/m3	0.020	1.0	03/31/11 20:05	MSD	DLK	11D0002
Tetrachloroethene	**0.23**		ug/m3	0.14	1.0	03/31/11 20:05	MSD	DLK	11D0002
Trichloroethene	ND		ug/m3	0.027	1.0	03/31/11 20:05	MSD	DLK	11D0002
Vinyl chloride	ND		ug/m3	0.013	1.0	03/31/11 20:05	MSD	DLK	11D0002
Surr: 4-Bromofluorobenzene (70-130%)	*103 %*					03/31/11 20:05	MSD	DLK	11D0002
Surr: 1,2-Dichloroethane-d4 (70-130%)	*105 %*					03/31/11 20:05	MSD	DLK	11D0002
Surr: Toluene-d8 (70-130%)	*100 %*					03/31/11 20:05	MSD	DLK	11D0002

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Received: 03/28/11 11:00
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ANALYTICAL REPORT

Analyte	Result	Data Qualifiers	Units	RL	Dilution	Date Analyzed	Instrument	Analyst	QC Batch
Sample ID: LUC0296-03 (DRAFT: IA-032511-NH-002 - Air)							**Sampled: 03/25/11 10:30**		
DRAFT: EPA TO15 - Volatile Organic Compounds by GC/MS (SIM)									
cis-1,2-Dichloroethene	ND		ug/m3	0.055	1.0	03/31/11 20:50	MSD	DLK	11D0002
trans-1,2-Dichloroethene	ND		ug/m3	0.055	1.0	03/31/11 20:50	MSD	DLK	11D0002
1,1-Dichloroethene	ND		ug/m3	0.020	1.0	03/31/11 20:50	MSD	DLK	11D0002
Tetrachloroethene	ND		ug/m3	0.14	1.0	03/31/11 20:50	MSD	DLK	11D0002
Trichloroethene	**0.051**		ug/m3	0.027	1.0	03/31/11 20:50	MSD	DLK	11D0002
Vinyl chloride	ND		ug/m3	0.013	1.0	03/31/11 20:50	MSD	DLK	11D0002
Surr: 4-Bromofluorobenzene (70-130%)	*102 %*					03/31/11 20:50	MSD	DLK	11D0002
Surr: 1,2-Dichloroethane-d4 (70-130%)	*105 %*					03/31/11 20:50	MSD	DLK	11D0002
Surr: Toluene-d8 (70-130%)	*101 %*					03/31/11 20:50	MSD	DLK	11D0002

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Received: 03/28/11 11:00
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ANALYTICAL REPORT

Analyte	Result	Data Qualifiers	Units	RL	Dilution	Date Analyzed	Instrument	Analyst	QC Batch
Sample ID: LUC0296-04 (DRAFT: IA-032511-NH-006 - Air)							**Sampled: 03/25/11 11:42**		
DRAFT: EPA TO15 - Volatile Organic Compounds by GC/MS (SIM)									
cis-1,2-Dichloroethene	ND		ug/m3	0.055	1.0	04/04/11 22:32	MSD	LY	11D0025
trans-1,2-Dichloroethene	ND		ug/m3	0.055	1.0	04/04/11 22:32	MSD	LY	11D0025
1,1-Dichloroethene	ND		ug/m3	0.020	1.0	04/04/11 22:32	MSD	LY	11D0025
Tetrachloroethene	**0.15**		ug/m3	0.14	1.0	04/04/11 22:32	MSD	LY	11D0025
Trichloroethene	**0.054**		ug/m3	0.027	1.0	04/04/11 22:32	MSD	LY	11D0025
Vinyl chloride	ND		ug/m3	0.013	1.0	04/04/11 22:32	MSD	LY	11D0025
Surr: 4-Bromofluorobenzene (70-130%)	*107 %*					04/04/11 22:32	MSD	LY	11D0025
Surr: 1,2-Dichloroethane-d4 (70-130%)	*103 %*					04/04/11 22:32	MSD	LY	11D0025
Surr: Toluene-d8 (70-130%)	*101 %*					04/04/11 22:32	MSD	LY	11D0025

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Work Order: LUC0296
Project: RMC / Attica, Indiana
Project Number: 019190-01 / Indoor Air/Soil Gas Sampling

Received: 03/28/11 11:00
Reported: 04/05/11 10:35

ANALYTICAL REPORT

Analyte	Result	Data Qualifiers	Units	RL	Dilution	Date Analyzed	Instrument	Analyst	QC Batch
Sample ID: LUC0296-05 (DRAFT: AC-032511-NH-001 - Air)							**Sampled: 03/25/11 10:31**		
DRAFT: EPA TO15 - Volatile Organic Compounds by GC/MS (SIM)									
cis-1,2-Dichloroethene	ND		ug/m3	0.055	1.0	04/04/11 23:17	MSD	LY	11D0025
trans-1,2-Dichloroethene	ND		ug/m3	0.055	1.0	04/04/11 23:17	MSD	LY	11D0025
1,1-Dichloroethene	ND		ug/m3	0.020	1.0	04/04/11 23:17	MSD	LY	11D0025
Tetrachloroethene	ND		ug/m3	0.14	1.0	04/04/11 23:17	MSD	LY	11D0025
Trichloroethene	**0.045**		ug/m3	0.027	1.0	04/04/11 23:17	MSD	LY	11D0025
Vinyl chloride	ND		ug/m3	0.013	1.0	04/04/11 23:17	MSD	LY	11D0025
Surr: 4-Bromofluorobenzene (70-130%)	*99 %*					04/04/11 23:17	MSD	LY	11D0025
Surr: 1,2-Dichloroethane-d4 (70-130%)	*101 %*					04/04/11 23:17	MSD	LY	11D0025
Surr: Toluene-d8 (70-130%)	*101 %*					04/04/11 23:17	MSD	LY	11D0025

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Work Order: LUC0296
Project: RMC / Attica, Indiana
Project Number: 019190-01 / Indoor Air/Soil Gas Sampling

Received: 03/28/11 11:00
Reported: 04/05/11 10:35

ANALYTICAL REPORT

Analyte	Result	Data Qualifiers	Units	RL	Dilution	Date Analyzed	Instrument	Analyst	QC Batch
Sample ID: LUC0296-06 (DRAFT: AC-032511-NH-002 - Air)							**Sampled: 03/25/11 11:43**		
DRAFT: EPA TO15 - Volatile Organic Compounds by GC/MS (SIM)									
cis-1,2-Dichloroethene	ND		ug/m3	0.055	1.0	03/31/11 23:09	MSD	DLK	11D0002
trans-1,2-Dichloroethene	ND		ug/m3	0.055	1.0	03/31/11 23:09	MSD	DLK	11D0002
1,1-Dichloroethene	ND		ug/m3	0.020	1.0	03/31/11 23:09	MSD	DLK	11D0002
Tetrachloroethene	ND		ug/m3	0.14	1.0	03/31/11 23:09	MSD	DLK	11D0002
Trichloroethene	**0.058**		ug/m3	0.027	1.0	03/31/11 23:09	MSD	DLK	11D0002
Vinyl chloride	ND		ug/m3	0.013	1.0	03/31/11 23:09	MSD	DLK	11D0002
Surr: 4-Bromofluorobenzene (70-130%)	*99 %*					03/31/11 23:09	MSD	DLK	11D0002
Surr: 1,2-Dichloroethane-d4 (70-130%)	*105 %*					03/31/11 23:09	MSD	DLK	11D0002
Surr: Toluene-d8 (70-130%)	*100 %*					03/31/11 23:09	MSD	DLK	11D0002

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Received: 03/28/11 11:00
Reported: 04/05/11 10:35

PROJECT QUALITY CONTROL DATA

Blank

Analyte	Result	Data Qualifier	Units	RL	Dilution	Date Analyzed	Instrument	Analyst	QC Batch
Sample ID: 11D0002-BLK1 (Blank - Air)									
DRAFT: EPA TO15 - Volatile Organic Compounds by GC/MS (SIM)									
cis-1,2-Dichloroethene	ND		ug/m3	0.056	1.00	03/31/11 19:22	MSD	DLK	11D0002
trans-1,2-Dichloroethene	ND		ug/m3	0.056	1.00	03/31/11 19:22	MSD	DLK	11D0002
1,1-Dichloroethene	ND		ug/m3	0.020	1.00	03/31/11 19:22	MSD	DLK	11D0002
Tetrachloroethene	ND		ug/m3	0.14	1.00	03/31/11 19:22	MSD	DLK	11D0002
Trichloroethene	ND		ug/m3	0.027	1.00	03/31/11 19:22	MSD	DLK	11D0002
Vinyl chloride	ND		ug/m3	0.013	1.00	03/31/11 19:22	MSD	DLK	11D0002
Surr: 4-Bromofluorobenzene (70-130%)	*96%*					03/31/11 19:22	MSD	DLK	11D0002
Surr: 1,2-Dichloroethane-d4 (70-130%)	*105%*					03/31/11 19:22	MSD	DLK	11D0002
Surr: Toluene-d8 (70-130%)	*102%*					03/31/11 19:22	MSD	DLK	11D0002
Sample ID: 11D0010-BLK1 (Blank - Air)									
DRAFT: EPA TO15 (Med-level) - Volatile Organic Compounds by GC/MS									
cis-1,2-Dichloroethene	ND		ug/m3	7.9	1.00	04/01/11 12:12	MSA	DLK	11D0010
trans-1,2-Dichloroethene	ND		ug/m3	7.9	1.00	04/01/11 12:12	MSA	DLK	11D0010
1,1-Dichloroethene	ND		ug/m3	7.9	1.00	04/01/11 12:12	MSA	DLK	11D0010
2-Propanol	ND		ug/m3	25	1.00	04/01/11 12:12	MSA	DLK	11D0010
Tetrachloroethene	ND		ug/m3	14	1.00	04/01/11 12:12	MSA	DLK	11D0010
Trichloroethene	ND		ug/m3	11	1.00	04/01/11 12:12	MSA	DLK	11D0010
Vinyl chloride	ND		ug/m3	10	1.00	04/01/11 12:12	MSA	DLK	11D0010
Surr: 4-Bromofluorobenzene (70-130%)	*98%*					04/01/11 12:12	MSA	DLK	11D0010
Surr: 1,2-Dichloroethane-d4 (70-130%)	*107%*					04/01/11 12:12	MSA	DLK	11D0010
Surr: Toluene-d8 (70-130%)	*100%*					04/01/11 12:12	MSA	DLK	11D0010
Sample ID: 11D0025-BLK1 (Blank - Air)									
DRAFT: EPA TO15 - Volatile Organic Compounds by GC/MS (SIM)									
cis-1,2-Dichloroethene	ND		ug/m3	0.056	1.00	04/04/11 20:18	MSD	LY	11D0025
trans-1,2-Dichloroethene	ND		ug/m3	0.056	1.00	04/04/11 20:18	MSD	LY	11D0025
1,1-Dichloroethene	ND		ug/m3	0.020	1.00	04/04/11 20:18	MSD	LY	11D0025
Tetrachloroethene	ND		ug/m3	0.14	1.00	04/04/11 20:18	MSD	LY	11D0025
Trichloroethene	ND		ug/m3	0.027	1.00	04/04/11 20:18	MSD	LY	11D0025
Vinyl chloride	ND		ug/m3	0.013	1.00	04/04/11 20:18	MSD	LY	11D0025
Surr: 4-Bromofluorobenzene (70-130%)	*85%*					04/04/11 20:18	MSD	LY	11D0025
Surr: 1,2-Dichloroethane-d4 (70-130%)	*98%*					04/04/11 20:18	MSD	LY	11D0025
Surr: Toluene-d8 (70-130%)	*106%*					04/04/11 20:18	MSD	LY	11D0025

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Michael Richardson

Work Order: LUC0296
Project: RMC / Attica, Indiana
Project Number: 019190-01 / Indoor Air/Soil Gas Sampling

Received: 03/28/11 11:00
Reported: 04/05/11 10:35

PROJECT QUALITY CONTROL DATA

LCS

Analyte	Result	Data Qualifiers	Units	RL	Dilution	Spike Conc	% Rec	Target Range	Instrument	Date Analyzed	QC Batch
Sample ID: 11D0002-BS1 (LCS - Air)											
DRAFT: EPA TO15 - Volatile Organic Compounds by GC/MS (SIM)											
cis-1,2-Dichloroethene	**4.39**		ug/m3	0.056	1.00	4.16	105%	70 - 130	MSD	03/31/11 16:31	11D0002
trans-1,2-Dichloroethene	**4.36**		ug/m3	0.056	1.00	4.16	105%	70 - 130	MSD	03/31/11 16:31	11D0002
1,1-Dichloroethene	**4.83**		ug/m3	0.020	1.00	4.32	112%	70 - 130	MSD	03/31/11 16:31	11D0002
Tetrachloroethene	**6.87**		ug/m3	0.14	1.00	6.78	101%	70 - 130	MSD	03/31/11 16:31	11D0002
Trichloroethene	**6.11**		ug/m3	0.027	1.00	5.37	114%	70 - 130	MSD	03/31/11 16:31	11D0002
Vinyl chloride	**3.00**		ug/m3	0.013	1.00	2.56	117%	70 - 130	MSD	03/31/11 16:31	11D0002
Surr: 4-Bromofluorobenzene	**14.9**		ug/m3		1.00	14.3	104%	70 - 130	MSD	03/31/11 16:31	11D0002
Surr: 1,2-Dichloroethane-d4	**7.94**		ug/m3		1.00	8.43	94%	70 - 130	MSD	03/31/11 16:31	11D0002
Surr: Toluene-d8	**7.72**		ug/m3		1.00	8.20	94%	70 - 130	MSD	03/31/11 16:31	11D0002
Sample ID: 11D0010-BS1 (LCS - Air)											
DRAFT: EPA TO15 (Med-level) - Volatile Organic Compounds by GC/MS											
cis-1,2-Dichloroethene	**209**		ug/m3	7.9	1.00	208	101%	70 - 130	MSA	04/01/11 10:19	11D0010
trans-1,2-Dichloroethene	**199**		ug/m3	7.9	1.00	208	95%	70 - 130	MSA	04/01/11 10:19	11D0010
1,1-Dichloroethene	**240**		ug/m3	7.9	1.00	216	111%	70 - 130	MSA	04/01/11 10:19	11D0010
2-Propanol	**107**		ug/m3	25	1.00	123	87%	70 - 130	MSA	04/01/11 10:19	11D0010
Tetrachloroethene	**284**		ug/m3	14	1.00	339	84%	70 - 130	MSA	04/01/11 10:19	11D0010
Trichloroethene	**241**		ug/m3	11	1.00	269	90%	70 - 130	MSA	04/01/11 10:19	11D0010
Vinyl chloride	**133**		ug/m3	10	1.00	128	104%	70 - 130	MSA	04/01/11 10:19	11D0010
Surr: 4-Bromofluorobenzene	**335**		ug/m3		1.00	358	94%	70 - 130	MSA	04/01/11 10:19	11D0010
Surr: 1,2-Dichloroethane-d4	**221**		ug/m3		1.00	211	105%	70 - 130	MSA	04/01/11 10:19	11D0010
Surr: Toluene-d8	**215**		ug/m3		1.00	205	105%	70 - 130	MSA	04/01/11 10:19	11D0010
Sample ID: 11D0025-BS1 (LCS - Air)											
DRAFT: EPA TO15 - Volatile Organic Compounds by GC/MS (SIM)											
cis-1,2-Dichloroethene	**3.86**		ug/m3	0.056	1.00	4.16	93%	70 - 130	MSD	04/04/11 18:52	11D0025
trans-1,2-Dichloroethene	**3.95**		ug/m3	0.056	1.00	4.16	95%	70 - 130	MSD	04/04/11 18:52	11D0025
1,1-Dichloroethene	**4.25**		ug/m3	0.020	1.00	4.32	98%	70 - 130	MSD	04/04/11 18:52	11D0025
Tetrachloroethene	**6.25**		ug/m3	0.14	1.00	6.78	92%	70 - 130	MSD	04/04/11 18:52	11D0025
Trichloroethene	**4.77**		ug/m3	0.027	1.00	5.37	89%	70 - 130	MSD	04/04/11 18:52	11D0025
Vinyl chloride	**2.25**		ug/m3	0.013	1.00	2.56	88%	70 - 130	MSD	04/04/11 18:52	11D0025
Surr: 4-Bromofluorobenzene	**14.6**		ug/m3		1.00	14.3	102%	70 - 130	MSD	04/04/11 18:52	11D0025
Surr: 1,2-Dichloroethane-d4	**7.96**		ug/m3		1.00	8.43	95%	70 - 130	MSD	04/04/11 18:52	11D0025
Surr: Toluene-d8	**8.35**		ug/m3		1.00	8.20	102%	70 - 130	MSD	04/04/11 18:52	11D0025

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Conestoga Rovers & Associates, Inc. Indianapolis
6520 Corporate Drive
Indianapolis, IN 46278
Michael Richardson

Work Order: LUC0296
Project: RMC / Attica, Indiana
Project Number: 019190-01 / Indoor Air/Soil Gas Sampling

Received: 03/28/11 11:00
Reported: 04/05/11 10:35

PROJECT QUALITY CONTROL DATA

LCS Dup

Analyte	Result	Data Qualifiers	Units	RL	Dilution	Spike Conc	% Rec	Target Range	RPD	Limit	Date Analyzed	QC Batch
Sample ID: 11D0002-BSD1 (LCS Dup - Air)												
DRAFT: EPA TO15 - Volatile Organic Compounds by GC/MS (SIM)												
cis-1,2-Dichloroethene	**4.03**		ug/m3	0.056	1.00	4.16	97%	70 - 130	8	25	03/31/11 18:39	11D0002
trans-1,2-Dichloroethene	**3.98**		ug/m3	0.056	1.00	4.16	96%	70 - 130	9	25	03/31/11 18:39	11D0002
1,1-Dichloroethene	**4.41**		ug/m3	0.020	1.00	4.32	102%	70 - 130	9	25	03/31/11 18:39	11D0002
Tetrachloroethene	**6.53**		ug/m3	0.14	1.00	6.78	96%	70 - 130	5	25	03/31/11 18:39	11D0002
Trichloroethene	**5.29**		ug/m3	0.027	1.00	5.37	98%	70 - 130	14	25	03/31/11 18:39	11D0002
Vinyl chloride	**2.52**		ug/m3	0.013	1.00	2.56	99%	70 - 130	17	25	03/31/11 18:39	11D0002
Surr: 4-Bromofluorobenzene	**15.0**		ug/m3		1.00	14.3	105%	70 - 130			03/31/11 18:39	11D0002
Surr: 1,2-Dichloroethane-d4	**8.71**		ug/m3		1.00	8.43	103%	70 - 130			03/31/11 18:39	11D0002
Surr: Toluene-d8	**8.09**		ug/m3		1.00	8.20	99%	70 - 130			03/31/11 18:39	11D0002
Sample ID: 11D0010-BSD1 (LCS Dup - Air)												
DRAFT: EPA TO15 (Med-level) - Volatile Organic Compounds by GC/MS												
cis-1,2-Dichloroethene	**203**		ug/m3	7.9	1.00	208	98%	70 - 130	3	25	04/01/11 11:37	11D0010
trans-1,2-Dichloroethene	**197**		ug/m3	7.9	1.00	208	95%	70 - 130	0.9	25	04/01/11 11:37	11D0010
1,1-Dichloroethene	**230**		ug/m3	7.9	1.00	216	106%	70 - 130	4	25	04/01/11 11:37	11D0010
2-Propanol	**100**		ug/m3	25	1.00	123	81%	70 - 130	7	25	04/01/11 11:37	11D0010
Tetrachloroethene	**280**		ug/m3	14	1.00	339	83%	70 - 130	2	25	04/01/11 11:37	11D0010
Trichloroethene	**232**		ug/m3	11	1.00	269	86%	70 - 130	4	25	04/01/11 11:37	11D0010
Vinyl chloride	**140**		ug/m3	10	1.00	128	109%	70 - 130	5	25	04/01/11 11:37	11D0010
Surr: 4-Bromofluorobenzene	**343**		ug/m3		1.00	358	96%	70 - 130			04/01/11 11:37	11D0010
Surr: 1,2-Dichloroethane-d4	**218**		ug/m3		1.00	211	103%	70 - 130			04/01/11 11:37	11D0010
Surr: Toluene-d8	**204**		ug/m3		1.00	205	99%	70 - 130			04/01/11 11:37	11D0010
Sample ID: 11D0025-BSD1 (LCS Dup - Air)												
DRAFT: EPA TO15 - Volatile Organic Compounds by GC/MS (SIM)												
cis-1,2-Dichloroethene	**3.88**		ug/m3	0.056	1.00	4.16	93%	70 - 130	0.4	25	04/04/11 19:35	11D0025
trans-1,2-Dichloroethene	**3.95**		ug/m3	0.056	1.00	4.16	95%	70 - 130	0.2	25	04/04/11 19:35	11D0025
1,1-Dichloroethene	**4.18**		ug/m3	0.020	1.00	4.32	97%	70 - 130	2	25	04/04/11 19:35	11D0025
Tetrachloroethene	**6.20**		ug/m3	0.14	1.00	6.78	91%	70 - 130	0.8	25	04/04/11 19:35	11D0025
Trichloroethene	**4.78**		ug/m3	0.027	1.00	5.37	89%	70 - 130	0.2	25	04/04/11 19:35	11D0025
Vinyl chloride	**2.19**		ug/m3	0.013	1.00	2.56	86%	70 - 130	3	25	04/04/11 19:35	11D0025
Surr: 4-Bromofluorobenzene	**14.7**		ug/m3		1.00	14.3	103%	70 - 130			04/04/11 19:35	11D0025
Surr: 1,2-Dichloroethane-d4	**8.16**		ug/m3		1.00	8.43	97%	70 - 130			04/04/11 19:35	11D0025
Surr: Toluene-d8	**8.27**		ug/m3		1.00	8.20	101%	70 - 130			04/04/11 19:35	11D0025

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3585 Cadillac Avenue, Suite A Costa Mesa, CA 92626 * 714-258-8610 * Fax 714-258-0921

Conestoga Rovers & Associates, Inc. Indianapolis 6520 Corporate Drive Indianapolis, IN 46278 Michael Richardson	Work Order: Project: Project Number:	LUC0296 RMC / Attica, Indiana 019190-01 / Indoor Air/Soil Gas Sampling	Received: Reported:	03/28/11 11:00 04/05/11 10:35

DATA QUALIFIERS AND DEFINITIONS

ND Not detected at the reporting limit (or method detection limit if shown)

APPENDIX C

RESIDENTIAL AIR SAMPLING DATA

APPENDIX D

SOIL GAS VAPOR PROBES CONSTRUCTION DIAGRAMS

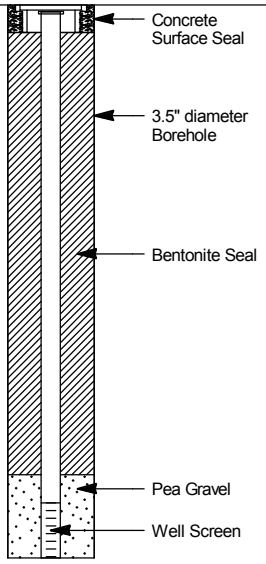
STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Radio Materials Corporation
PROJECT NUMBER: 019190
CLIENT:
LOCATION: Attica, Indiana
DRILLING CONTRACTOR: Boart Longyear

HOLE DESIGNATION: VP-1
DATE COMPLETED: May 18, 2005
DRILLING METHOD: Geoprobe
FIELD PERSONNEL: M. Groves

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS
0	TOPSOIL, grass and roots	0.5
	ML SILT, trace sand and gravel, stiff, low plasticity, brown, slightly moist	
2	- no gravel, firm, moist at 2.6ft BGS	
4		
6	- soft, very moist at 5.9ft BGS	
	- some sand, firm, moist at 7.2ft BGS	
8	SP SAND, some silt, trace gravel, compact, poorly graded, brown, moist	7.7
10	END OF BOREHOLE @ 10.0ft BGS	10.0
12		
14		
16		
18		
20		
22		
24		

VAPOR PROBE



WELL DETAILS
Screened interval:
9.0 to 10.0ft BGS
Length: 1ft
Diameter: 0.5in
Slot Size: 0.25
Material: Perforated Schedule 40 PVC
Seal:
0.5 to 8.5ft BGS
Material: Bentonite Pellets
Sand Pack:
8.5 to 10.0ft BGS
Material: Pea Gravel

SAMPLE NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)
1	P/S	2.0		0
1	P/S	2.0		0
2	P/S	2.0		0
2	P/S	1.3		0
3	P/S	2.0		0

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 019190-VP.GPJ CRA_CORP.GDT 2/23/10

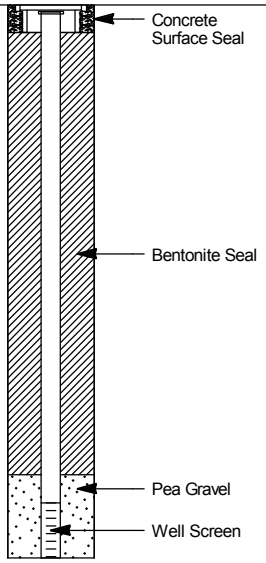
STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Radio Materials Corporation
PROJECT NUMBER: 019190
CLIENT:
LOCATION: Attica, Indiana
DRILLING CONTRACTOR: Boart Longyear

HOLE DESIGNATION: VP-2
DATE COMPLETED: May 17, 2005
DRILLING METHOD: Geoprobe
FIELD PERSONNEL: M. Groves

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS
0	ASPHALT	0.3
	FILL, sand and gravel	1.4
2	ML SILT, some sand, firm, dark brown, slightly moist	
	- trace sand, moist at 3.4ft BGS	
4	- brown, slightly moist at 4.4ft BGS	
6	- soft, moist at 7.1ft BGS	
8		
10	END OF BOREHOLE @ 10.0ft BGS	10.0
12		
14		
16		
18		
20		
22		
24		

VAPOR PROBE



WELL DETAILS
Screened interval:
9.0 to 10.0ft BGS
Length: 1ft
Diameter: 0.5in
Slot Size: 0.25
Material: Perforated Schedule 40 PVC
Seal:
0.5 to 8.5ft BGS
Material: Bentonite Pellets
Sand Pack:
8.5 to 10.0ft BGS
Material: Pea Gravel

SAMPLE NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)
1	P/S	2.0		0
1	P/S	1.4		0
2	P/S	2.0		0
2	P/S	1.8		0
3	P/S	2.0		0

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 019190-VP.GPJ CRA_CORP.GDT 2/23/10

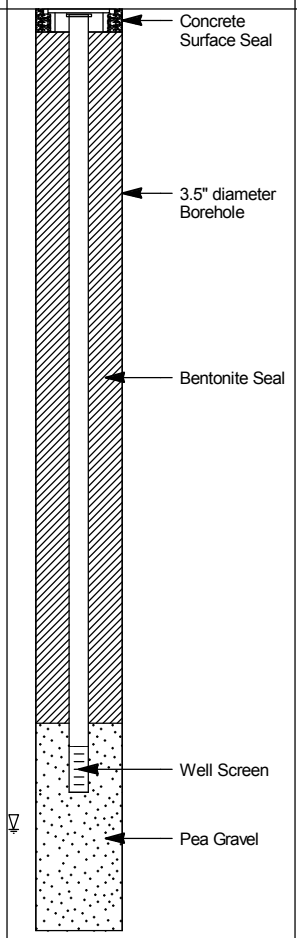
STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Radio Materials Corporation
PROJECT NUMBER: 019190
CLIENT:
LOCATION: Attica, Indiana
DRILLING CONTRACTOR: Boart Longyear

HOLE DESIGNATION: VP-2a
DATE COMPLETED: May 17, 2005
DRILLING METHOD: Geoprobe
FIELD PERSONNEL: M. Groves

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS
0	ASPHALT	0.3
	FILL, sand and gravel	1.4
2	ML SILT, some sand, firm, dark brown, slightly moist	
	- trace sand, moist at 3.4ft BGS	
4	- brown, slightly moist at 4.4ft BGS	
6	- soft, moist at 7.1ft BGS	
8		
10	- some sand, trace gravel at 10.7ft BGS	
12		
14		
16	- with sand, very moist at 15.1ft BGS	
18	SP SAND,trace gravel and silt, medium grained, poorly graded, brown, wet	17.8
20	END OF BOREHOLE @ 20.0ft BGS	20.0
22		
24		
26		
28		

VAPOR PROBE



WELL DETAILS
Screened interval:
16.0 to 17.0ft BGS
Length: 1ft
Diameter: 0.5in
Slot Size: 0.25
Material: Perforated Schedule 40 PVC
Seal:
0.5 to 15.5ft BGS
Material: Bentonite Pellets
Sand Pack:
15.5 to 20.0ft BGS
Material: Pea Gravel

SAMPLE NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)
1	P/S	2.0		0
1	P/S	1.4		0
2	P/S	2.0		0
2	P/S	1.8		0
3	P/S	2.0		0
3	P/S	1.2		0
4	P/S	2.0		0
4	P/S	1.1		0
5	P/S	2.0		0
5	P/S	0.8		0

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽ 5/17/05

OVERBURDEN LOG 019190-VP.GPJ CRA_CORP.GDT 2/23/10

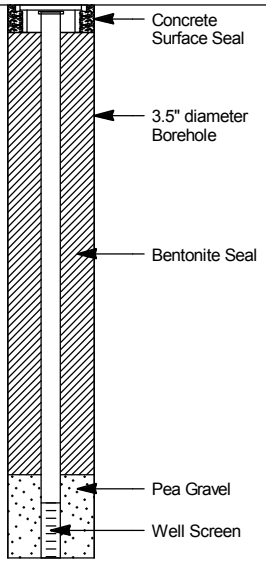
STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Radio Materials Corporation
PROJECT NUMBER: 019190
CLIENT:
LOCATION: Attica, Indiana
DRILLING CONTRACTOR: Boart Longyear

HOLE DESIGNATION: VP-3
DATE COMPLETED: May 17, 2005
DRILLING METHOD: Geoprobe
FIELD PERSONNEL: M. Groves

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS
0	ASPHALT	0.3
	FILL, sand and gravel base	1.2
2	ML SILT, some sand, stiff, low plasticity, brown, slightly moist - trace sand, moist at 2.4ft BGS	
4		
6	- firm at 6.8ft BGS - trace gravel at 7.2ft BGS	
8	SP SAND, some silt, trace gravel, compact, medium grained, slightly moist - no silt, medium to coarse grained at 8.9ft BGS	8.2
10	END OF BOREHOLE @ 10.0ft BGS	10.0
12		
14		
16		
18		
20		
22		
24		

VAPOR PROBE



WELL DETAILS
Screened interval:
9.0 to 10.0ft BGS
Length: 1ft
Diameter: 0.5in
Slot Size: 0.25
Material: Perforated Schedule 40 PVC
Seal:
0.5 to 8.5ft BGS
Material: Bentonite Pellets
Sand Pack:
8.5 to 10.0ft BGS
Material: Pea Gravel

SAMPLE NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)
1	P/S	2.0		0
1	P/S	1.4		0
2	P/S	2.0		0
2	P/S	1.8		0
3	P/S	2.0		0

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 019190-VP.GPJ CRA_CORP.GDT 2/23/10

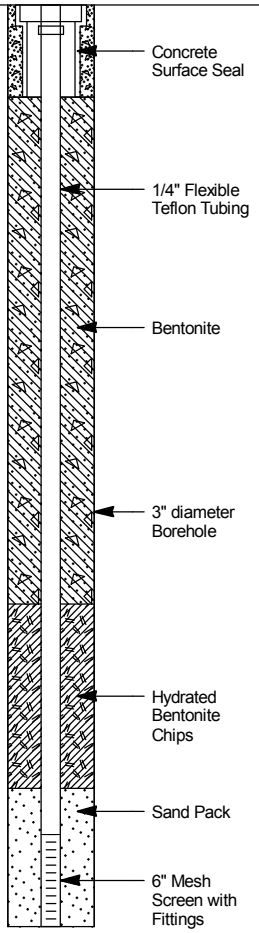
STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Radio Materials Corporation
PROJECT NUMBER: 019190
CLIENT:
LOCATION: Attica, Indiana
DRILLING CONTRACTOR: Altech

HOLE DESIGNATION: VP-3R
DATE COMPLETED: September 27, 2007
DRILLING METHOD: DPT
FIELD PERSONNEL: T. Pranger

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS
0	TOPSOIL	
	ML SILT, with clay, soft, slight plasticity, brown, dry iron staining	0.6
2		
4		
6		
	- firm, moist at 6.8ft BGS	
8		
	- with sand at 9.7ft BGS	
10	END OF BOREHOLE @ 10.0ft BGS	10.0
12		
14		

VAPOR PROBE



WELL DETAILS
Screened interval:
9.0 to 10.0ft BGS
Length: 1ft
Diameter: 0.5in
Slot Size: 0.25
Material: Perforated Schedule 40 PVC
Seal:
6.5 to 8.0ft BGS
Material: Bentonite Chips
Sand Pack:
8.5 to 10.0ft BGS
Material: Sand

SAMPLE NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)
1	P/S	5.0		0
2	P/S	5.0		0

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

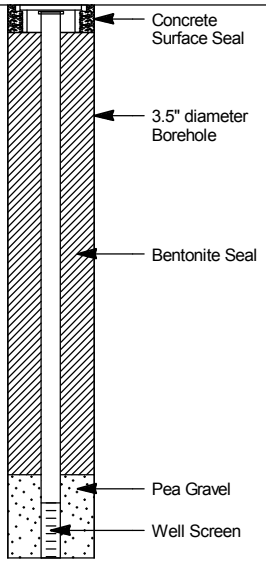
STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Radio Materials Corporation
PROJECT NUMBER: 019190
CLIENT:
LOCATION: Attica, Indiana
DRILLING CONTRACTOR: Boart Longyear

HOLE DESIGNATION: VP-4
DATE COMPLETED: May 17, 2005
DRILLING METHOD: Geoprobe
FIELD PERSONNEL: M. Groves

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS
0	ASPHALT	0.3
	FILL, sand and gravel base	1.4
2	ML SILT, some sand and gravel, stiff, low plasticity, brown, slightly moist - trace sand, no gravel, firm, moist at 2.5ft BGS	
4		
6		
6	- soft at 6.8ft BGS	
8		
10	END OF BOREHOLE @ 10.0ft BGS	10.0
12		
14		
16		
18		
20		
22		
24		

VAPOR PROBE



WELL DETAILS
Screened interval:
9.0 to 10.0ft BGS
Length: 1ft
Diameter: 0.5in
Slot Size: 0.25
Material: Perforated Schedule 40 PVC
Seal:
0.5 to 8.5ft BGS
Material: Bentonite Pellets
Sand Pack:
8.5 to 10.0ft BGS
Material: Pea Gravel

SAMPLE NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)
1	P/S	2.0		0
1	P/S	1.0		0
2	P/S	2.0		0
2	P/S	2.0		0
3	P/S	2.0		0
3	P/S	0.9		0

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 019190-VP.GPJ CRA_CORP.GDT 2/23/10

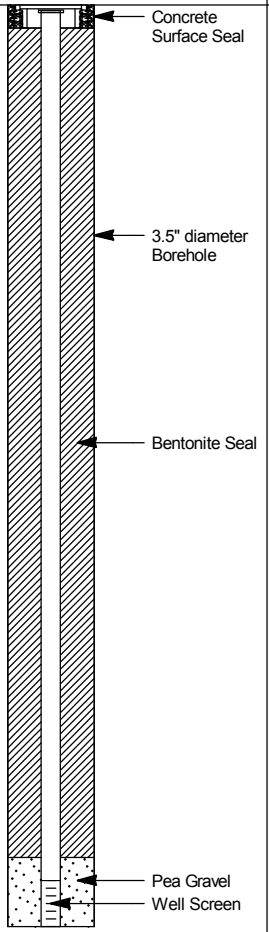
STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Radio Materials Corporation
PROJECT NUMBER: 019190
CLIENT:
LOCATION: Attica, Indiana
DRILLING CONTRACTOR: Boart Longyear

HOLE DESIGNATION: VP-4a
DATE COMPLETED: May 17, 2005
DRILLING METHOD: Geoprobe
FIELD PERSONNEL: M. Groves

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS
0	ASPHALT	0.3
	FILL, sand and gravel base	1.4
2	ML SILT, some sand and gravel, stiff, low plasticity, brown, slightly moist - trace sand, no gravel, firm, moist at 2.5ft BGS	
4		
6		
	- soft at 6.8ft BGS	
8		
10	- very soft, very moist at 10.0ft BGS - some sand at 10.6ft BGS	
	SP SAND, trace gravel and silt, compact, medium grained, brown, slightly moist	11.6
12		
14		
16		
18		18.2
	ML SILT, trace sand, frim, low plasticity, brown, moist	
20	END OF BOREHOLE @ 20.0ft BGS	20.0
22		
24		
26		
28		

VAPOR PROBE



WELL DETAILS
Screened interval:
19.0 to 20.0ft BGS
Length: 1ft
Diameter: 0.5in
Slot Size: 0.25
Material: Perforated Schedule 40 PVC
Seal:
0.5 to 18.5ft BGS
Material: Bentonite Pellets
Sand Pack:
18.5 to 20.0ft BGS
Material: Pea Gravel

SAMPLE NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)
1	P/S	2.0		0
1	P/S	1.0		0
2	P/S	2.0		0
2	P/S	2.0		0
3	P/S	2.0		0
3	P/S	0.9		0
4	P/S	1.0		–
4	P/S	0.0		–
5	P/S	2.0		0
5	P/S	1.7		0

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 019190-VP.GPJ CRA_CORP.GDT 2/23/10

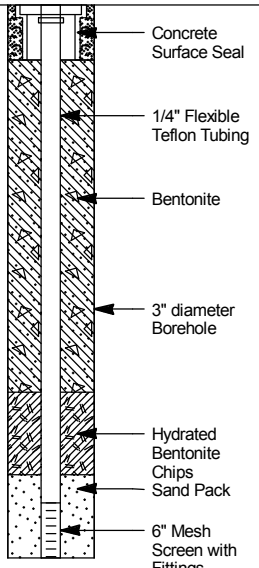
STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Radio Materials Corporation
PROJECT NUMBER: 019190
CLIENT:
LOCATION: Attica, Indiana
DRILLING CONTRACTOR: Altech

HOLE DESIGNATION: VP-4R
DATE COMPLETED: September 27, 2007
DRILLING METHOD: DPT
FIELD PERSONNEL: T. Pranger

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS
0	TOPSOIL	
	CL-ML SILTY CLAY, soft, low to slight plasticity, brown, dry, iron staining	0.8
8	ML SILT, less clay	8.0
10	END OF BOREHOLE @ 10.0ft BGS	10.0

VAPOR PROBE



WELL DETAILS
Screened interval:
9.0 to 10.0ft BGS
Length: 1ft
Diameter: 0.5in
Slot Size: 0.25
Material: Factory-slotted 316 Stainless Steel
Seal:
7.0 to 8.5ft BGS
Material: Bentonite Chips
Sand Pack:
8.5 to 10.0ft BGS
Material: Sand

SAMPLE NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)
1	P/S	4.8		–
2	P/S	5.0		–

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 019190-VP.GPJ CRA_CORP.GDT 2/23/10

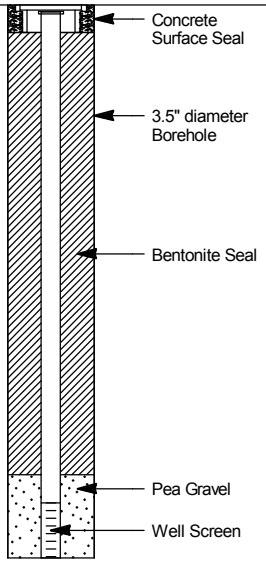
STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Radio Materials Corporation
PROJECT NUMBER: 019190
CLIENT:
LOCATION: Attica, Indiana
DRILLING CONTRACTOR: Boart Longyear

HOLE DESIGNATION: VP-5
DATE COMPLETED: May 17, 2005
DRILLING METHOD: Geoprobe
FIELD PERSONNEL: M. Groves

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS
0	ASPHALT	0.3
	FILL, sand and gravel base	1.4
2	ML SILT, with sand and gravel, firm, low plasticity, brown, slightly moist	3.1
4	SP SAND, trace gravel and silt, loose, poorly graded, brown, slightly moist - no silt at 3.8ft BGS	
6	- some silt at 7.1ft BGS	7.4
8	ML SILT, trace sand, firm, low plasticity, brown, moist	9.7
10	SP SAND, trace gravel, compact, medium to coarse grained, brown, slightly moist	10.0
	END OF BOREHOLE @ 10.0ft BGS	
12		
14		
16		
18		
20		
22		
24		

VAPOR PROBE



WELL DETAILS
Screened interval:
9.0 to 10.0ft BGS
Length: 1ft
Diameter: 0.5in
Slot Size: 0.25
Material: Perforated Schedule 40 PVC
Seal:
0.5 to 8.5ft BGS
Material: Bentonite Pellets
Sand Pack:
8.5 to 10.0ft BGS
Material: Pea Gravel

SAMPLE NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)
1	P/S	2.0		0
1	P/S	1.7		0
2	P/S	2.0		0
2	P/S	1.6		0
3	P/S	2.0		0

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 019190-VP.GPJ CRA_CORP.GDT 2/23/10

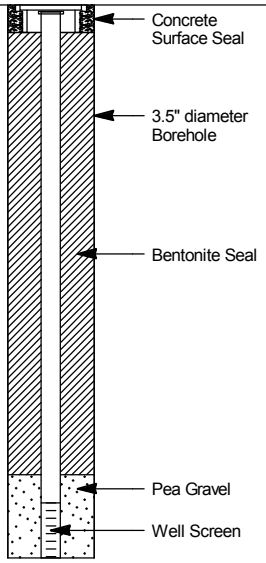
STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Radio Materials Corporation
PROJECT NUMBER: 019190
CLIENT:
LOCATION: Attica, Indiana
DRILLING CONTRACTOR: Boart Longyear

HOLE DESIGNATION: VP-6
DATE COMPLETED: May 18, 2005
DRILLING METHOD: Geoprobe
FIELD PERSONNEL: M. Groves

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS
0	TOPSOIL, grass and roots	0.2
	ML SILT, with sand and some gravel, stiff, low plasticity, brown, moist	
2		
3.4	SP SAND, some gravel, trace silt, compact, medium to coarse grained, poorly graded, brown, slightly moist	
4		
6	- no silt at 6.8ft BGS	
8	- moist at 8.4ft BGS	
10	END OF BOREHOLE @ 10.0ft BGS	10.0
12		
14		
16		
18		
20		
22		
24		

VAPOR PROBE



WELL DETAILS
Screened interval:
9.0 to 10.0ft BGS
Length: 1ft
Diameter: 0.5in
Slot Size: 0.25
Material: Perforated Schedule 40 PVC
Seal:
0.5 to 8.5ft BGS
Material: Bentonite Pellets
Sand Pack:
8.5 to 10.0ft BGS
Material: Pea Gravel

SAMPLE NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)
1	P/S	2.0		0
1	P/S	1.6		0
2	P/S	2.0		0
2	P/S	1.5		0
3	P/S	2.0		0

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 019190-VP.GPJ CRA_CORP.GDT 2/23/10

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Radio Materials Corporation
PROJECT NUMBER: 019190
CLIENT:
LOCATION: Attica, Indiana
DRILLING CONTRACTOR: Altech

HOLE DESIGNATION: VP-6R
DATE COMPLETED: September 27, 2007
DRILLING METHOD: DPT
FIELD PERSONNEL: T. Pranger

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	VAPOR PROBE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
0	TOPSOIL	0.3	Concrete Surface Seal					
	GM SILTY GRAVEL, fill, with sand, loose, coarse grained, brown, dry		1/4" Flexible Teflon Tubing	1	P/S	4.0		0
2			Bentonite					
4			3" diameter Borehole					
6								
8			Hydrated Bentonite Chips	2	P/S	3.5		0
10	END OF BOREHOLE @ 10.0ft BGS	10.0	Sand Pack					
12			6" Mesh Screen with Fittings					
14								
16								
18								
20								
22								
24								

WELL DETAILS
Screened interval:
9.0 to 10.0ft BGS
Length: 1ft
Diameter: 0.5in
Slot Size: 0.25
Material: Factory-slotted 316 Stainless Steel
Seal:
1.0 to 7.0ft BGS
Material: Bentonite Chips
Sand Pack:
8.5 to 10.0ft BGS
Material: Sand

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 019190-VP.GPJ CRA_CORP.GDT 2/23/10

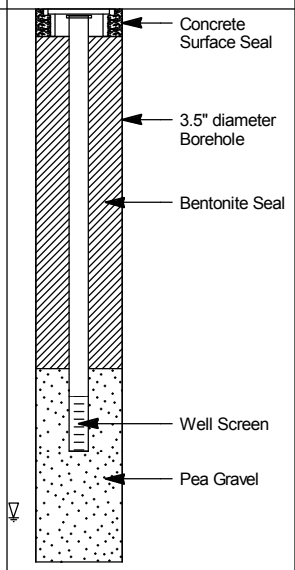
STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Radio Materials Corporation
PROJECT NUMBER: 019190
CLIENT:
LOCATION: Attica, Indiana
DRILLING CONTRACTOR: Boart Longyear

HOLE DESIGNATION: VP-7
DATE COMPLETED: May 18, 2005
DRILLING METHOD: Geoprobe
FIELD PERSONNEL: M. Groves

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS
0	TOPSOIL	0.2
	ML SILT, trace sand and gravel, firm, low plasticity, dark brown, slightly moist	
2	- brown at 2.1ft BGS	
	- some sand at 3.4ft BGS	
4		
6	SP SAND, some silt, trace gravel, compact, medium grained, poorly graded, brown, slightly moist	5.7
8	- trace silt, moist at 7.7ft BGS	
	- very moist at 8.9ft BGS - wet at 9.2ft BGS	
10	END OF BOREHOLE @ 10.0ft BGS	10.0
12		
14		
16		
18		
20		
22		
24		

VAPOR PROBE



WELL DETAILS
Screened interval:
7.0 to 8.0ft BGS
Length: 1ft
Diameter: 0.5in
Slot Size: 0.25
Material: Perforated Schedule 40 PVC
Seal:
0.5 to 6.5ft BGS
Material: Bentonite Pellets
Sand Pack:
6.5 to 10.0ft BGS
Material: Pea Gravel

SAMPLE NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)
1	P/S	2.0		0
1	P/S	2.0		0
2	P/S	2.0		0
2	P/S	0.9		0
3	P/S	2.0		0

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽ 5/18/05

OVERBURDEN LOG 019190-VP.GPJ CRA_CORP.GDT 2/23/10

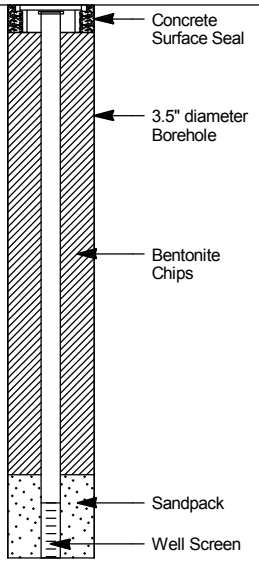
STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Radio Materials Corporation
PROJECT NUMBER: 019190
CLIENT:
LOCATION: Attica, Indiana
DRILLING CONTRACTOR: Boart Longyear

HOLE DESIGNATION: VP-8
DATE COMPLETED: July 8, 2005
DRILLING METHOD: Geoprobe
FIELD PERSONNEL: T. Pranger

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS
0	TOPSOIL	
	CL-ML SILTY CLAY, trace gravel, soft, low plasticity, brown, dry	0.7
2		
4	- gravel and sand lens from 4.0 to 4.5ft BGS	
6		
	ML SILT, soft, slight plasticity, brown, moist	7.0
8		
	- with clay at 9.0ft BGS	
10	END OF BOREHOLE @ 10.0ft BGS	10.0
12		
14		
16		
18		
20		
22		
24		

VAPOR PROBE



WELL DETAILS
Screened interval:
9.0 to 10.0ft BGS
Length: 1ft
Diameter: 0.5in
Slot Size: 0.25
Material: Perforated Schedule 40 PVC
Seal:
0.5 to 8.5ft BGS
Material: Bentonite Chips
Sand Pack:
8.5 to 10.0ft BGS
Material: #3 Sand

SAMPLE NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)
1	P/S	100.0		0
1	P/S			0
1	P/S			0
2	P/S	100.0		0
2	P/S			0
(2)	P/S			7.3

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS (2)

OVERBURDEN LOG 019190-VP.GPJ CRA_CORP.GDT 2/23/10

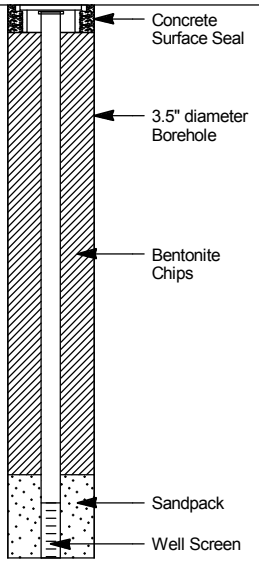
STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Radio Materials Corporation
PROJECT NUMBER: 019190
CLIENT:
LOCATION: Attica, Indiana
DRILLING CONTRACTOR: Boart Longyear

HOLE DESIGNATION: VP-9
DATE COMPLETED: July 8, 2005
DRILLING METHOD: Geoprobe
FIELD PERSONNEL: T. Pranger

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS
0	TOPSOIL	0.7
2	CL-ML SILTY CLAY, fill, soft, low plasticity, brown, dry, weathered brick	2.5
4	SP SAND, with gravel, loose, fine to medium grained, poorly graded, tan, moist	
6		
8	CL-ML SILTY CLAY, soft, low plasticity, brown, moist	7.0
10	SP SAND, with gravel, loose, coarse grained, tan, moist	9.5
	END OF BOREHOLE @ 10.0ft BGS	10.0
12		
14		
16		
18		
20		
22		
24		

VAPOR PROBE



WELL DETAILS
Screened interval:
9.0 to 10.0ft BGS
Length: 1ft
Diameter: 0.5in
Slot Size: 0.25
Material: Perforated Schedule 40 PVC
Seal:
0.5 to 8.5ft BGS
Material: Bentonite Chips
Sand Pack:
8.5 to 10.0ft BGS
Material: #3 Sand

SAMPLE NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)
1	P/S	100.0		0
1	P/S			0
1	P/S			0
2	P/S	100.0		0
2	P/S			0
(2)	P/S			0

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS (2)

OVERBURDEN LOG 019190-VP.GPJ CRA_CORP.GDT 2/23/10

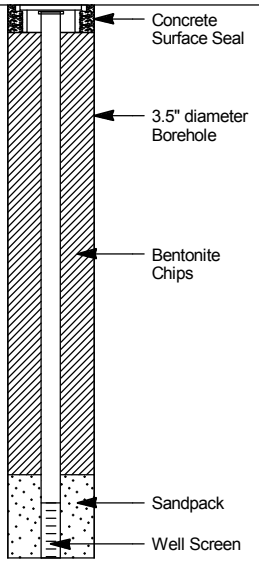
STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Radio Materials Corporation
PROJECT NUMBER: 019190
CLIENT:
LOCATION: Attica, Indiana
DRILLING CONTRACTOR: Boart Longyear

HOLE DESIGNATION: VP-10
DATE COMPLETED: July 8, 2005
DRILLING METHOD: Geoprobe
FIELD PERSONNEL: T. Pranger

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS
0	TOPSOIL	
	CL-ML SILTY CLAY, soft, low plasticity, brown, dry (large gravel from 0.667 to 1.5 feet)	0.7
2		
4		
6		
6	- moist at 7.0ft BGS	
8		
10	END OF BOREHOLE @ 10.0ft BGS	10.0
12		
14		
16		
18		
20		
22		
24		

VAPOR PROBE



WELL DETAILS
Screened interval:
9.0 to 10.0ft BGS
Length: 1ft
Diameter: 0.5in
Slot Size: 0.25
Material: Perforated Schedule 40 PVC
Seal:
0.5 to 8.5ft BGS
Material: Bentonite Chips
Sand Pack:
8.5 to 10.0ft BGS
Material: #3 Sand

SAMPLE NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)
1	P/S	100.0		0
1	P/S			0
1	P/S			0
2	P/S	100.0		0
2	P/S			0
(2)	P/S			0

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS (2)

OVERBURDEN LOG 019190-VP.GPJ CRA_CORP.GDT 2/23/10

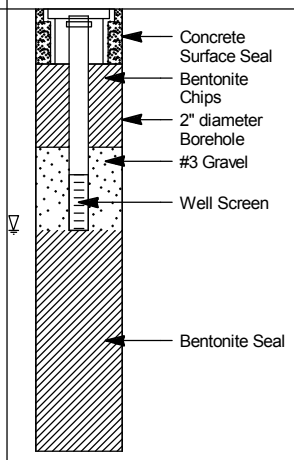
STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Radio Materials Corporation
PROJECT NUMBER: 019190
CLIENT:
LOCATION: Attica, Indiana
DRILLING CONTRACTOR: Boart Longyear

HOLE DESIGNATION: VP-11
DATE COMPLETED: August 10, 2005
DRILLING METHOD: Geoprobe
FIELD PERSONNEL: T. Pranger

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS
0	TOPSOIL	
	BRICK, red	1.0
2	FILL, clay and gravel, with silt, red brick, firm, low plasticity, brown, moist	2.0
4	- wet at 4.0ft BGS	
6		
		7.5
8	ML SILT, dense, stiff, no to slight plasticity, brown/gray, dry	8.0
	END OF BOREHOLE @ 8.0ft BGS	
10		
12		
14		
16		
18		
20		
22		
24		

VAPOR PROBE



WELL DETAILS
Screened interval:
3.0 to 4.0ft BGS
Length: 1ft
Diameter: 0.5in
Slot Size: 0.25
Material: Perforated Schedule 40 PVC
Seal:
1.0 to 2.5ft BGS
Material: Bentonite Chips
Sand Pack:
2.5 to 4.0ft BGS
Material: #3 Gravel

Seal:
4.0 to 8.0ft BGS
Material: Bentonite

SAMPLE NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)
1	P/S	100.0		0
1	P/S			0
2	P/S	100.0		0
2	P/S			0

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽ 8/10/05

OVERBURDEN LOG 019190-VP.GPJ CRA_CORP.GDT 2/23/10

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Radio Materials Corporation
PROJECT NUMBER: 019190
CLIENT:
LOCATION: Attica, Indiana
DRILLING CONTRACTOR: Altech

HOLE DESIGNATION: VP-11R
DATE COMPLETED: September 27, 2007
DRILLING METHOD: DPT
FIELD PERSONNEL: T. Pranger

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	VAPOR PROBE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
0	TOPSOIL	0.3	Concrete Surface Seal					
	FILL, gravel, sand, silt		Bentonite					
	- red brick from 1.0 to 1.5ft BGS		1/4" Flexible Teflon Tubing					
2			Hydrated Bentonite Chips	1	P/S	2.5		–
			3" diameter Borehole					
4			Sand Pack					
			6" Mesh Screen with Fittings					
6				2	P/S	2.5		–
	- very moist at 6.5ft BGS							
	END OF BOREHOLE @ 7.0ft BGS							
	- rock, refusal at 7.5ft BGS	7.5						
8								
10								
12								
14								

WELL DETAILS
Screened interval:
4.5 to 4.5ft BGS
Length: 0ft
Diameter: 0.5in
Slot Size: 0.25
Material: Factory-slotted 316 Stainless Steel
Seal:
2.0 to 4.0ft BGS
Material: Bentonite Chips
Sand Pack:
4.0 to 7.5ft BGS
Material: Sand

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

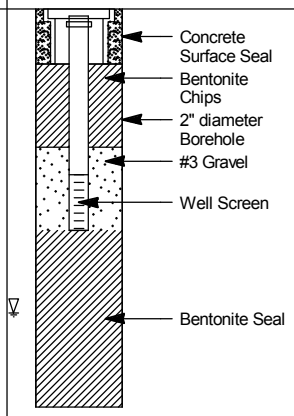
STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Radio Materials Corporation
PROJECT NUMBER: 019190
CLIENT:
LOCATION: Attica, Indiana
DRILLING CONTRACTOR: Boart Longyear

HOLE DESIGNATION: VP-12
DATE COMPLETED: August 10, 2005
DRILLING METHOD: Geoprobe
FIELD PERSONNEL: T. Pranger

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS
	TOPSOIL	
	CL-ML SILTY CLAY, with gravel, firm, low plasticity, brown, moist	1.0
2		
4	- very moist at 4.0ft BGS	
	GC CLAYEY GRAVEL, loose/soft, low plasticity, coarse grained, brown, saturated, large rock	5.5
6	- sandstone, fine grained, brown/tan at 7.0ft BGS	7.2
	END OF BOREHOLE @ 7.2ft BGS	
8		
10		
12		
14		
16		
18		
20		
22		
24		

VAPOR PROBE



WELL DETAILS
Screened interval:
3.0 to 4.0ft BGS
Length: 1ft
Diameter: 0.5in
Slot Size: 0.25
Material: Perforated Schedule 40 PVC
Seal:
1.0 to 2.5ft BGS
Material: Bentonite Chips
Sand Pack:
2.5 to 4.0ft BGS
Material: #3 Gravel

Seal:
4.0 to 7.2ft BGS
Material: Bentonite

SAMPLE NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)
1	P/S	100.0		0
1	P/S			0
2	P/S	100.0		0
2	P/S			0

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽ 8/10/05

OVERBURDEN LOG 019190-VP.GPJ CRA_CORP.GDT 2/23/10

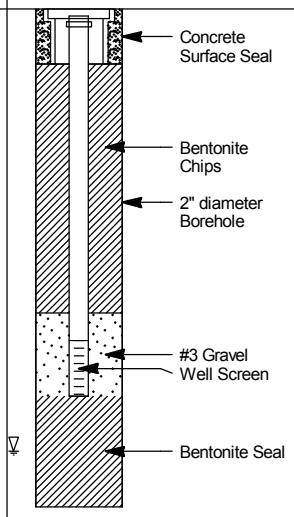
STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Radio Materials Corporation
PROJECT NUMBER: 019190
CLIENT:
LOCATION: Attica, Indiana
DRILLING CONTRACTOR: Boart Longyear

HOLE DESIGNATION: VP-13
DATE COMPLETED: August 10, 2005
DRILLING METHOD: Geoprobe
FIELD PERSONNEL: T. Pranger

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS
0	CONCRETE	0.3
	CL-ML SILTY CLAY, with gravel, trace sand, firm, low plasticity, brown, moist, large rock	
8	- saturated at 8.0ft BGS - shale/siltstone, black/gray at 8.5ft BGS	
	END OF BOREHOLE @ 9.0ft BGS	9.0

VAPOR PROBE



WELL DETAILS
Screened interval:
6.0 to 7.0ft BGS
Length: 1ft
Diameter: 0.5in
Slot Size: 0.25
Material: Perforated Schedule 40 PVC
Seal:
1.0 to 5.5ft BGS
Material: Bentonite Chips
Sand Pack:
5.5 to 7.0ft BGS
Material: #3 Gravel

Seal:
7.0 to 9.0ft BGS
Material: Bentonite

SAMPLE NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)
1	P/S	100.0		0
1	P/S			0
2	P/S	100.0		0
2	P/S			0
3	P/S	100.0		0

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽ 8/10/05

OVERBURDEN LOG 019190-VP.GPJ CRA_CORP.GDT 2/23/10

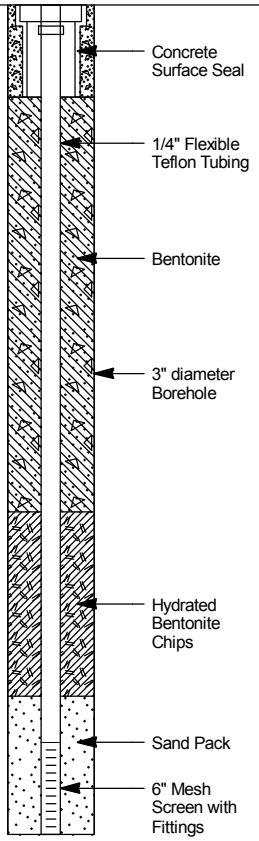
STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Radio Materials Corporation
PROJECT NUMBER: 019190
CLIENT:
LOCATION: Attica, Indiana
DRILLING CONTRACTOR: Altech

HOLE DESIGNATION: VP-13R
DATE COMPLETED: September 27, 2007
DRILLING METHOD: DPT
FIELD PERSONNEL: T. Pranger

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS
	TOPSOIL, gravel, concrete	0.4
	FILL, gravel, sand, silt, dry	
	- moist at 7.0ft BGS	
	- refusal at 9.0ft BGS	9.0
	END OF BOREHOLE @ 9.0ft BGS	

VAPOR PROBE



WELL DETAILS
Screened interval:
8.0 to 9.0ft BGS
Length: 1ft
Diameter: 0.5in
Slot Size: 0.25
Material: Factory-slotted 316 Stainless Steel
Seal:
5.5 to 7.5ft BGS
Material: Bentonite Chips
Sand Pack:
7.5 to 9.0ft BGS
Material: Sand

SAMPLE NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)
1	P/S	2.3		0
2	P/S	4.0		0

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 019190-VP.GPJ CRA_CORP.GDT 2/23/10

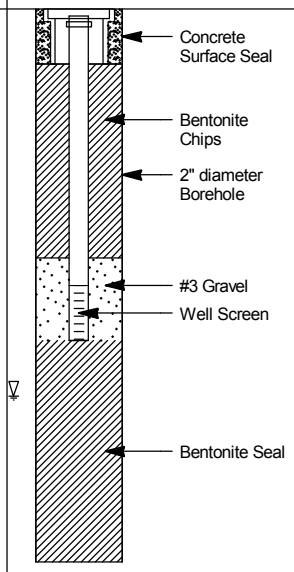
STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Radio Materials Corporation
PROJECT NUMBER: 019190
CLIENT:
LOCATION: Attica, Indiana
DRILLING CONTRACTOR: Boart Longyear

HOLE DESIGNATION: VP-14
DATE COMPLETED: August 10, 2005
DRILLING METHOD: Geoprobe
FIELD PERSONNEL: T. Pranger

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS
0	TOPSOIL	
	ML SILT, with clay, soft, slight plasticity, brown, moist to slightly moist	1.0
2	CL-ML SILTY CLAY, with gravel, firm, low plasticity, brown, moist, large rock	2.0
4		
6		
	GP GRAVEL, sand, trace clay, loose, coarse grained, brown, saturated	7.0
8		
10	END OF BOREHOLE @ 10.0ft BGS	10.0
12		
14		
16		
18		
20		
22		
24		

VAPOR PROBE



WELL DETAILS
Screened interval:
5.0 to 6.0ft BGS
Length: 1ft
Diameter: 0.5in
Slot Size: 0.25
Material: Perforated Schedule 40 PVC
Seal:
1.0 to 4.5ft BGS
Material: Bentonite Chips
Sand Pack:
4.5 to 6.0ft BGS
Material: #3 Gravel

Seal:
6.0 to 10.0ft BGS
Material: Bentonite

SAMPLE NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)
1	P/S	100.0		0
1	P/S			0
2	P/S	100.0		0
2	P/S			0
3	P/S	100.0		0

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽ 8/10/05

OVERBURDEN LOG 019190-VP.GPJ CRA_CORP.GDT 2/23/10

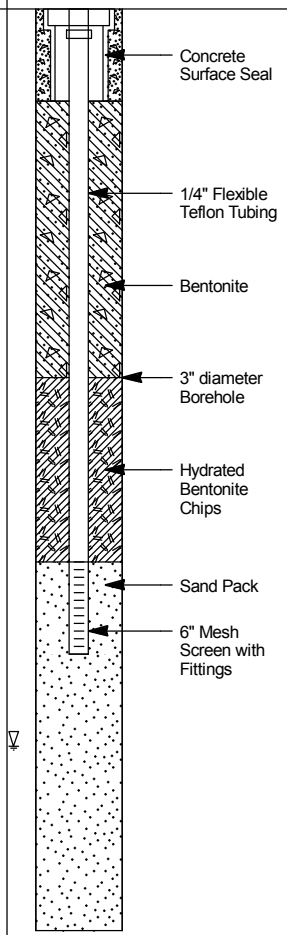
STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Radio Materials Corporation
PROJECT NUMBER: 019190
CLIENT:
LOCATION: Attica, Indiana
DRILLING CONTRACTOR: Altech

HOLE DESIGNATION: VP-14R
DATE COMPLETED: September 27, 2007
DRILLING METHOD: DPT
FIELD PERSONNEL: T. Pranger

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS
0	TOPSOIL	
	FILL, silt, gravel, sand, moist	0.5
8	- wet from 8.0 to 8.5ft BGS	
10	END OF BOREHOLE @ 10.0ft BGS	10.0

VAPOR PROBE



WELL DETAILS
Screened interval:
6.0 to 7.0ft BGS
Length: 1ft
Diameter: 0.5in
Slot Size: 0.25
Material: Factory-slotted 316 Stainless Steel
Seal:
4.0 to 6.0ft BGS
Material: Bentonite Chips
Sand Pack:
6.0 to 7.0ft BGS
Material: Sand

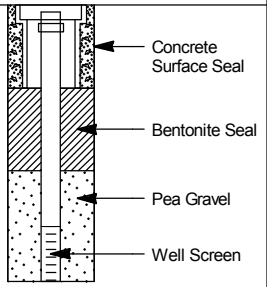
SAMPLE NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)
1	P/S	3.5		0
2	P/S	4.0		0

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽ 9/27/07

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Radio Materials Corporation
PROJECT NUMBER: 019190
CLIENT:
LOCATION: Attica, Indiana
DRILLING CONTRACTOR: Boart Longyear

HOLE DESIGNATION: VP-15
DATE COMPLETED: December 7, 2005
DRILLING METHOD: Geoprobe
FIELD PERSONNEL: M. Groves

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	VAPOR PROBE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
0	TOPSOIL, grass							
	ML SILT, some clay, sand, trace gravel, stiff, low plasticity, brown, slightly moist	1.0		1	P/S	2.0		0
2	- trace clay, dark brown at 2.4ft BGS				P/S	2.0		0
4	- no clay or gravel, trace sand, firm, moist at 3.7ft BGS			2	P/S	1.0		0
	END OF BOREHOLE @ 5.0ft BGS	5.0						
6								
8								
10								
12								
14								
16								
18								
20								
22								
24								

Concrete Surface Seal
Bentonite Seal
Pea Gravel
Well Screen

WELL DETAILS
Screened interval:
4.0 to 5.0ft BGS
Length: 1ft
Diameter: 0.5in
Slot Size: 0.25
Material: Perforated Schedule 40 PVC
Seal:
1.5 to 3.0ft BGS
Material: Bentonite Chips
Sand Pack:
3.0 to 5.0ft BGS
Material: Pea Gravel

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

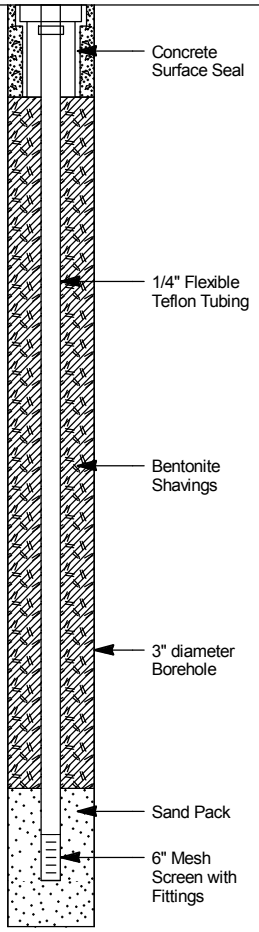
STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Radio Materials Corporation
PROJECT NUMBER: 019190
CLIENT:
LOCATION: Attica, Indiana
DRILLING CONTRACTOR: Boart Longyear

HOLE DESIGNATION: VP-16
DATE COMPLETED: June 11, 2007
DRILLING METHOD: Geoprobe
FIELD PERSONNEL: M. Groves

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS
	TOPSOIL, with grass and roots	
	CLS SANDY CLAY, silty, firm, no plasticity, brown, dry	0.5
	- low plasticity, slightly moist at 1.4ft BGS	
2	- trace sand at 2.0ft BGS	
	- medium plasticity, moist at 3.4ft BGS	
4		
6		
	- some sand at 7.1ft BGS	
8		
	- trace sand, stiff, gray/brown at 8.5ft BGS	
10	END OF BOREHOLE @ 10.0ft BGS	10.0
12		
14		

SOIL VAPOR EXTRACTION



WELL DETAILS
Screened interval:
9.0 to 10.0ft BGS
Length: 1ft
Diameter: 0.5in
Slot Size: NA
Material: Factory-slotted 316 Stainless Steel
Seal:
1.0 to 8.5ft BGS
Material: Bentonite
Sand Pack:
8.5 to 10.0ft BGS
Material: #5 Sand

SAMPLE NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)
0'-2.5'				0
1	P/S	4.5		
2.5'-5'				0
3'-8'				
5'-7.5'				0
2	P/S	5.0		
7.5'-10'				0

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

GRAIN SIZE ANALYSIS ☐

OVERBURDEN LOG 019190-VP.GPJ CRA_CORP.GDT 2/23/10

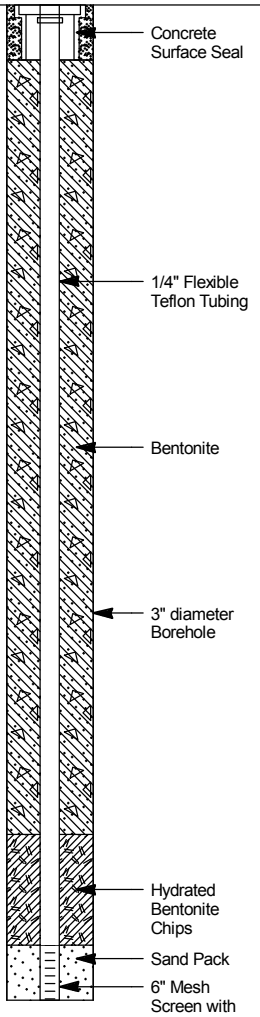
STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Radio Materials Corporation
PROJECT NUMBER: 019190
CLIENT:
LOCATION: Attica, Indiana
DRILLING CONTRACTOR: Altech

HOLE DESIGNATION: VP-16R
DATE COMPLETED: September 26, 2007
DRILLING METHOD: DPT
FIELD PERSONNEL: T. Pranger

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS
	TOPSOIL	
	ML SILT, with clay, slight plasticity, firm, brown, moist	1.0
	SP SAND, with gravel, compact, coarse grained, brown, dry	17.0
	END OF BOREHOLE @ 18.0ft BGS	18.0

VAPOR PROBE



WELL DETAILS
Screened interval:
17.0 to 18.0ft BGS
Length: 1ft
Diameter: 0.5in
Slot Size: 0.25
Material: Factory-slotted 316 Stainless Steel
Seal:
15.0 to 17.0ft BGS
Material: Bentonite Chips
Sand Pack:
17.0 to 18.0ft BGS
Material: Sand

SAMPLE NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)
1	P/S	4.0		0
2	P/S	5.0		0
3	P/S	5.0		0
4	P/S	3.0		0

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

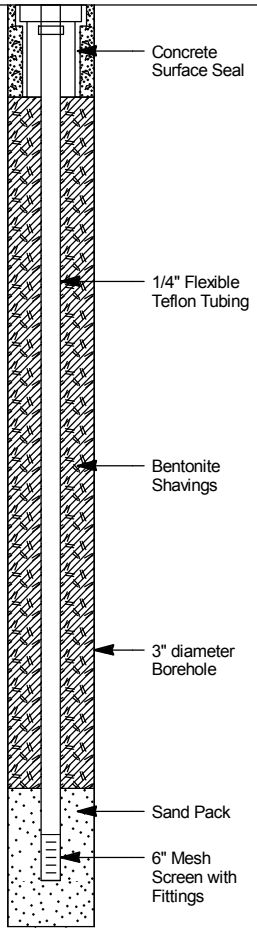
STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Radio Materials Corporation
PROJECT NUMBER: 019190
CLIENT:
LOCATION: Attica, Indiana
DRILLING CONTRACTOR: Boart Longyear

HOLE DESIGNATION: VP-17
DATE COMPLETED: June 12, 2007
DRILLING METHOD: Geoprobe
FIELD PERSONNEL: M. Groves

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS
	FILL, sand and gravel	1.8
2	CL CLAY, trace sand, trace silt, firm, medium plasticity, brown, moist	
	- some sand at 3.0ft BGS	
4	- soft at 4.0ft BGS	
	- trace sand, stiff at 4.5ft BGS	
6		
8		
10	END OF BOREHOLE @ 10.0ft BGS	10.0
12		
14		

SOIL VAPOR EXTRACTION



WELL DETAILS
Screened interval:
9.0 to 10.0ft BGS
Length: 1ft
Diameter: 0.5in
Slot Size: NA
Material: Factory-slotted 316 Stainless Steel
Seal:
1.0 to 8.5ft BGS
Material: Bentonite
Sand Pack:
8.5 to 10.0ft BGS
Material: #5 Sand

SAMPLE NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)
0'-2.5'				0
1	P/S	5.0		
2.5'-5'				0
5'-7.5'				0
2	P/S	5.0		
7.5'-10'				0

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

GRAIN SIZE ANALYSIS ☐

OVERBURDEN LOG 019190-VP.GPJ CRA_CORP.GDT 2/23/10

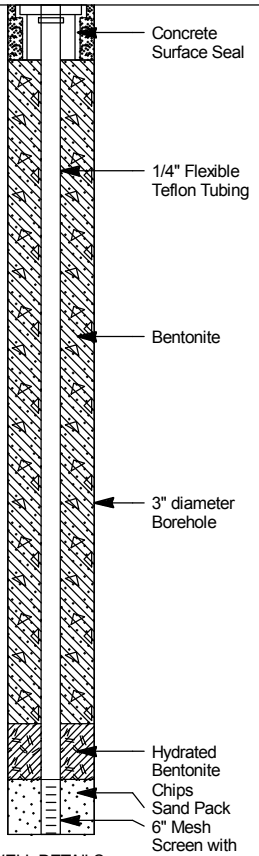
STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Radio Materials Corporation
PROJECT NUMBER: 019190
CLIENT:
LOCATION: Attica, Indiana
DRILLING CONTRACTOR: Altech

HOLE DESIGNATION: VP-17R
DATE COMPLETED: September 26, 2007
DRILLING METHOD: DPT
FIELD PERSONNEL: T. Pranger

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS
	TOPSOIL, gravel	
	FILL, silt, gravel, moist	1.0
	CL CLAY, silty, trace gravel, firm, low plasticity, brown, moist	4.0
	- wet from 7.5 to 8.5ft BGS	
	SP SAND, compact, medium grained, brown, dry	14.0
	END OF BOREHOLE @ 15.0ft BGS	15.0

VAPOR PROBE



WELL DETAILS
Screened interval:
14.0 to 15.0ft BGS
Length: 1ft
Diameter: 0.5in
Slot Size: 0.25
Material: Factory-slotted 316 Stainless Steel
Seal:
13.0 to 14.0ft BGS
Material: Bentonite Chips
Sand Pack:
14.0 to 15.0ft BGS
Material: Sand

SAMPLE NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)
1	P/S	3.0		0.3
2	P/S	5.0		0.3
3	P/S	5.0		0

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 019190-VP.GPJ CRA_CORP.GDT 2/23/10

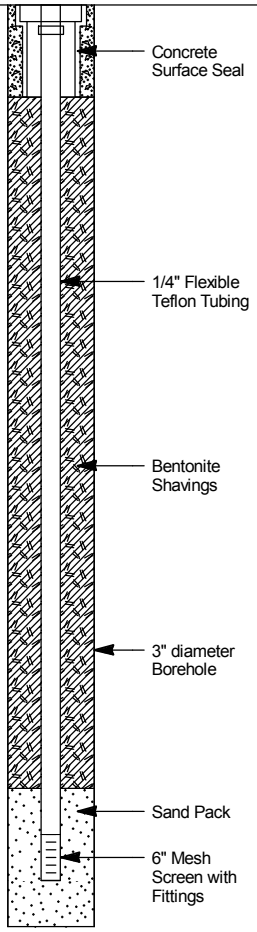
STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Radio Materials Corporation
PROJECT NUMBER: 019190
CLIENT:
LOCATION: Attica, Indiana
DRILLING CONTRACTOR: Boart Longyear

HOLE DESIGNATION: VP-18
DATE COMPLETED: June 13, 2007
DRILLING METHOD: Geoprobe
FIELD PERSONNEL: M. Groves

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS
0	FILL, sand and gravel, brown, dry	
	CL, CLAY, trace sand, trace silt, firm, medium plasticity, grayish brown, moist	1.8
4	- brown at 3.8ft BGS	
6	- with sand, soft, very moist at 7.0ft BGS - trace sand, firm, moist at 7.3ft BGS	
10	END OF BOREHOLE @ 10.0ft BGS	10.0

SOIL VAPOR EXTRACTION



WELL DETAILS
Screened interval:
9.0 to 10.0ft BGS
Length: 1ft
Diameter: 0.5in
Slot Size: NA
Material: Factory-slotted 316 Stainless Steel
Seal:
1.0 to 8.5ft BGS
Material: Bentonite
Sand Pack:
8.5 to 10.0ft BGS
Material: #5 Sand

SAMPLE NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)
0'-2.5'	P/S	4.5		0
2.5'-5'				0
5'-7.5	P/S	4.5		0
7.5'-10'				0

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

GRAIN SIZE ANALYSIS ☐

OVERBURDEN LOG 019190-VP.GPJ CRA_CORP.GDT 2/23/10

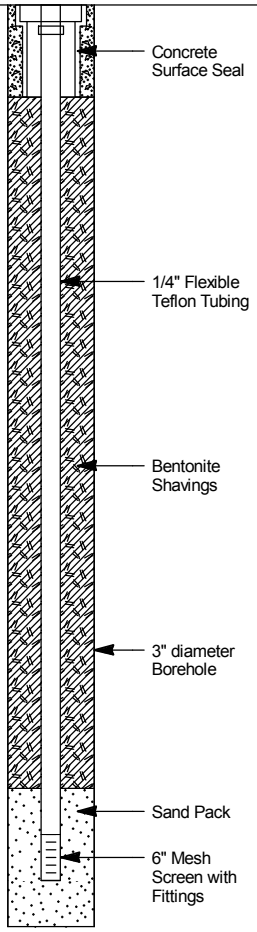
STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Radio Materials Corporation
PROJECT NUMBER: 019190
CLIENT:
LOCATION: Attica, Indiana
DRILLING CONTRACTOR: Boart Longyear

HOLE DESIGNATION: VP-19
DATE COMPLETED: June 12, 2007
DRILLING METHOD: Geoprobe
FIELD PERSONNEL: M. Groves

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS
	FILL, sand and gravel, brown, dry	
	CL CLAY, some sand, trace silt, firm, low plasticity, brown, slightly moist	1.5
2	- trace sand, stiff, medium plasticity, moist at 2.5ft BGS	
4	- some sand at 4.0ft BGS	
6	- some silt, trace sand, firm at 6.0ft BGS	
8	- trace silt, stiff at 7.5ft BGS	
10	END OF BOREHOLE @ 10.0ft BGS	10.0
12		
14		

SOIL VAPOR EXTRACTION



WELL DETAILS
Screened interval:
9.0 to 10.0ft BGS
Length: 1ft
Diameter: 0.5in
Slot Size: NA
Material: Factory-slotted 316 Stainless Steel
Seal:
1.0 to 8.5ft BGS
Material: Bentonite
Sand Pack:
8.5 to 10.0ft BGS
Material: #5 Sand

SAMPLE NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)
0'-2.5'	P/S	4.5		0
2.5'-5'				0
5'-7.5'	P/S	5.0		0
7.5'-10'				0

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

GRAIN SIZE ANALYSIS ☐

OVERBURDEN LOG 019190-VP.GPJ CRA_CORP.GDT 2/23/10

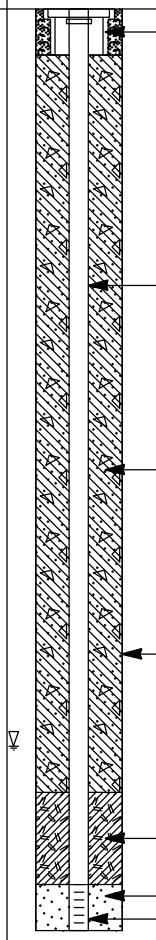
STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Radio Materials Corporation
PROJECT NUMBER: 019190
CLIENT:
LOCATION: Attica, Indiana
DRILLING CONTRACTOR: Altech

HOLE DESIGNATION: VP-19R
DATE COMPLETED: September 26, 2007
DRILLING METHOD: DPT
FIELD PERSONNEL: T. Pranger

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS
0	TOPSOIL	0.5
	FILL, tree roots, plastics	
4	ML SILT, trace gravel, firm, slight plasticity, brown, dry	4.0
8	CL CLAY, silty, firm, low plasticity, brown, moist	8.0
10	- with sand, very moist at 9.9ft BGS	
14	- gray at 13.5ft BGS	
16	- wet at 16.0ft BGS	
19	SP SAND, dry	19.0
20	END OF BOREHOLE @ 20.0ft BGS	20.0

VAPOR PROBE



WELL DETAILS
Screened interval:
19.0 to 20.0ft BGS
Length: 1ft
Diameter: 0.5in
Slot Size: 0.25
Material: Factory-slotted 316 Stainless Steel
Seal:
17.0 to 19.0ft BGS
Material: Bentonite Chips
Sand Pack:
19.0 to 20.0ft BGS
Material: Sand

SAMPLE NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)
1	P/S	5.0		0
2	P/S	5.0		0
3	P/S	5.0		0
4	P/S	5.0		0

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽ 9/26/07

OVERBURDEN LOG 019190-VP.GPJ CRA_CORP.GDT 2/23/10

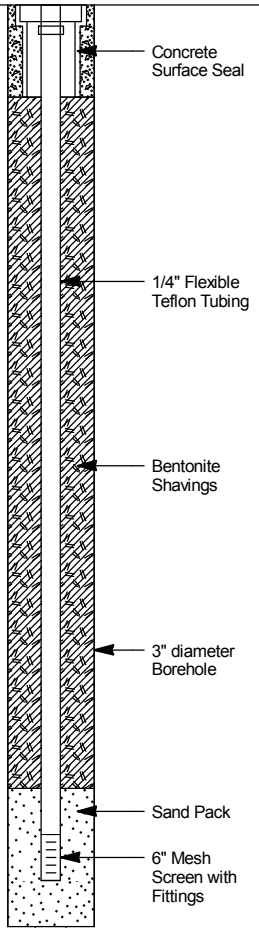
STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Radio Materials Corporation
PROJECT NUMBER: 019190
CLIENT:
LOCATION: Attica, Indiana
DRILLING CONTRACTOR: Boart Longyear

HOLE DESIGNATION: VP-20
DATE COMPLETED: June 11, 2007
DRILLING METHOD: Geoprobe
FIELD PERSONNEL: M. Groves

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS
	FILL, sand and gravel, brown	
	CLS SANDY CLAY, silty, firm, medium to low plasticity, brown, slightly moist	0.5
2	- trace sand, medium plasticity, moist at 1.5ft BGS	
4		
6	- some sand at 5.5ft BGS	
8	- trace sand at 7.0ft BGS	
10	END OF BOREHOLE @ 10.0ft BGS	10.0
12		
14		

SOIL VAPOR EXTRACTION



WELL DETAILS
Screened interval:
9.0 to 10.0ft BGS
Length: 1ft
Diameter: 0.5in
Slot Size: NA
Material: Factory-slotted 316 Stainless Steel
Seal:
1.0 to 8.5ft BGS
Material: Bentonite
Sand Pack:
8.5 to 10.0ft BGS
Material: #5 Sand

SAMPLE NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)
0'-2.5'	P/S	4.5		0
2.5'-5'				0
4'-8.5'				
5'-7.5'	P/S	4.0		0
7.5'-10'				0

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS (4'-8.5')

OVERBURDEN LOG 019190-VP.GPJ CRA_CORP.GDT 2/23/10

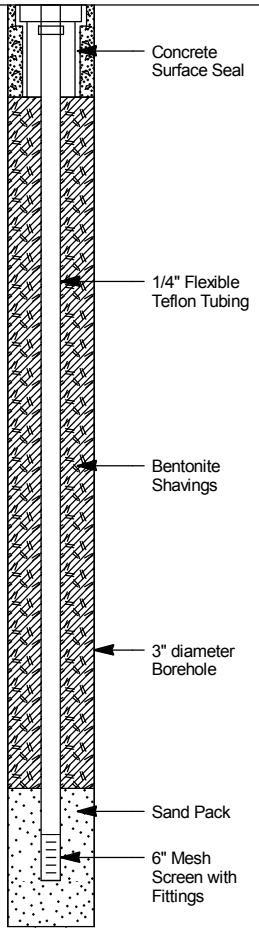
STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Radio Materials Corporation
PROJECT NUMBER: 019190
CLIENT:
LOCATION: Attica, Indiana
DRILLING CONTRACTOR: Boart Longyear

HOLE DESIGNATION: VP-21
DATE COMPLETED: June 12, 2007
DRILLING METHOD: Geoprobe
FIELD PERSONNEL: M. Groves

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS
	TOPSOIL, with grass and roots	0.8
2	SP SAND, trace gravel, loose, poorly graded, brown, slightly moist	
	- compact, medium to coarse grained, moist at 3.5ft BGS	
4		
	- some silt at 5.5ft BGS	
6	- trace silt at 6.0ft BGS	
8	- some gravel at 8.5ft BGS	
10	END OF BOREHOLE @ 10.0ft BGS	10.0
12		
14		

SOIL VAPOR EXTRACTION



WELL DETAILS
Screened interval:
9.0 to 10.0ft BGS
Length: 1ft
Diameter: 0.5in
Slot Size: NA
Material: Factory-slotted 316 Stainless Steel
Seal:
1.0 to 8.5ft BGS
Material: Bentonite
Sand Pack:
8.5 to 10.0ft BGS
Material: #5 Sand

SAMPLE NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)
0'-2.5'	P/S	3.5		0
2.5'-5'				0
5'-7.5'	P/S	4.0		0
7.5'-10'				0

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

GRAIN SIZE ANALYSIS ☐

OVERBURDEN LOG 019190-VP.GPJ CRA_CORP.GDT 2/23/10

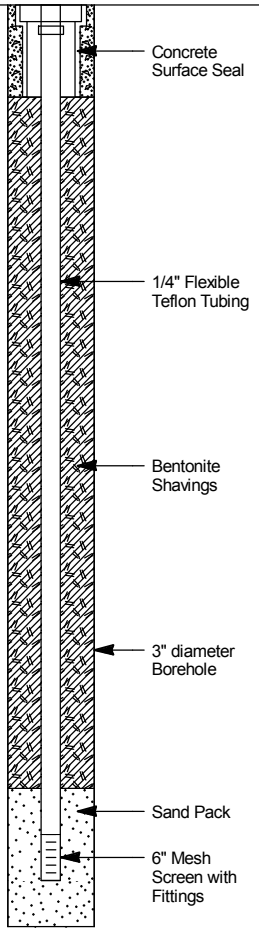
STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Radio Materials Corporation
PROJECT NUMBER: 019190
CLIENT:
LOCATION: Attica, Indiana
DRILLING CONTRACTOR: Boart Longyear

HOLE DESIGNATION: VP-22
DATE COMPLETED: June 12, 2007
DRILLING METHOD: Geoprobe
FIELD PERSONNEL: M. Groves

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS
0	TOPSOIL, with grass and roots	
	SP SAND, with silt, trace gravel, loose, medium grained, brown, slightly moist	1.0
2		
	- trace silt, medium to coarse grained at 3.5ft BGS	
4		
6		
	- some gravel, compact, coarse grained, moist at 7.0ft BGS	
8		
10	END OF BOREHOLE @ 10.0ft BGS	10.0
12		
14		

SOIL VAPOR EXTRACTION



WELL DETAILS
Screened interval:
9.0 to 10.0ft BGS
Length: 1ft
Diameter: 0.5in
Slot Size: NA
Material: Factory-slotted 316 Stainless Steel
Seal:
1.0 to 8.5ft BGS
Material: Bentonite
Sand Pack:
8.5 to 10.0ft BGS
Material: #5 Sand

SAMPLE NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)
0'-2.5'	P/S	3.0		0
2.5'-5'				0
5'-7.5'				0
7.5'-10'	P/S	4.0		0

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

GRAIN SIZE ANALYSIS ☐

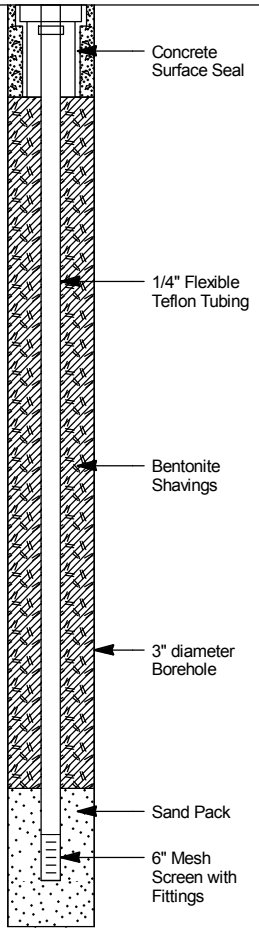
STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Radio Materials Corporation
PROJECT NUMBER: 019190
CLIENT:
LOCATION: Attica, Indiana
DRILLING CONTRACTOR: Boart Longyear

HOLE DESIGNATION: VP-23
DATE COMPLETED: June 12, 2007
DRILLING METHOD: Geoprobe
FIELD PERSONNEL: M. Groves

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS
	TOPSOIL, with grass and roots	1.0
2	SC CLAYEY SAND, some silt, trace gravel, loose, medium grained, brown, slightly moist	
	- with clay, moist at 2.5ft BGS	
4	- trace clay, trace silt at 4.0ft BGS	
6	- some gravel, no clay at 7.0ft BGS	
8		
10	END OF BOREHOLE @ 10.0ft BGS	10.0
12		
14		

SOIL VAPOR EXTRACTION



WELL DETAILS
Screened interval:
9.0 to 10.0ft BGS
Length: 1ft
Diameter: 0.5in
Slot Size: NA
Material: Factory-slotted 316 Stainless Steel
Seal:
1.0 to 8.5ft BGS
Material: Bentonite
Sand Pack:
8.5 to 10.0ft BGS
Material: #5 Sand

SAMPLE NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)
0'-2.5'	P/S	4.0		0
2.5'-5'				0
5'-7.5'	P/S	4.0		0
7.5'-10'				0

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

GRAIN SIZE ANALYSIS ☐

OVERBURDEN LOG 019190-VP.GPJ CRA_CORP.GDT 2/23/10

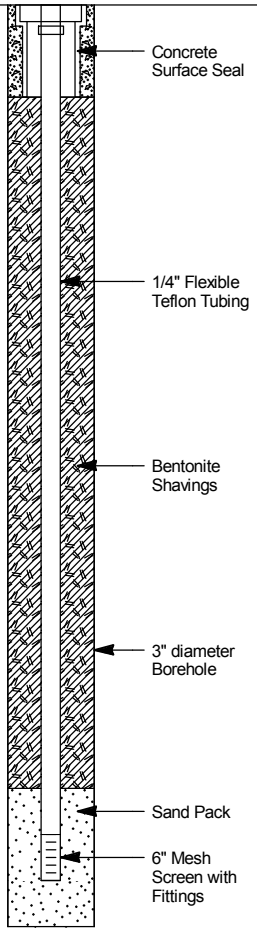
STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Radio Materials Corporation
PROJECT NUMBER: 019190
CLIENT:
LOCATION: Attica, Indiana
DRILLING CONTRACTOR: Boart Longyear

HOLE DESIGNATION: VP-24
DATE COMPLETED: June 13, 2007
DRILLING METHOD: Geoprobe
FIELD PERSONNEL: M. Groves

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS
0	FILL, sand and gravel	
2	SP SAND, some silt, trace gravel, loose, medium grained, brown, slightly moist	2.0
	- compact, moist at 3.5ft BGS	
4		
6	- trace silt, medium to coarse grained at 6.0ft BGS	
8		
10	END OF BOREHOLE @ 10.0ft BGS	10.0
12		
14		

SOIL VAPOR EXTRACTION



WELL DETAILS
Screened interval:
9.0 to 10.0ft BGS
Length: 1ft
Diameter: 0.5in
Slot Size: NA
Material: Factory-slotted 316 Stainless Steel
Seal:
1.0 to 8.5ft BGS
Material: Bentonite
Sand Pack:
8.5 to 10.0ft BGS
Material: #5 Sand

SAMPLE NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)
0'-2.5'	P/S	3.5		0
2.5'-5'				0
5'-7.5'	P/S	3.5		0
7.5'-10'				0

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

GRAIN SIZE ANALYSIS ☐

OVERBURDEN LOG 019190-VP.GPJ CRA_CORP.GDT 2/23/10

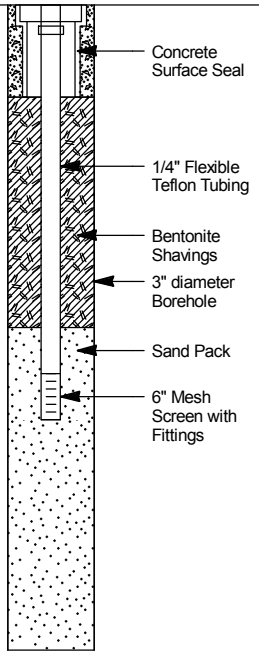
STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Radio Materials Corporation
PROJECT NUMBER: 019190
CLIENT:
LOCATION: Attica, Indiana
DRILLING CONTRACTOR: Boart Longyear

HOLE DESIGNATION: VP-25
DATE COMPLETED: June 12, 2007
DRILLING METHOD: Geoprobe
FIELD PERSONNEL: M. Groves

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS
	TOPSOIL, grass and roots	
	CL CLAY, sandy, silty, stiff, low/no plasticity, brown	0.5
	- trace gravel, low plasticity, slightly moist at 1.5ft BGS	
	- moist at 5.0ft BGS	
	- wet at 6.0ft BGS	
	- rock chips at 7.0ft BGS	7.0
	END OF BOREHOLE @ 7.0ft BGS	

SOIL VAPOR EXTRACTION



WELL DETAILS
Screened interval:
4.0 to 5.0ft BGS
Length: 1ft
Diameter: 0.5in
Slot Size: NA
Material: Factory-slotted 316 Stainless Steel
Seal:
1.0 to 3.5ft BGS
Material: Bentonite
Sand Pack:
3.5 to 5.0ft BGS
Material: #5 Sand

SAMPLE NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)
0'-2.5'	P/S	4.0		0
2.5'-5'				0
5'-7'	P/S	2.0		0

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽ 6/12/07
GRAIN SIZE ANALYSIS ☐

OVERBURDEN LOG 019190-VP.GPJ CRA_CORP.GDT 2/23/10

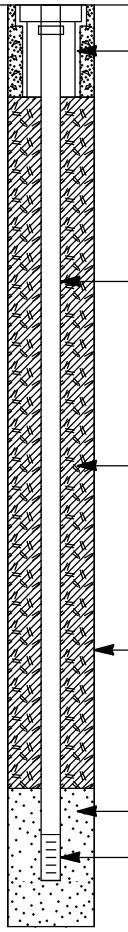
STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Radio Materials Corporation
PROJECT NUMBER: 019190
CLIENT:
LOCATION: Attica, Indiana
DRILLING CONTRACTOR: Boart Longyear

HOLE DESIGNATION: VP-26
DATE COMPLETED: June 13, 2007
DRILLING METHOD: Geoprobe
FIELD PERSONNEL: M. Groves

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS
	FILL, sand and gravel	
2	CLS SANDY CLAY, some silt, low plasticity, brown, slightly moist	2.0
	- trace sand, medium plasticity, moist at 3.0ft BGS	
4		
6	- some sand at 6.5ft BGS	
	- trace gravel at 7.5ft BGS	
8		
	- sandy at 9.0ft BGS	
10	END OF BOREHOLE @ 10.0ft BGS	10.0
12		
14		

SOIL VAPOR EXTRACTION



WELL DETAILS
Screened interval:
9.0 to 10.0ft BGS
Length: 1ft
Diameter: 0.5in
Slot Size: NA
Material: Factory-slotted 316 Stainless Steel
Seal:
1.0 to 8.5ft BGS
Material: Bentonite
Sand Pack:
8.5 to 10.0ft BGS
Material: #5 Sand

SAMPLE NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)
0'-2.5'	P/S	3.5		0
2.5'-5'				0
5'-7.5'				0
7.5'-10'	P/S	4.0		0

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

GRAIN SIZE ANALYSIS ☐

OVERBURDEN LOG 019190-VP.GPJ CRA_CORP.GDT 2/23/10

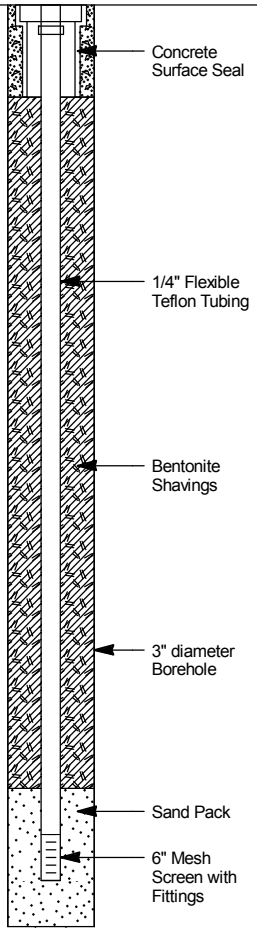
STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Radio Materials Corporation
PROJECT NUMBER: 019190
CLIENT:
LOCATION: Attica, Indiana
DRILLING CONTRACTOR: Boart Longyear

HOLE DESIGNATION: VP-27
DATE COMPLETED: June 13, 2007
DRILLING METHOD: Geoprobe
FIELD PERSONNEL: M. Groves

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS
0	FILL, sand and gravel	
	ML SILT, trace sand, firm, low plasticity, brown, slightly moist	1.4
2	- moist at 2.0ft BGS	
4	- some gravel, some sand at 4.0ft BGS	
6		
8	- light brown at 7.5ft BGS	
10	END OF BOREHOLE @ 10.0ft BGS	10.0
12		
14		

SOIL VAPOR EXTRACTION



WELL DETAILS
Screened interval:
9.0 to 10.0ft BGS
Length: 1ft
Diameter: 0.5in
Slot Size: NA
Material: Factory-slotted 316 Stainless Steel
Seal:
1.0 to 8.5ft BGS
Material: Bentonite
Sand Pack:
8.5 to 10.0ft BGS
Material: #5 Sand

SAMPLE NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)
0'-2.5'	P/S	4.0		0
2.5'-5'				0
5'-7.5'	P/S			0
7.5'-10'				0

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

GRAIN SIZE ANALYSIS ☐

OVERBURDEN LOG 019190-VP.GPJ CRA_CORP.GDT 2/23/10

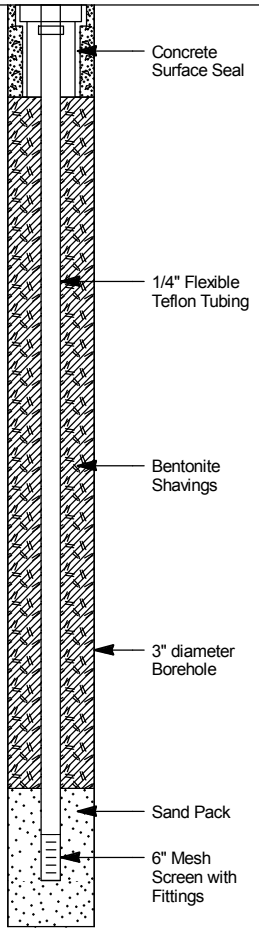
STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Radio Materials Corporation
PROJECT NUMBER: 019190
CLIENT:
LOCATION: Attica, Indiana
DRILLING CONTRACTOR: Boart Longyear

HOLE DESIGNATION: VP-28
DATE COMPLETED: June 13, 2007
DRILLING METHOD: Geoprobe
FIELD PERSONNEL: M. Groves

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS
0	TOPSOIL, with grass and roots	1.0
2	CL, CLAY, sandy, silty, trace gravel, firm, low plasticity, brown, moist	
4	- some gravel at 4.0ft BGS	
10	END OF BOREHOLE @ 10.0ft BGS	10.0

SOIL VAPOR EXTRACTION



WELL DETAILS
Screened interval:
9.0 to 10.0ft BGS
Length: 1ft
Diameter: 0.5in
Slot Size: NA
Material: Factory-slotted 316 Stainless Steel
Seal:
1.0 to 8.5ft BGS
Material: Bentonite
Sand Pack:
8.5 to 10.0ft BGS
Material: #5 Sand

SAMPLE NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)
0'-2.5'	P/S	3.5		0
2.5'-5'				0
5'-7.5'				0
7.5'-10'	P/S	3.5		0

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

GRAIN SIZE ANALYSIS ☐

OVERBURDEN LOG 019190-VP.GPJ CRA_CORP.GDT 2/23/10

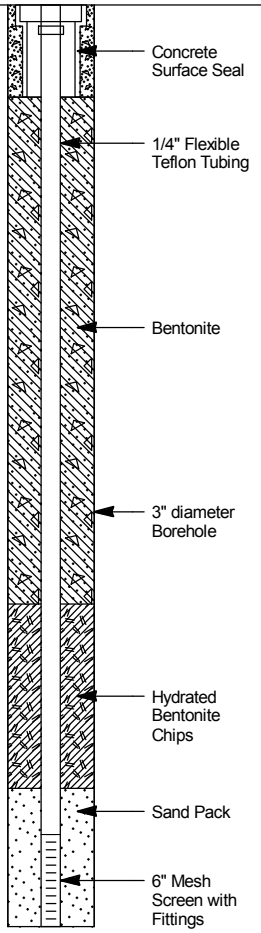
STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Radio Materials Corporation
PROJECT NUMBER: 019190
CLIENT:
LOCATION: Attica, Indiana
DRILLING CONTRACTOR: Altech

HOLE DESIGNATION: VP-29
DATE COMPLETED: September 27, 2007
DRILLING METHOD: DPT
FIELD PERSONNEL: T. Pranger

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS
	TOPSOIL	0.4
	FILL, gravel, silt, rock, sand	
	END OF BOREHOLE @ 10.0ft BGS	10.0

VAPOR PROBE



WELL DETAILS
Screened interval:
9.0 to 10.0ft BGS
Length: 1ft
Diameter: 0.5in
Slot Size: 0.25
Material: Factory-slotted 316 Stainless Steel
Seal:
6.5 to 8.5ft BGS
Material: Bentonite Chips
Sand Pack:
8.5 to 10.0ft BGS
Material: Sand

SAMPLE NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)
1	P/S	2.5		0
2	P/S	3.0		0.4

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 019190-VP.GPJ CRA_CORP.GDT 2/23/10

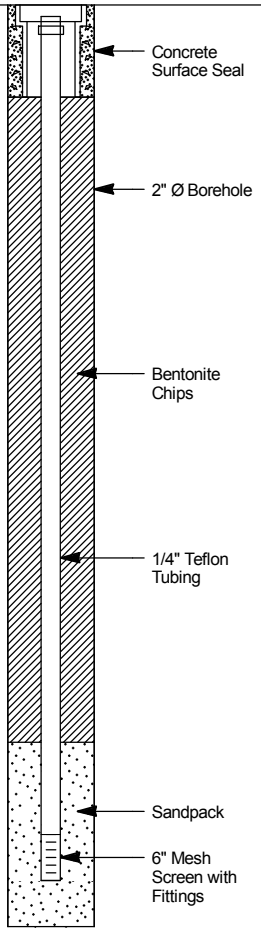
STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Radio Materials Corporation
PROJECT NUMBER: 019190
CLIENT:
LOCATION: Attica, Indiana
DRILLING CONTRACTOR: WDC

HOLE DESIGNATION: VP-29R
DATE COMPLETED: January 12, 2010
DRILLING METHOD: DPT
FIELD PERSONNEL: T. Pranger

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS
0	TOPSOIL, gravel	
	CL CLAY, silty, trace fine grained sand, firm, low plasticity, light brown, slightly moist	1.0
2		
	- with sand, trace gravel, moist at 3.0ft BGS	
4		
6	GP GRAVEL, with coarse grained sand, trace silt, compact to dense, tan, moist	6.0
8		
10	END OF BOREHOLE @ 10.0ft BGS	10.0
12		
14		

VAPOR PROBE



WELL DETAILS
Screened interval:
9.0 to 9.5ft BGS
Length: 0.5ft
Diameter: 0.5in
Slot Size: 0.25
Material: Factory-slotted 316 Stainless Steel
Seal:
1.0 to 8.0ft BGS
Material: Bentonite Chips
Sand Pack:
8.0 to 10.0ft BGS
Material: #5 Sand

SAMPLE NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)
0'-2'				0
1	P/S	3.5		
2'-4'				0
4'-6'				0
6'-8'				0
2	P/S			
8'-10'				0

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

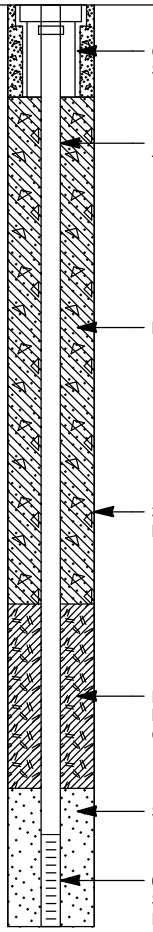
STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Radio Materials Corporation
PROJECT NUMBER: 019190
CLIENT:
LOCATION: Attica, Indiana
DRILLING CONTRACTOR: Altech

HOLE DESIGNATION: VP-30
DATE COMPLETED: September 27, 2007
DRILLING METHOD: DPT
FIELD PERSONNEL: T. Pranger

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS
0	TOPSOIL	0.5
	ML SILT, soft, slight plasticity, brown, slightly moist	
8	SP SAND, loose, fine grained, brown, dry to slightly moist	8.0
10	CL-ML SILTY CLAY, firm, low plasticity, brown, moist	9.8
	END OF BOREHOLE @ 10.0ft BGS	10.0

VAPOR PROBE



WELL DETAILS
Screened interval:
9.0 to 10.0ft BGS
Length: 1ft
Diameter: 0.5in
Slot Size: 0.25
Material: Factory-slotted 316 Stainless Steel
Seal:
6.5 to 8.5ft BGS
Material: Bentonite Chips
Sand Pack:
8.5 to 10.0ft BGS
Material: Sand

SAMPLE NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)
1	P/S	5.0		0
2	P/S	3.0		0

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 019190-VP.GPJ CRA_CORP.GDT 2/23/10

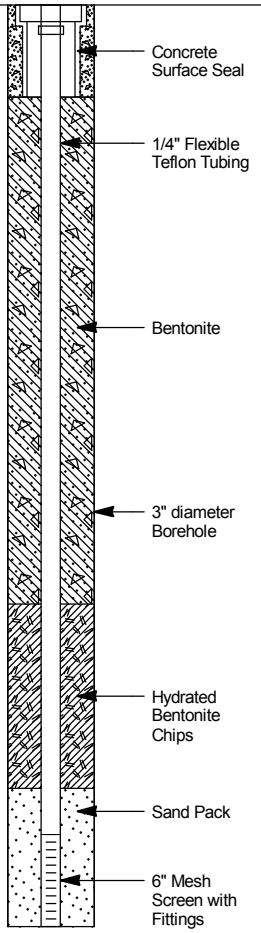
STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Radio Materials Corporation
PROJECT NUMBER: 019190
CLIENT:
LOCATION: Attica, Indiana
DRILLING CONTRACTOR: Altech

HOLE DESIGNATION: VP-31
DATE COMPLETED: September 27, 2007
DRILLING METHOD: DPT
FIELD PERSONNEL: T. Pranger

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS
0	FILL, gravel, sand, silt, loose, moist	
9.0	SP SAND, trace gravel, loose, fine grained, tan, dry	9.0
10.0	END OF BOREHOLE @ 10.0ft BGS	10.0

VAPOR PROBE



WELL DETAILS
Screened interval:
9.0 to 10.0ft BGS
Length: 1ft
Diameter: 0.5in
Slot Size: 0.25
Material: Factory-slotted 316 Stainless Steel
Seal:
6.5 to 8.5ft BGS
Material: Bentonite Chips
Sand Pack:
8.5 to 10.0ft BGS
Material: Sand

SAMPLE NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)
1	P/S	2.0		0
2	P/S	4.5		0

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 019190-VP.GPJ CRA_CORP.GDT 2/23/10

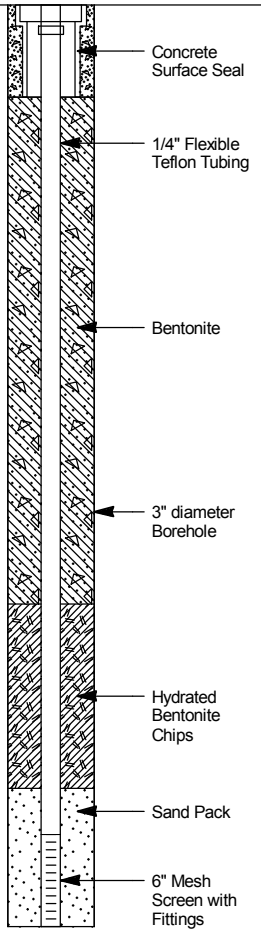
STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Radio Materials Corporation
PROJECT NUMBER: 019190
CLIENT:
LOCATION: Attica, Indiana
DRILLING CONTRACTOR: Altech

HOLE DESIGNATION: VP-32
DATE COMPLETED: September 27, 2007
DRILLING METHOD: DPT
FIELD PERSONNEL: T. Pranger

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS
0	ASPHALT	
	FILL, silt, gravel	0.5
2		
4		
6		
	GP GRAVEL, sand, loose, coarse grained, tan, dry	7.0
8		
10	END OF BOREHOLE @ 10.0ft BGS	10.0
12		
14		

VAPOR PROBE



WELL DETAILS
Screened interval:
9.0 to 10.0ft BGS
Length: 1ft
Diameter: 0.5in
Slot Size: 0.25
Material: Factory-slotted 316 Stainless Steel
Seal:
6.5 to 8.5ft BGS
Material: Bentonite Chips
Sand Pack:
8.5 to 10.0ft BGS
Material: Sand

SAMPLE NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)
1	P/S	3.5		0
2	P/S	5.0		0

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 019190-VP.GPJ CRA_CORP.GDT 2/23/10

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Radio Materials Corporation
PROJECT NUMBER: 019190
CLIENT:
LOCATION: Attica, Indiana
DRILLING CONTRACTOR: Altech

HOLE DESIGNATION: VP-33
DATE COMPLETED: September 27, 2007
DRILLING METHOD: DPT
FIELD PERSONNEL: T. Pranger

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	VAPOR PROBE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
0	TOPSOIL		Concrete Surface Seal					
	FILL, gravel, silt, sand, loose	0.5	1/4" Flexible Teflon Tubing					
2				1	P/S	3.0		–
4			Bentonite					
6			3" diameter Borehole					
8			Hydrated Bentonite Chips	2	P/S	4.0		–
			Sand Pack					
10	END OF BOREHOLE @ 10.0ft BGS	10.0	6" Mesh Screen with Fittings					
12								
14								

WELL DETAILS
Screened interval:
9.0 to 10.0ft BGS
Length: 1ft
Diameter: 0.5in
Slot Size: 0.25
Material: Factory-slotted 316 Stainless Steel
Seal:
6.5 to 8.5ft BGS
Material: Bentonite Chips
Sand Pack:
8.5 to 10.0ft BGS
Material: Sand

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 019190-VP.GPJ CRA_CORP.GDT 2/23/10

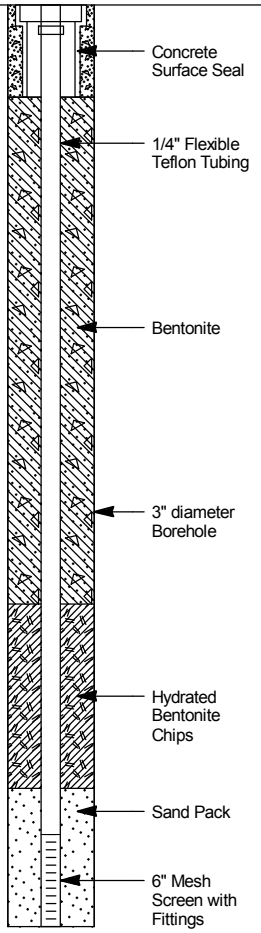
STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Radio Materials Corporation
PROJECT NUMBER: 019190
CLIENT:
LOCATION: Attica, Indiana
DRILLING CONTRACTOR: Altech

HOLE DESIGNATION: VP-34
DATE COMPLETED: September 27, 2007
DRILLING METHOD: DPT
FIELD PERSONNEL: T. Pranger

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS
0	TOPSOIL	
	FILL, gravel, silt	0.5
6	ML SILT, with clay, trace gravel, firm, dry to slightly moist	6.0
9	SP GRAVEL, sand, compact, coarse grained, brown, dry	9.0
10	END OF BOREHOLE @ 10.0ft BGS	10.0

VAPOR PROBE



WELL DETAILS
Screened interval:
9.0 to 10.0ft BGS
Length: 1ft
Diameter: 0.5in
Slot Size: 0.25
Material: Factory-slotted 316 Stainless Steel
Seal:
6.5 to 8.5ft BGS
Material: Bentonite Chips
Sand Pack:
8.5 to 10.0ft BGS
Material: Sand

SAMPLE NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)
1	P/S	3.0		0
2	P/S	3.0		0

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 019190-VP.GPJ CRA_CORP.GDT 2/23/10

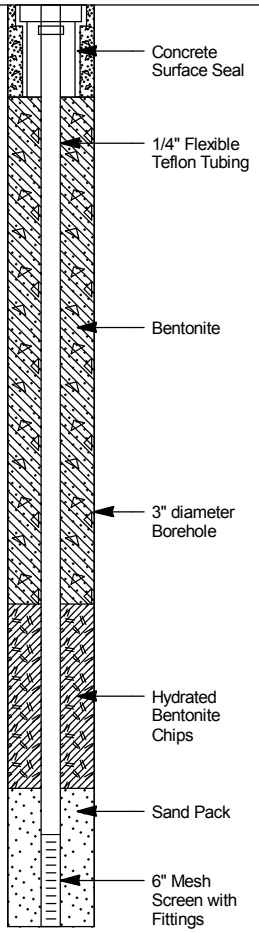
STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Radio Materials Corporation
PROJECT NUMBER: 019190
CLIENT:
LOCATION: Attica, Indiana
DRILLING CONTRACTOR: Altech

HOLE DESIGNATION: VP-35
DATE COMPLETED: September 27, 2007
DRILLING METHOD: DPT
FIELD PERSONNEL: T. Pranger

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS
0	TOPSOIL	0.3
	FILL, gravel, rock, sand, loose, brown, dry	
2		
4		
6	- moist to very moist at 6.7ft BGS	
8		
10	END OF BOREHOLE @ 10.0ft BGS	10.0
12		
14		

VAPOR PROBE



WELL DETAILS
Screened interval:
9.0 to 10.0ft BGS
Length: 1ft
Diameter: 0.5in
Slot Size: 0.25
Material: Factory-slotted 316 Stainless Steel
Seal:
6.5 to 8.5ft BGS
Material: Bentonite Chips
Sand Pack:
8.5 to 10.0ft BGS
Material: Sand

SAMPLE NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)
1	P/S	4.0		–
2	P/S	3.5		–

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 019190-VP.GPJ CRA_CORP.GDT 2/23/10

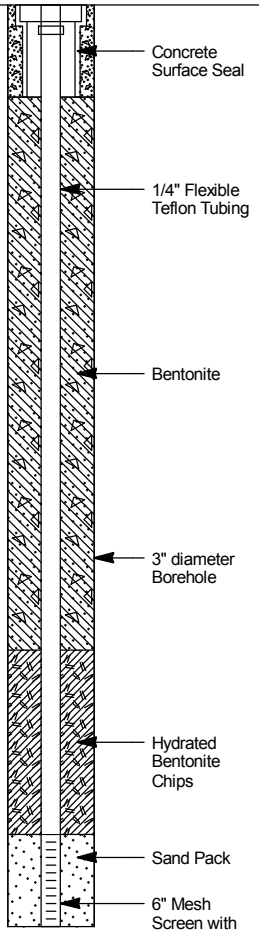
STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Radio Materials Corporation
PROJECT NUMBER: 019190
CLIENT:
LOCATION: Attica, Indiana
DRILLING CONTRACTOR: Altech

HOLE DESIGNATION: VP-36
DATE COMPLETED: September 27, 2007
DRILLING METHOD: DPT
FIELD PERSONNEL: T. Pranger

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS
0	FILL, gravel, silt	
	ML SILT, with sand, firm, slight plasticity, brown, dry	3.0
	GPS SANDY GRAVEL, with large rocks, loose, fine to coarse grained, brown, dry to slightly moist	7.0
	END OF BOREHOLE @ 10.0ft BGS	10.0

VAPOR PROBE



WELL DETAILS
Screened interval:
9.0 to 10.0ft BGS
Length: 1ft
Diameter: 0.5in
Slot Size: 0.25
Material: Factory-slotted 316 Stainless Steel
Seal:
7.0 to 9.0ft BGS
Material: Bentonite Chips
Sand Pack:
9.0 to 10.0ft BGS
Material: Sand

SAMPLE NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)
1	P/S	3.0		–
2	P/S	4.5		–

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

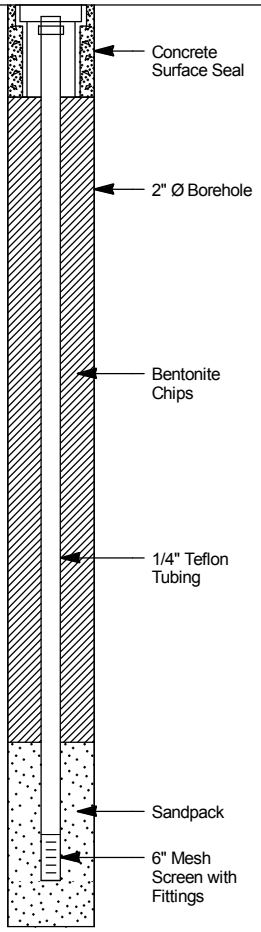
STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Radio Materials Corporation
PROJECT NUMBER: 019190
CLIENT:
LOCATION: Attica, Indiana
DRILLING CONTRACTOR: WDC

HOLE DESIGNATION: VP-36R
DATE COMPLETED: January 12, 2010
DRILLING METHOD: DPT
FIELD PERSONNEL: T. Pranger

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS
	FILL	
	CL CLAY, silty, low plasticity, brown, moist	1.0
	GP GRAVEL, with sand, coarse grained, moist	3.0
	END OF BOREHOLE @ 10.0ft BGS	10.0

VAPOR PROBE



WELL DETAILS
Screened interval:
9.0 to 9.5ft BGS
Length: 0.5ft
Diameter: 0.5in
Slot Size: 0.25
Material: Factory-slotted 316 Stainless Steel
Seal:
1.0 to 8.0ft BGS
Material: Bentonite Chips
Sand Pack:
8.0 to 10.0ft BGS
Material: #5 Sand

SAMPLE NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)
0'-2'				0
1	P/S	4.0		
2'-4'				0
4'-6'				0
6'-8'				0
2	P/S	4.0		
8'-10'				0

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 019190-VP.GPJ CRA_CORP.GDT 2/23/10

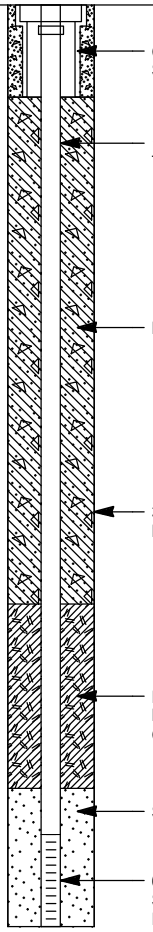
STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Radio Materials Corporation
PROJECT NUMBER: 019190
CLIENT:
LOCATION: Attica, Indiana
DRILLING CONTRACTOR: Altech

HOLE DESIGNATION: VP-37
DATE COMPLETED: September 28, 2007
DRILLING METHOD: DPT
FIELD PERSONNEL: T. Pranger

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS
	TOPSOIL	0.5
2	ML SILT, soft, slight plasticity, soft, brown, dry to slightly moist	
4		
6	SM SILTY SAND, compact, fine grained, tan/brown, slightly moist	6.0
8	- moist from 8.0 to 8.2ft BGS	
10	END OF BOREHOLE @ 10.0ft BGS	10.0
12		
14		

VAPOR PROBE



WELL DETAILS
Screened interval:
9.0 to 10.0ft BGS
Length: 1ft
Diameter: 0.5in
Slot Size: 0.25
Material: Factory-slotted 316 Stainless Steel
Seal:
6.5 to 8.5ft BGS
Material: Bentonite Chips
Sand Pack:
8.5 to 10.0ft BGS
Material: Sand

SAMPLE NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)
1	P/S	4.0		0
2	P/S	3.8		0

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 019190-VP.GPJ CRA_CORP.GDT 2/23/10

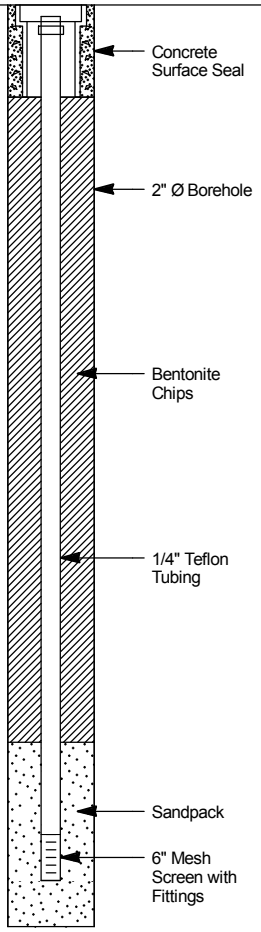
STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Radio Materials Corporation
PROJECT NUMBER: 019190
CLIENT:
LOCATION: Attica, Indiana
DRILLING CONTRACTOR: WDC

HOLE DESIGNATION: VP-38
DATE COMPLETED: January 12, 2010
DRILLING METHOD: DPT
FIELD PERSONNEL: T. Pranger

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS
0	FILL, gravel, sand, asphalt	
2	CL CLAY, silty, slight sand, low plasticity, reddish brown, slightly moist, iron staining	2.0
4	- trace sand at 4.9ft BGS	5.0
	ML SILT, with/and sand, firm, slight plasticity, brown, moist	
6		
8		
	SP SAND, and gravel, compact, coarse grained, tan, moist	9.2
10	END OF BOREHOLE @ 10.0ft BGS	10.0
12		
14		

VAPOR PROBE



WELL DETAILS
Screened interval:
9.0 to 9.5ft BGS
Length: 0.5ft
Diameter: 0.5in
Slot Size: 0.25
Material: Factory-slotted 316 Stainless Steel
Seal:
1.0 to 8.0ft BGS
Material: Bentonite Chips
Sand Pack:
8.0 to 10.0ft BGS
Material: #5 Sand

SAMPLE NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)
0'-2'				0
1	P/S	4.8		
2'-4'				0
4'-6'				0
6'-8'				0
2	P/S	4.0		
8'-10'				0

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

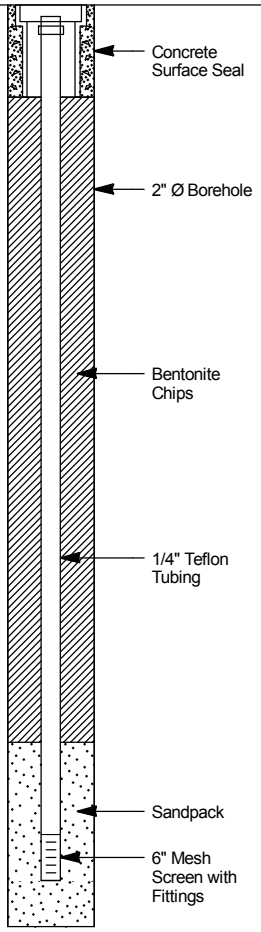
OVERBURDEN LOG 019190-VP.GPJ CRA_CORP.GDT 2/23/10

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Radio Materials Corporation
PROJECT NUMBER: 019190
CLIENT:
LOCATION: Attica, Indiana
DRILLING CONTRACTOR: WDC

HOLE DESIGNATION: VP-39
DATE COMPLETED: January 12, 2010
DRILLING METHOD: DPT
FIELD PERSONNEL: T. Pranger

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS
	TOPSOIL	
	FILL, silt, gravel, trace red brick	0.5
2	CL CLAY, silty, trace sand, firm, low plasticity, brown, moist, trace iron staining	2.5
4	- with sand at 4.5ft BGS	
6	SP SAND, compact, fine grained, brown, very moist	6.0
	GP GRAVEL, compact, coarse grained, very moist	7.0
8		
10	END OF BOREHOLE @ 10.0ft BGS	10.0
12		
14		



WELL DETAILS
Screened interval:
9.0 to 9.5ft BGS
Length: 0.5ft
Diameter: 0.5in
Slot Size: 0.25
Material: Factory-slotted 316 Stainless Steel
Seal:
1.0 to 8.0ft BGS
Material: Bentonite Chips
Sand Pack:
8.0 to 10.0ft BGS
Material: #5 Sand

SAMPLE NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)
0'-2'				0
1	P/S	4.5		
2'-4'				0
4'-6'				0
6'-8'				0
2	P/S	4.0		
8'-10'				0

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

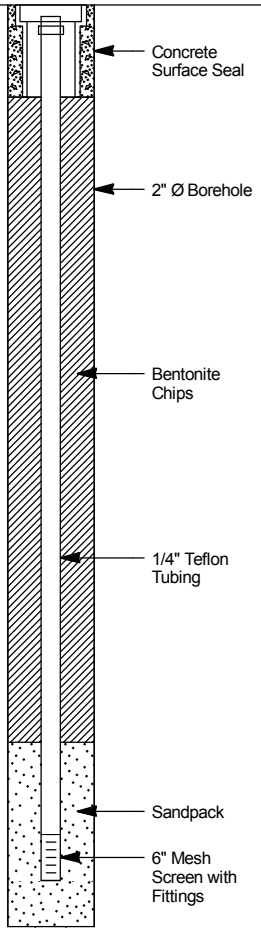
STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Radio Materials Corporation
PROJECT NUMBER: 019190
CLIENT:
LOCATION: Attica, Indiana
DRILLING CONTRACTOR: WDC

HOLE DESIGNATION: VP-40
DATE COMPLETED: January 12, 2010
DRILLING METHOD: DPT
FIELD PERSONNEL: T. Pranger

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS
	TOPSOIL	
	FILL, gravel	1.0
2	ML SILT, with clay, firm, slight plasticity, brown, moist	2.0
4	- large limestone cobble, iron staining at 5.0ft BGS	
6	GP GRAVEL, trace silt, compact to dense, coarse grained, tan, mostly limestone	6.0
8	- with silt, with fine grained sand at 8.0ft BGS	
10	END OF BOREHOLE @ 10.0ft BGS	10.0
12		
14		

VAPOR PROBE



WELL DETAILS
Screened interval:
9.0 to 9.5ft BGS
Length: 0.5ft
Diameter: 0.5in
Slot Size: 0.25
Material: Factory-slotted 316 Stainless Steel
Seal:
1.0 to 8.0ft BGS
Material: Bentonite Chips
Sand Pack:
8.0 to 10.0ft BGS
Material: #5 Sand

SAMPLE NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)
0'-2'				0
1	P/S	4.0		
2'-4'				0
4'-6'				0
6'-8'				0
2	P/S	4.0		
8'-10'				0

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 019190-VP.GPJ CRA_CORP.GDT 2/23/10

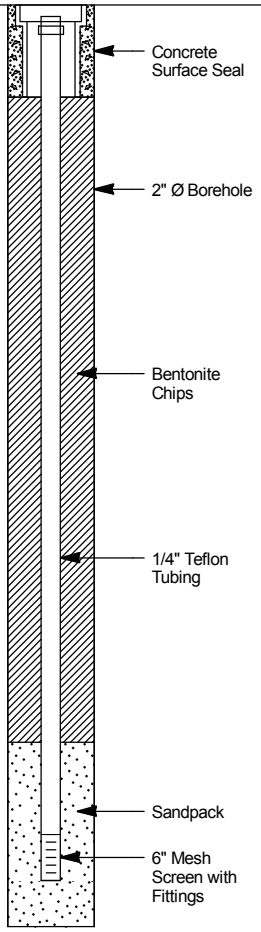
STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Radio Materials Corporation
PROJECT NUMBER: 019190
CLIENT:
LOCATION: Attica, Indiana
DRILLING CONTRACTOR: WDC

HOLE DESIGNATION: VP-41
DATE COMPLETED: January 12, 2010
DRILLING METHOD: DPT
FIELD PERSONNEL: T. Pranger

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS
	TOPSOIL	
	FILL, gravel, clay, sand	0.5
2		
4	GP GRAVEL, dense, coarse grained, tan, slightly moist	4.0
6		
8		
10	END OF BOREHOLE @ 10.0ft BGS	10.0
12		
14		

VAPOR PROBE



WELL DETAILS
Screened interval:
9.0 to 9.5ft BGS
Length: 0.5ft
Diameter: 0.5in
Slot Size: 0.25
Material: Factory-slotted 316 Stainless Steel
Seal:
1.0 to 8.0ft BGS
Material: Bentonite Chips
Sand Pack:
8.0 to 10.0ft BGS
Material: #5 Sand

SAMPLE NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)
0'-2'				0
1	P/S	4.2		
2'-4'				0
4'-6'				0
6'-8'				0
2	P/S	4.0		
8'-10'				0

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 019190-VP.GPJ CRA_CORP.GDT 2/23/10

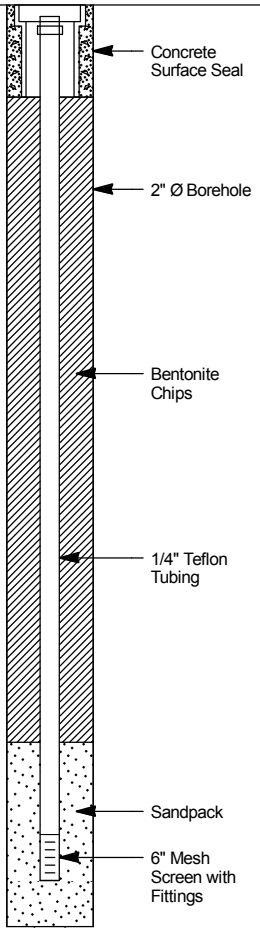
STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Radio Materials Corporation
PROJECT NUMBER: 019190
CLIENT:
LOCATION: Attica, Indiana
DRILLING CONTRACTOR: WDC

HOLE DESIGNATION: VP-42
DATE COMPLETED: January 12, 2010
DRILLING METHOD: DPT
FIELD PERSONNEL: T. Pranger

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS
0	ASPHALT	0.2
	FILL, gravel	
4	CL CLAY, silty, trace gravel, low plasticity, brown, moist	4.0
7	SC CLAYEY SAND, compact, brown, very moist	7.0
10	END OF BOREHOLE @ 10.0ft BGS	10.0

VAPOR PROBE



WELL DETAILS
Screened interval:
9.0 to 9.5ft BGS
Length: 0.5ft
Diameter: 0.5in
Slot Size: 0.25
Material: Factory-slotted 316 Stainless Steel
Seal:
1.0 to 8.0ft BGS
Material: Bentonite Chips
Sand Pack:
8.0 to 10.0ft BGS
Material: #5 Sand

SAMPLE NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)
0'-2'				0
1	P/S	4.5		
2'-4'				0
4'-6'				0
6'-8'				0
2	P/S	4.0		
8'-10'				0

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 019190-VP.GPJ CRA_CORP.GDT 2/23/10

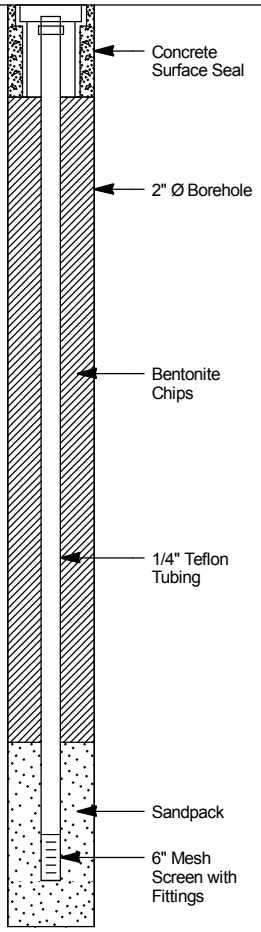
STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Radio Materials Corporation
PROJECT NUMBER: 019190
CLIENT:
LOCATION: Attica, Indiana
DRILLING CONTRACTOR: WDC

HOLE DESIGNATION: VP-43
DATE COMPLETED: January 12, 2010
DRILLING METHOD: DPT
FIELD PERSONNEL: T. Pranger

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS
	FILL	
	CL CLAY, silty, trace gravel, firm, low plasticity, tan/brown, moist	1.0
	END OF BOREHOLE @ 10.0ft BGS	10.0

VAPOR PROBE



WELL DETAILS
Screened interval:
9.0 to 9.5ft BGS
Length: 0.5ft
Diameter: 0.5in
Slot Size: 0.25
Material: Factory-slotted 316 Stainless Steel
Seal:
1.0 to 8.0ft BGS
Material: Bentonite Chips
Sand Pack:
8.0 to 10.0ft BGS
Material: #5 Sand

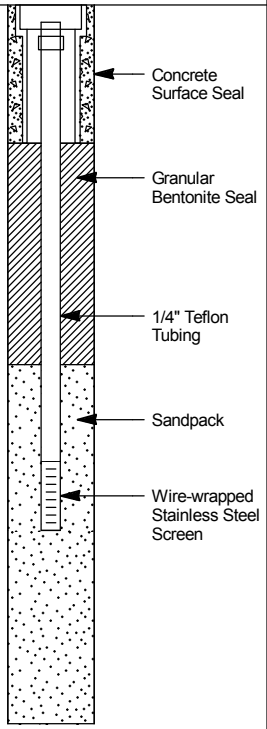
SAMPLE NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)
0'-2'				0
1	P/S	5.0		
2'-4'				0
4'-6'				0
6'-8'				0
2	P/S	5.0		
8'-10'				0

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

PROJECT NAME: Radio Materials Corporation
PROJECT NUMBER: 019190
CLIENT:
LOCATION: Attica, Indiana
DRILLING CONTRACTOR: Blood Hound, Inc.

HOLE DESIGNATION: VP-44
DATE COMPLETED: July 6, 2010
DRILLING METHOD: Air Knife
FIELD PERSONNEL: M. Groves/N. Hill

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	VAPOR PROBE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE
1	NOTE: Stratigraphy not logged - backfill material consists of sandy silt, trace clay, trace gravel	5.2					
2	END OF BOREHOLE @ 5.2ft BGS						
3							
4							
5							
6							
7							
8							
9							

WELL DETAILS
Screened interval:
3.3 to 3.8ft BGS
Length: 0.5ft
Diameter: 0.5in
Material: Wire-wrapped Stainless Steel
Seal:
1.0 to 2.6ft BGS
Material: Granular Bentonite
Sand Pack:
2.6 to 5.2ft BGS
Material: #5 Sand

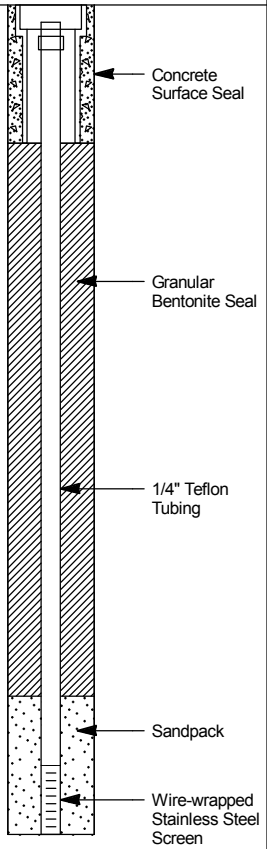
NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 019190-VP.GPJ CRA_CORP.GDT 10/4/10

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Radio Materials Corporation
PROJECT NUMBER: 019190
CLIENT:
LOCATION: Attica, Indiana
DRILLING CONTRACTOR: Blood Hound, Inc.

HOLE DESIGNATION: VP-45
DATE COMPLETED: July 6, 2010
DRILLING METHOD: Air Knife
FIELD PERSONNEL: M. Groves/N. Hill

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	VAPOR PROBE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE
1	NOTE: Stratigraphy not logged - backfill material consists of sandy silt, trace clay, trace gravel						
2							
3							
4							
5							
6	END OF BOREHOLE @ 6.0ft BGS	6.0	WELL DETAILS Screened interval: 5.5 to 6.0ft BGS Length: 0.5ft Diameter: 0.5in Material: Wire-wrapped Stainless Steel Seal: 1.0 to 5.0ft BGS Material: Granular Bentonite Sand Pack: 5.0 to 6.0ft BGS Material: #5 Sand				
7							
8							
9							

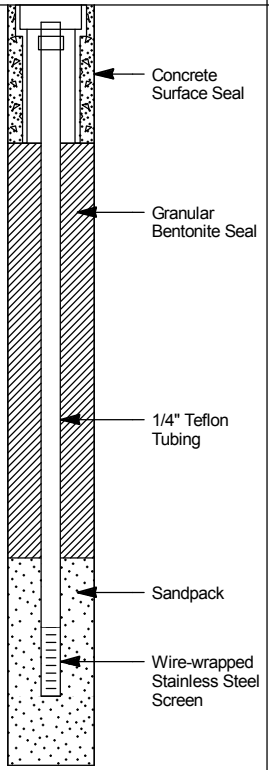
NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 019190-VP.GPJ CRA_CORP.GDT 10/4/10

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Radio Materials Corporation
PROJECT NUMBER: 019190
CLIENT:
LOCATION: Attica, Indiana
DRILLING CONTRACTOR: Blood Hound, Inc.

HOLE DESIGNATION: VP-46
DATE COMPLETED: July 6, 2010
DRILLING METHOD: Air Knife
FIELD PERSONNEL: M. Groves/N. Hill

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	VAPOR PROBE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE
0	NOTE: Stratigraphy not logged - backfill material consists of sandy silt, trace clay, trace gravel						
5.5	END OF BOREHOLE @ 5.5ft BGS	5.5					

WELL DETAILS
Screened interval:
5.0 to 5.5ft BGS
Length: 0.5ft
Diameter: 0.5in
Material: Wire-wrapped Stainless Steel
Seal:
1.0 to 4.0ft BGS
Material: Granular Bentonite
Sand Pack:
4.5 to 5.5ft BGS
Material: #5 Sand

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Radio Materials Corporation
PROJECT NUMBER: 019190
CLIENT:
LOCATION: Attica, Indiana
DRILLING CONTRACTOR: Blood Hound, Inc.

HOLE DESIGNATION: VP-47
DATE COMPLETED: July 7, 2010
DRILLING METHOD: Air Knife
FIELD PERSONNEL: M. Groves/N. Hill

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	VAPOR PROBE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE
2	NOTE: Stratigraphy not logged - backfill material consists of sandy silt, trace clay, trace gravel		Concrete Surface Seal; Granular Bentonite Seal; 1/4" Teflon Tubing; Sandpack; Wire-wrapped Stainless Steel Screen				
4							
6							
8							
10							
12	END OF BOREHOLE @ 11.2ft BGS	11.2					
14							

WELL DETAILS
Screened interval:
10.1 to 10.6ft BGS
Length: 0.5ft
Diameter: 0.5in
Material: Wire-wrapped Stainless Steel
Seal:
1.0 to 9.0ft BGS
Material: Granular Bentonite
Sand Pack:
9.0 to 11.2ft BGS
Material: #5 Sand

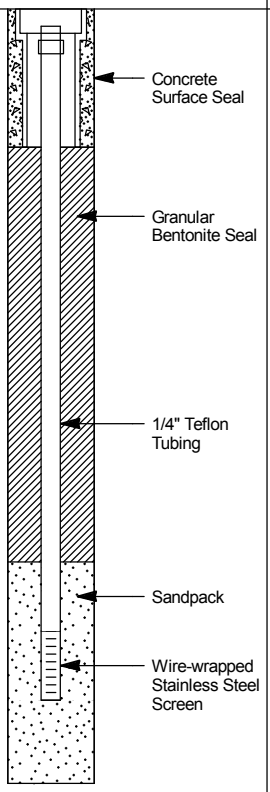
NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 019190-VP.GPJ CRA_CORP.GDT 10/4/10

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Radio Materials Corporation
PROJECT NUMBER: 019190
CLIENT:
LOCATION: Attica, Indiana
DRILLING CONTRACTOR: Blood Hound, Inc.

HOLE DESIGNATION: VP-48
DATE COMPLETED: July 6, 2010
DRILLING METHOD: Air Knife
FIELD PERSONNEL: M. Groves/N. Hill

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS	VAPOR PROBE	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE
0	NOTE: Stratigraphy not logged - backfill material consists of sandy silt, trace clay, trace gravel						
1							
2							
3							
4							
5							
	END OF BOREHOLE @ 5.6ft BGS	5.6					
6			WELL DETAILS Screened interval: 4.5 to 5.0ft BGS Length: 0.5ft Diameter: 0.5in Material: Wire-wrapped Stainless Steel Seal: 1.0 to 4.0ft BGS Material: Granular Bentonite Sand Pack: 4.0 to 5.6ft BGS Material: #5 Sand				
7							
8							
9							

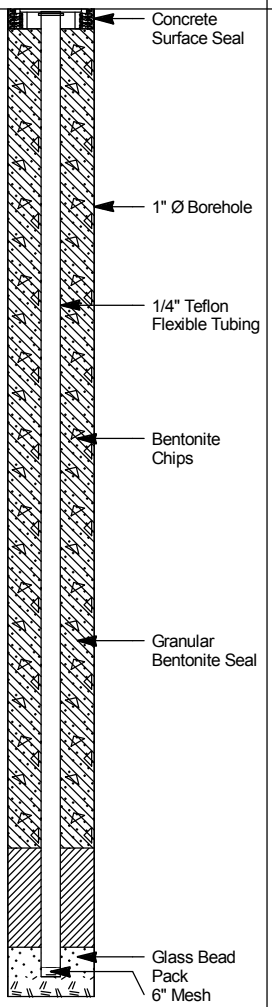
NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Radio Materials Corporation
PROJECT NUMBER: 019190
CLIENT:
LOCATION: Attica, Indiana
DRILLING CONTRACTOR: CRA Services

HOLE DESIGNATION: VP-49D
DATE COMPLETED: April 1, 2011
DRILLING METHOD: Geoprobe
FIELD PERSONNEL: N. Hill

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS
0	ASPHALT, gravel	0.5
	- becomes gravelly and sandy at 1.0ft BGS	
	ML SILT, trace sand, firm, slight plasticity, dark brown, moist	4.5
5	SP SAND, fine gravel, loose, fine to medium grained, poorly graded, light brown, dry	
	- cobble at 5.5ft BGS	
10		12.0
	SW SAND, compact, fine grained, well graded, light tan, moist	13.0
15	SP SAND, gravelly, trace silt, loose, fine to medium grained, poorly graded, light brown, dry	
20		
25		26.0
	ML SILT, with (fine) sand, trace (fine) gravel, dense, no plasticity, brown, moist	
30	- trace fine grained sand, dense/very dense, becomes dark gray, slight odor at 27.0ft BGS	
35		
40		
45		46.0
	SP SAND, compact, fine to medium grained, poorly graded, light brown, moist	
50	END OF BOREHOLE @ 50.0ft BGS	50.0
55		
60		
65		



WELL DETAILS
Screened interval:
48.5 to 49.0ft BGS
Length: 0.5ft
Diameter: 0.5in
Slot Size: 0.25
Material: Factory-slotted 316 Stainless Steel
Seal:
42.5 to 47.5ft BGS
Material: Bentonite Granules
Sand Pack:
47.5 to 49.0ft BGS
Material: Glass Beads (60-100 Mesh)

SAMPLE NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)
1	P/S	4.0		
2	P/S	1.0		
3	P/S	3.0		
4	P/S	1.0		
5	P/S	1.0		
6	P/S	3.0		0
27'-30'				
30'-32'				0
7	P/S	5.0		0
32'-35'				
35'-37'				0
8	P/S	5.0		0
37'-40'				
9	P/S	5.0		
10	P/S	5.0		

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

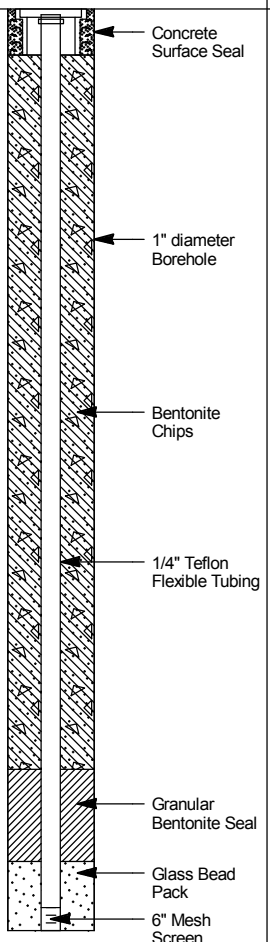
OVERBURDEN LOG 019190-VP.GPJ CRA_CORP.GDT 4/20/11

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Radio Materials Corporation
PROJECT NUMBER: 019190
CLIENT:
LOCATION: Attica, Indiana
DRILLING CONTRACTOR: CRA Services

HOLE DESIGNATION: VP-49S
DATE COMPLETED: April 1, 2011
DRILLING METHOD: Geoprobe
FIELD PERSONNEL: N. Hill

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH ft BGS
0	ASPHALT, gravel	0.5
	ML SILT, trace sand, firm, slight plasticity, dark brown, moist - becomes gravelly and sandy at 1.0ft BGS	
4.5	SP SAND, fine gravel, loose, fine to medium grained, poorly graded, light brown, dry - cobble at 5.5ft BGS	
12.0	SW SAND, compact, fine grained, well graded, light tan, moist	13.0
	SP SAND, gravelly, trace silt, loose, fine to medium grained, poorly graded, light brown, dry	
20.0	END OF BOREHOLE @ 20.0ft BGS	



WELL DETAILS
Screened interval:
19.5 to 20.0ft BGS
Length: 0.5ft
Diameter: 0.5in
Slot Size: 0.25
Material: Factory-slotted 316 Stainless Steel
Seal:
16.5 to 18.5ft BGS
Material: Bentonite Granules
Sand Pack:
18.5 to 20.0ft BGS
Material: Glass Beads (60-100 Mesh)

SAMPLE NUMBER	INTERVAL	REC (ft)	'N' VALUE
1	P/S	4.0	
2	P/S	1.0	
3	P/S	3.0	
4	P/S	1.0	

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

APPENDIX E

ELMDALE SUBDIVISION INDOOR/SUBSLAB AIR LABORATORY REPORTS

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
3585 Cadillac Avenue, Suite A Costa Mesa, CA 92626 * 714-258-8610 * Fax 714-258-0921

Conestoga Rovers & Associates, Inc. Indianapolis
6520 Corporate Drive
Indianapolis, IN 46278
Michael Richardson

Work Order: LUC0296
Project: RMC / Attica, Indiana
Project Number: 019190-01 / Indoor Air/Soil Gas Sampling

Received: 03/28/11 11:00
Reported: 04/06/11 11:08

ANALYTICAL REPORT

Analyte	Result	Data Qualifiers	Units	RL	Dilution	Date Analyzed	Instrument	Analyst	QC Batch
Sample ID: LUC0296-06 (AC-032511-NH-002 - Air)							**Sampled: 03/25/11 11:43**		
EPA TO15 - Volatile Organic Compounds by GC/MS (SIM)									
cis-1,2-Dichloroethene	ND		ug/m3	0.055	1.0	03/31/11 23:09	MSD	DLK	11D0002
trans-1,2-Dichloroethene	ND		ug/m3	0.055	1.0	03/31/11 23:09	MSD	DLK	11D0002
1,1-Dichloroethene	ND		ug/m3	0.020	1.0	03/31/11 23:09	MSD	DLK	11D0002
Tetrachloroethene	ND		ug/m3	0.14	1.0	03/31/11 23:09	MSD	DLK	11D0002
Trichloroethene	**0.058**		ug/m3	0.027	1.0	03/31/11 23:09	MSD	DLK	11D0002
Vinyl chloride	ND		ug/m3	0.013	1.0	03/31/11 23:09	MSD	DLK	11D0002
Surr: 4-Bromofluorobenzene (70-130%)	*99 %*					03/31/11 23:09	MSD	DLK	11D0002
Surr: 1,2-Dichloroethane-d4 (70-130%)	*105 %*					03/31/11 23:09	MSD	DLK	11D0002
Surr: Toluene-d8 (70-130%)	*100 %*					03/31/11 23:09	MSD	DLK	11D0002

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Michael Richardson

Work Order: LUC0296
Project: RMC / Attica, Indiana
Project Number: 019190-01 / Indoor Air/Soil Gas Sampling

Received: 03/28/11 11:00
Reported: 04/06/11 11:08

ANALYTICAL REPORT

Analyte	Result	Data Qualifiers	Units	RL	Dilution	Date Analyzed	Instrument	Analyst	QC Batch
Sample ID: LUC0296-04 (IA-032511-NH-006 - Air)						**Sampled: 03/25/11 11:42**			
EPA TO15 - Volatile Organic Compounds by GC/MS (SIM)									
cis-1,2-Dichloroethene	ND		ug/m3	0.055	1.0	04/04/11 22:32	MSD	LY	11D0025
trans-1,2-Dichloroethene	ND		ug/m3	0.055	1.0	04/04/11 22:32	MSD	LY	11D0025
1,1-Dichloroethene	ND		ug/m3	0.020	1.0	04/04/11 22:32	MSD	LY	11D0025
Tetrachloroethene	**0.15**		ug/m3	0.14	1.0	04/04/11 22:32	MSD	LY	11D0025
Trichloroethene	**0.054**		ug/m3	0.027	1.0	04/04/11 22:32	MSD	LY	11D0025
Vinyl chloride	ND		ug/m3	0.013	1.0	04/04/11 22:32	MSD	LY	11D0025
Surr: 4-Bromofluorobenzene (70-130%)	*107 %*					04/04/11 22:32	MSD	LY	11D0025
Surr: 1,2-Dichloroethane-d4 (70-130%)	*103 %*					04/04/11 22:32	MSD	LY	11D0025
Surr: Toluene-d8 (70-130%)	*101 %*					04/04/11 22:32	MSD	LY	11D0025

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Work Order: LUC0296
Project: RMC / Attica, Indiana
Project Number: 019190-01 / Indoor Air/Soil Gas Sampling

Received: 03/28/11 11:00
Reported: 04/06/11 11:08

ANALYTICAL REPORT

Analyte	Result	Data Qualifiers	Units	RL	Dilution	Date Analyzed	Instrument	Analyst	QC Batch
Sample ID: LUC0296-01 (GU-032511-NH-001 - Air)							**Sampled: 03/25/11 09:52**		
EPA TO15 (Med-level) - Volatile Organic Compounds by GC/MS									
cis-1,2-Dichloroethene	ND		ug/m3	7.9	1.0	04/01/11 14:56	MSA	DLK	11D0010
trans-1,2-Dichloroethene	ND		ug/m3	7.9	1.0	04/01/11 14:56	MSA	DLK	11D0010
1,1-Dichloroethene	ND		ug/m3	7.9	1.0	04/01/11 14:56	MSA	DLK	11D0010
2-Propanol	ND		ug/m3	25	1.0	04/01/11 14:56	MSA	DLK	11D0010
Tetrachloroethene	ND		ug/m3	14	1.0	04/01/11 14:56	MSA	DLK	11D0010
Trichloroethene	ND		ug/m3	11	1.0	04/01/11 14:56	MSA	DLK	11D0010
Vinyl chloride	ND		ug/m3	10	1.0	04/01/11 14:56	MSA	DLK	11D0010
Surr: 4-Bromofluorobenzene (70-130%)	*100 %*					04/01/11 14:56	MSA	DLK	11D0010
Surr: 1,2-Dichloroethane-d4 (70-130%)	*113 %*					04/01/11 14:56	MSA	DLK	11D0010
Surr: Toluene-d8 (70-130%)	*98 %*					04/01/11 14:56	MSA	DLK	11D0010

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Indianapolis, IN 46278
Michael Richardson

Work Order: LUC0296
Project: RMC / Attica, Indiana
Project Number: 019190-01 / Indoor Air/Soil Gas Sampling

Received: 03/28/11 11:00
Reported: 04/06/11 11:08

ANALYTICAL REPORT

Analyte	Result	Data Qualifiers	Units	RL	Dilution	Date Analyzed	Instrument	Analyst	QC Batch
Sample ID: LUC0296-05 (AC-032511-NH-001 - Air)						**Sampled: 03/25/11 10:31**			
EPA TO15 - Volatile Organic Compounds by GC/MS (SIM)									
cis-1,2-Dichloroethene	ND		ug/m3	0.055	1.0	04/04/11 23:17	MSD	LY	11D0025
trans-1,2-Dichloroethene	ND		ug/m3	0.055	1.0	04/04/11 23:17	MSD	LY	11D0025
1,1-Dichloroethene	ND		ug/m3	0.020	1.0	04/04/11 23:17	MSD	LY	11D0025
Tetrachloroethene	ND		ug/m3	0.14	1.0	04/04/11 23:17	MSD	LY	11D0025
Trichloroethene	**0.045**		ug/m3	0.027	1.0	04/04/11 23:17	MSD	LY	11D0025
Vinyl chloride	ND		ug/m3	0.013	1.0	04/04/11 23:17	MSD	LY	11D0025
Surr: 4-Bromofluorobenzene (70-130%)	*99 %*					04/04/11 23:17	MSD	LY	11D0025
Surr: 1,2-Dichloroethane-d4 (70-130%)	*101 %*					04/04/11 23:17	MSD	LY	11D0025
Surr: Toluene-d8 (70-130%)	*101 %*					04/04/11 23:17	MSD	LY	11D0025

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Work Order: LUC0296
Project: RMC / Attica, Indiana
Project Number: 019190-01 / Indoor Air/Soil Gas Sampling

Received: 03/28/11 11:00
Reported: 04/06/11 11:08

ANALYTICAL REPORT

Analyte	Result	Data Qualifiers	Units	RL	Dilution	Date Analyzed	Instrument	Analyst	QC Batch
Sample ID: LUC0296-02 (IA-032511-NH-001 - Air)							**Sampled: 03/25/11 10:29**		
EPA TO15 - Volatile Organic Compounds by GC/MS (SIM)									
cis-1,2-Dichloroethene	ND		ug/m3	0.055	1.0	03/31/11 20:05	MSD	DLK	11D0002
trans-1,2-Dichloroethene	ND		ug/m3	0.055	1.0	03/31/11 20:05	MSD	DLK	11D0002
1,1-Dichloroethene	ND		ug/m3	0.020	1.0	03/31/11 20:05	MSD	DLK	11D0002
Tetrachloroethene	**0.23**		ug/m3	0.14	1.0	03/31/11 20:05	MSD	DLK	11D0002
Trichloroethene	ND		ug/m3	0.027	1.0	03/31/11 20:05	MSD	DLK	11D0002
Vinyl chloride	ND		ug/m3	0.013	1.0	03/31/11 20:05	MSD	DLK	11D0002
Surr: 4-Bromofluorobenzene (70-130%)	*103 %*					03/31/11 20:05	MSD	DLK	11D0002
Surr: 1,2-Dichloroethane-d4 (70-130%)	*105 %*					03/31/11 20:05	MSD	DLK	11D0002
Surr: Toluene-d8 (70-130%)	*100 %*					03/31/11 20:05	MSD	DLK	11D0002

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Michael Richardson

Work Order: LUC0296
Project: RMC / Attica, Indiana
Project Number: 019190-01 / Indoor Air/Soil Gas Sampling

Received: 03/28/11 11:00
Reported: 04/06/11 11:08

ANALYTICAL REPORT

Analyte	Result	Data Qualifiers	Units	RL	Dilution	Date Analyzed	Instrument	Analyst	QC Batch
Sample ID: LUC0296-03 (IA-032511-NH-002 - Air)						**Sampled: 03/25/11 10:30**			
EPA TO15 - Volatile Organic Compounds by GC/MS (SIM)									
cis-1,2-Dichloroethene	ND		ug/m3	0.055	1.0	03/31/11 20:50	MSD	DLK	11D0002
trans-1,2-Dichloroethene	ND		ug/m3	0.055	1.0	03/31/11 20:50	MSD	DLK	11D0002
1,1-Dichloroethene	ND		ug/m3	0.020	1.0	03/31/11 20:50	MSD	DLK	11D0002
Tetrachloroethene	ND		ug/m3	0.14	1.0	03/31/11 20:50	MSD	DLK	11D0002
Trichloroethene	**0.051**		ug/m3	0.027	1.0	03/31/11 20:50	MSD	DLK	11D0002
Vinyl chloride	ND		ug/m3	0.013	1.0	03/31/11 20:50	MSD	DLK	11D0002
Surr: 4-Bromofluorobenzene (70-130%)	*102 %*					03/31/11 20:50	MSD	DLK	11D0002
Surr: 1,2-Dichloroethane-d4 (70-130%)	*105 %*					03/31/11 20:50	MSD	DLK	11D0002
Surr: Toluene-d8 (70-130%)	*101 %*					03/31/11 20:50	MSD	DLK	11D0002

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6520 Corporate Drive
Indianapolis, IN 46278
Michael Richardson

Work Order: LTF0044
Project: RMC / Attica, Indiana
Project Number: 019190-01

Received: 06/07/10 10:15
Reported: 06/23/10 12:03

ANALYTICAL REPORT

Analyte	Result	Data Qualifiers	Units	RL	Dilution	Date Analyzed	Instrument	Analyst	QC Batch
Sample ID: LTF0044-17 (IA-060410-NH-012 - Air)							**Sampled: 06/04/10 14:58**		
EPA TO15 - Volatile Organic Compounds by GC/MS (SIM)									
cis-1,2-Dichloroethene	ND		ug/m3	0.056	1.0	06/10/10 20:19	MSD	DLK	10F0064
trans-1,2-Dichloroethene	ND		ug/m3	0.056	1.0	06/10/10 20:19	MSD	DLK	10F0064
1,1-Dichloroethene	ND		ug/m3	0.020	1.0	06/10/10 20:19	MSD	DLK	10F0064
Tetrachloroethene	**0.22**		ug/m3	0.14	1.0	06/10/10 20:19	MSD	DLK	10F0064
Trichloroethene	**0.40**		ug/m3	0.027	1.0	06/10/10 20:19	MSD	DLK	10F0064
Vinyl chloride	ND		ug/m3	0.013	1.0	06/10/10 20:19	MSD	DLK	10F0064
Surr: 4-Bromofluorobenzene (70-130%)	*102 %*					06/10/10 20:19	MSD	DLK	10F0064
Surr: 1,2-Dichloroethane-d4 (70-130%)	*103 %*					06/10/10 20:19	MSD	DLK	10F0064
Surr: Toluene-d8 (70-130%)	*90 %*					06/10/10 20:19	MSD	DLK	10F0064

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Michael Richardson

Work Order: LTF0044
Project: RMC / Attica, Indiana
Project Number: 019190-01

Received: 06/07/10 10:15
Reported: 06/23/10 12:03

ANALYTICAL REPORT

Analyte	Result	Data Qualifiers	Units	RL	Dilution	Date Analyzed	Instrument	Analyst	QC Batch
Sample ID: LTF0044-18 (IA-060410-NH-013 - Air)							**Sampled: 06/04/10 14:59**		
EPA TO15 - Volatile Organic Compounds by GC/MS (SIM)									
cis-1,2-Dichloroethene	ND		ug/m3	0.056	1.0	06/10/10 23:18	MSD	DLK	10F0064
trans-1,2-Dichloroethene	ND		ug/m3	0.056	1.0	06/10/10 23:18	MSD	DLK	10F0064
1,1-Dichloroethene	ND		ug/m3	0.020	1.0	06/10/10 23:18	MSD	DLK	10F0064
Tetrachloroethene	**0.20**		ug/m3	0.14	1.0	06/10/10 23:18	MSD	DLK	10F0064
Trichloroethene	**0.35**		ug/m3	0.027	1.0	06/10/10 23:18	MSD	DLK	10F0064
Vinyl chloride	ND		ug/m3	0.013	1.0	06/10/10 23:18	MSD	DLK	10F0064
Surr: 4-Bromofluorobenzene (70-130%)	*108 %*					06/10/10 23:18	MSD	DLK	10F0064
Surr: 1,2-Dichloroethane-d4 (70-130%)	*104 %*					06/10/10 23:18	MSD	DLK	10F0064
Surr: Toluene-d8 (70-130%)	*98 %*					06/10/10 23:18	MSD	DLK	10F0064

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Conestoga Rovers & Associates, Inc. Indianapolis
6520 Corporate Drive
Indianapolis, IN 46278
Michael Richardson

Work Order: LTF0044
Project: RMC / Attica, Indiana
Project Number: 019190-01

Received: 06/07/10 10:15
Reported: 06/23/10 12:03

ANALYTICAL REPORT

Analyte	Result	Data Qualifiers	Units	RL	Dilution	Date Analyzed	Instrument	Analyst	QC Batch
Sample ID: LTF0044-19 (IA-060410-NH-014 - Air)							**Sampled: 06/04/10 15:00**		
EPA TO15 - Volatile Organic Compounds by GC/MS (SIM)									
cis-1,2-Dichloroethene	ND		ug/m3	0.056	1.0	06/11/10 00:03	MSD	DLK	10F0064
trans-1,2-Dichloroethene	ND		ug/m3	0.056	1.0	06/11/10 00:03	MSD	DLK	10F0064
1,1-Dichloroethene	ND		ug/m3	0.020	1.0	06/11/10 00:03	MSD	DLK	10F0064
Tetrachloroethene	**0.29**		ug/m3	0.14	1.0	06/11/10 00:03	MSD	DLK	10F0064
Trichloroethene	**0.48**		ug/m3	0.027	1.0	06/11/10 00:03	MSD	DLK	10F0064
Vinyl chloride	**0.016**		ug/m3	0.013	1.0	06/11/10 00:03	MSD	DLK	10F0064
Surr: 4-Bromofluorobenzene (70-130%)	*105 %*					06/11/10 00:03	MSD	DLK	10F0064
Surr: 1,2-Dichloroethane-d4 (70-130%)	*106 %*					06/11/10 00:03	MSD	DLK	10F0064
Surr: Toluene-d8 (70-130%)	*93 %*					06/11/10 00:03	MSD	DLK	10F0064

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6520 Corporate Drive
Indianapolis, IN 46278
Michael Richardson

Work Order: LUC0278
Project: RMC / Attica, Indiana
Project Number: 019190-01 / Indoor Air/Soil Gas Sampling

Received: 03/28/11 11:00
Reported: 04/07/11 14:40

ANALYTICAL REPORT

Analyte	Result	Data Qualifiers	Units	RL	Dilution	Date Analyzed	Instrument	Analyst	QC Batch
Sample ID: LUC0278-15 (AA-032511-NH-001 - Air)						**Sampled: 03/25/11 14:10**			
EPA TO15 - Volatile Organic Compounds by GC/MS (SIM)									
cis-1,2-Dichloroethene	ND		ug/m3	0.055	1.0	04/05/11 01:34	MSD	LY	11D0025
trans-1,2-Dichloroethene	ND		ug/m3	0.055	1.0	04/05/11 01:34	MSD	LY	11D0025
1,1-Dichloroethene	ND		ug/m3	0.020	1.0	04/05/11 01:34	MSD	LY	11D0025
Tetrachloroethene	ND		ug/m3	0.14	1.0	04/05/11 01:34	MSD	LY	11D0025
Trichloroethene	ND		ug/m3	0.027	1.0	04/05/11 01:34	MSD	LY	11D0025
Vinyl chloride	ND		ug/m3	0.013	1.0	04/05/11 01:34	MSD	LY	11D0025
Surr: 4-Bromofluorobenzene (70-130%)	*96 %*					04/05/11 01:34	MSD	LY	11D0025
Surr: 1,2-Dichloroethane-d4 (70-130%)	*100 %*					04/05/11 01:34	MSD	LY	11D0025
Surr: Toluene-d8 (70-130%)	*97 %*					04/05/11 01:34	MSD	LY	11D0025