# GIS REGISTRY
## Cover Sheet

July, 2008
(RR 5367)

## Source Property Information

CLOSURE DATE: Aug 26, 2010

**BRRTS #:** **03-55-175169**

FID #: 855050460

ACTIVITY NAME: BRUCE OIL CO

DATCP #: NA

PROPERTY ADDRESS: 110 ARTHUR AVE

COMM #: 54819958810

MUNICIPALITY: BRUCE

PARCEL ID #: 106001970000

***WTM COORDINATES:**

X: **420450** Y: **554310**

** Coordinates are in WTM83, NAD83 (1991)*

**WTM COORDINATES REPRESENT:**

- (●) Approximate Center Of Contaminant Source
- ( ) Approximate Source Parcel Center

**Please check as appropriate:** (BRRTS Action Code)

### Contaminated Media:

- [x] Groundwater Contamination > ES *(236)*
  - [ ] Contamination in ROW
  - [ ] Off-Source Contamination

  *(**note:** for list of off-source properties see "Impacted Off-Source Property")*

- [ ] Soil Contamination > *RCL or **SSRCL *(232)*
  - [ ] Contamination in ROW
  - [ ] Off-Source Contamination

  *(**note:** for list of off-source properties see "Impacted Off-Source Property" )*

### Land Use Controls:

- [ ] Soil: maintain industrial zoning *(220)*

  *(**note:** soil contamination concentrations between residential and industrial levels)*

- [ ] Structural Impediment *(224)*
- [ ] Site Specific Condition *(228)*
- [ ] Cover or Barrier *(222)*

  *(**note:** maintenance plan for groundwater or direct contact)*

- [ ] Vapor Mitigation *(226)*
- [ ] Maintain Liability Exemption *(230)*

  *(**note:** local government or economic development corporation)*

**Monitoring wells properly abandoned?** *(234)*

(●) Yes ( ) No ( ) N/A

** Residual Contaminant Level*
***Site Specific Residual Contaminant Level*

# GIS Registry Checklist



This Adobe Fillable form is intended to provide a list of information that is required for evaluation for case closure. It is to be used in conjunction with Form 4400-202, Case Closure Request. The closure of a case means that the Department has determined that no further response is required at that time based on the information that has been submitted to the Department.

**NOTICE: Completion of this form is mandatory** for applications for case closure pursuant to ch. 292, Wis. Stats. and ch. NR 726, Wis. Adm. Code, including cases closed under ch. NR 746 and ch. NR 726. The Department will not consider, or act upon your application, unless all applicable sections are completed on this form and the closure fee and any other applicable fees, required under ch. NR 749, Wis. Adm. Code, Table 1 are included. It is not the Department's intention to use any personally identifiable information from this form for any purpose other than reviewing closure requests and determining the need for additional response action. The Department may provide this information to requesters as required by Wisconsin's Open Records law [ss. 19.31 - 19.39, Wis. Stats.].

BRRTS #: 03-55-175169 PARCEL ID #: 106001970000

ACTIVITY NAME: BRUCE OIL CO WTM COORDINATES: X: 420450 Y: 554310

## CLOSURE DOCUMENTS (the Department adds these items to the final GIS packet for posting on the Registry)

- [x] **Closure Letter**
- [ ] **Maintenance Plan** (*if activity is closed with a land use limitation or condition (land use control) under s. 292.12, Wis. Stats.*)
- [ ] **Conditional Closure Letter**
- [ ] **Certificate of Completion (COC)** for VPLE sites

## SOURCE LEGAL DOCUMENTS

- [x] **Deed:** The most recent deed as well as legal descriptions, for the **Source Property** (where the contamination originated). Deeds for other, off-source (off-site) properties are located in the **Notification** section.
  ***Note:*** *If a property has been purchased with a land contract and the purchaser has not yet received a deed, a copy of the land contract which includes the legal description shall be submitted instead of the most recent deed. If the property has been inherited, written documentation of the property transfer should be submitted along with the most recent deed.*
- [x] **Certified Survey Map:** A copy of the certified survey map or the relevant section of the recorded plat map *for those properties where the legal description in the most recent deed refers to a certified survey map or a recorded plat map.* (lots on subdivided or platted property (e.g. lot 2 of xyz subdivision)).

  **Figure #:** **Title:**
- [x] **Signed Statement:** A statement signed by the Responsible Party (RP), which states that he or she believes that the attached legal description accurately describes the correct contaminated property.

## MAPS (meeting the visual aid requirements of s. NR 716.15(2)(h))

Maps must be no larger than 8.5 x 14 inches unless the map is submitted electronically.

- [x] **Location Map:** A map outlining all properties within the contaminated site boundaries on a U.S.G.S. topographic map or plat map in sufficient detail to permit easy location of all parcels. If groundwater standards are exceeded, include the location of all potable wells within 1200 feet of the site.
  ***Note:*** *Due to security reasons municipal wells are not identified on GIS Packet maps. However, the locations of these municipal wells must be identified on Case Closure Request maps.*

  **Figure #: 1** **Title: Site Location Map**
- [x] **Detailed Site Map:** A map that shows all relevant features (buildings, roads, individual property boundaries, contaminant sources, utility lines, monitoring wells and potable wells) within the contaminated area. This map is to show the location of all contaminated public streets, and highway and railroad rights-of-way in relation to the source property and in relation to the boundaries of groundwater contamination exceeding a ch. NR 140 Enforcement Standard (ES), and/or in relation to the boundaries of soil contamination exceeding a Residual Contaminant Level (RCL) or a Site Specific Residual Contaminant Levels (SSRCL) as determined under s. NR 720.09, 720.11 and 720.19.

  **Figure #: 2A** **Title: Site Map w/Utilities**
- [ ] **Soil Contamination Contour Map:** For sites closing with residual soil contamination, <u>this map is to show the location of all contaminated soil and a single contour</u> showing the horizontal extent of each area of contiguous residual soil contamination that exceeds a Residual Contaminant Level (RCL) or a Site Specific Residual Contaminant Level (SSRCL)as determined under s. NR 720.09, 720.11 and 720.19.

  NA

  **Figure #:** **Title:**

BRRTS #: 03-55-175169 ACTIVITY NAME: BRUCE OIL CO

## MAPS (continued)

☒ **Geologic Cross-Section Map:** A map showing the source location and vertical extent of residual soil contamination exceeding a Residual Contaminant Level (RCL) or a Site Specific Residual Contaminant Level (SSRCL). If groundwater contamination exceeds a ch. NR 140 Enforcement Standard (ES) when closure is requested, show the source location and vertical extent, water table and piezometric elevations, and locations and elevations of geologic units, bedrock and confining units, if any.

**Figure #: 3** **Title: Plan View Cross Section Lines**

**Figure #: 4 & 5** **Title: Geological Cross Section A - A' & Geological Cross Section B - B'**

☒ **Groundwater Isoconcentration Map:** For sites closing with residual groundwater contamination, this map shows the horizontal extent of all groundwater contamination exceeding a ch. NR140 Preventive Action Limit (PAL) and an Enforcement Standard (ES). Indicate the direction and date of groundwater flow, based on the most recent sampling data.
***Note:*** *This is intended to show the total area of contaminated groundwater.*

**Figure #: 2** **Title: Extent of Groundwater Contamination Map 1/24/10**

☒ **Groundwater Flow Direction Map:** A map that represents groundwater movement at the site. If the flow direction varies by more then 20° over the history of the site, submit 2 groundwater flow maps showing the maximum variation in flow direction.

**Figure #: 6** **Title: Potentiometric Surface Map**

**Figure #:** **Title:**

## TABLES (meeting the requirements of s. NR 716.15(2)(h)(3))

Tables must be no larger than 8.5 x 14 inches unless the table is submitted electronically. Tables must not contain shading and/or cross-hatching. The use of **BOLD** or *ITALICS* is acceptable.

☐ **Soil Analytical Table:** A table showing remaining soil contamination with analytical results and collection dates.
NA **Note:** This is one table of results for the contaminants of concern. Contaminants of concern are those that were found during the site investigation, that remain after remediation. It may be necessary to create a new table to meet this requirement.

**Table #:** **Title:**

☒ **Groundwater Analytical Table:** Table(s) that show the most recent analytical results and collection dates, for all monitoring wells and any potable wells for which samples have been collected.

**Table #: 3** **Title:**

☒ **Water Level Elevations:** Table(s) that show the previous four (at minimum) water level elevation measurements/dates from all monitoring wells. If present, free product is to be noted on the table.

**Table #: 4 & 4A** **Title: Most Recent Water Level Elevations**

## IMPROPERLY ABANDONED MONITORING WELLS

For each monitoring well not properly abandoned according to requirements of s. NR 141.25 include the following documents.
***Note:*** *If the site is being listed on the GIS Registry for only an improperly abandoned monitoring well you will only need to submit the documents in this section for the GIS Registry Packet.*

☒ **Not Applicable**

☐ **Site Location Map:** A map showing all surveyed monitoring wells with specific identification of the monitoring wells which have not been properly abandoned.
***Note:*** *If the applicable monitoring wells are distinctly identified on the Detailed Site Map this Site Location Map is not needed.*

**Figure #:** **Title:**

☐ **Well Construction Report:** Form 4440-113A for the applicable monitoring wells.

☐ **Deed:** The most recent deed as well as legal descriptions for each property where a monitoring well was not properly abandoned.

☐ **Notification Letter:** Copy of the notification letter to the affected property owner(s).

BRRTS #: 03-55-175169 ACTIVITY NAME: BRUCE OIL CO

## NOTIFICATIONS

**Source Property**

NA ☐ **Letter To Current Source Property Owner:** If the source property is owned by someone other than the person who is applying for case closure, include a copy of the letter notifying the current owner of the source property that case closure has been requested.

☐ **Return Receipt/Signature Confirmation:** Written proof of date on which confirmation was received for notifying current source property owner.

**Off-Source Property**

Group the following information per individual property and label each group according to alphabetic listing on the "Impacted Off-Source Property" attachment.

☐ **Letter To "Off-Source" Property Owners:** Copies of all letters sent by the Responsible Party (RP) to owners of properties with groundwater exceeding an Enforcement Standard (ES), and to owners of properties that will be affected by a land use control under s. 292.12, Wis. Stats.
***Note:*** *Letters sent to off-source properties regarding residual contamination must contain standard provisions in Appendix A of ch. NR 726.*

NA **Number of "Off-Source" Letters:**

☐ **Return Receipt/Signature Confirmation:** Written proof of date on which confirmation was received for notifying any off-source property owner.

☐ **Deed of "Off-Source" Property:** The most recent deed(s) as well as legal descriptions, for all affected deeded **off-source property(ies).** This does not apply to right-of-ways.
***Note:*** *If a property has been purchased with a land contract and the purchaser has not yet received a deed, a copy of the land contract which includes the legal description shall be submitted instead of the most recent deed. If the property has been inherited, written documentation of the property transfer should be submitted along with the most recent deed.*

☒ **Letter To "Governmental Unit/Right-Of-Way" Owners:** Copies of all letters sent by the Responsible Party (RP) to a city, village, municipality, state agency or any other entity responsible for maintenance of a public street, highway, or railroad right-of-way, within or partially within the contaminated area, for contamination exceeding a groundwater Enforcement Standard (ES) and/or soil exceeding a Residual Contaminant Level (RCL) or a Site Specific Residual Contaminant Level (SSRCL).
NA

**Number of "Governmental Unit/Right-Of-Way Owner" Letters: 2**

Letter Not required as Residual Groundwater
Contamination in ROW is Below Enforcement Standard

State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Jim Doyle, Governor
Matthew J. Frank, Secretary
John Gozdzialski, Regional Director

Northern Region Headquarters
107 Sutliff Ave.
Rhinelander, Wisconsin 54501-3349
Telephone 715-365-8900
FAX 715-365-8932
TTY Access via relay - 711

August 26, 2010

Mr. David Samardzich
820 4th Street
Bruce, WI 54819

SUBJECT: Final Case Closure for Bruce Oil Company, 110 E. Arthur Ave., Bruce, WI 54819
WDNR BRRTS Activity #: 03-55-175169

Dear Mr. Samardzich:

On May 6, 2010, the Northern Region Closure Committee reviewed your request for closure of the case described above. The Northern Region Closure Committee reviews environmental remediation cases for compliance with state rules and statutes to maintain consistency in the closure of these cases.

On August 24, 2010 the Department received information or documentation indicating that you have complied with the requirements for final closure. Documentation of proper well abandonment was submitted by your consultant IC Environmental Corp. in a submittal dated August 23, 2010.

Based on the correspondence and data provided, it appears that your case meets the closure requirements in ch. NR 726, Wisconsin Administrative Code. The Department considers this case closed and no further investigation or remediation is required at this time.

Please be aware that this case may be reopened pursuant to s. NR 726.09, Wisconsin Administrative Code, if additional information regarding site conditions indicates that contamination on or from the site poses a threat to public health, safety or welfare, or the environment.

GIS Registry

The conditions of case closure set out below in this letter require that this site be listed on the Remediation and Redevelopment Program's GIS Registry. The specific reasons are summarized below:

- Groundwater contamination is present above Chapter NR 140 enforcement standards

This letter and information that was submitted with your closure request application will be included on the GIS Registry. To review the sites on the GIS Registry web page, visit the RR Sites Map page at: http://dnr.wi.gov/org/aw/rr/gis/index.htm. If the property is listed on the GIS Registry because of remaining contamination and you intend to construct or reconstruct a well, you will need prior Department approval in accordance with s. NR 812.09(4)(w), Wis. Adm. Code. To obtain approval, Form 3300-254 needs to be completed and submitted to the DNR Drinking and Groundwater program's

regional water supply specialist. This form can be obtained on-line http://dnr.wi.gov/org/water/dwg/3300254.pdf or at the web address listed above for the GIS Registry.

Residual Groundwater Contamination

Groundwater impacted by trimethylbenzene contamination greater than enforcement standards set forth in ch. NR140, Wis. Adm. Code, is present on this contaminated property. Figure 2 attached shows the area where enforcement standards are exceeded. For more detailed information regarding the locations where groundwater samples have been collected (i.e., monitoring well locations) and the associated contaminant concentrations, refer to the Remediation and Redevelopment Program's GIS Registry at http://dnr.wi.gov/org/aw/rr/gis/index.htm.

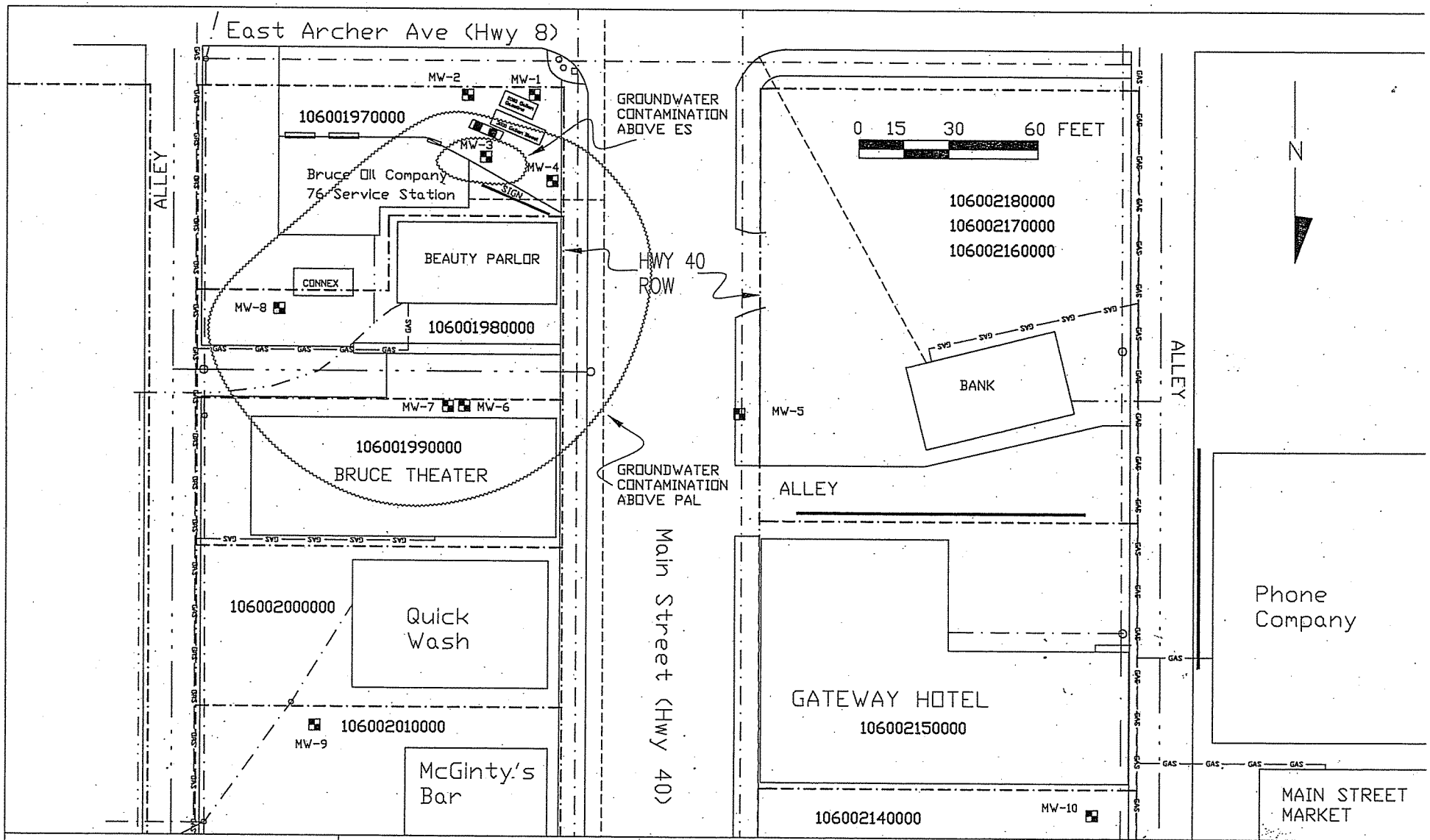
The Department appreciates your efforts to restore the environment at this site. If you have any questions regarding this closure decision or anything outlined in this letter, please contact William Schultz at 715-365-8965.

Sincerely,

William Schultz
Project Manager
Bureau for Remediation & Redevelopment

Attachment: Figure 2, Extent of Groundwater ES Exceedences

cc: Michael Kohn
IC Environmental Corp.
PO Box 1105, Superior, WI 54880




ICECOR
IC ENVIRONMENTAL CORPORATION

| | |
|---|---|
| — · — · — | OVERHEAD ELECTRIC |
| —GAS—GAS— | BURIED GAS LINE |
| — · · — | BURIED PHONE LINE |
| - - - - - - | BURIED WATER LINE |
| — · · · — | BURIED SEWER LINE |
| ■ | MONITORING WELL LOCATION |
| — — · — | APPROXIMATE PROPERTY BOUNDARY |
| 10600214000 | PARCEL ID NUMBER |

FIGURE 2
BRUCE OIL COMPANY INC.
BRUCE, WISCONSIN
DETAILED SITE MAP

| | |
|---|---|
| CREATED BY: MLK | DRAWN BY: MLK |
| DATE: 1/24/10 | PROJECT # 97.017 |

VOL 350 PAGE 846

259857

STATE BAR OF WISCONSIN FORM 2 – 1982
WARRANTY DEED

DOCUMENT NO.

REGISTER'S OFFICE
RUSK COUNTY } SS.
Received for Record this 16th day of Dec. AD 1998 at 10:00 o'clock A M and recorded in Vol. 350 of Records on page 846
Linda A. Effertz
Linda Ann Effertz
Register of Deeds

INDEXED

THIS SPACE RESERVED FOR RECORDING DATA

NAME AND RETURN ADDRESS

Alexander Samardzich and Susan M. Singerhouse,

conveys and warrants to David Samardzich,

the following described real estate in Rusk County, State of Wisconsin:

An undivided one-half interest in and to:

106-197
PARCEL IDENTIFICATION NUMBER

Lot Fourteen (14) and a parcel of land in Lot Fifteen (15), Block Thirteen (13), Original Plat of the Village of Bruce, described as beginning at a point on the South line of Lot 15 sixty-one (61) feet East of the Southwest corner of Lot 15, Thence North 25 feet, thence East and parallel to the South line of said Lot 15 a distance of 59.17 feet to the West alley line of Lot 15, thence South along the East line of Lot 15 a distance of 25 feet, thence West along the South line of Lot 15 a distance of 59.17 feet to the point of beginning.

FEE
$ 7.25 (10)
EXEMPT

This is not (is) (is not) homestead property.

Exception to warranties: easements, restrictions and reservations of record.

Dated this 24th day of November, A.D., 19 98.

(SEAL) Alexander Samardzich (SEAL)
Alexander Samardzich

(SEAL) Susan M. Singerhouse (SEAL)
Susan M. Singerhouse

AUTHENTICATION

Signature(s) of Alexander Samardzich

authenticated this 24th day of November, 19 98

Gordon K. Morris

TITLE: MEMBER STATE BAR OF WISCONSIN
(If not, authorized by §706.06, Wis. Stats.)

THIS INSTRUMENT WAS DRAFTED BY
Gordon K. Morris, Atty.
Bruce, WI

(Signatures may be authenticated or acknowledged. Both are not necessary.)

ACKNOWLEDGMENT

State of Wisconsin, } ss.
Rusk County.

Personally came before me this 5th day of November, 19 98, the above named Susan M. Singerhouse

to me known to be the person who executed the foregoing instrument and acknowledge the same.

Gordon K. Morris
Notary Public, County, Wis.
My commission is permanent. (If not, state expiration date: , 19 )

GORDON K. MORRIS NOTARY PUBLIC STATE OF WISCONSIN

* Names of persons signing in any capacity should be typed or printed below their signatures.

WARRANTY DEED

STATE BAR OF WISCONSIN
Form No. 2 – 1982

Wisconsin Legal Blank Co. Inc.
Milwaukee, Wis

MINEAPOLIS & ST. MARIE ATLANTIC R. R.

DEPOT

RAILWAY AVE.

Center line Sec. 5.

ARTHUR AVE.

Center line of 1/4 Sec. 5

d Lyte the surveyor who surveyed and mapped the land
Lalonna Plat & hereby certify that the lots as marked

February 14, 2007

Ms. Janet Kazda
Wisconsin Department of Natural Resources
107 Sutliff Avenue
Rhinelander, WI 54501

**RE: Statement of Complete and Accurate, GIS Registry Package, Bruce Oil Company, 110 E. Arthur Avenue, Bruce, WI 54819**
**BRRTS# 03-55-175169**
**PECFA #54819-9588-10**

Dear Ms. Kazda:

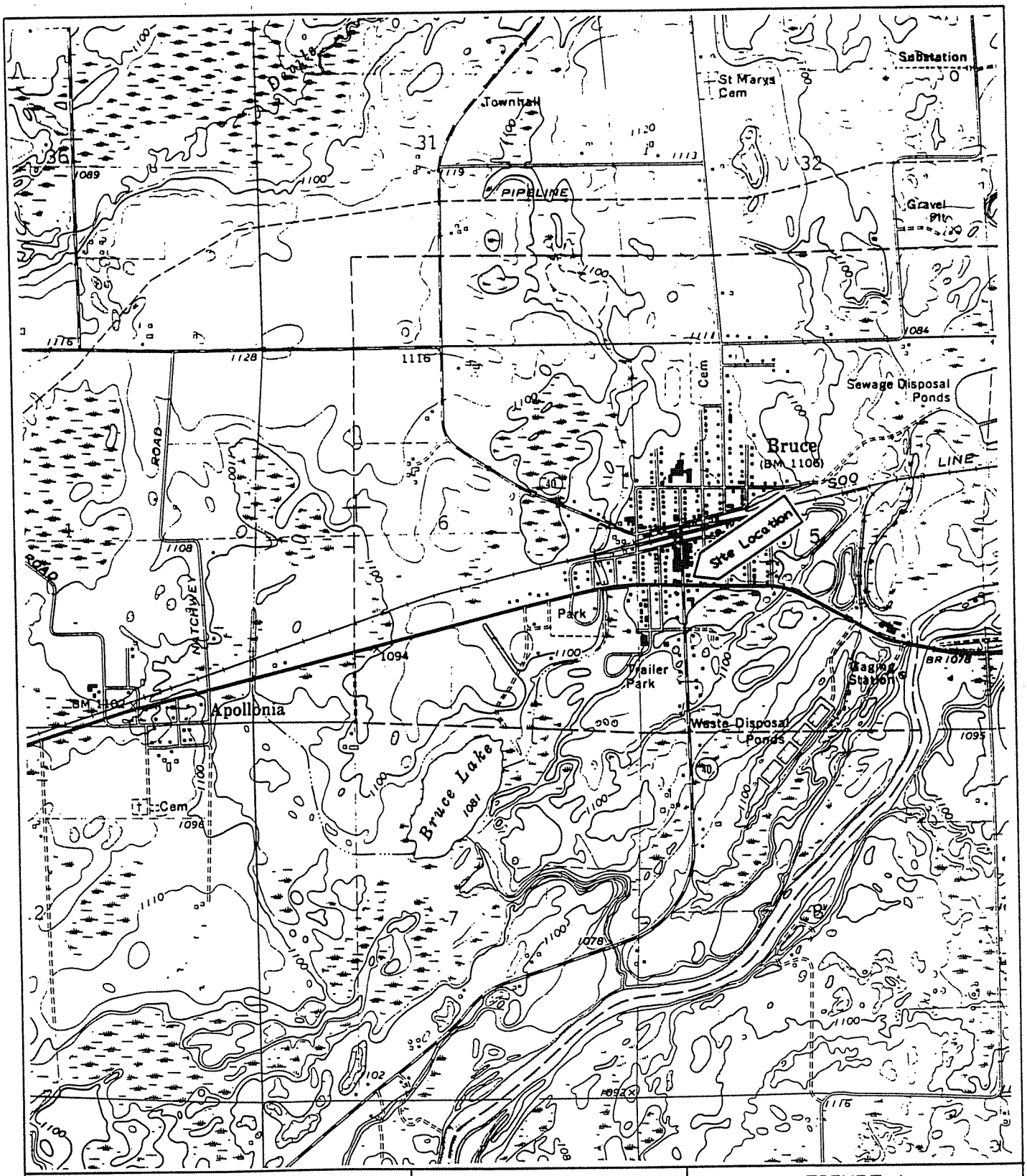
As required as part of seeking site closure using GIS Database Registry for remaining groundwater contamination, I have included the following required statement:

"As the responsible party, I believe that the legal descriptions attached to this package are complete and accurate."

David Samardzich

Dave Samardzich
Bruce Oil Company
110 E. Arthur Avenue
Bruce, WI 54819

Mar 30 2007
Date




ICECOR

I C ENVIRONMENTAL CORPORATION

Scale = 1:24,000

USGS Topographic Map - BRUCE, WI Quadrangle

FIGURE 1

BRUCE OIL COMPANY INC.
BRUCE, WISCONSIN

SITE LOCATION MAP

| | |
|---|---|
| CREATED BY: MLK | DRAWN BY: LMK |
| DATE: 8/27/03 | PROJECT # 97.017 |

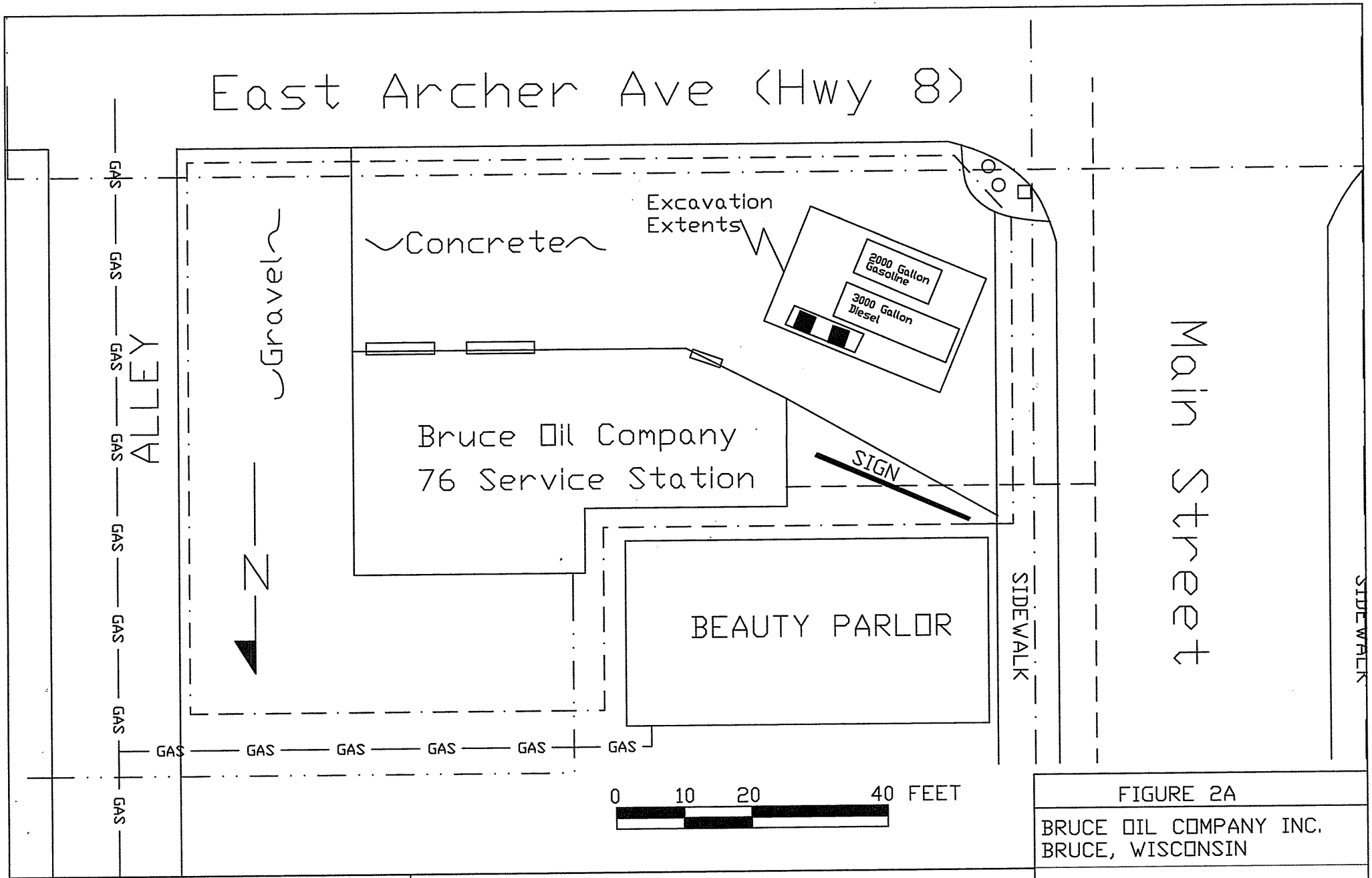



FIGURE 2A

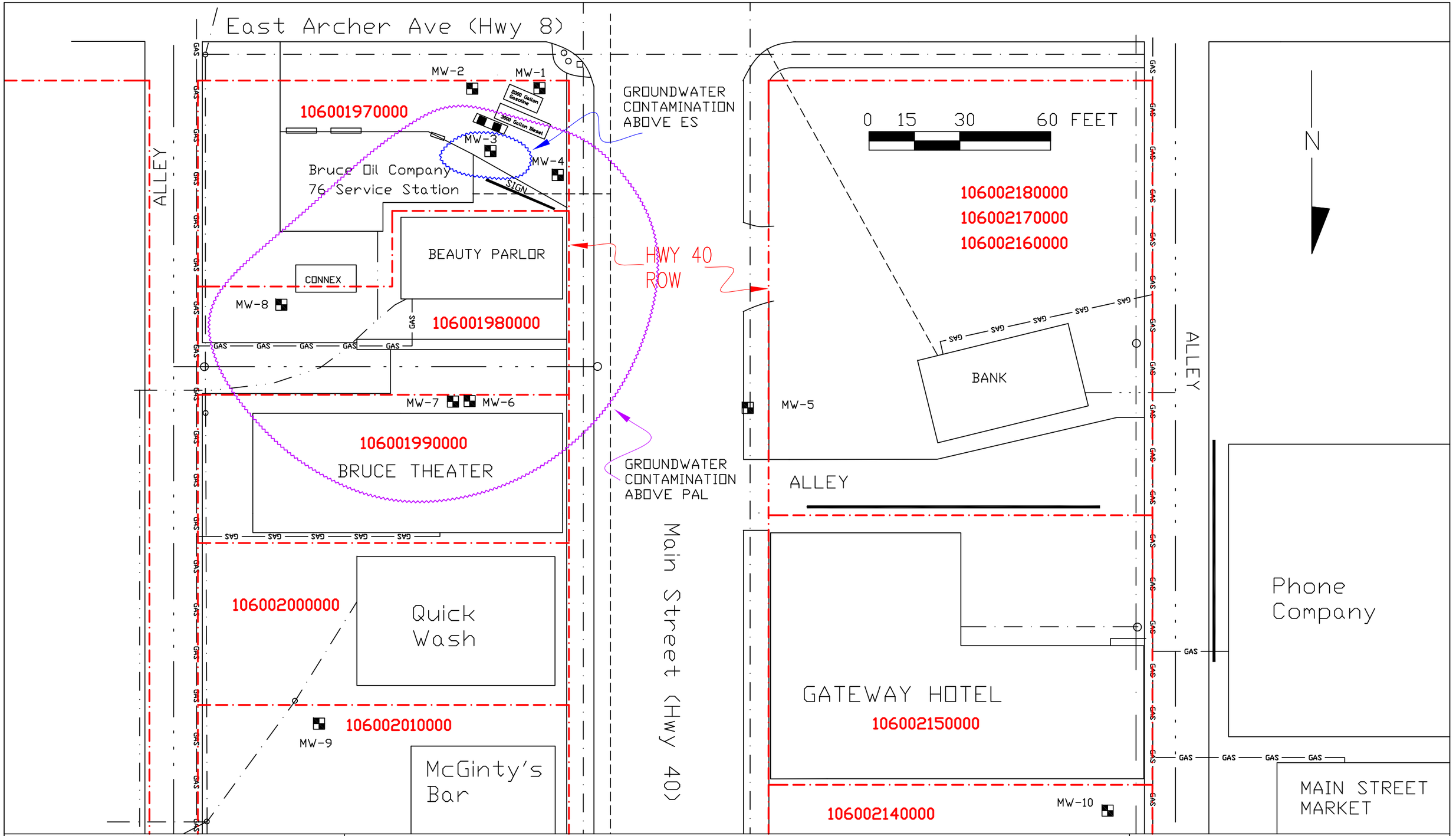
BRUCE OIL COMPANY INC.
BRUCE, WISCONSIN

ICECOR
I C ENVIRONMENTAL CORPORATION

- PROPERTY BOUNDARY
- OVERHEAD ELECTRIC
- GAS BURIED GAS LINE
- BURIED PHONE LINE
- BURIED WATER LINE

SITE MAP W/ UTILITIES

| | |
|---|---|
| CREATED BY: MLK | DRAWN BY: LMK |
| DATE: 8/27/03 | PROJECT # 97.017 |




ICECOR
IC ENVIRONMENTAL CORPORATION

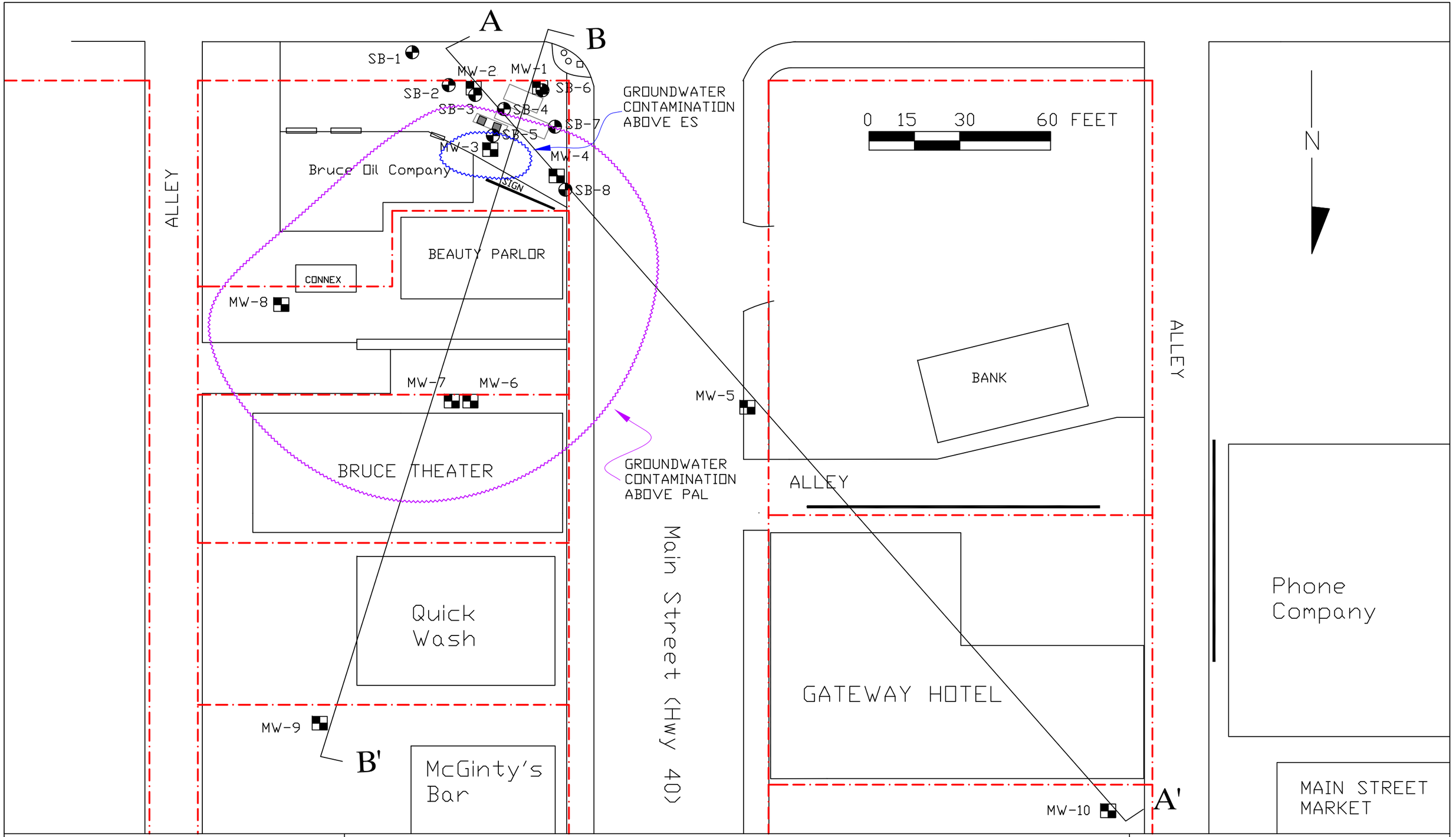
| | |
|---|---|
| — · — · — | OVERHEAD ELECTRIC |
| — GAS — GAS — | BURIED GAS LINE |
| —— · · —— | BURIED PHONE LINE |
| - - - - - - - | BURIED WATER LINE |
| —— · · · —— | BURIED SEWER LINE |
| ■ | MONITORING WELL LOCATION |
| — — · — | APPROXIMATE PROPERTY BOUNDARY |
| 10600214000 | PARCEL ID NUMBER |

FIGURE 2

BRUCE OIL COMPANY INC.
BRUCE, WISCONSIN

DETAILED SITE MAP

| | |
|---|---|
| CREATED BY: MLK | DRAWN BY: MLK |
| DATE: 1/24/10 | PROJECT # 97.017 |




ICECOR
IC ENVIRONMENTAL CORPORATION

MONITORING WELL LOCATION

A A' LINE OF GEOLOGICAL CROSS SECTION

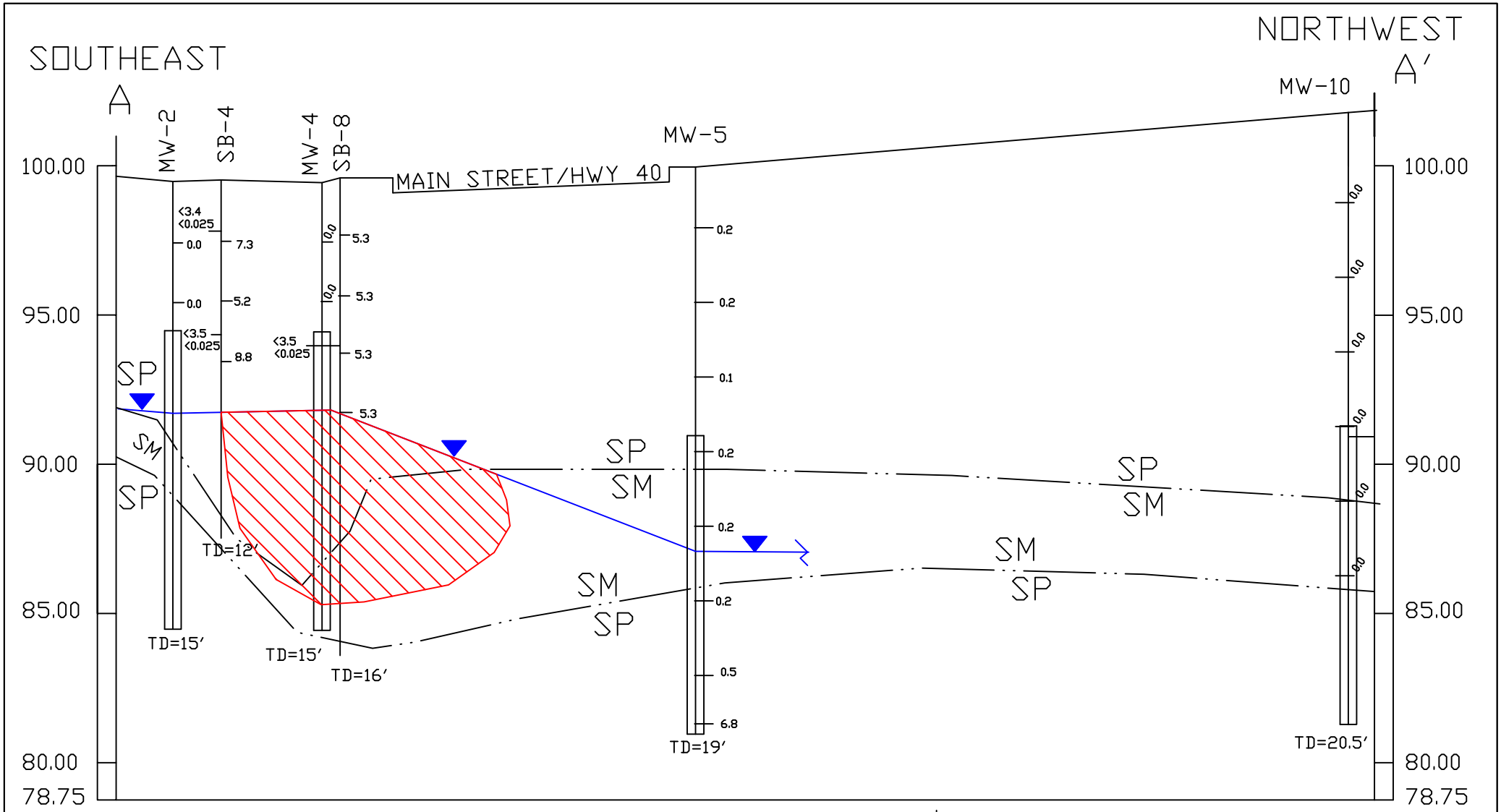
SOIL BORING LOCATION

FIGURE 3

BRUCE OIL COMPANY INC.
BRUCE, WISCONSIN

PLAN VIEW CROSS SECTION LINES

| | |
|---|---|
| CREATED BY: MLK | DRAWN BY: MLK |
| DATE: 1/24/10 | PROJECT # 97.017 |




HORIZONTAL SCALE: 1"=40'
VERTICAL SCALE: 1"=5'
VERTCAL EXAGGERATION: 8x

SOIL TESTING — DRO (ppm), Benzene (ppm) — PID (ppm)

Extent of Groundwater Contamination Above PAL's (7/21/05)

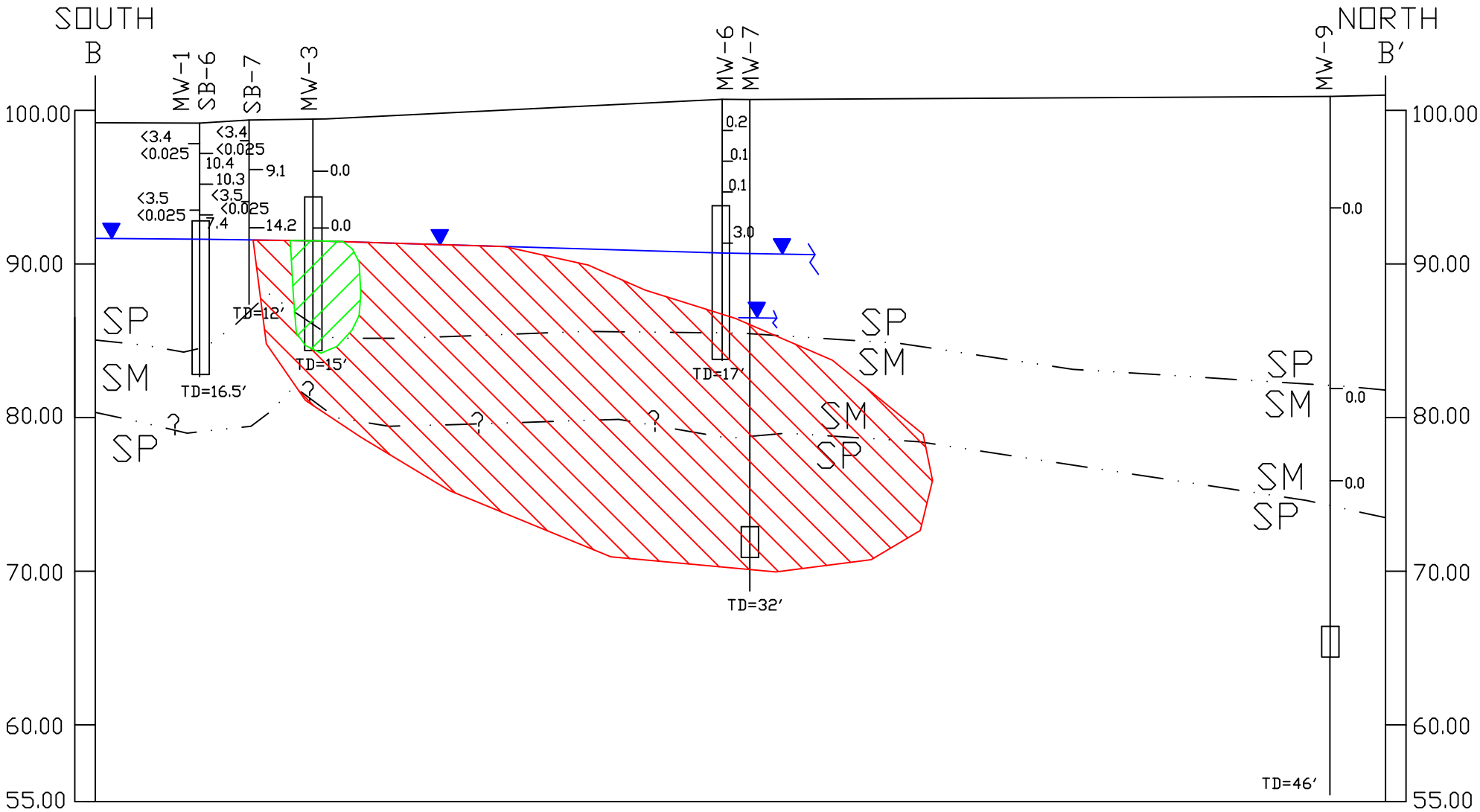
ICECOR
I C ENVIRONMENTAL CORPORATION

FIGURE 4

BRUCE OIL COMPANY, INC.
BRUCE, WISCONSIN

GEOLOGICAL CROSS SECTION A-A'

| | |
|---|---|
| CREATED BY: MLK | DRAWN BY: MLK |
| DATE: 1/24/10 | PROJECT # 97.017 |




HORIZONTAL SCALE: 1"=30'
VERTICAL SCALE: 1"=10'
VERTCAL EXAGGERATION: 3x

Soil Testing — DRO (ppm), Benzene (ppm) — PID (ppm)

ICECOR
I C ENVIRONMENTAL CORPORATION

Extent of Groundwater Contamination Above PAL's (7/21/05)

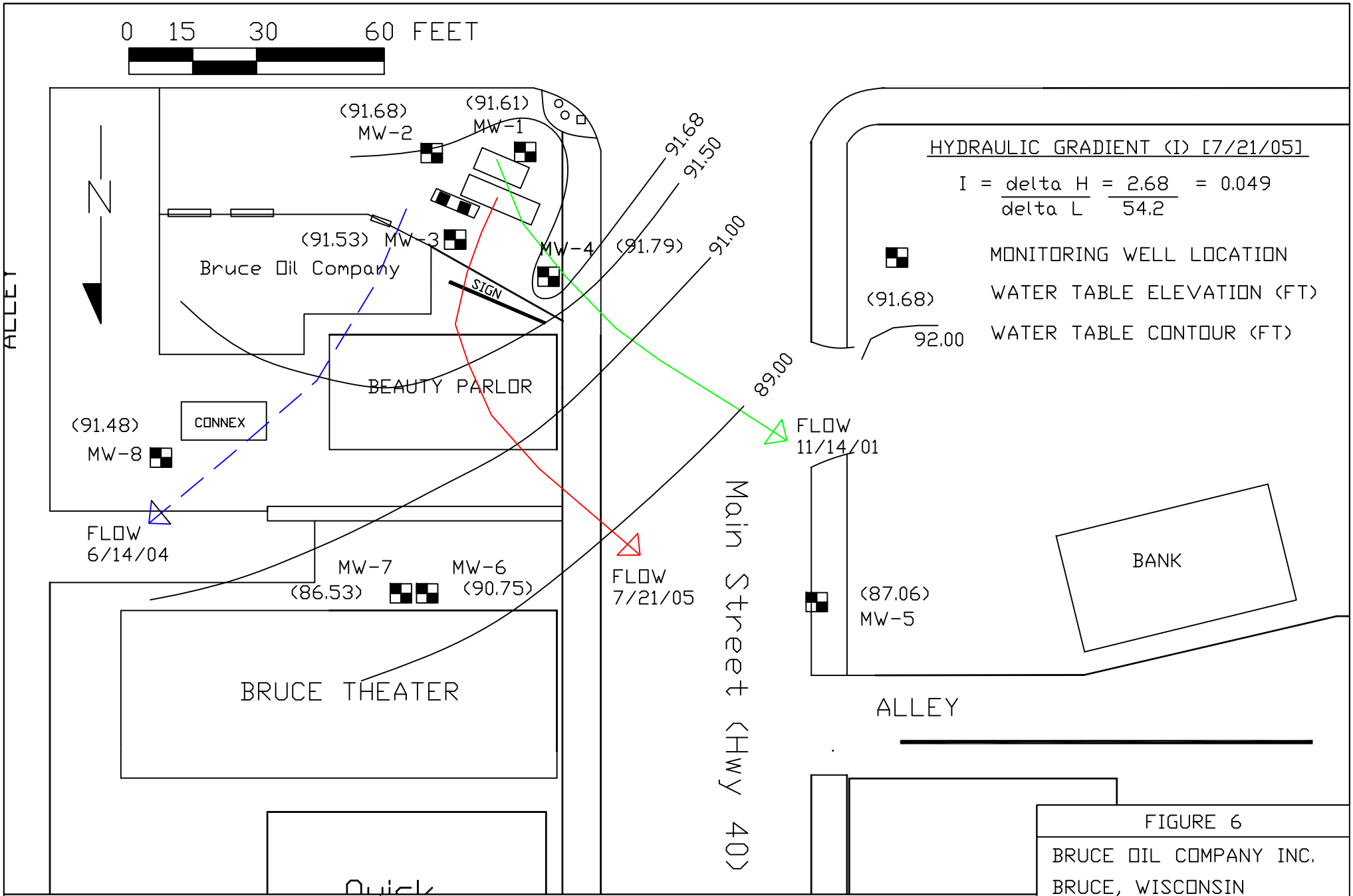
Extent of Groundwater Contamination Above ES (7/21/05)

FIGURE 5

BRUCE OIL COMPANY, INC.
BRUCE, WISCONSIN

GEOLOGICAL CROSS SECTION B-B'

| | |
|---|---|
| CREATED BY: MLK | DRAWN BY: MLK |
| DATE: 1/24/10 | PROJECT # 97.017 |




ICECOR
I C ENVIRONMENTAL CORPORATION

Water table contours always bell shaped pointing to the north with flow directions to northeast and north. Two additional flow directions plotted where historical flows contained stronger directions to northwest and northeast. Hydraulic gradients varied from 0.025-0.052.

FIGURE 6

BRUCE OIL COMPANY INC.
BRUCE, WISCONSIN

GROUNDWATER FLOW MAP

| | | | |
|---|---|---|---|
| CREATED BY: | MLK | DRAWN BY: | MLK |
| DATE: | 1/24/10 | PROJECT # | 97.017 |

**Table 2: Pre-Remedial Groundwater Analytical Results Summary (ppb)**

| Compound | ES | PAL | SB-1 6/17/99 | SB-4 6/17/99 | SB-8 6/17/99 |
|---|---|---|---|---|---|
| GRO | NR | NR | 300 | 7100 | 8200 |
| DRO | NR | NR | 160 | 2300 | 2900 |
| Lead | 15 | 1.5 | < 1.6 | < 1.6 | **4.1** |
| Benzene | 5 | 0.5 | **1.3** | **5.7** | **3.4** |
| s-Butylbenzene | NR | NR | 2.2 | 12 | 9.2 |
| t-Butylbenzene | NR | NR | 0.32 | < 1.6 | <1.6 |
| n-Butylbenzene | NR | NR | <0.29 | <1.4 | 38 |
| Dichlorodifluoromethane | 1000 | 200 | 1.0 | < 2.3 | < 2.3 |
| Ethylbenzene | 700 | 140 | 0.83 | **490** | **570** |
| Isopropylbenzene | NR | NR | 2.1 | 39 | 28 |
| p-Isopropyltoluene | NR | NR | <0.24 | 14 | 18 |
| Naphthalene | 40 | 8 | <0.35 | **130** | **100** |
| n-Propylbenzene | NR | NR | <0.76 | 82 | 43 |
| Toluene | 1000 | 200 | 0.42 | 68 | 180 |
| Trimethylbenzenes | 480 | 96 | <0.22 | **800** | **610** |
| Xylenes | 10000 | 1000 | 1.3 | **1070** | **1580** |
| **PAH'S** | | | | | |
| Phenanthrene | NR | NR | <0.046 | 1.2 | 0.73 |
| Naphthalene | 40 | 8 | <0.42 | **37** | **22** |
| Fluorene | 400 | 80 | 0.085 | 0.58 | 0.30 |
| 1-Methylnaphthalene | NR | NR | <0.36 | 7.6 | 2.8 |
| 2-Methylnaphthalene | NR | NR | <0.36 | 19 | 6.7 |

ES=Enforcement Standard, PAL=Preventive Action Limit, NR=Not Regulated, NA = Not Analyzed
**BOLD**=Exceeds PAL and/or ES

**Table 2: Pre-Remedial Groundwater Analytical Results Summary (ppb) cont ...**

| Compound | ES | PAL | MW-1 9/23/99 | MW-1 3/3/00 | MW-1 4/21/00 | MW-1 10/4/00 | MW-1 11/14/01 | MW-1 5/17/02 | MW-1 11/15/02 | MW-1 2/14/03 |
|---|---|---|---|---|---|---|---|---|---|---|
| GRO | NR | NR | 2100 | | 5300 | 1110 | 583 | 533 | 930 | 985 |
| DRO | NR | NR | 1100 | 1800 | 2100 | 591 | 982 | 671 | 1630 | 1810 |
| Lead | 15 | 1.5 | < 2.8 | < 0.92 | NA | NA | NA | NA | NA | NA |
| Benzene | 5 | 0.5 | **1.7** | **3.3** | **3.3** | **0.798** | **3.72** | **1.14** | < 1.55 | <1.55 |
| s-Butylbenzene | NR | NR | 4.7 | NA | NA | NA | NA | NA | NA | NA |
| t-Butylbenzene | NR | NR | 0.99 | NA | NA | NA | NA | NA | NA | NA |
| Dichlorodifluoromethane | 1000 | 200 | 4.6 | NA | NA | NA | NA | NA | NA | NA |
| Ethylbenzene | 700 | 140 | 120 | **350** | **370** | 127 | 66.9 | 24.0 | **141** | **167** |
| Isopropylbenzene | NR | NR | 15 | NA | NA | NA | NA | NA | NA | NA |
| p-Isopropyltoluene | NR | NR | 8.3 | NA | NA | NA | NA | NA | NA | NA |
| Naphthalene | 40 | 8 | **18** | NA | NA | NA | NA | NA | NA | NA |
| n-Propylbenzene | NR | NR | 27 | NA | NA | NA | NA | NA | NA | NA |
| Toluene | 1000 | 200 | 2.8 | 28 | 30 | < 2.0 | < 2.0 | 0.405 | <1.50 | <1.50 |
| Trimethylbenzenes | 480 | 96 | **157** | **520** | **580** | **139.59** | **105** | 33.83 | **159.41** | **179** |
| Xylenes | 10,000 | 1000 | 42 | 359 | 456 | <0.75 | 5.94 | 10.60 | 8.12 | 3.45 |
| **PAH'S** | | | | | | | | | | |
| Anthracene | 3000 | 600 | 0.025 | <3.2 | NA | NA | NA | NA | NA | NA |
| Fluoranthene | 400 | 80 | 0.04 | <2.5 | NA | NA | NA | NA | NA | NA |
| Fluorene | 400 | 80 | 0.34 | <3.5 | NA | NA | NA | NA | NA | NA |
| Naphthalene | 40 | 8 | **8.2** | **39** | NA | NA | NA | NA | NA | NA |
| Phenanthrene | NR | NR | 0.79 | <3.4 | NA | NA | NA | NA | NA | NA |
| Pyrene | 250 | 50 | 0.035 | <2.9 | NA | NA | NA | NA | NA | NA |
| 1-Methylnaphthalene | NR | NR | 2.8 | 9.1 | NA | NA | NA | NA | NA | NA |
| 2-Methylnaphthalene | NR | NR | 1.7 | 7.9 | NA | NA | NA | NA | NA | NA |

ES=Enforcement Standard, PAL=Preventive Action Limit, NR=Not Regulated, NA = Not Analyzed

**BOLD**=Exceeds PAL and/or ES

**Table 2: Pre-Remedial Groundwater Analytical Results Summary (ppb) cont ...**

| Compound | ES | PAL | MW-2 9/23/99 | MW-2 3/3/00 | MW-2 4/21/00 | MW-2 10/4/00 | MW-2 11/14/01 | MW-2 5/17/02 | MW-2 11/15/02 | MW-2 2/14/03 |
|---|---|---|---|---|---|---|---|---|---|---|
| GRO | NR | NR | 3000 | | 6000 | 2190 | 204 | 261 | 1240 | 751 |
| DRO | NR | NR | 120 | 2700 | 3300 | 1300 | 554 | 548 | 1290 | 1200 |
| Lead | 15 | 1.5 | < 2.8 | < 0.92 | NA | NA | NA | NA | NA | NA |
| Benzene | 5 | 0.5 | **3.9** | **8.8** | **12** | **4.27** | **6.79/0.907** | **0.709** | <1.55 | <1.55 |
| s-Butylbenzene | NR | NR | 6.3 | NA | NA | NA | NA | NA | NA | NA |
| n-Butylbenzene | NR | NR | < 0.72 | NA | NA | NA | NA | NA | NA | NA |
| Ethylbenzene | 700 | 140 | **150** | **350** | **470** | **150** | 12.9 | 30.3 | 73.1 | 49.0 |
| Isopropylbenzene | NR | NR | 24 | NA | NA | NA | NA | NA | NA | NA |
| p-Isopropyltoluene | NR | NR | 6.1 | NA | NA | NA | NA | NA | NA | NA |
| Naphthalene | 40 | 8 | **29** | NA | NA | NA | NA | NA | NA | NA |
| n-Propylbenzene | NR | NR | 49 | NA | NA | NA | NA | NA | NA | NA |
| Toluene | 1000 | 200 | 12 | 120 | 100 | < 4.0 | 3.38 | 0.572 | 2.93 | <1.5 |
| Trimethylbenzenes | 480 | 96 | 308 | 610 | 680 | **329.7** | 9.16 | 39.969 | **129.35** | 47.2 |
| Xylenes | 10000 | 1000 | 113 | 541 | 670 | 57.5 | 12.06 | 4.75 | 32.34 | 6.96 |
| **PAH'S** | | | | | | | | | | |
| Acenaphthylene | NR | NR | 0.63 | <4.3 | NA | NA | NA | NA | NA | NA |
| Anthracene | 3000 | 600 | 0.052 | <4.3 | NA | NA | NA | NA | NA | NA |
| Phenanthrene | NR | NR | 0.88 | <4.5 | NA | NA | NA | NA | NA | NA |
| Naphthalene | 40 | 8 | **11** | **49** | NA | NA | NA | NA | NA | NA |
| Fluorene | 400 | 80 | 0.77 | <4.6 | NA | NA | NA | NA | NA | NA |
| Fluoranthene | 400 | 80 | 0.079 | <3.4 | NA | NA | NA | NA | NA | NA |
| Pyrene | 250 | 50 | 0.051 | <3.8 | NA | NA | NA | NA | NA | NA |
| 1-Methylnaphthalene | NR | NR | 5.4 | 17 | NA | NA | NA | NA | NA | NA |
| 2-Methylnaphthalene | NR | NR | 4.2 | 16 | NA | NA | NA | NA | NA | NA |

ES=Enforcement Standard, PAL=Preventive Action Limit, NR=Not Regulated, NA = Not Analyzed

**BOLD**=Exceeds PAL and/or ES

**Table 2: Pre-Remedial Groundwater Analytical Results Summary (ppb) cont ...**

| Compound | ES | PAL | MW-3 9/23/99 | MW-3 3/3/00 | MW-3 4/21/00 | MW-3 10/4/00 | MW-3 11/14/01 | MW-3 5/17/02 | MW-3 11/15/02 | MW-3 2/14/03 |
|---|---|---|---|---|---|---|---|---|---|---|
| GRO | NR | NR | 8900 | | 6200 | 4560 | 5960 | 2,370 | 4740 | 5660 |
| DRO | NR | NR | 3200 | 3100 | 3000 | 1510 | 3650 | 1,170 | 1670 | 2420 |
| Lead | 15 | 1.5 | **4.1** | **2.9** | **3.7** | **2.13** | **1.71** | <1.0 | NA | NA |
| Benzene | 5 | 0.5 | **< 6.8** | **<1.3** | **<2.6** | **6.16** | **11.3** | **<6.2** | **3.66** | **8.75** |
| s-Butylbenzene | NR | NR | 12 | NA | NA | NA | NA | NA | NA | NA |
| n-Butylbenzene | NR | NR | 34 | NA | NA | NA | NA | NA | NA | NA |
| Ethylbenzene | 700 | 140 | **740** | **240** | **160** | **145** | **572** | 81.7 | **166** | **416** |
| Isopropylbenzene | NR | NR | 71 | NA | NA | NA | NA | NA | NA | NA |
| p-Isopropyltoluene | NR | NR | 15 | NA | NA | NA | NA | NA | NA | NA |
| Naphthalene | 40 | 8 | **160** | NA | NA | NA | NA | NA | NA | NA |
| n-Propylbenzene | NR | NR | 130 | NA | NA | NA | NA | NA | NA | NA |
| Toluene | 1000 | 200 | 25 | 9.0 | <2.1 | 11.3 | 81.6 | <6.0 | 18.2 | 41.7 |
| Trimethylbenzenes | 480 | 96 | **1330** | **870** | **710** | **684** | **995** | **399** | **601** | **824** |
| Xylenes | 10000 | 1000 | **2840** | 630 | 454 | 324.3 | 659.6 | 174.8 | 297.3 | 577.6 |
| **PAH'S** | | | | | | | | | | |
| Phenanthrene | NR | NR | 0.95 | <4.6 | NA | NA | NA | NA | NA | NA |
| Naphthalene | 40 | 8 | **63** | **60** | NA | NA | NA | NA | NA | NA |
| 1-Methylnaphthalene | NR | NR | 8.5 | 19 | NA | NA | NA | NA | NA | NA |
| 2-Methylnaphthalene | NR | NR | 24 | 11 | NA | NA | NA | NA | NA | NA |

ES=Enforcement Standard, PAL=Preventive Action Limit, NR=Not Regulated, NA = Not Analyzed

**BOLD**=Exceeds PAL and/or ES

**Table 2: Pre-Remedial Groundwater Analytical Results Summary (ppb) cont ...**

| Compound | ES | PAL | MW-4 9/23/99 | MW-4 3/3/00 | MW-4 4/21/00 | MW-4 10/4/00 | MW-4 11/14/01 | MW-4 5/17/02 | MW-4 11/15/02 | MW-4 2/14/03 |
|---|---|---|---|---|---|---|---|---|---|---|
| GRO | NR | NR | 9000 | | 6800 | 8430 | 9240 | 427 | 8520 | 9830 |
| DRO | NR | NR | 3000 | 3100 | 2700 | 1520 | 6470 | 1100 | 3420 | 4450 |
| Lead | 15 | 1.5 | < 2.8 | **3.6** | **2.8** | **2.96** | **3.26** | <1.0 | NA | NA |
| Benzene | 5 | 0.5 | **3.2** | **<2.6** | **<1.3** | **17.4** | **25.3** | **1.98** | <6.20 | **20.4** |
| s-Butylbenzene | NR | NR | 10 | NA | NA | NA | NA | NA | NA | NA |
| n-Butylbenzene | NR | NR | 24 | NA | NA | NA | NA | NA | NA | NA |
| Ethylbenzene | 700 | 140 | **850** | 91 | 85 | **706** | **929** | 135 | **774** | **916** |
| Isopropylbenzene | NR | NR | 52 | NA | NA | NA | NA | NA | NA | NA |
| p-Isopropyltoluene | NR | NR | 8.6 | NA | NA | NA | NA | NA | NA | NA |
| Naphthalene | 40 | 8 | **160** | NA | NA | NA | NA | NA | NA | NA |
| n-Propylbenzene | NR | NR | 120 | NA | NA | NA | NA | NA | NA | NA |
| Toluene | 1000 | 200 | 88 | 8.1 | 7.8 | 63.5 | **244** | 10.3 | 162 | 163 |
| Trimethylbenzenes | 480 | 96 | 1160 | 850 | 740 | **1086** | **1364** | **315.7** | **1176** | **1411** |
| Xylenes | 10000 | 1000 | **2300** | 360 | 295 | **1629.1** | **2743** | 293.7 | **2021** | **2407** |
| **PAH'S** | | | | | | | | | | |
| Phenanthrene | NR | NR | 1.0 | <2.2 | NA | NA | NA | NA | NA | NA |
| Naphthalene | 40 | 8 | **110** | **17** | NA | NA | NA | NA | NA | NA |
| 1-Methylnaphthalene | NR | NR | 14 | 16 | NA | NA | NA | NA | NA | NA |
| 2-Methylnaphthalene | NR | NR | 32 | 23 | NA | NA | NA | NA | NA | NA |

ES=Enforcement Standard, PAL=Preventive Action Limit, NR=Not Regulated, NA = Not Analyzed

**BOLD**=Exceeds PAL and/or ES

**Table 2: Pre-Remedial Groundwater Analytical Results Summary (ppb) cont ...**

| Compound | ES | PAL | MW-5 4/21/00 | MW-5 10/4/00 | MW-5 11/14/01 | MW-5 5/17/02 | MW-5 11/05/02 | MW-5 2/14/03 |
|---|---|---|---|---|---|---|---|---|
| GRO | NR | NR | 3900 | 2820 | 1910 | 634 | 132 | 75.7 |
| DRO | NR | NR | 4100 | 3630 | 4490 | 2520 | 328 | 286 |
| Lead | 15 | 1.5 | 1.1 | **6.34** | < 1.0 | NA | NA | NA |
| Benzene | 5 | 0.5 | **190** | **154** | **126** | **34.9** | **3.66** | <0.31 |
| s-Butylbenzene | NR | NR | 8.4 | NA | NA | NA | NA | NA |
| n-Butylbenzene | NR | NR | 24 | NA | NA | NA | NA | NA |
| Ethylbenzene | 700 | 140 | **740** | **523** | **446** | 65.9 | 12.4 | 8.05 |
| Isopropylbenzene | NR | NR | 56 | NA | NA | NA | NA | NA |
| p-Isopropyltoluene | NR | NR | <1.2 | NA | NA | NA | NA | NA |
| Naphthalene | 40 | 8 | **160** | NA | NA | NA | NA | NA |
| n-Propylbenzene | NR | NR | 110 | NA | NA | NA | NA | NA |
| Toluene | 1000 | 200 | 7.6 | 7.55 | 6.02 | 0.975 | 1.31 | 0.644 |
| Trimethylbenzenes | 480 | 96 | **280** | **261** | **296.5** | 26.4 | 13.86 | 10.78 |
| Xylenes | 10000 | 1000 | 211.7 | 117 | 50.5 | 11.409 | 19.74 | 18.17 |
| **PAH'S** | | | | | | | | |
| Phenanthrene | NR | NR | <0.69 | NA | NA | NA | NA | NA |
| Naphthalene | 40 | 8 | 2.8 | NA | NA | NA | NA | NA |
| 1-Methylnaphthalene | NR | NR | 11 | NA | NA | NA | NA | NA |
| 2-Methylnaphthalene | NR | NR | 9.4 | NA | NA | NA | NA | NA |

ES=Enforcement Standard, PAL=Preventive Action Limit, NR=Not Regulated, NA = Not Analyzed
**BOLD**=Exceeds PAL and/or ES

**Table 2: Pre-Remedial Groundwater Analytical Results Summary (ppb) cont ...**

| Compound | ES | PAL | MW-6 4/21/00 | MW-6 10/4/00 | MW-6 11/14/01 | MW-6 5/17/02 | MW-6 11/15/02 | MW-6 2/14/03 |
|---|---|---|---|---|---|---|---|---|
| GRO | NR | NR | 1500 | 1080 | 559 | 277 | 652 | 923 |
| DRO | NR | NR | 860 | 830 | 738 | 298 | 573 | 634 |
| Lead | 15 | 1.5 | **2.0** | **1.90** | < 1.0 | NA | NA | NA |
| Benzene | 5 | 0.5 | <0.27 | <0.75 | < 0.8 | <0.31 | **0.776** | <1.55 |
| s-Butylbenzene | NR | NR | 4.5 | NA | NA | NA | NA | NA |
| n-Butylbenzene | NR | NR | 9.0 | NA | NA | NA | NA | NA |
| Ethylbenzene | 700 | 140 | 6.7 | 6.76 | 6.36 | 1.87 | 5.48 | 3.35 |
| Isopropylbenzene | NR | NR | 5.2 | NA | NA | NA | NA | NA |
| p-Isopropyltoluene | NR | NR | 6.4 | NA | NA | NA | NA | NA |
| Naphthalene | 40 | 8 | <0.35 | NA | NA | NA | NA | NA |
| n-Propylbenzene | NR | NR | 10 | NA | NA | NA | NA | NA |
| Toluene | 1000 | 200 | 0.55 | < 2.0 | < 2.0 | <0.4 | 1.58 | <1.5 |
| Trimethylbenzene | 480 | 96 | 34.2 | 35.18 | 12.6 | 14.55 | 23.403 | 25.41 |
| Xylenes | 10000 | 1000 | 4.9 | 7.49 | 5.87 | 2.33 | 7.94 | 6.84 |
| **PAH'S** | | | | | | | | |
| Phenanthrene | NR | NR | <0.056 | NA | NA | NA | NA | NA |
| Naphthalene | 40 | 8 | 0.58 | NA | NA | NA | NA | NA |
| 1-Methylnaphthalene | NR | NR | 0.13 | NA | NA | NA | NA | NA |
| 2-Methylnaphthalene | NR | NR | <0.066 | NA | NA | NA | NA | NA |

ES=Enforcement Standard, PAL=Preventive Action Limit, NR=Not Regulated, NA = Not Analyzed
**BOLD**=Exceeds PAL and/or ES

**Table 2: Pre-Remedial Groundwater Analytical Results Summary (ppb) cont ...**

| Compound | ES | PAL | MW-7 4/21/00 | MW-7 10/4/00 | MW-7 11/14/01 | MW-7 5/17/02 | MW-7 11/15/02 | MW-7 2/14/03 |
|---|---|---|---|---|---|---|---|---|
| GRO | NR | NR | 1100 | 835 | 257 | 435 | 281 | 370 |
| DRO | NR | NR | 460 | 823 | 839 | 771 | 624 | 794 |
| Lead | 15 | 1.5 | <0.92 | <1.0 | NA | NA | NA | NA |
| Benzene | 5 | 0.5 | **35** | **17.4** | **13.0** | **10.2** | **5.42** | **9.95** |
| s-Butylbenzene | NR | NR | 2.8 | 4.54 | <0.95 | NA | NA | NA |
| t-Butylbenzene | NR | NR | 0.69 | < 1.5 | <0.9 | NA | NA | NA |
| n-Butylbenzene | NR | NR | 2.2 | 3.04 | <1.20 | NA | NA | NA |
| 1,2-Dichloroethane | 5 | 0.5 | **11** | **4.99** | **6.05** | NA | NA | NA |
| 1,2-Dichloropropane | 5 | 0.5 | **0.86** | < 1.5 | <1.75 | NA | NA | NA |
| Ethylbenzene | 700 | 140 | **140** | 72.8 | 44.0 | 58.2 | 27.1 | 44.7 |
| Isopropylbenzene | NR | NR | 21 | 14.7 | 7.47 | NA | NA | NA |
| p-Isopropyltoluene | NR | NR | <0.24 | < 2.0 | <0.95 | NA | NA | NA |
| Naphthalene | 40 | 8 | 0.56 | < 8.0 | <4.0 | NA | NA | NA |
| n-Propylbenzene | NR | NR | 32 | 17.7 | 6.09 | NA | NA | NA |
| Toluene | 1000 | 200 | 1.8 | < 4.0 | <2.0 | <0.4 | <0.4 | <0.3 |
| Trimethylbenzenes | 480 | 96 | <0.22 | < 1.5 | <0.85 | 1.54 | 0.852 | 1.55 |
| Xylenes | 10000 | 1000 | 58 | 14.6 | 3.51 | 3.0 | 1.05 | 1.64 |
| **PAH'S** | | | | | | | | |
| Phenanthrene | NR | NR | 0.047 | NA | NA | NA | NA | NA |
| Naphthalene | 40 | 8 | 0.45 | NA | NA | NA | NA | NA |
| 1-Methylnaphthalene | NR | NR | 0.18 | NA | NA | NA | NA | NA |
| 2-Methylnaphthalene | NR | NR | 0.12 | NA | NA | NA | NA | NA |

ES=Enforcement Standard, PAL=Preventive Action Limit, NR=Not Regulated, NA = Not Analyzed
**BOLD**=Exceeds PAL and/or ES

**Table 2: Pre-Remedial Groundwater Analytical Results Summary (ppb) cont ...**

| Compound | ES | PAL | MW-8 4/21/00 | MW-8 10/4/00 | MW-8 11/14/01 | MW-8 5/17/02 | MW-8 11/15/02 | MW-8 2/14/03 |
|---|---|---|---|---|---|---|---|---|
| GRO | NR | NR | 570 | 1150 | 995 | 682 | 1130 | 944 |
| DRO | NR | NR | 340 | 729 | 554 | 330 | 675 | 666 |
| Lead | 15 | 1.5 | <0.92 | **3.06** | <1.0 | NA | NA | NA |
| Benzene | 5 | 0.5 | <0.27 | < 0.75 | **2.24** | **0.767** | <1.55 | <1.55 |
| s-Butylbenzene | NR | NR | 3.1 | NA | NA | NA | NA | NA |
| n-Butylbenzene | NR | NR | 2.9 | NA | NA | NA | NA | NA |
| Ethylbenzene | 700 | 140 | 2.6 | 12.1 | 28.1 | 17.4 | 6.57 | 29.1 |
| Isopropylbenzene | NR | NR | 5.0 | NA | NA | NA | NA | NA |
| p-Isopropyltoluene | NR | NR | <0.24 | NA | NA | NA | NA | NA |
| Naphthalene | 40 | 8 | <0.35 | NA | NA | NA | NA | NA |
| n-Propylbenzene | NR | NR | 5.3 | NA | NA | NA | NA | NA |
| Toluene | 1000 | 200 | 0.69 | < 2.0 | <2.0 | 1.32 | <2.0 | 2.99 |
| Trimethylbenzenes | 480 | 96 | 8.25 | 62.4 | 43.74 | 17.7 | 57.9 | 51.5 |
| Xylenes | 10000 | 1000 | 2.07 | 7.108 | 13.23 | 22.36 | 8.02 | 23.62 |
| **PAH'S** | | | | | | | | |
| Flourene | 400 | 80 | 0.072 | NA | NA | NA | NA | NA |
| Phenanthrene | NR | NR | 0.077 | NA | NA | NA | NA | NA |
| Naphthalene | 40 | 8 | 0.31 | NA | NA | NA | NA | NA |
| 1-Methylnaphthalene | NR | NR | 0.64 | NA | NA | NA | NA | NA |
| 2-Methylnaphthalene | NR | NR | 0.063 | NA | NA | NA | NA | NA |

ES=Enforcement Standard, PAL=Preventive Action Limit, NR=Not Regulated, NA = Not Analyzed
**BOLD**=Exceeds PAL and/or ES

**Table 2: Pre-Remedial Groundwater Analytical Results Summary (ppb) cont ...**

| Compound | ES | PAL | MW-9 11/14/01 | MW-9 5/17/02 | MW-9 11/15/02 | MW-9 2/14/03 |
|---|---|---|---|---|---|---|
| GRO | NR | NR | < 50 | <50 | <50 | <50 |
| DRO | NR | NR | < 100 | <100 | <100 | <100 |
| Lead | 15 | 1.5 | < 1.0 | NA | NA | NA |
| Benzene | 5 | 0.5 | < 0.16 | <0.31 | <0.31 | <0.31 |
| Ethylbenzene | 700 | 140 | <0.5 | <0.5 | <0.5 | <0.5 |
| Naphthalene | 40 | 8 | <0.8 | NA | NA | NA |
| Toluene | 1000 | 200 | <0.4 | <0.3 | <0.3 | <0.3 |
| Trimethylbenzenes | 480 | 96 | <0.17 | <0.31 | <0.31 | <0.31 |
| Xylenes | 10000 | 1000 | <0.17 | <0.3 | <0.3 | <0.3 |
| **PAH'S** | | | | | | |
| Flourene | 400 | 80 | <0.11 | NA | NA | NA |
| Phenanthrene | NR | NR | <0.11 | NA | NA | NA |
| Naphthalene | 40 | 8 | <0.06 | NA | NA | NA |
| 1-Methylnaphthalene | NR | NR | <0.13 | NA | NA | NA |
| 2-Methylnaphthalene | NR | NR | <0.12 | NA | NA | NA |

ES=Enforcement Standard, PAL=Preventive Action Limit, NR=Not Regulated,
NA = Not Analyzed

**Table 2: Pre-Remedial Groundwater Analytical Results Summary (ppb) cont ...**

| Compound | ES | PAL | MW-10 11/14/01 | MW-10 5/17/02 | MW-10 11/15/02 | MW-10 2/14/03 |
|---|---|---|---|---|---|---|
| GRO | NR | NR | < 50 | <50 | <50 | <50 |
| DRO | NR | NR | 315 | 154 | 156 | 121 |
| Lead | 15 | 1.5 | < 1.0 | NA | NA | NA |
| Benzene | 5 | 0.5 | < 0.16 | <0.31 | <0.31 | <0.31 |
| Ethylbenzene | 700 | 140 | <0.5 | <0.5 | <0.5 | <0.5 |
| Naphthalene | 40 | 8 | <0.8 | NA | NA | NA |
| Toluene | 1000 | 200 | <0.4 | <0.3 | 0.698 | <0.3 |
| Trimethylbenzenes | 480 | 96 | <0.17 | <0.31 | <0.31 | <0.31 |
| Xylenes | 10000 | 1000 | <0.17 | <0.3 | <0.3 | <0.3 |
| **PAH'S** | | | | | | |
| Flourene | 400 | 80 | <0.11 | NA | NA | NA |
| Phenanthrene | NR | NR | <0.11 | NA | NA | NA |
| Naphthalene | 40 | 8 | <0.06 | NA | NA | NA |
| 1-Methylnaphthalene | NR | NR | <0.13 | NA | NA | NA |
| 2-Methylnaphthalene | NR | NR | <0.12 | NA | NA | NA |

ES=Enforcement Standard, PAL=Preventive Action Limit, NR=Not Regulated,
NA = Not Analyzed

**Table 3: Post-Remedial Groundwater Analytical Results Summary (ppb)**

| Compound | ES | PAL | MW-1 6/5/04 | MW-1 12/28/04 | MW-1 3/10/05 | MW-1 7/21/05 | MW-2 6/5/04 | MW-2 12/28/04 | MW-2 3/10/05 | MW-2 7/21/05 |
|---|---|---|---|---|---|---|---|---|---|---|
| MTBE | 60 | 12 | <1.50 | 0.935 | <0.3 | <0.3 | <1.50 | <0.3 | <0.3 | <0.3 |
| Lead | 15 | 1.5 | <1.00 | <0.6 | 0.60 | 0.6 | <1.00 | <0.6 | 3.60 | 1.00 |
| Benzene | 5 | 0.5 | <1.55 | ***1.18*** | ***1.15*** | <0.31 | <1.55 | <0.31 | ***0.898*** | <0.31 |
| Ethylbenzene | 700 | 140 | 54.7 | 135 | 122 | 2.61 | 14.5 | 21.3 | 26.0 | 2.74 |
| Naphthalene | 40 | 8 | <4.00 | <0.8 | <0.8 | <0.8 | <4.00 | <0.8 | <0.8 | <0.8 |
| Toluene | 1000 | 200 | <1.50 | 1.10 | 1.41 | <0.3 | 1.95 | <0.3 | 1.28 | <0.3 |
| Trimethylbenzenes | 480 | 96 | 87.21 | ***136.49*** | ***121.73*** | 10.17 | 51.48 | 23.72 | 48.40 | 6.426 |
| Xylenes | 10000 | 1000 | 52.51 | 2.66 | 6.80 | 0.97 | 16.29 | 6.73 | 16.75 | 0.804 |

ES=Enforcement Standard, PAL=Preventive Action Limit, NR=Not Regulated, ***Exceeds PAL*** , **Exceeds ES**

**Table 3: Post-Remedial Groundwater Analytical Results Summary (ppb) cont ...**

| Compound | ES | PAL | MW-3 6/5/04 | MW-3 12/28/04 | MW-3 3/10/05 | MW-3 7/21/05 | MW-4 6/5/04 | MW-4 12/28/04 | MW-4 3/10/05 | MW-4 7/21/05 |
|---|---|---|---|---|---|---|---|---|---|---|
| MTBE | 60 | 12 | <1.50 | <3.00 | <3.00 | <3.00 | <15.0 | <1.50 | <3.00 | <3.00 |
| Lead | 15 | 1.5 | <1.00 | 0.8 | ***1.5*** | <0.6 | ***1.26*** | 0.8 | ***2.00*** | <0.6 |
| Benzene | 5 | 0.5 | ***4.30*** | **9.01** | ***4.53*** | <3.10 | <15.5 | **10.1** | **5.24** | <3.10 |
| Ethylbenzene | 700 | 140 | ***315*** | ***361*** | ***361*** | ***325*** | 133 | ***528*** | ***513*** | ***178*** |
| Naphthalene | 40 | 8 | **85.8** | **61.7** | **67.3** | **52.9** | <40.0 | **127** | **92.2** | ***22.4*** |
| Toluene | 1000 | 200 | 19.5 | 7.01 | 6.95 | 10.1 | <15.0 | 27.8 | 20.1 | 5.44 |
| Trimethylbenzenes | 480 | 96 | **777** | **1100** | **1145** | **801** | ***458*** | **1147** | **1155** | ***409.0*** |
| Xylenes | 10000 | 1000 | 665 | 609.2 | 654.6 | 467.5 | 368.1 | ***1105*** | 948.6 | 301.9 |

ES=Enforcement Standard, PAL=Preventive Action Limit, NR=Not Regulated, ***Exceeds PAL*** , **Exceeds ES**

**Table 3: Post-Remedial Groundwater Analytical Results Summary (ppb)cont ...**

| Compound | ES | PAL | MW-5 6/5/04 | MW-5 12/28/04 | MW-5 3/10/05 | MW-5 7/21/05 | MW-6 6/5/04 | MW-6 12/28/04 | MW-6 3/10/05 | MW-6 7/21/05 |
|---|---|---|---|---|---|---|---|---|---|---|
| MTBE | 60 | 12 | <0.3 | <0.3 | <0.3 | <0.3 | <0.3 | <1.5 | <0.3 | <0.3 |
| Lead | 15 | 1.5 | ***2.06*** | <0.6 | <0.6 | <0.6 | <1.00 | ***8.40*** | 0.9 | ***3.60*** |
| Benzene | 5 | 0.5 | <0.31 | **7.17** | **5.28** | <0.31 | <0.31 | <1.55 | ***0.928*** | 0.404 |
| Ethylbenzene | 700 | 140 | <0..5 | 45.9 | 14.3 | <0.5 | 2.05 | 5.91 | 3.89 | 7.13 |
| Naphthalene | 40 | 8 | <0.8 | 7.64 | 2.06 | <0.8 | <0.8 | <4.00 | <0.8 | <0.8 |
| Toluene | 1000 | 200 | <0.3 | 0.456 | <0.3 | <0.3 | <0.3 | <1.50 | <0.3 | <0.3 |
| Trimethylbenzenes | 480 | 96 | <0.31 | 38.7 | 6.40 | <0.31 | 24.13 | 44.70 | 57.0 | 26.46 |
| Xylenes | 10000 | 1000 | <0.3 | 15.95 | 1.43 | <0.3 | 4.42 | 8.21 | 7.54 | 5.88 |

ES=Enforcement Standard, PAL=Preventive Action Limit, NR=Not Regulated, ***Exceeds PAL*** , **Exceeds ES**

**Table 3: Post-Remedial Groundwater Analytical Results Summary (ppb) cont ...**

| Compound | ES | PAL | MW-7 6/5/04 | MW-7 12/28/04 | MW-7 3/10/05 | MW-7 7/21/05 | MW-8 6/5/04 | MW-8 12/28/04 | MW-8 3/10/05 | MW-8 7/21/05 |
|---|---|---|---|---|---|---|---|---|---|---|
| MTBE | 60 | 12 | <0.6 | <0.3 | <0.3 | <0.3 | <0.3 | <1.50 | <0.3 | <0.3 |
| Lead | 15 | 1.5 | <1.00 | <0.6 | <0.6 | <0.6 | <1.00 | <0.6 | 0.8 | 0.8 |
| Benzene | 5 | 0.5 | **6.21** | ***2.58*** | ***3.02*** | ***3.64*** | 0.439 | <1.55 | ***2.25*** | ***1.24*** |
| Ethylbenzene | 700 | 140 | 27.5 | 10.1 | 8.35 | 19.5 | 31.2 | 50.7 | 66.4 | 68.6 |
| Naphthalene | 40 | 8 | <0.8 | <0.8 | <0.8 | <0.8 | 3.51 | <4.00 | 6.90 | ***14.4*** |
| Toluene | 1000 | 200 | <0.3 | <0.3 | <0.3 | <0.3 | 1.20 | 2.15 | 3.42 | 3.25 |
| Trimethylbenzenes | 480 | 96 | 0.756 | 0.53 | 0.733 | 1.00 | 43.20 | 54.8 | 72.8 | ***161*** |
| Xylenes | 10000 | 1000 | <0.3 | <0.3 | <0.3 | <0.3 | 30.82 | 42.37 | 58.6 | 80.0 |

ES=Enforcement Standard, PAL=Preventive Action Limit, NR=Not Regulated, ***Exceeds PAL*** , **Exceeds ES**

**Table 4: Most Recent Water Level Elevations (feet)**

| Monitoring Well | 6/4/04 | 12/28/04 | 3/10/05 | 7/21/05 |
|---|---|---|---|---|
| MW-1 | 92.87 | 91.50 | 91.22 | 91.61 |
| MW-2 | 92.81 | 91.48 | 91.21 | 91.68 |
| MW-3 | 92.75 | 91.39 | 91.09 | 91.53 |
| MW-4 | 92.77 | 91.57 | 91.29 | 91.79 |
| MW-5 | 88.42 | 87.31 | 86.19 | 87.06 |
| MW-6 | 92.93 | 90.91 | 90.42 | 90.75 |
| MW-7 | 88.3 | 87.22 | 86.27 | 86.53 |
| MW-8 | 92.54 | 91.31 | 91.04 | 91.48 |

**Table 4a:** Monitoring Well Elevations (Elevations in feet, relative to bench mark)

| Elevation Level | MW-1 | MW-2 | MW-3 | MW-4 | MW-5 | MW-6 | MW-7 | MW-8 |
|---|---|---|---|---|---|---|---|---|
| Ground Elevation | 99.17 | 99.48 | 99.68 | 99.44 | 99.96 | 100.74 | 100.73 | 100.33 |
| Riser Elevation | 98.80 | 99.05 | 99.30 | 99.09 | 99.69 | 103.19 | 103.41 | 100.11 |
| Top of Screen | 94.40 | 94.00 | 94.52 | 94.13 | 89.96 | 92.74 | 72.73 | 94.33 |
| Bottom Screen | 84.40 | 84.00 | 84.52 | 84.13 | 79.96 | 82.74 | 70.73 | 84.33 |

February 14, 2007

Ms. Sharlene TeBeest
Wisconsin Department of Transportation
4802 Sheboygan Ave, Rm 451
Madison, WI 53072

COPY

**RE: Notification of Contamination in ROW, Bruce Oil Company, 110 E. Arthur Avenue, Bruce, WI 54819**
**BRRTS# 03-55-175169**
**PECFA #54819-9588-10**

Dear Ms. TeBeest:

Enclosed are parts of the GIS closure package for the above mentioned site that is being sent to the WDNR requesting that the site be closed leaving groundwater contamination in place. The enclosed maps, tables, and text identify the levels and locations of the in-situ contamination. Groundwater contamination above the PAL, but below the ES is present in the ROW of Hwy 40.

The environmental consultant who has investigated this contamination has informed me that the groundwater contaminant plume is stable or receding and will naturally degrade over time.

The WDNR won't review my closure request for at least 30 days after the date of this letter. If you would like to ask questions of or submit information to the WDNR, please contact:

Mr. Bill Schultz, Project Manager
Wisconsin Department of Natural Resources
107 Sutliff Ave
Rhinelander, WI 54501
(715) 365-8965

If you need additional information, please contact either the WDNR or myself.

Sincerely,

Dave Samardzich
Bruce Oil Company
110 E. Arthur Avenue
Bruce, WI 54819
(715) 868-3095

February 14, 2007

Board Members
Village of Bruce
PO Box 238
Bruce, WI 54819

COPY

**RE: Notification of Contamination in ROW, Bruce Oil Company, 110 E. Arthur Avenue, Bruce, WI 54819**
**BRRTS# 03-55-175169**
**PECFA #54819-9588-10**

Dear Board Members:

Enclosed are parts of the GIS closure package for the above mentioned site that is being sent to the WDNR requesting that the site be closed leaving groundwater contamination in place. The enclosed maps, tables, and text identify the levels and locations of the in-situ contamination. Groundwater contamination above the PAL, but below the ES is present in the ROW of Hwy 40.

The environmental consultant who has investigated this contamination has informed me that the groundwater contaminant plume is stable or receding and will naturally degrade over time.

The WDNR won't review my closure request for at least 30 days after the date of this letter. If you would like to ask questions of or submit information to the WDNR, please contact:

Mr. Bill Schultz, Project Manager
Wisconsin Department of Natural Resources
107 Sutliff Ave
Rhinelander, WI 54501
(715) 365-8965

If you need additional information, please contact either the WDNR or myself.

Sincerely,

Dave Samardzich
Bruce Oil Company
110 E. Arthur Avenue
Bruce, WI 54819
(715) 868-3095