Stoltz, Carrie R - DNR

From: Ken Shimko <kshimko.meridianenv@gmail.com>
Sent: Friday, May 19, 2017 4:36 AM
To: Stoltz, Carrie R - DNR
Subject: Odau Excavation

Hi Carrie.

I am trying to re-start this project...

Please recall that we stalled while I talked to landowner (Shawn McNamar) about the work and signing a release. I spoke with Mr. McNamar and he complained the work would remove the concrete pad in front of his house (he bought the house a few years ago after the previous excavation). I contacted Olynick who said they would replace pad (site prep, provide concrete, forms, etc.) for $1500. The work would/could be done at later date to allow settling.

Can you add $1500 to Change Order for this concrete?

That should be all that remains to complete the work.

Thanks

Kenneth Shimko, PG
Meridian Environmental Consulting, LLC
2711 North Elco Road
Fall Creek, Wisconsin 54742
(715)832-6608 (office)
(715)579-0723 (cell)
(715)832-6797 (Fax)
Email: kshimko.meridianenv@gmail.com

From: Robinson, John H - DNR [mailto:John.Robinson@wisconsin.gov]
Sent: Thursday, March 30, 2017 2:06 PM
To: Ken Shimko <kshimko.meridianenv@gmail.com>
Subject: RE: Odau - call with landowner (Shawn McNamar)

Ken

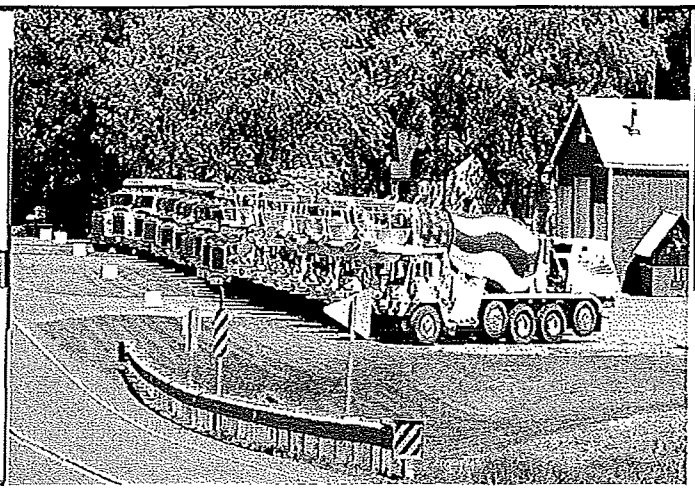
Thanks for your work on this.

We are committed to service excellence.
Visit our survey at http://dnr.wi.gov/customersurvey to evaluate how I did.

John Robinson
Phone: (715) 359-8932
John.Robinson@wisconsin.gov

Quotation

From: John S Olynick Inc.
N7918 State Hwy 73
Gilman, WI 54433
715-668-5211
715-668-5710 Fax
olynick@centurytel.net



Date:	5-23-17
Due Date	
Phone #	
Cell #	
Fax #	

To:

Meridian
Environmental

Quality, Pride and Service are values we hold dear. Please let us quote you on your next project!

Quantity	Description	Price	Unit	Amount
	Quote Includes:			
	Westboro			
	- Install 4" Concrete slab in front			
	Of Entrance Door			
	- Includes prep., concrete, finishing			
	Total			$1500.00

All material is taxed unless exempt (proof required)
Quote will be in effect after Signed by both parties
Quote will be vaild during the 2017 construction season
Unsigned quote is non-binding
Sign and Return Both Copies

By: _____ By: _____

John S Olynick Inc.

Meridian Environmental Consulting, LLC

March 8, 2017

Carrie Stoltz
Wisconsin Department of Natural Resources
107 Sutliffe Ave
Rhinelander, WI 54501-3349

Subject: **Change Order**
- **Vapor Intrusion**
- **Remedial Excavation**

Site: Odau Station (also known as: Bud's Service Station)
Westboro, Wisconsin
DNR BRRTS No. 03-61-000014
PECFA No. 54490-0127-83
Meridian No. 05F754

Dear Carrie:

This Change Order is for a Vapor Intrusion Investigation and additional source control excavation.

Additional Source Excavation

Please recall the original excavation (2009) removed as much source soil as technically practicable (Figure 1). Due to a structural impediment (see photographs in Appendix A), DNR and PECFA staff approved leaving the soils beneath and near the former pump island. These soils contained petroleum impacts (Table 1).

The site was submitted for Closure in the fall of 2014. Closure was denied and the Closure Committee requested the source soils beneath the support post be removed.

For the past year, Meridian has experienced difficulty finding contractors willing to work around the structural impediment in the proposed excavation area. A contractor from Eau Claire was found who is willing to do the work provided they are not liable for any structural damage from removing the post.

Meridian shares this concern. Because of this concern, it is our recommendation that the additional excavation is not necessary and this site should be Closed with a Structural Impediment.

However, if the excavation is required, Meridian will require a signed agreement from the current property owner releasing Meridian and its subcontractors from any liability associated with excavating beneath the load-bearing structural support.

Upon receipt of the above signed release, Meridian will complete a soil excavation to the extent practicable as shown in Figure 1. For budgeting purposes, we estimate up to 500 tons of impacted soil will need to be removed; the actual tonnage will likely be less (possibly half).

Prior to the excavation, a laminated support beam will be installed spanning the planned excavation area. The beam will support the structural load-bearing I-beam currently in place (see photographs in Appendix A). The support post will be removed to allow the excavation to proceed. The cement will be removed (sawcut where necessary). Impacted soil will be removed to the extent possible without affecting the structural stability of the house, basement, sidewalk, utility pole, etc.

When the excavation is completed, a concrete disk will be placed on the floor of the excavation. A concrete 'frost-tube' will be placed on this disk and the soil backfilled around it, compacted, and finished with gravel. The 'frost-tube' will be filled with concrete. The concrete will be allowed to cure (at least one week). A support post will then be installed and the temporary laminated beam removed.

The elevation of the I-beam will be surveyed before and after the excavation to document the I-beam did not move. The new support post will be adjustable to accommodate any settling that might occur.

This method should sustain the structural integrity of the building. However, slight settling is still possible. This is why a liability release is required before the work can be completed.

We repeat our recommendation the soil be left in place and the site Closed with a Structural Impediment.

Vapor Intrusion Screening and Investigation Work Plan

Petroleum-impacted soil and ground water release petroleum vapors which can migrate to and into buildings, basements, and buried utilities.

The potential for vapor intrusion was evaluated at this site by identifying potential vapor receptors and then using screening criteria to determine if further investigation is needed. This evaluation is described below. Refer to Figure 2 for reference.

Potential vapor receptors

- Source Property (W8883 Business Hwy 13)

This building rests on a crawlspace except for a small cellar beneath the northeast corner of the building (Figure 2). The cellar dimensions are 18 ft x 12 ft x 6 ft deep. It has a dirt floor with cement/rock walls (see photographs in Appendix A). The water and sewer connections are located in the cellar (entering from north side of building).

- Residence located at W8879 Business Hwy 13

This building is a residence with a basement.

- Peterson Machine Shop (W8882 Business Hwy 13)

This building was formerly used for machining activities (e.g., metals). The building is a single story and rests on a concrete slab. The business is no longer active (at the time of this report).

There is an old garage located south of the main building. The garage is part of this same property. It is unknown if the garage has a cement floor or dirt floor. The garage is in older condition.

- Sewer lines

There are water and sewer lines underneath Business Hwy. 13 and North Street.

Vapor Intrusion Screening Criteria Evaluation

• *Free-phase product that has the potential for off-gassing vapors underlies a building or is within 30 feet, horizontally or vertically, of a building foundation*

LNAPL has been measured (less than 1 inch) in MW-12 which is adjacent to Peterson Machine Shop (W8882 Bus Hwy 13). No LNAPL was measured during the past year of monitoring.

No LNAPL has been measured in any other wells since the remedial excavation (which removed LNAPL impacts from the source property).

• *Petroleum contaminated soils with the potential for off-gassing vapors are within 5 feet or less of a building foundation*

The majority of impacted source soil was removed in 2009 (Figure 1). Confirmation samples were collected from the perimeter of the soil excavation (Table 1). A soil sample collected from the north end of the dispenser island (beneath a building support) had concentrations above cleanup standards.

Based on this data, residual petroleum contaminated soils with the potential for off-gassing vapors are within 5 feet of the house building foundation.

• *Ground water contaminated with petroleum product above NR140 PAL is entering a building or in contact with the building's foundation, or is in water intercepted by the building's foundation drain system, including sumps.*

No ground water with PAL exceedances is in contact with any of the above building foundations.

• *Petroleum vapors are present that may migrate from the petroleum source and move through preferential pathways (sewer lines, fractured bedrock, etc.) into the building.*

The impacted ground water is located at a depth of about 10 - 20 feet (fluctuates seasonally). Water and sewer lines are typically less than 10 feet. Therefore, the water and sewer lines are not expected to intersect the water table. However, petroleum vapors may be in the soil around water and sewer lines immediately east of the site (beneath Business Hwy. 13).

Recommendations

Based on the screening criteria, we recommend a vapor intrusion investigation to determine if petroleum vapors are impacting the source building/property (W8883) and the Peterson Machine Shop (W8882).

We plan to install 15 soil probes around the perimeter of the onsite building and Peterson Machine as shown in Figure 2. The borings will be 5 feet deep. A Geoprobe unit will be used to drill to the desired depth.

In addition, a probe will be installed in the cellar dirt floor by hand (estimated depth of 2 – 4 ft below floor). This probe will be sampled twice (summer, winter).

Air will be purged from each soil probe and tested for Oxygen using a LEL/Oxygen handheld meter. The soil gas will also be field tested with a PID for VOCs. A Summa canister will be used to collect an air sample (TO-15 PVOC) from the soil probe.

Ground Water Monitoring

The monitoring well network was sampled quarterly from November 2014 to June 2016. There are two sampling events remaining under the current budget.

If DNR requires the soil excavation (above), we will complete the two quarterly sampling events after the excavation.

If DNR concurs with our recommendation that additional excavation is not warranted due to the Structural Impediment, we will complete the remaining two quarterly sampling events immediately.

Reporting

A report documenting the above tasks will be submitted upon completion. This report will include our recommendations regarding further work and/or Closure with GIS Registry for Soil and Ground Water.

COST

Enclosed is a Cost Estimate for this work. This cost utilized the U&C Cost Schedule wherever possible.

Other costs were obtained as follows (documentation is provided in Appendix B):

- Commodity bidding was used to select the excavation contractor.
- We could only find one contractor willing to do the structural support task.
- Vapor intrusion costs include variance costs and the U&C schedule where possible.

We will proceed upon authorization.

Sincerely,
MERIDIAN ENVIRONMENTAL CONSULTING, LLC

Kenneth Shimko, PG
Project Manager

CHANGE ORDER

Usual and Customary Standardized Invoice #19
January 2016 - June 2016

GW 10-20' deep

WISCONSIN DEPT. OF NATURAL RESOURCES

RR-058A

PECFA #: 54490-0127-83
BRRT's #: 03-61-000014
Site Name: Odau
Site Address: Westboro

Vendor Name: Change Order
Invoice #: Change Order
Invoice Date: March 2017
Check #: Change Order

U&C Total $ 39,693.11
Variance to U&C Total $ 17,273.68
Grand Total $ 56,966.79

TASK	TASK DESCRIPTION	SERVICES	ACTIVITY CODE	ACTIVITY REFERENCE CODE DESCRIPTION	UNIT	MAX UNIT COST	UNITS	TOTAL MAX
15 Vapor Intrusion Probes (5 ft deep)(see Variance below for additional costs). Report. (Outside)								
6	Letter Report/Addendum		LRA05	Letter Report/Addendum	Letter	$ 1,039.29	1	$ 1,039.29
12	Direct Push	Consultant	DP15	GW Profiling (No Soil Sampling)	Ft	$ 2.31	75	$ 173.25
12	Direct Push	Consultant	DP30	Primary Mob/Demob	Site	$ 512.09	1	$ 512.09
12	Direct Push	Commodity	DP45	GW Profiling (no soil sampling)	Ft	$ 6.51	75	$ 488.25
12	Direct Push	Commodity	DP50	GW Sample Collection (cost for tubing)	Ft	$ 0.42	75	$ 31.50
12	Direct Push	Commodity	DP55	Expendable Drive Point	Each	$ 14.49	15	$ 217.35
12	Direct Push	Commodity	DP60	Borehole Abandonment	Ft	$ 1.26	75	$ 94.50
12	Direct Push	Commodity	DP65	Concrete Penetration	Each	$ 20.06	5	$ 100.28
12	Direct Push	Commodity	DP80	Mob/Demob (Includes decon)	Ls	$ 526.05	1	$ 526.05
15	Misc. Drilling Activities & Supplies		MDT41	Private Utility Locate	Each	$ 117.18	1	$ 117.18
20	Soil Boring/Monitoring Well Permits		SBMWP05	Soil Boring/Monitoring Well Permit	Permit	$ 246.12	1	$ 246.12
21	Access Agreements		AA05	Access Agreements (Peterson Machine, Sean McNamar)	Property	$401.94	2	$ 803.88
31	Consultant Overnight Per Diem		COPD05	Overnight (1 - Vapor Probes)	Night	$ 113.72	1	$ 113.72
15	Misc. Drilling Activities & Supplies	Commodity	MDT25	Commodity Service Provider Per Diem (drilling and direct pu	Person	$203.28	2	$ 406.56
Source Control Excavation to address vapor intrusion concerns (estimate up to 500 tons). Abandon MW-2 if necessary. 8 confirmation samples								
8	Well Abandonment	Consultant	WAB05	Coordination	Site	$ 162.86	1	$ 162.86
8	Well Abandonment	Consultant	WAB10	Water column < 30 ft	Ft	$ 2.52	26	$ 65.52
8	Well Abandonment	Consultant	WAB20	Bentonite Pellets (50lb bag - 1/4" pellet)	Bag	$ 10.82	1	$ 10.82
34	Consultant Incremental Mob/Demob		IMD05	Incremental Mob/Demob (WAB 30 - abandon MW2 during excavation)	Site	$ 287.18	1	$ 287.18
24	Limited Soil Excavation	Consultant	LSE05	Consultant Oversight for Limited Soil Excavation	Ton	$ 4.94	500	$ 2,467.50
24	Limited Soil Excavation	Consultant	LSE10	Primary Mob/Demob	Site	$ 831.92	1	$ 831.92
24	Limited Soil Excavation	Commodity	LSE13	Laboratory (see task 24 total on Lab Schedule)	Lab Schedule	Lab Schedule	8	$ 274.40
24	Limited Soil Excavation	Commodity	LSE15	Limited Soil Excavation	Ton	$ 60.00	500	$ 30,000.00
24	Limited Soil Excavation	Commodity	LSE16	Landfill Environmental Fee (provide documentation)	ACTUAL COST	ACTUAL COST		
31	Consultant Overnight Per Diem		COPD05	Overnight (2 - source excavation)(1 - setup temp support)	Night	$ 113.72	3	$ 341.15
36	Change Order Request		COR05	Change Order Request (cost cap exceedance requests)	Change Order	$ 381.78	1	$ 381.78

Variance

Temporary Building Support: Install prior to and remove after excavation

Subcontractor (Manor Construction) provide all materials, labor for temporary support	Task	$ 5,000.00	1	$ 5,000.00
Concrete for support footing	Task	$ 1,000.00	1	$ 1,000.00
Meridian labor overseeing/assisting temporary building support installation/return trip to remove	hour	$ 104.44	24	$ 2,506.56
			subtotal:	$ 8,506.56

Why? So much time?

Variance: Collect 15 air samples (Summa Canisters)(TO-15 PVOC) from 15 vapor probes (may take two days)

Geoprobe crew/equipment - standby time during canister sampling (estimate 1 hr per probe)	hour	$150.00	15	$ 2,250.00
Meridian				
Labor (1 hour per can)	hour	$104.44	15	$ 1,566.60
LEL/Oxygen Meter	day	$50.00	2	$ 100.00
PID	day	$75.00	2	$ 150.00
Lab Analysis TO-15 (includes can rental, shipping)	canister	$220.00	15	$ 3,300.00
			subtotal	$7,366.60

Variance: Place probe in cellar floor. Sample two events (winter, summer)(total of 2 air samples (Summa Canisters)(TO-15 PVOC).

Meridian				
1st Event (combine with probes above)				
Install probe by hand during Geoprobe work.	hour	$104.44	1	$ 104.44
Collect air sample using Summa.	hour	$104.44	1	$ 104.44
2nd Event (separate trip)				
Travel to/from	hour	$104.44	4	$ 417.76
Coordinate with landowner	hour	$104.44	1	$ 104.44
Collect air sample using Summa.	hour	$104.44	1	$ 104.44
LEL/Oxygen Meter	day	$50.00	1	$ 50.00
PID	day	$75.00	1	$ 75.00
Lab Analysis - 2 canisters (TO-15) Total of 2 samples (summer, winter)	canister	$220.00	2	$ 440.00
			subtotal	$ 1,400.52

* inside Cellar. Install by hand

Usual and Customary Standardized Invoice #19
January 2016 - June 2016

RR-058A

TOTAL LAB CHARGES	$274.40	TASK 33	0	$ -	TASK 24	8	$274.40

MATRIX	REF CODE	REIMBURSABLE ANALYTE	UNITS	MAX COST	SAMPLES	TOTAL
AIR	A1	Benzene	SAMPLE	$ 42.80		$ -
AIR	A2	BETX	SAMPLE	$ 47.10		$ -
AIR	A3	GRO	SAMPLE	$ 43.90		$ -
AIR	A4	VOC's	SAMPLE	$ 68.50		$ -
WATER	W1	GRO/PVOC	SAMPLE	$ 27.80		$ -
WATER	W2	PVOC	SAMPLE	$ 25.70		$ -
WATER	W3	PVOC + 1,2 DCA	SAMPLE	$ 41.70		$ -
WATER	W4	PVOC + Naphthalene	SAMPLE	$ 28.90		$ -
WATER	W5	VOC	SAMPLE	$ 68.50		$ -
WATER	W6	PAH	SAMPLE	$ 69.50		$ -
WATER	W7	Lead	SAMPLE	$ 11.80		$ -
WATER	W8	Cadmium	SAMPLE	$ 12.90		$ -
WATER	W9	Hardness	SAMPLE	$ 11.80		$ -
WATER	W10	BOD, Total	SAMPLE	$ 22.50		$ -
WATER	W11	Nitrate	SAMPLE	$ 10.70		$ -
WATER	W12	Total Kjeldahl	SAMPLE	$ 19.30		$ -
WATER	W13	Ammonia	SAMPLE	$ 16.10		$ -
WATER	W14	Sulfate	SAMPLE	$ 9.70		$ -
WATER	W15	Iron	SAMPLE	$ 9.70		$ -
WATER	W16	Manganese	SAMPLE	$ 9.70		$ -
WATER	W17	Alkalinity	SAMPLE	$ 9.70		$ -
WATER	W18	methane	SAMPLE	$ 43.90		$ -
WATER	W19	Phosphorous	SAMPLE	$ 17.20		$ -
WATER	W20	VOC Method 524.2	SAMPLE	$ 167.90		$ -
WATER	W21	EDB Method 504	SAMPLE	$ 90.90		$ -
SOILS	S1	GRO	SAMPLE	$ 23.60		$ -
SOILS	S2	DRO	SAMPLE	$ 28.90		$ -
SOILS	S3	GRO/PVOC	SAMPLE	$ 26.80		$ -
SOILS	S4	PVOC	SAMPLE	$ 24.60		$ -
SOILS	S5	PVOC + 1,2 DCA + Naphthalene	SAMPLE	$ 47.10		$ -
SOILS	S6	PVOC + Naphthalene	SAMPLE	$ 34.30	8	$ 274.40
SOILS	S7	VOC	SAMPLE	$ 68.50		$ -
SOILS	S8	SPLP Extraction VOC only	SAMPLE	$ 48.20		$ -
SOILS	S9	PAH	SAMPLE	$ 69.50		$ -
SOILS	S10	Lead	SAMPLE	$ 11.80		$ -
SOILS	S11	Cadmium	SAMPLE	$ 13.90		$ -
SOILS	S12	Free Liquid	SAMPLE	$ 10.70		$ -
SOILS	S13	Flash Point	SAMPLE	$ 24.60		$ -
SOILS	S14	Grain Size - dry	SAMPLE	$ 40.70		$ -
SOILS	S15	Grain Size - wet	SAMPLE	$ 54.60		$ -
SOILS	S16	Bulk Density	SAMPLE	$ 12.90		$ -
SOILS	S17	Permeability	SAMPLE	$ 39.60		$ -
SOILS	S18	Nitrogen as Total Kjeldahl	SAMPLE	$ 19.30		$ -
SOILS	S19	Nitrogen as Ammonia	SAMPLE	$ 16.10		$ -
SOILS	S20	% Organic Matter	SAMPLE	$ 27.80		$ -
SOILS	S21	TOC as NPOC	SAMPLE	$ 54.60		$ -
SOILS	S22	Soil Moisture Content	SAMPLE	$ 6.50		$ -
SOILS	S23	Air Filled Porosity	SAMPLE	$ 24.60		$ -
SOILS	S24	% Total Solids	SAMPLE	$ 6.50		$ -
SOILS	S25	Field Capacity	SAMPLE	$ 26.80		$ -
SOILS	S26	TCLP Lead	SAMPLE	$ 79.20		$ -
SOILS	S27	Cation Exchange (Ca, MG, & K)	SAMPLE	$ 25.70		$ -
SOILS	S28	TCLP Cadmium	SAMPLE	$ 79.20		$ -
SOILS	S29	TCLP Benzene	SAMPLE	$ 79.20		$ -
LNAPL	LFPS01	Viscosity + Density Interfacial tension I (LNAPL/water [dyne/cm]) Interfacial tension II (LNAPL/air [dyne/cm]) Interfacial tension III (water/air) [dyne/cm])	SAMPLE	$ 534.60		$ -
					TASK 33 TOTAL	$ -

MAX COST	SAMPLES	TOTAL
$ 23.60		$ -
$ 28.90		$ -
$ 26.80		$ -
$ 24.60		$ -
$ 47.10	10	$ -
$ 34.30	8	$ 274.40
$ 68.50		$ -
$ 48.20		$ -
$ 69.50		$ -
$ 11.80		$ -
	TASK 24 TOTAL	$ 274.40

6' of LNAPL
before excavation.
now down to
disolved LNAPL

Building support - var

24 hrs. - help w/ support
2.5 hrs. trip up
8 hr day. Install temp support
4 hrs next day (finish)
2.5 hrs. Back

Permanente - Install (2) 12 hr. days
2.5 hr. trip
8 hrs. to Install + remove temp
2.5 hr. trip.

Total overnite (4)
Sat, → post (temp support)
Excavate 1-2 overnites

3 total overnites
(Pillar + Evacation)

(1) U.I. install

Ken to
~~90~~ go up on wkend
before (sat) set up
temp brace. Ken will be
carpenter's helper. Stay the
nite. Check on sun +
pull out steel post mon -
excavate (olynick). let
concrete set 1-2 weeks come
back sat, take out temp
posts, reset - done

Odall

of ~~per~~ diems

Labs - soil samples taken
@ depth ~~[illegible]~~

~~Building support - variance~~
~~Why 24 hrs.? for Ken~~

BID COMPARE

Used +60.00/ton

Excavate, Replace, Transport Petroleum Contaminated Soil

Westboro, Wisconsin

Meridian No. 05F754

Task	Units	#Units*	DKS Cost/Unit	DKS Cost	Melvin Cost/Unit	Melvin Cost	Olynick Cost/Unit	Olynick Cost
Mobilization/demobilizaton	Job	1	$2,500.00	$2,500.00	$750.00	$750.00	$1,800.00	$1,800.00
Excavate, Load, Replace, Compact Contaminated Soil	ton*	500	$25.00	$12,500.00	$16.95	$8,475.00	$12.00	$6,000.00
(excavation to be topped with 6 inch gravel finish, compacted, graded)								
Install concrete tube (16 inch dia x excavation depth (assume 12 ft) - tube furnished by Meridian)(placed on concrete disk (furnished by Meridian). Backfill around tube. Provide and fill tube with concrete (estimate 1 yard)	yard	1	$1,000.00	$1,000.00	$580.00	$580.00	$950.00	$950.00
Transport Contaminated Soil to Landfill (2 options: Lincoln County, Weyerhauser)								
(provide cost for both options: Meridian will determine which landfill will be used)								
- Waste Management Landfill near Weyerhauser	ton*	500	$20.00	$10,000.00	$19.05	$9,525.00	$14.50	$7,250.00
- Lincoln County Landfill near Merrill	ton*	500	$15.00	$7,500.00	$16.05	$8,025.00	$13.35	$6,675.00

Separate variance * not in total below

Disposal Cost

Lincoln County Landfill	ton	500	$23	$11,500	$23	$11,500	$23	$11,500
Waste Mgmt. (Weyerhauser)	ton	500	$27	$13,500	$27	$13,500	$27	$13,500

Total

Concrete				$1,000.00		$580.00		$950.00
Lincoln County	ton	500		$34,000.00		$28,750.00		$25,975.00
Weyerhauser	ton	500		$38,500.00		$32,250.00		$28,550.00

* going forward

Per Ton

Lincoln County	ton	500		$68.00		$57.50		$51.95
Weyerhauser	ton	500		$77.00		$64.50		$57.10

In change order 60/ton
using Olynick
Use $51.95 for use spread per Ken 3/16/17
Task #24

Meridian Environmental Consulting, LLC

February 22, 2017

REQUEST FOR BID

Bid Scope:

Remove/Replace/Transport Petroleum Contaminated Soil

Site Location: W8883 Bus. Hwy 13
Westboro, WI
DNR BRRTS No. 03-61-000014
PECFA No. 54490-0127-83
Meridian No. 05F754

Bid Due: **February 28, 2017**

Meridian Environmental Consulting, LLC (Meridian) invites Bids to conduct the following Scope of Work:

Remove, replace, transport petroleum contaminated soil from the site to landfill (Meridian will pay landfill). This work will require temporary support of building corner.

The attached Bid Specifications describe the job. An onsite meeting is available upon request.

Please complete the enclosed Bid Form and return by the Bid Due date.

Sincerely,
MERIDIAN ENVIRONMENTAL CONSULTING, LLC

Kenneth Shimko, PG
Project Manager

2711 N. Elco Road • Fall Creek, WI 54742 • (715) 832-6608 • Fax (715) 832-6797

BID SPECIFICATIONS

Site Description:

- The site is a former gas station located in Westboro, Wisconsin. Petroleum was released into the soil and ground water.
- The soils at the site are typically silty sand with varying layers of sand and clay.
- Ground water is found about 15 - 20 feet below grade.
- NO WATER WILL BE PUMPED FROM EXCAVATION

SCOPE OF WORK

Summary of Work:

The petroleum impacted soil will be excavated, loaded onto trucks, and transported to the landfill. The excavation will be backfilled with clean fill, compacted, and topped with a crushed gravel finish to match existing grade.

The estimated tonnage of soil to be excavated and disposed is 500 tons. **The actual excavation dimensions and tonnage will be more or less as determined during the work by Meridian.**

There is a house on the property. The excavation will occur next to the house (see enclosed map and photo).

A house support (see enclosed photograph) will have to be temporarily removed, temporary support installed, and then a permanent support installed. This task will be completed by Meridian before the work begins. However, work will be conducted around this temporary support requiring special care to not disturb the temporary support.

Work Tasks:

- Construct temporary support structure and remove existing support post

  A temporary support structure will be installed by Meridian prior to beginning the work. The existing support structure will be removed (by Meridian). Contractor will then complete excavation (CAREFULLY). Contractor work MUST NOT AFFECT TEMPORARY SUPPORT STRUCTURE.

- The existing concrete slab (approx.. 10 x 10) will be removed and disposed offsite. Sawcut as needed (minimal).

- The contaminated soil will be excavated from depths up to 20 feet (although 12 feet is more likely). Meridian will be onsite and will direct the excavation. **No one will be allowed inside of the excavation**.

- Construct concrete support footing (pillar) for replacement support post

  When the excavation is completed, a concrete footing (pillar) will be constructed in the excavation prior to and during backfilling. A concrete disk (18 in. dia. by 2 in thick - supplied by Meridian) will be placed onto native soil in the bottom of the excavation. A concrete tube form (16 in dia – provided by Meridian) will then be installed vertically in the excavation resting on this disk. The excavation will be backfilled around the tube to the surface (per compaction requirements below).

  When the excavation is backfilled and finished to grade, concrete will be poured into the tube form.

  This will form a concrete pillar to be used as a base for the replacement support structure (provided by Meridian).

- Backfill, compaction, surface finish

  The excavation will be backfilled with material similar to the existing soils. The excavation will be compacted (95% compaction) in 1-foot lifts.

  The excavation will be topped with 6 inches of crushed gravel (base) to match existing grade.

Safety and Security

Barriers will be installed around the work area to keep onlookers at a safe distance.

A Site Health and Safety Plan will be prepared by Meridian and will be reviewed prior to the work. All onsite personnel will adhere to this Safety Plan.

In addition, Contractor is responsible for the Health and Safety of their personnel, equipment, and activities.

No one will be allowed in the excavation at any time.

Utilities

Meridian will clear public and private utilities.

Permits

Meridian will obtain DOT Permit to work alongside of County Highway D. Meridian will coordinate with Village of Westboro.

Landfill

Meridian will arrange for disposal at landfill and will pay landfill disposal fee.

Please provide a Bid to transport the contaminated soil to two landfills: Waste Management near Weyerhauser and Lincoln County Landfill near Merrill. Meridian will select the landfill for disposal. (Lowest cost alternative will be selected).

Schedule

The work is tentatively scheduled for summer 2017 (actual date to be determined).

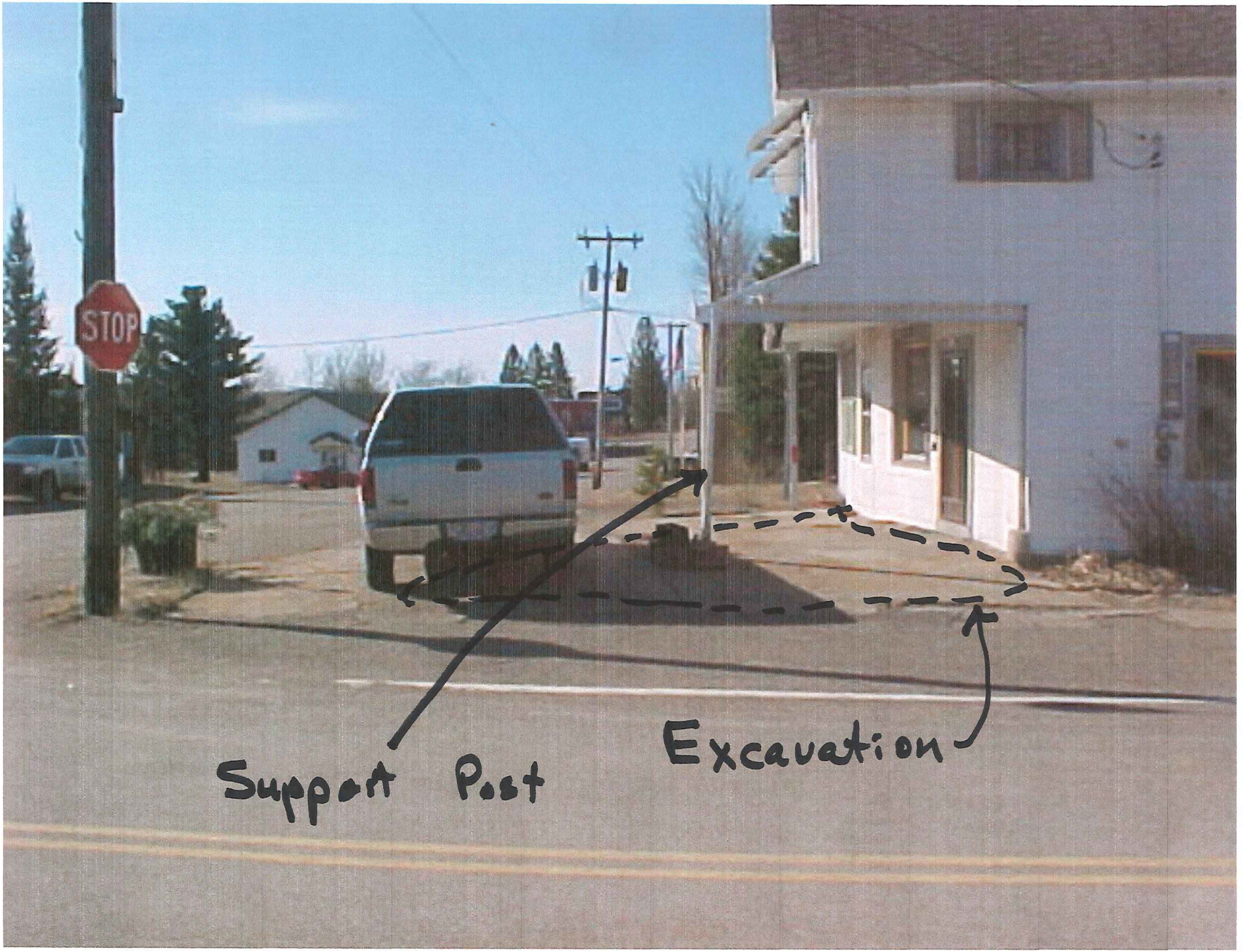
Payment

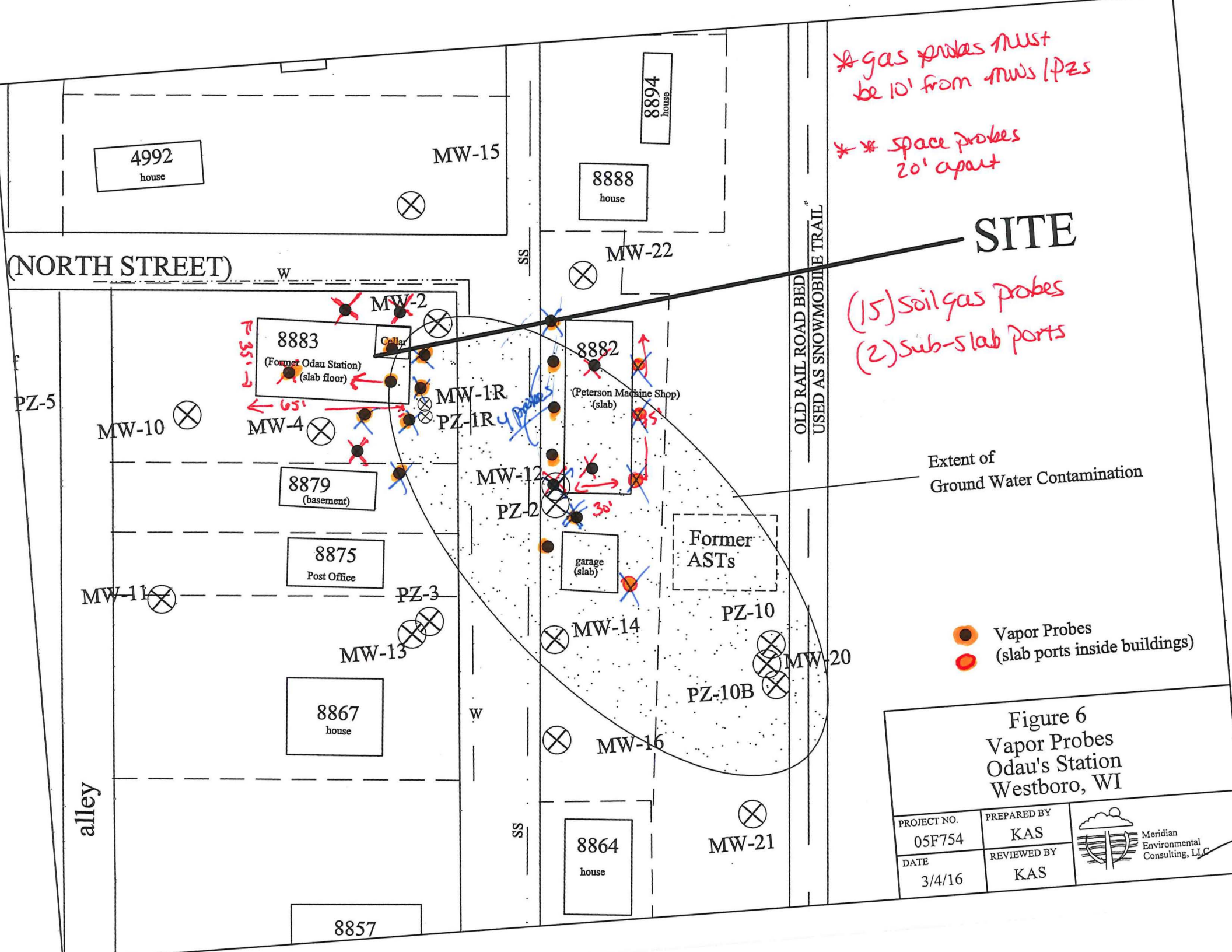
The Contractor will invoice Meridian using the same format and pricing as provided in the Bid Form.

The Contractor will sign the Promissory Note required for PECFA reimbursement. The State's current payment turnaround is 4 - 6 months.

Insurance/Contract

Contractor will sign Meridian's Subcontract and provide Certificate of Insurance documenting compliance with insurance requirements prior to the work beginning.


STOP
Support Post
Excavation


* gas probes must be 10' from mws / pzs
** space probes 20' apart
SITE
(15) soil gas probes
(2) sub-slab ports
(NORTH STREET)
4992 house
MW-15
8894 house
8888 house
MW-22
OLD RAIL ROAD BED USED AS SNOWMOBILE TRAIL
MW-2
8883 (Former Odau Station) (slab floor)
Cellar
35'
65'
MW-1R
PZ-1R
4 probes
MW-4
MW-10
PZ-5
8882 (Peterson Machine Shop) (slab)
35'
MW-12
PZ-2
30'
8879 (basement)
8875 Post Office
garage (slab)
Former ASTs
MW-11
PZ-3
MW-13
MW-14
PZ-10
MW-20
PZ-10B
8867 house
MW-16
MW-21
alley
8864 house
8857
Extent of Ground Water Contamination
Vapor Probes (slab ports inside buildings)
Figure 6
Vapor Probes
Odau's Station
Westboro, WI
PROJECT NO. 05F754
PREPARED BY KAS
DATE 3/4/16
REVIEWED BY KAS
Meridian Environmental Consulting, LLC

FIGURES

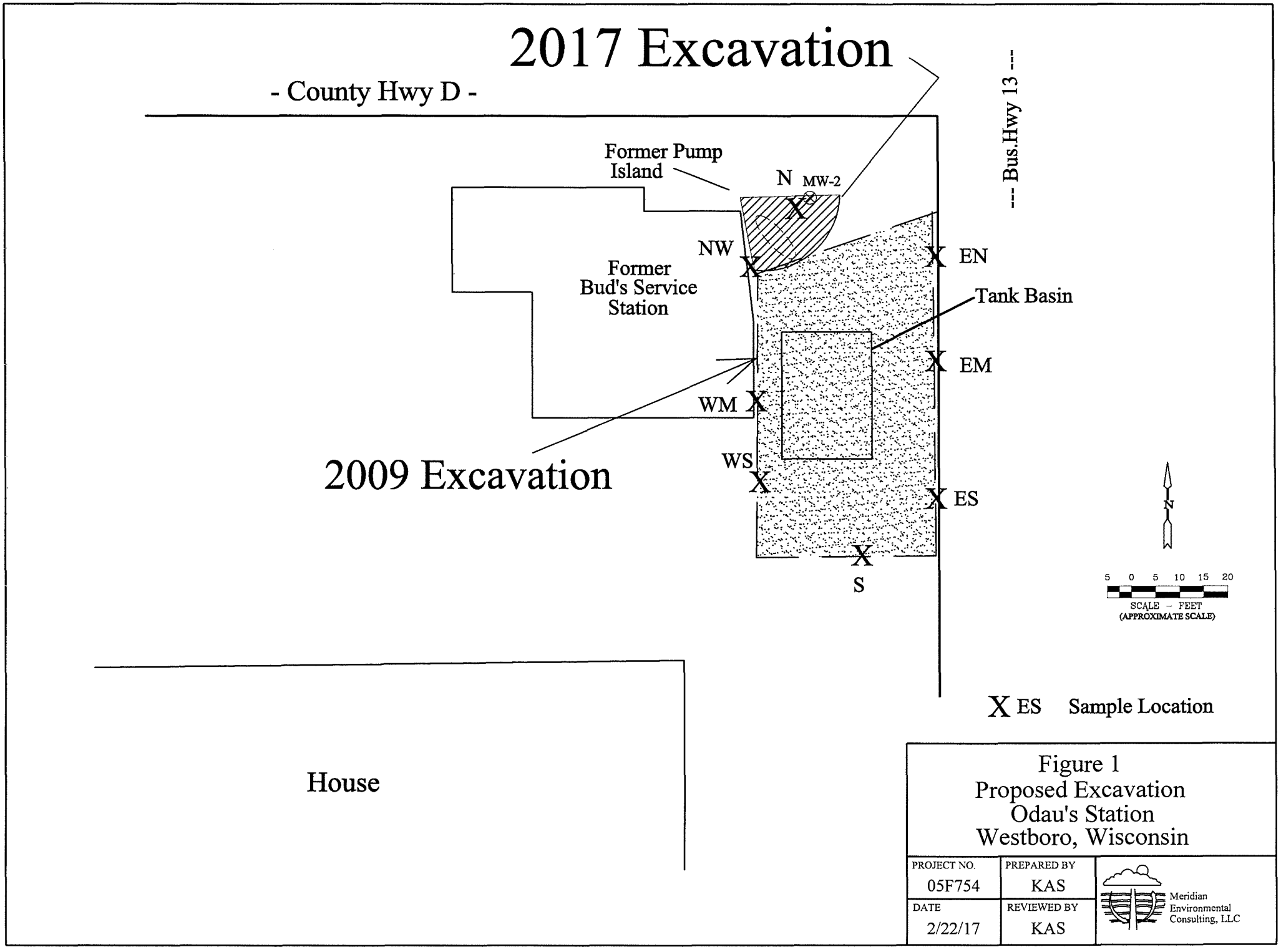
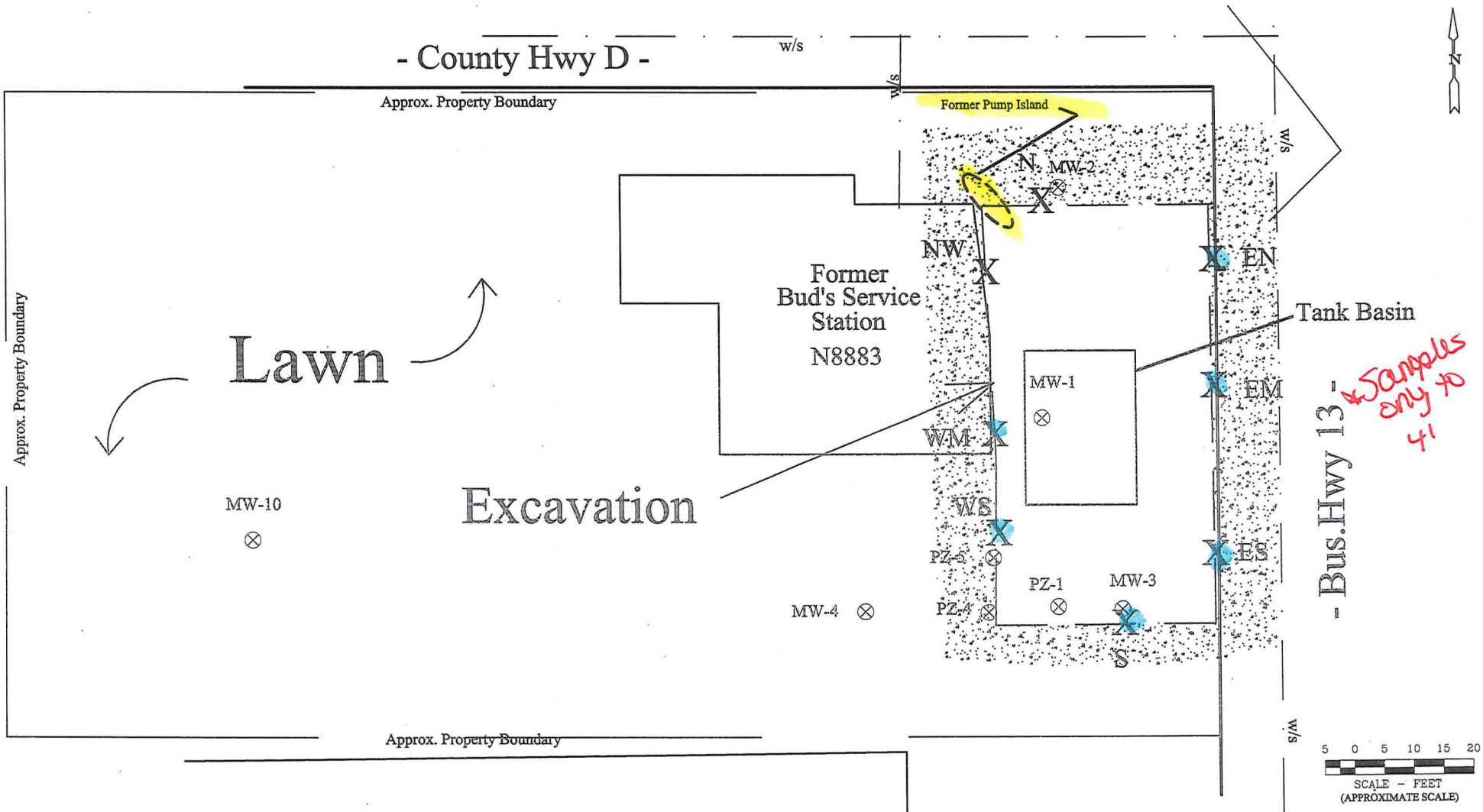


Figure 1
Proposed Excavation
Odau's Station
Westboro, Wisconsin

PROJECT NO.	PREPARED BY
05F754	KAS
DATE	REVIEWED BY
2/22/17	KAS

Meridian Environmental Consulting, LLC

Post-Remedial Soil Contamination



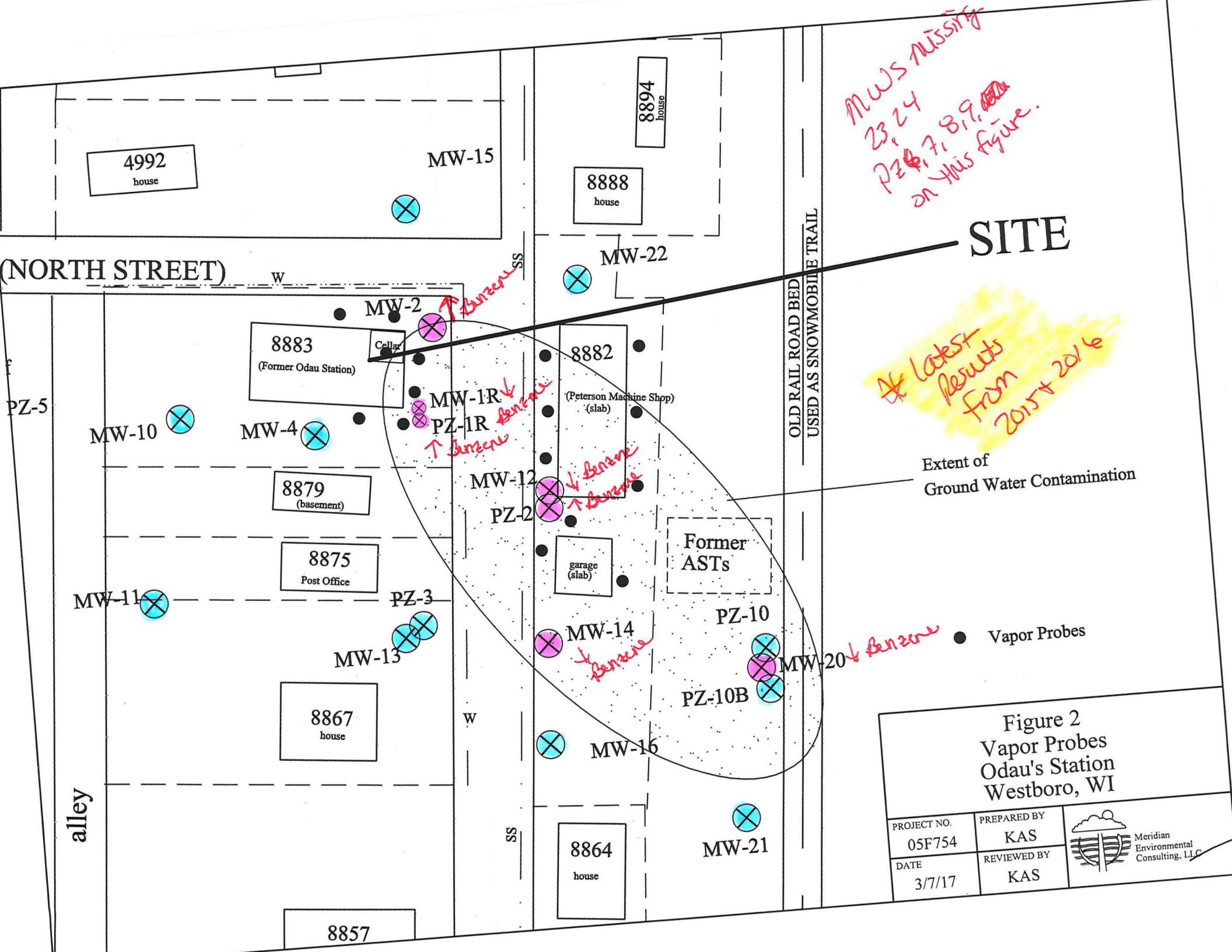
House
N8884

X - Confirmation Samples

Figure B.2.b
Post Remedial Soil Contamination
Odau's Station
Westboro, Wisconsin

PROJECT NO.	PREPARED BY
05F754	KAS
DATE	REVIEWED BY
2/17/14	KAS

Meridian Environmental Consulting, LLC


MWs missing
23, 24
PZ 6, 7, 8, 9,
on this figure.
4992
house
MW-15
8894
house
8888
house
SITE
(NORTH STREET)
W
MW-22
MW-2
Benzene
SS
8883
(Former Odau Station)
Cellar
8882
(Peterson Machine Shop)
(slab)
OLD RAIL ROAD BED
USED AS SNOWMOBILE TRAIL
* Latest Results from 2015 & 2016
PZ-5
MW-10
MW-4
MW-1R
Benzene
PZ-1R
Benzene
Extent of
Ground Water Contamination
8879
(basement)
MW-12
Benzene
Benzene
PZ-2
Former
ASTs
8875
Post Office
garage
(slab)
MW-11
PZ-3
PZ-10
MW-14
Benzene
MW-20
Benzene
Vapor Probes
MW-13
PZ-10B
8867
house
W
MW-16
alley
SS
8864
house
MW-21
8857
Figure 2
Vapor Probes
Odau's Station
Westboro, WI
PROJECT NO.
05F754
PREPARED BY
KAS
DATE
3/7/17
REVIEWED BY
KAS
Meridian
Environmental
Consulting, LLC

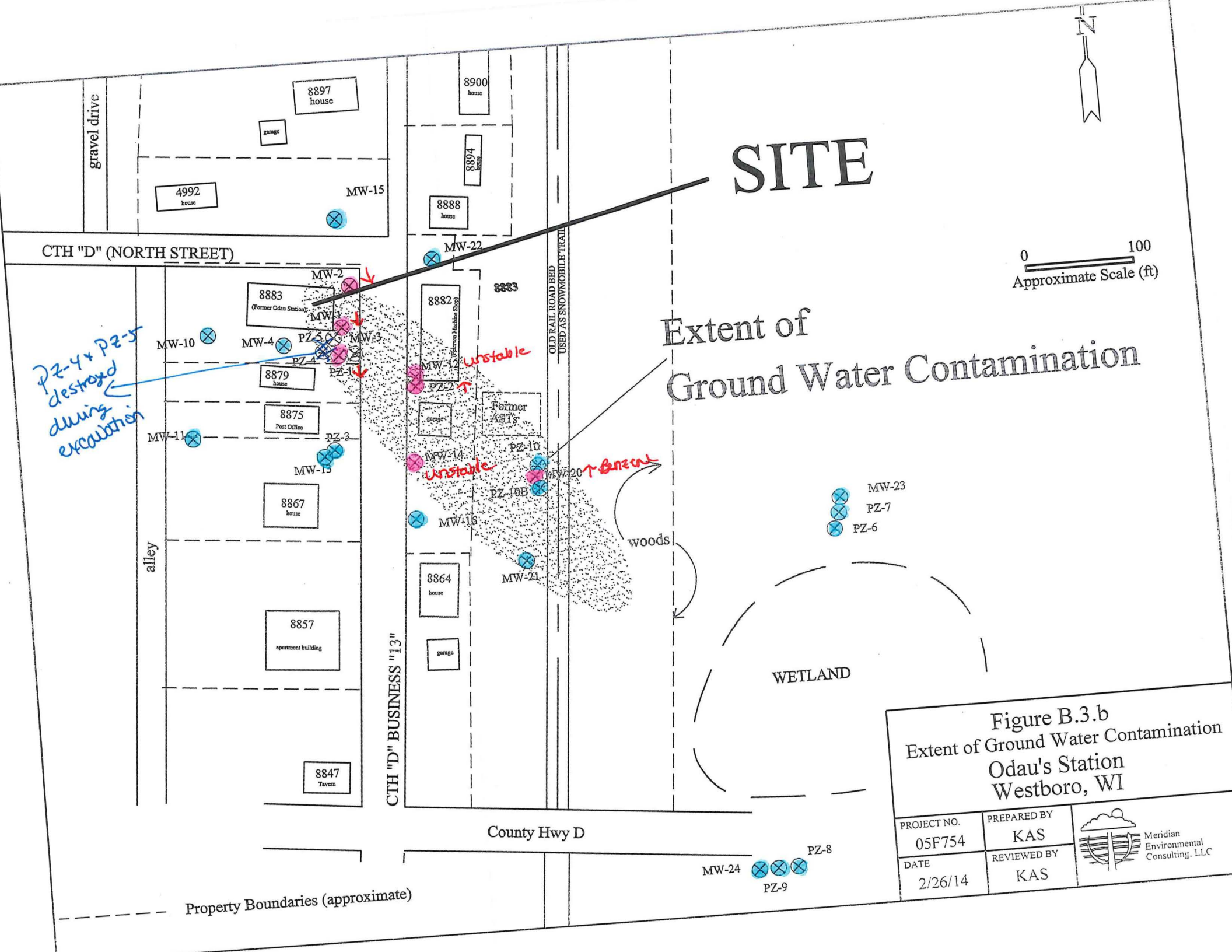


Figure B.3.b
Extent of Ground Water Contamination
Odau's Station
Westboro, WI

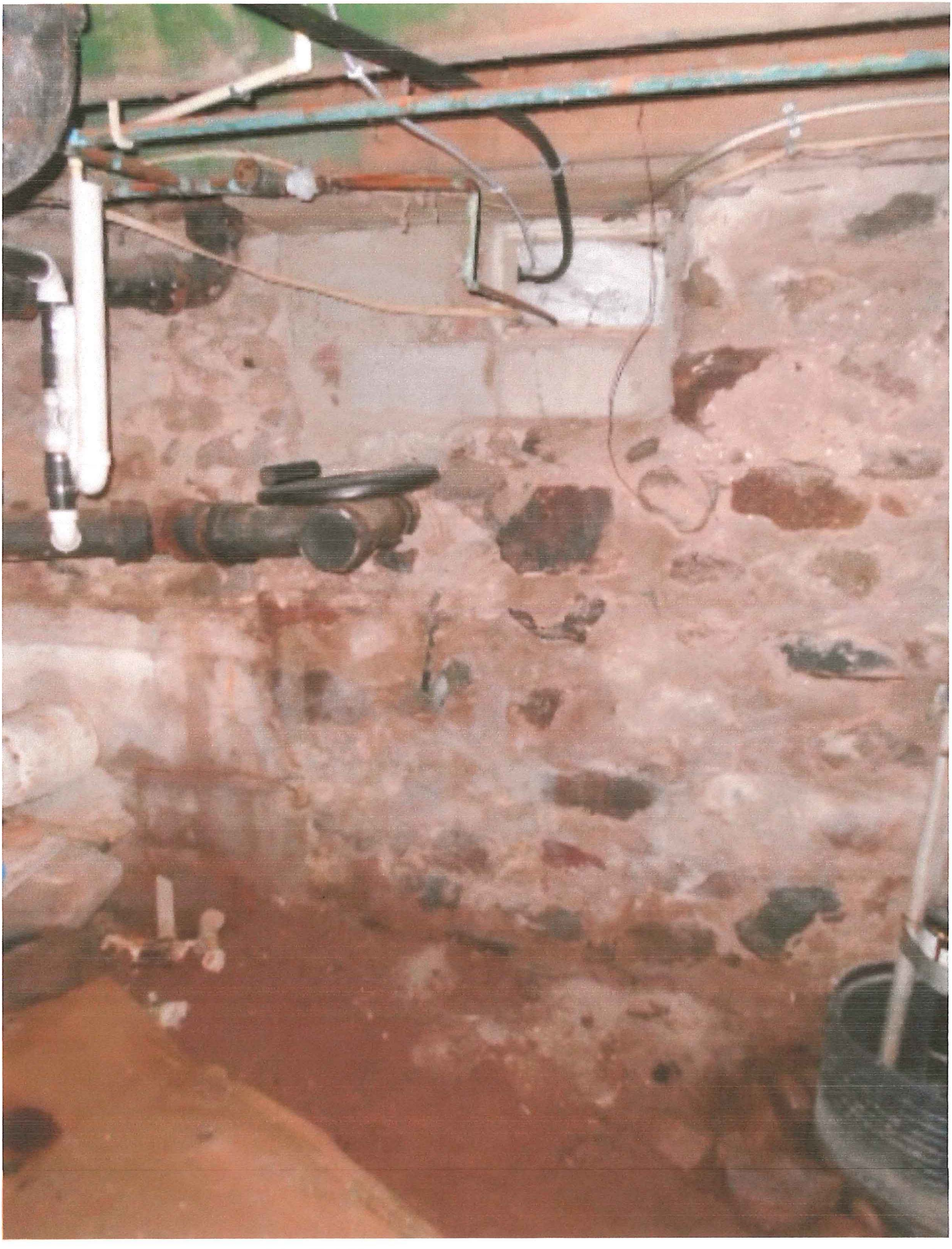
PROJECT NO.	PREPARED BY
05F754	KAS
DATE	REVIEWED BY
2/26/14	KAS

Meridian Environmental Consulting, LLC

APPENDIX A

Photographs


Structural
Impediment



TABLES

Odau

Table 1: Ground Water Analytical Data
Odau Station (aka Bud's Service)
Westboro, Wisconsin
Meridian No. 05F754

Well	Date	1,2,4-TMB	1,3,5-TMB	Total TMB	Benzene	Ethylbenzene	MTBE	Naphthalene	m&p-xylene	o-xylene	Total Xylenes	Toluene	Chloromethane	1,2 DCA	EDB	Dis. Pb
NR140 ES				480	5	700	60	100			2000	800	30	5	0.05	15
NR140 PAL				96	0.5	140	12	10			400	160	3	0.5	0.005	1.5
MW-1																
	12/12/1996			1480	40000	2200	<200	400			10000	30000	NA	2200	<2000	62
	12/4/1997			2620	27000	2300	<50	200			11000	24000	NA	<50	NA	76
	12/18/2008	Screened interval filled with free product - no sample could be collected														
		well destroyed during excavation August 2009														
MW-1R		installed 9/29/09														
	10/26/2009	2130	527	2657	11600	3310	<75.0	544	10500	4760	15260	27800	NA	NA	NA	NA
	1/19/2010	2130	599	2729	26400	3320	<75	1150	9340	4210	13550	31300	NA	NA	NA	NA
	4/27/2010	2590	676	3266	23700	3080	189	965	9410	4470	13880	29000	NA	NA	NA	NA
	7/27/2010	1360	365	1725	2860	1610	<75	558	5130	1520	6650	8990	NA	NA	NA	NA
	4/25/2011	1430	1710	3140	2410	1710	<250	2720	3230	435	3668	4170	<200	<150	<150	NA
	12/12/2011	745	356	1101	1450	1040	91.8	276	1620	179	1799	1080	NA	NA	NA	NA
	3/26/2012	1350	480	1830	5210	1820	135	407	4330	889	5219	7060	NA	NA	NA	NA
	5/16/2013	731	245	976	872	875	23	205			1850	1530				
	8/29/2013	498	198	696	600	676	21.8	145			883	857				
	11/11/2014	82.7	36.8	119.5	170	222	5	45.9			120	164				
	3/30/2015	549	169	718	1160	749	7.8	154			1190	1890				
	6/30/2015	191	51.6	242.6	251	340	10.7	85.3			374	225				
	9/28/2015	89.3	22.9	112.2	192	206	2.5	47.4			174	215				
	3/22/2016	127	29.6	156.6	273	341	3.8	56			415	694				
	6/30/2016	76	14.4	90.4	176	188	2.8	41.8			185	220				
MW-2																
	12/12/1996			1500	19	1100	<5	200			4900	2600	NA	<5	<50	6.6
	12/4/1997			920	5.2	250	<1.2	30			1200	75	NA	<1.2	NA	2.7
	11/10/1998			161	17	51	44	NA			120	21	NA	NA	NA	NA
	12/18/2008	71.4	40.7	112.1	<1.55	6.36	<1.5	37.2	23.9	<1.8	23.9	<1.5	NA	NA	NA	NA
	4/25/2011	15.8	22.5	38.3	21.7	3.45	<5	4.82	6.4	0.26	6.66	< 4	< 4	0.76	< 3	NA
	3/26/2012	66.8	42	108.8	115	21.1	32.8	30.2	31.8	<3.65	31.8	6.15	NA	NA	NA	NA
	5/16/2013	58.2	10.3	68.5	531	67.8	18.2	89.4			109	55.3				
	8/29/2013	96.5	26.5	123	310	48.4	15.2	61.5			85.7	47.9				
	11/11/2014	17	3.9	20.9	117	19.9	5.4	82.8			36.4	31.9				
	3/30/2015	43.5	7.9	51.4	46.3	12.3	6.2	36.6			23	5.2				
	6/30/2015	34	15.3	49.3	133	29.7	19	86.2			64.6	34.8				
	9/28/2015	21.6	6	27.6	69.2	14.5	4	63.8			26.4	12.6				
	3/22/2016	7.7	2.7	10.4	32.3	8.7	5.3	44.4			11.2	6.2				
	6/30/2016	16.7	9.7	26.4	83.8	26.1	10.2	73.8			46.7	21.1				
MW-3																
	12/12/1996			5300	23000	2800	<200	1400			14000	28000	NA	1100	<2000	32
	12/4/1997			4160	21000	3100	<50	460			15000	25000	NA	1100	NA	18
	12/18/2008	Screened interval filled with free product - no sample could be collected														
	well destroyed during excavation August 2009															
MW-4																
	12/12/1996			1740	92	2000	<100	350			10000	18000	NA	<100	<1000	3.8
	12/4/1997			750	4.2	120	<2.5	32			1800	940	NA	<2.5	NA	1.7
	11/10/1998			610	5.4	78	61	NA			1100	710	NA	NA	NA	NA
	12/18/2008	1.19	1.76	2.95	< 31	0.514	< 3	< 8	2.37	1	3.37	0.952	NA	NA	NA	NA
	4/25/2011	0.28	0.28	0.56	< 2	< 2	< 5	<1	< 4	< 2	< 4	< 4	< 4	< 3	< 3	NA
	9/28/2015	< 42	< 42	< 42	< 4	< 39	< 48	< 42			<1.2	< 39				
MW-10																
	12/4/1997			< 35	< 1	< 25	< 25	< 1			< 25	< 1	NA	< 25	< 25	< 89
	11/9/1998			0.28	0.17	< 22	< 16	NA			0.59	0.35	NA	NA	NA	NA
	12/18/2008	< 4	< 31	< 4	< 31	< 5	< 3	< 8	< 62	< 36	< 62	< 3	NA	NA	NA	NA
	4/25/2011	< 2	< 2	< 2	< 2	< 2	< 5	<1	< 4	< 2	< 4	< 4	< 4	< 3	< 3	NA
	9/28/2015	< 42	< 42	< 42	< 4	< 39	< 48	< 42			<1.2	< 39				
MW-11																
	12/4/1997			< 35	< 1	< 25	< 25	< 1			< 25	< 1	NA	< 25	< 25	< 89
	11/9/1998			0.38	0.49	< 22	< 16	NA			1	1.4	NA	NA	NA	NA
	12/18/2008	could not locate														
	4/25/2011	< 2	< 2	< 2	< 2	< 2	< 5	<1	< 4	< 2	< 4	< 4	< 4	< 3	< 3	NA
	9/28/2015	< 42	< 42	< 42	< 4	< 39	< 48	< 42			<1.2	< 39				
MW-12																
	12/4/1997			1900	8700	2000	<5	900			9200	14000	NA	<5	<5	20
	9/2/1998			760	6700	890	<16	NA			4700	11000	NA	NA	NA	NA
	11/10/1998			1010	7400	1100	300	NA			6400	14000	NA	NA	NA	NA
	12/18/2008	1430	376	1806	13900	1760	<6	351	6650	3150	9800	21900	NA	NA	NA	NA
	10/26/2009	2150	609	2759	14900	2220	404	551	9130	4090	13220	22700	NA	NA	NA	NA
	1/19/2010	water level too low for sample														
	4/27/2010	1320	345	1665	129000	1510	<6	453	7390	3270	10660	19900	NA	NA	NA	NA
	7/27/2010	3530	1060	4590	9790	1870	245	966	10600	5070	15670	16300	NA	NA	NA	NA
	4/25/2011	1510	382	1892	7240	931	<250	528	7090	3350	10440	14200	<200	<150	193	NA
	12/12/2011	1170	1210	2380	4450	586	<500	<1000	4850	2510	7360	9420	<400	<300	<400	NA
	3/26/2012	1600	<200	1600	8510	936	<500	<1000	6650	3220	9870	19700	<400	<300	<400	NA
	5/16/2013	1420	407	1827	5240	932	<46.4	407			9860	11400				
	8/29/2013	1210	348	1558	6130	793	<46.4	323			9100	10000				
	11/11/2014	1270	395	1665	3510	514	<19.4	318			8000	7190				
	3/30/2015	1710	486	2196	4920	835	<48.5	460			10600	10200				
	6/30/2015	1390	419	1809	4760	779	<48.5	341			9510	9710				
	9/28/2015	1310	375	1685	4750	905	<48.5	422			8760	10400				
	3/22/2016	1240	376	1616	4540	1030	<48.5	378			9170	10600				
	6/30/2016	1300	387	1687	4280	852	<24.2	380			8760	8960				

↑

or last rnd

↓ Why only 1 rnd in 2015?

MW 4, 10, 11, 13, 15, 22, 23, 24, P23, P28, P29, P2W

Benzene

Well	Date	1,2,4-TMB	1,3,5-TMB	Total TMB	Benzene	Ethylbenzene	MTBE	Naphthalene	m&p-xylene	o-xylene	Total Xylenes	Toluene	Chloromethane	1,2 DCA	EDB	Dis. Pb
NR140 ES				480	5	700	60	100			2000	800	30	5	0.05	15
NR140 PAL				96	0.5	140	12	10			400	160	3	0.5	0.005	1.5
MW-13																
	12/4/1997			< 35	< 1	< 25	<.25	< 1			< 25	< 1	NA	< 25	<.25	< 89
	11/9/1998			0.26	0.15	< 22	< 16	NA			0.59	0.2	NA	NA	NA	NA
OK	12/18/2008	<.4	<.31	< 4	< 31	<.5	<.3	< 8	< 62	< 36	< 62	< 3	NA	NA	NA	NA
	4/25/2011	<.2	< 2	< 2	< 2	< 2	< 5	<1	< 4	< 2	< 4	< 4	<.4	< 3	< 3	NA
	9/28/2015	< 42	< 42	< 42	< 4	< 39	< 48	< 42			<1.2	< 39				
MW-14																
	12/4/1997			3000	1100	2600	<25	250			12000	5900	NA	<25	<25	8.9
	6/30/1999			2600	1900	2700	<11	NA			12100	5400	NA	NA	NA	24
	12/18/2008	could not locate														
	10/26/2009	1880	954	2834	320	1020	211	415	5550	2160	7710	1360	NA	NA	NA	NA
	1/19/2010	1700	631	2331	265	1410	139	465	6480	2440	8920	1450	NA	NA	NA	NA
	4/27/2010	1360	856	2216	144	605	173	303	2700	1430	4130	788	NA	NA	NA	NA
	7/27/2010	657	305	962	157	182	72.4	183	1500	559	2059	425	NA	NA	NA	NA
	4/25/2011	667	235	902	161	982	<25	212	2820	393	3213	366	84.9	<15	<15	NA
	12/12/2011	883	378	1261	404	1280	75.2	334	3480	518	3998	357	NA	NA	NA	NA
	3/26/2012	1240	500	1740	420	1600	107	452	4570	862	5432	540	NA	NA	NA	NA
	5/16/2013	615	326	941	84.5	273	19	143			1710	182				
	8/29/2013	254	157	411	179	297	16.9	55.1			2120	374				
	11/11/2014	67.4	40.7	108.1	193	232	7.4	64.3			350	92.4				
	3/30/2015	547	213	760	266	1080	11.3	203			3960	550				
	6/30/2015	245	107	352	251	338	16.8	127			748	130				
	9/28/2015	275	117	392	224	433	6.3	141			1030	108				
	3/22/2016	738	283	1021	337	1050	12.1	297			2880	172				
	6/30/2016	684	270	954	302	790	11.8	253			2150	202				
MW-15																
	12/4/1997			< 35	< 1	< 25	<.25	< 1			< 25	< 1	NA	< 25	<.25	< 89
	9/2/1998			< 51	< 13	< 22	< 16	NA			0.34	< 2	NA	NA	NA	NA
	11/9/1998			< 51	0.15	< 22	< 16	NA			0.31	< 2	NA	NA	NA	NA
	3/16/1999			< 45	< 31	< 26	< 66	< 49			<1	< 46	NA	< 55	< 39	<1.2
OK	6/30/1999			<1.4	< 26	< 24	< 22	NA			<1.34	< 21	NA	NA	NA	<2.8
	12/18/2008	< 4	< 31	< 4	< 31	<.5	<.3	< 8	< 62	< 36	< 62	< 3	NA	NA	NA	NA
	4/25/2011	< 2	< 2	< 2	< 2	< 2	< 5	<1	< 4	< 2	< 4	< 4	< 4	< 3	< 3	NA
	9/28/2015	< 42	< 42	< 42	< 4	< 39	< 48	< 42			<1.2	< 39				
MW-16																
	12/4/1997			< 35	< 1	< 25	<.25	< 1			< 25	< 1	NA	< 25	< 25	< 89
	11/10/1998			< 51	0.17	0.36	< 16	NA			0.29	< 2	NA	NA	NA	NA
	12/18/2008	< 4	< 31	< 4	< 31	< 5	<.3	< 8	< 62	< 36	< 62	< 3	NA	NA	NA	NA
OK	10/26/2009	< 4	< 44	< 44	< 31	<.5	<.3	< 8	< 62	< 77	< 77	< 37	NA	NA	NA	NA
	1/19/2010	< 4	< 44	< 44	< 31	<.5	<.3	< 8	< 62	< 77	< 77	< 37	NA	NA	NA	NA
	4/27/2010	< 4	< 44	< 44	< 31	<.5	<.3	< 8	< 62	< 77	< 77	< 37	NA	NA	NA	NA
	7/27/2010	< 4	< 44	< 44	< 31	<.5	<.3	< 8	< 62	< 77	< 77	< 37	NA	NA	NA	NA
	4/25/2011	<.2	< 2	< 2	< 2	<.2	<.5	<1	< 4	<.2	< 4	< 4	< 4	< 3	< 3	NA
	9/28/2015	< 42	< 42	< 42	< 4	< 39	< 48	< 42			<1.2	< 39				
MW-20																
	12/4/1997			1770	1900	1200	<12	99			5700	6100	NA	<12	<12	2.2
	9/2/1998			4.6	300	23	< 16	NA			14	3.5	NA	NA	NA	NA
	11/10/1998			2	450	9.1	11	NA			4.7	2.8	NA	NA	NA	NA
	3/16/1999			1.1	110	3.1	<1.3	< 98			2.7	< 96	NA	<1.1	< 78	<1.2
	6/30/1999			4.9	290	19	<.55	NA			13.8	4.5	NA	NA	NA	3.7
	12/18/2008	could not locate														
	10/26/2009	<.4	< 44	< 44	12.7	1.3	23.5	1.85	1.49	< 77	1.49	3.41	NA	NA	NA	NA
	1/19/2010	<.4	< 44	< 44	73.8	3.84	35.2	5.92	< 62	< 77	< 77	6.97	NA	NA	NA	NA
	4/27/2010	<.4	< 4	< 44	12.1	0.72	43.1	3.07	< 62	< 77	< 77	0.83	NA	NA	NA	NA
	7/27/2010	<.4	< 44	< 44	6	<.5	31.3	< 8	< 62	< 77	< 77	5.42	NA	NA	NA	NA
Benzene	4/25/2011	<2	<2	<2	6.49	<2	<5	<10	<4	<2	<4	<4	<4	<3	<3	NA
	12/12/2011	1.36	0.912	2.272	203	16.5	31.7	6.31	2.25	< 77	2.25	3.39	NA	NA	NA	NA
	3/26/2012	<2	<2.2	<2.2	372	27.1	23.2	16.5	4.64	<3.85	4.64	3.21	NA	NA	NA	NA
	5/16/2013	<.33	<.36	< 36	39.8	2.4	9.5	1.5			<1	2.6				
	8/29/2013	0.53	< 36	0.53	213	19	6.4	8.5			3.4	2.4				
	11/11/2014	<.42	0.5	0.5	46.7	3.9	5.5	1.3			<1.2	0.59				
	3/30/2015	< 42	< 42	< 42	50.8	0.47	5.2	4.1			<1.2	0.66				
	6/30/2015	< 42	< 42	< 42	129	12.8	11.1	1.4			2.5	1.6				
	9/28/2015	0.82	< 42	0.82	250	18.8	2.4	9.1			3.1	1.5				
	3/22/2016	0.87	< 42	0.87	248	22.7	3.8	10.6			3.5	2.7				
	6/30/2016	0.45	0.44	0.89	155	12.6	4.7	6.3			2.1	1.1				
MW-21																
	12/4/1997			4.7	310	12	<1.2	<.5			120	5.7	NA	<1.2	<1.2	< 89
	9/2/1998			35.5	26	22	< 16	NA			32	67	NA	NA	NA	NA
	6/30/1999			457	17	87	<1.1	NA			356	42	NA	NA	NA	22
	12/18/2008	24.8	12.8	37.6	8.22	1.53	<.3	14.9	6.75	1.45	8.2	2.07	NA	NA	NA	NA
	10/26/2009	107	34.8	141.8	< 31	14.6	52.6	8.19	44.5	6	50.5	3.39	NA	NA	NA	NA
	1/19/2010	826	292	1118	<3.1	69.8	49.4	73.5	235	22.4	257.4	<3.7	NA	NA	NA	NA
	4/27/2010	6.23	3.37	9.6	3	<.5	8.82	2.88	< 62	< 77	< 77	1.36	NA	NA	NA	NA
OK	7/27/2010	< 4	< 44	< 44	< 31	<.5	<.3	< 8	< 62	< 77	< 77	< 37	NA	NA	NA	NA
	4/25/2011	0.3	<.2	0.3	< 2	0.27	<.5	<1	< 4	<.2	< 4	< 4	< 4	< 3	< 3	NA
	12/12/2011	3.88	2.34	6.22	5.8	5.41	10.7	7.41	1.59	1.41	3	5.52	NA	NA	NA	NA
	3/26/2012	< 4	< 44	< 44	< 31	< 5	4.61	<2	< 62	< 77	< 77	< 37	NA	NA	NA	NA
	11/11/2014	< 42	< 42	< 42	< 4	< 39	< 48	< 42			<1.2	2				
	3/30/2015	< 42	< 42	< 42	< 4	< 39	< 48	< 42			<1.2	< 39				
	6/30/2015	< 42	< 42	< 42	< 4	< 39	< 48	< 42			<1.2	< 39				
	9/28/2015	0.46	< 42	< 42	< 4	1.1	< 48	< 42			<1.2	0.45				
	3/22/2016	< 42	< 42	< 42	< 4	< 39	< 48	< 42			<1.2	< 39				
	6/30/2016	< 42	< 42	< 42	< 4	< 39	< 48	< 42			<1.2	< 39				

Well	Date	1,2,4-TMB	1,3,5-TMB	Total TMB	Benzene	Ethylbenzene	MTBE	Naphthalene	m&p-xylene	o-xylene	Total Xylenes	Toluene	Chloromethane	1,2 DCA	EDB	Dis. Pb
NR140 ES				480	5	700	60	100			2000	800	30	5	0.05	15
NR140 PAL				96	0.5	140	12	10			400	160	3	0.5	0.005	1.5
PZ-4																
	12/4/1997			520	2000	380	<5	16			1600	1500	NA	<5	<5	<.89
	9/2/1998			105	360	<2.2	<1.6	NA			310	69	NA	NA	NA	NA
	11/10/1998			18	200	17	5.9	NA			24	4.5	NA	NA	NA	NA
	3/16/1999			11.7	180	7.2	<3.3	<2.4			7.6	<2.4	NA	26	<2	<1.2
	6/30/1999			1.7	250	23	< 44	NA			5.7	3.5	NA	NA	NA	<2.8
	12/18/2008	< 4	< 31	< 4	1.37	< 5	< 3	< 8	< 62	< 36	< 62	< 3	NA	NA	NA	NA
		destroyed during 2009 excavation														
PZ-5																
	11/10/1998			6.7	18	5	< 66	< 49			23	24	NA	< 55	< 39	0.9
	3/16/1999			< 45	< 31	< 26	< 66	< 49			<1	< 48	NA	< 55	< 39	<1.2
	6/30/1999			<1.4	0.34	< 24	< 22	NA			<1.34	0.3	NA	NA	NA	<2.8
	12/18/2008	could not locate														
		destroyed during 2009 excavation														
PZ-6																
	11/9/1998			< 45	< 31	< 26	< 66	< 49			<1	< 48	NA	< 55	< 39	< 89
	6/30/1999			<1.4	< 26	< 24	< 22	NA			<1.34	< 21	NA	NA	NA	<2.8
DK	12/18/2008	< 4	< 31	< 4	< 31	< 5	< 3	< 8	< 62	< 36	< 62	< 3	NA	NA	NA	NA
	4/25/2011	< 2	< 2	< 2	< 2	< 2	< 5	<1	< 4	< 2	< 4	< 4	<4	< 3	< 3	NA
PZ-7																
	11/9/1998			< 45	< 31	< 26	< 66	< 49			<1	< 48	NA	< 55	< 39	< 89
	6/30/1999			<1.4	< 26	< 24	< 22	NA			<1.34	< 21	NA	NA	NA	<2.8
DK	12/18/2008	< 4	< 31	< 4	< 31	< 5	< 3	< 8	< 62	< 36	< 62	< 3	NA	NA	NA	NA
	4/25/2011	< 2	< 2	< 2	< 2	< 2	< 5	<1	< 4	< 2	< 4	< 4	<4	< 3	< 3	NA
PZ-8																
	11/10/1998			< 45	< 31	< 26	< 66	< 49			<1	< 48	NA	< 55	< 39	< 89
	3/16/1999			< 45	11	< 26	< 66	< 49			<1	< 48	NA	< 55	< 39	<1.2
	6/30/1999			<1.4	19	0.28	< 22	NA			<1.34	0.42	NA	NA	NA	<2.8
DK	12/18/2008	< 4	< 31	< 4	< 31	< 5	< 3	< 8	< 62	< 36	< 62	< 3	NA	NA	NA	NA
	4/25/2011	< 2	< 2	< 2	< 2	< 2	< 5	<1	< 4	< 2	< 4	< 4	<4	< 3	< 3	NA
	9/28/2015	< 42	< 42	< 42	< 4	< 39	< 48	< 42			<1.2	< 39				
PZ-9																
	11/10/1998			0.33	< 31	< 26	< 66	< 49			<1	1	NA	< 55	< 39	< 89
	3/16/1999			1.7	< 31	< 26	< 66	< 49			<1	< 48	NA	< 55	< 39	3.5
DK	6/30/1999			<1.4	< 26	< 24	< 22	NA			<1.34	< 21	NA	NA	NA	<2.8
	12/18/2008	< 4	< 31	< 4	< 31	< 5	< 3	< 8	< 62	< 36	< 62	< 3	NA	NA	NA	NA
	4/25/2011	< 2	< 2	< 2	< 2	< 2	< 5	<1	< 4	< 2	< 4	< 4	<4	< 3	< 3	NA
	9/28/2015	< 42	< 42	< 42	< 4	< 39	< 48	< 42			<1.2	< 39				
PZ-10																
	11/10/1998			0.46	7.8	< 26	< 66	< 49			3.8	0.78	NA	< 55	< 39	< 89
	3/16/1999			< 45	1.6	< 26	< 66	< 49			<1	< 48	NA	< 55	< 39	<1.2
	6/30/1999			<1.4	22	0.49	< 22	NA			0.55	0.44	NA	NA	NA	<2.8
	12/18/2008	could not locate														
	10/26/2009	< 4	< 44	< 44	< 31	< 5	< 3	< 8	< 62	< 77	< 62	< 37	NA	NA	NA	NA
	1/19/2010	< 4	< 44	< 44	< 31	< 5	< 3	< 8	< 62	< 77	< 62	< 37	NA	NA	NA	NA
	4/27/2010	< 4	< 44	< 44	< 31	< 5	< 3	< 8	< 62	< 77	< 62	< 37	NA	NA	NA	NA
	7/27/2010	< 4	< 44	< 44	< 31	< 5	< 3	< 8	< 62	< 77	< 62	< 37	NA	NA	NA	NA
	4/25/2011	< 2	< 2	< 2	< 2	< 2	< 5	<1	< 4	< 2	< 4	< 4	<4	< 3	< 3	NA
	12/12/2011	< 4	< 44	< 44	< 31	< 5	< 3	<2	< 62	< 77	< 77	< 37	NA	NA	NA	NA
	3/26/2012	< 4	< 44	< 44	0.74	< 5	< 3	<2	< 62	< 77	< 77	< 37	NA	NA	NA	NA
	5/16/2013	< 33	< 36	< 36	< 34	< 34	< 37	< 37			<1	< 34				
	8/29/2013	< 33	< 36	< 36	< 34	< 34	< 37	< 37			<1	< 34				
DK	11/11/2014	< 42	< 42	< 42	< 40	< 39	< 48	< 42			<1.2	< 39				
	3/30/2015	< 42	< 42	< 42	< 40	< 39	< 48	< 42			<1.2	< 39				
	6/30/2015	< 42	< 42	< 42	< 40	< 39	< 48	< 42			<1.2	< 39				
	9/28/2015	< 42	< 42	< 42	< 40	< 39	< 48	< 42			<1.2	< 39				
	3/22/2016	< 42	< 42	< 42	< 40	< 39	< 48	< 42			<1.2	< 39				
	6/30/2016	< 42	< 42	< 42	0.5	< 39	< 48	< 42			<1.2	< 39				
PZ-10D																
	12/12/2011	<2	<2	<2	<2	<2	<5	<10	<4	<2	<4	<4	<4	<3	<4	NA
	3/26/2012	0.26	0.25	0.51	0.43	0.44	< 5	<1	0.56	0.42	0.98	< 4	< 4	1.03	< 4	NA
	5/16/2013	1.3	< 36	< 36	< 34	< 34	< 37	< 37			<1	< 34				
	8/29/2013	0.85	< 36	0.85	< 34	< 34	< 37	< 37			<1	0.48				
	11/11/2014	< 42	< 42	< 42	< 40	< 39	< 48	< 42			<1.2	< 39				
DK	3/30/2015	< 42	< 42	< 42	< 40	< 39	< 48	< 42			<1.2	< 39				
	6/30/2015	< 42	< 42	< 42	< 40	< 39	< 48	< 42			<1.2	< 39				
	9/28/2015	< 42	< 42	< 42	< 40	< 39	< 48	< 42			<1.2	< 39				
	3/22/2016	< 42	< 42	< 42	< 40	< 39	< 48	< 42			<1.2	< 39				
	6/30/2016	< 42	< 42	< 42	< 40	< 39	< 48	< 42			<1.2	< 39				
PZ-11																
	11/9/1998			< 45	< 31	< 26	< 66	< 49			<1	< 48	NA	< 55	< 39	< 89
	6/30/1999			<1.4	< 26	< 24	< 22	NA			<1.34	< 21	NA	NA	NA	4.1
	12/18/2008	could not locate														
DK	4/25/2011	< 2	< 2	< 2	< 2	< 2	< 5	<1	< 4	< 2	< 4	< 4	<4	< 3	< 3	NA
	9/28/2015	< 42	< 42	< 42	< 4	< 39	< 48	< 42			<1.2	< 39				

Well	Date	1,2,4-TMB	1,3,5-TMB	Total TMB	Benzene	Ethylbenzene	MTBE	Naphthalene	m&p-xylene	o-xylene	Total Xylenes	Toluene	Chloromethane	1,2 DCA	EDB	Dis. Pb
NR140 ES				480	5	700	60	100			2000	800	30	5	0.05	15
NR140 PAL				96	0.5	140	12	10			400	160	3	0.5	0.005	1.5
MW-22																
	12/4/1997			< 35	< 1	< 25	< 25	< 1			< 25	< 1	NA	< 25	< 25	< 89
OK	12/18/2008	< 4	< 31	< 4	< 31	< 5	< 3	< 8	< 62	< 36	< 62	< 3	NA	NA	NA	NA
	4/25/2011	< 2	< 2	< 2	< 2	< 2	< 5	<1.	< 4	< 2	< 4	< 4	<4	< 3	< 3	NA
	9/28/2015	< 42	< 42	< 42	< 4	< 39	< 48	< 42			<1 2	< 39				
MW-23																
	11/9/1998			< 45	< 31	< 26	< 66	< 49			<1	< 48	NA	< 55	< 39	< 89
	3/16/1999			< 45	< 31	< 26	< 66	< 49			<1	< 48	NA	< 55	< 39	<1 2
OK	6/30/1999			<1 4	< 26	< 24	< 22	NA			<1 34	< 21	NA	NA	NA	<2 8
	12/18/2008	< 4	< 31	< 4	< 31	< 5	< 3	< 8	< 62	< 36	< 62	< 3	NA	NA	NA	NA
	4/25/2011	< 2	< 2	< 2	< 2	< 2	< 5	<1.	< 4	< 2	< 4	< 4	<4	< 3	< 3	NA
MW-24																
	11/10/1998			< 45	2 6	< 26	< 66	< 49			<1 0	< 48	NA	< 55	< 39	1 2
	3/16/1999			< 45	< 31	< 26	< 66	< 49			<1	< 48	NA	< 55	< 39	<1 2
OK	6/30/1999			<1 4	2 4	< 24	< 22	NA			<1 34	< 21	NA	NA	NA	6
	12/18/2008	< 4	< 31	< 4	< 31	< 5	< 3	< 8	< 62	< 36	< 62	< 3	NA	NA	NA	NA
	4/25/2011	< 2	< 2	< 2	< 2	< 2	< 5	<1.	< 4	< 2	< 4	< 4	<4	< 3	< 3	NA
	9/28/2015	< 42	< 42	< 42	< 4	< 39	< 48	< 42			<1 2	< 39				
PZ-1																
	12/12/1996			1710	35000	2400	<100	430			11000	31000	NA	2500	<1000	64
	12/4/1997			2250	21000	2800	<50	120			13000	28000	NA	<50	450	44
	11/10/1998			3 9	32	4 1	0 47	NA			20	49	NA	NA	NA	NA
	12/18/2008	1390	540	1930	9580	1580	<150	<400	6880	1280	8160	17500	NA	NA	NA	NA
		destroyed during 2009 excavation														
PZ-1R	installed 9/29/09															
	10/26/2009	1700	403	2103	22400	2550	<75	376	7850	3410	11260	18800	NA	NA	NA	NA
	1/19/2010	2330	651	2981	25200	2730	<75	1190	8960	3980	12940	16000	NA	NA	NA	NA
	4/27/2010	1340	371	1711	11600	824	<75	628	4640	2110	6750	7590	NA	NA	NA	NA
	7/27/2010	1280	330	1610	24700	2280	<75	677	6890	3280	10170	16400	NA	NA	NA	NA
	4/25/2011	1240	308	1548	23400	386	<250	<500	6260	3050	9310	15300	238	<150	765	NA
	12/12/2011	795	726	1521	13300	1000	<500	<1000	4750	2180	6930	9010	<400	NA	NA	NA
	3/26/2012	782	<200	782	8630	777	<500	<1000	3280	1550	4830	5460	<400	<300	<400	NA
	5/16/2013	1420	373	1793	9280	2150	41 2	355			8530	5510				
	8/29/2013	1350	342	1692	7500	1990	23 7	354			7990	3320				
	11/11/2014	1310	330	1640	4120	1810	<12 1	357			6620	942				
	3/30/2015	1290	311	1601	5930	1710	<24 2	332			6780	1570				
	6/30/2015	1290	337	1627	5200	2000	26 3	316			6570	1380				
	9/28/2015	1210	303	1513	2500	1650	<12 1	309			5300	709				
	3/22/2016	1180	310	1490	2330	1490	13 9	292			4900	652				
	6/30/2016	1190	304	1494	4040	1620	15 3	301			5010	738				
PZ-2																
	12/4/1997			2250	30000	2600	<50	290			12000	27000	NA	<50	<50	9 5
	9/2/1998			1100	14000	1200	<16	NA			5800	13000	NA	NA	NA	NA
	11/10/1999			750	3800	550	120	NA			2700	4400	NA	NA	NA	NA
	3/16/1999			1700	28000	2100	<660	<490			10000	25000	NA	<550	410	38
	6/30/1999			1620	27000	2200	<55	NA			9800	23000	NA	NA	NA	53
	10/26/2009	614	166	780	12900	1180	<30	198	3640	1700	5340	13800	NA	NA	NA	NA
	1/19/2010	1050	286	1336	20400	1910	<30	505	5760	2730	8490	21900	NA	NA	NA	NA
	4/27/2010	1040	267	1307	21000	2010	<30	486	6020	2940	8960	24300	NA	NA	NA	NA
	7/27/2010	1080	280	1360	18800	2030	<60	595	6150	3030	9180	22200	NA	NA	NA	NA
	4/25/2011	1130	839	1969	26900	2290	<250	<500	6890	2780	9670	29000	790	532	211	NA
	12/12/2011	618	513	1131	15800	1230	<500	<1000	4040	1600	5640	17800	<400	359	<400	NA
	3/26/2012	863	<200	863	16400	1380	<500	<1000	4180	1740	5920	18600	<400	<300	<400	NA
	5/16/2013	984	251	1235	16400	1850	<92 8	373			8360	19100				
	8/29/2013	1080	269	1349	17800	2120	<74 2	414			9300	21600				
	11/11/2014	1220	323	1543	16800	1950	<60 6	410			8900	19700				
	3/30/2015	1400	353	1753	18500	2110	<97	429			9630	21200				
	6/30/2015	1090	286	1376	18300	2130	<121	363			9150	21600				
	9/28/2015	1150	301	1451	16000	1890	<97	409			8340	18400				
	3/22/2016	989	269	1258	15400	1660	<19 4	309			8060	18900				
	6/30/2016	909	230	1139	10300	1930	<48 5	331			8440	19300				
PZ-3																
	12/4/1997			< 35	< 1	< 25	< 25	< 1			< 25	< 1	NA	< 25	< 25	< 89
	11/9/1998			< 51	< 13	< 22	< 16	NA			< 23	< 2	NA	NA	NA	NA
	12/18/2008	< 4	< 31	< 4	< 31	< 5	< 3	< 8	< 62	< 36	< 62	< 3	NA	NA	NA	NA
	4/25/2011	< 2	< 2	< 2	< 2	< 2	< 5	<1	< 4	< 2	< 4	< 4	<4	< 3	< 3	NA
	9/28/2015	< 42	< 42	< 42	< 4	< 39	< 48	< 42			<1 2	< 39				

Table 1: Post-Remedial Soil Samples

Odau Station
Westboro, Wisconsin
Meridian No. 05F754

Samples collected 8/12/09 from perimeter of excavation at 4 feet depth

Sample	1,2,4-TMB	1,3,5-TMB	Benzene	Ethylbenzene	m&p-xylene	o-xylene	Total Xylenes	MTBE	Naphthalene	Toluene
Units	*mg/kg*	*mg/kg*	*mg/kg*	*mg/kg*	*mg/kg*	*mg/kg*	*mg/kg*	*mg/kg*	*mg/kg*	*mg/kg*
S	<.013	<.018	0.078	0.069	0.189	0.069	0.258	<.011	<.018	0.424
N (near pump island)	**116**	37.4	**6.6**	**49.2**	161	73.4	234.4	<.222	**22.5**	129
ES	0.042	<.019	0.1	0.096	0.205	0.076	0.281	<.011	<.019	0.483
EM	0.04	<.02	0.064	0.085	0.169	0.064	0.233	<.012	<.02	0.322
EN	0.06	<.019	0.09	0.078	0.191	0.081	0.272	<.012	<.019	0.354
WS	0.057	<.019	0.063	0.106	0.233	0.059	0.292	<.011	<.019	0.459
WM	1.38	0.426	0.083	0.293	0.806	1	1.806	<.012	0.948	1.5
WN	0.061	<.019	0.074	0.106	0.237	0.107	0.344	<.011	<.019	0.506

NTEDC*	89.8	182	1.49	7.47			258	59.4	5.15	818
*Not To Exceed Direct Contact Limit from DNR Webpage										

Bold - concentration exceeds NTEDC

Table A.3: Post-Remedial Soil Samples

Odau Station
Westboro, Wisconsin
Meridian No. 05F754

Samples collected 8/12/09 from perimeter of excavation at 4 feet depth

Sample	1,2,4-TMB	1,3,5-TMB	Benzene	Ethylbenzene	m&p-xylene	o-xylene	Total Xylenes	MTBE	Naphthalene	Toluene
Units	*mg/kg*	*mg/kg*	*mg/kg*	*mg/kg*	*mg/kg*	*mg/kg*	*mg/kg*	*mg/kg*	*mg/kg*	*mg/kg*
S	<.013	<.018	0.078	0.069	0.189	0.069	0.258	<.011	<.018	0.424
N (near pump island)	**116**	37.4	**6.6**	**49.2**	161	73.4	234.4	<.222	**22.5**	129
ES	0.042	<.019	0.1	0.096	0.205	0.076	0.281	<.011	<.019	0.483
EM	0.04	<.02	0.064	0.085	0.169	0.064	0.233	<.012	<.02	0.322
EN	0.06	<.019	0.09	0.078	0.191	0.081	0.272	<.012	<.019	0.354
WS	0.057	<.019	0.063	0.106	0.233	0.059	0.292	<.011	<.019	0.459
WM	1.38	0.426	0.083	0.293	0.806	1	1.806	<.012	0.948	1.5
WN	0.061	<.019	0.074	0.106	0.237	0.107	0.344	<.011	<.019	0.506

NTEDC*	89.8	182	1.49	7.47			258	59.4	5.15	818
*Not To Exceed Direct Contact Limit from DNR Webpage										

Bold - concentration exceeds NTEDC

D.C.

∅

D.C. + Soil to GW pathway

1,2,4 TMB
Benzene
Ethylbenzene
Naphthalene

Soil to GW only

total xylenes
1,3,5 TMBs
Toluene

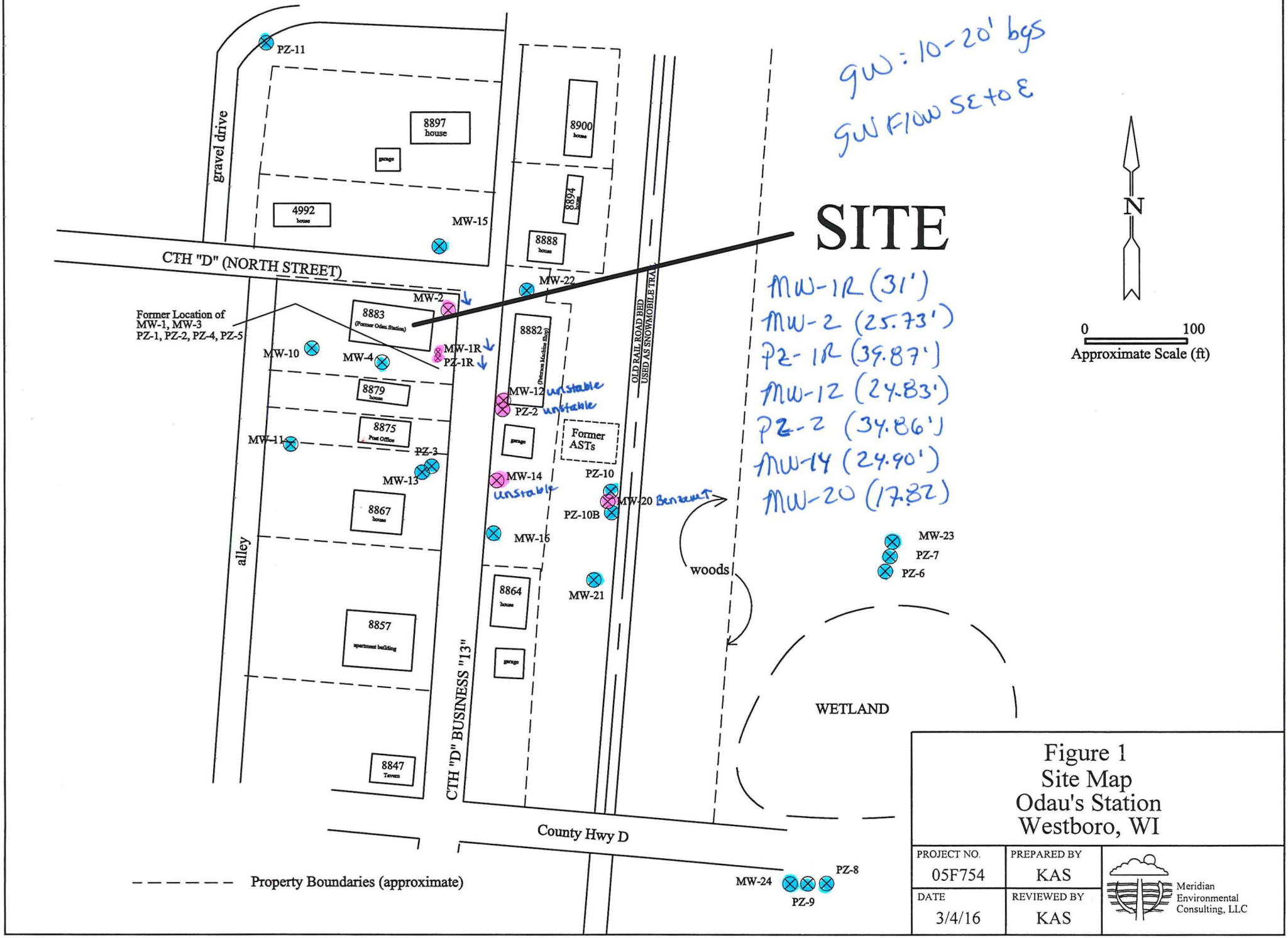


Figure 1
Site Map
Odau's Station
Westboro, WI

PROJECT NO.	PREPARED BY
05F754	KAS
DATE	REVIEWED BY
3/4/16	KAS

Meridian Environmental Consulting, LLC

APPENDIX B

Cost Estimates and Bidding Documents

Ken Shimko

From: Dan Miller <DMiller@co.lincoln.wi.us>
Sent: Tuesday, March 07, 2017 8:45 AM
To: Ken Shimko (kshimko.meridianenv@gmail.com)
Cc: Louise Fox
Subject: pricing

Ken, for petroleum impacted soil from Westboro, the landfill would charge $23 per ton. This is assuming the analytical analysis does not indicate problems with metals or high VOCs we aren't anticipating. This rate is also for an assumed 100 to 500 tons of material.

Dan Miller
Lincoln County Solid Waste Manager
801 N. Sales Street, Suite 201
Merrill, WI 54452
Phone: (715)536-9636

e-mail: dmiller@co.lincoln.wi.us

"Pollution is just a resource that is out of place" Prof. Bob Miller UWSP circa 1978

Manor Construction and remodeling LLC
501 Lake Rd.
Altoona WI 54720
(715) 456-7639

February 23, 2017

Manor Construction here by proposes to provide the materials and labor for Westboro job.

Project to include: Framing beam and support post to hold up building while excavating is being performed. Install 25'x12" double laminated beam and three temporary steel posts and brace all post with 2x6 framing to hold post. Pick up and hall all material to Westboro job site. One 12'x18" frost tube, one concrete disk, 2x6 boards, 25'x12" laminated beams and steel bottle jack posts. Return and remove all support beams and install permanent steel bottle jack post to existing steel beam. Includes all travel, mileage, tools, trailer and lodging.

Due to excavating underneath support beam area, Manor Construction cannot be Responsible for any damage to existing structure due to settling.

Total of all material and labor: $ 5,000.00

Date: _____ Respectfully Submitted_____
Per Manor Construction LLC

Acceptance of Proposal: Down payment of 1500.00 do upon acceptance of proposal and remainder upon completion of job. The above prices, specifications and conditions are satisfactory and are hereby accepted. You are authorized to do the work as specified. Payment will be as outlined above.

Date: _____ Signature: _____

Meridian Enviroment
2711 N Elco Rd.
Fall Creek WI 54742
715-579-0723
Att. Ken Shimko

March 7, 2017

Kenneth Shimko, PG
Meridian Environmental Consulting
2711 North Elco Road
Fall Creek, Wisconsin 54742
(715)579-0723 (cell)
Email: kshimko.meridianenv@gmail.com

Project: Westboro Petroleum Impacted Soil

Dear Kenneth,

Waste Management of Wisconsin is pleased to provide you with pricing for disposal per your request. Based upon the information provided, the following summarizes our quotation.

DISPOSAL FACILITY:

Timberline Trail RFD
N4581 Hutchinson Road
Weyerhaeuser, WI 54895

WASTE STREAMS

Waste Description	Petroleum Impacted Soil
Disposal Method	Bioremediation
Estimated Volume	100-500 tons
Disposal Price-	$25 per ton (4 ton min)
Wisconsin Generator Tax	WAIVED
Landfill Environmental Fee	$1.00 per ton
Disposal Fuel Surcharge	$1.00 per ton
Profile Approval Fee	$100.00 one time fee

} = $27/ton

ANALYTICAL TESTING REQUIREMENTS:
Complete and submit profile with analytical testing attached – submit online www.wmsolutions.com

SPECIAL CONDITIONS:
Waste must meet acceptability criteria at the site and comply with local, state and federal regulations, as well as the sites permit requirements. Pricing is contingent upon analytical testing and approval. Customers must have a current Waste Management Industrial Service Agreement.

Pricing is open for consideration for a period of 30 days. Upon acceptance, pricing remains in effect up to and including 60 days from the date of the quote. Pricing based solely on the information available at this time. Additional information may be required prior to approval.

Please do not hesitate to contact me at the phone number below with any questions you may have or if you require any further assistance.

Sincerely,
Lisa A Gaupp
Lisa Gaupp
Industrial Account Manager
Manufacturing & Industrial
lgaupp@wm.com
920.205.5633