



September 12, 2017

Wisconsin Department of Natural Resources

Attn: Dee Lance  
473 Griffith Avenue  
Wisconsin Rapids, WI 54494



**Subject:**

Ginseng Wisconsin  
400 Main Street  
Marathon, WI  
BRRTS#03-37-526881  
PECFA # 54448-9604-00-A

**Dear Dee:**

This letter and enclosed information will summarize the results of additional soil and air at the former Ginseng Wisconsin site in Marathon, WI. The site location is shown on Figure 1. The site layout is shown on Figure 2.

Per discussion with DNR personnel and in accordance with the approval dated August 16, 2017, REI was on site August 23, 2017 to install nine (9) geoprobe soil borings at the site. Soil samples were collected at four (4) foot intervals and field screened with a Photoionization Detector (PID) to the maximum boring depth of twelve (12) feet below land surface. Soil types were consistent with the initial investigation, consisting of sand with varying amounts of silt, clay and gravel. The soil boring logs and abandonment forms are included in Attachment A. Boring locations are shown on Figure 2.

Soil samples were submitted at four (4) foot intervals for laboratory analysis of Petroleum Volatile Organic Compounds (PVOCs) and Polynuclear Aromatic Hydrocarbons (PAH). A total of eighteen (18) samples were analyzed. The results of additional soil sampling are summarized on Table 1, and confirm soil contamination in the direct contact zone at the site. The complete analytical report is in Attachment B.

**Conclusions and Recommendations**

Site redevelopment is proposed for the entire parcel. Given the extent of soil contamination, and lack of structures on the site, source removal appears to be an appropriate remedial remedy and could be conducted in conjunction with redevelopment activities. Any soil needing to be removed during redevelopment should be handled and disposed of as a solid waste. Confirmation sampling should be completed in an effort to accurately depict the location of any remaining



**RESPONSIVE. EFFICIENT. INNOVATIVE.**

4080 N. 20th Avenue Wausau, WI 54401  
715-675-9784 [www.REIengineering.com](http://www.REIengineering.com)

Lang Properties Ltd Partnership  
Attn: Mr. Paul Lang  
August 2017

contaminated soil. If source removal is not deemed necessary, the WDNR should consider closure with a GIS registry on the residual soil and groundwater contamination.

Thank you for your assistance with this project. Please contact REI with questions or to discuss further at (715) 675-9784 or [mrahn@reiengineering.com](mailto:mrahn@reiengineering.com).

Sincerely,  
REI Engineering, Inc.

A handwritten signature in black ink that reads "Matthew W. Rahn". The signature is written in a cursive style with a long horizontal flourish at the end.

Matthew W. Rahn  
Senior Environmental Scientist

cc: Diana Schira, P.O. Box 266, Mosinee, WI 54455

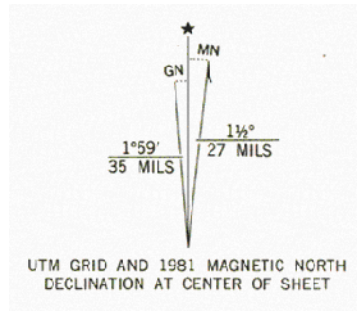
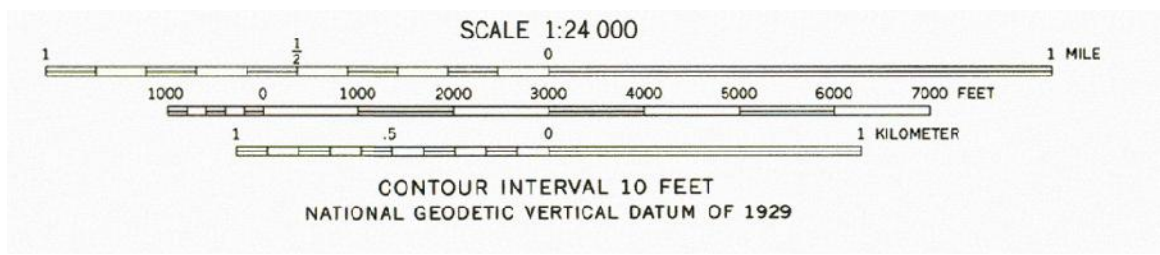
**TABLE 1  
SOIL ANALYTICAL RESULTS SUMMARY  
GINSENG WISCONSIN  
400 MAIN STREET  
MARATHON, WI**

Date-->			8/23/17	8/23/17	8/23/17	8/23/17	8/23/17	8/23/17	8/23/17	8/23/17	8/23/17	8/23/17	8/23/17	8/23/17	8/23/17	8/23/17	8/23/17	8/23/17	8/23/17	
Sample-->			GP-1B	GP-1B	GP-2B	GP-2B	GP-3B	GP-3B	GP-4B	GP-4B	GP-5B	GP-5B	GP-6B	GP-6B	GP-7B	GP-7B	GP-8B	GP-8B	GP-9B	GP-9B
Sample Depth--(Feet)>			0-4'	8-12'	0-4'	8-12'	0-4'	4-6'	0-4'	4-8'	0-4'	8-10'	0-4'	8-10'	0-4'	8-11'	0-4'	8-11'	0-4'	8-12'
Sampler-->			REI	REI	REI	REI	REI	REI	REI	REI	REI	REI	REI	REI	REI	REI	REI	REI	REI	REI
	Non-Industrial Not-To-Exceed DC RCL	NR 140 Groundwater Pathway Protection (DF=2)																		
<b>PVOC (µg/Kg)</b>																				
Benzene	1,600	5.1	<b>135</b>	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
Ethylbenzene	8,020	1,570	147	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
Toluene	818,000	1,107.2	551	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
Xylenes (Total)	260,000	3,960	2,821	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	48.5 J	<50.0	<50.0	<50.0	<50.0	<50.0
Methyl-tert-Butyl-Ether (MTBE)	63,800	27	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
1,2,4- Trimethylbenzene	219,000	NA	686	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
1,3,5- Trimethylbenzene	182,000	NA	285	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
Total Trimethylbenzenes	NA	1,382.1	971	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
<b>PAH (µg/Kg)</b>																				
Acenaphthene	3,590,000	NS	<4.8	<4.8	<4.2	<4.8	<4.5	<4.5	<4.4	<4.8	<4.6	<4.8	<4.2	<4.7	<4.1	<4.7	<4.1	<4.5	<4.6	<4.6
Acenaphthylene	NS	NS	27.1	<4.1	<3.6	<4.1	29.3	<3.8	<3.7	<4.1	<3.9	<4.1	3.8 J	<4.0	3.8 J	<4.0	<3.5	<3.8	<3.9	<3.9
Anthracene	17,900,000	196,949.2	20.2 J	<7.1	<6.2	<7.1	16.9 J	<6.6	<6.4	<7.1	<6.8	<7.1	<6.2	<6.8	<6.1	<6.9	<6.1	<6.6	<6.8	<6.8
Benzo(a)anthracene	2,110	NS	49.2	<3.9	<3.4	<3.9	52.4	<3.7	4.1 J	<3.9	8.6 J	<3.9	14.4	<3.8	29.3	<3.8	37.1	<3.7	<3.8	<3.8
Benzo(a)pyrene	1,140	20,800.0	74.6	<3.1	<2.7	<3.1	77.1	<2.9	5.4 J	<3.1	6.0 J	<3.1	13.9	<3.0	32.1	3.1 J	37.1	<2.9	<3.0	<3.0
Benzo(b)fluoranthene	1,150	479.3	108	<3.5	<3.1	<3.5	98.5	<3.3	6.2 J	<3.5	7.6 J	<3.5	18.5	<3.4	40.1	<3.4	41.7	<3.3	<3.4	<3.3
Benzo(g,h,i)perylene	NS	NS	103	<2.5	<2.2	<2.5	88.8	<2.4	15.2	<2.5	3.6 J	<2.5	12.6	<2.4	23.8	<2.5	26.9	<2.4	<2.4	<2.4
Benzo(k)fluoranthene	11,500	NS	40.2	<3.1	<2.7	<3.1	33.9	<2.9	<2.8	<3.1	3.6 J	<3.1	7.6 J	<3.0	14.4	<3.0	15.3	<2.9	<3.0	<3.0
Chrysene	115,000	144.6	80.4	<4.2	<3.7	<4.2	72.1	<3.9	3.8 J	<4.2	6.4 J	<4.2	16.2	<4.0	41.4	<4.1	48.3	<3.9	<4.0	<4.0
Dibenz(a,h)anthracene	115,000	NS	20.3	<2.8	<2.4	<2.8	15.5	<2.6	<2.5	<2.8	<2.7	<2.8	<2.4	<2.7	6.2 J	<2.7	6.7 J	<2.6	<2.7	<2.6
Fluoranthene	2,390,000	88,877.8	64.6	<6.4	<5.7	<6.4	111	<6.0	6.5 J	<6.4	13.2 J	<6.4	22.4	<6.2	51.5	<6.3	52.2	<6.1	<6.2	<6.2
Fluorene	2,390,000	14,829.9	6.6 J	<5.1	<4.5	<5.1	5.6 J	<4.8	<4.7	<5.1	<4.9	<5.1	<4.5	<5.0	<4.4	<5.0	<4.4	<4.8	<4.9	<4.9
Indeno(1,2,3-cd)pyrene	148	NS	74.4	<2.7	<2.4	<2.7	71	<2.5	3.9 J	<2.7	2.9 J	<2.7	8.8	<2.6	17.4	<2.7	19	<2.6	<2.6	<2.6
1-Methylnaphthalene	17,600	NS	203	<5.0	<4.4	<5.0	<4.7	<4.7	<4.5	<5.0	<4.8	<5.0	4.6 J	<4.8	5.7 J	<4.9	6.4 J	<4.7	<4.8	<4.8
2-Methylnaphthalene	239,000	NS	378	<6.2	<5.4	<6.2	6.2 J	<5.8	<5.6	<6.2	<6.0	<6.2	5.6 J	<6.0	6.8 J	<6.0	7.3 J	<5.8	<6.0	<5.9
Naphthalene	5,520	658.2	342	<10.4	<9.1	<10.4	14.6 J	<9.7	<9.5	<10.4	<10.1	<10.4	<9.1	<10.1	<8.9	<10.2	<9.0	<9.8	<10.1	<10
Phenanthrene	NS	NS	76.4	<14.4	<12.6	<14.4	60.4	<13.5	<13.1	<14.4	<13.9	<14.4	<12.6	<14.0	29.0 J	<14.1	24.7 J	<13.5	<13.9	<13.8
Pyrene	1,790,000	54,545.5	75.1	<5.6	<4.9	<5.6	104	<5.2	7.0 J	<5.6	11.4 J	<5.6	22.7	<5.4	63.6	<5.4	79.9	<5.2	<5.4	<5.3

**Notes:**  
 NR720 Standards Obtained From WDNR Online Excel Database  
 RCL - NR 720 Proposed Soil Residual Contaminant Level  
 DC - Direct Contact  
 < - Concentration below listed laboratory detection limit  
 NS - No Standard  
 J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.  
 PAHs - Polynuclear Aromatic Compounds  
 NA- Not Analyzed

**Bold** Exceeds Industrial Not-To-Exceed DC RCL  
**Outline** Exceeds NR 140 Groundwater Pathway Protection

DRAWING FILE: P:\5400-5499\5454-GINSENG\DWG\5454-VICN.DWG LAYOUT: VICN PLOTTED: FEB 14, 2014 - 10:47AM PLOTTED BY: NATHANP



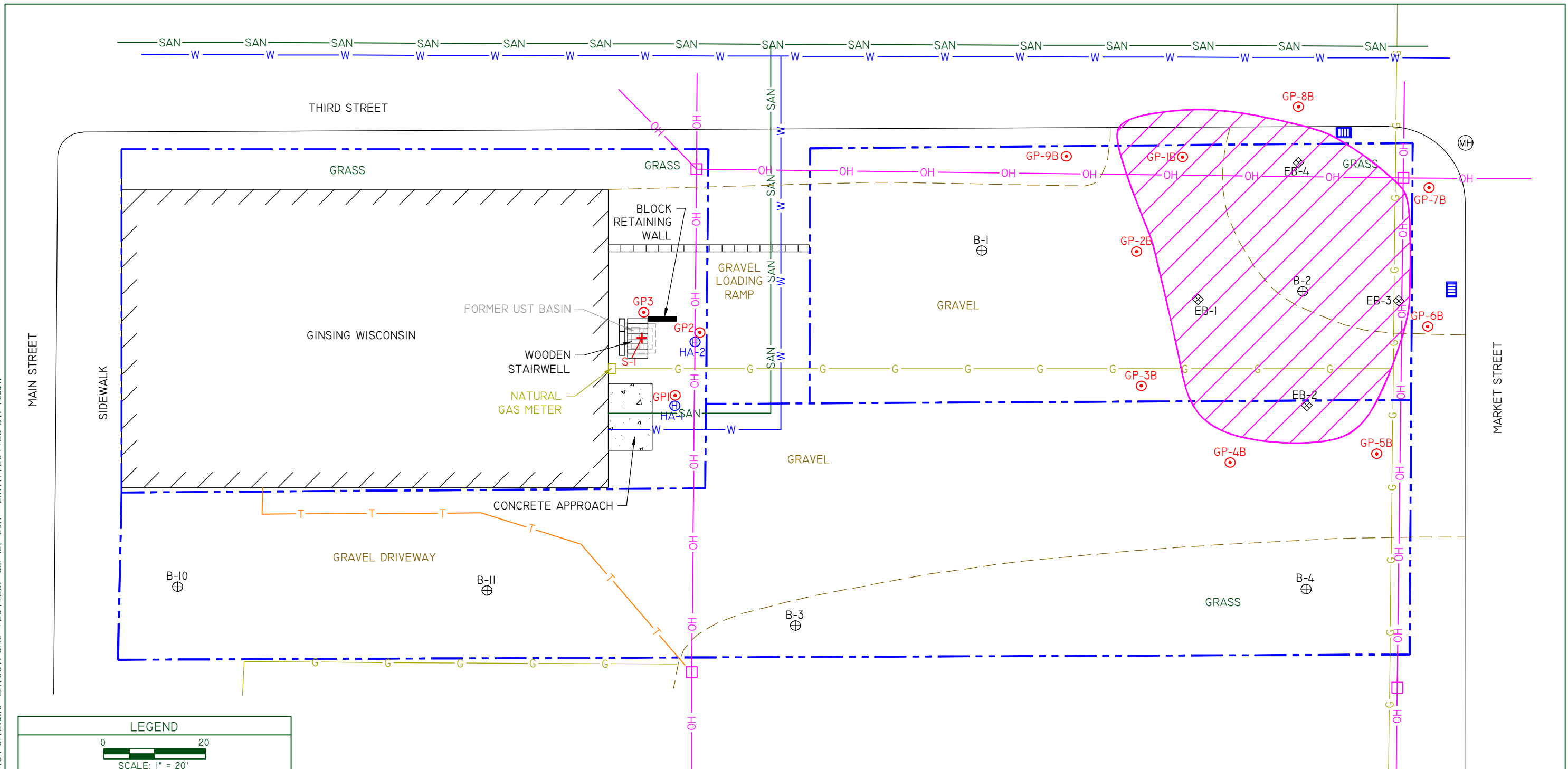
**MARATHON, WIS.**  
NE/4 MARATHON 15' QUADRANGLE  
N4452.5 - W8945/7.5  
1981  
DMA 3073 IV NE--SERIES V861



*REI Engineering, INC.*

GINSENG WISCONSIN 400 MAIN STREET MARATHON, WISCONSIN		FIGURE B.1.a: LOCATION MAP	
PROJECT NO.	5454	DRAWN BY:	DATE:
		NAP	10/21/10

DRAWING FILE: P:\5400-5409\5454-GINSENG\DWG\5454-SITE.DWG LAYOUT: SITE PLOTTED: SEP 12, 2017 - 2:17PM PLOTTED BY: ToddW



**LEGEND**

0 20  
SCALE: 1" = 20'

- AREA OF SOIL CONTAMINATION  $\geq$  NR 720 RCL
- GEOTECH SOIL BORING (BY OTHERS)
- HAND AUGER SOIL BORING
- SOIL SAMPLE (BY OTHERS)
- GEOPROBE SOIL BORING
- ENVIRONMENTAL SOIL BORING (BY OTHERS)
- STORM DRAIN
- MANHOLE
- UTILITY POLE
- APPROXIMATE PROPERTY LINE
- GAS LINE
- SANITARY SEWER LINE
- WATER LINE
- OVERHEAD UTILITIES
- TELEPHONE LINE



<p><b>REI</b> CIVIL &amp; ENVIRONMENTAL ENGINEERING, SURVEYING</p>	GINSING WISCONSIN 400 MAIN STREET MARATHON, WISCONSIN	
	FIGURE 2 : SITE MAP	
PROJECT No. 5454Axuc	DRAWN BY: TAW	DATE: 9/12/2017

REI Engineering, INC.

**Notice:** Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and chs. NR 141 and 812, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between \$10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

**Route to DNR Bureau:**

**Verification Only of Fill and Seal**

- Drinking Water       Watershed/Wastewater       Remediation/Redevelopment  
 Waste Management       Other: \_\_\_\_\_

**1. Well Location Information**      **2. Facility / Owner Information**

County Marathon		WI Unique Well # of Removed Well GP-1B		Hicap #		Facility Name Ginseng Wisconsin	
Latitude / Longitude (see instructions) _____ N _____ W		Format Code <input type="checkbox"/> DD <input type="checkbox"/> DDM		Method Code <input type="checkbox"/> GPS008 <input type="checkbox"/> SCR002 <input type="checkbox"/> OTH001		Facility ID (FID or PWS)	
1/4 / 1/4 or Gov't Lot #		Section		Township N		Range <input type="checkbox"/> E <input type="checkbox"/> W	
Well Street Address 400 Main Street				Present Well Owner Same			
Well City, Village or Town Village of Marathon				Well ZIP Code 54448			
Subdivision Name				Lot #		Mailing Address of Present Owner P.O. Box 266	
Reason for Removal from Service Sampling complete				WI Unique Well # of Replacement Well		City of Present Owner Mosinee	
						State WI	
						ZIP Code 54455	

**3. Filled & Sealed Well / Drillhole / Borehole Information**

Monitoring Well  
 Water Well  
 Borehole / Drillhole

Original Construction Date (mm/dd/yyyy)  
08/23/2017

If a Well Construction Report is available, please attach.

Construction Type:  
 Drilled       Driven (Sandpoint)       Dug  
 Other (specify): Direct push - geoprobe

Formation Type:  
 Unconsolidated Formation       Bedrock

Total Well Depth From Ground Surface (ft.) 12	Casing Diameter (in.)
Lower Drillhole Diameter (in.) 2.0	Casing Depth (ft.)

Was well annular space grouted?     Yes     No     Unknown

If yes, to what depth (feet)?      Depth to Water (feet)  
 >12 feet

**4. Pump, Liner, Screen, Casing & Sealing Material**

Pump and piping removed?     Yes     No     N/A  
 Liner(s) removed?                 Yes     No     N/A  
 Liner(s) perforated?               Yes     No     N/A  
 Screen removed?                   Yes     No     N/A  
 Casing left in place?               Yes     No     N/A

Was casing cut off below surface?     Yes     No     N/A  
 Did sealing material rise to surface?     Yes     No     N/A  
 Did material settle after 24 hours?     Yes     No     N/A  
     If yes, was hole retopped?         Yes     No     N/A  
 If bentonite chips were used, were they hydrated with water from a known safe source?     Yes     No     N/A

Required Method of Placing Sealing Material  
 Conductor Pipe-Gravity     Conductor Pipe-Pumped  
 Screened & Poured (Bentonite Chips)     Other (Explain): \_\_\_\_\_

Sealing Materials  
 Neat Cement Grout                       Concrete  
 Sand-Cement (Concrete) Grout         Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:  
 Bentonite Chips                       Bentonite - Cement Grout  
 Granular Bentonite                       Bentonite - Sand Slurry

**5. Material Used to Fill Well / Drillhole**

	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
3/8" Holeplug Bentonite	Surface	12	0.4 bags	

**6. Comments**

**7. Supervision of Work**

Name of Person or Firm Doing Filling & Sealing Geiss Soil & Samples / REI - Matt Rahn		License #	Date of Filling & Sealing or Verification (mm/dd/yyyy) 08/23/2017	<b>DNR Use Only</b>	
				Date Received	Noted By
Street or Route 4080 N. 20th Avenue			Telephone Number ( 715 ) 675-9784	Comments	
City Wausau	State WI	ZIP Code 54401	Signature of Person Doing Work <i>Matthew W. Rahn</i>		Date Signed 08/23/2017

Route To:  Watershed/Wastewater  Waste Management   
 Remediation/Redevelopment  Other

Facility/Project Name Ginseng Wisconsin		License/Permit/Monitoring Number 03-37-526881		Boring Number GP-1B	
Boring Drilled By: Name of crew chief (first, last) and Firm Geiss Soil & Samples, LLC			Date Drilling Started 08/23/2017	Date Drilling Completed 08/23/2017	Drilling Method Hydraulic push
WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation 0	Borehole Diameter 2.0 inches <small>&gt;-1B</small>
Local Grid Origin <input type="checkbox"/> (estimated) <input type="checkbox"/> or Boring Location <input checked="" type="checkbox"/> State Plane			Lat	Local Grid Location N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W <input type="checkbox"/>	
Facility ID		County Marathon	County Code 37	Civil Town/City/or Village Village of Marathon	

Sample Number	Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/ Rock Description And Geologic Origin For Each Major Unit	U.S.C.S.	Graphic	Well	PID/FID	Soil Properties					RQD/ Comments
										Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
SS1	SS	24"		1	Sand gravel Brown, fill type material, crushed granite	GW			0.0						
				2	Sandy silt Dark brown with trace clay	SM									
SS2	SS	42"		5	Sand Dark brown, fine to medium grained, wet				0.4						
SS3	SS	48"		10		SW			0.1						
				12	Probe refusal @ 12' bls										

I hereby certify that the information on this form is true and the correct to the best of my knowledge

Signature <i>Matthew W. Park</i>	Firm REI Engineering, Inc. 4080 North 20th Avenue, Wausau, WI
----------------------------------	--

This form is authorized by Chapters 281,283,289,292,293,295, and 299, Wis. Stats. Completion of this form is mandatory. Failure to file this form may result in forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.

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**Verification Only of Fill and Seal**

**Route to DNR Bureau:**

- Drinking Water       Watershed/Wastewater       Remediation/Redevelopment  
 Waste Management       Other: \_\_\_\_\_

**1. Well Location Information**      **2. Facility / Owner Information**

County Marathon		WI Unique Well # of Removed Well GP-2B		Hicap #		Facility Name Ginseng Wisconsin	
Latitude / Longitude (see instructions) _____ N _____ W		Format Code <input type="checkbox"/> DD <input type="checkbox"/> DDM		Method Code <input type="checkbox"/> GPS008 <input type="checkbox"/> SCR002 <input type="checkbox"/> OTH001		Facility ID (FID or PWS)	
1/4 / 1/4 or Gov't Lot #		Section		Township N		Range <input type="checkbox"/> E <input type="checkbox"/> W	
Well Street Address 400 Main Street				Present Well Owner Same			
Well City, Village or Town Village of Marathon				Well ZIP Code 54448			
Subdivision Name				Lot #		Mailing Address of Present Owner P.O. Box 266	
Reason for Removal from Service Sampling complete				WI Unique Well # of Replacement Well		City of Present Owner Mosinee	
						State WI	
						ZIP Code 54455	

**3. Filled & Sealed Well / Drillhole / Borehole Information**

Monitoring Well  
 Water Well  
 Borehole / Drillhole

Original Construction Date (mm/dd/yyyy)  
08/23/2017

If a Well Construction Report is available, please attach.

Construction Type:

Drilled       Driven (Sandpoint)       Dug  
 Other (specify): Direct push - geoprobe

Formation Type:

Unconsolidated Formation       Bedrock

Total Well Depth From Ground Surface (ft.)  
12

Casing Diameter (in.)

Lower Drillhole Diameter (in.)  
2.0

Casing Depth (ft.)

Was well annular space grouted?       Yes       No       Unknown

If yes, to what depth (feet)?

Depth to Water (feet)  
>12 feet

**5. Material Used to Fill Well / Drillhole**

	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
3/8" Holeplug Bentonite	Surface	12	0.4 bags	

**6. Comments**

**7. Supervision of Work**

Name of Person or Firm Doing Filling & Sealing Geiss Soil & Samples / REI - Matt Rahn		License #	Date of Filling & Sealing or Verification (mm/dd/yyyy) 08/23/2017	<b>DNR Use Only</b>	
Street or Route 4080 N. 20th Avenue		City Wausau	State WI	ZIP Code 54401	Date Received
Telephone Number ( 715 ) 675-9784		Signature of Person Doing Work <i>Matthew W. Rahn</i>		Noted By	
City Wausau		State WI	ZIP Code 54401	Comments	
City Wausau		State WI	ZIP Code 54401	Date Signed 08/23/2017	



Route To:  Watershed/Wastewater  Waste Management   
 Remediation/Redevelopment  Other

Facility/Project Name Ginseng Wisconsin		License/Permit/Monitoring Number 03-37-526881		Boring Number GP-2B	
Boring Drilled By: Name of crew chief (first, last) and Firm Geiss Soil & Samples, LLC			Date Drilling Started 08/23/2017	Date Drilling Completed 08/23/2017	Drilling Method Hydraulic push
WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation 0	Borehole Diameter 2.0 inches <small>&gt;-2B</small>
Local Grid Origin <input type="checkbox"/> (estimated) <input type="checkbox"/> or Boring Location <input checked="" type="checkbox"/> State Plane			Lat	Local Grid Location N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W <input type="checkbox"/>	
Facility ID		County Marathon	County Code 37	Civil Town/City/or Village Village of Marathon	

Sample Number	Sample Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/ Rock Description And Geologic Origin For Each Major Unit	U.S.C.S.	Graphic	Well	PID/FID	Soil Properties					RQD/ Comments
										Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
SS1	SS	24"		1	Sand gravel Brown, fill type material, crushed granite	GW			0.4						
SS2	SS	48"		4	Sand Brown, fine to medium grained	SW			0.1						
SS3	SS	48"		10					0.0						
				12	Weathered bedrock Granite	WBrx									
				12	Probe refusal @ 12' bls										

I hereby certify that the information on this form is true and the correct to the best of my knowledge

Signature <i>Matthew W. Park</i>	Firm REI Engineering, Inc. 4080 North 20th Avenue, Wausau, WI
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**Verification Only of Fill and Seal**

**Route to DNR Bureau:**

- Drinking Water       Watershed/Wastewater       Remediation/Redevelopment  
 Waste Management       Other: \_\_\_\_\_

**1. Well Location Information**      **2. Facility / Owner Information**

County Marathon		WI Unique Well # of Removed Well GP-3B		Hicap #		Facility Name Ginseng Wisconsin	
Latitude / Longitude (see instructions) _____ N _____ W		Format Code <input type="checkbox"/> DD <input type="checkbox"/> DDM		Method Code <input type="checkbox"/> GPS008 <input type="checkbox"/> SCR002 <input type="checkbox"/> OTH001		Facility ID (FID or PWS)	
1/4 / 1/4 or Gov't Lot #		Section		Township N		Range <input type="checkbox"/> E <input type="checkbox"/> W	
Well Street Address 400 Main Street				Present Well Owner Same			
Well City, Village or Town Village of Marathon				Well ZIP Code 54448			
Subdivision Name				Lot #		Mailing Address of Present Owner P.O. Box 266	
Reason for Removal from Service Sampling complete				WI Unique Well # of Replacement Well			
City of Present Owner Mosinee		State WI		ZIP Code 54455			

**3. Filled & Sealed Well / Drillhole / Borehole Information**

Monitoring Well  
 Water Well  
 Borehole / Drillhole

Original Construction Date (mm/dd/yyyy)  
08/23/2017

If a Well Construction Report is available, please attach.

Construction Type:

Drilled       Driven (Sandpoint)       Dug  
 Other (specify): Direct push - geoprobe

Formation Type:

Unconsolidated Formation       Bedrock

Total Well Depth From Ground Surface (ft.)  
6

Casing Diameter (in.)

Lower Drillhole Diameter (in.)  
2.0

Casing Depth (ft.)

Was well annular space grouted?       Yes       No       Unknown

If yes, to what depth (feet)?

Depth to Water (feet)  
>6 feet

**4. Pump, Liner, Screen, Casing & Sealing Material**

Pump and piping removed?       Yes       No       N/A  
 Liner(s) removed?       Yes       No       N/A  
 Liner(s) perforated?       Yes       No       N/A  
 Screen removed?       Yes       No       N/A  
 Casing left in place?       Yes       No       N/A  
 Was casing cut off below surface?       Yes       No       N/A  
 Did sealing material rise to surface?       Yes       No       N/A  
 Did material settle after 24 hours?       Yes       No       N/A  
 If yes, was hole retopped?       Yes       No       N/A  
 If bentonite chips were used, were they hydrated with water from a known safe source?       Yes       No       N/A

Required Method of Placing Sealing Material

Conductor Pipe-Gravity       Conductor Pipe-Pumped  
 Screened & Poured (Bentonite Chips)       Other (Explain): \_\_\_\_\_

Sealing Materials

Neat Cement Grout       Concrete  
 Sand-Cement (Concrete) Grout       Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:

Bentonite Chips       Bentonite - Cement Grout  
 Granular Bentonite       Bentonite - Sand Slurry

**5. Material Used to Fill Well / Drillhole**

	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
3/8" Holeplug Bentonite	Surface	6	0.2 bags	




**6. Comments**

**7. Supervision of Work**

Name of Person or Firm Doing Filling & Sealing Geiss Soil & Samples / REI - Matt Rahn		License #	Date of Filling & Sealing or Verification (mm/dd/yyyy) 08/23/2017	<b>DNR Use Only</b>	
Street or Route 4080 N. 20th Avenue		City Wausau	State WI	ZIP Code 54401	Telephone Number ( 715 ) 675-9784
Signature of Person Doing Work <i>Matthew W. Rahn</i>			Date Received	Noted By	
City Wausau			State WI	ZIP Code 54401	Comments
Signature of Person Doing Work <i>Matthew W. Rahn</i>			Date Signed 08/23/2017		

Route To:  Watershed/Wastewater  Waste Management   
 Remediation/Redevelopment  Other

Facility/Project Name Ginseng Wisconsin		License/Permit/Monitoring Number 03-37-526881		Boring Number GP-3B	
Boring Drilled By: Name of crew chief (first, last) and Firm Geiss Soil & Samples, LLC			Date Drilling Started 08/23/2017	Date Drilling Completed 08/23/2017	Drilling Method Hydraulic push
WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation 0	Borehole Diameter 2.0 inches <span style="float:right">-&gt;3B</span>
Local Grid Origin <input type="checkbox"/> (estimated) <input type="checkbox"/> or Boring Location <input checked="" type="checkbox"/> State Plane			Lat	Local Grid Location N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W <input type="checkbox"/>	
Facility ID		County Marathon	County Code 37	Civil Town/City/or Village Village of Marathon	

Sample				Depth In Feet	Soil/ Rock Description And Geologic Origin For Each Major Unit	U.S.C.S.	Graphic	Well	PID/FID	Soil Properties					RQD/ Comments
Number	Type	Length Att. & Recovered (in)	Blow Counts							Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
SS1	SS	36"		1	Sand and gravel Brown, fill type material, crushed granite	GW			0.0						
				2											
				3	Sandy silt Dark brown to black	ML									
SS2	SS	24"		4	Sand Dark brown, fine to medium grained	SW			0.0						
				5											
				6	Probe refusal @ 6 feet bls										
				7											
				8											
				9											
				10											
				11											
				12											
				13											
				14											
				15											
				16											

I herby certify that the information on this form is true and the correct to the best of my knowledge

Signature <i>Matthew W. Reah</i>	Firm <b>REI Engineering, Inc.</b> 4080 North 20th Avenue, Wausau, WI
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Verification Only of Fill and Seal

Route to DNR Bureau:

- Drinking Water
- Watershed/Wastewater
- Remediation/Redevelopment
- Waste Management
- Other: \_\_\_\_\_

**1. Well Location Information**

County Marathon	WI Unique Well # of Removed Well GP-4B	Hicap #
Latitude / Longitude (see instructions) _____ N _____ W	Format Code <input type="checkbox"/> DD <input type="checkbox"/> DDM	Method Code <input type="checkbox"/> GPS008 <input type="checkbox"/> SCR002 <input type="checkbox"/> OTH001
1/4 / 1/4 or Gov't Lot #	Section	Township N
Well Street Address 400 Main Street	Range <input type="checkbox"/> E <input type="checkbox"/> W	Well ZIP Code 54448
Well City, Village or Town Village of Marathon	Subdivision Name	Lot #

**2. Facility / Owner Information**

Facility Name Ginseng Wisconsin		
Facility ID (FID or PWS)		
License/Permit/Monitoring #		
Original Well Owner American Ginseng, LLC		
Present Well Owner Same		
Mailing Address of Present Owner P.O. Box 266		
City of Present Owner Mosinee	State WI	ZIP Code 54455

Reason for Removal from Service Sampling complete	WI Unique Well # of Replacement Well
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**3. Filled & Sealed Well / Drillhole / Borehole Information**

<input type="checkbox"/> Monitoring Well	Original Construction Date (mm/dd/yyyy) 08/23/2017
<input type="checkbox"/> Water Well	
<input checked="" type="checkbox"/> Borehole / Drillhole	If a Well Construction Report is available, please attach.
Construction Type: <input type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug <input checked="" type="checkbox"/> Other (specify): Direct push - geoprobe	
Formation Type: <input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock	
Total Well Depth From Ground Surface (ft.) 10	Casing Diameter (in.)
Lower Drillhole Diameter (in.) 2.0	Casing Depth (ft.)
Was well annular space grouted? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown	
If yes, to what depth (feet)?	Depth to Water (feet) >10 feet

**4. Pump, Liner, Screen, Casing & Sealing Material**

Pump and piping removed?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
Liner(s) removed?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Liner(s) perforated?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> N/A
Screen removed?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
Casing left in place?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
Was casing cut off below surface?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
Did sealing material rise to surface?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Did material settle after 24 hours?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> N/A
If yes, was hole retopped?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
Required Method of Placing Sealing Material			
<input type="checkbox"/> Conductor Pipe-Gravity <input type="checkbox"/> Conductor Pipe-Pumped			
<input checked="" type="checkbox"/> Screened & Poured (Bentonite Chips) <input type="checkbox"/> Other (Explain): _____			
Sealing Materials			
<input type="checkbox"/> Neat Cement Grout <input type="checkbox"/> Concrete			
<input type="checkbox"/> Sand-Cement (Concrete) Grout <input type="checkbox"/> Bentonite Chips			
For Monitoring Wells and Monitoring Well Boreholes Only:			
<input checked="" type="checkbox"/> Bentonite Chips <input type="checkbox"/> Bentonite - Cement Grout			
<input type="checkbox"/> Granular Bentonite <input type="checkbox"/> Bentonite - Sand Slurry			

**5. Material Used to Fill Well / Drillhole**

	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
3/8" Holeplug Bentonite	Surface	10	0.3 bags	

**6. Comments**

**7. Supervision of Work**

Name of Person or Firm Doing Filling & Sealing Geiss Soil & Samples / REI - Matt Rahn	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy) 08/23/2017	<b>DNR Use Only</b>	
			Date Received	Noted By
Street or Route 4080 N. 20th Avenue		Telephone Number ( 715 ) 675-9784	Comments	
City Wausau	State WI	ZIP Code 54401	Signature of Person Doing Work <i>Matthew W. Rahn</i>	Date Signed 08/23/2017

Route To:  Watershed/Wastewater  Waste Management   
 Remediation/Redevelopment  Other

Facility/Project Name Ginseng Wisconsin		License/Permit/Monitoring Number 03-37-526881		Boring Number GP-4B	
Boring Drilled By: Name of crew chief (first, last) and Firm Geiss Soil & Samples, LLC			Date Drilling Started 08/23/2017	Date Drilling Completed 08/23/2017	Drilling Method Hydraulic push
WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation 0	Borehole Diameter 2.0 inches <span style="float:right">-&gt;4B</span>
Local Grid Origin <input type="checkbox"/> (estimated) <input type="checkbox"/> or Boring Location <input checked="" type="checkbox"/> State Plane			Lat	Local Grid Location N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W <input type="checkbox"/>	
Facility ID		County Marathon	County Code 37	Civil Town/City/or Village Village of Marathon	

Sample Number	Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/ Rock Description And Geologic Origin For Each Major Unit	U.S.C.S.	Graphic	Well	PID/FID	Soil Properties					RQD/ Comments
										Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
SS1	SS	24"		1	Sand and gravel Brown, fill type material, crushed granite	GW			0.0						
				2											
SS2	SS	36"		3	Sandy silt Dark brown to black	ML									
				4											
SS3	SS	24"		5	Sandy clay Grey / brown	SC			0.0						
				6											
				7	Sand Brown, fine to medium grained	SW			0.0						
				8											
				9	Probe refusal @ 10 feet bls										
			10												
				11	Probe refusal @ 10 feet bls										
			12												
			13												
			14												
			15												
			16												

I hereby certify that the information on this form is true and the correct to the best of my knowledge

Signature <i>Matthew W. Park</i>	Firm <b>REI Engineering, Inc.</b> 4080 North 20th Avenue, Wausau, WI
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**Verification Only of Fill and Seal**

**Route to DNR Bureau:**

- Drinking Water       Watershed/Wastewater       Remediation/Redevelopment  
 Waste Management       Other: \_\_\_\_\_

**1. Well Location Information**      **2. Facility / Owner Information**

County Marathon		WI Unique Well # of Removed Well GP-5B		Hicap #		Facility Name Ginseng Wisconsin	
Latitude / Longitude (see instructions) _____ N _____ W		Format Code <input type="checkbox"/> DD <input type="checkbox"/> DDM		Method Code <input type="checkbox"/> GPS008 <input type="checkbox"/> SCR002 <input type="checkbox"/> OTH001		Facility ID (FID or PWS)	
1/4 / 1/4 or Gov't Lot #		Section		Township N		Range <input type="checkbox"/> E <input type="checkbox"/> W	
Well Street Address 400 Main Street				Present Well Owner Same			
Well City, Village or Town Village of Marathon				Well ZIP Code 54448			
Subdivision Name				Lot #		Mailing Address of Present Owner P.O. Box 266	
Reason for Removal from Service Sampling complete				WI Unique Well # of Replacement Well		City of Present Owner Mosinee	
						State WI	
						ZIP Code 54455	

**3. Filled & Sealed Well / Drillhole / Borehole Information**

Monitoring Well  
 Water Well  
 Borehole / Drillhole

Original Construction Date (mm/dd/yyyy)  
08/23/2017

If a Well Construction Report is available, please attach.

Construction Type:

Drilled       Driven (Sandpoint)       Dug  
 Other (specify): Direct push - geoprobe

Formation Type:

Unconsolidated Formation       Bedrock

Total Well Depth From Ground Surface (ft.)  
10

Casing Diameter (in.)

Lower Drillhole Diameter (in.)  
2.0

Casing Depth (ft.)

Was well annular space grouted?       Yes       No       Unknown

If yes, to what depth (feet)?

Depth to Water (feet)  
>10 feet

**4. Pump, Liner, Screen, Casing & Sealing Material**

Pump and piping removed?       Yes       No       N/A  
 Liner(s) removed?       Yes       No       N/A  
 Liner(s) perforated?       Yes       No       N/A  
 Screen removed?       Yes       No       N/A  
 Casing left in place?       Yes       No       N/A  
 Was casing cut off below surface?       Yes       No       N/A  
 Did sealing material rise to surface?       Yes       No       N/A  
 Did material settle after 24 hours?       Yes       No       N/A  
 If yes, was hole retopped?       Yes       No       N/A  
 If bentonite chips were used, were they hydrated with water from a known safe source?       Yes       No       N/A

Required Method of Placing Sealing Material

Conductor Pipe-Gravity       Conductor Pipe-Pumped  
 Screened & Poured (Bentonite Chips)       Other (Explain): \_\_\_\_\_

Sealing Materials

Neat Cement Grout       Concrete  
 Sand-Cement (Concrete) Grout       Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:

Bentonite Chips       Bentonite - Cement Grout  
 Granular Bentonite       Bentonite - Sand Slurry

**5. Material Used to Fill Well / Drillhole**

	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
3/8" Holeplug Bentonite	Surface	10	0.3 bags	

**6. Comments**

**7. Supervision of Work**

Supervision of Work				DNR Use Only	
Name of Person or Firm Doing Filling & Sealing Geiss Soil & Samples / REI - Matt Rahn		License #	Date of Filling & Sealing or Verification (mm/dd/yyyy) 08/23/2017	Date Received	Noted By
Street or Route 4080 N. 20th Avenue		Telephone Number ( 715 ) 675-9784		Comments	
City Wausau	State WI	ZIP Code 54401	Signature of Person Doing Work <i>Matthew W. Rahn</i>	Date Signed 08/23/2017	

Route To:  Watershed/Wastewater  Waste Management   
 Remediation/Redevelopment  Other

Facility/Project Name Ginseng Wisconsin		License/Permit/Monitoring Number 03-37-526881		Boring Number GP-5B	
Boring Drilled By: Name of crew chief (first, last) and Firm Geiss Soil & Samples, LLC			Date Drilling Started 08/23/2017	Date Drilling Completed 08/23/2017	Drilling Method Hydraulic push
WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation 0	Borehole Diameter 2.0 inches <small>&gt;-5B</small>
Local Grid Origin <input type="checkbox"/> (estimated) <input type="checkbox"/> or Boring Location <input checked="" type="checkbox"/> State Plane			Lat	Local Grid Location N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W <input type="checkbox"/>	
Facility ID		County Marathon	County Code 37	Civil Town/City/or Village Village of Marathon	

Sample Number	Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/ Rock Description And Geologic Origin For Each Major Unit	U.S.C.S.	Graphic	Well	PID/FID	Soil Properties					RQD/ Comments
										Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
SS1	SS	36"		1	Sand and gravel Brown, fill type material, crushed granite	GW			0.0						
				2											
				3											
				4	Gravelly silt Grey / brown	ML									
SS2	SS	48"		5	Sandy silt Dark grey	ML			0.0						
				6	Sandy clay Grey	SC									
				7											
SS3	SS	24"		8	Sand Brown, fine to medium grained	SW			0.0						
				9											
				10	Probe refusal @ 10 feet bls										
				11											
				12											
				13											
				14											
				15											
				16											

I hereby certify that the information on this form is true and the correct to the best of my knowledge

Signature <i>Matthew W. Deh</i>	Firm REI Engineering, Inc. 4080 North 20th Avenue, Wausau, WI
---------------------------------	--

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Verification Only of Fill and Seal

Route to DNR Bureau:

- Drinking Water
- Watershed/Wastewater
- Remediation/Redevelopment
- Waste Management
- Other: \_\_\_\_\_

**1. Well Location Information**

County Marathon	WI Unique Well # of Removed Well GP-6B	Hicap #
Latitude / Longitude (see instructions) _____ N _____ W	Format Code <input type="checkbox"/> DD <input type="checkbox"/> DDM	Method Code <input type="checkbox"/> GPS008 <input type="checkbox"/> SCR002 <input type="checkbox"/> OTH001
1/4 / 1/4 or Gov't Lot #	Section	Township N
Well Street Address 400 Main Street	Well ZIP Code 54448	Range <input type="checkbox"/> E <input type="checkbox"/> W
Well City, Village or Town Village of Marathon	Subdivision Name	Lot #

**2. Facility / Owner Information**

Facility Name Ginseng Wisconsin		
Facility ID (FID or PWS)		
License/Permit/Monitoring #		
Original Well Owner American Ginseng, LLC		
Present Well Owner Same		
Mailing Address of Present Owner P.O. Box 266		
City of Present Owner Mosinee	State WI	ZIP Code 54455

Reason for Removal from Service Sampling complete	WI Unique Well # of Replacement Well
--	--------------------------------------

**3. Filled & Sealed Well / Drillhole / Borehole Information**

<input type="checkbox"/> Monitoring Well	Original Construction Date (mm/dd/yyyy) 08/23/2017
<input type="checkbox"/> Water Well	If a Well Construction Report is available, please attach.
<input checked="" type="checkbox"/> Borehole / Drillhole	
Construction Type: <input type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug <input checked="" type="checkbox"/> Other (specify): Direct push - geoprobe	
Formation Type: <input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock	
Total Well Depth From Ground Surface (ft.) 10	Casing Diameter (in.)
Lower Drillhole Diameter (in.) 2.0	Casing Depth (ft.)
Was well annular space grouted? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown	
If yes, to what depth (feet)?	Depth to Water (feet) >10 feet

**4. Pump, Liner, Screen, Casing & Sealing Material**

Pump and piping removed?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
Liner(s) removed?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Liner(s) perforated?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> N/A
Screen removed?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
Casing left in place?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
Was casing cut off below surface?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
Did sealing material rise to surface?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Did material settle after 24 hours?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> N/A
If yes, was hole retopped?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
Required Method of Placing Sealing Material	<input type="checkbox"/> Conductor Pipe-Gravity <input type="checkbox"/> Conductor Pipe-Pumped		
	<input checked="" type="checkbox"/> Screened & Poured (Bentonite Chips) <input type="checkbox"/> Other (Explain): _____		
Sealing Materials	<input type="checkbox"/> Neat Cement Grout <input type="checkbox"/> Concrete		
	<input type="checkbox"/> Sand-Cement (Concrete) Grout <input type="checkbox"/> Bentonite Chips		
For Monitoring Wells and Monitoring Well Boreholes Only:	<input checked="" type="checkbox"/> Bentonite Chips <input type="checkbox"/> Bentonite - Cement Grout		
	<input type="checkbox"/> Granular Bentonite <input type="checkbox"/> Bentonite - Sand Slurry		

**5. Material Used to Fill Well / Drillhole**

	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
3/8" Holeplug Bentonite	Surface	10	0.3 bags	

**6. Comments**

**7. Supervision of Work**

Name of Person or Firm Doing Filling & Sealing Geiss Soil & Samples / REI - Matt Rahn	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy) 08/23/2017	<b>DNR Use Only</b>	
			Date Received	Noted By
Street or Route 4080 N. 20th Avenue	Telephone Number ( 715 ) 675-9784		Comments	
City Wausau	State WI	ZIP Code 54401	Signature of Person Doing Work <i>Matthew W. Rahn</i>	Date Signed 08/23/2017



Route To:  Watershed/Wastewater  Waste Management   
 Remediation/Redevelopment  Other

Facility/Project Name Ginseng Wisconsin		License/Permit/Monitoring Number 03-37-526881		Boring Number GP-6B	
Boring Drilled By: Name of crew chief (first, last) and Firm Geiss Soil & Samples, LLC			Date Drilling Started 08/23/2017	Date Drilling Completed 08/23/2017	Drilling Method Hydraulic push
WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation 0	Borehole Diameter 2.0 inches <span style="float:right">2-B</span>
Local Grid Origin <input type="checkbox"/> (estimated) <input type="checkbox"/> or Boring Location <input checked="" type="checkbox"/> State Plane			Lat Long	Local Grid Location N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W <input type="checkbox"/>	

Facility ID		County Marathon		County Code 37		Civil Town/City/or Village Village of Marathon									
Sample Number	Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/ Rock Description And Geologic Origin For Each Major Unit	U.S.C.S.	Graphic	Well	PID/FID	Soil Properties					RQD/ Comments
										Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
SS1	SS	36"		1	Sand and gravel Brown, fill type material, crushed granite	GW			0.3						
				2	Silty sand Brown with trace gravel										
SS2	SS	36"		3		ML			0.0						
				4											
SS3	SS	24"		5					0.0						
				6	Sandy clay Grey	SC									
				7	Sand Brown / grey, fine to medium grained	SW									
				8											
				9											
				10	Probe refusal @ 10' bls due to heaving sand										
				11											
				12											
				13											
				14											
				15											
				16											

I hereby certify that the information on this form is true and the correct to the best of my knowledge

Signature <i>Matthew W. Park</i>	Firm <b>REI Engineering, Inc.</b> 4080 North 20th Avenue, Wausau, WI
----------------------------------	---

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**Route to DNR Bureau:**

**Verification Only of Fill and Seal**

- Drinking Water       Watershed/Wastewater       Remediation/Redevelopment  
 Waste Management       Other: \_\_\_\_\_

**1. Well Location Information**      **2. Facility / Owner Information**

County Marathon		WI Unique Well # of Removed Well GP-7B		Hicap #		Facility Name Ginseng Wisconsin	
Latitude / Longitude (see instructions) _____ N _____ W		Format Code <input type="checkbox"/> DD <input type="checkbox"/> DDM		Method Code <input type="checkbox"/> GPS008 <input type="checkbox"/> SCR002 <input type="checkbox"/> OTH001		Facility ID (FID or PWS)	
1/4 / 1/4 or Gov't Lot #		Section		Township N		Range <input type="checkbox"/> E <input type="checkbox"/> W	
Well Street Address 400 Main Street				Present Well Owner Same			
Well City, Village or Town Village of Marathon				Well ZIP Code 54448			
Subdivision Name				Lot #		Mailing Address of Present Owner P.O. Box 266	
Reason for Removal from Service Sampling complete				WI Unique Well # of Replacement Well			
City of Present Owner Mosinee		State WI		ZIP Code 54455			

**3. Filled & Sealed Well / Drillhole / Borehole Information**

Monitoring Well  
 Water Well  
 Borehole / Drillhole

Original Construction Date (mm/dd/yyyy)  
08/23/2017

If a Well Construction Report is available, please attach.

Construction Type:

Drilled       Driven (Sandpoint)       Dug  
 Other (specify): Direct push - geoprobe

Formation Type:

Unconsolidated Formation       Bedrock

Total Well Depth From Ground Surface (ft.)  
11

Casing Diameter (in.)

Lower Drillhole Diameter (in.)  
2.0

Casing Depth (ft.)

Was well annular space grouted?       Yes       No       Unknown

If yes, to what depth (feet)?

Depth to Water (feet)  
>11 feet

**4. Pump, Liner, Screen, Casing & Sealing Material**

Pump and piping removed?       Yes       No       N/A  
 Liner(s) removed?       Yes       No       N/A  
 Liner(s) perforated?       Yes       No       N/A  
 Screen removed?       Yes       No       N/A  
 Casing left in place?       Yes       No       N/A  
 Was casing cut off below surface?       Yes       No       N/A  
 Did sealing material rise to surface?       Yes       No       N/A  
 Did material settle after 24 hours?       Yes       No       N/A  
 If yes, was hole retopped?       Yes       No       N/A  
 If bentonite chips were used, were they hydrated with water from a known safe source?       Yes       No       N/A

Required Method of Placing Sealing Material

Conductor Pipe-Gravity       Conductor Pipe-Pumped  
 Screened & Poured (Bentonite Chips)       Other (Explain): \_\_\_\_\_

Sealing Materials

Neat Cement Grout       Concrete  
 Sand-Cement (Concrete) Grout       Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:

Bentonite Chips       Bentonite - Cement Grout  
 Granular Bentonite       Bentonite - Sand Slurry

**5. Material Used to Fill Well / Drillhole**

	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
3/8" Holeplug Bentonite	Surface	11	0.4 bags	

**6. Comments**

**7. Supervision of Work**

Name of Person or Firm Doing Filling & Sealing Geiss Soil & Samples / REI - Matt Rahn		License #	Date of Filling & Sealing or Verification (mm/dd/yyyy) 08/23/2017	<b>DNR Use Only</b>	
Street or Route 4080 N. 20th Avenue		City Wausau	State WI	ZIP Code 54401	Telephone Number ( 715 ) 675-9784
Signature of Person Doing Work <i>Matthew W. Rahn</i>		Date Signed 08/23/2017	Comments		

Route To:  Watershed/Wastewater  Waste Management   
 Remediation/Redevelopment  Other

Facility/Project Name Ginseng Wisconsin		License/Permit/Monitoring Number 03-37-526881		Boring Number GP-7B	
Boring Drilled By: Name of crew chief (first, last) and Firm Geiss Soil & Samples, LLC			Date Drilling Started 08/23/2017	Date Drilling Completed 08/23/2017	Drilling Method Hydraulic push
WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation 0	Borehole Diameter 2.0 inches <small>&gt;-7B</small>
Local Grid Origin <input type="checkbox"/> (estimated) <input type="checkbox"/> or Boring Location <input checked="" type="checkbox"/> State Plane			Lat	Local Grid Location N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W <input type="checkbox"/>	
Facility ID		County Marathon	County Code 37	Civil Town/City/or Village Village of Marathon	

Sample Number	Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/ Rock Description And Geologic Origin For Each Major Unit	U.S.C.S.	Graphic	Well	PID/FID	Soil Properties					RQD/ Comments
										Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
SS1	SS	24"		1	Grass and topsoil Dark brown with organic material	TS			0.4						
				2	Sand and gravel Brown, fill type material, crushed granite	GW									
SS2	SS	36"		4	Sandy silt Grey	ML			0.0						
				6	Sandy clay Grey	SC									
SS3	SS	36"		8	Sand Brown / grey, fine to medium grained	SW			0.0						
				11	Probe refusal @ 11' bls										

I hereby certify that the information on this form is true and the correct to the best of my knowledge

Signature <i>Matthew W. Park</i>	Firm REI Engineering, Inc. 4080 North 20th Avenue, Wausau, WI
----------------------------------	--

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**Verification Only of Fill and Seal**

**Route to DNR Bureau:**

- Drinking Water       Watershed/Wastewater       Remediation/Redevelopment  
 Waste Management       Other: \_\_\_\_\_

**1. Well Location Information**      **2. Facility / Owner Information**

County Marathon		WI Unique Well # of Removed Well GP-8B		Hicap #		Facility Name Ginseng Wisconsin	
Latitude / Longitude (see instructions) _____ N _____ W		Format Code <input type="checkbox"/> DD <input type="checkbox"/> DDM		Method Code <input type="checkbox"/> GPS008 <input type="checkbox"/> SCR002 <input type="checkbox"/> OTH001		Facility ID (FID or PWS)	
1/4 / 1/4 or Gov't Lot #		Section		Township N		Range <input type="checkbox"/> E <input type="checkbox"/> W	
Well Street Address 400 Main Street				Present Well Owner Same			
Well City, Village or Town Village of Marathon				Well ZIP Code 54448			
Subdivision Name				Lot #		Mailing Address of Present Owner P.O. Box 266	
Reason for Removal from Service Sampling complete				WI Unique Well # of Replacement Well		City of Present Owner Mosinee	
						State WI	
						ZIP Code 54455	

**3. Filled & Sealed Well / Drillhole / Borehole Information**

Monitoring Well  
 Water Well  
 Borehole / Drillhole

Original Construction Date (mm/dd/yyyy)  
08/23/2017

If a Well Construction Report is available, please attach.

Construction Type:

Drilled       Driven (Sandpoint)       Dug  
 Other (specify): Direct push - geoprobe

Formation Type:

Unconsolidated Formation       Bedrock

Total Well Depth From Ground Surface (ft.)  
11

Casing Diameter (in.)

Lower Drillhole Diameter (in.)  
2.0

Casing Depth (ft.)

Was well annular space grouted?       Yes       No       Unknown

If yes, to what depth (feet)?

Depth to Water (feet)  
>11 feet

**4. Pump, Liner, Screen, Casing & Sealing Material**

Pump and piping removed?       Yes       No       N/A  
 Liner(s) removed?       Yes       No       N/A  
 Liner(s) perforated?       Yes       No       N/A  
 Screen removed?       Yes       No       N/A  
 Casing left in place?       Yes       No       N/A  
 Was casing cut off below surface?       Yes       No       N/A  
 Did sealing material rise to surface?       Yes       No       N/A  
 Did material settle after 24 hours?       Yes       No       N/A  
 If yes, was hole retopped?       Yes       No       N/A  
 If bentonite chips were used, were they hydrated with water from a known safe source?       Yes       No       N/A

Required Method of Placing Sealing Material

Conductor Pipe-Gravity       Conductor Pipe-Pumped  
 Screened & Poured (Bentonite Chips)       Other (Explain): \_\_\_\_\_

Sealing Materials

Neat Cement Grout       Concrete  
 Sand-Cement (Concrete) Grout       Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:

Bentonite Chips       Bentonite - Cement Grout  
 Granular Bentonite       Bentonite - Sand Slurry

**5. Material Used to Fill Well / Drillhole**

	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
3/8" Holeplug Bentonite	Surface	11	0.4 bags	

**6. Comments**

**7. Supervision of Work**

Supervision of Work				DNR Use Only	
Name of Person or Firm Doing Filling & Sealing Geiss Soil & Samples / REI - Matt Rahn		License #	Date of Filling & Sealing or Verification (mm/dd/yyyy) 08/23/2017	Date Received	Noted By
Street or Route 4080 N. 20th Avenue			Telephone Number ( 715 ) 675-9784	Comments	
City Wausau	State WI	ZIP Code 54401	Signature of Person Doing Work <i>Matthew W. Rahn</i>	Date Signed 08/23/2017	

Route To:  Watershed/Wastewater  Waste Management   
 Remediation/Redevelopment  Other

Facility/Project Name Ginseng Wisconsin		License/Permit/Monitoring Number 03-37-526881		Boring Number GP-8B	
Boring Drilled By: Name of crew chief (first, last) and Firm Geiss Soil & Samples, LLC			Date Drilling Started 08/23/2017	Date Drilling Completed 08/23/2017	Drilling Method Hydraulic push
WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation 0	Borehole Diameter 2.0 inches <small>&gt;-8B</small>
Local Grid Origin <input type="checkbox"/> (estimated) <input type="checkbox"/> or Boring Location <input checked="" type="checkbox"/> State Plane			Lat	Local Grid Location N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W <input type="checkbox"/>	
Facility ID		County Marathon	County Code 37	Civil Town/City/or Village Village of Marathon	

Sample Number	Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/ Rock Description And Geologic Origin For Each Major Unit	U.S.C.S.	Graphic	Well	PID/FID	Soil Properties					RQD/ Comments
										Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
SS1	SS	36"		1	Asphalt	AS			0.6						
				2	Sand and gravel Brown, fill type material, crushed granite	GW									
				3	Sandy silt Grey	ML									
SS2	SS	48"		4	Sandy clay Grey	SC			0.0						
				5	Sand Reddish brown grading to brown, fine to medium grained	SW									
SS3	SS	36"		6							0.0				
				7											
				8											
				9											
				10											
				11	Probe refusal @ 12' bls due to heaving sand										
				12											
				13											
				14											
				15											
				16											

I hereby certify that the information on this form is true and the correct to the best of my knowledge

Signature <i>Matthew W. Park</i>	Firm <b>REI Engineering, Inc.</b> 4080 North 20th Avenue, Wausau, WI
----------------------------------	---

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**Verification Only of Fill and Seal**

**Route to DNR Bureau:**

- Drinking Water       Watershed/Wastewater       Remediation/Redevelopment  
 Waste Management       Other: \_\_\_\_\_

**1. Well Location Information**      **2. Facility / Owner Information**

County Marathon		WI Unique Well # of Removed Well GP-9B		Hicap #		Facility Name Ginseng Wisconsin	
Latitude / Longitude (see instructions) _____ N _____ W		Format Code <input type="checkbox"/> DD <input type="checkbox"/> DDM		Method Code <input type="checkbox"/> GPS008 <input type="checkbox"/> SCR002 <input type="checkbox"/> OTH001		Facility ID (FID or PWS)	
1/4 / 1/4 or Gov't Lot #		Section		Township N		Range <input type="checkbox"/> E <input type="checkbox"/> W	
Well Street Address 400 Main Street				Present Well Owner Same			
Well City, Village or Town Village of Marathon				Well ZIP Code 54448			
Subdivision Name				Lot #		Mailing Address of Present Owner P.O. Box 266	
Reason for Removal from Service Sampling complete				WI Unique Well # of Replacement Well			
City of Present Owner Mosinee		State WI		ZIP Code 54455			

**3. Filled & Sealed Well / Drillhole / Borehole Information**

Monitoring Well  
 Water Well  
 Borehole / Drillhole

Original Construction Date (mm/dd/yyyy)  
08/23/2017

If a Well Construction Report is available, please attach.

Construction Type:

Drilled       Driven (Sandpoint)       Dug  
 Other (specify): Direct push - geoprobe

Formation Type:

Unconsolidated Formation       Bedrock

Total Well Depth From Ground Surface (ft.)  
12

Casing Diameter (in.)

Lower Drillhole Diameter (in.)  
2.0

Casing Depth (ft.)

Was well annular space grouted?       Yes       No       Unknown

If yes, to what depth (feet)?      Depth to Water (feet)  
>12 feet

**4. Pump, Liner, Screen, Casing & Sealing Material**

Pump and piping removed?       Yes       No       N/A  
 Liner(s) removed?       Yes       No       N/A  
 Liner(s) perforated?       Yes       No       N/A  
 Screen removed?       Yes       No       N/A  
 Casing left in place?       Yes       No       N/A  
 Was casing cut off below surface?       Yes       No       N/A  
 Did sealing material rise to surface?       Yes       No       N/A  
 Did material settle after 24 hours?       Yes       No       N/A  
 If yes, was hole retopped?       Yes       No       N/A  
 If bentonite chips were used, were they hydrated with water from a known safe source?       Yes       No       N/A

Required Method of Placing Sealing Material

Conductor Pipe-Gravity       Conductor Pipe-Pumped  
 Screened & Poured (Bentonite Chips)       Other (Explain): \_\_\_\_\_

Sealing Materials

Neat Cement Grout       Concrete  
 Sand-Cement (Concrete) Grout       Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:

Bentonite Chips       Bentonite - Cement Grout  
 Granular Bentonite       Bentonite - Sand Slurry

**5. Material Used to Fill Well / Drillhole**

	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
3/8" Holeplug Bentonite	Surface	12	0.4 bags	

**6. Comments**

**7. Supervision of Work**

Supervision of Work				DNR Use Only	
Name of Person or Firm Doing Filling & Sealing Geiss Soil & Samples / REI - Matt Rahn		License #	Date of Filling & Sealing or Verification (mm/dd/yyyy) 08/23/2017	Date Received	Noted By
Street or Route 4080 N. 20th Avenue			Telephone Number ( 715 ) 675-9784	Comments	
City Wausau	State WI	ZIP Code 54401	Signature of Person Doing Work <i>Matthew W. Rahn</i>	Date Signed 08/23/2017	

Route To:  Watershed/Wastewater  Waste Management   
 Remediation/Redevelopment  Other

Facility/Project Name Ginseng Wisconsin		License/Permit/Monitoring Number 03-37-526881		Boring Number GP-9B	
Boring Drilled By: Name of crew chief (first, last) and Firm Geiss Soil & Samples, LLC			Date Drilling Started 08/23/2017	Date Drilling Completed 08/23/2017	Drilling Method Hydraulic push
WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation 0	Borehole Diameter 2.0 inches <small>&gt;-9B</small>
Local Grid Origin <input type="checkbox"/> (estimated) <input type="checkbox"/> or Boring Location <input checked="" type="checkbox"/> State Plane			Lat	Local Grid Location N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W <input type="checkbox"/>	
Facility ID		County Marathon	County Code 37	Civil Town/City/or Village Village of Marathon	

Sample				Depth In Feet	Soil/ Rock Description And Geologic Origin For Each Major Unit	U.S.C.S.	Graphic	Well	PID/FID	Soil Properties					RQD/ Comments
Number	Type	Length Att. & Recovered (in)	Blow Counts							Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
SS1	SS	36"		1	Grass and topsoil Dark brown with organic material	TS			0.2						
				2	Sand and gravel Brown, fill type material, crushed granite	GW									
				3	Sandy silt Grey	ML									
SS2	SS	42"		4	Sand Grey / brown, fine to medium grained				0.1						
				5											
				6											
SS3	SS	48"		7					0.0						
				8											
				9											
				10	End of boring @ 12' bls										
				11											
				12											
				13											
				14											
				15											
				16											

I hereby certify that the information on this form is true and the correct to the best of my knowledge

Signature <i>Matthew W. Park</i>	Firm REI Engineering, Inc. 4080 North 20th Avenue, Wausau, WI
----------------------------------	--

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September 07, 2017

Matt Rahn  
REI  
4080 North 20th Avenue  
Wausau, WI 54401

RE: Project: 5454AXUC GINSENG WI  
Pace Project No.: 40155653

Dear Matt Rahn:

Enclosed are the analytical results for sample(s) received by the laboratory on August 25, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Brian Basten  
brian.basten@pacelabs.com  
(920)469-2436  
Project Manager

Enclosures

cc: Andy Delforge, REI



## REPORT OF LABORATORY ANALYSIS

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without the written consent of Pace Analytical Services, LLC.



## CERTIFICATIONS

Project: 5454AXUC GINSENG WI

Pace Project No.: 40155653

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### Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302

Florida/NELAP Certification #: E87948

Illinois Certification #: 200050

Kentucky UST Certification #: 82

Louisiana Certification #: 04168

Minnesota Certification #: 055-999-334

New York Certification #: 12064

North Dakota Certification #: R-150

Virginia VELAP ID: 460263

South Carolina Certification #: 83006001

Texas Certification #: T104704529-14-1

Wisconsin Certification #: 405132750

Wisconsin DATCP Certification #: 105-444

USDA Soil Permit #: P330-16-00157

Federal Fish & Wildlife Permit #: LE51774A-0

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## REPORT OF LABORATORY ANALYSIS

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without the written consent of Pace Analytical Services, LLC.

## SAMPLE SUMMARY

Project: 5454AXUC GINSENG WI

Pace Project No.: 40155653

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40155653001	GP-1B @ 0-4'	Solid	08/23/17 09:00	08/25/17 08:00
40155653002	GP-1B @ 8-12'	Solid	08/23/17 09:10	08/25/17 08:00
40155653003	GP-2B @ 0-4'	Solid	08/23/17 09:15	08/25/17 08:00
40155653004	GP-2B @ 8-12'	Solid	08/23/17 09:25	08/25/17 08:00
40155653005	GP-3B @ 0-4'	Solid	08/23/17 09:30	08/25/17 08:00
40155653006	GP-3B @ 4-6'	Solid	08/23/17 09:35	08/25/17 08:00
40155653007	GP-4B @ 0-4'	Solid	08/23/17 09:45	08/25/17 08:00
40155653008	GP-4B @ 4-8'	Solid	08/23/17 09:50	08/25/17 08:00
40155653009	GP-5B @ 0-4'	Solid	08/23/17 09:55	08/25/17 08:00
40155653010	GP-5B @ 8-10'	Solid	08/23/17 10:05	08/25/17 08:00
40155653011	GP-6B @ 0-4'	Solid	08/23/17 10:10	08/25/17 08:00
40155653012	GP-6B @ 8-10'	Solid	08/23/17 10:15	08/25/17 08:00
40155653013	GP-7B @ 0-4'	Solid	08/23/17 10:18	08/25/17 08:00
40155653014	GP-7B @ 8-11'	Solid	08/23/17 10:25	08/25/17 08:00
40155653015	GP-8B @ 0-4'	Solid	08/23/17 10:30	08/25/17 08:00
40155653016	GP-8B @ 8-11'	Solid	08/23/17 10:40	08/25/17 08:00
40155653017	GP-9B @ 0-4'	Solid	08/23/17 10:50	08/25/17 08:00
40155653018	GP-9B @ 8-12'	Solid	08/23/17 11:00	08/25/17 08:00

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### SAMPLE ANALYTE COUNT

Project: 5454AXUC GINSENG WI

Pace Project No.: 40155653

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40155653001	GP-1B @ 0-4'	WI MOD GRO	PMS	9
		EPA 8270 by SIM	RJN	20
		ASTM D2974-87	SMS	1
40155653002	GP-1B @ 8-12'	WI MOD GRO	PMS	9
		EPA 8270 by SIM	RJN	20
		ASTM D2974-87	SMS	1
40155653003	GP-2B @ 0-4'	WI MOD GRO	PMS	9
		EPA 8270 by SIM	RJN	20
		ASTM D2974-87	SMS	1
40155653004	GP-2B @ 8-12'	WI MOD GRO	PMS	9
		EPA 8270 by SIM	RJN	20
		ASTM D2974-87	SMS	1
40155653005	GP-3B @ 0-4'	WI MOD GRO	PMS	9
		EPA 8270 by SIM	RJN	20
		ASTM D2974-87	SMS	1
40155653006	GP-3B @ 4-6'	WI MOD GRO	PMS	9
		EPA 8270 by SIM	RJN	20
		ASTM D2974-87	SMS	1
40155653007	GP-4B @ 0-4'	WI MOD GRO	PMS	9
		EPA 8270 by SIM	RJN	20
		ASTM D2974-87	SMS	1
40155653008	GP-4B @ 4-8'	WI MOD GRO	PMS	9
		EPA 8270 by SIM	RJN	20
		ASTM D2974-87	SMS	1
40155653009	GP-5B @ 0-4'	WI MOD GRO	PMS	9
		EPA 8270 by SIM	RJN	20
		ASTM D2974-87	SMS	1
40155653010	GP-5B @ 8-10'	WI MOD GRO	PMS	9
		EPA 8270 by SIM	RJN	20
		ASTM D2974-87	SMS	1
40155653011	GP-6B @ 0-4'	WI MOD GRO	PMS	9
		EPA 8270 by SIM	ARO	20
		ASTM D2974-87	SMS	1
40155653012	GP-6B @ 8-10'	WI MOD GRO	PMS	9
		EPA 8270 by SIM	RJN	20
		ASTM D2974-87	SMS	1
40155653013	GP-7B @ 0-4'	WI MOD GRO	PMS	9

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### SAMPLE ANALYTE COUNT

Project: 5454AXUC GINSENG WI

Pace Project No.: 40155653

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40155653014	GP-7B @ 8-11'	EPA 8270 by SIM	ARO	20
		ASTM D2974-87	SMS	1
		WI MOD GRO	PMS	9
40155653015	GP-8B @ 0-4'	EPA 8270 by SIM	ARO	20
		ASTM D2974-87	KTS	1
		WI MOD GRO	PMS	9
40155653016	GP-8B @ 8-11'	EPA 8270 by SIM	ARO	20
		ASTM D2974-87	KTS	1
		WI MOD GRO	PMS	9
40155653017	GP-9B @ 0-4'	EPA 8270 by SIM	ARO	20
		ASTM D2974-87	KTS	1
		WI MOD GRO	PMS	9
40155653018	GP-9B @ 8-12'	EPA 8270 by SIM	ARO	20
		ASTM D2974-87	KTS	1
		WI MOD GRO	PMS	9

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### ANALYTICAL RESULTS

Project: 5454AXUC GINSENG WI

Pace Project No.: 40155653

**Sample: GP-1B @ 0-4'**      **Lab ID: 40155653001**      Collected: 08/23/17 09:00      Received: 08/25/17 08:00      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>WIGRO GCV</b>									
Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.									
Benzene	135	ug/kg	61.9	30.9	1	08/28/17 08:00	08/28/17 17:49	71-43-2	
Ethylbenzene	147	ug/kg	61.9	30.9	1	08/28/17 08:00	08/28/17 17:49	100-41-4	
Methyl-tert-butyl ether	<25.0	ug/kg	50.0	25.0	1	08/28/17 08:00	08/28/17 17:49	1634-04-4	W
Toluene	551	ug/kg	61.9	30.9	1	08/28/17 08:00	08/28/17 17:49	108-88-3	
1,2,4-Trimethylbenzene	686	ug/kg	61.9	30.9	1	08/28/17 08:00	08/28/17 17:49	95-63-6	
1,3,5-Trimethylbenzene	285	ug/kg	61.9	30.9	1	08/28/17 08:00	08/28/17 17:49	108-67-8	
m&p-Xylene	1920	ug/kg	124	61.9	1	08/28/17 08:00	08/28/17 17:49	179601-23-1	
o-Xylene	901	ug/kg	61.9	30.9	1	08/28/17 08:00	08/28/17 17:49	95-47-6	
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	108	%	80-120		1	08/28/17 08:00	08/28/17 17:49	98-08-8	
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<4.8	ug/kg	16.0	4.8	1	08/30/17 10:10	08/31/17 15:59	83-32-9	
Acenaphthylene	27.1	ug/kg	13.6	4.1	1	08/30/17 10:10	08/31/17 15:59	208-96-8	
Anthracene	20.2J	ug/kg	23.6	7.1	1	08/30/17 10:10	08/31/17 15:59	120-12-7	
Benzo(a)anthracene	49.2	ug/kg	13.1	3.9	1	08/30/17 10:10	08/31/17 15:59	56-55-3	
Benzo(a)pyrene	74.6	ug/kg	10.4	3.1	1	08/30/17 10:10	08/31/17 15:59	50-32-8	
Benzo(b)fluoranthene	108	ug/kg	11.7	3.5	1	08/30/17 10:10	08/31/17 15:59	205-99-2	
Benzo(g,h,i)perylene	103	ug/kg	8.4	2.5	1	08/30/17 10:10	08/31/17 15:59	191-24-2	
Benzo(k)fluoranthene	40.2	ug/kg	10.4	3.1	1	08/30/17 10:10	08/31/17 15:59	207-08-9	
Chrysene	80.4	ug/kg	13.9	4.2	1	08/30/17 10:10	08/31/17 15:59	218-01-9	
Dibenz(a,h)anthracene	20.3	ug/kg	9.2	2.8	1	08/30/17 10:10	08/31/17 15:59	53-70-3	
Fluoranthene	64.6	ug/kg	21.6	6.5	1	08/30/17 10:10	08/31/17 15:59	206-44-0	
Fluorene	6.6J	ug/kg	17.1	5.1	1	08/30/17 10:10	08/31/17 15:59	86-73-7	
Indeno(1,2,3-cd)pyrene	74.4	ug/kg	9.1	2.7	1	08/30/17 10:10	08/31/17 15:59	193-39-5	
1-Methylnaphthalene	203	ug/kg	16.6	5.0	1	08/30/17 10:10	08/31/17 15:59	90-12-0	
2-Methylnaphthalene	378	ug/kg	20.7	6.2	1	08/30/17 10:10	08/31/17 15:59	91-57-6	
Naphthalene	342	ug/kg	34.8	10.4	1	08/30/17 10:10	08/31/17 15:59	91-20-3	
Phenanthrene	76.4	ug/kg	48.1	14.4	1	08/30/17 10:10	08/31/17 15:59	85-01-8	
Pyrene	75.1	ug/kg	18.6	5.6	1	08/30/17 10:10	08/31/17 15:59	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	62	%	19-96		1	08/30/17 10:10	08/31/17 15:59	321-60-8	
Terphenyl-d14 (S)	63	%	31-98		1	08/30/17 10:10	08/31/17 15:59	1718-51-0	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	19.2	%	0.10	0.10	1		08/29/17 17:24		

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### ANALYTICAL RESULTS

Project: 5454AXUC GINSENG WI

Pace Project No.: 40155653

**Sample: GP-1B @ 8-12' Lab ID: 40155653002** Collected: 08/23/17 09:10 Received: 08/25/17 08:00 Matrix: Solid

**Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.**

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>WIGRO GCV</b>									
Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.									
Benzene	<25.0	ug/kg	50.0	25.0	1	08/28/17 08:00	08/28/17 20:23	71-43-2	W
Ethylbenzene	<25.0	ug/kg	50.0	25.0	1	08/28/17 08:00	08/28/17 20:23	100-41-4	W
Methyl-tert-butyl ether	<25.0	ug/kg	50.0	25.0	1	08/28/17 08:00	08/28/17 20:23	1634-04-4	W
Toluene	<25.0	ug/kg	50.0	25.0	1	08/28/17 08:00	08/28/17 20:23	108-88-3	W
1,2,4-Trimethylbenzene	<25.0	ug/kg	50.0	25.0	1	08/28/17 08:00	08/28/17 20:23	95-63-6	W
1,3,5-Trimethylbenzene	<25.0	ug/kg	50.0	25.0	1	08/28/17 08:00	08/28/17 20:23	108-67-8	W
m&p-Xylene	<50.0	ug/kg	100	50.0	1	08/28/17 08:00	08/28/17 20:23	179601-23-1	W
o-Xylene	<25.0	ug/kg	50.0	25.0	1	08/28/17 08:00	08/28/17 20:23	95-47-6	W
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	107	%	80-120		1	08/28/17 08:00	08/28/17 20:23	98-08-8	
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<4.8	ug/kg	16.0	4.8	1	08/30/17 10:10	08/30/17 20:28	83-32-9	
Acenaphthylene	<4.1	ug/kg	13.6	4.1	1	08/30/17 10:10	08/30/17 20:28	208-96-8	
Anthracene	<7.1	ug/kg	23.5	7.1	1	08/30/17 10:10	08/30/17 20:28	120-12-7	
Benzo(a)anthracene	<3.9	ug/kg	13.1	3.9	1	08/30/17 10:10	08/30/17 20:28	56-55-3	
Benzo(a)pyrene	<3.1	ug/kg	10.4	3.1	1	08/30/17 10:10	08/30/17 20:28	50-32-8	
Benzo(b)fluoranthene	<3.5	ug/kg	11.6	3.5	1	08/30/17 10:10	08/30/17 20:28	205-99-2	
Benzo(g,h,i)perylene	<2.5	ug/kg	8.4	2.5	1	08/30/17 10:10	08/30/17 20:28	191-24-2	
Benzo(k)fluoranthene	<3.1	ug/kg	10.3	3.1	1	08/30/17 10:10	08/30/17 20:28	207-08-9	
Chrysene	<4.2	ug/kg	13.9	4.2	1	08/30/17 10:10	08/30/17 20:28	218-01-9	
Dibenz(a,h)anthracene	<2.8	ug/kg	9.2	2.8	1	08/30/17 10:10	08/30/17 20:28	53-70-3	
Fluoranthene	<6.4	ug/kg	21.5	6.4	1	08/30/17 10:10	08/30/17 20:28	206-44-0	
Fluorene	<5.1	ug/kg	17.1	5.1	1	08/30/17 10:10	08/30/17 20:28	86-73-7	
Indeno(1,2,3-cd)pyrene	<2.7	ug/kg	9.1	2.7	1	08/30/17 10:10	08/30/17 20:28	193-39-5	
1-Methylnaphthalene	<5.0	ug/kg	16.6	5.0	1	08/30/17 10:10	08/30/17 20:28	90-12-0	
2-Methylnaphthalene	<6.2	ug/kg	20.7	6.2	1	08/30/17 10:10	08/30/17 20:28	91-57-6	
Naphthalene	<10.4	ug/kg	34.8	10.4	1	08/30/17 10:10	08/30/17 20:28	91-20-3	
Phenanthrene	<14.4	ug/kg	48.0	14.4	1	08/30/17 10:10	08/30/17 20:28	85-01-8	
Pyrene	<5.6	ug/kg	18.6	5.6	1	08/30/17 10:10	08/30/17 20:28	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	56	%	19-96		1	08/30/17 10:10	08/30/17 20:28	321-60-8	
Terphenyl-d14 (S)	60	%	31-98		1	08/30/17 10:10	08/30/17 20:28	1718-51-0	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	19.3	%	0.10	0.10	1		08/29/17 17:24		

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## ANALYTICAL RESULTS

Project: 5454AXUC GINSENG WI

Pace Project No.: 40155653

**Sample: GP-2B @ 0-4'**      **Lab ID: 40155653003**      Collected: 08/23/17 09:15      Received: 08/25/17 08:00      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>WIGRO GCV</b> Analytical Method: WI MOD GRO    Preparation Method: TPH GRO/PVOC WI ext.									
Benzene	<25.0	ug/kg	50.0	25.0	1	08/28/17 08:00	08/28/17 20:49	71-43-2	W
Ethylbenzene	<25.0	ug/kg	50.0	25.0	1	08/28/17 08:00	08/28/17 20:49	100-41-4	W
Methyl-tert-butyl ether	<25.0	ug/kg	50.0	25.0	1	08/28/17 08:00	08/28/17 20:49	1634-04-4	W
Toluene	<25.0	ug/kg	50.0	25.0	1	08/28/17 08:00	08/28/17 20:49	108-88-3	W
1,2,4-Trimethylbenzene	<25.0	ug/kg	50.0	25.0	1	08/28/17 08:00	08/28/17 20:49	95-63-6	W
1,3,5-Trimethylbenzene	<25.0	ug/kg	50.0	25.0	1	08/28/17 08:00	08/28/17 20:49	108-67-8	W
m&p-Xylene	<50.0	ug/kg	100	50.0	1	08/28/17 08:00	08/28/17 20:49	179601-23-1	W
o-Xylene	<25.0	ug/kg	50.0	25.0	1	08/28/17 08:00	08/28/17 20:49	95-47-6	W
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	107	%	80-120		1	08/28/17 08:00	08/28/17 20:49	98-08-8	
<b>8270 MSSV PAH by SIM</b> Analytical Method: EPA 8270 by SIM    Preparation Method: EPA 3546									
Acenaphthene	<4.2	ug/kg	14.0	4.2	1	08/30/17 10:10	08/30/17 20:45	83-32-9	
Acenaphthylene	<3.6	ug/kg	11.9	3.6	1	08/30/17 10:10	08/30/17 20:45	208-96-8	
Anthracene	<6.2	ug/kg	20.6	6.2	1	08/30/17 10:10	08/30/17 20:45	120-12-7	
Benzo(a)anthracene	<3.4	ug/kg	11.5	3.4	1	08/30/17 10:10	08/30/17 20:45	56-55-3	
Benzo(a)pyrene	<2.7	ug/kg	9.1	2.7	1	08/30/17 10:10	08/30/17 20:45	50-32-8	
Benzo(b)fluoranthene	<3.1	ug/kg	10.2	3.1	1	08/30/17 10:10	08/30/17 20:45	205-99-2	
Benzo(g,h,i)perylene	<2.2	ug/kg	7.3	2.2	1	08/30/17 10:10	08/30/17 20:45	191-24-2	
Benzo(k)fluoranthene	<2.7	ug/kg	9.1	2.7	1	08/30/17 10:10	08/30/17 20:45	207-08-9	
Chrysene	<3.7	ug/kg	12.2	3.7	1	08/30/17 10:10	08/30/17 20:45	218-01-9	
Dibenz(a,h)anthracene	<2.4	ug/kg	8.1	2.4	1	08/30/17 10:10	08/30/17 20:45	53-70-3	
Fluoranthene	<5.7	ug/kg	18.9	5.7	1	08/30/17 10:10	08/30/17 20:45	206-44-0	
Fluorene	<4.5	ug/kg	15.0	4.5	1	08/30/17 10:10	08/30/17 20:45	86-73-7	
Indeno(1,2,3-cd)pyrene	<2.4	ug/kg	8.0	2.4	1	08/30/17 10:10	08/30/17 20:45	193-39-5	
1-Methylnaphthalene	<4.4	ug/kg	14.5	4.4	1	08/30/17 10:10	08/30/17 20:45	90-12-0	
2-Methylnaphthalene	<5.4	ug/kg	18.1	5.4	1	08/30/17 10:10	08/30/17 20:45	91-57-6	
Naphthalene	<9.1	ug/kg	30.5	9.1	1	08/30/17 10:10	08/30/17 20:45	91-20-3	
Phenanthrene	<12.6	ug/kg	42.1	12.6	1	08/30/17 10:10	08/30/17 20:45	85-01-8	
Pyrene	<4.9	ug/kg	16.3	4.9	1	08/30/17 10:10	08/30/17 20:45	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	59	%	19-96		1	08/30/17 10:10	08/30/17 20:45	321-60-8	
Terphenyl-d14 (S)	76	%	31-98		1	08/30/17 10:10	08/30/17 20:45	1718-51-0	
<b>Percent Moisture</b> Analytical Method: ASTM D2974-87									
Percent Moisture	8.1	%	0.10	0.10	1		08/29/17 17:24		

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### ANALYTICAL RESULTS

Project: 5454AXUC GINSENG WI

Pace Project No.: 40155653

**Sample:** GP-2B @ 8-12' **Lab ID:** 40155653004 **Collected:** 08/23/17 09:25 **Received:** 08/25/17 08:00 **Matrix:** Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>WIGRO GCV</b>									
Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.									
Benzene	<25.0	ug/kg	50.0	25.0	1	08/28/17 08:00	08/28/17 21:15	71-43-2	W
Ethylbenzene	<25.0	ug/kg	50.0	25.0	1	08/28/17 08:00	08/28/17 21:15	100-41-4	W
Methyl-tert-butyl ether	<25.0	ug/kg	50.0	25.0	1	08/28/17 08:00	08/28/17 21:15	1634-04-4	W
Toluene	<25.0	ug/kg	50.0	25.0	1	08/28/17 08:00	08/28/17 21:15	108-88-3	W
1,2,4-Trimethylbenzene	<25.0	ug/kg	50.0	25.0	1	08/28/17 08:00	08/28/17 21:15	95-63-6	W
1,3,5-Trimethylbenzene	<25.0	ug/kg	50.0	25.0	1	08/28/17 08:00	08/28/17 21:15	108-67-8	W
m&p-Xylene	<50.0	ug/kg	100	50.0	1	08/28/17 08:00	08/28/17 21:15	179601-23-1	W
o-Xylene	<25.0	ug/kg	50.0	25.0	1	08/28/17 08:00	08/28/17 21:15	95-47-6	W
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	107	%	80-120		1	08/28/17 08:00	08/28/17 21:15	98-08-8	
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<4.8	ug/kg	15.9	4.8	1	08/30/17 10:10	08/30/17 21:02	83-32-9	
Acenaphthylene	<4.1	ug/kg	13.6	4.1	1	08/30/17 10:10	08/30/17 21:02	208-96-8	
Anthracene	<7.1	ug/kg	23.5	7.1	1	08/30/17 10:10	08/30/17 21:02	120-12-7	
Benzo(a)anthracene	<3.9	ug/kg	13.1	3.9	1	08/30/17 10:10	08/30/17 21:02	56-55-3	
Benzo(a)pyrene	<3.1	ug/kg	10.3	3.1	1	08/30/17 10:10	08/30/17 21:02	50-32-8	
Benzo(b)fluoranthene	<3.5	ug/kg	11.6	3.5	1	08/30/17 10:10	08/30/17 21:02	205-99-2	
Benzo(g,h,i)perylene	<2.5	ug/kg	8.4	2.5	1	08/30/17 10:10	08/30/17 21:02	191-24-2	
Benzo(k)fluoranthene	<3.1	ug/kg	10.3	3.1	1	08/30/17 10:10	08/30/17 21:02	207-08-9	
Chrysene	<4.2	ug/kg	13.8	4.2	1	08/30/17 10:10	08/30/17 21:02	218-01-9	
Dibenz(a,h)anthracene	<2.8	ug/kg	9.2	2.8	1	08/30/17 10:10	08/30/17 21:02	53-70-3	
Fluoranthene	<6.4	ug/kg	21.5	6.4	1	08/30/17 10:10	08/30/17 21:02	206-44-0	
Fluorene	<5.1	ug/kg	17.1	5.1	1	08/30/17 10:10	08/30/17 21:02	86-73-7	
Indeno(1,2,3-cd)pyrene	<2.7	ug/kg	9.1	2.7	1	08/30/17 10:10	08/30/17 21:02	193-39-5	
1-Methylnaphthalene	<5.0	ug/kg	16.6	5.0	1	08/30/17 10:10	08/30/17 21:02	90-12-0	
2-Methylnaphthalene	<6.2	ug/kg	20.6	6.2	1	08/30/17 10:10	08/30/17 21:02	91-57-6	
Naphthalene	<10.4	ug/kg	34.7	10.4	1	08/30/17 10:10	08/30/17 21:02	91-20-3	
Phenanthrene	<14.4	ug/kg	48.0	14.4	1	08/30/17 10:10	08/30/17 21:02	85-01-8	
Pyrene	<5.6	ug/kg	18.5	5.6	1	08/30/17 10:10	08/30/17 21:02	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	66	%	19-96		1	08/30/17 10:10	08/30/17 21:02	321-60-8	
Terphenyl-d14 (S)	62	%	31-98		1	08/30/17 10:10	08/30/17 21:02	1718-51-0	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	19.3	%	0.10	0.10	1		08/29/17 17:24		

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### ANALYTICAL RESULTS

Project: 5454AXUC GINSENG WI

Pace Project No.: 40155653

**Sample: GP-3B @ 0-4'**      **Lab ID: 40155653005**      Collected: 08/23/17 09:30      Received: 08/25/17 08:00      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>WIGRO GCV</b> Analytical Method: WI MOD GRO    Preparation Method: TPH GRO/PVOC WI ext.									
Benzene	<25.0	ug/kg	50.0	25.0	1	08/28/17 08:00	08/28/17 21:41	71-43-2	W
Ethylbenzene	<25.0	ug/kg	50.0	25.0	1	08/28/17 08:00	08/28/17 21:41	100-41-4	W
Methyl-tert-butyl ether	<25.0	ug/kg	50.0	25.0	1	08/28/17 08:00	08/28/17 21:41	1634-04-4	W
Toluene	<25.0	ug/kg	50.0	25.0	1	08/28/17 08:00	08/28/17 21:41	108-88-3	W
1,2,4-Trimethylbenzene	<25.0	ug/kg	50.0	25.0	1	08/28/17 08:00	08/28/17 21:41	95-63-6	W
1,3,5-Trimethylbenzene	<25.0	ug/kg	50.0	25.0	1	08/28/17 08:00	08/28/17 21:41	108-67-8	W
m&p-Xylene	<50.0	ug/kg	100	50.0	1	08/28/17 08:00	08/28/17 21:41	179601-23-1	W
o-Xylene	<25.0	ug/kg	50.0	25.0	1	08/28/17 08:00	08/28/17 21:41	95-47-6	W
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	107	%	80-120		1	08/28/17 08:00	08/28/17 21:41	98-08-8	
<b>8270 MSSV PAH by SIM</b> Analytical Method: EPA 8270 by SIM    Preparation Method: EPA 3546									
Acenaphthene	<4.5	ug/kg	15.1	4.5	1	08/30/17 10:10	08/30/17 21:19	83-32-9	
Acenaphthylene	29.3	ug/kg	12.8	3.8	1	08/30/17 10:10	08/30/17 21:19	208-96-8	
Anthracene	16.9J	ug/kg	22.2	6.7	1	08/30/17 10:10	08/30/17 21:19	120-12-7	
Benzo(a)anthracene	52.4	ug/kg	12.4	3.7	1	08/30/17 10:10	08/30/17 21:19	56-55-3	
Benzo(a)pyrene	77.1	ug/kg	9.8	2.9	1	08/30/17 10:10	08/30/17 21:19	50-32-8	
Benzo(b)fluoranthene	98.5	ug/kg	11.0	3.3	1	08/30/17 10:10	08/30/17 21:19	205-99-2	
Benzo(g,h,i)perylene	88.8	ug/kg	7.9	2.4	1	08/30/17 10:10	08/30/17 21:19	191-24-2	
Benzo(k)fluoranthene	33.9	ug/kg	9.8	2.9	1	08/30/17 10:10	08/30/17 21:19	207-08-9	
Chrysene	72.1	ug/kg	13.1	3.9	1	08/30/17 10:10	08/30/17 21:19	218-01-9	
Dibenz(a,h)anthracene	15.5	ug/kg	8.7	2.6	1	08/30/17 10:10	08/30/17 21:19	53-70-3	
Fluoranthene	111	ug/kg	20.3	6.1	1	08/30/17 10:10	08/30/17 21:19	206-44-0	
Fluorene	5.6J	ug/kg	16.1	4.8	1	08/30/17 10:10	08/30/17 21:19	86-73-7	
Indeno(1,2,3-cd)pyrene	71.0	ug/kg	8.6	2.6	1	08/30/17 10:10	08/30/17 21:19	193-39-5	
1-Methylnaphthalene	<4.7	ug/kg	15.6	4.7	1	08/30/17 10:10	08/30/17 21:19	90-12-0	
2-Methylnaphthalene	6.2J	ug/kg	19.5	5.8	1	08/30/17 10:10	08/30/17 21:19	91-57-6	
Naphthalene	14.6J	ug/kg	32.8	9.8	1	08/30/17 10:10	08/30/17 21:19	91-20-3	
Phenanthrene	60.4	ug/kg	45.3	13.6	1	08/30/17 10:10	08/30/17 21:19	85-01-8	
Pyrene	104	ug/kg	17.5	5.3	1	08/30/17 10:10	08/30/17 21:19	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	60	%	19-96		1	08/30/17 10:10	08/30/17 21:19	321-60-8	
Terphenyl-d14 (S)	64	%	31-98		1	08/30/17 10:10	08/30/17 21:19	1718-51-0	
<b>Percent Moisture</b> Analytical Method: ASTM D2974-87									
Percent Moisture	14.1	%	0.10	0.10	1		08/29/17 17:24		

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### ANALYTICAL RESULTS

Project: 5454AXUC GINSENG WI

Pace Project No.: 40155653

**Sample: GP-3B @ 4-6'**      **Lab ID: 40155653006**      Collected: 08/23/17 09:35      Received: 08/25/17 08:00      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>WIGRO GCV</b> Analytical Method: WI MOD GRO      Preparation Method: TPH GRO/PVOC WI ext.									
Benzene	<25.0	ug/kg	50.0	25.0	1	08/28/17 08:00	08/28/17 22:07	71-43-2	W
Ethylbenzene	<25.0	ug/kg	50.0	25.0	1	08/28/17 08:00	08/28/17 22:07	100-41-4	W
Methyl-tert-butyl ether	<25.0	ug/kg	50.0	25.0	1	08/28/17 08:00	08/28/17 22:07	1634-04-4	W
Toluene	<25.0	ug/kg	50.0	25.0	1	08/28/17 08:00	08/28/17 22:07	108-88-3	W
1,2,4-Trimethylbenzene	<25.0	ug/kg	50.0	25.0	1	08/28/17 08:00	08/28/17 22:07	95-63-6	W
1,3,5-Trimethylbenzene	<25.0	ug/kg	50.0	25.0	1	08/28/17 08:00	08/28/17 22:07	108-67-8	W
m&p-Xylene	<50.0	ug/kg	100	50.0	1	08/28/17 08:00	08/28/17 22:07	179601-23-1	W
o-Xylene	<25.0	ug/kg	50.0	25.0	1	08/28/17 08:00	08/28/17 22:07	95-47-6	W
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	107	%	80-120		1	08/28/17 08:00	08/28/17 22:07	98-08-8	
<b>8270 MSSV PAH by SIM</b> Analytical Method: EPA 8270 by SIM      Preparation Method: EPA 3546									
Acenaphthene	<4.5	ug/kg	14.9	4.5	1	08/30/17 10:10	08/30/17 16:29	83-32-9	
Acenaphthylene	<3.8	ug/kg	12.7	3.8	1	08/30/17 10:10	08/30/17 16:29	208-96-8	
Anthracene	<6.6	ug/kg	22.0	6.6	1	08/30/17 10:10	08/30/17 16:29	120-12-7	
Benzo(a)anthracene	<3.7	ug/kg	12.3	3.7	1	08/30/17 10:10	08/30/17 16:29	56-55-3	
Benzo(a)pyrene	<2.9	ug/kg	9.7	2.9	1	08/30/17 10:10	08/30/17 16:29	50-32-8	
Benzo(b)fluoranthene	<3.3	ug/kg	10.9	3.3	1	08/30/17 10:10	08/30/17 16:29	205-99-2	
Benzo(g,h,i)perylene	<2.4	ug/kg	7.8	2.4	1	08/30/17 10:10	08/30/17 16:29	191-24-2	
Benzo(k)fluoranthene	<2.9	ug/kg	9.7	2.9	1	08/30/17 10:10	08/30/17 16:29	207-08-9	
Chrysene	<3.9	ug/kg	13.0	3.9	1	08/30/17 10:10	08/30/17 16:29	218-01-9	
Dibenz(a,h)anthracene	<2.6	ug/kg	8.6	2.6	1	08/30/17 10:10	08/30/17 16:29	53-70-3	
Fluoranthene	<6.0	ug/kg	20.1	6.0	1	08/30/17 10:10	08/30/17 16:29	206-44-0	
Fluorene	<4.8	ug/kg	16.0	4.8	1	08/30/17 10:10	08/30/17 16:29	86-73-7	
Indeno(1,2,3-cd)pyrene	<2.5	ug/kg	8.5	2.5	1	08/30/17 10:10	08/30/17 16:29	193-39-5	
1-Methylnaphthalene	<4.7	ug/kg	15.5	4.7	1	08/30/17 10:10	08/30/17 16:29	90-12-0	
2-Methylnaphthalene	<5.8	ug/kg	19.3	5.8	1	08/30/17 10:10	08/30/17 16:29	91-57-6	
Naphthalene	<9.7	ug/kg	32.5	9.7	1	08/30/17 10:10	08/30/17 16:29	91-20-3	
Phenanthrene	<13.5	ug/kg	44.9	13.5	1	08/30/17 10:10	08/30/17 16:29	85-01-8	
Pyrene	<5.2	ug/kg	17.4	5.2	1	08/30/17 10:10	08/30/17 16:29	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	62	%	19-96		1	08/30/17 10:10	08/30/17 16:29	321-60-8	
Terphenyl-d14 (S)	66	%	31-98		1	08/30/17 10:10	08/30/17 16:29	1718-51-0	
<b>Percent Moisture</b> Analytical Method: ASTM D2974-87									
Percent Moisture	13.6	%	0.10	0.10	1		08/29/17 17:24		

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### ANALYTICAL RESULTS

Project: 5454AXUC GINSENG WI

Pace Project No.: 40155653

**Sample: GP-4B @ 0-4'**      **Lab ID: 40155653007**      Collected: 08/23/17 09:45      Received: 08/25/17 08:00      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>WIGRO GCV</b>									
Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.									
Benzene	<25.0	ug/kg	50.0	25.0	1	08/28/17 08:00	08/28/17 22:32	71-43-2	W
Ethylbenzene	<25.0	ug/kg	50.0	25.0	1	08/28/17 08:00	08/28/17 22:32	100-41-4	W
Methyl-tert-butyl ether	<25.0	ug/kg	50.0	25.0	1	08/28/17 08:00	08/28/17 22:32	1634-04-4	W
Toluene	<25.0	ug/kg	50.0	25.0	1	08/28/17 08:00	08/28/17 22:32	108-88-3	W
1,2,4-Trimethylbenzene	<25.0	ug/kg	50.0	25.0	1	08/28/17 08:00	08/28/17 22:32	95-63-6	W
1,3,5-Trimethylbenzene	<25.0	ug/kg	50.0	25.0	1	08/28/17 08:00	08/28/17 22:32	108-67-8	W
m&p-Xylene	<50.0	ug/kg	100	50.0	1	08/28/17 08:00	08/28/17 22:32	179601-23-1	W
o-Xylene	<25.0	ug/kg	50.0	25.0	1	08/28/17 08:00	08/28/17 22:32	95-47-6	W
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	106	%	80-120		1	08/28/17 08:00	08/28/17 22:32	98-08-8	
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<4.4	ug/kg	14.5	4.4	1	08/30/17 10:10	08/30/17 21:36	83-32-9	
Acenaphthylene	<3.7	ug/kg	12.4	3.7	1	08/30/17 10:10	08/30/17 21:36	208-96-8	
Anthracene	<6.4	ug/kg	21.4	6.4	1	08/30/17 10:10	08/30/17 21:36	120-12-7	
Benzo(a)anthracene	4.1J	ug/kg	11.9	3.6	1	08/30/17 10:10	08/30/17 21:36	56-55-3	
Benzo(a)pyrene	5.4J	ug/kg	9.4	2.8	1	08/30/17 10:10	08/30/17 21:36	50-32-8	
Benzo(b)fluoranthene	6.2J	ug/kg	10.6	3.2	1	08/30/17 10:10	08/30/17 21:36	205-99-2	
Benzo(g,h,i)perylene	15.2	ug/kg	7.6	2.3	1	08/30/17 10:10	08/30/17 21:36	191-24-2	
Benzo(k)fluoranthene	<2.8	ug/kg	9.4	2.8	1	08/30/17 10:10	08/30/17 21:36	207-08-9	
Chrysene	3.8J	ug/kg	12.6	3.8	1	08/30/17 10:10	08/30/17 21:36	218-01-9	
Dibenz(a,h)anthracene	<2.5	ug/kg	8.4	2.5	1	08/30/17 10:10	08/30/17 21:36	53-70-3	
Fluoranthene	6.5J	ug/kg	19.6	5.9	1	08/30/17 10:10	08/30/17 21:36	206-44-0	
Fluorene	<4.7	ug/kg	15.5	4.7	1	08/30/17 10:10	08/30/17 21:36	86-73-7	
Indeno(1,2,3-cd)pyrene	3.9J	ug/kg	8.2	2.5	1	08/30/17 10:10	08/30/17 21:36	193-39-5	
1-Methylnaphthalene	<4.5	ug/kg	15.1	4.5	1	08/30/17 10:10	08/30/17 21:36	90-12-0	
2-Methylnaphthalene	<5.6	ug/kg	18.8	5.6	1	08/30/17 10:10	08/30/17 21:36	91-57-6	
Naphthalene	<9.5	ug/kg	31.6	9.5	1	08/30/17 10:10	08/30/17 21:36	91-20-3	
Phenanthrene	<13.1	ug/kg	43.7	13.1	1	08/30/17 10:10	08/30/17 21:36	85-01-8	
Pyrene	7.0J	ug/kg	16.9	5.1	1	08/30/17 10:10	08/30/17 21:36	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	65	%	19-96		1	08/30/17 10:10	08/30/17 21:36	321-60-8	
Terphenyl-d14 (S)	70	%	31-98		1	08/30/17 10:10	08/30/17 21:36	1718-51-0	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	11.3	%	0.10	0.10	1		08/29/17 17:25		

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## ANALYTICAL RESULTS

Project: 5454AXUC GINSENG WI

Pace Project No.: 40155653

**Sample: GP-4B @ 4-8' Lab ID: 40155653008** Collected: 08/23/17 09:50 Received: 08/25/17 08:00 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>WIGRO GCV</b>									
Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.									
Benzene	<25.0	ug/kg	50.0	25.0	1	08/28/17 08:00	08/28/17 22:58	71-43-2	W
Ethylbenzene	<25.0	ug/kg	50.0	25.0	1	08/28/17 08:00	08/28/17 22:58	100-41-4	W
Methyl-tert-butyl ether	<25.0	ug/kg	50.0	25.0	1	08/28/17 08:00	08/28/17 22:58	1634-04-4	W
Toluene	<25.0	ug/kg	50.0	25.0	1	08/28/17 08:00	08/28/17 22:58	108-88-3	W
1,2,4-Trimethylbenzene	<25.0	ug/kg	50.0	25.0	1	08/28/17 08:00	08/28/17 22:58	95-63-6	W
1,3,5-Trimethylbenzene	<25.0	ug/kg	50.0	25.0	1	08/28/17 08:00	08/28/17 22:58	108-67-8	W
m&p-Xylene	<50.0	ug/kg	100	50.0	1	08/28/17 08:00	08/28/17 22:58	179601-23-1	W
o-Xylene	<25.0	ug/kg	50.0	25.0	1	08/28/17 08:00	08/28/17 22:58	95-47-6	W
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	106	%	80-120		1	08/28/17 08:00	08/28/17 22:58	98-08-8	
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<4.8	ug/kg	16.0	4.8	1	08/30/17 10:10	08/30/17 21:53	83-32-9	
Acenaphthylene	<4.1	ug/kg	13.7	4.1	1	08/30/17 10:10	08/30/17 21:53	208-96-8	
Anthracene	<7.1	ug/kg	23.6	7.1	1	08/30/17 10:10	08/30/17 21:53	120-12-7	
Benzo(a)anthracene	<3.9	ug/kg	13.2	3.9	1	08/30/17 10:10	08/30/17 21:53	56-55-3	
Benzo(a)pyrene	<3.1	ug/kg	10.4	3.1	1	08/30/17 10:10	08/30/17 21:53	50-32-8	
Benzo(b)fluoranthene	<3.5	ug/kg	11.7	3.5	1	08/30/17 10:10	08/30/17 21:53	205-99-2	
Benzo(g,h,i)perylene	<2.5	ug/kg	8.4	2.5	1	08/30/17 10:10	08/30/17 21:53	191-24-2	
Benzo(k)fluoranthene	<3.1	ug/kg	10.4	3.1	1	08/30/17 10:10	08/30/17 21:53	207-08-9	
Chrysene	<4.2	ug/kg	13.9	4.2	1	08/30/17 10:10	08/30/17 21:53	218-01-9	
Dibenz(a,h)anthracene	<2.8	ug/kg	9.2	2.8	1	08/30/17 10:10	08/30/17 21:53	53-70-3	
Fluoranthene	<6.5	ug/kg	21.6	6.5	1	08/30/17 10:10	08/30/17 21:53	206-44-0	
Fluorene	<5.1	ug/kg	17.1	5.1	1	08/30/17 10:10	08/30/17 21:53	86-73-7	
Indeno(1,2,3-cd)pyrene	<2.7	ug/kg	9.1	2.7	1	08/30/17 10:10	08/30/17 21:53	193-39-5	
1-Methylnaphthalene	<5.0	ug/kg	16.6	5.0	1	08/30/17 10:10	08/30/17 21:53	90-12-0	
2-Methylnaphthalene	<6.2	ug/kg	20.7	6.2	1	08/30/17 10:10	08/30/17 21:53	91-57-6	
Naphthalene	<10.5	ug/kg	34.9	10.5	1	08/30/17 10:10	08/30/17 21:53	91-20-3	
Phenanthrene	<14.5	ug/kg	48.2	14.5	1	08/30/17 10:10	08/30/17 21:53	85-01-8	
Pyrene	<5.6	ug/kg	18.6	5.6	1	08/30/17 10:10	08/30/17 21:53	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	46	%	19-96		1	08/30/17 10:10	08/30/17 21:53	321-60-8	
Terphenyl-d14 (S)	70	%	31-98		1	08/30/17 10:10	08/30/17 21:53	1718-51-0	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	19.3	%	0.10	0.10	1		08/29/17 17:25		

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## ANALYTICAL RESULTS

Project: 5454AXUC GINSENG WI

Pace Project No.: 40155653

**Sample: GP-5B @ 0-4'**      **Lab ID: 40155653009**      Collected: 08/23/17 09:55      Received: 08/25/17 08:00      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>WIGRO GCV</b> Analytical Method: WI MOD GRO    Preparation Method: TPH GRO/PVOC WI ext.									
Benzene	<25.0	ug/kg	60.0	25.0	1	08/28/17 08:00	08/28/17 11:08	71-43-2	W
Ethylbenzene	<25.0	ug/kg	60.0	25.0	1	08/28/17 08:00	08/28/17 11:08	100-41-4	W
Methyl-tert-butyl ether	<25.0	ug/kg	60.0	25.0	1	08/28/17 08:00	08/28/17 11:08	1634-04-4	W
Toluene	<25.0	ug/kg	60.0	25.0	1	08/28/17 08:00	08/28/17 11:08	108-88-3	W
1,2,4-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	08/28/17 08:00	08/28/17 11:08	95-63-6	W
1,3,5-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	08/28/17 08:00	08/28/17 11:08	108-67-8	W
m&p-Xylene	<50.0	ug/kg	120	50.0	1	08/28/17 08:00	08/28/17 11:08	179601-23-1	W
o-Xylene	<25.0	ug/kg	60.0	25.0	1	08/28/17 08:00	08/28/17 11:08	95-47-6	W
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	100	%	80-120		1	08/28/17 08:00	08/28/17 11:08	98-08-8	
<b>8270 MSSV PAH by SIM</b> Analytical Method: EPA 8270 by SIM    Preparation Method: EPA 3546									
Acenaphthene	<4.6	ug/kg	15.4	4.6	1	08/31/17 09:13	08/31/17 17:59	83-32-9	
Acenaphthylene	<3.9	ug/kg	13.1	3.9	1	08/31/17 09:13	08/31/17 17:59	208-96-8	
Anthracene	<6.8	ug/kg	22.7	6.8	1	08/31/17 09:13	08/31/17 17:59	120-12-7	
Benzo(a)anthracene	8.6J	ug/kg	12.7	3.8	1	08/31/17 09:13	08/31/17 17:59	56-55-3	
Benzo(a)pyrene	6.0J	ug/kg	10.0	3.0	1	08/31/17 09:13	08/31/17 17:59	50-32-8	
Benzo(b)fluoranthene	7.6J	ug/kg	11.2	3.4	1	08/31/17 09:13	08/31/17 17:59	205-99-2	
Benzo(g,h,i)perylene	3.6J	ug/kg	8.1	2.4	1	08/31/17 09:13	08/31/17 17:59	191-24-2	
Benzo(k)fluoranthene	3.6J	ug/kg	10	3.0	1	08/31/17 09:13	08/31/17 17:59	207-08-9	
Chrysene	6.4J	ug/kg	13.4	4.0	1	08/31/17 09:13	08/31/17 17:59	218-01-9	
Dibenz(a,h)anthracene	<2.7	ug/kg	8.9	2.7	1	08/31/17 09:13	08/31/17 17:59	53-70-3	
Fluoranthene	13.2J	ug/kg	20.8	6.2	1	08/31/17 09:13	08/31/17 17:59	206-44-0	
Fluorene	<4.9	ug/kg	16.5	4.9	1	08/31/17 09:13	08/31/17 17:59	86-73-7	
Indeno(1,2,3-cd)pyrene	2.9J	ug/kg	8.8	2.6	1	08/31/17 09:13	08/31/17 17:59	193-39-5	
1-Methylnaphthalene	<4.8	ug/kg	16.0	4.8	1	08/31/17 09:13	08/31/17 17:59	90-12-0	
2-Methylnaphthalene	<6.0	ug/kg	20.0	6.0	1	08/31/17 09:13	08/31/17 17:59	91-57-6	
Naphthalene	<10.1	ug/kg	33.6	10.1	1	08/31/17 09:13	08/31/17 17:59	91-20-3	
Phenanthrene	<13.9	ug/kg	46.4	13.9	1	08/31/17 09:13	08/31/17 17:59	85-01-8	
Pyrene	11.4J	ug/kg	17.9	5.4	1	08/31/17 09:13	08/31/17 17:59	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	55	%	19-96		1	08/31/17 09:13	08/31/17 17:59	321-60-8	
Terphenyl-d14 (S)	57	%	31-98		1	08/31/17 09:13	08/31/17 17:59	1718-51-0	
<b>Percent Moisture</b> Analytical Method: ASTM D2974-87									
Percent Moisture	16.3	%	0.10	0.10	1		08/29/17 17:25		

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### ANALYTICAL RESULTS

Project: 5454AXUC GINSENG WI

Pace Project No.: 40155653

**Sample: GP-5B @ 8-10'**      **Lab ID: 40155653010**      Collected: 08/23/17 10:05      Received: 08/25/17 08:00      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>WIGRO GCV</b> Analytical Method: WI MOD GRO      Preparation Method: TPH GRO/PVOC WI ext.									
Benzene	<25.0	ug/kg	60.0	25.0	1	08/28/17 08:00	08/28/17 11:34	71-43-2	W
Ethylbenzene	<25.0	ug/kg	60.0	25.0	1	08/28/17 08:00	08/28/17 11:34	100-41-4	W
Methyl-tert-butyl ether	<25.0	ug/kg	60.0	25.0	1	08/28/17 08:00	08/28/17 11:34	1634-04-4	W
Toluene	<25.0	ug/kg	60.0	25.0	1	08/28/17 08:00	08/28/17 11:34	108-88-3	W
1,2,4-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	08/28/17 08:00	08/28/17 11:34	95-63-6	W
1,3,5-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	08/28/17 08:00	08/28/17 11:34	108-67-8	W
m&p-Xylene	<50.0	ug/kg	120	50.0	1	08/28/17 08:00	08/28/17 11:34	179601-23-1	W
o-Xylene	<25.0	ug/kg	60.0	25.0	1	08/28/17 08:00	08/28/17 11:34	95-47-6	W
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	100	%	80-120		1	08/28/17 08:00	08/28/17 11:34	98-08-8	
<b>8270 MSSV PAH by SIM</b> Analytical Method: EPA 8270 by SIM      Preparation Method: EPA 3546									
Acenaphthene	<4.8	ug/kg	15.9	4.8	1	08/31/17 09:13	08/31/17 18:17	83-32-9	
Acenaphthylene	<4.1	ug/kg	13.6	4.1	1	08/31/17 09:13	08/31/17 18:17	208-96-8	
Anthracene	<7.1	ug/kg	23.5	7.1	1	08/31/17 09:13	08/31/17 18:17	120-12-7	
Benzo(a)anthracene	<3.9	ug/kg	13.1	3.9	1	08/31/17 09:13	08/31/17 18:17	56-55-3	
Benzo(a)pyrene	<3.1	ug/kg	10.3	3.1	1	08/31/17 09:13	08/31/17 18:17	50-32-8	
Benzo(b)fluoranthene	<3.5	ug/kg	11.6	3.5	1	08/31/17 09:13	08/31/17 18:17	205-99-2	
Benzo(g,h,i)perylene	<2.5	ug/kg	8.4	2.5	1	08/31/17 09:13	08/31/17 18:17	191-24-2	
Benzo(k)fluoranthene	<3.1	ug/kg	10.3	3.1	1	08/31/17 09:13	08/31/17 18:17	207-08-9	
Chrysene	<4.2	ug/kg	13.8	4.2	1	08/31/17 09:13	08/31/17 18:17	218-01-9	
Dibenz(a,h)anthracene	<2.8	ug/kg	9.2	2.8	1	08/31/17 09:13	08/31/17 18:17	53-70-3	
Fluoranthene	<6.4	ug/kg	21.5	6.4	1	08/31/17 09:13	08/31/17 18:17	206-44-0	
Fluorene	<5.1	ug/kg	17.1	5.1	1	08/31/17 09:13	08/31/17 18:17	86-73-7	
Indeno(1,2,3-cd)pyrene	<2.7	ug/kg	9.1	2.7	1	08/31/17 09:13	08/31/17 18:17	193-39-5	
1-Methylnaphthalene	<5.0	ug/kg	16.6	5.0	1	08/31/17 09:13	08/31/17 18:17	90-12-0	
2-Methylnaphthalene	<6.2	ug/kg	20.6	6.2	1	08/31/17 09:13	08/31/17 18:17	91-57-6	
Naphthalene	<10.4	ug/kg	34.7	10.4	1	08/31/17 09:13	08/31/17 18:17	91-20-3	
Phenanthrene	<14.4	ug/kg	47.9	14.4	1	08/31/17 09:13	08/31/17 18:17	85-01-8	
Pyrene	<5.6	ug/kg	18.5	5.6	1	08/31/17 09:13	08/31/17 18:17	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	61	%	19-96		1	08/31/17 09:13	08/31/17 18:17	321-60-8	
Terphenyl-d14 (S)	57	%	31-98		1	08/31/17 09:13	08/31/17 18:17	1718-51-0	
<b>Percent Moisture</b> Analytical Method: ASTM D2974-87									
Percent Moisture	19.0	%	0.10	0.10	1		08/29/17 17:25		

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### ANALYTICAL RESULTS

Project: 5454AXUC GINSENG WI

Pace Project No.: 40155653

**Sample: GP-6B @ 0-4'**      **Lab ID: 40155653011**      Collected: 08/23/17 10:10      Received: 08/25/17 08:00      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>WIGRO GCV</b> Analytical Method: WI MOD GRO    Preparation Method: TPH GRO/PVOC WI ext.									
Benzene	<25.0	ug/kg	60.0	25.0	1	08/28/17 08:00	08/28/17 12:00	71-43-2	W
Ethylbenzene	<25.0	ug/kg	60.0	25.0	1	08/28/17 08:00	08/28/17 12:00	100-41-4	W
Methyl-tert-butyl ether	<25.0	ug/kg	60.0	25.0	1	08/28/17 08:00	08/28/17 12:00	1634-04-4	W
Toluene	<25.0	ug/kg	60.0	25.0	1	08/28/17 08:00	08/28/17 12:00	108-88-3	W
1,2,4-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	08/28/17 08:00	08/28/17 12:00	95-63-6	W
1,3,5-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	08/28/17 08:00	08/28/17 12:00	108-67-8	W
m&p-Xylene	<50.0	ug/kg	120	50.0	1	08/28/17 08:00	08/28/17 12:00	179601-23-1	W
o-Xylene	<25.0	ug/kg	60.0	25.0	1	08/28/17 08:00	08/28/17 12:00	95-47-6	W
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	100	%	80-120		1	08/28/17 08:00	08/28/17 12:00	98-08-8	
<b>8270 MSSV PAH by SIM</b> Analytical Method: EPA 8270 by SIM    Preparation Method: EPA 3546									
Acenaphthene	<4.2	ug/kg	14.0	4.2	1	08/31/17 09:13	09/01/17 12:31	83-32-9	
Acenaphthylene	3.8J	ug/kg	11.9	3.6	1	08/31/17 09:13	09/01/17 12:31	208-96-8	
Anthracene	<6.2	ug/kg	20.6	6.2	1	08/31/17 09:13	09/01/17 12:31	120-12-7	
Benzo(a)anthracene	14.4	ug/kg	11.5	3.4	1	08/31/17 09:13	09/01/17 12:31	56-55-3	
Benzo(a)pyrene	13.9	ug/kg	9.1	2.7	1	08/31/17 09:13	09/01/17 12:31	50-32-8	
Benzo(b)fluoranthene	18.5	ug/kg	10.2	3.1	1	08/31/17 09:13	09/01/17 12:31	205-99-2	
Benzo(g,h,i)perylene	12.6	ug/kg	7.3	2.2	1	08/31/17 09:13	09/01/17 12:31	191-24-2	
Benzo(k)fluoranthene	7.6J	ug/kg	9.1	2.7	1	08/31/17 09:13	09/01/17 12:31	207-08-9	
Chrysene	16.2	ug/kg	12.2	3.7	1	08/31/17 09:13	09/01/17 12:31	218-01-9	
Dibenz(a,h)anthracene	<2.4	ug/kg	8.1	2.4	1	08/31/17 09:13	09/01/17 12:31	53-70-3	
Fluoranthene	22.4	ug/kg	18.9	5.7	1	08/31/17 09:13	09/01/17 12:31	206-44-0	
Fluorene	<4.5	ug/kg	15.0	4.5	1	08/31/17 09:13	09/01/17 12:31	86-73-7	
Indeno(1,2,3-cd)pyrene	8.8	ug/kg	8.0	2.4	1	08/31/17 09:13	09/01/17 12:31	193-39-5	
1-Methylnaphthalene	4.6J	ug/kg	14.5	4.4	1	08/31/17 09:13	09/01/17 12:31	90-12-0	
2-Methylnaphthalene	5.6J	ug/kg	18.1	5.4	1	08/31/17 09:13	09/01/17 12:31	91-57-6	
Naphthalene	<9.1	ug/kg	30.5	9.1	1	08/31/17 09:13	09/01/17 12:31	91-20-3	
Phenanthrene	<12.6	ug/kg	42.1	12.6	1	08/31/17 09:13	09/01/17 12:31	85-01-8	
Pyrene	22.7	ug/kg	16.3	4.9	1	08/31/17 09:13	09/01/17 12:31	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	68	%	19-96		1	08/31/17 09:13	09/01/17 12:31	321-60-8	
Terphenyl-d14 (S)	69	%	31-98		1	08/31/17 09:13	09/01/17 12:31	1718-51-0	
<b>Percent Moisture</b> Analytical Method: ASTM D2974-87									
Percent Moisture	7.8	%	0.10	0.10	1		08/29/17 17:25		

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## ANALYTICAL RESULTS

Project: 5454AXUC GINSENG WI

Pace Project No.: 40155653

**Sample: GP-6B @ 8-10'**      **Lab ID: 40155653012**      Collected: 08/23/17 10:15      Received: 08/25/17 08:00      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>WIGRO GCV</b> Analytical Method: WI MOD GRO    Preparation Method: TPH GRO/PVOC WI ext.									
Benzene	<25.0	ug/kg	60.0	25.0	1	08/28/17 08:00	08/28/17 12:26	71-43-2	W
Ethylbenzene	<25.0	ug/kg	60.0	25.0	1	08/28/17 08:00	08/28/17 12:26	100-41-4	W
Methyl-tert-butyl ether	<25.0	ug/kg	60.0	25.0	1	08/28/17 08:00	08/28/17 12:26	1634-04-4	W
Toluene	<25.0	ug/kg	60.0	25.0	1	08/28/17 08:00	08/28/17 12:26	108-88-3	W
1,2,4-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	08/28/17 08:00	08/28/17 12:26	95-63-6	W
1,3,5-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	08/28/17 08:00	08/28/17 12:26	108-67-8	W
m&p-Xylene	<50.0	ug/kg	120	50.0	1	08/28/17 08:00	08/28/17 12:26	179601-23-1	W
o-Xylene	<25.0	ug/kg	60.0	25.0	1	08/28/17 08:00	08/28/17 12:26	95-47-6	W
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	101	%	80-120		1	08/28/17 08:00	08/28/17 12:26	98-08-8	
<b>8270 MSSV PAH by SIM</b> Analytical Method: EPA 8270 by SIM    Preparation Method: EPA 3546									
Acenaphthene	<4.7	ug/kg	15.5	4.7	1	08/31/17 09:13	08/31/17 15:08	83-32-9	
Acenaphthylene	<4.0	ug/kg	13.2	4.0	1	08/31/17 09:13	08/31/17 15:08	208-96-8	
Anthracene	<6.8	ug/kg	22.8	6.8	1	08/31/17 09:13	08/31/17 15:08	120-12-7	
Benzo(a)anthracene	<3.8	ug/kg	12.7	3.8	1	08/31/17 09:13	08/31/17 15:08	56-55-3	
Benzo(a)pyrene	<3.0	ug/kg	10.0	3.0	1	08/31/17 09:13	08/31/17 15:08	50-32-8	
Benzo(b)fluoranthene	<3.4	ug/kg	11.3	3.4	1	08/31/17 09:13	08/31/17 15:08	205-99-2	
Benzo(g,h,i)perylene	<2.4	ug/kg	8.1	2.4	1	08/31/17 09:13	08/31/17 15:08	191-24-2	
Benzo(k)fluoranthene	<3.0	ug/kg	10.0	3.0	1	08/31/17 09:13	08/31/17 15:08	207-08-9	
Chrysene	<4.0	ug/kg	13.4	4.0	1	08/31/17 09:13	08/31/17 15:08	218-01-9	
Dibenz(a,h)anthracene	<2.7	ug/kg	8.9	2.7	1	08/31/17 09:13	08/31/17 15:08	53-70-3	
Fluoranthene	<6.2	ug/kg	20.9	6.2	1	08/31/17 09:13	08/31/17 15:08	206-44-0	
Fluorene	<5.0	ug/kg	16.6	5.0	1	08/31/17 09:13	08/31/17 15:08	86-73-7	
Indeno(1,2,3-cd)pyrene	<2.6	ug/kg	8.8	2.6	1	08/31/17 09:13	08/31/17 15:08	193-39-5	
1-Methylnaphthalene	<4.8	ug/kg	16.1	4.8	1	08/31/17 09:13	08/31/17 15:08	90-12-0	
2-Methylnaphthalene	<6.0	ug/kg	20.0	6.0	1	08/31/17 09:13	08/31/17 15:08	91-57-6	
Naphthalene	<10.1	ug/kg	33.7	10.1	1	08/31/17 09:13	08/31/17 15:08	91-20-3	
Phenanthrene	<14.0	ug/kg	46.5	14.0	1	08/31/17 09:13	08/31/17 15:08	85-01-8	
Pyrene	<5.4	ug/kg	18.0	5.4	1	08/31/17 09:13	08/31/17 15:08	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	62	%	19-96		1	08/31/17 09:13	08/31/17 15:08	321-60-8	
Terphenyl-d14 (S)	65	%	31-98		1	08/31/17 09:13	08/31/17 15:08	1718-51-0	
<b>Percent Moisture</b> Analytical Method: ASTM D2974-87									
Percent Moisture	16.7	%	0.10	0.10	1		08/29/17 17:25		

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### ANALYTICAL RESULTS

Project: 5454AXUC GINSENG WI

Pace Project No.: 40155653

**Sample: GP-7B @ 0-4'**      **Lab ID: 40155653013**      Collected: 08/23/17 10:18      Received: 08/25/17 08:00      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>WIGRO GCV</b> Analytical Method: WI MOD GRO    Preparation Method: TPH GRO/PVOC WI ext.									
Benzene	<25.0	ug/kg	60.0	25.0	1	08/28/17 08:00	08/28/17 12:52	71-43-2	W
Ethylbenzene	<25.0	ug/kg	60.0	25.0	1	08/28/17 08:00	08/28/17 12:52	100-41-4	W
Methyl-tert-butyl ether	<25.0	ug/kg	60.0	25.0	1	08/28/17 08:00	08/28/17 12:52	1634-04-4	W
Toluene	48.5J	ug/kg	63.6	26.5	1	08/28/17 08:00	08/28/17 12:52	108-88-3	
1,2,4-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	08/28/17 08:00	08/28/17 12:52	95-63-6	W
1,3,5-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	08/28/17 08:00	08/28/17 12:52	108-67-8	W
m&p-Xylene	<50.0	ug/kg	120	50.0	1	08/28/17 08:00	08/28/17 12:52	179601-23-1	W
o-Xylene	30.5J	ug/kg	63.6	26.5	1	08/28/17 08:00	08/28/17 12:52	95-47-6	
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	101	%	80-120		1	08/28/17 08:00	08/28/17 12:52	98-08-8	
<b>8270 MSSV PAH by SIM</b> Analytical Method: EPA 8270 by SIM    Preparation Method: EPA 3546									
Acenaphthene	<4.1	ug/kg	13.7	4.1	1	08/31/17 09:13	09/01/17 12:48	83-32-9	
Acenaphthylene	3.8J	ug/kg	11.7	3.5	1	08/31/17 09:13	09/01/17 12:48	208-96-8	
Anthracene	<6.1	ug/kg	20.1	6.1	1	08/31/17 09:13	09/01/17 12:48	120-12-7	
Benzo(a)anthracene	29.3	ug/kg	11.2	3.4	1	08/31/17 09:13	09/01/17 12:48	56-55-3	
Benzo(a)pyrene	32.1	ug/kg	8.9	2.7	1	08/31/17 09:13	09/01/17 12:48	50-32-8	
Benzo(b)fluoranthene	40.1	ug/kg	10	3.0	1	08/31/17 09:13	09/01/17 12:48	205-99-2	
Benzo(g,h,i)perylene	23.8	ug/kg	7.2	2.2	1	08/31/17 09:13	09/01/17 12:48	191-24-2	
Benzo(k)fluoranthene	14.4	ug/kg	8.9	2.7	1	08/31/17 09:13	09/01/17 12:48	207-08-9	
Chrysene	41.4	ug/kg	11.9	3.6	1	08/31/17 09:13	09/01/17 12:48	218-01-9	
Dibenz(a,h)anthracene	6.2J	ug/kg	7.9	2.4	1	08/31/17 09:13	09/01/17 12:48	53-70-3	
Fluoranthene	51.5	ug/kg	18.4	5.5	1	08/31/17 09:13	09/01/17 12:48	206-44-0	
Fluorene	<4.4	ug/kg	14.6	4.4	1	08/31/17 09:13	09/01/17 12:48	86-73-7	
Indeno(1,2,3-cd)pyrene	17.4	ug/kg	7.8	2.3	1	08/31/17 09:13	09/01/17 12:48	193-39-5	
1-Methylnaphthalene	5.7J	ug/kg	14.2	4.3	1	08/31/17 09:13	09/01/17 12:48	90-12-0	
2-Methylnaphthalene	6.8J	ug/kg	17.7	5.3	1	08/31/17 09:13	09/01/17 12:48	91-57-6	
Naphthalene	<8.9	ug/kg	29.8	8.9	1	08/31/17 09:13	09/01/17 12:48	91-20-3	
Phenanthrene	29.0J	ug/kg	41.1	12.4	1	08/31/17 09:13	09/01/17 12:48	85-01-8	
Pyrene	63.6	ug/kg	15.9	4.8	1	08/31/17 09:13	09/01/17 12:48	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	84	%	19-96		1	08/31/17 09:13	09/01/17 12:48	321-60-8	
Terphenyl-d14 (S)	93	%	31-98		1	08/31/17 09:13	09/01/17 12:48	1718-51-0	
<b>Percent Moisture</b> Analytical Method: ASTM D2974-87									
Percent Moisture	5.6	%	0.10	0.10	1		08/29/17 17:25		

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### ANALYTICAL RESULTS

Project: 5454AXUC GINSENG WI

Pace Project No.: 40155653

**Sample: GP-7B @ 8-11' Lab ID: 40155653014** Collected: 08/23/17 10:25 Received: 08/25/17 08:00 Matrix: Solid

**Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.**

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>WIGRO GCV</b>									
Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.									
Benzene	<25.0	ug/kg	60.0	25.0	1	08/28/17 08:00	08/28/17 13:17	71-43-2	W
Ethylbenzene	<25.0	ug/kg	60.0	25.0	1	08/28/17 08:00	08/28/17 13:17	100-41-4	W
Methyl-tert-butyl ether	<25.0	ug/kg	60.0	25.0	1	08/28/17 08:00	08/28/17 13:17	1634-04-4	W
Toluene	<25.0	ug/kg	60.0	25.0	1	08/28/17 08:00	08/28/17 13:17	108-88-3	W
1,2,4-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	08/28/17 08:00	08/28/17 13:17	95-63-6	W
1,3,5-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	08/28/17 08:00	08/28/17 13:17	108-67-8	W
m&p-Xylene	<50.0	ug/kg	120	50.0	1	08/28/17 08:00	08/28/17 13:17	179601-23-1	W
o-Xylene	<25.0	ug/kg	60.0	25.0	1	08/28/17 08:00	08/28/17 13:17	95-47-6	W
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	102	%	80-120		1	08/28/17 08:00	08/28/17 13:17	98-08-8	
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<4.7	ug/kg	15.6	4.7	1	08/31/17 09:13	09/01/17 08:59	83-32-9	
Acenaphthylene	<4.0	ug/kg	13.3	4.0	1	08/31/17 09:13	09/01/17 08:59	208-96-8	
Anthracene	<6.9	ug/kg	22.9	6.9	1	08/31/17 09:13	09/01/17 08:59	120-12-7	
Benzo(a)anthracene	<3.8	ug/kg	12.8	3.8	1	08/31/17 09:13	09/01/17 08:59	56-55-3	
Benzo(a)pyrene	3.1J	ug/kg	10.1	3.0	1	08/31/17 09:13	09/01/17 08:59	50-32-8	
Benzo(b)fluoranthene	<3.4	ug/kg	11.4	3.4	1	08/31/17 09:13	09/01/17 08:59	205-99-2	
Benzo(g,h,i)perylene	<2.5	ug/kg	8.2	2.5	1	08/31/17 09:13	09/01/17 08:59	191-24-2	
Benzo(k)fluoranthene	<3.0	ug/kg	10.1	3.0	1	08/31/17 09:13	09/01/17 08:59	207-08-9	
Chrysene	<4.1	ug/kg	13.5	4.1	1	08/31/17 09:13	09/01/17 08:59	218-01-9	
Dibenz(a,h)anthracene	<2.7	ug/kg	9.0	2.7	1	08/31/17 09:13	09/01/17 08:59	53-70-3	
Fluoranthene	<6.3	ug/kg	21.0	6.3	1	08/31/17 09:13	09/01/17 08:59	206-44-0	
Fluorene	<5.0	ug/kg	16.7	5.0	1	08/31/17 09:13	09/01/17 08:59	86-73-7	
Indeno(1,2,3-cd)pyrene	<2.7	ug/kg	8.8	2.7	1	08/31/17 09:13	09/01/17 08:59	193-39-5	
1-Methylnaphthalene	<4.9	ug/kg	16.2	4.9	1	08/31/17 09:13	09/01/17 08:59	90-12-0	
2-Methylnaphthalene	<6.0	ug/kg	20.2	6.0	1	08/31/17 09:13	09/01/17 08:59	91-57-6	
Naphthalene	<10.2	ug/kg	33.9	10.2	1	08/31/17 09:13	09/01/17 08:59	91-20-3	
Phenanthrene	<14.1	ug/kg	46.8	14.1	1	08/31/17 09:13	09/01/17 08:59	85-01-8	
Pyrene	<5.4	ug/kg	18.1	5.4	1	08/31/17 09:13	09/01/17 08:59	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	55	%	19-96		1	08/31/17 09:13	09/01/17 08:59	321-60-8	
Terphenyl-d14 (S)	57	%	31-98		1	08/31/17 09:13	09/01/17 08:59	1718-51-0	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	17.1	%	0.10	0.10	1		09/06/17 12:22		

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### ANALYTICAL RESULTS

Project: 5454AXUC GINSENG WI

Pace Project No.: 40155653

**Sample: GP-8B @ 0-4'**      **Lab ID: 40155653015**      Collected: 08/23/17 10:30      Received: 08/25/17 08:00      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>WIGRO GCV</b> Analytical Method: WI MOD GRO      Preparation Method: TPH GRO/PVOC WI ext.									
Benzene	<25.0	ug/kg	60.0	25.0	1	08/28/17 08:00	08/28/17 13:43	71-43-2	W
Ethylbenzene	<25.0	ug/kg	60.0	25.0	1	08/28/17 08:00	08/28/17 13:43	100-41-4	W
Methyl-tert-butyl ether	<25.0	ug/kg	60.0	25.0	1	08/28/17 08:00	08/28/17 13:43	1634-04-4	W
Toluene	<25.0	ug/kg	60.0	25.0	1	08/28/17 08:00	08/28/17 13:43	108-88-3	W
1,2,4-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	08/28/17 08:00	08/28/17 13:43	95-63-6	W
1,3,5-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	08/28/17 08:00	08/28/17 13:43	108-67-8	W
m&p-Xylene	<50.0	ug/kg	120	50.0	1	08/28/17 08:00	08/28/17 13:43	179601-23-1	W
o-Xylene	<25.0	ug/kg	60.0	25.0	1	08/28/17 08:00	08/28/17 13:43	95-47-6	W
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	100	%	80-120		1	08/28/17 08:00	08/28/17 13:43	98-08-8	
<b>8270 MSSV PAH by SIM</b> Analytical Method: EPA 8270 by SIM      Preparation Method: EPA 3546									
Acenaphthene	<4.1	ug/kg	13.7	4.1	1	08/31/17 09:13	09/01/17 09:17	83-32-9	
Acenaphthylene	<3.5	ug/kg	11.7	3.5	1	08/31/17 09:13	09/01/17 09:17	208-96-8	
Anthracene	<6.1	ug/kg	20.3	6.1	1	08/31/17 09:13	09/01/17 09:17	120-12-7	
Benzo(a)anthracene	37.1	ug/kg	11.3	3.4	1	08/31/17 09:13	09/01/17 09:17	56-55-3	
Benzo(a)pyrene	37.1	ug/kg	8.9	2.7	1	08/31/17 09:13	09/01/17 09:17	50-32-8	
Benzo(b)fluoranthene	41.7	ug/kg	10.0	3.0	1	08/31/17 09:13	09/01/17 09:17	205-99-2	
Benzo(g,h,i)perylene	26.9	ug/kg	7.2	2.2	1	08/31/17 09:13	09/01/17 09:17	191-24-2	
Benzo(k)fluoranthene	15.3	ug/kg	8.9	2.7	1	08/31/17 09:13	09/01/17 09:17	207-08-9	
Chrysene	48.3	ug/kg	11.9	3.6	1	08/31/17 09:13	09/01/17 09:17	218-01-9	
Dibenz(a,h)anthracene	6.7J	ug/kg	7.9	2.4	1	08/31/17 09:13	09/01/17 09:17	53-70-3	
Fluoranthene	52.2	ug/kg	18.5	5.6	1	08/31/17 09:13	09/01/17 09:17	206-44-0	
Fluorene	<4.4	ug/kg	14.7	4.4	1	08/31/17 09:13	09/01/17 09:17	86-73-7	
Indeno(1,2,3-cd)pyrene	19.0	ug/kg	7.8	2.3	1	08/31/17 09:13	09/01/17 09:17	193-39-5	
1-Methylnaphthalene	6.4J	ug/kg	14.3	4.3	1	08/31/17 09:13	09/01/17 09:17	90-12-0	
2-Methylnaphthalene	7.3J	ug/kg	17.8	5.3	1	08/31/17 09:13	09/01/17 09:17	91-57-6	
Naphthalene	<9.0	ug/kg	29.9	9.0	1	08/31/17 09:13	09/01/17 09:17	91-20-3	
Phenanthrene	24.7J	ug/kg	41.4	12.4	1	08/31/17 09:13	09/01/17 09:17	85-01-8	
Pyrene	79.9	ug/kg	16.0	4.8	1	08/31/17 09:13	09/01/17 09:17	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	66	%	19-96		1	08/31/17 09:13	09/01/17 09:17	321-60-8	
Terphenyl-d14 (S)	74	%	31-98		1	08/31/17 09:13	09/01/17 09:17	1718-51-0	
<b>Percent Moisture</b> Analytical Method: ASTM D2974-87									
Percent Moisture	6.2	%	0.10	0.10	1		09/06/17 12:22		

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### ANALYTICAL RESULTS

Project: 5454AXUC GINSENG WI

Pace Project No.: 40155653

**Sample: GP-8B @ 8-11' Lab ID: 40155653016** Collected: 08/23/17 10:40 Received: 08/25/17 08:00 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>WIGRO GCV</b>									
Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.									
Benzene	<25.0	ug/kg	60.0	25.0	1	08/28/17 08:00	08/28/17 14:09	71-43-2	W
Ethylbenzene	<25.0	ug/kg	60.0	25.0	1	08/28/17 08:00	08/28/17 14:09	100-41-4	W
Methyl-tert-butyl ether	<25.0	ug/kg	60.0	25.0	1	08/28/17 08:00	08/28/17 14:09	1634-04-4	W
Toluene	<25.0	ug/kg	60.0	25.0	1	08/28/17 08:00	08/28/17 14:09	108-88-3	W
1,2,4-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	08/28/17 08:00	08/28/17 14:09	95-63-6	W
1,3,5-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	08/28/17 08:00	08/28/17 14:09	108-67-8	W
m&p-Xylene	<50.0	ug/kg	120	50.0	1	08/28/17 08:00	08/28/17 14:09	179601-23-1	W
o-Xylene	<25.0	ug/kg	60.0	25.0	1	08/28/17 08:00	08/28/17 14:09	95-47-6	W
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	101	%	80-120		1	08/28/17 08:00	08/28/17 14:09	98-08-8	
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<4.5	ug/kg	15.0	4.5	1	08/31/17 09:13	09/01/17 09:34	83-32-9	
Acenaphthylene	<3.8	ug/kg	12.8	3.8	1	08/31/17 09:13	09/01/17 09:34	208-96-8	
Anthracene	<6.6	ug/kg	22.1	6.6	1	08/31/17 09:13	09/01/17 09:34	120-12-7	
Benzo(a)anthracene	<3.7	ug/kg	12.3	3.7	1	08/31/17 09:13	09/01/17 09:34	56-55-3	
Benzo(a)pyrene	<2.9	ug/kg	9.7	2.9	1	08/31/17 09:13	09/01/17 09:34	50-32-8	
Benzo(b)fluoranthene	<3.3	ug/kg	10.9	3.3	1	08/31/17 09:13	09/01/17 09:34	205-99-2	
Benzo(g,h,i)perylene	<2.4	ug/kg	7.9	2.4	1	08/31/17 09:13	09/01/17 09:34	191-24-2	
Benzo(k)fluoranthene	<2.9	ug/kg	9.7	2.9	1	08/31/17 09:13	09/01/17 09:34	207-08-9	
Chrysene	<3.9	ug/kg	13.0	3.9	1	08/31/17 09:13	09/01/17 09:34	218-01-9	
Dibenz(a,h)anthracene	<2.6	ug/kg	8.7	2.6	1	08/31/17 09:13	09/01/17 09:34	53-70-3	
Fluoranthene	<6.1	ug/kg	20.2	6.1	1	08/31/17 09:13	09/01/17 09:34	206-44-0	
Fluorene	<4.8	ug/kg	16.1	4.8	1	08/31/17 09:13	09/01/17 09:34	86-73-7	
Indeno(1,2,3-cd)pyrene	<2.6	ug/kg	8.5	2.6	1	08/31/17 09:13	09/01/17 09:34	193-39-5	
1-Methylnaphthalene	<4.7	ug/kg	15.6	4.7	1	08/31/17 09:13	09/01/17 09:34	90-12-0	
2-Methylnaphthalene	<5.8	ug/kg	19.4	5.8	1	08/31/17 09:13	09/01/17 09:34	91-57-6	
Naphthalene	<9.8	ug/kg	32.7	9.8	1	08/31/17 09:13	09/01/17 09:34	91-20-3	
Phenanthrene	<13.6	ug/kg	45.1	13.6	1	08/31/17 09:13	09/01/17 09:34	85-01-8	
Pyrene	<5.2	ug/kg	17.4	5.2	1	08/31/17 09:13	09/01/17 09:34	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	64	%	19-96		1	08/31/17 09:13	09/01/17 09:34	321-60-8	
Terphenyl-d14 (S)	72	%	31-98		1	08/31/17 09:13	09/01/17 09:34	1718-51-0	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	14.1	%	0.10	0.10	1		09/06/17 12:22		

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### ANALYTICAL RESULTS

Project: 5454AXUC GINSENG WI

Pace Project No.: 40155653

**Sample: GP-9B @ 0-4'**      **Lab ID: 40155653017**      Collected: 08/23/17 10:50      Received: 08/25/17 08:00      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>WIGRO GCV</b> Analytical Method: WI MOD GRO      Preparation Method: TPH GRO/PVOC WI ext.									
Benzene	<25.0	ug/kg	60.0	25.0	1	08/28/17 08:00	08/28/17 14:34	71-43-2	W
Ethylbenzene	<25.0	ug/kg	60.0	25.0	1	08/28/17 08:00	08/28/17 14:34	100-41-4	W
Methyl-tert-butyl ether	<25.0	ug/kg	60.0	25.0	1	08/28/17 08:00	08/28/17 14:34	1634-04-4	W
Toluene	<25.0	ug/kg	60.0	25.0	1	08/28/17 08:00	08/28/17 14:34	108-88-3	W
1,2,4-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	08/28/17 08:00	08/28/17 14:34	95-63-6	W
1,3,5-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	08/28/17 08:00	08/28/17 14:34	108-67-8	W
m&p-Xylene	<50.0	ug/kg	120	50.0	1	08/28/17 08:00	08/28/17 14:34	179601-23-1	W
o-Xylene	<25.0	ug/kg	60.0	25.0	1	08/28/17 08:00	08/28/17 14:34	95-47-6	W
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	101	%	80-120		1	08/28/17 08:00	08/28/17 14:34	98-08-8	
<b>8270 MSSV PAH by SIM</b> Analytical Method: EPA 8270 by SIM      Preparation Method: EPA 3546									
Acenaphthene	<4.6	ug/kg	15.4	4.6	1	08/31/17 09:13	09/01/17 09:51	83-32-9	
Acenaphthylene	<3.9	ug/kg	13.2	3.9	1	08/31/17 09:13	09/01/17 09:51	208-96-8	
Anthracene	<6.8	ug/kg	22.7	6.8	1	08/31/17 09:13	09/01/17 09:51	120-12-7	
Benzo(a)anthracene	<3.8	ug/kg	12.7	3.8	1	08/31/17 09:13	09/01/17 09:51	56-55-3	
Benzo(a)pyrene	<3.0	ug/kg	10.0	3.0	1	08/31/17 09:13	09/01/17 09:51	50-32-8	
Benzo(b)fluoranthene	<3.4	ug/kg	11.3	3.4	1	08/31/17 09:13	09/01/17 09:51	205-99-2	
Benzo(g,h,i)perylene	<2.4	ug/kg	8.1	2.4	1	08/31/17 09:13	09/01/17 09:51	191-24-2	
Benzo(k)fluoranthene	<3.0	ug/kg	10	3.0	1	08/31/17 09:13	09/01/17 09:51	207-08-9	
Chrysene	<4.0	ug/kg	13.4	4.0	1	08/31/17 09:13	09/01/17 09:51	218-01-9	
Dibenz(a,h)anthracene	<2.7	ug/kg	8.9	2.7	1	08/31/17 09:13	09/01/17 09:51	53-70-3	
Fluoranthene	<6.2	ug/kg	20.8	6.2	1	08/31/17 09:13	09/01/17 09:51	206-44-0	
Fluorene	<4.9	ug/kg	16.5	4.9	1	08/31/17 09:13	09/01/17 09:51	86-73-7	
Indeno(1,2,3-cd)pyrene	<2.6	ug/kg	8.8	2.6	1	08/31/17 09:13	09/01/17 09:51	193-39-5	
1-Methylnaphthalene	<4.8	ug/kg	16.0	4.8	1	08/31/17 09:13	09/01/17 09:51	90-12-0	
2-Methylnaphthalene	<6.0	ug/kg	20.0	6.0	1	08/31/17 09:13	09/01/17 09:51	91-57-6	
Naphthalene	<10.1	ug/kg	33.6	10.1	1	08/31/17 09:13	09/01/17 09:51	91-20-3	
Phenanthrene	<13.9	ug/kg	46.4	13.9	1	08/31/17 09:13	09/01/17 09:51	85-01-8	
Pyrene	<5.4	ug/kg	17.9	5.4	1	08/31/17 09:13	09/01/17 09:51	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	63	%	19-96		1	08/31/17 09:13	09/01/17 09:51	321-60-8	
Terphenyl-d14 (S)	69	%	31-98		1	08/31/17 09:13	09/01/17 09:51	1718-51-0	
<b>Percent Moisture</b> Analytical Method: ASTM D2974-87									
Percent Moisture	16.3	%	0.10	0.10	1		09/06/17 12:23		

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: 5454AXUC GINSENG WI

Pace Project No.: 40155653

**Sample: GP-9B @ 8-12' Lab ID: 40155653018** Collected: 08/23/17 11:00 Received: 08/25/17 08:00 Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>WIGRO GCV</b>									
Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.									
Benzene	<25.0	ug/kg	60.0	25.0	1	08/28/17 08:00	08/28/17 15:00	71-43-2	W
Ethylbenzene	<25.0	ug/kg	60.0	25.0	1	08/28/17 08:00	08/28/17 15:00	100-41-4	W
Methyl-tert-butyl ether	<25.0	ug/kg	60.0	25.0	1	08/28/17 08:00	08/28/17 15:00	1634-04-4	W
Toluene	<25.0	ug/kg	60.0	25.0	1	08/28/17 08:00	08/28/17 15:00	108-88-3	W
1,2,4-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	08/28/17 08:00	08/28/17 15:00	95-63-6	W
1,3,5-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	08/28/17 08:00	08/28/17 15:00	108-67-8	W
m&p-Xylene	<50.0	ug/kg	120	50.0	1	08/28/17 08:00	08/28/17 15:00	179601-23-1	W
o-Xylene	<25.0	ug/kg	60.0	25.0	1	08/28/17 08:00	08/28/17 15:00	95-47-6	W
<b>Surrogates</b>									
a,a,a-Trifluorotoluene (S)	100	%	80-120		1	08/28/17 08:00	08/28/17 15:00	98-08-8	
<b>8270 MSSV PAH by SIM</b>									
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546									
Acenaphthene	<4.6	ug/kg	15.3	4.6	1	08/31/17 09:13	09/01/17 10:08	83-32-9	
Acenaphthylene	<3.9	ug/kg	13.0	3.9	1	08/31/17 09:13	09/01/17 10:08	208-96-8	
Anthracene	<6.8	ug/kg	22.5	6.8	1	08/31/17 09:13	09/01/17 10:08	120-12-7	
Benzo(a)anthracene	<3.8	ug/kg	12.5	3.8	1	08/31/17 09:13	09/01/17 10:08	56-55-3	
Benzo(a)pyrene	<3.0	ug/kg	9.9	3.0	1	08/31/17 09:13	09/01/17 10:08	50-32-8	
Benzo(b)fluoranthene	<3.3	ug/kg	11.1	3.3	1	08/31/17 09:13	09/01/17 10:08	205-99-2	
Benzo(g,h,i)perylene	<2.4	ug/kg	8.0	2.4	1	08/31/17 09:13	09/01/17 10:08	191-24-2	
Benzo(k)fluoranthene	<3.0	ug/kg	9.9	3.0	1	08/31/17 09:13	09/01/17 10:08	207-08-9	
Chrysene	<4.0	ug/kg	13.3	4.0	1	08/31/17 09:13	09/01/17 10:08	218-01-9	
Dibenz(a,h)anthracene	<2.6	ug/kg	8.8	2.6	1	08/31/17 09:13	09/01/17 10:08	53-70-3	
Fluoranthene	<6.2	ug/kg	20.6	6.2	1	08/31/17 09:13	09/01/17 10:08	206-44-0	
Fluorene	<4.9	ug/kg	16.3	4.9	1	08/31/17 09:13	09/01/17 10:08	86-73-7	
Indeno(1,2,3-cd)pyrene	<2.6	ug/kg	8.7	2.6	1	08/31/17 09:13	09/01/17 10:08	193-39-5	
1-Methylnaphthalene	<4.8	ug/kg	15.9	4.8	1	08/31/17 09:13	09/01/17 10:08	90-12-0	
2-Methylnaphthalene	<5.9	ug/kg	19.8	5.9	1	08/31/17 09:13	09/01/17 10:08	91-57-6	
Naphthalene	<10	ug/kg	33.3	10	1	08/31/17 09:13	09/01/17 10:08	91-20-3	
Phenanthrene	<13.8	ug/kg	45.9	13.8	1	08/31/17 09:13	09/01/17 10:08	85-01-8	
Pyrene	<5.3	ug/kg	17.8	5.3	1	08/31/17 09:13	09/01/17 10:08	129-00-0	
<b>Surrogates</b>									
2-Fluorobiphenyl (S)	69	%	19-96		1	08/31/17 09:13	09/01/17 10:08	321-60-8	
Terphenyl-d14 (S)	77	%	31-98		1	08/31/17 09:13	09/01/17 10:08	1718-51-0	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	15.6	%	0.10	0.10	1		09/06/17 12:23		

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: 5454AXUC GINSENG WI  
Pace Project No.: 40155653

QC Batch: 265848 Analysis Method: WI MOD GRO  
QC Batch Method: TPH GRO/PVOC WI ext. Analysis Description: WIGRO Solid GCV  
Associated Lab Samples: 40155653001, 40155653002, 40155653003, 40155653004, 40155653005, 40155653006, 40155653007, 40155653008

METHOD BLANK: 1563519 Matrix: Solid  
Associated Lab Samples: 40155653001, 40155653002, 40155653003, 40155653004, 40155653005, 40155653006, 40155653007, 40155653008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trimethylbenzene	ug/kg	<25.0	50.0	08/28/17 09:19	
1,3,5-Trimethylbenzene	ug/kg	<25.0	50.0	08/28/17 09:19	
Benzene	ug/kg	<25.0	50.0	08/28/17 09:19	
Ethylbenzene	ug/kg	<25.0	50.0	08/28/17 09:19	
m&p-Xylene	ug/kg	<50.0	100	08/28/17 09:19	
Methyl-tert-butyl ether	ug/kg	<25.0	50.0	08/28/17 09:19	
o-Xylene	ug/kg	<25.0	50.0	08/28/17 09:19	
Toluene	ug/kg	<25.0	50.0	08/28/17 09:19	
a,a,a-Trifluorotoluene (S)	%	106	80-120	08/28/17 09:19	

Parameter	Units	1563520		1563521		% Rec Limits	RPD	Max RPD	Qualifiers
		Spike Conc.	LCS Result	LCSD Result	LCS % Rec				
1,2,4-Trimethylbenzene	ug/kg	1000	1070	1060	107	106	80-120	0	20
1,3,5-Trimethylbenzene	ug/kg	1000	1040	1030	104	103	80-120	1	20
Benzene	ug/kg	1000	1050	1020	105	102	80-120	2	20
Ethylbenzene	ug/kg	1000	1080	1070	108	107	80-120	1	20
m&p-Xylene	ug/kg	2000	2130	2100	106	105	80-120	1	20
Methyl-tert-butyl ether	ug/kg	1000	1040	1050	104	105	80-120	1	20
o-Xylene	ug/kg	1000	1060	1060	106	106	80-120	1	20
Toluene	ug/kg	1000	1060	1050	106	105	80-120	1	20
a,a,a-Trifluorotoluene (S)	%				106	107	80-120		

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### QUALITY CONTROL DATA

Project: 5454AXUC GINSENG WI  
Pace Project No.: 40155653

QC Batch: 265849 Analysis Method: WI MOD GRO  
QC Batch Method: TPH GRO/PVOC WI ext. Analysis Description: WIGRO Solid GCV  
Associated Lab Samples: 40155653009, 40155653010, 40155653011, 40155653012, 40155653013, 40155653014, 40155653015, 40155653016, 40155653017, 40155653018

METHOD BLANK: 1563522 Matrix: Solid  
Associated Lab Samples: 40155653009, 40155653010, 40155653011, 40155653012, 40155653013, 40155653014, 40155653015, 40155653016, 40155653017, 40155653018

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trimethylbenzene	ug/kg	<25.0	50.0	08/28/17 09:21	
1,3,5-Trimethylbenzene	ug/kg	<25.0	50.0	08/28/17 09:21	
Benzene	ug/kg	<25.0	50.0	08/28/17 09:21	
Ethylbenzene	ug/kg	<25.0	50.0	08/28/17 09:21	
m&p-Xylene	ug/kg	<50.0	100	08/28/17 09:21	
Methyl-tert-butyl ether	ug/kg	<25.0	50.0	08/28/17 09:21	
o-Xylene	ug/kg	<25.0	50.0	08/28/17 09:21	
Toluene	ug/kg	<25.0	50.0	08/28/17 09:21	
a,a,a-Trifluorotoluene (S)	%	100	80-120	08/28/17 09:21	

LABORATORY CONTROL SAMPLE & LCSD: 1563523

Parameter	Units	1563524								
		Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2,4-Trimethylbenzene	ug/kg	1000	957	928	96	93	80-120	3	20	
1,3,5-Trimethylbenzene	ug/kg	1000	938	905	94	91	80-120	4	20	
Benzene	ug/kg	1000	960	950	96	95	80-120	1	20	
Ethylbenzene	ug/kg	1000	970	937	97	94	80-120	3	20	
m&p-Xylene	ug/kg	2000	1920	1850	96	92	80-120	4	20	
Methyl-tert-butyl ether	ug/kg	1000	905	885	90	88	80-120	2	20	
o-Xylene	ug/kg	1000	978	935	98	94	80-120	4	20	
Toluene	ug/kg	1000	967	941	97	94	80-120	3	20	
a,a,a-Trifluorotoluene (S)	%				104	102	80-120			

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### QUALITY CONTROL DATA

Project: 5454AXUC GINSENG WI

Pace Project No.: 40155653

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QC Batch: 266174 Analysis Method: EPA 8270 by SIM  
 QC Batch Method: EPA 3546 Analysis Description: 8270/3546 MSSV PAH by SIM  
 Associated Lab Samples: 40155653001, 40155653002, 40155653003, 40155653004, 40155653005, 40155653006, 40155653007, 40155653008

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METHOD BLANK: 1564513 Matrix: Solid  
 Associated Lab Samples: 40155653001, 40155653002, 40155653003, 40155653004, 40155653005, 40155653006, 40155653007, 40155653008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1-Methylnaphthalene	ug/kg	<4.0	13.4	08/30/17 15:54	
2-Methylnaphthalene	ug/kg	<5.0	16.7	08/30/17 15:54	
Acenaphthene	ug/kg	<3.9	12.9	08/30/17 15:54	
Acenaphthylene	ug/kg	<3.3	11.0	08/30/17 15:54	
Anthracene	ug/kg	<5.7	19.0	08/30/17 15:54	
Benzo(a)anthracene	ug/kg	<3.2	10.6	08/30/17 15:54	
Benzo(a)pyrene	ug/kg	<2.5	8.4	08/30/17 15:54	
Benzo(b)fluoranthene	ug/kg	<2.8	9.4	08/30/17 15:54	
Benzo(g,h,i)perylene	ug/kg	<2.0	6.8	08/30/17 15:54	
Benzo(k)fluoranthene	ug/kg	<2.5	8.4	08/30/17 15:54	
Chrysene	ug/kg	<3.4	11.2	08/30/17 15:54	
Dibenz(a,h)anthracene	ug/kg	<2.2	7.5	08/30/17 15:54	
Fluoranthene	ug/kg	<5.2	17.4	08/30/17 15:54	
Fluorene	ug/kg	<4.1	13.8	08/30/17 15:54	
Indeno(1,2,3-cd)pyrene	ug/kg	<2.2	7.3	08/30/17 15:54	
Naphthalene	ug/kg	<8.4	28.1	08/30/17 15:54	
Phenanthrene	ug/kg	<11.7	38.8	08/30/17 15:54	
Pyrene	ug/kg	<4.5	15.0	08/30/17 15:54	
2-Fluorobiphenyl (S)	%	54	19-96	08/30/17 15:54	
Terphenyl-d14 (S)	%	63	31-98	08/30/17 15:54	

LABORATORY CONTROL SAMPLE: 1564514

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1-Methylnaphthalene	ug/kg	334	269	80	49-102	
2-Methylnaphthalene	ug/kg	334	269	81	47-91	
Acenaphthene	ug/kg	334	261	78	52-97	
Acenaphthylene	ug/kg	334	263	79	49-97	
Anthracene	ug/kg	334	280	84	62-101	
Benzo(a)anthracene	ug/kg	334	268	80	53-95	
Benzo(a)pyrene	ug/kg	334	284	85	57-108	
Benzo(b)fluoranthene	ug/kg	334	280	84	53-113	
Benzo(g,h,i)perylene	ug/kg	334	294	88	43-114	
Benzo(k)fluoranthene	ug/kg	334	283	85	66-116	
Chrysene	ug/kg	334	286	86	64-109	
Dibenz(a,h)anthracene	ug/kg	334	296	89	50-105	
Fluoranthene	ug/kg	334	291	87	58-107	
Fluorene	ug/kg	334	272	82	52-99	

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### QUALITY CONTROL DATA

Project: 5454AXUC GINSENG WI

Pace Project No.: 40155653

LABORATORY CONTROL SAMPLE: 1564514

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Indeno(1,2,3-cd)pyrene	ug/kg	334	298	89	51-113	
Naphthalene	ug/kg	334	242	72	50-91	
Phenanthrene	ug/kg	334	278	83	57-101	
Pyrene	ug/kg	334	287	86	50-102	
2-Fluorobiphenyl (S)	%			73	19-96	
Terphenyl-d14 (S)	%			85	31-98	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1564515 1564516

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40155653006 Result	Spike Conc.	Spike Conc.	MS Result						
1-Methylnaphthalene	ug/kg	<4.7	385	386	298	269	77	70	37-102	10	29
2-Methylnaphthalene	ug/kg	<5.8	385	386	298	271	77	70	44-91	9	36
Acenaphthene	ug/kg	<4.5	385	386	296	263	77	68	46-97	12	26
Acenaphthylene	ug/kg	<3.8	385	386	298	268	77	69	47-97	11	29
Anthracene	ug/kg	<6.6	385	386	309	272	80	71	50-101	13	28
Benzo(a)anthracene	ug/kg	<3.7	385	386	291	259	75	67	48-95	11	28
Benzo(a)pyrene	ug/kg	<2.9	385	386	309	277	80	72	47-108	11	36
Benzo(b)fluoranthene	ug/kg	<3.3	385	386	306	268	79	69	42-113	13	34
Benzo(g,h,i)perylene	ug/kg	<2.4	385	386	303	270	79	70	18-114	11	30
Benzo(k)fluoranthene	ug/kg	<2.9	385	386	316	277	82	72	50-116	13	27
Chrysene	ug/kg	<3.9	385	386	312	280	81	72	55-109	11	28
Dibenz(a,h)anthracene	ug/kg	<2.6	385	386	308	277	80	72	39-105	11	29
Fluoranthene	ug/kg	<6.0	385	386	317	280	82	72	41-107	13	28
Fluorene	ug/kg	<4.8	385	386	303	271	79	70	48-99	11	28
Indeno(1,2,3-cd)pyrene	ug/kg	<2.5	385	386	307	277	80	72	27-113	10	30
Naphthalene	ug/kg	<9.7	385	386	276	255	72	66	40-91	8	37
Phenanthrene	ug/kg	<13.5	385	386	307	270	80	70	46-101	13	40
Pyrene	ug/kg	<5.2	385	386	301	266	78	69	50-102	12	31
2-Fluorobiphenyl (S)	%						64	62	19-96		
Terphenyl-d14 (S)	%						67	65	31-98		

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### QUALITY CONTROL DATA

Project: 5454AXUC GINSENG WI  
Pace Project No.: 40155653

QC Batch: 266313 Analysis Method: EPA 8270 by SIM  
QC Batch Method: EPA 3546 Analysis Description: 8270/3546 MSSV PAH by SIM  
Associated Lab Samples: 40155653009, 40155653010, 40155653011, 40155653012, 40155653013, 40155653014, 40155653015, 40155653016, 40155653017, 40155653018

METHOD BLANK: 1565288 Matrix: Solid  
Associated Lab Samples: 40155653009, 40155653010, 40155653011, 40155653012, 40155653013, 40155653014, 40155653015, 40155653016, 40155653017, 40155653018

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1-Methylnaphthalene	ug/kg	<4.0	13.4	08/31/17 14:33	
2-Methylnaphthalene	ug/kg	<5.0	16.7	08/31/17 14:33	
Acenaphthene	ug/kg	<3.9	12.9	08/31/17 14:33	
Acenaphthylene	ug/kg	<3.3	11.0	08/31/17 14:33	
Anthracene	ug/kg	<5.7	19.0	08/31/17 14:33	
Benzo(a)anthracene	ug/kg	<3.2	10.6	08/31/17 14:33	
Benzo(a)pyrene	ug/kg	<2.5	8.4	08/31/17 14:33	
Benzo(b)fluoranthene	ug/kg	<2.8	9.4	08/31/17 14:33	
Benzo(g,h,i)perylene	ug/kg	<2.0	6.8	08/31/17 14:33	
Benzo(k)fluoranthene	ug/kg	<2.5	8.4	08/31/17 14:33	
Chrysene	ug/kg	<3.4	11.2	08/31/17 14:33	
Dibenz(a,h)anthracene	ug/kg	<2.2	7.5	08/31/17 14:33	
Fluoranthene	ug/kg	<5.2	17.4	08/31/17 14:33	
Fluorene	ug/kg	<4.1	13.8	08/31/17 14:33	
Indeno(1,2,3-cd)pyrene	ug/kg	<2.2	7.3	08/31/17 14:33	
Naphthalene	ug/kg	<8.4	28.1	08/31/17 14:33	
Phenanthrene	ug/kg	<11.7	38.9	08/31/17 14:33	
Pyrene	ug/kg	<4.5	15.0	08/31/17 14:33	
2-Fluorobiphenyl (S)	%	79	19-96	08/31/17 14:33	
Terphenyl-d14 (S)	%	91	31-98	08/31/17 14:33	

LABORATORY CONTROL SAMPLE: 1565289

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1-Methylnaphthalene	ug/kg	333	278	83	49-102	
2-Methylnaphthalene	ug/kg	333	278	83	47-91	
Acenaphthene	ug/kg	333	271	81	52-97	
Acenaphthylene	ug/kg	333	273	82	49-97	
Anthracene	ug/kg	333	289	87	62-101	
Benzo(a)anthracene	ug/kg	333	270	81	53-95	
Benzo(a)pyrene	ug/kg	333	293	88	57-108	
Benzo(b)fluoranthene	ug/kg	333	290	87	53-113	
Benzo(g,h,i)perylene	ug/kg	333	288	86	43-114	
Benzo(k)fluoranthene	ug/kg	333	287	86	66-116	
Chrysene	ug/kg	333	297	89	64-109	
Dibenz(a,h)anthracene	ug/kg	333	289	87	50-105	
Fluoranthene	ug/kg	333	294	88	58-107	
Fluorene	ug/kg	333	281	84	52-99	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: 5454AXUC GINSENG WI

Pace Project No.: 40155653

LABORATORY CONTROL SAMPLE: 1565289

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Indeno(1,2,3-cd)pyrene	ug/kg	333	292	88	51-113	
Naphthalene	ug/kg	333	252	76	50-91	
Phenanthrene	ug/kg	333	287	86	57-101	
Pyrene	ug/kg	333	290	87	50-102	
2-Fluorobiphenyl (S)	%			78	19-96	
Terphenyl-d14 (S)	%			84	31-98	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1565290 1565291

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual	
		40155653012 Result	Spike Conc.	Spike Conc.	MS Result						MSD Result
1-Methylnaphthalene	ug/kg	<4.8	400	400	311	300	78	75	37-102	4	29
2-Methylnaphthalene	ug/kg	<6.0	400	400	321	312	80	78	44-91	3	36
Acenaphthene	ug/kg	<4.7	400	400	305	286	76	71	46-97	7	26
Acenaphthylene	ug/kg	<4.0	400	400	305	287	76	72	47-97	6	29
Anthracene	ug/kg	<6.8	400	400	304	293	76	73	50-101	4	28
Benzo(a)anthracene	ug/kg	<3.8	400	400	287	277	72	69	48-95	3	28
Benzo(a)pyrene	ug/kg	<3.0	400	400	308	291	77	73	47-108	6	36
Benzo(b)fluoranthene	ug/kg	<3.4	400	400	300	282	75	70	42-113	6	34
Benzo(g,h,i)perylene	ug/kg	<2.4	400	400	309	294	77	73	18-114	5	30
Benzo(k)fluoranthene	ug/kg	<3.0	400	400	308	301	77	75	50-116	2	27
Chrysene	ug/kg	<4.0	400	400	316	305	79	76	55-109	4	28
Dibenz(a,h)anthracene	ug/kg	<2.7	400	400	314	298	78	74	39-105	5	29
Fluoranthene	ug/kg	<6.2	400	400	311	295	78	74	41-107	5	28
Fluorene	ug/kg	<5.0	400	400	306	296	76	74	48-99	3	28
Indeno(1,2,3-cd)pyrene	ug/kg	<2.6	400	400	312	293	78	73	27-113	6	30
Naphthalene	ug/kg	<10.1	400	400	312	289	78	72	40-91	8	37
Phenanthrene	ug/kg	<14.0	400	400	310	291	78	73	46-101	6	40
Pyrene	ug/kg	<5.4	400	400	306	295	76	74	50-102	4	31
2-Fluorobiphenyl (S)	%						65	64	19-96		
Terphenyl-d14 (S)	%						65	67	31-98		

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: 5454AXUC GINSENG WI

Pace Project No.: 40155653

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QC Batch:	266153	Analysis Method:	ASTM D2974-87
QC Batch Method:	ASTM D2974-87	Analysis Description:	Dry Weight/Percent Moisture
Associated Lab Samples:	40155653001, 40155653002, 40155653003, 40155653004, 40155653005, 40155653006, 40155653007, 40155653008, 40155653009, 40155653010, 40155653011, 40155653012, 40155653013		

---

SAMPLE DUPLICATE: 1564468

Parameter	Units	40155762003 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	21.6	21.9	1	10	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: 5454AXUC GINSENG WI

Pace Project No.: 40155653

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QC Batch:	266786	Analysis Method:	ASTM D2974-87
QC Batch Method:	ASTM D2974-87	Analysis Description:	Dry Weight/Percent Moisture
Associated Lab Samples:	40155653014, 40155653015, 40155653016, 40155653017, 40155653018		

---

SAMPLE DUPLICATE: 1568046

Parameter	Units	40155927007 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	22.5	22.5	0	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

### REPORT OF LABORATORY ANALYSIS

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## QUALIFIERS

Project: 5454AXUC GINSENG WI

Pace Project No.: 40155653

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor and percent moisture.

LOQ - Limit of Quantitation adjusted for dilution factor and percent moisture.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

W Non-detect results are reported on a wet weight basis.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 5454AXUC GINSENG WI

Pace Project No.: 40155653

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40155653001	GP-1B @ 0-4'	TPH GRO/PVOC WI ext.	265848	WI MOD GRO	265902
40155653002	GP-1B @ 8-12'	TPH GRO/PVOC WI ext.	265848	WI MOD GRO	265902
40155653003	GP-2B @ 0-4'	TPH GRO/PVOC WI ext.	265848	WI MOD GRO	265902
40155653004	GP-2B @ 8-12'	TPH GRO/PVOC WI ext.	265848	WI MOD GRO	265902
40155653005	GP-3B @ 0-4'	TPH GRO/PVOC WI ext.	265848	WI MOD GRO	265902
40155653006	GP-3B @ 4-6'	TPH GRO/PVOC WI ext.	265848	WI MOD GRO	265902
40155653007	GP-4B @ 0-4'	TPH GRO/PVOC WI ext.	265848	WI MOD GRO	265902
40155653008	GP-4B @ 4-8'	TPH GRO/PVOC WI ext.	265848	WI MOD GRO	265902
40155653009	GP-5B @ 0-4'	TPH GRO/PVOC WI ext.	265849	WI MOD GRO	265906
40155653010	GP-5B @ 8-10'	TPH GRO/PVOC WI ext.	265849	WI MOD GRO	265906
40155653011	GP-6B @ 0-4'	TPH GRO/PVOC WI ext.	265849	WI MOD GRO	265906
40155653012	GP-6B @ 8-10'	TPH GRO/PVOC WI ext.	265849	WI MOD GRO	265906
40155653013	GP-7B @ 0-4'	TPH GRO/PVOC WI ext.	265849	WI MOD GRO	265906
40155653014	GP-7B @ 8-11'	TPH GRO/PVOC WI ext.	265849	WI MOD GRO	265906
40155653015	GP-8B @ 0-4'	TPH GRO/PVOC WI ext.	265849	WI MOD GRO	265906
40155653016	GP-8B @ 8-11'	TPH GRO/PVOC WI ext.	265849	WI MOD GRO	265906
40155653017	GP-9B @ 0-4'	TPH GRO/PVOC WI ext.	265849	WI MOD GRO	265906
40155653018	GP-9B @ 8-12'	TPH GRO/PVOC WI ext.	265849	WI MOD GRO	265906
40155653001	GP-1B @ 0-4'	EPA 3546	266174	EPA 8270 by SIM	266274
40155653002	GP-1B @ 8-12'	EPA 3546	266174	EPA 8270 by SIM	266274
40155653003	GP-2B @ 0-4'	EPA 3546	266174	EPA 8270 by SIM	266274
40155653004	GP-2B @ 8-12'	EPA 3546	266174	EPA 8270 by SIM	266274
40155653005	GP-3B @ 0-4'	EPA 3546	266174	EPA 8270 by SIM	266274
40155653006	GP-3B @ 4-6'	EPA 3546	266174	EPA 8270 by SIM	266274
40155653007	GP-4B @ 0-4'	EPA 3546	266174	EPA 8270 by SIM	266274
40155653008	GP-4B @ 4-8'	EPA 3546	266174	EPA 8270 by SIM	266274
40155653009	GP-5B @ 0-4'	EPA 3546	266313	EPA 8270 by SIM	266405
40155653010	GP-5B @ 8-10'	EPA 3546	266313	EPA 8270 by SIM	266405
40155653011	GP-6B @ 0-4'	EPA 3546	266313	EPA 8270 by SIM	266405
40155653012	GP-6B @ 8-10'	EPA 3546	266313	EPA 8270 by SIM	266405
40155653013	GP-7B @ 0-4'	EPA 3546	266313	EPA 8270 by SIM	266405
40155653014	GP-7B @ 8-11'	EPA 3546	266313	EPA 8270 by SIM	266405
40155653015	GP-8B @ 0-4'	EPA 3546	266313	EPA 8270 by SIM	266405
40155653016	GP-8B @ 8-11'	EPA 3546	266313	EPA 8270 by SIM	266405
40155653017	GP-9B @ 0-4'	EPA 3546	266313	EPA 8270 by SIM	266405
40155653018	GP-9B @ 8-12'	EPA 3546	266313	EPA 8270 by SIM	266405
40155653001	GP-1B @ 0-4'	ASTM D2974-87	266153		
40155653002	GP-1B @ 8-12'	ASTM D2974-87	266153		
40155653003	GP-2B @ 0-4'	ASTM D2974-87	266153		
40155653004	GP-2B @ 8-12'	ASTM D2974-87	266153		
40155653005	GP-3B @ 0-4'	ASTM D2974-87	266153		
40155653006	GP-3B @ 4-6'	ASTM D2974-87	266153		
40155653007	GP-4B @ 0-4'	ASTM D2974-87	266153		
40155653008	GP-4B @ 4-8'	ASTM D2974-87	266153		
40155653009	GP-5B @ 0-4'	ASTM D2974-87	266153		
40155653010	GP-5B @ 8-10'	ASTM D2974-87	266153		
40155653011	GP-6B @ 0-4'	ASTM D2974-87	266153		

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 5454AXUC GINSENG WI

Pace Project No.: 40155653

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40155653012	GP-6B @ 8-10'	ASTM D2974-87	266153		
40155653013	GP-7B @ 0-4'	ASTM D2974-87	266153		
40155653014	GP-7B @ 8-11'	ASTM D2974-87	266786		
40155653015	GP-8B @ 0-4'	ASTM D2974-87	266786		
40155653016	GP-8B @ 8-11'	ASTM D2974-87	266786		
40155653017	GP-9B @ 0-4'	ASTM D2974-87	266786		
40155653018	GP-9B @ 8-12'	ASTM D2974-87	266786		

### REPORT OF LABORATORY ANALYSIS

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(Please Print Clearly)

Company Name: REI Engineering, Inc  
 Branch/Location: Wausau  
 Project Contact: Matt Rahn  
 Phone: (715) 675-9784  
 Project Number: 5454Axuc  
 Project Name: Ginseng WI  
 Project State: WI  
 Sampled By (Print): Matt Rahn  
 Sampled By (Sign): Matthew W. Rahn



UPPER MIDWEST REGION  
 MN: 612-607-1700 WI: 920-469-2436

40155653

### CHAIN OF CUSTODY

**\*Preservation Codes**  
 A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH  
 H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

FILTERED?  
(YES/NO)  
 PRESERVATION  
(CODE)\*

Y/N	1	1																
Pick Letter	F	A																
Analyses Requested	PVOC	PAH+ Total Solids																

Quote #:   
 Mail To Contact: Matt Rahn  
 Mail To Company: REI  
 Mail To Address: mrahn@REIengineering.com  
 Invoice To Contact: Same  
 Invoice To Company:   
 Invoice To Address:   
 Invoice To Phone:   
 CLIENT COMMENTS: 1-40mL F  
 LAB COMMENTS (Lab Use Only): 1-4oz bag<sup>A</sup>

**Data Package Options** (billable)  
 EPA Level III  
 EPA Level IV

**MS/MSD**  
 On your sample (billable)  
 NOT needed on your sample

**Matrix Codes**  
 A = Air W = Water  
 B = Biota DW = Drinking Water  
 C = Charcoal GW = Ground Water  
 O = Oil SW = Surface Water  
 S = Soil WW = Waste Water  
 SI = Sludge WP = Wipe

PACE LAB #	CLIENT FIELD ID	COLLECTION		MATRIX	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
		DATE	TIME																
001	GP-1B@0-4'	8/23/17	9:00	S		X	X												
002	GP-1B@8-12'		9:10																
003	GP-2B@0-4'		9:15																
004	GP-2B@8-12'		9:25																
005	GP-3B@0-4'		9:30																
006	GP-3B@4-6'		9:35																
007	GP-4B@0-4'		9:45																
008	GP-4B@4-8'		9:50																
009	GP-5B@0-4'		9:55																
010	GP-5B@8-10'		10:05																
011	GP-6B@0-4'		10:10																
012	GP-6B@8-10'		10:15																
013	GP-7B@0-4'	Y	10:18	Y															

Rush Turnaround Time Requested - Prelims (Rush TAT subject to approval/surcharge)  
 Date Needed:   
 Relinquished By: Matthew W. Rahn Date/Time: 8/24/17 14:46  
 Received By: Date/Time:   
 PACE Project No. 40155653  
 Receipt Temp = 201 °C  
 Sample Receipt pH OK / Adjusted  
 Cooler Custody Seal Present / Not Present Intact / Not Intact

Transmit Prelim Rush Results by (complete what you want):  
 Relinquished By: Walter Date/Time: 8/25/17 0850  
 Received By: Matthew W. Rahn Date/Time: 8/25/17 0800

Email #1:   
 Email #2:   
 Telephone:   
 Fax:   
 Samples on HOLD are subject to special pricing and release of liability

(Please Print Clearly)

Company Name: REI Engineering, Inc.  
 Branch/Location: Wausau  
 Project Contact: Matt Rahn  
 Phone: (715)675-9784  
 Project Number: 5454Axuc  
 Project Name: Ginseng WI  
 Project State: WI  
 Sampled By (Print): Matt Rahn  
 Sampled By (Sign): *Matthew W. Rahn*  
 PO #: \_\_\_\_\_ Regulatory Program: \_\_\_\_\_



UPPER MIDWEST REGION  
 MN: 612-607-1700 WI: 920-469-2436

4055653

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### CHAIN OF CUSTODY

**\*Preservation Codes**  
 A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH  
 H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

FILTERED? (YES/NO)  
 PRESERVATION (CODE)\*

Y/N	-	-																
Pick Letter	F	A																
Analyses Requested	PVOC	PAH & Total Solids																

Quote #: \_\_\_\_\_  
 Mail To Contact: Matt Rahn  
 Mail To Company: REI  
 Mail To Address: \_\_\_\_\_  
 Invoice To Contact: Same  
 Invoice To Company: \_\_\_\_\_  
 Invoice To Address: \_\_\_\_\_  
 Invoice To Phone: \_\_\_\_\_

**Data Package Options (billable)**  
 EPA Level III  
 EPA Level IV

**MS/MSD**  
 On your sample (billable)  
 NOT needed on your sample

**Matrix Codes**  
 A = Air W = Water  
 B = Biota DW = Drinking Water  
 C = Charcoal GW = Ground Water  
 O = Oil SW = Surface Water  
 S = Soil WW = Waste Water  
 Sl = Sludge WP = Wipe

PACE LAB #	CLIENT FIELD ID	COLLECTION		MATRIX	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	
		DATE	TIME																
014	GP-7B@8-11'	8/23/17	10:25	S	X	X													
015	GP-8B@0-4'		10:30																
016	GP-8B@8-11'		10:40																
017	GP-9B@0-4'		10:50																
018	GP-9B@8-12'	Y	11:00	Y	Y	Y													

**CLIENT COMMENTS**  
 1-40mly F  
 ↓  
 ↓

**LAB COMMENTS (Lab Use Only)**  
 1-40zag<sup>th</sup>  
 ↓  
 ↓

Profile # \_\_\_\_\_

Rush Turnaround Time Requested - Prelims (Rush TAT subject to approval/surcharge)  
 Date Needed: \_\_\_\_\_

Transmit Prelim Rush Results by (complete what you want): \_\_\_\_\_

Email #1: \_\_\_\_\_  
 Email #2: \_\_\_\_\_  
 Telephone: \_\_\_\_\_  
 Fax: \_\_\_\_\_

Samples on HOLD are subject to special pricing and release of liability

Relinquished By: *Matthew W. Rahn* Date/Time: 8/24/17 14:40  
 Relinquished By: *W. Rahn* Date/Time: 8/25/17 0850  
 Relinquished By: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
 Relinquished By: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
 Relinquished By: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Received By: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
 Received By: *Palmer Ly Pace* Date/Time: 8/27/17 0800  
 Received By: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
 Received By: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
 Received By: \_\_\_\_\_ Date/Time: \_\_\_\_\_

PACE Project No. 4055653  
 Receipt Temp = 20.1 °C  
 Sample Receipt pH OK / Adjusted  
 Cooler Custody Seal Present / Not Present Intact / Not Intact



# Sample Condition Upon Receipt

Pace Analytical Services, LLC. - Green Bay WI  
1241 Bellevue Street, Suite 9  
Green Bay, WI 54302

Project # **WO# : 40155653**

Client Name: REI

Courier:  Fed Ex  UPS  Client  Pace Other: WALTCO

Tracking #: 1408019-1



Custody Seal on Cooler/Box Present:  yes  no Seals intact:  yes  no

Custody Seal on Samples Present:  yes  no Seals intact:  yes  no

Packing Material:  Bubble Wrap  Bubble Bags  None  Other

Thermometer Used: N/A Type of Ice:  Wet  Blue  Dry  None  Samples on ice, cooling process has begun

Cooler Temperature: Uncorr: \_\_\_\_\_ /Corr: RCI Biological Tissue is Frozen:  yes  no

Temp Blank Present:  yes  no

Person examining contents:  
Date: 8/25/17  
Initials: RMV

Temp should be above freezing to 6°C.

Biota Samples may be received at ≤ 0°C.

### Comments:

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
- VOA Samples frozen upon receipt	<input type="checkbox"/> Yes <input type="checkbox"/> No	Date/Time:
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8. <u>NO MS/MSD RMV 8/25/17</u>
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
-Pace IR Containers Used:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix:	<u>S</u>	
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13. <input type="checkbox"/> HNO3 <input type="checkbox"/> H2SO4 <input type="checkbox"/> NaOH <input type="checkbox"/> NaOH +ZnAct
All containers needing preservation are found to be in compliance with EPA recommendation. (HNO3, H2SO4 ≤2; NaOH+ZnAct ≥9, NaOH ≥12)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
exceptions: VOA, coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics, OTHER:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed
		Lab Std #ID of preservative
		Date/Time:
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

### Client Notification/ Resolution:

If checked, see attached form for additional comments

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_

### Project Manager Review:

Date: 8-25-17