

## Daily Field Log

Site Name: Former Wurtsmith AFB  
 Date: 09/08/2021  
 Project Number: 60514613  
 Field Staff: J. Morse

Time	Observation/Note
07:35	AECOM on-site. Aerostar conducting pre-field activities.
08:25	Mobilizing to BOA
08:55	Entered BOA. Setup Aerostar setting up on WURSB043. Drillers having mechanical issues w/ their rig.
09:35	Frontz (Driller) found blown fuse on rig. Frontz off-site to purchase replacement fuse.
09:50	Frontz on-site and replacing fuse on rig.
10:00	Begin WURSB043. Planned EGLE split samples: 0.5-2.0 ft and deepest interval.
10:42	Split sample collected. Sample ID: SB2109081042JM (EGLE), WUR08039 (Air Force). WURSB043 → boring location ID.
11:20	Saturated sediment encountered @ ~ 14-15 ft bgs. Deepest sample interval 10-12 ft bgs. Depth to water measured in drill stem ⇒ 15.6 ft bgs. Split sample @ WURSB043 collected. Sample IDs: SB2109081120JM (EGLE), WUR08042 (Air Force).
11:35	Aerostar moving to WURSB042.
12:25	Aerostar break for lunch.
12:50	Frontz having issues w/ electrical on their rig.
13:15	Electrical issue resolved. Aerostar move to WURB0 WURSB044.
14:30	Aerostar completed WURSB044. Moving to WURSB045
15:20	Aerostar completed WUR045. Demobilizing for the day. Five locations left in this area. Drillers still having electrical issues w/ rig.
16:30	Aecom off-site

Jm 9/8/21

## Daily Field Log

Site Name: Former Wurtsmith AFB  
 Date: 09/09/2021  
 Project Number: 605014613  
 Field Staff: J. Morse

Time	Observation/Note
07:45	AECOM on-site @ FT-02. Aerostar plans to collect FT-02 TCRA waste profile soil sample.
07:55	Rig Frontz drill rig having electrical issues and won't start.
08:15	Drill rig operational. Setting up on WURSB190. Aerostar plans to collect PEAS <sup>soil</sup> samples from following intervals @ each location: 0-2 ft, 2-4 ft, 4-6 ft, 6-10 ft, 10 - water table. TCLP soil samples will be collected from 0-5 ft, <del>0.5-10 ft, 10 - water table</del> . for all locations, 5-10 for half the locations, and 10 - water table for the other half of the locations.
0950	Aerostar completed WURSB190 & WURSB193. Set up on WURSB196. EGLE to collect split sample planned for 4-6 ft sample interval.
1033	Ryan (Cherokee Nation) on-site.
1100	Cherokee Nation off-site. Observed Aerostar taking pictures of soil cores.
1229	EGLE split sample collected from 4.0 ft to 6.0 ft interval. Sample IDs: SB2109091229JM (EGLE), WUR04633 (4.0-6.0) (Air Force). Location WURSB196.
1240	Frontz completed collecting core @ WURSB196. Aerostar still collecting/processing samples. Note: Measured static water was 15.6' bgs down drill rods. Boring was terminated @ 16 ft bgs. Break for lunch
1330	Frontz set up on WUR191. No planned split samples for WUR191.
1442	No planned split sampling for today. AECOM off-site.
/	/ J.M. / 9/9/21 /

# Daily Field Log

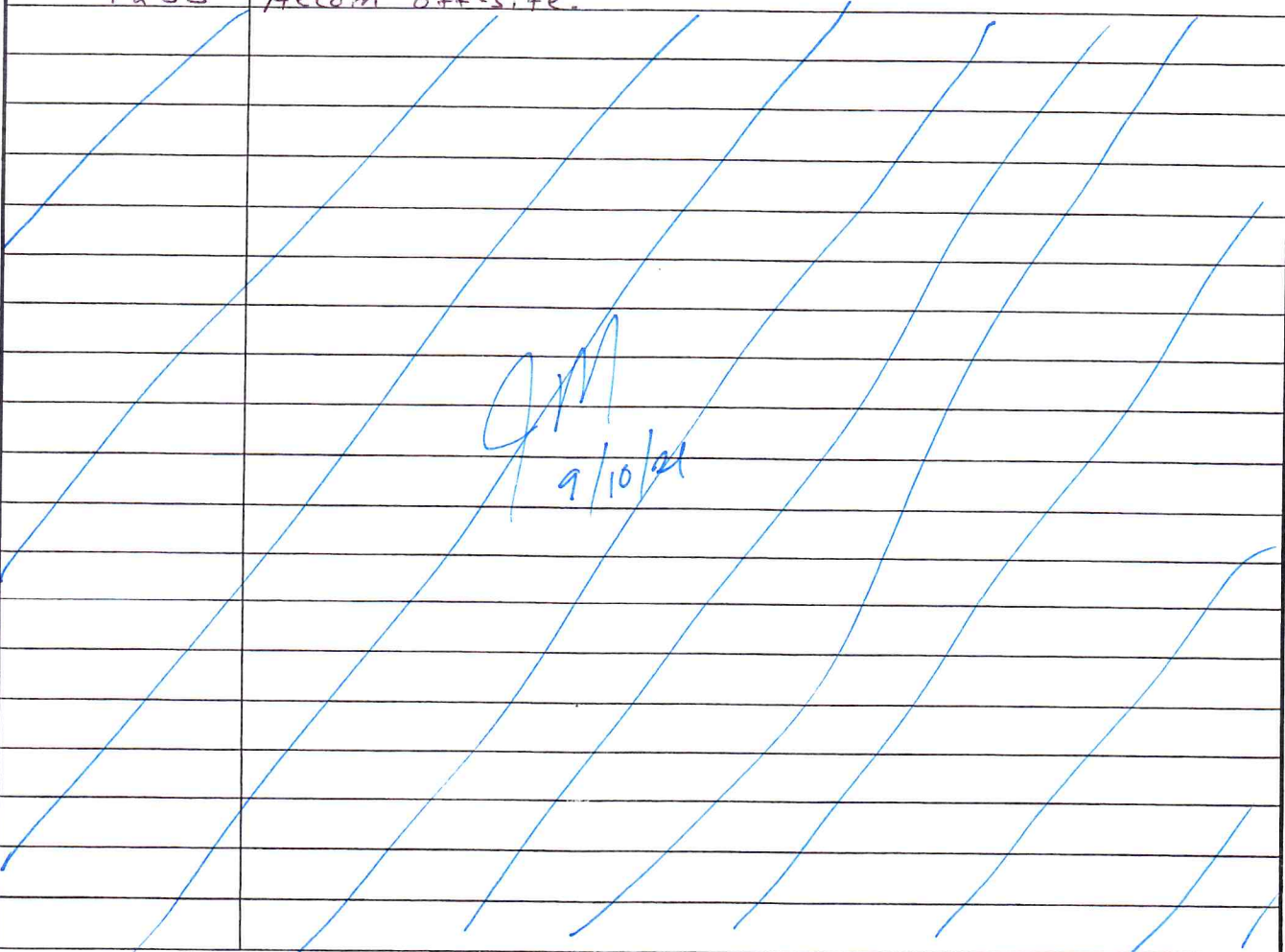


Site Name: Former Wurtsmith AFB  
 Date: 09/10/2021  
 Project Number: 60514613  
 Field Staff: J. Morse

Time	Observation/Note
0745	On-site @ FT-02. Frontz set up on WURSB 197. Aerostar getting supplies.
0810	<del>Start</del> Frontz begins WURSB197. EGLE split samples planned for 4-6 ft and deepest interval.
0820	Observed Aerostar collecting an equipment blank on stainless steel spoons.
0851	Split sample collected from WURSB197, 4-6 ft bgs. Sample IDs: SB2109100851JM (EGLE), WUR04638 (4.0-6.0) (Air Force).
<del>0855</del>	
0947	Ryan (Cherokee Nation) on-site.
0955	Split sample collected @ WURSB197 from 10-16 ft bgs. Sample IDs: SB2109100955JM (EGLE), WUR04640 (10-16) (Air Force). Aerostar measured static water level down drill rod @ terminal depth of 20 ft bgs. DTW = 18.2 ft
1010	Ryan (Cherokee Nation) off-site. Aerostar moving to WURSB198. Two split samples planned for this location 4-6 ft and deepest interval.
1032	Split sample collected @ WURSB198 from 4.0-6.0 ft bgs. Sample IDs: SB21091032JM (EGLE), WUR04643 (4.0-6.0) (Air Force).
1106	Split sample collected @ WURSB198 from 10-16 ft bgs. Sample IDs: SB2109101106JM (EGLE), WUR04645 (10-16) (Air Force)
1146	Aerostar marked an additional boring location just south of former concrete pad associated w/ a sludge disposal area. <del>SB</del> The location ID is WURSB199. Aerostar plans to collect soil samples intervals the same as RI; 0.0-0.5, 0.5- <del>1.0</del> , 2.0-4.0, 5.0-7.0, 10.0-12.0, ect.
1150	AECOM to assess forest service land south of proposed FT-02 IRA extraction wells.

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Time	Observation/Note
1225	Walked path (hiking trail) from FT&S+D down (west) to marsh, and followed path south along pond 4. Walking path would be wide enough for a track mounted rig. There were also areas east of the path that a rig could fit, w/o disturbing trees. Path was followed to end of road <del>to</del> where EGLE Monitoring well MW is located. Assessed <del>road</del> access to the west of road to natural ridge and would be difficult to access w/ rig w/o removing trees.
1255	Aecom off-site.
 JM 9/10/21	

## Field Activity Log


Project Name Former Wurtsmith AFB Project No. 60514613  
 Client EGL Date 09-11-21  
 Location Oscoda/Wurtsmith Day  S  M  T  W  TH  F  S  
 Contractor \_\_\_\_\_ Weather/Temp Partly cloudy 65°F

Equipment Onsite:	<u>Geoprobe</u>
Personnel Onsite:	<u>Frontz Drilling, Aerostar SES, AECOM</u>
Work Performed (summary of services performed, including field work):	
<u>07:15:</u>	<u>AECOM onsite at Aerostar field office</u>
<u>07:20</u>	<u>Received sample from Aerostar during 09-10-21 field work.</u>
	<u>Sample ID: SB 21091455JM (EGL), WUR04650 (10.0-12.0)</u>
	<u>(Airforce)</u>
<u>07:50</u>	<u>Mobilization to <del>FF-02</del> BOA WURSB046, no split sample to be taken</u>
<u>07:55</u>	<u>Jeremiah called for a check-in</u>
<u>08:20</u>	<u>Drillers began hand augering WURSB046</u>
<u>08:25</u>	<u>Drillers began direct-push on WURSB046</u>
<u>09:00</u>	<u>Aerostar used WLM to get water level of 15.6 ft bgs on WURSB046</u>
<u>09:10</u>	<u>Direct-push completed on WURSB046 and mobilization to WURSB047</u>
<u>09:15</u>	<u>Aerostar collected equipment blank on homogenization bowl</u>
<u>09:20</u>	<u>Drillers began hand augering WURSB047</u>
<u>09:25</u>	<u>Drillers began direct-push on WURSB047</u>
<u>10:00</u>	<u>Drillers used WLM to get water level of 13.9 ft bgs</u>
<u>10:05</u>	<u>Aerostar samples 0.0-0.5, 0.5-2.0, 2.0-4.0, 5.0-7.0, 10.0-12.0</u>
<u>10:10</u>	<u>Drillers completed direct-push on WURSB047 and mobilized to WURSB048</u>
<u>10:15</u>	<u>Drillers began hand augering WURSB048</u>
<u>10:25</u>	<u>Drillers began direct-push on WURSB048</u>
<u>10:40</u>	<u>Aerostar noted sandy clay layer ~8 ft bgs</u>
<u>11:00</u>	<u>Aerostar used WLM to get water level of 14.1 ft bgs</u>
<u>11:05</u>	<u>Drillers completed direct-push on WURSB048, Aerostar sampled 0.0-0.5, 0.5-2.0, 2.0-4.0, 5.0-7.0, 10.0-12.0 ft bgs on WURSB048</u>
<u>11:15</u>	<u>mobilization to WURSB050</u>
<u>11:30</u>	<u>Start of break</u>

Signed: Joshua Walker *Josh Walker*



<b>Project Name:</b> Wurtsmith RI EGLE Oversight	<b>Site Location:</b> Oscoda, MI	<b>Project No.</b> 60514613
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<b>Photo No.</b> <b>1</b>	<b>Date:</b> 09/08/21	<p>Date &amp; Time: Wed, Sep 08, 2021, 13:44:27 EDT            Position: +044.457156° / -083.372351° (±18.1ft)            Altitude: 617ft (±19.7ft)            Datum: WGS-84            Azimuth/Bearing: 328° N32W 5831mils True (±18°)            Elevation Angle: -11.4°            Horizon Angle: +00.3°            Zoom: 0.5X            WURSB042 completed</p> 
<b>Direction Photo Taken:</b> Northwest		
<b>Description:</b> Boring #: WURSB042 completed		

<b>Photo No.</b> <b>2</b>	<b>Date:</b> 09/09/21	<p>Date &amp; Time: Thu, Sep 09, 2021, 09:46:35 EDT            Position: +044.446113° / -083.391949° (±11.6ft)            Altitude: 603ft (±13.1ft)            Datum: WGS-84            Azimuth/Bearing: 029° N29E 0516mils True (±12°)            Elevation Angle: -20.6°            Horizon Angle: -01.4°            Zoom: 0.5X            WURSB190 location</p> 
<b>Direction Photo Taken:</b> Northeast		
<b>Description:</b> Boring #: WURSB190 location		

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<b>Photo No.</b> <b>3</b>	<b>Date:</b> 09/09/21	<p>Date &amp; Time: Thu, Sep 09, 2021, 09:47:20 EDT                  Position: +044.446038° / -088.371940° (±15.6ft)                  Altitude: 625ft (±11.0ft)                  Datum: WGS-84                  Azimuth/Bearing: 136° S44E 2418mils True (±12°)                  Elevation Angle: -24.1°                  Horizon Angle: -00.4°                  Zoom: 0.5X                  WURSB193 location</p> 
<b>Direction Photo Taken:</b> Southeast		
<b>Description:</b> Boring #: WURSB193 location		

<b>Photo No.</b> <b>4</b>	<b>Date:</b> 09/09/21	<p>Date &amp; Time: Thu, Sep 09, 2021, 09:48:33 EDT                  Position: +044.445889° / -088.391947° (±15.5ft)                  Altitude: 621ft (±11.2ft)                  Datum: WGS-84                  Azimuth/Bearing: 095° S85E 1689mils True (±13°)                  Elevation Angle: -23.8°                  Horizon Angle: +01.5°                  Zoom: 0.5X                  WURSB196 location</p> 
<b>Direction Photo Taken:</b> East		
<b>Description:</b> Boring #: WURSB196 location		



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<b>Photo No.</b> <b>5</b>	<b>Date:</b> 09/09/21	<p>Date &amp; Time: Thu, Sep 09, 2021, 10:13:48 EDT                  Position: +044.446182° / -083.391719° (±11.6ft)                  Altitude: 623ft (±19.7ft)                  Datum: WGS-84                  Azimuth/Bearing: 164° S16E 2916mils True (±12°)                  Elevation Angle: -23.5°                  Horizon Angle: -00.1°                  Zoom: 0.5X                  WURSB194 &amp; WURSB109 locations</p> 
<b>Direction Photo Taken:</b> South		
<b>Description:</b> Boring #: WURSB194 and WURSB109 locations		

<b>Photo No.</b> <b>6</b>	<b>Date:</b> 09/09/21	<p>Date &amp; Time: Thu, Sep 09, 2021, 13:44:41 EDT                  Position: +044.446025° / -083.391642° (±11.7ft)                  Altitude: 613ft (±13.1ft)                  Datum: WGS-84                  Azimuth/Bearing: 142° S38E 2524mils True (±13°)                  Elevation Angle: -87.1°                  Horizon Angle: +28.2°                  Zoom: 0.5X                  WURSB191 0-4 ft bgs</p> 
<b>Direction Photo Taken:</b> South east		
<b>Description:</b> Boring #: WURSB191 (0 – 4 ft bgs)		

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<b>Photo No.</b> <b>7</b>	<b>Date:</b> 09/10/21	<p>Date &amp; Time: Fri, Sep 10, 2021, 11:42:03 EDT                  Position: +044.445758° / -083.391499° (±11.6ft)                  Altitude: 610ft (±9.8ft)                  Datum: WGS-84                  Azimuth/Bearing: 135° S45E 2400mils True (±15°)                  Elevation Angle: -23.2°                  Horizon Angle: +00.3°                  Zoom: 0.5X                  WURSB199 sludge disposal area</p> 
<b>Direction Photo Taken:</b> Southeast		
<b>Description:</b> Boring #: WURSB199 sludge disposal area		

<b>Photo No.</b> <b>8</b>	<b>Date:</b> 09/10/21	<p>Date &amp; Time: Fri, Sep 10, 2021, 11:42:56 EDT                  Position: +044.445656° / -083.391470° (±15.5ft)                  Altitude: 635ft (±11.1ft)                  Datum: WGS-84                  Azimuth/Bearing: 340° N20W 6044mils True (±15°)                  Elevation Angle: -17.7°                  Horizon Angle: -00.5°                  Zoom: 0.5X                  WURSB199 sludge disposal area (2)</p> 
<b>Direction Photo Taken:</b> North		
<b>Description:</b> Boring #: WURSB199 sludge disposal area		

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<b>Photo No.</b> <b>9</b>	<b>Date:</b> 09/10/21	<p>Date &amp; Time: Fri, Sep 10, 2021, 12:03:32 EDT Position: +044.441445° / -083.389547° (±15.1ft) Altitude: 619ft (±11.7ft) Datum: WGS-84 Azimuth/Bearing: 284° N74W 5084mils True (±13°) Elevation Angle: -11.1° Horizon Angle: +02.6° Zoom: 0.5X Path to Marsh near FT18S&amp;D</p> 
<b>Direction Photo Taken:</b> West		
<b>Description:</b> Path to marsh near FT18S&D		

<b>Photo No.</b> <b>10</b>	<b>Date:</b> 09/10/21	<p>Date &amp; Time: Fri, Sep 10, 2021, 12:05:02 EDT Position: +044.441362° / -083.390103° (±39.9ft) Altitude: 708ft (±78.7ft) Datum: WGS-84 Azimuth/Bearing: 200° S20W 3556mils True (±13°) Elevation Angle: -02.4° Horizon Angle: +00.8° Zoom: 0.5X Path to Marsh near FT18S&amp;D (2)</p> 
<b>Direction Photo Taken:</b> South		
<b>Description:</b> Path to marsh near FT18S&D (2)		

<b>Project Name:</b> Wurtsmith RI EGLE Oversight	<b>Site Location:</b> Oscoda, MI	<b>Project No.</b> 60514613
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<b>Photo No.</b> <b>11</b>	<b>Date:</b> 09/10/21	<p>Date &amp; Time: Fri, Sep 10, 2021, 12:10:29 EDT                  Position: +044.740276 / -088.390508 (±15.3ft)                  Altitude: 617ft (±11.4ft)                  Datum: WGS-84                  Azimuth/Bearing: 208° S28W, 3628mils True (±13°)                  Elevation Angle: -07.7°                  Horizon Angle: -01.4°                  Zoom: 0.5X                  Path to Marsh near FT18S&amp;D (3)</p> 
<b>Direction Photo Taken:</b> Southwest		
<b>Description:</b> Path to marsh near FT18S&D (3)		

<b>Photo No.</b> <b>12</b>	<b>Date:</b> 09/10/21	<p>Date &amp; Time: Fri, Sep 10, 2021, 12:16:12 EDT                  Position: +044.738917 / -088.390142 (±15.4ft)                  Altitude: 611ft (±11.9ft)                  Datum: WGS-84                  Azimuth/Bearing: 053° N53E, 0942mils True (±13°)                  Elevation Angle: -08.0°                  Horizon Angle: -00.7°                  Zoom: 0.5X                  Path to Marsh near FT18S&amp;D (4)</p> 
<b>Direction Photo Taken:</b> Northeast		
<b>Description:</b> Path to marsh near FT18S&D (4)		

<b>Project Name:</b> Wurtsmith RI EGLE Oversight	<b>Site Location:</b> Oscoda, MI	<b>Project No.</b> 60514613
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<b>Photo No.</b> <b>13</b>	<b>Date:</b> 09/10/21	<p>Date &amp; Time: Fri, Sep 10, 2021, 12:18:53 EDT Position: +044.438599° / -083.389708° (±15.4ft) Altitude: 617ft (±11.3ft) Datum: WGS-84 Azimuth/Bearing: 008° N08E 0142mils True (±13°) Elevation Angle: -07.5° Horizon Angle: -01.2° Zoom: 0.5X Path to Marsh near FT18S&amp;D (5)</p> 
<b>Direction Photo Taken:</b> North		
<b>Description:</b> Path to marsh near FT18S&D (5)		

<b>Photo No.</b> <b>14</b>	<b>Date:</b> 09/10/21	<p>Date &amp; Time: Fri, Sep 10, 2021, 12:20:10 EDT Position: +044.438988° / -083.389167° (±15.5ft) Altitude: 628ft (±11.1ft) Datum: WGS-84 Azimuth/Bearing: 086° N86E 1529mils True (±12°) Elevation Angle: -03.8° Horizon Angle: -01.2° Zoom: 0.5X Path to Marsh near FT18S&amp;D (6)</p> 
<b>Direction Photo Taken:</b> East		
<b>Description:</b> Path to marsh near FT18S&D (6)		

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<b>Photo No.</b> 15	<b>Date:</b> 09/10/21	<p>Date &amp; Time: Fri, Sep 10, 2021, 12:22:34 EDT Position: +044 439606 / -088 388538 (±13.5ft) Altitude: 668ft (±19.7ft) Datum: WGS-84 Azimuth/Bearing: 277° N83W 4924mils True (±12°) Elevation Angle: -05.0° Horizon Angle: 00.5° Zoom: 0.5X Road to Marsh (1)</p> 
<b>Direction Photo Taken:</b> West		
<b>Description:</b> Road to marsh		