

Hamre, John G.

From: Breiner, Joan M.
Sent: Wednesday, October 19, 2022 9:06 AM
To: Hamre, John G.
Subject: FW: AML\2022\Sinkhole Filling\2022_New_Leipzig_Fire - ND
Attachments: WaterResourcesMap.pdf; PrivateWell13409027AD.pdf; PrivateWell13409027.pdf; PrivateWell1349026AC.pdf

John,

Please file the attached and email below here: \\coal\Mine Data\AML\2022\Sinkhole Filling\2022_New_Leipzig_Fire
Please name it: Rsp_DEQ_Advisory_New_Leipzig_Fire-10-19-22
Please core log.
Please print a copy of all to include with the ATP package we will send out this week.

Joan Breiner

From: Rockeman, Karl H. <krockema@nd.gov>
Sent: Wednesday, October 19, 2022 9:01 AM
To: Hamre, John G. <jghamre@nd.gov>
Cc: Brinkman, Zanna A. <zbrinkman@nd.gov>; Breiner, Joan M. <jobreiner@nd.gov>; Anderson, Carl J. <cjanders@nd.gov>
Subject: FW: AML\2022\Sinkhole Filling\2022_New_Leipzig_Fire - ND

Please see our comments below. Let us know when the work will be done.

Thanks

Karl Rockeman

*Director
Division of Water Quality*

701.328.5210 • KRockema@ND.gov



<https://deq.nd.gov/> • 4201 Normandy Street • Bismarck, ND 58503-1324

From: Suggs, Shannon M. <ssuggs@nd.gov>
Sent: Wednesday, October 19, 2022 8:54 AM
To: Rockeman, Karl H. <krockema@nd.gov>
Cc: Anderson, Carl J. <cjanders@nd.gov>
Subject: RE: AML\2022\Sinkhole Filling\2022_New_Leipzig_Fire - ND

Good Morning,

I have completed a review of the water resources near T134N R90W Section 26, the site of the coal fire at the City of New Leipzig landfill. There are no recognized groundwater aquifers in the area and no major surface water features. Within the 1 mile review, there are some small unnamed ponds and intermittent streams. For groundwater there are three domestic/stock wells within a 1 mile review of the coal fire location (driller's logs attached). The shallowest 13409027 is screened at 156 feet and there are several clay layers between the screened well depths and the surface. The city of New Leipzig is a consecutive system receiving water from Southwest Water Authority. Based on this information it is unlikely that reclamation work on the landfill will impact surface or groundwater resources. I have included a map showing the features discussed. Please let me know if you have any questions.

Shannon Suggs

Division of Water Quality • Groundwater Protection Program

701.328.6409 • 701.328.5200 (fax) • ssuggs@nd.gov • <https://deq.nd.gov/>



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WELL DRILLER'S REPORT

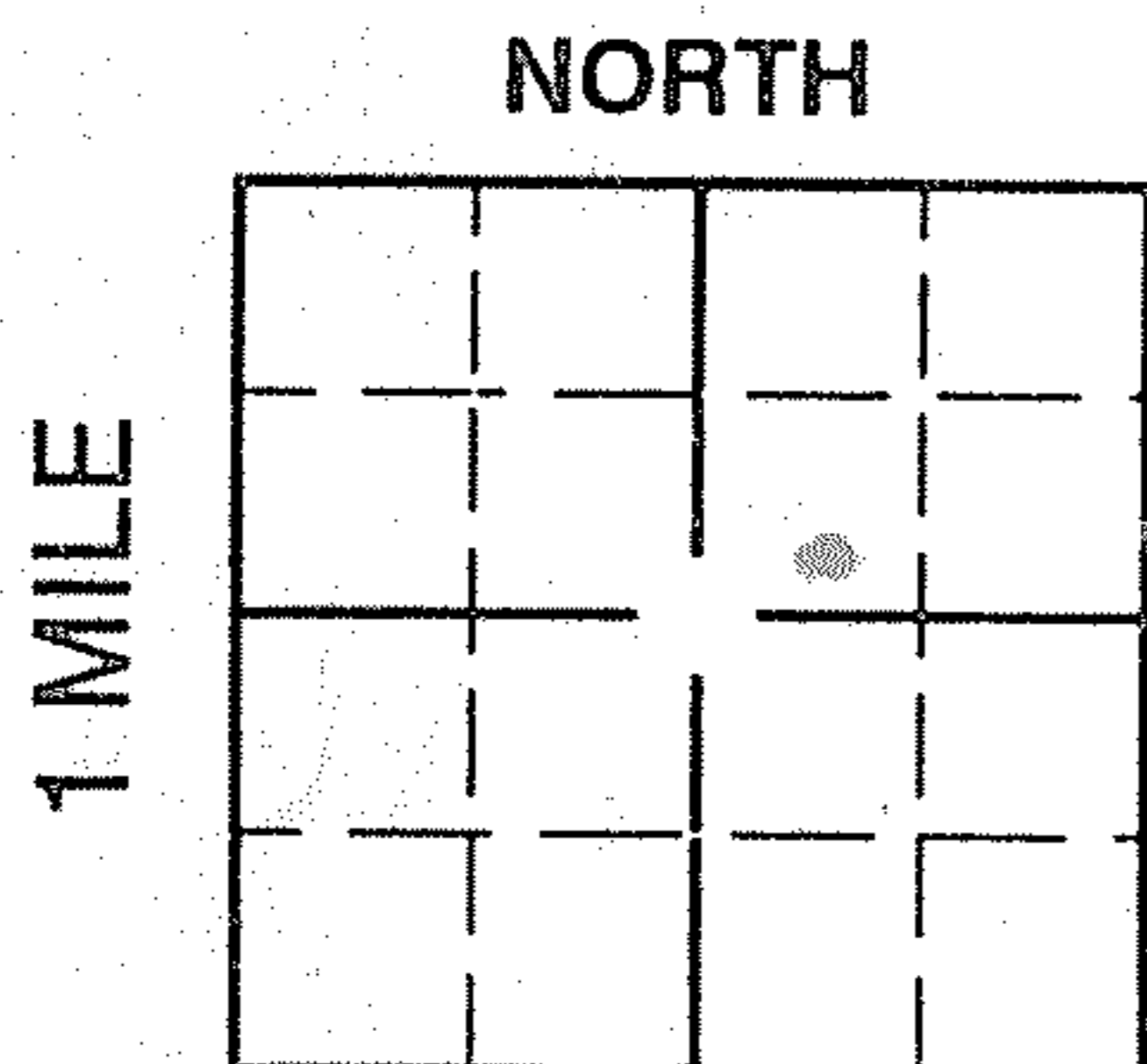
State law requires that this report be filed with the State Board of Water Well Contractors within 30 days after completion or abandonment of the well.

1. WELL OWNER

Name Waldemar Alt
 Address New Leipzig, N.D.

2. WELL LOCATION

Sketch map location must agree with written location.



County Grant Sec. (1 mile) 26
1/4 SW 1/4 NE 1/4 Sec. 26 Twp. 134 N. Rg. 90 W.

3. PROPOSED USE

- | | | |
|--|-------------------------------------|-------------------------------------|
| <input checked="" type="checkbox"/> Domestic | <input type="checkbox"/> Geothermal | <input type="checkbox"/> Monitoring |
| <input checked="" type="checkbox"/> Stock | <input type="checkbox"/> Irrigation | <input type="checkbox"/> Industrial |
| | <input type="checkbox"/> Municipal | <input type="checkbox"/> Test Hole |

4. METHOD DRILLED

- | | | |
|--|---|--------------------------------|
| <input checked="" type="checkbox"/> Cable | <input type="checkbox"/> Reverse Rotary | <input type="checkbox"/> Bored |
| <input checked="" type="checkbox"/> Forward Rotary | <input type="checkbox"/> Jetted | <input type="checkbox"/> Auger |

If other, specify _____

5. WATER QUALITY

Was a water sample collected for:
 Chemical Analysis? Yes No
 Bacteriological Analysis? Yes No
 If so, to what laboratory was it sent? Waldemar Alt

6. WELL CONSTRUCTION

Diameter of hole 7 1/2 inches. Depth 200 feet.

- | | | | |
|---------|-----------------------------------|---|-----------------------------------|
| Casing: | <input type="checkbox"/> Steel | <input checked="" type="checkbox"/> Plastic | <input type="checkbox"/> Concrete |
| | <input type="checkbox"/> Threaded | <input checked="" type="checkbox"/> Welded | <input type="checkbox"/> Other |

If other, specify _____

Pipe Weight:	Diameter:	From:	To:
<u>200</u> lb/ft	<u>4 1/2</u> inches	<u>+1</u> feet	<u>200</u> feet
_____ lb/ft	_____ inches	_____ feet	_____ feet
_____ lb/ft	_____ inches	_____ feet	_____ feet

Was perforated pipe used? Yes No

Perforated pipe set from 160-180 ft to 190-200 feet

Was casing left open end? Yes No

Was a well screened installed? Yes No

Material _____ Diameter _____ inches

Slot Size _____ set from _____ feet to _____ feet

Slot Size _____ set from _____ feet to _____ feet

Was packer or seal used? Yes No

If so, what material _____ Depth _____ ft.

(stainless steel, bronze, etc.)

Type of well: Straight screen Gravel packed

Depth grouted: From 0 To 50

Grouting Material: Cement _____ Other X

If other explain: Wyo Ben E microplug

Well head completion: Pitless unit _____

12" above grade X Other _____

If other, specify _____

Was pump installed: Yes No

Was well disinfected upon completion? Yes No

7. WATER LEVEL

Static water level 85 feet below surface

If flowing: closed-in pressure _____ psi

GPM flow _____ through _____ inch pipe

Controlled by: Valve Reducers Other

If other, specify _____

8. WELL TEST DATA

Pump Bailer Other

Pumping level below land surface:

140 ft. after 2 hrs. pumping 8-10 gpm

_____ ft. after _____ hrs. pumping _____ gpm

_____ ft. after _____ hrs. pumping _____ gpm

9. WELL LOG

Formation	Depth (ft.)	
	From	To
brown sand	0	13
grey sand	13	23
blue sand	23	26
coal	26	35
grey clay	35	36
coal	36	39
grey clay	39	56
coal	56	58
grey clay	58	88
coal	88	91
grey clay	91	117
coal	117	119
grey clay	119	150
grey sand	150	167
coal	167	169
grey sand	169	178
grey clay	178	188
grey sand	188	195
(Use separate sheet if necessary)		
coal	195	198
grey clay	198	205

10. DATE COMPLETED 9-19-91

11. WAS WELL PLUGGED OR ABANDONED?

Yes No

If so, how _____

12. REMARKS:

put 150' of drop pipe plus the pitless. 158" total pump lead

13. DRILLER'S CERTIFICATION

This well was drilled under my jurisdiction and this report is true to the best of my knowledge.

Opp Well Drilling 19
 Driller's or Firm's Name Certificate No.

Alan Ullin, N.D.
 Address

Terry Wagner 9-19-91
 Signed by Date

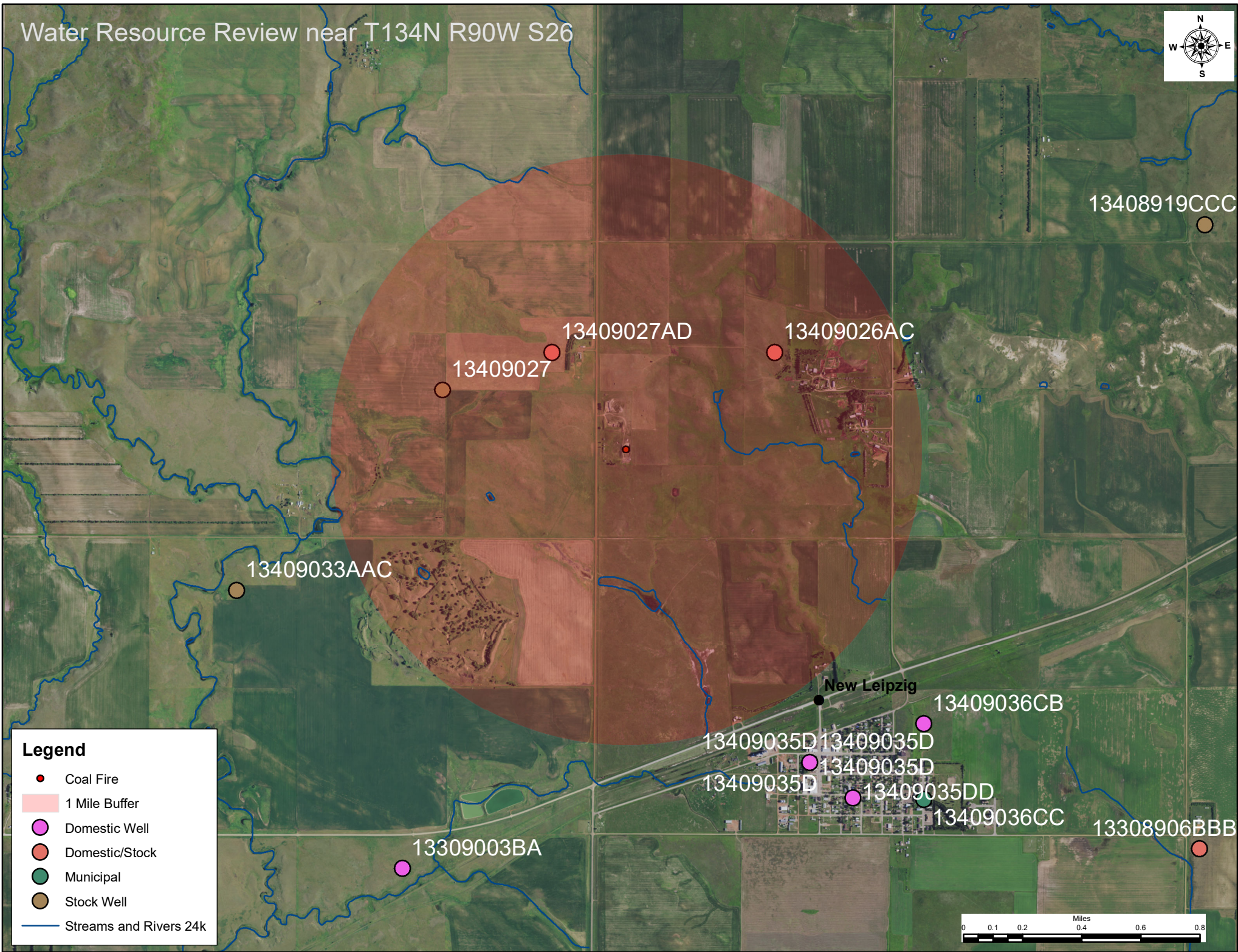
George F. Opp 9-22-91

WELL DRILLER'S REPORT

State law requires that this report be filed with the State Board of Water Well Contractors within 30 days after completion or abandonment of the well.

<p>1. WELL OWNER</p> <p>Name <u>Jim Davenport</u></p> <p>Address <u>New Leipzig, N.D.</u></p>	<p>7. WATER LEVEL</p> <p>Static water level <u>175</u> feet below surface</p> <p>If flowing: closed-in pressure _____ psi</p> <p>GPM flow _____ through _____ inch pipe</p> <p>Controlled by: <input type="checkbox"/> Valve <input type="checkbox"/> Reducers <input type="checkbox"/> Other</p> <p>If other, specify _____</p>																																																								
<p>2. WELL LOCATION</p> <p>Sketch map location must agree with written location.</p> <div style="text-align: center;"> <p>NORTH</p> <p>1 MILE</p> </div> <p>County _____ Sec. (1 mile) <u>Grant</u></p> <p><u>1/4 SE 1/4 NE 1/4</u> Sec. <u>27</u> Twp. <u>134</u> N. Rg. <u>90</u> W.</p>	<p>8. WELL TEST DATA</p> <p><input type="checkbox"/> Pump <input type="checkbox"/> Bailer <input checked="" type="checkbox"/> Other</p> <p>Pumping level below land surface:</p> <p><u>280</u> ft. after <u>3</u> hrs. pumping <u>10-15</u> gpm</p> <p>_____ ft. after _____ hrs. pumping _____ gpm</p> <p>_____ ft. after _____ hrs. pumping _____ gpm</p>																																																								
<p>3. PROPOSED USE</p> <p><input checked="" type="checkbox"/> Domestic <input type="checkbox"/> Geothermal <input type="checkbox"/> Monitoring</p> <p><input checked="" type="checkbox"/> Stock <input type="checkbox"/> Irrigation <input type="checkbox"/> Industrial</p> <p><input type="checkbox"/> Municipal <input type="checkbox"/> Test Hole</p>	<p>9. WELL LOG</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Formation</th> <th colspan="2">Depth (ft.)</th> </tr> <tr> <th>From</th> <th>To</th> </tr> </thead> <tbody> <tr><td><u>brown clay</u></td><td><u>0</u></td><td><u>16</u></td></tr> <tr><td><u>rock</u></td><td><u>16</u></td><td><u>17</u></td></tr> <tr><td><u>brown sand</u></td><td><u>17</u></td><td><u>43</u></td></tr> <tr><td><u>blue sand</u></td><td><u>43</u></td><td><u>55</u></td></tr> <tr><td><u>coal</u></td><td><u>55</u></td><td><u>67</u></td></tr> <tr><td><u>grey clay</u></td><td><u>67</u></td><td><u>74</u></td></tr> <tr><td><u>coal</u></td><td><u>74</u></td><td><u>75</u></td></tr> <tr><td><u>grey clay</u></td><td><u>75</u></td><td><u>153</u></td></tr> <tr><td><u>grey sand</u></td><td><u>153</u></td><td><u>173</u></td></tr> <tr><td><u>blue grey sand</u></td><td><u>173</u></td><td><u>182</u></td></tr> <tr><td><u>coal</u></td><td><u>182</u></td><td><u>185</u></td></tr> <tr><td><u>grey clay</u></td><td><u>185</u></td><td><u>261</u></td></tr> <tr><td><u>coal</u></td><td><u>261</u></td><td><u>265</u></td></tr> <tr><td><u>clay</u></td><td><u>265</u></td><td><u>270</u></td></tr> <tr><td><u>dark grey sand</u></td><td><u>270</u></td><td><u>325</u></td></tr> <tr><td><u>rock</u></td><td><u>325</u></td><td><u>326</u></td></tr> <tr><td><u>black clay</u></td><td><u>326</u></td><td><u>340</u></td></tr> </tbody> </table>	Formation	Depth (ft.)		From	To	<u>brown clay</u>	<u>0</u>	<u>16</u>	<u>rock</u>	<u>16</u>	<u>17</u>	<u>brown sand</u>	<u>17</u>	<u>43</u>	<u>blue sand</u>	<u>43</u>	<u>55</u>	<u>coal</u>	<u>55</u>	<u>67</u>	<u>grey clay</u>	<u>67</u>	<u>74</u>	<u>coal</u>	<u>74</u>	<u>75</u>	<u>grey clay</u>	<u>75</u>	<u>153</u>	<u>grey sand</u>	<u>153</u>	<u>173</u>	<u>blue grey sand</u>	<u>173</u>	<u>182</u>	<u>coal</u>	<u>182</u>	<u>185</u>	<u>grey clay</u>	<u>185</u>	<u>261</u>	<u>coal</u>	<u>261</u>	<u>265</u>	<u>clay</u>	<u>265</u>	<u>270</u>	<u>dark grey sand</u>	<u>270</u>	<u>325</u>	<u>rock</u>	<u>325</u>	<u>326</u>	<u>black clay</u>	<u>326</u>	<u>340</u>
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<p>6. WELL CONSTRUCTION</p> <p>Diameter of hole <u>7 1/2</u> inches. Depth <u>325</u> feet.</p> <p>Casing: <input type="checkbox"/> Steel <input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Concrete</p> <p><input type="checkbox"/> Threaded <input checked="" type="checkbox"/> Welded <input type="checkbox"/> Other</p> <p>If other, specify _____</p> <p>Pipe Weight: _____ lb/ft Diameter: <u>4 1/2</u> inches From: <u>+1</u> feet To: <u>325</u> feet</p> <p>_____ lb/ft _____ inches _____ feet _____ feet</p> <p>_____ lb/ft _____ inches _____ feet _____ feet</p> <p>Was perforated pipe used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Perforated pipe set from <u>300</u> ft to <u>320</u> feet</p> <p>Was casing left open end? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>Was a well screened installed? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>Material _____ Diameter _____ inches</p> <p>Slot Size _____ set from _____ feet to _____ feet</p> <p>Slot Size _____ set from _____ feet to _____ feet</p> <p>Was packer or seal used? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If so, what material _____ Depth _____ ft.</p> <p style="text-align: center;">(stainless steel, bronze, etc.)</p> <p>Type of well: Straight screen <input type="checkbox"/> Gravel packed <input checked="" type="checkbox"/></p> <p>Depth grouted: From <u>10</u> To <u>80</u></p> <p>Grouting Material: Cement _____ Other <u>X</u></p> <p>If other explain: <u>Wyo Ben E microplug</u></p> <p>Well head completion: Pitless unit _____</p> <p>12" above grade <u>X</u> Other _____</p> <p>If other, specify _____</p> <p>Was pump installed: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>Was well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>11. WAS WELL PLUGGED OR ABANDONED?</p> <p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If so, how _____</p>																																																								
<p>12. REMARKS:</p> <p><u>well owner will take water sample for analysis</u></p> <p style="text-align: right;"><u>James Davenport</u></p>	<p>13. DRILLER'S CERTIFICATION</p> <p>This well was drilled under my jurisdiction and this report is true to the best of my knowledge.</p> <p><u>Opp Well Drilling</u> 19</p> <p>Driller's or Firm's Name _____ Certificate No _____</p> <p><u>Glen Hillier, N.D.</u></p> <p>Address _____</p> <p><u>Terry Wagner</u> 10 19 92</p> <p>Signed by _____ Date _____</p> <p><u>George F. Opp - 10-26-92</u></p>																																																								

Water Resource Review near T134N R90W S26



Legend

- Coal Fire
- 1 Mile Buffer
- Domestic Well
- Domestic/Stock
- Municipal
- Stock Well
- Streams and Rivers 24k

