

Location Information

Legal Location:NE NE NE NE SEC. 01, T. 040 N., R. 25 W.
County:MELLETTTE Location:040N-25W-01AAAA
Basin:WHITE Latitude:43 28' 40"
Hydrologic Unit Code:10140204 Longitude:100 12' 52"
Land Owner: Ground Surface Elevation (ft.):2122 T

Project Information

Project:MELLETTTE-TODD CO. STUDY Geologist:R. HAMMOND
Drill Date:07/13/1993 Geologist's Log:X
Company:SDGS Driller:D. IVERSON
Drilling Method:ROTARY Driller's Log:
Test Hole Number:R20-93-35 Total Drill Hole Depth (ft.):137.0
Samples:

Geophysical Information

Spontaneous Potential:X Single Point Resistivity:X
Natural Gamma:X Extra:

THIS TEST HOLE WAS PLUGGED FROM 137 FEET TO 5 FEET WITH HIGH SOLIDS BENTONITE GROUT, AND FROM 5 FEET TO 2 FEET WITH CEMENT GROUT, AND BACK FILLED TO LAND SURFACE.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2122.00 - 2121.00	0.0 - 1.0	TOPSOIL, REDDISH-BROWN; CALCAREOUS
2121.00 - 2104.00	1.0 - 18.0	CLAYSTONE, LIGHT-BROWN, VERY SILTY; VERY CALCAREOUS, FISSILE, ABUNDANT FORAMINIFERA SPECKS (PIERRE SHALE)
2104.00 - 2090.00	18.0 - 32.0	CLAYSTONE, LIGHT-BROWNISH-GRAY TO BROWNISH-GRAY; GREASY, NON- TO VERY POORLY FISSILE, CALCAREOUS (PIERRE SHALE)
2090.00 - 2045.00	32.0 - 77.0	CLAYSTONE, BROWNISH-GRAY; GREASY, CALCAREOUS, FISSILE, ABUNDANT FORAMINIERA SPECKS AND POSSIBLY BACULITES SHELL DEBRIS WITH PEARLY LUSTER (PIERRE SHALE)
2045.00 - 1985.00	77.0 - 137.0	CLAYSTONE, OLIVE-GRAY; SLIGHTLY CALCAREOUS, FISSILE, SOME BACULITES SHELL DEBRIS, SOME THIN LIGHT-GREENISH- GRAY BENTONITE SEAMS (PIERRE SHALE)

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Location Information

Legal Location:SE SE SW SW SEC. 04, T. 040 N., R. 25 W.	
County:MELLETTTE	Location:040N-25W-04CCDD
Basin:WHITE	Latitude:43 27' 46"
Hydrologic Unit Code:10140204	Longitude:100 17' 22"
Land Owner:	Ground Surface Elevation (ft.):2031 T

Project Information

Project:MELLETTTE-TODD CO. STUDY	Geologist:R. HAMMOND
Drill Date:07/10/1996	Geologist's Log:
Company:SDGS	Driller:G. JENSEN
Drilling Method:ROTARY	Driller's Log:X
Test Hole Number:R2-96-32	Total Drill Hole Depth (ft.):38.0
Samples:	

Well Information

SDGS Well Name: R2-96-32	Aquifer:ARIKAREE
Water Rights Well:	Management Unit:
Other Well Name:	Casing Top Elevation:2033.00 T
Casing Type:PVC, SCH. 80	Casing Diameter (in.):2.0
Screen Type:PVC, MFG., 0.018 IN. SLOT	Screen Length (ft.):10.0
Total Casing and Screen (ft.):40.0	Casing Stick-up (ft.):2.00
Well Maintenance Date:	

Geophysical Information

Spontaneous Potential:	Single Point Resistivity:
Natural Gamma:	Extra:

THIS WELL WAS FILTER PACKED FROM 38 TO 20 FEET; THE ANNULAR SPACE WAS FILLED WITH NEAT CEMENT GROUT FROM 20 FEET TO LAND SURFACE.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2031.00 - 2029.00	0.0 - 2.0	TOPSOIL, BROWN
2029.00 - 2009.00	2.0 - 22.0	SILT, BROWN
2009.00 - 1996.00	22.0 - 35.0	GRAVEL
1996.00 - 1993.00	35.0 - 38.0	SHALE, BLACK (PIERRE SHALE)

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Location Information

Legal Location: SE NW SEC. 12, T. 040 N., R. 25 W.
County: MELLETTTE Location: 040N-25W-12BD
Basin: WHITE Latitude: 43 27' 27"
Hydrologic Unit Code: 10140204 Longitude: 100 13' 35"
Land Owner: C Ground Surface Elevation (ft.): 2040 T

Project Information

Project: Geologist:
Drill Date: 10/18/1929 Geologist's Log:
Company: NORBECK DRILLING Driller:
Drilling Method: Driller's Log: X
Test Hole Number: Total Drill Hole Depth (ft.): 1681.0
Samples:

Well Information

SDGS Well Name: Aquifer:
Water Rights Well: Management Unit:
Other Well Name: RAILROAD Casing Top Elevation:
Casing Type: UNKNOWN Casing Diameter (in.):
Screen Type: Screen Length (ft.):
Total Casing and Screen (ft.): 1681.0 Casing Stick-up (ft.):
Well Maintenance Date:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

CASING DIAMETER: 330 FEET OF 8-INCH, 737 FEET OF 6-INCH, 403 FEET OF 4.5-INCH, 211 FEET OF 3-INCH.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2040.00 - 2015.00	0.0 - 25.0	CLAY, YELLOW
2015.00 - 1557.00	25.0 - 483.0	SHALE, BLUE
1557.00 - 1397.00	483.0 - 643.0	SHALE, BLUE; WITH OCCASIONAL HARD STREAKS
1397.00 - 774.00	643.0 - 1266.0	SHALE, BLUE
774.00 - 677.00	1266.0 - 1363.0	SHALE, BLUE; VERY HARD
677.00 - 384.00	1363.0 - 1656.0	SHALE; HARD
384.00 - 359.00	1656.0 - 1681.0	OPEN HOLE

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Location Information

Legal Location: NW SE SW SEC. 20, T. 040 N., R. 25 W.
County: MELLETTTE Location: 040N-25W-20CDB
Basin: WHITE Latitude: 43 25' 18"
Hydrologic Unit Code: 10140204 Longitude: 100 18' 25"
Land Owner: Ground Surface Elevation (ft.): 2077 T

Project Information

Project: Geologist:
Drill Date: Geologist's Log:
Company: HURON DRILLING Driller: B. MILLS
Drilling Method: Driller's Log: X
Test Hole Number: Total Drill Hole Depth (ft.): 1692.0
Samples:

Well Information

SDGS Well Name: Aquifer:
Water Rights Well: Management Unit:
Other Well Name: PRIVATE Casing Top Elevation:
Casing Type: Casing Diameter (in.):
Screen Type: Screen Length (ft.):
Total Casing and Screen (ft.): Casing Stick-up (ft.):
Well Maintenance Date:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2077.00 - 1222.00	0.0 - 855.0	PIERRE SHALE
1222.00 - 1047.00	855.0 - 1030.0	NIOBRARA FORMATION
1047.00 - 744.00	1030.0 - 1333.0	CARLILE SHALE
744.00 - 647.00	1333.0 - 1430.0	GREENHORN LIMESTONE
647.00 - 499.00	1430.0 - 1578.0	GRANEROS SHALE
499.00 - 385.00	1578.0 - 1692.0	DAKOTA FORMATION

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Location Information

Legal Location: SW NE SEC. 07, T. 040 N., R. 27 W.
County: MELLETTTE Location: 040N-27W-07AC
Basin: WHITE Latitude: 43 27' 27"
Hydrologic Unit Code: 10140204 Longitude: 100 33' 29"
Land Owner: E. MADEARIS Ground Surface Elevation (ft.): 2290 T

Project Information

Project: Geologist:
Drill Date: 06/26/1978 Geologist's Log:
Company: JURACEK WELL BORING Driller:
Drilling Method: Driller's Log: X
Test Hole Number: Total Drill Hole Depth (ft.): 51.0
Samples:

Well Information

SDGS Well Name: Aquifer:
Water Rights Well: Management Unit:
Other Well Name: PRIVATE Casing Top Elevation:
Casing Type: CEMENT TILE Casing Diameter (in.): 24.0
Screen Type: Screen Length (ft.):
Total Casing and Screen (ft.): 52.0 Casing Stick-up (ft.):
Well Maintenance Date:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2290.00 - 2289.00	0.0 - 1.0	TOPSOIL
2289.00 - 2273.00	1.0 - 17.0	CLAY
2273.00 - 2266.00	17.0 - 24.0	GRAVEL
2266.00 - 2259.00	24.0 - 31.0	MAGNESIA
2259.00 - 2250.00	31.0 - 40.0	GRAVEL AND WATER
2250.00 - 2239.00	40.0 - 51.0	SHALE

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Location Information

Legal Location:SE NW NW SW SEC. 03, T. 040 N., R. 28 W.
County:MELLETTTE Location:040N-28W-03CBBD
Basin:WHITE Latitude:43 28' 05"
Hydrologic Unit Code:10140203 Longitude:100 37' 48"
Land Owner: Ground Surface Elevation (ft.):2480 T

Project Information

Project:TODD-MELLETTTE STUDY Geologist:P. HAMMOND
Drill Date:06/18/1991 Geologist's Log:X
Company:SDGS Driller:D. IVERSON
Drilling Method:ROTARY Driller's Log:
Test Hole Number:R20-91-24 Total Drill Hole Depth (ft.):64.0
Samples:

Well Information

SDGS Well Name: R20-91-24 Aquifer:WHITE RIVER GROUP
Water Rights Well: Management Unit:
Other Well Name: Casing Top Elevation:2482.00 T
Casing Type:PVC, SCH. 80 Casing Diameter (in.):2.0
Screen Type:PVC, MFG., SLOT SIZE 0.010 IN. Screen Length (ft.):10.0
Total Casing and Screen (ft.):65.0 Casing Stick-up (ft.):2.00
Well Maintenance Date:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

WELL DATA: SCREEN INTERVAL FROM 63 TO 53 FEET; FILTER PACK (0.65-0.75 MM QUARTZ SAND) 64 TO 39 FEET; BENTONITE 39 TO 20 FEET; CEMENT 20 TO 0 FEET; LOCKING STEEL WELL PROTECTOR INSTALLED. SCREEN AND CASING ARE FLUSH THREADED.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2480.00 - 2478.00	0.0 - 2.0	TOPSOIL, TAN, SILTY
2478.00 - 2470.00	2.0 - 10.0	SAND, DARK-BROWN, VERY FINE TO FINE
2470.00 - 2462.00	10.0 - 18.0	SAND AND GRAVEL, VERY FINE SAND TO FINE GRAVEL; SOME CLAY
2462.00 - 2453.00	18.0 - 27.0	CLAYSTONE, LIGHT-BROWN; WITH SOME TAN CLAY
2453.00 - 2440.00	27.0 - 40.0	CLAYSTONE, LIGHT-REDDISH-BROWN, SILTY, SLIGHTLY SANDY; CALCAREOUS
2440.00 - 2429.00	40.0 - 51.0	CLAYSTONE, LIGHT-GREENISH-GRAY, SILTY, SANDY
2429.00 - 2417.00	51.0 - 63.0	CLAYSTONE, GREENISH-GRAY, SILTY, SANDY; CALCAREOUS
2417.00 - 2416.00	63.0 - 64.0	CLAYSTONE, LIGHT-GRAY

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Location Information

Legal Location: NW SW NW SW SEC. 03, T. 040 N., R. 28 W.
County: MELLETTE Location: 040N-28W-03CBCB
Basin: WHITE Latitude: 43 28' 00"
Hydrologic Unit Code: 10140203 Longitude: 100 37' 55"
Land Owner: Ground Surface Elevation (ft.): 2445 T

Project Information

Project: TODD-MELLETTTE STUDY Geologist: P. HAMMOND
Drill Date: 06/18/1991 Geologist's Log: X
Company: SDGS Driller: D. IVERSON
Drilling Method: ROTARY Driller's Log:
Test Hole Number: R20-91-23 Total Drill Hole Depth (ft.): 69.0
Samples:

Well Information

SDGS Well Name: R20-91-23 Aquifer: WHITE RIVER GROUP
Water Rights Well: Management Unit:
Other Well Name: Casing Top Elevation: 2447.00 T
Casing Type: PVC, SCH. 80 Casing Diameter (in.): 2.0
Screen Type: PVC, MFG., SLOT SIZE 0.010 IN. Screen Length (ft.): 10.0
Total Casing and Screen (ft.): 60.0 Casing Stick-up (ft.): 2.00
Well Maintenance Date:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

WELL DATA: SCREEN INTERVAL FROM 58 TO 48 FEET; FILTER PACK (0.65-0.75 MM QUARTZ SAND) 69 TO 44 FEET; BENTONITE 44 TO 20 FEET; CEMENT 20 TO 0 FEET; LOCKING STEEL WELL PROTECTOR INSTALLED. SCREEN AND CASING ARE FLUSH THREADED.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2445.00 - 2443.00	0.0 - 2.0	TOPSOIL, TAN, SILTY
2443.00 - 2435.00	2.0 - 10.0	CLAYSTONE, REDDISH-BROWN TO LIGHT-BROWN; NONCALCAREOUS
2435.00 - 2420.00	10.0 - 25.0	CLAYSTONE, LIGHT-PINKISH-BROWN
2420.00 - 2411.00	25.0 - 34.0	CLAYSTONE, REDDISH-BROWN TO LIGHT- GREENISH-GRAY; SOME SILT
2411.00 - 2398.00	34.0 - 47.0	CLAYSTONE, GREENISH-GRAY, SILTY; SOME VERY FINE SAND
2398.00 - 2394.00	47.0 - 51.0	CLAYSTONE, LIGHT-BROWN TO BROWN, SILTY, SANDY; CALCAREOUS (MARL?)
2394.00 - 2376.00	51.0 - 69.0	CLAYSTONE, GREENISH-GRAY; SOME CALCAREOUS SILT

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Location Information

Legal Location:NE SW SE SE SEC. 04, T. 040 N., R. 28 W.
County:MELLETTTE Location:040N-28W-04DDCA
Basin:WHITE Latitude:43 27' 50"
Hydrologic Unit Code:10140203 Longitude:100 38' 06"
Land Owner: Ground Surface Elevation (ft.):2440 T

Project Information

Project:TODD-MELLETTTE STUDY Geologist:P. HAMMOND
Drill Date:06/17/1991 Geologist's Log:X
Company:SDGS Driller:D. IVERSON
Drilling Method:ROTARY Driller's Log:
Test Hole Number:R20-91-22 Total Drill Hole Depth (ft.):74.0
Samples:

Well Information

SDGS Well Name: R20-91-22 Aquifer:WHITE RIVER GROUP
Water Rights Well: Management Unit:
Other Well Name: Casing Top Elevation:2442.00 T
Casing Type:PVC, SCH. 80 Casing Diameter (in.):2.0
Screen Type:PVC, MFG., SLOT SIZE 0.010 IN. Screen Length (ft.):10.0
Total Casing and Screen (ft.):75.0 Casing Stick-up (ft.):2.00
Well Maintenance Date:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

WELL DATA: SCREEN INTERVAL FROM 73 TO 63 FEET; FILTER PACK (0.65-0.75 MM QUARTZ SAND) 74 TO 55 FEET; BENTONITE 55 TO 20 FEET; CEMENT 20 TO 0 FEET; LOCKING STEEL WELL PROTECTOR INSTALLED. SCREEN AND CASING ARE FLUSH THREADED.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2440.00 - 2438.00	0.0 - 2.0	TOPSOIL, BROWN
2438.00 - 2436.00	2.0 - 4.0	SILTSTONE, LIGHT-BROWN; CALCAREOUS
2436.00 - 2423.00	4.0 - 17.0	CLAYSTONE, REDDISH-BROWN TO LIGHT-BROWN; NONCALCAREOUS
2423.00 - 2408.00	17.0 - 32.0	CLAYSTONE, LIGHT-PINKISH-BROWN
2408.00 - 2398.00	32.0 - 42.0	CLAYSTONE, REDDISH-BROWN TO LIGHT- GREENISH-GRAY; SOME SILT
2398.00 - 2388.00	42.0 - 52.0	CLAYSTONE, GREENISH-GRAY; SOME SILT AND VERY FINE SAND
2388.00 - 2373.00	52.0 - 67.0	CLAYSTONE, GREENISH-GRAY; SOME CALCAREOUS SILTSTONE
2373.00 - 2366.00	67.0 - 74.0	MARL(?), LIGHT-TAN, SILTY, SANDY; CALCAREOUS

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Location Information

Legal Location:SW NE NW NE SEC. 09, T. 040 N., R. 28 W.
County:MELLETTTE Location:040N-28W-09ABAC
Basin:WHITE Latitude:43 27' 38"
Hydrologic Unit Code:10140203 Longitude:100 38' 19"
Land Owner: Ground Surface Elevation (ft.):2400 T

Project Information

Project:TODD-MELLETTTE STUDY Geologist:P. HAMMOND
Drill Date:06/11/1991 Geologist's Log:X
Company:SDGS Driller:D. IVERSON
Drilling Method:ROTARY Driller's Log:
Test Hole Number:R20-91-19 Total Drill Hole Depth (ft.):172.0
Samples:

Well Information

SDGS Well Name: R20-91-19 Aquifer:WHITE RIVER GROUP
Water Rights Well: Management Unit:
Other Well Name: Casing Top Elevation:2402.00 T
Casing Type:PVC, SCH. 80 Casing Diameter (in.):2.0
Screen Type:PVC, MFG., SLOT SIZE 0.010 IN. Screen Length (ft.):10.0
Total Casing and Screen (ft.):140.0 Casing Stick-up (ft.):2.00
Well Maintenance Date:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:X
Natural Gamma:X Extra:

WELL DATA: SCREEN INTERVAL FROM 138 TO 128 FEET; FILTER PACK (VERY COARSE QUARTZ SAND) 172 TO 110 FEET; BENTONITE 110 TO 22 FEET; CEMENT 22 TO 0 FEET; LOCKING STEEL WELL PROTECTOR INSTALLED. CASING AND SCREEN ARE FLUSH THREADED. SOUTH WELL OF THREE.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2400.00 - 2398.00	0.0 - 2.0	TOPSOIL, TAN, SILTY, CLAYEY
2398.00 - 2392.00	2.0 - 8.0	CLAYSTONE, LIGHT-BROWN (BRULE FORMATION?)
2392.00 - 2370.00	8.0 - 30.0	CLAYSTONE, LIGHT-BROWN; SOME SILT, SLIGHTLY CALCAREOUS (BRULE FORMATION?)
2370.00 - 2368.00	30.0 - 32.0	CLAYSTONE, LIGHT-PINKISH-BROWN; SOME SILT AND VERY FINE SAND (BRULE FORMATION?)
2368.00 - 2355.00	32.0 - 45.0	CLAYSTONE, LIGHT-GREENISH-BROWN; SOME SILT AND VERY FINE SAND (CHADRON FORMATION?)
2355.00 - 2344.00	45.0 - 56.0	CLAYSTONE, LIGHT-GREENISH-GRAY; SOME SILT AND VERY FINE SAND (CHADRON FORMATION?)
2344.00 - 2336.00	56.0 - 64.0	CLAYSTONE, LIGHT-GREEN, SILTY; VERY CALCAREOUS (CHADRON FORMATION?)

2336.00 - 2330.00	64.0 - 70.0	MARL, LIGHT-TAN, SILTY, SANDY; CALCAREOUS (CHADRON FORMATION?)
2330.00 - 2296.00	70.0 - 104.0	CLAYSTONE, LIGHT-GREEN; WITH SOME CALCAREOUS SILT (CHADRON FORMATION?)
2296.00 - 2280.00	104.0 - 120.0	CLAYSTONE, GREENISH-GRAY (CHADRON FORMATION?)
2280.00 - 2267.00	120.0 - 133.0	CLAYSTONE, LIGHT-GREEN-BROWN, SILTY, SOME FINE TO MEDIUM QUARTZ-FELDSPAR SAND (CHADRON FORMATION?)
2267.00 - 2255.00	133.0 - 145.0	CLAYSTONE, LIGHT-GREEN, SOMEWHAT SANDY (CHADRON FORMATION?)
2255.00 - 2244.00	145.0 - 156.0	CLAYSTONE, LIGHT-GREENISH-GRAY, SILTY (CHADRON FORMATION?)
2244.00 - 2242.00	156.0 - 158.0	CLAYSTONE, LIGHT-GREEN; WITH VERY FINE TO FINE QUARTZ-FELDSPAR SAND (CHADRON FORMATION?)
2242.00 - 2236.00	158.0 - 164.0	SHALE, REDDISH-PURPLE TO PURPLE; BENTONITIC, WEATHERED (PIERRE SHALE)
2236.00 - 2228.00	164.0 - 172.0	CLAY, LIGHT-BROWN; SLIGHTLY CALCAREOUS, WEATHERED (PIERRE SHALE)

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Location Information

Legal Location:SW NE NW NE SEC. 09, T. 040 N., R. 28 W.
County:MELLETTTE Location:040N-28W-09ABAC 1
Basin:WHITE Latitude:43 27' 38"
Hydrologic Unit Code:10140203 Longitude:100 38' 19"
Land Owner: Ground Surface Elevation (ft.):2400 T

Project Information

Project:TODD-MELLETTTE STUDY Geologist:P. HAMMOND
Drill Date:06/12/1991 Geologist's Log:X
Company:SDGS Driller:D. IVERSON
Drilling Method:ROTARY Driller's Log:
Test Hole Number:R20-91-20 Total Drill Hole Depth (ft.):110.0
Samples:

Well Information

SDGS Well Name: R20-91-20 Aquifer:WHITE RIVER GROUP
Water Rights Well: Management Unit:
Other Well Name: Casing Top Elevation:2402.00 T
Casing Type:PVC, SCH. 80 Casing Diameter (in.):2.0
Screen Type:PVC, MFG., SLOT SIZE 0.010 IN. Screen Length (ft.):10.0
Total Casing and Screen (ft.):110.0 Casing Stick-up (ft.):2.00
Well Maintenance Date:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

WELL DATA: SCREEN INTERVAL FROM 108 TO 98 FEET; FILTER PACK (VERY COARSE QUARTZ SAND) 110 TO 93 FEET; BENTONITE 93 TO 23 FEET; CEMENT 23 TO 0 FEET; LOCKING STEEL WELL PROTECTOR INSTALLED. CASING AND SCREEN ARE FLUSH THREADED. NORTH WELL OF THREE.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2400.00 - 2398.00	0.0 - 2.0	TOPSOIL, TAN, SILTY
2398.00 - 2392.00	2.0 - 8.0	CLAYSTONE, LIGHT-BROWN; SOME SILT, SOME VERY FINE SAND, CALCAREOUS
2392.00 - 2382.00	8.0 - 18.0	CLAYSTONE, LIGHT-BROWN; SOME SILT, SLIGHTLY CALCAREOUS
2382.00 - 2364.00	18.0 - 36.0	CLAYSTONE, LIGHT-PINKISH-BROWN; SOME SILT AND VERY FINE SAND
2364.00 - 2351.00	36.0 - 49.0	CLAYSTONE, LIGHT-GREENISH-BROWN; SOME SILT AND VERY FINE SAND
2351.00 - 2347.00	49.0 - 53.0	CLAYSTONE, LIGHT-GREENISH-GRAY; SOME SILT AND VERY FINE SAND
2347.00 - 2337.00	53.0 - 63.0	CLAYSTONE, LIGHT-GREEN; WITH CALCAREOUS SILT

2337.00 - 2324.00	63.0 - 76.0	MARL, LIGHT-TAN, SILTY, SANDY; CALCAREOUS
2324.00 - 2314.00	76.0 - 86.0	CLAYSTONE, LIGHT-GREEN; SOME CALCAREOUS SILT
2314.00 - 2302.00	86.0 - 98.0	CLAYSTONE, LIGHT-GREEN TO LIGHT-GREENISH-BROWN, SILTY
2302.00 - 2296.00	98.0 - 104.0	CLAYSTONE, LIGHT-GREEN; SOME CALCAREOUS SILT
2296.00 - 2290.00	104.0 - 110.0	CLAYSTONE, LIGHT-GREEN TO LIGHT-GREENISH-BROWN, SILTY; SLIGHTLY CALCAREOUS

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Location Information

Legal Location:SW NE NW NE SEC. 09, T. 040 N., R. 28 W.
County:MELLETTTE Location:040N-28W-09ABAC 2
Basin:WHITE Latitude:43 27' 38"
Hydrologic Unit Code:10140203 Longitude:100 38' 19"
Land Owner: Ground Surface Elevation (ft.):2400 T

Project Information

Project:TODD-MELLETTTE STUDY Geologist:P. HAMMOND
Drill Date:06/12/1991 Geologist's Log:X
Company:SDGS Driller:D. IVERSON
Drilling Method:ROTARY Driller's Log:
Test Hole Number:R20-91-21 Total Drill Hole Depth (ft.):65.0
Samples:

Well Information

SDGS Well Name: R20-91-21 Aquifer:WHITE RIVER GROUP
Water Rights Well: Management Unit:
Other Well Name: Casing Top Elevation:2402.00 T
Casing Type:PVC, SCH. 80 Casing Diameter (in.):2.0
Screen Type:PVC, MFG., SLOT SIZE 0.010 IN. Screen Length (ft.):10.0
Total Casing and Screen (ft.):65.0 Casing Stick-up (ft.):2.00
Well Maintenance Date:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

WELL DATA: SCREEN INTERVAL FROM 63 TO 53 FEET; FILTER PACK (VERY COARSE QUARTZ SAND) 65 TO 41 FEET; BENTONITE 41 TO 21 FEET; CEMENT 21 TO 0 FEET; LOCKING STEEL WELL PROTECTOR INSTALLED. CASING AND SCREEN ARE FLUSH THREADED. WEST WELL OF THREE.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2400.00 - 2398.00	0.0 - 2.0	TOPSOIL, TAN, SILTY
2398.00 - 2382.00	2.0 - 18.0	CLAYSTONE, LIGHT-BROWN, SILTY; SOME VERY FINE SAND; CALCAREOUS
2382.00 - 2372.00	18.0 - 28.0	CLAYSTONE, LIGHT-BROWN; SOME SILT; SLIGHTLY CALCAREOUS
2372.00 - 2355.00	28.0 - 45.0	CLAYSTONE, LIGHT-PINKISH-BROWN; SOME SILT AND VERY FINE SAND
2355.00 - 2350.00	45.0 - 50.0	CLAYSTONE, LIGHT-GREENISH-BROWN; SOME SILT AND VERY FINE SAND
2350.00 - 2342.00	50.0 - 58.0	CLAYSTONE, LIGHT-GREENISH-GRAY; SOME SILT AND FINE SAND
2342.00 - 2335.00	58.0 - 65.0	CLAYSTONE, LIGHT-GREEN TO GRAY; SOME CALCAREOUS SILT

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Location Information

Legal Location:SE SE SE SW SEC. 15, T. 040 N., R. 29 W.
County:MELLETTTE Location:040N-29W-15CDDD
Basin:WHITE Latitude:43 26' 00"
Hydrologic Unit Code:10140203 Longitude:100 44' 27"
Land Owner: Ground Surface Elevation (ft.):2430 T

Project Information

Project:MELLETTTE-TODD CO. STUDY Geologist:M. JARRETT
Drill Date:09/26/1994 Geologist's Log:X
Company:SDGS Driller:G. JENSEN
Drilling Method:ROTARY Driller's Log:
Test Hole Number:R2-94-74 Total Drill Hole Depth (ft.):102.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2430.00 - 2428.00	0.0 - 2.0	TOPSOIL, BROWN, SILTY
2428.00 - 2423.00	2.0 - 7.0	SILTSTONE, PALE-YELLOWISH-BROWN; NONCALCAREOUS (BRULE FORMATION?)
2423.00 - 2375.00	7.0 - 55.0	SILTSTONE, GRAYISH-GREEN, CLAYEY; MASSIVE, NONCALCAROEUS (CHADRON FORMATION?)
2375.00 - 2361.00	55.0 - 69.0	SANDSTONE, LIGHT-PINK TO VERY LIGHT-BLUE, SILTY FROM 55 TO 61 FEET; NONCALCAREOUS (CHADRON FORMATION?)
2361.00 - 2336.00	69.0 - 94.0	CLAYSTONE, MEDIUM-GRAY TO ORANGE-BROWN; NONCALCAREOUS (PIERRE SHALE)
2336.00 - 2328.00	94.0 - 102.0	CLAYSTONE, DARK-GRAY TO BLACK; NONCALCAREOUS (PIERRE SHALE)

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Location Information

Legal Location: SW SW SE SE SEC. 04, T. 040 N., R. 30 W.
County: MELLETTE Location: 040N-30W-04DDCC
Basin: WHITE Latitude: 43 27' 45"
Hydrologic Unit Code: 10140203 Longitude: 100 51' 52"
Land Owner: Ground Surface Elevation (ft.): 2510 T

Project Information

Project: MELLETTE-TODD CO. STUDY Geologist: M. JARRETT
Drill Date: 05/26/1993 Geologist's Log: X
Company: SDGS Driller: G. JENSEN
Drilling Method: ROTARY Driller's Log:
Test Hole Number: R2-93-07 Total Drill Hole Depth (ft.): 162.0
Samples:

Geophysical Information

Spontaneous Potential: X Single Point Resistivity: X
Natural Gamma: X Extra:

HOLE PLUGGED WITH HIGH SOLIDS BENTONITE FROM 162 FEET TO GROUND SURFACE. AFTER SETTLEMENT, 20 FEET OF OPEN HOLE WAS PLUGGED WITH CEMENT GROUT.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2510.00 - 2499.00	0.0 - 11.0	CLAY AND SILT, MOTTLED LIGHT-YELLOW- BROWN AND GRAY-ORANGE, SANDY
2499.00 - 2494.00	11.0 - 16.0	SILTSTONE, MODERATE-YELLOWISH-BROWN
2494.00 - 2493.00	16.0 - 17.0	SAND, WHITE, FINE; CEMENTED, QUARTZOSE
2493.00 - 2478.00	17.0 - 32.0	SILTSTONE, MODERATE-YELLOW-BROWN, SANDY, SLIGHTLY CLAYEY, MASSIVE
2478.00 - 2432.00	32.0 - 78.0	CLAYSTONE AND SILTSTONE, ALTERNATING BROWN-GRAY TO MODERATE-YELLOW-BROWN, SANDY
2432.00 - 2402.00	78.0 - 108.0	SILTSTONE AND CLAYSTONE, GRAYISH-GREEN, SLIGHTLY SHALEY; BENTONITIC
2402.00 - 2393.00	108.0 - 117.0	SILTSTONE, PALE-GRAYISH-BLUE, SANDY; TABULAR TO BLOCKY CUTTINGS
2393.00 - 2383.00	117.0 - 127.0	CLAYSTONE, GRAY-BROWN; SOME PURPLE AND RUSTY COLORED NODULES, GREASY, WEATHERED SHALE
2383.00 - 2353.00	127.0 - 157.0	SHALE, LIGHT-GRAY; GREASY, SOME OXIDIZED FRACTURE FILLINGS
2353.00 - 2348.00	157.0 - 162.0	SHALE, DARK-GRAY-BLACK; GREASY, BENTONITIC

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Location Information

Legal Location:NE SW SW NE SEC. 27, T. 040 N., R. 30 W.
County:MELLETTTE Location:040N-30W-27ACCA
Basin:WHITE Latitude:43 24' 45"
Hydrologic Unit Code:10140203 Longitude:100 51' 22"
Land Owner: Ground Surface Elevation (ft.):2350 T

Project Information

Project:MELLETTTE-TODD CO. STUDY Geologist:M. JARRETT
Drill Date:05/26/1993 Geologist's Log:X
Company:SDGS Driller:G. JENSEN
Drilling Method:ROTARY Driller's Log:
Test Hole Number:R2-93-06 Total Drill Hole Depth (ft.):122.0
Samples:

Geophysical Information

Spontaneous Potential:X Single Point Resistivity:X
Natural Gamma:X Extra:

HOLE WAS PLUGGED WITH HIGH SOLIDS BENTONITE FROM 122 FEET TO GROUND SURFACE. AFTER SETTLEMENT, OPEN HOLE OF 30 FEET WAS PLUGGED WITH CEMENT GROUT.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2350.00 - 2348.00	0.0 - 2.0	TOPSOIL, BROWN
2348.00 - 2340.00	2.0 - 10.0	SAND, BROWN, FINE TO MEDIUM, SILTY, CLAYEY
2340.00 - 2328.00	10.0 - 22.0	SILT AND CLAY, DARK-YELLOWISH-BROWN, SANDY
2328.00 - 2320.00	22.0 - 30.0	SILTSTONE, DARK-YELLOWISH-BROWN TO RUSTY-BROWN, VERY SANDY
2320.00 - 2303.00	30.0 - 47.0	SILTSTONE, PALE-BLUE-GRAY, SANDY
2303.00 - 2278.00	47.0 - 72.0	CLAY, OLIVE-GRAY TO GREENISH-GRAY; SOME RUSTY COLORED OXIDIZED NODULES, SOME ROUNDED MAFIC AND SHALE PEBBLES, GREASY
2278.00 - 2228.00	72.0 - 122.0	CLAY, GRAYISH-BLACK; GREASY (PIERRE SHALE)

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Location Information

Legal Location:SW NW SW NE SEC. 35, T. 040 N., R. 30 W.
County:MELLETTTE Location:040N-30W-35ACBC
Basin:WHITE Latitude:43 23' 54"
Hydrologic Unit Code:10140203 Longitude:100 50' 20"
Land Owner: Ground Surface Elevation (ft.):2280 T

Project Information

Project:STATEWIDE MONITORING Geologist:P. HAMMOND
Drill Date:06/21/1995 Geologist's Log:X
Company:SDGS Driller:D. IVERSON
Drilling Method:HOLLOWSTEM Driller's Log:
Test Hole Number:R20-95-21 Total Drill Hole Depth (ft.):30.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2280.00 - 2277.00	0.0 - 3.0	SAND, LIGHT-BROWN TO DARK-BROWN, MEDIUM TO COARSE; SOME GRAVEL
2277.00 - 2273.00	3.0 - 7.0	SAND AND GRAVEL, MEDIUM TO COARSE
2273.00 - 2268.00	7.0 - 12.0	SAND, BROWN, COARSE, CLAYEY, SILTY; WITH SOME GRAVEL
2268.00 - 2261.00	12.0 - 19.0	SAND AND CLAY, DARK-BROWN, COARSE SAND, SILTY
2261.00 - 2250.00	19.0 - 30.0	CLAY, LIGHT-GRAY TO GRAY; CALCAREOUS (PIERRE SHALE)
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Location Information

Legal Location: NW NW NW NW SEC. 16, T. 040 N., R. 31 W.
County: MELLETTTE Location: 040N-31W-16BBBB
Basin: WHITE Latitude: 43 26' 50"
Hydrologic Unit Code: 10140203 Longitude: 101 00' 25"
Land Owner: Ground Surface Elevation (ft.): 2553 T

Project Information

Project: WATER RIGHTS Geologist: J. GOODMAN
Drill Date: 09/03/1978 Geologist's Log: X
Company: SDGS Driller: M. THOMPSON
Drilling Method: ROTARY Driller's Log:
Test Hole Number: MT-78-5 Total Drill Hole Depth (ft.): 260.0
Samples:

Geophysical Information

Spontaneous Potential: X Single Point Resistivity: X
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2553.00 - 2488.00	0.0 - 65.0	SILTSTONE, REDDISH-BROWN; WITH SANDSTONE OF SAME COLOR
2488.00 - 2317.00	65.0 - 236.0	SANDSTONE, REDDISH-BROWN; SLIGHTLY CEMENTED, WITH SILTSTONE
2317.00 - 2293.00	236.0 - 260.0	SILTSTONE, GREENISH-WHITE, SHALEY; BENTONITE
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Location Information

Legal Location:NE NE NE NE SEC. 21, T. 040 N., R. 31 W.
County:MELLETTTE Location:040N-31W-21AAAA
Basin:WHITE Latitude:43 25' 55"
Hydrologic Unit Code:10140202 Longitude:100 59' 15"
Land Owner: Ground Surface Elevation (ft.):2585 T

Project Information

Project:MELLETTTE-TODD CO. STUDY Geologist:R. HAMMOND
Drill Date:09/16/1992 Geologist's Log:X
Company:SDGS Driller:G. JENSEN
Drilling Method:ROTARY Driller's Log:
Test Hole Number:R2-92-46 Total Drill Hole Depth (ft.):417.0
Samples:

Geophysical Information

Spontaneous Potential:X Single Point Resistivity:X
Natural Gamma:X Extra:

PLUGGED FROM TOTAL DEPTH TO TOP WITH HIGH SOLIDS BENTONITE PLUGGING FLUID; SETTLED OVER WEEKEND TO 50 FEET; FILLED WITH BENTONITE CRUMBLES TO 8 FEET, CEMENT FROM 8 TO 3 FEET, AND NATIVE SOIL FROM 3 TO 0 FEET.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2585.00 - 2574.00	0.0 - 11.0	SILT, PALE-BROWN, SANDY, CLAYEY; CALCAREOUS; ABUNDANT PEBBLY CONCRETIONS
2574.00 - 2541.00	11.0 - 44.0	SILTSTONE, PALE-REDDISH-BROWN, VERY SANDY, CLAYEY; VERY CALCAREOUS, MASSIVE, VERY POORLY CEMENTED, VERY PALE-ORANGE BELOW 28 FEET
2541.00 - 2517.00	44.0 - 68.0	SAND, YELLOWISH-BROWN, VERY FINE, VERY SILTY, CLAYEY; SLIGHTLY TO NON- CALCAREOUS, MASSIVE(?)
2517.00 - 2508.00	68.0 - 77.0	SAND, GRAYISH-ORANGE, VERY FINE, VERY SILTY; SLIGHTLY TO MODERATELY CALCAREOUS, MASSIVE(?)
2508.00 - 2456.00	77.0 - 129.0	SILTSTONE, LIGHT-BROWN, SANDY, CLAYEY; SLIGHTLY CALCAREOUS, MASSIVE(?); GRADES TO LIGHT-OLIVE-GRAY, CLAYEY, FISSILE SILTSTONE BY 100 FEET
2456.00 - 2415.00	129.0 - 170.0	SILTSTONE, PALE-YELLOWISH-BROWN, CLAYEY; NONCALCAREOUS TO SLIGHTLY CALCAREOUS, POORLY FISSILE TO FISSILE, GRADES TO OLIVE-GRAY BY 160 FEET
2415.00 - 2378.00	170.0 - 207.0	SILTSTONE, PALE-YELLOWISH-BROWN, VERY CLAYEY; NONCALCAREOUS, FISSILE, MOTTLED WITH OLIVE-GRAY BY 200 FEET
2378.00 - 2210.00	207.0 - 375.0	SILTSTONE, GRAYISH-ORANGE, CLAYEY; FISSILE, SLIGHTLY TO NONCALCAREOUS, GRADES TO OLIVE-GRAY

BY 230 FEET, SEVERAL VERY FINE SANDY BEDS
BETWEEN 233 AND 280 FEET, SEVERAL THIN ASHY
CLAYSTONE BEDS AT 235 TO 320 FEET

2210.00 - 2202.00	375.0 - 383.0	SAND, YELLOWISH-GRAY, FINE TO VERY FINE, SILTY
2202.00 - 2168.00	383.0 - 417.0	SHALE, OLIVE-BLACK; FISSILE, SLIGHTLY CALCAREOUS (MOBRIDGE MEMBER - PIERRE SHALE?)

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Location Information

Legal Location:NE NE NE NE SEC. 21, T. 040 N., R. 31 W.
County:MELLETTTE Location:040N-31W-21AAAA 1
Basin:WHITE Latitude:43 25' 55"
Hydrologic Unit Code:10140202 Longitude:100 59' 15"
Land Owner: Ground Surface Elevation (ft.):2585 T

Project Information

Project:MELLETTTE-TODD CO. STUDY Geologist:R. HAMMOND
Drill Date:09/21/1992 Geologist's Log:X
Company:SDGS Driller:G. JENSEN
Drilling Method:ROTARY Driller's Log:
Test Hole Number:R2-92-47 Total Drill Hole Depth (ft.):82.0
Samples:

Well Information

SDGS Well Name: R2-92-47 Aquifer:
Water Rights Well: Management Unit:
Other Well Name: Casing Top Elevation:2587.00 T
Casing Type:PVC Casing Diameter (in.):2.0
Screen Type:PVC, MFG., SLOT SIZE 0.010 IN. Screen Length (ft.):10.0
Total Casing and Screen (ft.):82.0 Casing Stick-up (ft.):2.00
Well Maintenance Date:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2585.00 - 2574.00	0.0 - 11.0	SILT, PALE-BROWN, SANDY, CLAYEY; CALCAREOUS; ABUNDANT CONCRETIONARY CALCAREOUS PEBBLES
2574.00 - 2541.00	11.0 - 44.0	SILTSTONE, PALE-REDDISH-BROWN, VERY SANDY, CLAYEY; VERY CALCAREOUS, MASSIVE, VERY POORLY CEMENTED, VERY PALE-ORANGE BELOW 28 FEET
2541.00 - 2517.00	44.0 - 68.0	SAND, YELLOWISH-BROWN, VERY FINE, VERY SILTY, CLAYEY; SLIGHTLY TO NON- CALCAREOUS, MASSIVE(?)
2517.00 - 2508.00	68.0 - 77.0	SAND, GRAYISH-ORANGE, VERY FINE, VERY SILTY; SLIGHTLY TO MODERATELY CALCAREOUS, MASSIVE(?)
2508.00 - 2503.00	77.0 - 82.0	SILTSTONE, LIGHT-BROWN, SANDY, CLAYEY; SLIGHTLY CALCAREOUS, MASSIVE(?)

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Location Information

Legal Location: SW SW SEC. 16, T. 040 N., R. 32 W.
County: MELLETTTE Location: 040N-32W-16CC
Basin: WHITE Latitude: 43 26' 03"
Hydrologic Unit Code: 10140202 Longitude: 101 06' 53"
Land Owner: D. SCHMIDT Ground Surface Elevation (ft.): 2575 T

Project Information

Project: Geologist:
Drill Date: 06/05/1986 Geologist's Log:
Company: BABBY WELL DRILLING Driller:
Drilling Method: ROTARY Driller's Log: X
Test Hole Number: Total Drill Hole Depth (ft.): 80.0
Samples:

Well Information

SDGS Well Name: Aquifer:
Water Rights Well: Management Unit:
Other Well Name: PRIVATE Casing Top Elevation:
Casing Type: PVC Casing Diameter (in.): 4.0
Screen Type: PVC Screen Length (ft.): 20.0
Total Casing and Screen (ft.): 80.0 Casing Stick-up (ft.):
Well Maintenance Date:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2575.00 - 2570.00	0.0 - 5.0	SAND, FINE
2570.00 - 2495.00	5.0 - 80.0	ROCK, RED, COARSE

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Location Information

Legal Location: NW NW NW NW SEC. 21, T. 040 N., R. 32 W.
 County: MELLETTE Location: 040N-32W-21BBBB
 Basin: WHITE Latitude: 43 25' 55"
 Hydrologic Unit Code: 10140203 Longitude: 101 07' 00"
 Land Owner: Ground Surface Elevation (ft.): 2576 T

Project Information

Project: WATER RIGHTS Geologist: J. GOODMAN
 Drill Date: 10/03/1978 Geologist's Log: X
 Company: SDGS Driller: M. THOMPSON
 Drilling Method: ROTARY Driller's Log:
 Test Hole Number: MT-78-2 Total Drill Hole Depth (ft.): 170.0
 Samples:

Well Information

SDGS Well Name: Aquifer: ARIKAREE
 Water Rights Well: MT-78A Management Unit:
 Other Well Name: Casing Top Elevation:
 Casing Type: PVC Casing Diameter (in.): 2.0
 Screen Type: PVC, MFG. Screen Length (ft.): 25.0
 Total Casing and Screen (ft.): 165.3 Casing Stick-up (ft.): 2.80
 Well Maintenance Date: 06/14/1984

Geophysical Information

Spontaneous Potential: X Single Point Resistivity: X
 Natural Gamma: Extra:

CASING WAS SLOTTED 20 FEET ABOVE THE SANDPOINT.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2576.00 - 2570.00	0.0 - 6.0	SAND, BROWN; UNCONSOLIDATED
2570.00 - 2491.00	6.0 - 85.0	SANDSTONE, REDDISH-BROWN, FINE; SLIGHTLY CEMENTED
2491.00 - 2448.00	85.0 - 128.0	SANDSTONE, REDDISH-BROWN, FINE; ALMOST A SILTSTONE
2448.00 - 2417.00	128.0 - 159.0	SAND, BROWN, MEDIUM, LOOSE; LAST 10 FEET CONTAINED CEMENTED LAYERS
2417.00 - 2416.00	159.0 - 160.0	SANDSTONE; VERY HARD
2416.00 - 2406.00	160.0 - 170.0	SILTSTONE, LIGHT-BROWN TO WHITE; WITH BENTONITE

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Location Information

Legal Location: NW NW NW NW SEC. 21, T. 040 N., R. 32 W.
County: MELLETTTE Location: 040N-32W-21BBBB 1
Basin: WHITE Latitude: 43 25' 55"
Hydrologic Unit Code: 10140202 Longitude: 101 07' 02"
Land Owner: Ground Surface Elevation (ft.): 2578 T

Project Information

Project: STATEWIDE MONITORING Geologist: L. SCHULZ
Drill Date: 05/20/1997 Geologist's Log: X
Company: SDGS Driller: G. JENSEN
Drilling Method: ROTARY Driller's Log:
Test Hole Number: R2-97-03 Total Drill Hole Depth (ft.): 59.0
Samples:

Well Information

SDGS Well Name: R2-97-03 Aquifer: ARIKAREE
Water Rights Well: Management Unit:
Other Well Name: Casing Top Elevation: 2580.00 T
Casing Type: PVC, SCH. 40 Casing Diameter (in.): 2.0
Screen Type: PVC, SCH. 40, MFG., 0.018 SLOT Screen Length (ft.): 10.0
Total Casing and Screen (ft.): 59.3 Casing Stick-up (ft.): 2.00
Well Maintenance Date:

Geophysical Information

Spontaneous Potential: X Single Point Resistivity: X
Natural Gamma: X Extra:

WELL SCREENED FROM 59.3 TO 49.3 FEET BELOW CASING TOP. FILTER PACK FROM 59 TO 39 FEET BELOW LAND SURFACE. BENTONITE GROUT FROM 39 FEET TO GROUND LEVEL. CEMENT GROUT PLACED FROM 5 FEET BELOW LAND SURFACE TO GROUND LEVEL.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2578.00 - 2519.00	0.0 - 59.0	SAND AND SANDSTONE, RED-BROWN, FINE TO VERY FINE GRAINED; SOME SILTSTONE IN CUTTINGS

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Location Information

Legal Location: NW NW NW NW SEC. 21, T. 040 N., R. 32 W.
County: MELLETTE Location: 040N-32W-21BBBB 2
Basin: WHITE Latitude: 43 25' 55"
Hydrologic Unit Code: 10140202 Longitude: 101 07' 05"
Land Owner: Ground Surface Elevation (ft.): 2578 T

Project Information

Project: STATEWIDE MONITORING Geologist: L. SCHULZ
Drill Date: 08/05/1997 Geologist's Log: X
Company: SDGS Driller: D. IVERSON
Drilling Method: HOLLOWSTEM Driller's Log:
Test Hole Number: R20-97-36 Total Drill Hole Depth (ft.): 30.0
Samples:

Well Information

SDGS Well Name: R20-97-36 Aquifer: ARIKAREE
Water Rights Well: Management Unit:
Other Well Name: Casing Top Elevation: 2580.00 T
Casing Type: PVC, SCH. 80 Casing Diameter (in.): 4.0
Screen Type: PVC, SCH. 40, MFG., 0.018 SLOT Screen Length (ft.): 5.5
Total Casing and Screen (ft.): 31.1 Casing Stick-up (ft.): 2.00
Well Maintenance Date:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

WELL INFORMATION: SCREENED INTERVAL FROM 31.1 TO 25.6 FEET BELOW CASING TOP. FILTER
PACK FROM 31 TO 7 FEET BELOW LAND SURFACE. BENTONITE FROM 7 TO 5 FEET BELOW LAND
SURFACE. CEMENT GROUT AND CUTTINGS FROM 5 FEET BELOW LAND SURFACE TO GROUND LEVEL.
ONE STEEL, LOCKING WELL PROTECTOR INSTALLED.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2578.00 - 2548.00	0.0 - 30.0	SAND AND SANDSTONE, RED-BROWN, FINE TO VERY FINE GRAINED; SOME SILTSTONE IN CUTTINGS; SOME CLAY

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Location Information

Legal Location: NW NW NW NW SEC. 21, T. 040 N., R. 32 W.
County: MELLETTTE Location: 040N-32W-21BBBB 3
Basin: WHITE Latitude: 43 25' 55"
Hydrologic Unit Code: 10140202 Longitude: 101 07' 05"
Land Owner: Ground Surface Elevation (ft.): 2578 T

Project Information

Project: STATEWIDE MONITORING Geologist: L. SCHULZ
Drill Date: 08/05/1997 Geologist's Log: X
Company: SDGS Driller: D. IVERSON
Drilling Method: HOLLOWSTEM Driller's Log:
Test Hole Number: R20-97-37 Total Drill Hole Depth (ft.): 15.0
Samples:

Well Information

SDGS Well Name: R20-97-37 Aquifer: ARIKAREE
Water Rights Well: Management Unit:
Other Well Name: Casing Top Elevation: 2580.00 T
Casing Type: PVC, SCH. 80 Casing Diameter (in.): 4.0
Screen Type: PVC, SCH. 80, MFG., 0.018 SLOT Screen Length (ft.): 10.1
Total Casing and Screen (ft.): 16.7 Casing Stick-up (ft.): 2.00
Well Maintenance Date:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

WELL INFORMATION: SCREENED INTERVAL FROM 16.7 TO 6.6 FEET BELOW CASING TOP. FILTER PACK FROM 15 TO 3.5 FEET BELOW LAND SURFACE. BENTONITE FROM 3.5 TO 2 FET BELOW LAND SURFACE. CEMENT GROUT FROM 2 FEET TO GROUND LEVEL. ONE STEEL, LOCKING WELL PROTECTOR INSTALLED.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2578.00 - 2563.00	0.0 - 15.0	SAND AND SANDSTONE, RED-BROWN, FINE TO VERY FINE GRAINED; SOME SILTSTONE IN CUTTINGS; SOME CLAY

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Location Information

Legal Location:SE SE SE SE SEC. 22, T. 040 N., R. 32 W.
County:MELLETTTE Location:040N-32W-22DDDD
Basin:WHITE Latitude:43 25' 05"
Hydrologic Unit Code:10140203 Longitude:101 04' 43"
Land Owner: Ground Surface Elevation (ft.):2546 T

Project Information

Project:WATER RIGHTS Geologist:J. GOODMAN
Drill Date:09/04/1978 Geologist's Log:X
Company:SDGS Driller:M. THOMPSON
Drilling Method:ROTARY Driller's Log:
Test Hole Number: Total Drill Hole Depth (ft.):155.0
Samples:

Geophysical Information

Spontaneous Potential:X Single Point Resistivity:X
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2546.00 - 2543.00	0.0 - 3.0	SAND, BROWNISH-GRAY; UNCONSOLIDATED
2543.00 - 2461.00	3.0 - 85.0	SANDSTONE, REDDISH-BROWN, FINE; LOOSELY CEMENTED FROM 36 TO 39 FEET
2461.00 - 2424.00	85.0 - 122.0	SANDSTONE, REDDISH-BROWN; WITH SILTSTONE
2424.00 - 2408.00	122.0 - 138.0	SILTSTONE, GREEN
2408.00 - 2391.00	138.0 - 155.0	SILTSTONE, GRAY-WHITE, SHALEY; BENTONITIC

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Location Information

Legal Location:NW NW NW NW SEC. 32, T. 040 N., R. 32 W.
County:MELLETTTE Location:040N-32W-32BBBB
Basin:WHITE Latitude:43 24' 12"
Hydrologic Unit Code:10140202 Longitude:101 08' 13"
Land Owner: Ground Surface Elevation (ft.):2640 T

Project Information

Project:WATER RIGHTS Geologist:J. GOODMAN
Drill Date:10/03/1978 Geologist's Log:X
Company:SDGS Driller:M. THOMPSON
Drilling Method:ROTARY Driller's Log:
Test Hole Number:MT-78-1 Total Drill Hole Depth (ft.):290.0
Samples:

Well Information

SDGS Well Name: Aquifer:ARIKAREE
Water Rights Well:MT-78B Management Unit:
Other Well Name: Casing Top Elevation:
Casing Type:PVC Casing Diameter (in.):2.0
Screen Type:PVC, MFG. Screen Length (ft.):25.0
Total Casing and Screen (ft.):236.7 Casing Stick-up (ft.):1.00
Well Maintenance Date:06/14/1984

Geophysical Information

Spontaneous Potential:X Single Point Resistivity:X
Natural Gamma: Extra:

CASING WAS SLOTTED 20 FEET ABOVE THE SANDPOINT.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2640.00 - 2632.00	0.0 - 8.0	SAND, BROWN, FINE; UNCONSOLIDATED
2632.00 - 2490.00	8.0 - 150.0	SANDSTONE, REDDISH-BROWN; NEARLY A SILTSTONE; CEMENTED WITH SOME LOOSE AREAS 50 TO 56 AND 136 TO 140 FEET
2490.00 - 2435.00	150.0 - 205.0	SILTSTONE OR SANDSTONE, REDDISH-BROWN WITH WHITE; SLIGHTLY CEMENTED, BECOMING CLAYEY
2435.00 - 2350.00	205.0 - 290.0	SILTSTONE, REDDISH-BROWN; WITH WHITE AND GREEN BENTONITE LAST 10 FEET

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Location Information

Legal Location:SW SW SW SW SEC. 33, T. 040 N., R. 32 W.
County:MELLETTTE Location:040N-32W-33CCCC
Basin:WHITE Latitude:43 23' 21"
Hydrologic Unit Code:10140203 Longitude:101 07' 03"
Land Owner: Ground Surface Elevation (ft.):2624 T

Project Information

Project:WATER RIGHTS Geologist:J. GOODMAN
Drill Date:09/29/1978 Geologist's Log:X
Company:SDGS Driller:M. THOMPSON
Drilling Method:ROTARY Driller's Log:
Test Hole Number:MT-78-4 Total Drill Hole Depth (ft.):290.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2624.00 - 2623.00	0.0 - 1.0	TOPSOIL, BLACK
2623.00 - 2589.00	1.0 - 35.0	SANDSTONE, REDDISH-BROWN, FINE; SLIGHTLY CEMENTED
2589.00 - 2577.00	35.0 - 47.0	SANDSTONE, REDDISH-BROWN, FINE; LOOSE
2577.00 - 2473.00	47.0 - 151.0	SANDSTONE, REDDISH-BROWN; SLIGHTLY CEMENTED, MORE SILTSTONE, ALSO LIGHTER COLOR LAYERS
2473.00 - 2359.00	151.0 - 265.0	SILTSTONE, REDDISH-BROWN, LIGHTER COLOR; SOME SANDSTONE
2359.00 - 2334.00	265.0 - 290.0	SILTSTONE, MULTICOLORED, BROWN, GREEN, REDDISH-BROWN, WHITE

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Location Information

Legal Location: NW SW SEC. 02, T. 040 N., R. 33 W.
County: MELLETTTE Location: 040N-33W-02CB
Basin: WHITE Latitude: 43 28' 02"
Hydrologic Unit Code: 10140202 Longitude: 101 11' 30"
Land Owner: Ground Surface Elevation (ft.): 2500 T

Project Information

Project: Geologist:
Drill Date: 02/21/1985 Geologist's Log:
Company: STATE LINE WELL SERVICE Driller:
Drilling Method: ROTARY Driller's Log: X
Test Hole Number: Total Drill Hole Depth (ft.): 105.0
Samples:

Well Information

SDGS Well Name: Aquifer:
Water Rights Well: Management Unit:
Other Well Name: PRIVATE Casing Top Elevation:
Casing Type: PVC Casing Diameter (in.): 4.0
Screen Type: PVC Screen Length (ft.): 40.0
Total Casing and Screen (ft.): 100.0 Casing Stick-up (ft.):
Well Maintenance Date:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2500.00 - 2497.00	0.0 - 3.0	TOPSOIL
2497.00 - 2474.00	3.0 - 26.0	BUTTE ROCK
2474.00 - 2465.00	26.0 - 35.0	SAND, FINE
2465.00 - 2435.00	35.0 - 65.0	SANDSTONE, FINE; BUTTE ROCK LEDGES
2435.00 - 2420.00	65.0 - 80.0	SAND AND SANDSTONE
2420.00 - 2413.00	80.0 - 87.0	BUTTE ROCK LEDGE
2413.00 - 2400.00	87.0 - 100.0	SANDSTONE, COARSE; SAND
2400.00 - 2395.00	100.0 - 105.0	CLAY

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Location Information

Legal Location: NW NW NW NW SEC. 35, T. 040 N., R. 33 W.
County: MELLETTE Location: 040N-33W-35BBBB
Basin: WHITE Latitude: 43 24' 12"
Hydrologic Unit Code: 10140202 Longitude: 101 11' 48"
Land Owner: Ground Surface Elevation (ft.): 2680 T

Project Information

Project: MELLETTE-TODD CO. STUDY Geologist: R. HAMMOND
Drill Date: 09/09/1992 Geologist's Log: X
Company: SDGS Driller: G. JENSEN
Drilling Method: ROTARY Driller's Log:
Test Hole Number: R2-92-44 Total Drill Hole Depth (ft.): 747.0
Samples:

Geophysical Information

Spontaneous Potential: X Single Point Resistivity: X
Natural Gamma: X Extra:

PLUGGED FROM TOTAL DEPTH TO SURFACE WITH HIGH SOLIDS BENTONITE PLUGGING FLUID, SETTLED TWO DAYS, FILLED WITH BENTONITE CRUMBLES TO AROUND 8 FEET, CEMENT FROM 8 FEET TO SURFACE.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2680.00 - 2666.00	0.0 - 14.0	SILTSTONE, PALE-YELLOWISH-BROWN, VERY SANDY; NONCALCAREOUS, MODERATELY TO POORLY FISSILE
2666.00 - 2652.00	14.0 - 28.0	SILTSTONE, YELLOW-BROWN, SANDY; CALCAREOUS, MODERATELY FISSILE; MOTTLED WITH SOME PALE-OLIVE-GRAY BELOW 20 FEET
2652.00 - 2608.00	28.0 - 72.0	SILTSTONE, PALE-REDDISH-BROWN, CLAYEY; NONCALCAREOUS TO ABOUT 35 FEET, CALCAREOUS BELOW 35 FEET, POORLY FISSILE, GRADES TO GRAYISH-ORANGE MOTTLED WITH PALE-OLIVE BELOW 50 FEET
2608.00 - 2591.00	72.0 - 89.0	SILTSTONE, PALE-REDDISH-BROWN, SLIGHTLY SANDY, CLAYEY; SLIGHTLY CALCAREOUS, POORLY TO NONFISSILE, GRADES TO GRAYISH-ORANGE BY 80 FEET (ARIKAREE GROUP?)
2591.00 - 2524.00	89.0 - 156.0	SILTSTONE, PALE-OLIVE, SANDY; CALCAREOUS, CLAYEY AT 100 TO 110 FEET, SLIGHTLY SANDY BELOW 130 FEET (BRULE FORMATION?)
2524.00 - 2493.00	156.0 - 187.0	SILTSTONE, GRAYISH-ORANGE, SLIGHTLY SANDY, CLAYEY; SOME CALCAREOUS GRAYISH- GREEN SILTSTONE AT 160 TO 170 FEET; GRADES TO PALE-OLIVE SILTSTONE BELOW 170 FEET
2493.00 - 2478.00	187.0 - 202.0	CLAYSTONE, GRAYISH-ORANGE, VERY SILTY; NONCALCAREOUS, MASSIVE

2478.00 - 2375.00	202.0 - 305.0	SILTSTONE, PALE-GRAYISH-ORANGE, SANDY, SLIGHTLY CLAYEY; SLIGHTLY CALCAREOUS, MASSIVE, VERY SANDY AT 216 TO 230 FEET, MORE CALCAREOUS AT 250 TO 290 FEET
2375.00 - 2364.00	305.0 - 316.0	SILTSTONE, GRAYISH-ORANGE, CLAYEY; NON-CALCAREOUS, FISSILE
2364.00 - 2319.00	316.0 - 361.0	SILTSTONE, PALE-YELLOWISH-ORANGE; SLIGHTLY CALCAREOUS, POORLY FISSILE TO MASSIVE, GRADED TO MASSIVE; PALE-OLIVE SILTSTONES BELOW 340 FEET
2319.00 - 2164.00	361.0 - 516.0	SILTSTONE, PALE-YELLOWISH-ORANGE, CLAYEY; CALCAREOUS, MASSIVE, GRADES TO PALE-OLIVE BELOW 410 FEET (BRULE FORMATION?)
2164.00 - 2122.00	516.0 - 558.0	SILTSTONE, PALE-YELLOWISH-ORANGE, CLAYEY; CALCAREOUS, MASSIVE; OLIVE MOTTLED AND OLIVE CLAYEY BEDS BELOW 525 FEET (CHADRON FORMATION?)
2122.00 - 2070.00	558.0 - 610.0	SILTSTONE, PALE-YELLOWISH-ORANGE, CLAYEY; CALCAREOUS; NONCALCAREOUS 580 TO 610 FEET, MASSIVE, MOTTLED WITH PALE-OLIVE BELOW 570 FEET
2070.00 - 1974.00	610.0 - 706.0	SILTSTONE, PALE-YELLOWISH-ORANGE AND PALE-OLIVE, CLAYEY TO VERY CLAYEY; CALCAREOUS, POORLY FISSILE; SAND LENS, MEDIUM TO COARSE, SUBROUNDED QUARTZOSE AT 682 TO 684 FEET; SEVERAL REDDISH-BROWN CLAYSTONE LAYERS AT 671 TO 703 FEET
1974.00 - 1959.00	706.0 - 721.0	CLAYSTONE, PALE-YELLOWISH-BROWN; SLIGHTLY CALCAREOUS, POORLY FISSILE
1959.00 - 1933.00	721.0 - 747.0	CLAYSTONE, OLIVE-BLACK; SLIGHTLY TO MODERATELY CALCAREOUS, POORLY FISSILE, (MOBRIDGE MEMBER - PIERRE SHALE?)

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Location Information

Legal Location: NW NW SEC. 36, T. 040 N., R. 33 W.
County: MELLETTTE Location: 040N-33W-36BB
Basin: WHITE Latitude: 43 24' 07"
Hydrologic Unit Code: 10140202 Longitude: 101 10' 30"
Land Owner: L. HICKS Ground Surface Elevation (ft.): 2660 T

Project Information

Project: Geologist:
Drill Date: 09/24/1984 Geologist's Log:
Company: STATE LINE WELL SERVICE Driller:
Drilling Method: ROTARY Driller's Log: X
Test Hole Number: Total Drill Hole Depth (ft.): 120.0
Samples:

Well Information

SDGS Well Name: Aquifer:
Water Rights Well: Management Unit:
Other Well Name: PRIVATE Casing Top Elevation:
Casing Type: PVC, SCH. 80 Casing Diameter (in.): 4.0
Screen Type: PVC Screen Length (ft.): 40.0
Total Casing and Screen (ft.): 120.0 Casing Stick-up (ft.):
Well Maintenance Date:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2660.00 - 2657.00	0.0 - 3.0	TOPSOIL
2657.00 - 2649.00	3.0 - 11.0	BUTTE ROCK
2649.00 - 2639.00	11.0 - 21.0	SAND
2639.00 - 2616.00	21.0 - 44.0	BUTTE ROCK
2616.00 - 2613.00	44.0 - 47.0	SAND; FIRM; SANDSTONE
2613.00 - 2580.00	47.0 - 80.0	BUTTE ROCK; WITH TRACE OF SAND
2580.00 - 2540.00	80.0 - 120.0	SAND, FINE TO MEDIUM; SOFT SANDSTONE WITH FIRM SANDSTONE LAYER

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Location Information

Legal Location:SE SE SE SE SEC. 11, T. 041 N., R. 25 W.
County:MELLETTTE Location:041N-25W-11DDDD
Basin:WHITE Latitude:43 32' 11"
Hydrologic Unit Code:10140203 Longitude:100 15' 02"
Land Owner: Ground Surface Elevation (ft.):2048 T

Project Information

Project:MELLETTTE-TODD CO. STUDY Geologist:R. HAMMOND
Drill Date:07/12/1993 Geologist's Log:X
Company:SDGS Driller:D. IVERSON
Drilling Method:ROTARY Driller's Log:
Test Hole Number:R20-93-34 Total Drill Hole Depth (ft.):87.0
Samples:

Geophysical Information

Spontaneous Potential:X Single Point Resistivity:X
Natural Gamma:X Extra:

HOLE WAS PLUGGED WITH HIGH SOLIDS BENTONITE GROUT FROM 87 FEET TO 3 FEET AND CEMENT GROUT FROM 3 FEET TO 1 FOOT BELOW LAND SURFACE.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2048.00 - 2047.00	0.0 - 1.0	TOPSOIL, REDDISH-BROWN; CALCAREOUS
2047.00 - 2041.00	1.0 - 7.0	SILT, PALE-RED, CLAYEY; POORLY CALCAREOUS
2041.00 - 2036.00	7.0 - 12.0	CLAY, DARK-YELLOWISH-BROWN TO DUSKY-BROWN IN THE JOINTS, SLIGHTLY SILTY, MASSIVE; CALCAREOUS (WEATHERED PIERRE SHALE)
2036.00 - 2028.00	12.0 - 20.0	CLAYSTONE, BROWNISH-GRAY, SILTY; HARD, SLIGHTLY CALCAREOUS
2028.00 - 2026.00	20.0 - 22.0	SILTSTONE, DARK-YELLOWISH-ORANGE, VERY CLAYEY; VERY CALCAREOUS (PIERRE SHALE)
2026.00 - 1993.00	22.0 - 55.0	CLAYSTONE, OLIVE-GRAY; GREASY, NON- CALCAREOUS TO POORLY CALCAREOUS, MASSIVE TO FISSILE, SOME FINE FORAMINIFERA TESTS BELOW 32 FEET
1993.00 - 1991.00	55.0 - 57.0	CLAYSTONE, BROWNISH-GRAY, VERY SILTY, MASSIVE; SOFT, VERY CALCAREOUS (PIERRE SHALE)
1991.00 - 1961.00	57.0 - 87.0	CLAYSTONE, BROWNISH-BLACK, SLIGHTLY SILTY, FISSILE; SLIGHTLY CALCAREOUS, SOME RARE ARAGONITE DEBRIS (PIERRE SHALE)

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Location Information

Legal Location:NE NE NE SW SEC. 18, T. 041 N., R. 25 W.
County:MELLETTTE Location:041N-25W-18CAAA
Basin:WHITE Latitude:43 31' 43"
Hydrologic Unit Code:10140203 Longitude:100 20' 25"
Land Owner: Ground Surface Elevation (ft.):22

Project Information

Project:MELLETTTE-TODD CO. STUDY Geologist:R. HAMMOND
Drill Date:07/10/1996 Geologist's Log:X
Company:SDGS Driller:G. JENSEN
Drilling Method:ROTARY Driller's Log:
Test Hole Number:R2-96-31 Total Drill Hole Depth (ft.):
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
22.00 - 20.00	0.0 - 2.0	TOPSOIL, BROWN
20.00 - 12.00	2.0 - 10.0	SILT, BROWN
12.00 - 0.00	10.0 - 22.0	SHALE, BLACK (PIERRE SHALE)

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Location Information

Legal Location:SW SW SW NW SEC. 09, T. 041 N., R. 26 W.
County:MELLETTTE Location:041N-26W-09BCCC
Basin:WHITE Latitude:43 32' 41"
Hydrologic Unit Code:10140203 Longitude:100 25' 49"
Land Owner: Ground Surface Elevation (ft.):2287 T

Project Information

Project:MELLETTTE-TODD CO. STUDY Geologist:R. HAMMOND
Drill Date:07/10/1996 Geologist's Log:X
Company:SDGS Driller:G. JENSEN
Drilling Method:ROTARY Driller's Log:
Test Hole Number:R2-96-30 Total Drill Hole Depth (ft.):62.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2287.00 - 2285.00	0.0 - 2.0	TOPSOIL, BROWN
2285.00 - 2281.00	2.0 - 6.0	SILT, BROWN
2281.00 - 2225.00	6.0 - 62.0	SHALE, BLACK (PIERRE SHALE)

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Location Information

Legal Location:NE NE SE NE SEC. 31, T. 041 N., R. 26 W.
County:MELLETTTE Location:041N-26W-31ADAA
Basin:WHITE Latitude:43 29' 22"
Hydrologic Unit Code:10140204 Longitude:100 27' 00"
Land Owner: Ground Surface Elevation (ft.):2132 T

Project Information

Project:MELLETTTE-TODD CO. STUDY Geologist:M. JARRETT
Drill Date:07/19/1993 Geologist's Log:X
Company:SDGS Driller:G. DUCHOSSOIS
Drilling Method:AUGER Driller's Log:
Test Hole Number:A1-93-21 Total Drill Hole Depth (ft.):28.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2132.00 - 2129.00	0.0 - 3.0	TOPSOIL, BLACK
2129.00 - 2114.00	3.0 - 18.0	CLAY, YELLOWISH-BROWN, VERY SILTY; DRY, CALCAREOUS
2114.00 - 2109.00	18.0 - 23.0	CLAY, YELLOWISH-BROWN, SILTY; SATURATED, SLIGHTLY CALCAREOUS
2109.00 - 2104.00	23.0 - 28.0	CLAY, DARK-GRAY WITH A LITTLE MEDIUM-YELLOW-BROWN; SOME LIGHT-GRAY BENTONITE, CALCAREOUS (PIERRE SHALE)

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Location Information

Legal Location: NW SW NW NW SEC. 31, T. 041 N., R. 26 W.
County: MELLETTTE Location: 041N-26W-31BBCB
Basin: WHITE Latitude: 43 29' 29"
Hydrologic Unit Code: 10140204 Longitude: 100 28' 11"
Land Owner: Ground Surface Elevation (ft.): 2149 T

Project Information

Project: MELLETTTE-TODD CO. STUDY Geologist: M. JARRETT
Drill Date: 07/20/1993 Geologist's Log: X
Company: SDGS Driller: G. DUCHOSSOIS
Drilling Method: AUGER Driller's Log:
Test Hole Number: A1-93-22 Total Drill Hole Depth (ft.): 23.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2149.00 - 2147.00	0.0 - 2.0	TOPSOIL, DARK-BROWN
2147.00 - 2142.00	2.0 - 7.0	SILT, YELLOW-BROWN, CLAYEY; WITH FINE SAND, DRY, CALCAREOUS
2142.00 - 2135.00	7.0 - 14.0	CLAY, YELLOW-BROWN; CALCAREOUS
2135.00 - 2129.00	14.0 - 20.0	CLAY, GRAY WITH SOME YELLOWISH-BROWN; CALCAREOUS (WEATHERED SHALE)
2129.00 - 2126.00	20.0 - 23.0	CLAYSTONE, DARK-GRAY; A LITTLE LIGHT- GRAY BENTONITE, CALCAREOUS
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Location Information

Legal Location:NE NW NE NW SEC. 14, T. 041 N., R. 27 W.
County:MELLETTTE Location:041N-27W-14BABA
Basin:WHITE Latitude:43 32' 13"
Hydrologic Unit Code:10140203 Longitude:100 30' 16"
Land Owner: Ground Surface Elevation (ft.):2159 T

Project Information

Project:MELLETTTE-TODD CO. STUDY Geologist:R. HAMMOND
Drill Date:07/10/1996 Geologist's Log:X
Company:SDGS Driller:G. JENSEN
Drilling Method:ROTARY Driller's Log:
Test Hole Number:R2-96-29 Total Drill Hole Depth (ft.):42.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2159.00 - 2157.00	0.0 - 2.0	TOPSOIL, BROWN
2157.00 - 2153.00	2.0 - 6.0	SAND
2153.00 - 2143.00	6.0 - 16.0	SILT, BROWN
2143.00 - 2117.00	16.0 - 42.0	SHALE, BLACK (PIERRE SHALE)

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Location Information

Legal Location: NW SW SEC. 25, T. 041 N., R. 27 W.
County: MELLETTTE Location: 041N-27W-25CB
Basin: WHITE Latitude: 43 29' 57"
Hydrologic Unit Code: 10140204 Longitude: 100 29' 13"
Land Owner: C Ground Surface Elevation (ft.): 2150 T

Project Information

Project: Geologist:
Drill Date: 02/01/1930 Geologist's Log:
Company: NORBECK DRILLING Driller:
Drilling Method: Driller's Log: X
Test Hole Number: Total Drill Hole Depth (ft.): 1834.0
Samples:

Well Information

SDGS Well Name: Aquifer:
Water Rights Well: Management Unit:
Other Well Name: RAILROAD Casing Top Elevation:
Casing Type: UNKNOWN Casing Diameter (in.):
Screen Type: Screen Length (ft.):
Total Casing and Screen (ft.): 1795.0 Casing Stick-up (ft.):
Well Maintenance Date:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

CASING DIAMETER: 769 FEET OF 8-INCH, 411 FEET OF 6-INCH, 400 FEET OF 4.5-INCH, 173 FEET OF 3-INCH, 42 FEET OF 2.5-INCH.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2150.00 - 2019.50	0.0 - 130.5	CLAY
2019.50 - 1632.50	130.5 - 517.5	SHALE, BLUE
1632.50 - 1532.50	517.5 - 617.5	SHALE; SOFT
1532.50 - 649.50	617.5 - 1500.5	SHALE, BLUE; WITH FREQUENT STREAKS OF VERY HARD SHALE
649.50 - 619.50	1500.5 - 1530.5	LEAK
619.50 - 405.50	1530.5 - 1744.5	SHALE, BLUE; WITH FREQUENT HARD STREAKS
405.50 - 316.00	1744.5 - 1834.0	SANDSTONE

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Location Information

Legal Location: NW SE SEC. 33, T. 041 N., R. 27 W.
County: MELLETTTE Location: 041N-27W-33DB
Basin: WHITE Latitude: 43 29' 04"
Hydrologic Unit Code: 10140204 Longitude: 100 32' 14"
Land Owner: E. MEDEARIS Ground Surface Elevation (ft.): 2269 T

Project Information

Project: Geologist:
Drill Date: 10/01/1979 Geologist's Log:
Company: JURACEK WELL BORING Driller:
Drilling Method: BORED Driller's Log: X
Test Hole Number: Total Drill Hole Depth (ft.): 60.0
Samples:

Well Information

SDGS Well Name: Aquifer:
Water Rights Well: Management Unit:
Other Well Name: PRIVATE Casing Top Elevation:
Casing Type: CONCRETE Casing Diameter (in.):
Screen Type: Screen Length (ft.):
Total Casing and Screen (ft.): 60.0 Casing Stick-up (ft.):
Well Maintenance Date:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2269.00 - 2265.00	0.0 - 4.0	TOPSOIL
2265.00 - 2243.00	4.0 - 26.0	SAND AND CLAY
2243.00 - 2239.00	26.0 - 30.0	CLAY AND GRAVEL AND WATER
2239.00 - 2237.00	30.0 - 32.0	GRAVEL AND WATER
2237.00 - 2222.00	32.0 - 47.0	CLAY AND GRAVEL, BLACK CLAY
2222.00 - 2209.00	47.0 - 60.0	SHALE

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Location Information

Legal Location: SW SW SW SEC. 03, T. 041 N., R. 29 W.
County: MELLETTTE Location: 041N-29W-03CCC
Basin: WHITE Latitude: 43 33' 06"
Hydrologic Unit Code: 10140203 Longitude: 100 46' 05"
Land Owner: Ground Surface Elevation (ft.): 1985 T

Project Information

Project: USGS Geologist:
Drill Date: 08/12/1966 Geologist's Log:
Company: Driller:
Drilling Method: Driller's Log:
Test Hole Number: Total Drill Hole Depth (ft.): 24.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

DEPTH TO WATER: 15 FEET ESTIMATED 08-12-1966.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1985.00 - 1982.00	0.0 - 3.0	TILL
1982.00 - 1976.00	3.0 - 9.0	SAND, TAN, FINE
1976.00 - 1965.00	9.0 - 20.0	SAND, BROWN, MEDIUM; CLEAN
1965.00 - 1961.00	20.0 - 24.0	SAND, GRAY, MEDIUM, SILTY; DARK-GRAY SHALE AT 24 FEET
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Location Information

Legal Location:NW NW NE NE SEC. 10, T. 041 N., R. 29 W.
County:MELLETTTE Location:041N-29W-10AABB
Basin:WHITE Latitude:43 33' 01"
Hydrologic Unit Code:10140203 Longitude:100 45' 15"
Land Owner: Ground Surface Elevation (ft.):2125 T

Project Information

Project:MELLETTTE-TODD CO. STUDY Geologist:M. JARRETT
Drill Date:07/26/1993 Geologist's Log:X
Company:SDGS Driller:G. DUCHOSOIS
Drilling Method:AUGER Driller's Log:
Test Hole Number:A1-93-32 Total Drill Hole Depth (ft.):28.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2125.00 - 2123.00	0.0 - 2.0	TOPSOIL, DARK-BROWN
2123.00 - 2109.00	2.0 - 16.0	SAND AND GRAVEL, YELLOWISH-BROWN, FINE SAND TO 2-INCH GRAVEL; DRY
2109.00 - 2104.00	16.0 - 21.0	SAND, YELLOWISH-BROWN, FINE TO MEDIUM, CLAYEY FROM 18 TO 21 FEET; DRY
2104.00 - 2100.00	21.0 - 25.0	GRAVEL, DARK-GRAY, FINE TO 1-INCH DIAMETER SHALE PEBBLES
2100.00 - 2097.00	25.0 - 28.0	CLAYSTONE, DARK-GRAY; DAMP (PIERRE SHALE)

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Location Information

Legal Location: NE NW SEC. 14, T. 041 N., R. 29 W.
County: MELLETTTE Location: 041N-29W-14BA
Basin: WHITE Latitude: 43 32' 03"
Hydrologic Unit Code: 10140204 Longitude: 100 44' 30"
Land Owner: Ground Surface Elevation (ft.): 2001 T

Project Information

Project: Geologist:
Drill Date: 04/01/1977 Geologist's Log:
Company: MINNESOTA DRILLERS Driller:
Drilling Method: Driller's Log: X
Test Hole Number: Total Drill Hole Depth (ft.): 45.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2001.00 - 1986.00	0.0 - 15.0	ROCK AND SAND; GUMBO AT 15 FEET
1986.00 - 1956.00	15.0 - 45.0	GUMBO
		* * * *

Location Information

Legal Location:SE NE SW SE SEC. 32, T. 041 N., R. 29 W.
County:MELLETTTE Location:041N-29W-32DCAD
Basin:WHITE Latitude:43 28' 48"
Hydrologic Unit Code:10140203 Longitude:100 47' 40"
Land Owner:ROSEBUD HOUSING Ground Surface Elevation (ft.):2310 T

Project Information

Project: Geologist:
Drill Date:10/01/1979 Geologist's Log:
Company:GROOMS DRILLING Driller:
Drilling Method:BORED Driller's Log:X
Test Hole Number: Total Drill Hole Depth (ft.):60.0
Samples:

Well Information

SDGS Well Name: Aquifer:
Water Rights Well: Management Unit:
Other Well Name:PRIVATE Casing Top Elevation:
Casing Type:CONCRETE Casing Diameter (in.):
Screen Type: Screen Length (ft.):
Total Casing and Screen (ft.):60.0 Casing Stick-up (ft.):
Well Maintenance Date:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2310.00 - 2307.00	0.0 - 3.0	TOPSOIL
2307.00 - 2270.00	3.0 - 40.0	SAND AND MAGNESIA
2270.00 - 2250.00	40.0 - 60.0	SHALE

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Location Information

Legal Location: NE SE SEC. 07, T. 041 N., R. 30 W.
County: MELLETTTE Location: 041N-30W-07DA
Basin: WHITE Latitude: 43 32' 30"
Hydrologic Unit Code: 10140203 Longitude: 100 55' 55"
Land Owner: E. NEILSEN Ground Surface Elevation (ft.): 2178 T

Project Information

Project: Geologist:
Drill Date: 01/24/1974 Geologist's Log:
Company: OLIVER WELL DRILLING Driller:
Drilling Method: Driller's Log: X
Test Hole Number: Total Drill Hole Depth (ft.): 80.0
Samples:

Well Information

SDGS Well Name: Aquifer:
Water Rights Well: Management Unit:
Other Well Name: PRIVATE Casing Top Elevation:
Casing Type: CONCRETE Casing Diameter (in.): 30.0
Screen Type: CONCRETE Screen Length (ft.): 4.0
Total Casing and Screen (ft.): 32.0 Casing Stick-up (ft.):
Well Maintenance Date:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2178.00 - 2176.00	0.0 - 2.0	TOPSOIL
2176.00 - 2158.00	2.0 - 20.0	MAGNESIA
2158.00 - 2151.00	20.0 - 27.0	GRAVEL
2151.00 - 2098.00	27.0 - 80.0	SHALE

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Location Information

Legal Location: NE NW SEC. 11, T. 041 N., R. 30 W.
County: MELLETTTE Location: 041N-30W-11BA
Basin: WHITE Latitude: 43 32' 55"
Hydrologic Unit Code: 10140203 Longitude: 100 51' 42"
Land Owner: L. KROGMAN Ground Surface Elevation (ft.): 2083 T

Project Information

Project: Geologist:
Drill Date: 12/19/1979 Geologist's Log:
Company: JURACEK WELL BORING Driller:
Drilling Method: BORED Driller's Log: X
Test Hole Number: Total Drill Hole Depth (ft.): 44.0
Samples:

Well Information

SDGS Well Name: Aquifer:
Water Rights Well: Management Unit:
Other Well Name: PRIVATE Casing Top Elevation:
Casing Type: CONCRETE Casing Diameter (in.):
Screen Type: Screen Length (ft.):
Total Casing and Screen (ft.): Casing Stick-up (ft.):
Well Maintenance Date:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2083.00 - 2079.00	0.0 - 4.0	TOPSOIL
2079.00 - 2065.00	4.0 - 18.0	SAND AND CLAY
2065.00 - 2055.00	18.0 - 28.0	SAND AND WATER
2055.00 - 2039.00	28.0 - 44.0	SHALE(?)

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Location Information

Legal Location:SE NE SE SE SEC. 05, T. 041 N., R. 31 W.
County:MELLETTTE Location:041N-31W-05DDAD
Basin:WHITE Latitude:43 33' 03"
Hydrologic Unit Code:10140203 Longitude:101 01' 13"
Land Owner: Ground Surface Elevation (ft.):2313 T

Project Information

Project:MELLETTTE-TODD CO. STUDY Geologist:R. HAMMOND
Drill Date:06/24/1996 Geologist's Log:X
Company:SDGS Driller:G. JENSEN
Drilling Method:ROTARY Driller's Log:
Test Hole Number:R2-96-17 Total Drill Hole Depth (ft.):51.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2313.00 - 2303.00	0.0 - 10.0	CLAYSTONE, PALE-BROWN, SILTY; SOME FINE SAND; SLIGHTLY CALCAREOUS, MASSIVE (BRULE FORMATION?)
2303.00 - 2272.00	10.0 - 41.0	CLAYSTONE, DARK-YELLOWISH-ORANGE GRADING DOWNWARD TO OLIVE-GRAY, SILTY; MOTTLED; NONCALCAREOUS (CHADRON FORMATION?)
2272.00 - 2251.00	41.0 - 62.0	CLAYSTONE, BLACK; SLIGHTLY CALCAREOUS TO CALCAREOUS; POORLY FISSILE (PIERRE SHALE)

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Location Information

Legal Location: SE NE SEC. 10, T. 041 N., R. 32 W.
County: MELLETTTE Location: 041N-32W-10AD
Basin: WHITE Latitude: 43 32' 42"
Hydrologic Unit Code: 10140203 Longitude: 100 52' 17"
Land Owner: J. SIEVEKE Ground Surface Elevation (ft.): 2066 T

Project Information

Project: Geologist:
Drill Date: 06/24/1986 Geologist's Log:
Company: BABBY WELL DRILLING Driller:
Drilling Method: ROTARY Driller's Log: X
Test Hole Number: Total Drill Hole Depth (ft.): 100.0
Samples:

Well Information

SDGS Well Name: Aquifer:
Water Rights Well: Management Unit:
Other Well Name: PRIVATE Casing Top Elevation:
Casing Type: PVC Casing Diameter (in.): 4.0
Screen Type: PVC, MFG. AND HM. Screen Length (ft.): 20.0
Total Casing and Screen (ft.): 100.0 Casing Stick-up (ft.):
Well Maintenance Date:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2066.00 - 1966.00	0.0 - 100.0	CLAY, RED
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Location Information

Legal Location:SE NE NE NW SEC. 31, T. 041 N., R. 32 W.
County:MELLETTTE Location:041N-32W-31BAAD
Basin:WHITE Latitude:43 29' 27"
Hydrologic Unit Code:10140202 Longitude:100 56' 04"
Land Owner:EAGLE BEAR Ground Surface Elevation (ft.):2420 T

Project Information

Project: Geologist:
Drill Date:05/10/1977 Geologist's Log:
Company:ABERLE WELL COMPANY Driller:
Drilling Method: Driller's Log:X
Test Hole Number: Total Drill Hole Depth (ft.):57.0
Samples:

Well Information

SDGS Well Name: Aquifer:
Water Rights Well: Management Unit:
Other Well Name:PRIVATE Casing Top Elevation:
Casing Type:CONCRETE Casing Diameter (in.):20.0
Screen Type: Screen Length (ft.):
Total Casing and Screen (ft.):48.0 Casing Stick-up (ft.):
Well Maintenance Date:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

CASING FROM 9 TO 57 FEET.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2420.00 - 2419.00	0.0 - 1.0	TOPSOIL
2419.00 - 2414.00	1.0 - 6.0	CLAY, BROWN
2414.00 - 2363.00	6.0 - 57.0	CLAY, BROWN; MIXED WITH SHALE

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Location Information

Legal Location:SE NE NE NW SEC. 31, T. 041 N., R. 32 W.
County:MELLETTTE Location:041N-32W-31BAAD 1
Basin:WHITE Latitude:43 29' 27"
Hydrologic Unit Code:10140202 Longitude:100 56' 04"
Land Owner:EAGLE BEAR Ground Surface Elevation (ft.):2420 T

Project Information

Project: Geologist:
Drill Date:05/06/1977 Geologist's Log:
Company:ABERLE WELL COMPANY Driller:
Drilling Method: Driller's Log:X
Test Hole Number: Total Drill Hole Depth (ft.):64.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2420.00 - 2419.00	0.0 - 1.0	TOPSOIL
2419.00 - 2374.00	1.0 - 46.0	SHALE, BROWN
2374.00 - 2370.00	46.0 - 50.0	SAND, BLUE; MIXED SHALE
2370.00 - 2356.00	50.0 - 64.0	SHALE; DRY

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Location Information

Legal Location:SE NE NE NW SEC. 31, T. 041 N., R. 32 W.
County:MELLETTTE Location:041N-32W-31BAAD 2
Basin:WHITE Latitude:43 29' 27"
Hydrologic Unit Code:10140202 Longitude:100 56' 04"
Land Owner:EAGLE BEAR Ground Surface Elevation (ft.):2420 T

Project Information

Project: Geologist:
Drill Date:05/09/1977 Geologist's Log:
Company:ABERLE WELL COMPANY Driller:
Drilling Method: Driller's Log:X
Test Hole Number: Total Drill Hole Depth (ft.):50.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2420.00 - 2419.00	0.0 - 1.0	TOPSOIL
2419.00 - 2370.00	1.0 - 50.0	SHALE, BLUE
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Location Information

Legal Location:SE SE NW NE SEC. 11, T. 041 N., R. 33 W.
County:MELLETTTE Location:041N-33W-11ABDD
Basin:WHITE Latitude:43 32' 48"
Hydrologic Unit Code:10140202 Longitude:101 12' 15"
Land Owner: Ground Surface Elevation (ft.):2441 T

Project Information

Project:MELLETTTE-TODD CO. STUDY Geologist:M. JARRETT/R. HAMMOND
Drill Date:09/01/1992 Geologist's Log:X
Company:SDGS Driller:D. IVERSON
Drilling Method:ROTARY Driller's Log:
Test Hole Number:R20-92-37 Total Drill Hole Depth (ft.):307.0
Samples:

Geophysical Information

Spontaneous Potential:X Single Point Resistivity:X
Natural Gamma:X Extra:

PLUGGED FROM TOTAL DEPTH TO SURFACE WITH HIGH SOLIDS BENTONITE PLUGGING FLUID,
SETTLED TWO DAYS, FILLED WITH BENTONITE CRUMBLES TO AROUND 8 FEET, CEMENT FROM 8
FEET TO SURFACE.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2441.00 - 2440.00	0.0 - 1.0	TOPSOIL, BROWN, VERY SILTY AND SANDY
2440.00 - 2420.00	1.0 - 21.0	SAND, YELLOWISH-BROWN, SILTY; CALCAREOUS, BECOMES PROGRESSIVELY SILTIER WITH DEPTH TO 21 FEET, HARD CEMENT LAYER AT 10 FEET, MASSIVE
2420.00 - 2371.00	21.0 - 70.0	SILTSTONE, YELLOWISH-BROWN, SLIGHTLY CLAYEY; CALCAREOUS, MASSIVE TO POORLY BEDDED CLAYSTONE LENS AT 25 TO 27 FEET; NONCALCAREOUS BY 50 FEET, SAND LENS AT 48 TO 50 FEET; SOME FAINT BEDDING, AND MOTTLED LIGHT-OLIVE-GRAY AT 50 TO 60 FEET
2371.00 - 2362.00	70.0 - 79.0	CLAYSTONE, OLIVE-GRAY, SLIGHTLY SILTY; NONCALCAREOUS, MASSIVE
2362.00 - 2321.00	79.0 - 120.0	CLAYSTONE, DARK-YELLOWISH-BROWN; NON- CALCAREOUS, MASSIVE; BECOMING AN OLIVE- GRAY CLAYEY SILTSTONE BY 90 FEET; FISSILE BELOW 100 FEET; PALE-YELLOWISH- BROWN BY 120 FEET
2321.00 - 2306.00	120.0 - 135.0	SILTSTONE, BLUISH-WHITE TO LIGHT-OLIVE- GRAY; VERY CALCAREOUS; SMOOTH GAMMA SIGNATURE (LACUSTRINE?)
2306.00 - 2268.00	135.0 - 173.0	SILTSTONE, PALE-YELLOWISH-BROWN; NON- CALCAREOUS, GRADING TO LIGHT-OLIVE- GRAY AND CLAYEY TO 150 FEET; FISSILE

2268.00 - 2261.00	173.0 - 180.0	SILTSTONE, PALE-YELLOWISH-BROWN AND LIGHT-OLIVE-GRAY MOTTLING; NONCALCAREOUS, SLIGHTLY FISSILE
2261.00 - 2257.00	180.0 - 184.0	CLAYSTONE, LIGHT-GREENISH-GRAY, SLIGHTLY SILTY; BENTONITIC(?) ASH LAYER(?)
2257.00 - 2188.00	184.0 - 253.0	CLAYSTONE, YELLOWISH-GRAY, SILTY; NON-CALCAREOUS, FISSILE TO MASSIVE, GRADES TO LIGHT-OLIVE-GRAY BY 210 FEET; BECOMES GRADUALLY SILTIER TO 250 FEET; GRADES TO LIGHT-GRAY BELOW 220 FEET, THIN SAND STRINGER AT 249 TO 250 FEET,
2188.00 - 2184.00	253.0 - 257.0	SAND, CLEAR TO WHITE, VERY COARSE TO FINE, WELL-ROUNDED; QUARTZOSE, SOME MINOR DARK SHALE(?) CLASTS
2184.00 - 2167.00	257.0 - 274.0	CLAYSTONE, OLIVE-BROWN, MOTTLED WITH YELLOWS, REDS, AND GRAYS, SILTY; SLIGHTLY FISSILE, NONCALCAREOUS; WEATHERED (PIERRE SHALE)
2167.00 - 2134.00	274.0 - 307.0	SHALE, BROWNISH-BLACK, SLIGHTLY SILTY; SLIGHTLY CALCAREOUS, FAIR TO POORLY FISSILE, THIN BENTONITIC LENS AT 294 FEET (MOBRIDGE MEMBER - PIERRE SHALE?)

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Location Information

Legal Location:SE SE NW SE SEC. 23, T. 041 N., R. 33 W.
County:MELLETTTE Location:041N-33W-23DBDD
Basin:WHITE Latitude:43 30' 35"
Hydrologic Unit Code:10140202 Longitude:101 12' 16"
Land Owner: Ground Surface Elevation (ft.):2487 T

Project Information

Project:MELLETTTE-TODD CO. STUDY Geologist:M. JARRETT/R. HAMMOND
Drill Date:09/02/1992 Geologist's Log:X
Company:SDGS Driller:D. IVERSON
Drilling Method:ROTARY Driller's Log:
Test Hole Number:R20-92-38 Total Drill Hole Depth (ft.):352.0
Samples:

Geophysical Information

Spontaneous Potential:X Single Point Resistivity:X
Natural Gamma:X Extra:

PLUGGED FROM TOTAL DEPTH TO SURFACE WITH HIGH SOLIDS BENTONITE PLUGGING FLUID, SETTLED TWO DAYS, FILLED WITH BENTONITE CRUMBLES TO AROUND 8 FEET, CEMENT FROM 8 FEET TO SURFACE.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2487.00 - 2486.00	0.0 - 1.0	TOPSOIL, BROWN, VERY SILTY
2486.00 - 2460.00	1.0 - 27.0	SILTSTONE, DARK-YELLOWISH-BROWN, SLIGHTLY CLAYEY; SLIGHTLY CALCAREOUS, MASSIVE, FINE QUARTZ SAND LENS AT 27 FEET, SOMEWHAT MORE CLAYEY FROM 20 TO 27 FEET
2460.00 - 2456.00	27.0 - 31.0	SILTSTONE, DUSKY-YELLOW-BROWN; SLIGHTLY BENTONITIC, SLIGHTLY FISSLE
2456.00 - 2443.00	31.0 - 44.0	SILTSTONE, REDDISH-BROWN; SLIGHTLY BENTONITIC, NONCALCAREOUS, SLIGHTLY FISSLE
2443.00 - 2429.00	44.0 - 58.0	SILTSTONE, PALE-YELLOWISH-BROWN, SLIGHTLY CLAYEY; SLIGHTLY CALCAREOUS, SLIGHTLY TO MODERATELY FISSLE
2429.00 - 2407.00	58.0 - 80.0	SILTSTONE, YELLOWISH-BROWN, CLAYEY; MODERATELY FISSLE, NONCALCAREOUS, GRADES TO SILTSTONE, PALE-YELLOWISH- BROWN, SLIGHTLY CALCAREOUS, SLIGHTLY CLAYEY, BENTONITIC, MASSIVE TO POORLY FISSILE AT 60 TO 70 FEET
2407.00 - 2390.00	80.0 - 97.0	SILTSTONE, LIGHT-OLIVE-GRAY, SLIGHTLY CLAYEY; CALCAREOUS, MODERATELY FISSLE
2390.00 - 2377.00	97.0 - 110.0	SILTSTONE, GREENISH-GRAY, MOTTLED WITH LIGHT-OLIVE; NONCALCAREOUS, MODERATELY FISSLE

2377.00 - 2359.00	110.0 - 128.0	SILTSTONE, YELLOWISH-BROWN, SLIGHTLY CLAYEY; CALCAREOUS, VERY POORLY FISSILE TO MASSIVE, GRADES TO SILTSTONE, LIGHT- OLIVE-GRAY, NONCALCAREOUS, POORLY FISSLE AT 110 TO 120 FEET
2359.00 - 2333.00	128.0 - 154.0	SILTSTONE, MEDIUM-YELLOW-BROWN; NONCALCAREOUS, GRADES TO AN OLIVE-GRAY BELOW 130 FEET, SLIGHTLY CLAYEY AND CALCAREOUS
2333.00 - 2300.00	154.0 - 187.0	SILTSTONE, YELLOW-BROWN, SLIGHTLY CLAYEY; NONCALCAREOUS, GRADING TO A DARK- YELLOW-BROWN, CALCAREOUS SILTSTONE BELOW 160 FEET
2300.00 - 2275.00	187.0 - 212.0	SILTSTONE, DARK-YELLOWISH-BROWN GRADING TO A LIGHT-OLIVE-GRAY BELOW 200 FEET, CLAYEY; MASSIVE TO POORLY FISSLE, VERY CALCAREOUS
2275.00 - 2227.00	212.0 - 260.0	SILTSTONE, DARK-YELLOWISH-BROWN, CLAYEY; VERY CALCAREOUS, SOME SMALL CALCAREOUS NODULES AND PEBBLES, GRADES TO GREENISH-GRAY BELOW 220 FEET, VERY CALCAREOUS, BECOMES LESS CLAYEY WITH DEPTH
2227.00 - 2190.00	260.0 - 297.0	SILTSTONE, LIGHT-OLIVE-GRAY; BENTONITIC, CALCAREOUS, MASSIVE, SOME REDDISH OXIDIZED MATERIALS, GRADES DOWNWARD TO OLIVE-GRAY, NONCALCAREOUS, GLEYED CLAYSTONE AT 268 TO 277 FEET
2190.00 - 2168.00	297.0 - 319.0	SILTSTONE, GREENISH-GRAY, VERY SANDY; NONCALCAREOUS, MASSIVE, FEW CLAYSTONE SEAMS
2168.00 - 2162.00	319.0 - 325.0	CLAYSTONE, LIGHT-OLIVE-BROWN; NON- CALCAREOUS, POORLY FISSLE, GLEYED, SOME WHITE TO LIGHT-GRAY BENTONITE, WEATHERED (PIERRE SHALE)
2162.00 - 2135.00	325.0 - 352.0	SHALE, BROWNISH-BLACK, SILTY; CALCAREOUS, POORLY FISSLE, SOME WHITE BENTONITES (MOBRIDGE MEMBER - PIERRE SHALE)

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Location Information

Legal Location: SE SE SW SEC. 25, T. 041 N., R. 33 W.
County: MELLETTTE Location: 041N-33W-25CDD
Basin: WHITE Latitude: 43 29' 32"
Hydrologic Unit Code: 10140202 Longitude: 101 11' 25"
Land Owner: C. DUNKEN DURHAM Ground Surface Elevation (ft.): 2480 T

Project Information

Project: Geologist:
Drill Date: 05/06/1977 Geologist's Log:
Company: ABERLE WELL COMPANY Driller:
Drilling Method: Driller's Log: X
Test Hole Number: Total Drill Hole Depth (ft.): 34.0
Samples:

Well Information

SDGS Well Name: Aquifer:
Water Rights Well: Management Unit:
Other Well Name: PRIVATE Casing Top Elevation:
Casing Type: CONCRETE Casing Diameter (in.): 20.0
Screen Type: Screen Length (ft.):
Total Casing and Screen (ft.): 26.0 Casing Stick-up (ft.):
Well Maintenance Date:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

CASING FROM 8 TO 34 FEET.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2480.00 - 2479.00	0.0 - 1.0	TOPSOIL
2479.00 - 2470.00	1.0 - 10.0	CLAY, BROWN
2470.00 - 2464.00	10.0 - 16.0	CLAY, BROWN; WITH SAND
2464.00 - 2446.00	16.0 - 34.0	GRAVEL

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Location Information

Legal Location: SW SW SEC. 32, T. 042 N., R. 25 W.
County: MELLETTTE Location: 042N-25W-32CC
Basin: WHITE Latitude: 43 34' 02"
Hydrologic Unit Code: 10140204 Longitude: 100 19' 36"
Land Owner: G. ANDERSON Ground Surface Elevation (ft.): 2070 T

Project Information

Project: Geologist:
Drill Date: Geologist's Log:
Company: INDEPENDENT DRILLING Driller:
Drilling Method: Driller's Log: X
Test Hole Number: Total Drill Hole Depth (ft.): 2690.0
Samples:

Well Information

SDGS Well Name: Aquifer:
Water Rights Well: Management Unit:
Other Well Name: PRIVATE Casing Top Elevation:
Casing Type: Casing Diameter (in.):
Screen Type: Screen Length (ft.):
Total Casing and Screen (ft.): Casing Stick-up (ft.):
Well Maintenance Date:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2070.00 - 1217.00	0.0 - 853.0	PIERRE SHALE
1217.00 - 1055.00	853.0 - 1015.0	NIOBRARA FORMATION
1055.00 - 720.00	1015.0 - 1350.0	CARLILE SHALE
720.00 - 615.00	1350.0 - 1455.0	GREENHORN LIMESTONE
615.00 - 485.00	1455.0 - 1585.0	GRANEROS SHALE
485.00 - 120.00	1585.0 - 1950.0	DAKOTA FORMATION
120.00 - 10.00	1950.0 - 2060.0	SKULL CREEK SHALE
10.00 - -107.00	2060.0 - 2177.0	INYAN KARA GROUP
-107.00 - -146.00	2177.0 - 2216.0	UNDIFFERENTIATED MATERIAL; PRE- INYAN KARA GROUP - POST MINNELUSA FORMATION
-146.00 - -470.00	2216.0 - 2540.0	MINNELUSA FORMATION
-470.00 - -620.00	2540.0 - 2690.0	MADISON LIMESTONE

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Location Information

Legal Location: SW SW SEC. 34, T. 042 N., R. 25 W.
County: MELLETTTE Location: 042N-25W-34CC
Basin: WHITE Latitude: 43 34' 02"
Hydrologic Unit Code: 10140204 Longitude: 100 17' 15"
Land Owner: G. ANDERSON Ground Surface Elevation (ft.): 1821 T

Project Information

Project: Geologist:
Drill Date: Geologist's Log:
Company: HURON DRILLING Driller:
Drilling Method: Driller's Log: X
Test Hole Number: Total Drill Hole Depth (ft.): 1567.0
Samples:

Well Information

SDGS Well Name: Aquifer:
Water Rights Well: Management Unit:
Other Well Name: PRIVATE Casing Top Elevation:
Casing Type: Casing Diameter (in.):
Screen Type: Screen Length (ft.):
Total Casing and Screen (ft.): Casing Stick-up (ft.):
Well Maintenance Date:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1821.00 - 1248.00	0.0 - 573.0	PIERRE SHALE
1248.00 - 1079.00	573.0 - 742.0	NIOBRARA FORMATION
1079.00 - 726.00	742.0 - 1095.0	CARLILE SHALE
726.00 - 608.00	1095.0 - 1213.0	GREENHORN LIMESTONE
608.00 - 459.00	1213.0 - 1362.0	GRANEROS SHALE
459.00 - 254.00	1362.0 - 1567.0	DAKOTA FORMATION

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Location Information

Legal Location:SE SE SE NE SEC. 01, T. 042 N., R. 26 W.
County:MELLETTTE Location:042N-26W-01ADDD
Basin:WHITE Latitude:43 38' 43"
Hydrologic Unit Code:10140204 Longitude:100 21' 00"
Land Owner: Ground Surface Elevation (ft.):2080 T

Project Information

Project:MELLETTTE-TODD CO. STUDY Geologist:M. JARRETT
Drill Date:07/27/1993 Geologist's Log:X
Company:SDGS Driller:J. REZAC
Drilling Method:AUGER Driller's Log:
Test Hole Number:A1-93-36 Total Drill Hole Depth (ft.):19.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2080.00 - 2078.50	0.0 - 1.5	TOPSOIL
2078.50 - 2074.00	1.5 - 6.0	SAND AND GRAVEL, YELLOWISH-BROWN, FINE SAND
2074.00 - 2063.00	6.0 - 17.0	SILT, YELLOWISH-BROWN, SANDY
2063.00 - 2061.00	17.0 - 19.0	CLAY, OLIVE-GREENISH-BROWN, SILTY; COULD NOT PENETRATE

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Location Information

Legal Location: NW SW NW SW SEC. 01, T. 042 N., R. 26 W.
County: MELLETTE Location: 042N-26W-01CBCB
Basin: WHITE Latitude: 43 38' 33"
Hydrologic Unit Code: 10140204 Longitude: 100 22' 12"
Land Owner: Ground Surface Elevation (ft.): 2110 T

Project Information

Project: MELLETTE-TODD CO. STUDY Geologist: M. JARRETT
Drill Date: 07/20/1993 Geologist's Log: X
Company: SDGS Driller: G. DUCHOSSOIS
Drilling Method: AUGER Driller's Log:
Test Hole Number: A1-93-26 Total Drill Hole Depth (ft.): 48.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2110.00 - 2109.00	0.0 - 1.0	TOPSOIL, BROWN
2109.00 - 2108.00	1.0 - 2.0	TOPSOIL, PALE-ORANGE-BROWN
2108.00 - 2096.00	2.0 - 14.0	SAND, PALE-YELLOWISH-BROWN, MEDIUM TO COARSE; SAND IS HIGHLY QUARTZOSE; A LITTLE COARSE GRAVEL, DRY
2096.00 - 2094.00	14.0 - 16.0	CLAY, YELLOW-BROWN; DRY
2094.00 - 2085.00	16.0 - 25.0	SAND, MEDIUM TO COARSE; DRY
2085.00 - 2074.00	25.0 - 36.0	SAND AND GRAVEL, MEDIUM SAND TO GRAVEL UP TO FOUR INCHES IN DIAMETER; SAND IS HIGHLY QUARTZOSE, DRY
2074.00 - 2062.00	36.0 - 48.0	SAND, PALE-YELLOWISH-BROWN, MEDIUM TO COARSE; HIGHLY QUARTZOSE, VERY LITTLE RETURN BELOW 43 FEET, DRY

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Location Information

Legal Location:NW NE NE NW SEC. 12, T. 042 N., R. 26 W.
County:MELLETTTE Location:042N-26W-12BAAB
Basin:WHITE Latitude:43 38' 15"
Hydrologic Unit Code:10140204 Longitude:100 21' 42"
Land Owner: Ground Surface Elevation (ft.):2105 T

Project Information

Project:MELLETTTE-TODD CO. STUDY Geologist:M. JARRETT
Drill Date:07/20/1993 Geologist's Log:X
Company:SDGS Driller:J. REZAC
Drilling Method:AUGER Driller's Log:
Test Hole Number:A1-93-25 Total Drill Hole Depth (ft.):38.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2105.00 - 2104.00	0.0 - 1.0	TOPSOIL
2104.00 - 2099.00	1.0 - 6.0	SAND AND GRAVEL, BROWN; SOME CLAY, DRY
2099.00 - 2091.00	6.0 - 14.0	SAND, LIGHT-GRAY TO TAN, FINE; DRY
2091.00 - 2080.00	14.0 - 25.0	SAND AND GRAVEL, GRAVEL TO TWO INCHES IN DIAMETER, CLAYEY; DRY
2080.00 - 2074.00	25.0 - 31.0	GRAVEL AND SAND, GRAVEL TO THREE INCHES IN DIAMETER; DRY
2074.00 - 2067.00	31.0 - 38.0	SHALE, DARK-GRAY

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Location Information

Legal Location: SW NW SW NW SEC. 12, T. 042 N., R. 26 W.
County: MELLETTE Location: 042N-26W-12BCBC
Basin: WHITE Latitude: 43 37' 57"
Hydrologic Unit Code: 10140204 Longitude: 100 22' 10"
Land Owner: Ground Surface Elevation (ft.): 2130 T

Project Information

Project: MELLETTE-TODD CO. STUDY Geologist: M. JARRETT
Drill Date: 07/20/1993 Geologist's Log: X
Company: SDGS Driller: G. DUCHOSSOIS
Drilling Method: AUGER Driller's Log:
Test Hole Number: A1-93-24 Total Drill Hole Depth (ft.): 48.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2130.00 - 2128.00	0.0 - 2.0	TOPSOIL, DARK-BROWN
2128.00 - 2124.00	2.0 - 6.0	SAND, YELLOWISH-BROWN, MEDIUM
2124.00 - 2123.00	6.0 - 7.0	CLAY, YELLOW-BROWN
2123.00 - 2089.00	7.0 - 41.0	SAND, VERY PALE-ORANGE, MEDIUM TO COARSE; HIGHLY QUARTZOSE, A LITTLE GRAVEL AT 15 FEET AND STRINGERS THROUGHOUT, DRY TO DAMP
2089.00 - 2086.00	41.0 - 44.0	SAND, YELLOWISH-BROWN, MEDIUM TO COARSE, CLAYEY; DRY
2086.00 - 2082.00	44.0 - 48.0	CLAY, YELLOWISH-BROWN, SANDY; DRY

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Location Information

Legal Location:SW NW NW SW SEC. 12, T. 042 N., R. 26 W.
County:MELLETTTE Location:042N-26W-12CBBC
Basin:WHITE Latitude:43 37' 45"
Hydrologic Unit Code:10140204 Longitude:100 22' 10"
Land Owner: Ground Surface Elevation (ft.):2120 T

Project Information

Project:MELLETTTE-TODD CO. STUDY Geologist:M. JARRETT
Drill Date:07/20/1993 Geologist's Log:X
Company:SDGS Driller:J. REZAC
Drilling Method:AUGER Driller's Log:
Test Hole Number:A1-93-23 Total Drill Hole Depth (ft.):48.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2120.00 - 2119.00	0.0 - 1.0	TOPSOIL, BROWN
2119.00 - 2072.00	1.0 - 48.0	SAND AND GRAVEL, YELLOWISH-BROWN, MEDIUM SAND TO COARSE GRAVEL; MAJORITY IS QUARTZ RICH, SOME COBBLE GRAVEL, DRY
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Location Information

Legal Location: SW NW SEC. 14, T. 042 N., R. 26 W.
County:MELLETTTE Location:042N-26W-14BC
Basin:WHITE Latitude:43 37' 05"
Hydrologic Unit Code:10140204 Longitude:100 23' 15"
Land Owner:M. KESKA Ground Surface Elevation (ft.):2133 T

Project Information

Project: Geologist:
Drill Date:09/14/1973 Geologist's Log:
Company:OLIVER WELL DRILLING Driller:
Drilling Method: Driller's Log:X
Test Hole Number: Total Drill Hole Depth (ft.):44.0
Samples:

Well Information

SDGS Well Name: Aquifer:
Water Rights Well: Management Unit:
Other Well Name:PRIVATE Casing Top Elevation:
Casing Type:CONCRETE Casing Diameter (in.):30.0
Screen Type:CONCRETE Screen Length (ft.):4.0
Total Casing and Screen (ft.):22.0 Casing Stick-up (ft.):
Well Maintenance Date:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2133.00 - 2131.00	0.0 - 2.0	TOPSOIL
2131.00 - 2119.00	2.0 - 14.0	CLAY AND SAND
2119.00 - 2089.00	14.0 - 44.0	SHALE

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Location Information

Legal Location: SW SW SEC. 02, T. 042 N., R. 27 W.
County: MELLETTTE Location: 042N-27W-02CC
Basin: WHITE Latitude: 43 38' 24"
Hydrologic Unit Code: 10140204 Longitude: 100 30' 26"
Land Owner: B. RYNO Ground Surface Elevation (ft.): 2110 T

Project Information

Project: Geologist:
Drill Date: Geologist's Log:
Company: Driller: A. LANGE
Drilling Method: Driller's Log: X
Test Hole Number: Total Drill Hole Depth (ft.): 1995.0
Samples:

Well Information

SDGS Well Name: Aquifer:
Water Rights Well: Management Unit:
Other Well Name: PRIVATE Casing Top Elevation:
Casing Type: Casing Diameter (in.):
Screen Type: Screen Length (ft.):
Total Casing and Screen (ft.): Casing Stick-up (ft.):
Well Maintenance Date:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2110.00 - 260.00	0.0 - 1850.0	UNREPORTED
260.00 - 250.00	1850.0 - 1860.0	SAND (NEWCASTLE? SANDSTONE MEMBER - GRANEROS SHALE)
250.00 - 180.00	1860.0 - 1930.0	DAKOTA FORMATION
180.00 - 115.00	1930.0 - 1995.0	SAND STREAKS; 4 FEET OF SHALE AT BOTTOM

SAMPLES SHOWED MOSTLY VERY FINE-GRAINED GRAY SAND WITH SOME WHITE MEDIUM-GRAINED SAND IN SMALL LOOSELY CEMENTED CLUSTERS. PYRITE PRESENT.

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Location Information

Legal Location:NE NE NE NE SEC. 28, T. 042 N., R. 27 W.
County:MELLETTTE Location:042N-27W-28AAAA
Basin:WHITE Latitude:43 35' 40"
Hydrologic Unit Code:10140204 Longitude:100 31' 48"
Land Owner: Ground Surface Elevation (ft.):2154 T

Project Information

Project:MELLETTTE-TODD CO. STUDY Geologist:R. HAMMOND
Drill Date:08/16/1995 Geologist's Log:X
Company:SDGS Driller:M. THOMPSON
Drilling Method:ROTARY Driller's Log:
Test Hole Number:R2-95-31 Total Drill Hole Depth (ft.):60.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2154.00 - 2153.00	0.0 - 1.0	TOPSOIL, SILTY, SANDY
2153.00 - 2146.00	1.0 - 8.0	SILT, DARK-BROWN; INTERBEDDED CLAY (WHITE RIVER GROUP)
2146.00 - 2122.00	8.0 - 32.0	CLAYSTONE, YELLOWISH-LIGHT-BROWN, SILTY (WHITE RIVER GROUP?)
2122.00 - 2094.00	32.0 - 60.0	SHALE, DARK-BLACK (PIERRE SHALE)

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Location Information

Legal Location: NW NW NW NW SEC. 01, T. 042 N., R. 28 W.
County: MELLETTTE Location: 042N-28W-01BBBB
Basin: WHITE Latitude: 43 39' 08"
Hydrologic Unit Code: 10140203 Longitude: 100 36' 34"
Land Owner: Ground Surface Elevation (ft.): 2168 T

Project Information

Project: USGS Geologist:
Drill Date: 08/16/1966 Geologist's Log:
Company: USGS Driller:
Drilling Method: Driller's Log: X
Test Hole Number: Total Drill Hole Depth (ft.): 25.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

DEPTH TO WATER: 15 FEET ESTIMATED 08-16-1966.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2168.00 - 2161.00	0.0 - 7.0	CLAY, TAN
2161.00 - 2159.00	7.0 - 9.0	SAND, MEDIUM; GRAVEL, FINE
2159.00 - 2157.00	9.0 - 11.0	CLAY, TAN
2157.00 - 2143.00	11.0 - 25.0	SHALE, DARK-GRAY

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Location Information

Legal Location: NE NE SEC. 05, T. 042 N., R. 28 W.
County: MELLETTTE Location: 042N-28W-05AA
Basin: WHITE Latitude: 43 39' 01"
Hydrologic Unit Code: 10140203 Longitude: 100 40' 17"
Land Owner: L. HUTCHINSON Ground Surface Elevation (ft.): 1850 T

Project Information

Project: Geologist:
Drill Date: 06/12/1984 Geologist's Log:
Company: SUMMERS DRILLING Driller:
Drilling Method: BORED Driller's Log: X
Test Hole Number: Total Drill Hole Depth (ft.): 50.0
Samples:

Well Information

SDGS Well Name: Aquifer:
Water Rights Well: Management Unit:
Other Well Name: PRIVATE Casing Top Elevation:
Casing Type: CEMENT TILE Casing Diameter (in.):
Screen Type: Screen Length (ft.):
Total Casing and Screen (ft.): Casing Stick-up (ft.):
Well Maintenance Date:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1850.00 - 1849.00	0.0 - 1.0	TOPSOIL
1849.00 - 1840.00	1.0 - 10.0	SAND
1840.00 - 1830.00	10.0 - 20.0	GRAVEL AND ROCK
1830.00 - 1800.00	20.0 - 50.0	SHALE, BLUE

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Location Information

Legal Location:SW SE SW NW SEC. 05, T. 042 N., R. 28 W.
County:MELLETTTE Location:042N-28W-05BCDC
Basin:WHITE Latitude:43 38' 44"
Hydrologic Unit Code:10140203 Longitude:100 41' 10"
Land Owner: Ground Surface Elevation (ft.):1862 T

Project Information

Project:LITTLE WHITE RIVER VALLEY Geologist:A. BARARI
Drill Date:01/01/1969 Geologist's Log:X
Company:FERGUSON-MEADOR Driller:
Drilling Method: Driller's Log:
Test Hole Number:17 Total Drill Hole Depth (ft.):12.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

DEPTH TO WATER: 3 FEET.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1862.00 - 1860.00	0.0 - 2.0	SAND, BROWN, MEDIUM
1860.00 - 1857.00	2.0 - 5.0	SAND, COARSE
1857.00 - 1853.00	5.0 - 9.0	SAND, GRAY; SOME PEBBLES
1853.00 - 1850.00	9.0 - 12.0	SHALE

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Location Information

Legal Location:NE SW NE SW SEC. 05, T. 042 N., R. 28 W.
County:MELLETTTE Location:042N-28W-05CACA
Basin:WHITE Latitude:43 38' 33"
Hydrologic Unit Code:10140203 Longitude:100 40' 57"
Land Owner: Ground Surface Elevation (ft.):1875 T

Project Information

Project:LITTE WHITE RIVER VALLEY Geologist:A. BARARI
Drill Date:01/01/1969 Geologist's Log:X
Company:FERGUSON-MEADOR Driller:
Drilling Method: Driller's Log:
Test Hole Number:18 Total Drill Hole Depth (ft.):8.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1875.00 - 1874.00	0.0 - 1.0	TOPSOIL
1874.00 - 1871.00	1.0 - 4.0	CLAY, BROWN
1871.00 - 1867.00	4.0 - 8.0	SHALE, GRAY
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Location Information

Legal Location: NW NW NE SEC. 08, T. 042 N., R. 28 W.
County: MELLETTTE Location: 042N-28W-08ABB
Basin: WHITE Latitude: 43 38' 11"
Hydrologic Unit Code: 10140203 Longitude: 100 40' 43"
Land Owner: Ground Surface Elevation (ft.): 1870 T

Project Information

Project: USGS Geologist:
Drill Date: 08/10/1966 Geologist's Log:
Company: USGS Driller:
Drilling Method: Driller's Log: X
Test Hole Number: Total Drill Hole Depth (ft.): 25.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

DEPTH TO WATER: 5 FEET ESTIMATED 08-10-1966.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1870.00 - 1867.00	0.0 - 3.0	SILT
1867.00 - 1853.00	3.0 - 17.0	SAND, MEDIUM
1853.00 - 1845.00	17.0 - 25.0	SHALE, DARK-GRAY

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Location Information

Legal Location: NW NW SE SW SEC. 18, T. 042 N., R. 28 W.
County: MELLETTTE Location: 042N-28W-18CDBB
Basin: WHITE Latitude: 43 36' 45"
Hydrologic Unit Code: 10140203 Longitude: 100 42' 15"
Land Owner: Ground Surface Elevation (ft.): 1886 T

Project Information

Project: USGS Geologist:
Drill Date: 08/10/1966 Geologist's Log:
Company: USGS Driller:
Drilling Method: Driller's Log: X
Test Hole Number: Total Drill Hole Depth (ft.): 6.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1886.00 - 1883.00	0.0 - 3.0	SILT
1883.00 - 1880.00	3.0 - 6.0	SAND, MEDIUM; GRAVEL, COARSE; SHALE, DARK-GRAY AT 6 FEET * * * *

Location Information

Legal Location:SE NW SE SW SEC. 18, T. 042 N., R. 28 W.
County:MELLETTTE Location:042N-28W-18CDBD
Basin:WHITE Latitude:43 36' 40"
Hydrologic Unit Code:10140203 Longitude:100 42' 08"
Land Owner: Ground Surface Elevation (ft.):1930 T

Project Information

Project:USGS Geologist:
Drill Date:08/10/1966 Geologist's Log:
Company:USGS Driller:
Drilling Method: Driller's Log:X
Test Hole Number: Total Drill Hole Depth (ft.):7.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1930.00 - 1925.00	0.0 - 5.0	SAND, MEDIUM
1925.00 - 1923.00	5.0 - 7.0	SAND, COARSE; GRAVEL, MEDIUM; DARK-GRAY SHALE AT 7 FEET
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Location Information

Legal Location: SE SE SW SEC. 18, T. 042 N., R. 28 W.
County: MELLETTTE Location: 042N-28W-18CDD
Basin: WHITE Latitude: 43 36' 35"
Hydrologic Unit Code: 10140203 Longitude: 100 42' 03"
Land Owner: Ground Surface Elevation (ft.): 1919 T

Project Information

Project: USGS Geologist:
Drill Date: Geologist's Log:
Company: USGS Driller:
Drilling Method: Driller's Log: X
Test Hole Number: Total Drill Hole Depth (ft.): 52.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1919.00 - 1917.00	0.0 - 2.0	TOPSOIL, BROWN
1917.00 - 1916.00	2.0 - 3.0	CLAY, LIGHT-BROWN
1916.00 - 1913.00	3.0 - 6.0	DIRT, BROWN
1913.00 - 1904.00	6.0 - 15.0	CLAY, LIGHT-BROWN
1904.00 - 1899.00	15.0 - 20.0	SAND, VERY FINE
1899.00 - 1894.00	20.0 - 25.0	SAND, FINE; GRAVEL, MEDIUM, SILTY
1894.00 - 1889.00	25.0 - 30.0	GRAVEL, MEDIUM
1889.00 - 1884.00	30.0 - 35.0	CLAY AND GRAVEL, MEDIUM GRAVEL
1884.00 - 1867.00	35.0 - 52.0	SHALE, DARK-GRAY; MEDIUM GRAVEL

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Location Information

Legal Location: NW SE SE SW SEC. 18, T. 042 N., R. 28 W.
County: MELLETTTE Location: 042N-28W-18CDDB
Basin: WHITE Latitude: 43 36' 37"
Hydrologic Unit Code: 10140203 Longitude: 100 42' 05"
Land Owner: Ground Surface Elevation (ft.): 1903 T

Project Information

Project: USGS Geologist:
Drill Date: Geologist's Log:
Company: USGS Driller:
Drilling Method: Driller's Log: X
Test Hole Number: Total Drill Hole Depth (ft.): 17.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1903.00 - 1900.00	0.0 - 3.0	SAND, VERY FINE
1900.00 - 1889.00	3.0 - 14.0	SAND, FINE; MEDIUM GRAVEL
1889.00 - 1886.00	14.0 - 17.0	SHALE, DARK-GRAY, SANDY; VERY SOFT

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Location Information

Legal Location: NW NW NW SW SEC. 21, T. 042 N., R. 28 W.
County: MELLETTTE Location: 042N-28W-21CBBB
Basin: WHITE Latitude: 43 36' 03"
Hydrologic Unit Code: 10140203 Longitude: 100 40' 09"
Land Owner: Ground Surface Elevation (ft.): 2122 T

Project Information

Project: MELLETTTE-TODD CO. STUDY Geologist: M. JARRETT
Drill Date: 07/21/1993 Geologist's Log: X
Company: SDGS Driller: J. REZAC
Drilling Method: AUGER Driller's Log:
Test Hole Number: A1-93-28 Total Drill Hole Depth (ft.): 28.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2122.00 - 2120.00	0.0 - 2.0	TOPSOIL
2120.00 - 2113.00	2.0 - 9.0	SILT, BUFF TO LIGHT-OLIVE, SANDY; DRY
2113.00 - 2108.00	9.0 - 14.0	CLAY, LIGHT-OLIVE-GREEN, SANDY
2108.00 - 2097.00	14.0 - 25.0	SAND, DARK-OLIVE-GREEN; DRY (PIERRE SHALE)
2097.00 - 2094.00	25.0 - 28.0	SHALE, DARK-GRAY (PIERRE SHALE)

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Location Information

Legal Location:SW SW NE NW SEC. 25, T. 042 N., R. 28 W.
County:MELLETTTE Location:042N-28W-25BACC
Basin:WHITE Latitude:43 35' 29"
Hydrologic Unit Code:10140204 Longitude:100 36' 16"
Land Owner: Ground Surface Elevation (ft.):2352 T

Project Information

Project:MELLETTTE-TODD CO. STUDY Geologist:R. HAMMOND
Drill Date:08/15/1995 Geologist's Log:X
Company:SDGS Driller:M. THOMPSON
Drilling Method:ROTARY Driller's Log:
Test Hole Number:R2-95-30 Total Drill Hole Depth (ft.):102.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2352.00 - 2350.00	0.0 - 2.0	TOPSOIL, SILTY, SANDY
2350.00 - 2328.00	2.0 - 24.0	SILTSTONE, TAN TO OLIVE-BROWN; SOME WHITE COLORED CLAY
2328.00 - 2297.00	24.0 - 55.0	CLAYSTONE, GREENISH TO MEDIUM-BROWN AND DARK-BLUIISH-GREEN TO GREEN-BLUE, SILTY; SOME SILTSTONE LAYERS
2297.00 - 2250.00	55.0 - 102.0	SHALE, DARK-BLUE TO BLACK (PIERRE SHALE)

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Location Information

Legal Location:SE SE NE SE SEC. 22, T. 042 N., R. 29 W.
County:MELLETTTE Location:042N-29W-22DADD
Basin:WHITE Latitude:43 35' 50"
Hydrologic Unit Code:10140203 Longitude:100 45' 01"
Land Owner: Ground Surface Elevation (ft.):1936 T

Project Information

Project:STATEWIDE MONITORING Geologist:P. HAMMOND
Drill Date:06/20/1995 Geologist's Log:X
Company:SDGS Driller:D. IVERSON
Drilling Method:HOLLOWSTEM Driller's Log:
Test Hole Number:R20-95-19 Total Drill Hole Depth (ft.):25.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1936.00 - 1925.00	0.0 - 11.0	SAND, LIGHT-BROWN, MEDIUM, WELL-ROUNDED; VERY CLEAN, DRY TO MOIST
1925.00 - 1923.00	11.0 - 13.0	SAND AND SHALE, FINE SAND WITH WEATHERED SHALE
1923.00 - 1911.00	13.0 - 25.0	CLAY, GRAY TO DARK-GRAY; CALCAREOUS, STICKY (PIERRE SHALE)
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Location Information

Legal Location:SE SE NE SE SEC. 22, T. 042 N., R. 29 W.
County:MELLETTTE Location:042N-29W-22DADD 1
Basin:WHITE Latitude:43 35' 56"
Hydrologic Unit Code:10140203 Longitude:100 45' 00"
Land Owner: Ground Surface Elevation (ft.):1335 T

Project Information

Project:STATEWIDE MONITORING Geologist:P. HAMMOND
Drill Date:06/20/1995 Geologist's Log:X
Company:SDGS Driller:D. IVERSON
Drilling Method:HOLLOWSTEM Driller's Log:
Test Hole Number:R20-95-20 Total Drill Hole Depth (ft.):15.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1335.00 - 1324.00	0.0 - 11.0	SAND, LIGHT-BROWN, MEDIUM, WELL-SORTED, WELL-ROUNDED; CLEAN
1324.00 - 1320.00	11.0 - 15.0	CLAY, GRAY; CALCAREOUS, SOME SAND, (WEATHERED PIERRE SHALE)
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Location Information

Legal Location: NW NW SW SEC. 23, T. 042 N., R. 29 W.
County: MELLETTTE Location: 042N-29W-23CBB
Basin: WHITE Latitude: 43 36' 00"
Hydrologic Unit Code: 10140203 Longitude: 100 44' 52"
Land Owner: Ground Surface Elevation (ft.): 1936 T

Project Information

Project: USGS Geologist:
Drill Date: 08/12/1966 Geologist's Log:
Company: USGS Driller:
Drilling Method: Driller's Log: X
Test Hole Number: Total Drill Hole Depth (ft.): 8.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1936.00 - 1934.00	0.0 - 2.0	SILT
1934.00 - 1932.00	2.0 - 4.0	SAND, MEDIUM
1932.00 - 1929.00	4.0 - 7.0	SAND, MEDIUM; GRAVEL, MEDIUM
1929.00 - 1928.00	7.0 - 8.0	SHALE, DARK-GRAY

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Location Information

Legal Location:SW SW NW SW SEC. 23, T. 042 N., R. 29 W.
County:MELLETTTE Location:042N-29W-23CBCC
Basin:WHITE Latitude:43 35' 53"
Hydrologic Unit Code:10140203 Longitude:100 44' 55"
Land Owner: Ground Surface Elevation (ft.):1936 T

Project Information

Project:USGS Geologist:
Drill Date:08/01/1966 Geologist's Log:
Company:USGS Driller:
Drilling Method: Driller's Log:X
Test Hole Number: Total Drill Hole Depth (ft.):26.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1936.00 - 1924.00	0.0 - 12.0	SAND, FINE
1924.00 - 1921.00	12.0 - 15.0	SAND, COARSE
1921.00 - 1916.00	15.0 - 20.0	SAND, COARSE; GRAVEL, SMALL, MOIST
1916.00 - 1914.00	20.0 - 22.0	SHALE, DARK-GRAY, SANDY; WET
1914.00 - 1910.00	22.0 - 26.0	SHALE, DARK-GRAY

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Location Information

Legal Location:SE SW NW SW SEC. 23, T. 042 N., R. 29 W.
County:MELLETTTE Location:042N-29W-23CBCD
Basin:WHITE Latitude:43 35' 53"
Hydrologic Unit Code:10140203 Longitude:100 44' 49"
Land Owner: Ground Surface Elevation (ft.):1936 T

Project Information

Project:USGS Geologist:
Drill Date:08/12/1966 Geologist's Log:
Company:USGS Driller:
Drilling Method: Driller's Log:X
Test Hole Number: Total Drill Hole Depth (ft.):16.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1936.00 - 1935.50	0.0 - 0.5	SILT
1935.50 - 1926.00	0.5 - 10.0	SAND, LIGHT-BROWN TO TAN, MEDIUM
1926.00 - 1921.00	10.0 - 15.0	SAND, DARK-BROWN, COARSE
1921.00 - 1920.00	15.0 - 16.0	SHALE, DARK-GRAY

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Location Information

Legal Location:SE SE NW NE SEC. 24, T. 042 N., R. 29 W.
County:MELLETTTE Location:042N-29W-24ABDD
Basin:WHITE Latitude:43 36' 18"
Hydrologic Unit Code:10140203 Longitude:100 42' 55"
Land Owner: Ground Surface Elevation (ft.):1916 T

Project Information

Project:MELLETTTE-TODD CO. STUDY Geologist:M. JARRETT
Drill Date:07/21/1993 Geologist's Log:X
Company:SDGS Driller:G. DUCHOSSOIS
Drilling Method:AUGER Driller's Log:
Test Hole Number:A1-93-27 Total Drill Hole Depth (ft.):23.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1916.00 - 1915.00	0.0 - 1.0	TOPSOIL, BROWN
1915.00 - 1912.00	1.0 - 4.0	CLAY, BROWNISH-GRAY
1912.00 - 1906.00	4.0 - 10.0	SAND, PALE-YELLOW-BROWN, FINE TO MEDIUM; HIGHLY QUARTZOSE, A LITTLE GRAVEL TO ONE AND ONE HALF INCHES IN DIAMETER
1906.00 - 1899.00	10.0 - 17.0	SAND, YELLOW-BROWN, FINE TO COARSE; SOME FINE TO COARSE GRAVEL STRINGERS, SOME CLAYSTONE PEBBLES, SATURATED AT 12 FEET
1899.00 - 1893.00	17.0 - 23.0	CLAYSTONE, DARK-GRAY (PIERRE SHALE)

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Location Information

Legal Location:SE NE SW NW SEC. 24, T. 042 N., R. 29 W.
County:MELLETTTE Location:042N-29W-24BCAD
Basin:WHITE Latitude:43 36' 11"
Hydrologic Unit Code:10140203 Longitude:100 43' 31"
Land Owner: Ground Surface Elevation (ft.):1916 T

Project Information

Project:LITTE WHITE RIVER VALLYE Geologist:A. BARARI
Drill Date:01/01/1969 Geologist's Log:X
Company:FERGUSON-MEADOR Driller:
Drilling Method: Driller's Log:
Test Hole Number:19 Total Drill Hole Depth (ft.):11.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

DEPTH TO WATER: 7 FEET.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1916.00 - 1907.00	0.0 - 9.0	SAND, TAN, MEDIUM TO COARSE
1907.00 - 1905.00	9.0 - 11.0	SHALE, GRAY

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Location Information

Legal Location: SE NW SEC. 31, T. 042 N., R. 29 W.
County: MELLETTTE Location: 042N-29W-31BD
Basin: WHITE Latitude: 43 34' 26"
Hydrologic Unit Code: 10140203 Longitude: 100 49' 19"
Land Owner: ROSEBUD RESERVATION Ground Surface Elevation (ft.): 2116 T

Project Information

Project: Geologist:
Drill Date: 10/10/1975 Geologist's Log:
Company: MINNESOTA DRILLERS Driller:
Drilling Method: Driller's Log: X
Test Hole Number: Total Drill Hole Depth (ft.): 80.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2116.00 - 2115.00	0.0 - 1.0	TOPSOIL
2115.00 - 2092.00	1.0 - 24.0	CLAY, YELLOW
2092.00 - 2036.00	24.0 - 80.0	SHALE, BLUE
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Location Information

Legal Location:	SW SE SEC. 31, T. 042 N., R. 29 W.	Location:	042N-29W-31DC
County:	MELLETTTE	Latitude:	43 34' 01"
Basin:	WHITE	Longitude:	100 49' 03"
Hydrologic Unit Code:	10140203	Ground Surface Elevation (ft.):	2018 T
Land Owner:	ROSEBUD RESERVATION		

Project Information

Project:		Geologist:	
Drill Date:	09/11/1975	Geologist's Log:	
Company:	MINNESOTA DRILLERS	Driller:	
Drilling Method:		Driller's Log:	X
Test Hole Number:		Total Drill Hole Depth (ft.):	40.0
Samples:			

Geophysical Information

Spontaneous Potential:	Single Point Resistivity:
Natural Gamma:	Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2018.00 - 2016.00	0.0 - 2.0	TOPSOIL
2016.00 - 1992.00	2.0 - 26.0	CLAY, YELLOW
1992.00 - 1986.00	26.0 - 32.0	GRAVEL STREAKS AND CLAY
1986.00 - 1978.00	32.0 - 40.0	SHALE, BLUE

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Location Information

Legal Location: NW SW SW SEC. 32, T. 042 N., R. 29 W.
County: MELLETTTE Location: 042N-29W-32CCB
Basin: WHITE Latitude: 43 33' 06"
Hydrologic Unit Code: 10140203 Longitude: 100 48' 30"
Land Owner: Ground Surface Elevation (ft.): 2018 T

Project Information

Project: USGS Geologist:
Drill Date: 08/12/1966 Geologist's Log:
Company: USGS Driller:
Drilling Method: Driller's Log: X
Test Hole Number: Total Drill Hole Depth (ft.): 26.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

DEPTH TO WATER: 18.6 FEET MEASURED 08-12-1966.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2018.00 - 2003.00	0.0 - 15.0	SILT (TILL)
2003.00 - 1994.00	15.0 - 24.0	CLAY, DARK-BROWN
1994.00 - 1992.00	24.0 - 26.0	SAND, VERY FINE

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Location Information

Legal Location: NE NW SEC. 34, T. 042 N., R. 29 W.
County: MELLETTTE Location: 042N-29W-34BA
Basin: WHITE Latitude: 43 34' 40"
Hydrologic Unit Code: 10140203 Longitude: 100 45' 43"
Land Owner: CITY OF WHITE RIVER Ground Surface Elevation (ft.): 1968 T

Project Information

Project: Geologist:
Drill Date: 12/05/1986 Geologist's Log:
Company: CHASE WELL DRILLING Driller:
Drilling Method: ROTARY Driller's Log: X
Test Hole Number: Total Drill Hole Depth (ft.): 16.0
Samples:

Well Information

SDGS Well Name: Aquifer:
Water Rights Well: Management Unit:
Other Well Name: PRIVATE Casing Top Elevation:
Casing Type: STEEL Casing Diameter (in.): 8.0
Screen Type: STAINLESS STEEL Screen Length (ft.): 5.0
Total Casing and Screen (ft.): 16.0 Casing Stick-up (ft.):
Well Maintenance Date:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

5 FEET OF STAINLESS STEEL SCREEN AND 1 FOOT OF TIGHTWIND BLANK STAINLESS STEEL SCREEN.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1968.00 - 1962.00	0.0 - 6.0	SAND, MEDIUM; TRACE OF SHALE
1962.00 - 1952.00	6.0 - 16.0	SAND, MEDIUM TO COARSE; WITH TRACE OF SHALE

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Location Information

Legal Location: NE NW SEC. 34, T. 042 N., R. 29 W.
County: MELLETTTE Location: 042N-29W-34BA 1
Basin: WHITE Latitude: 43 34' 40"
Hydrologic Unit Code: 10140203 Longitude: 100 45' 43"
Land Owner: CITY OF WHITE RIVER Ground Surface Elevation (ft.): 1968 T

Project Information

Project: Geologist:
Drill Date: 12/05/1986 Geologist's Log:
Company: CHASE WELL DRILLING Driller:
Drilling Method: ROTARY Driller's Log: X
Test Hole Number: Total Drill Hole Depth (ft.): 14.5
Samples:

Well Information

SDGS Well Name: Aquifer:
Water Rights Well: Management Unit:
Other Well Name: PRIVATE Casing Top Elevation:
Casing Type: STEEL Casing Diameter (in.): 8.0
Screen Type: STAINLESS STEEL Screen Length (ft.): 5.0
Total Casing and Screen (ft.): 14.0 Casing Stick-up (ft.):
Well Maintenance Date:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

5 FEET OF STAINLESS STEEL SCREEN, 1 FOOT OF TIGHTWIND BLANK STAINLESS STEEL SCREEN.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1968.00 - 1960.50	0.0 - 7.5	SAND, MEDIUM
1960.50 - 1953.50	7.5 - 14.5	SAND, MEDIUM; WITH TRACE OF GRAVEL AND SHALE

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Location Information

Legal Location: NE NW SEC. 34, T. 042 N., R. 29 W.
County: MELLETTTE Location: 042N-29W-34BA 2
Basin: WHITE Latitude: 43 34' 40"
Hydrologic Unit Code: 10140203 Longitude: 100 45' 43"
Land Owner: Ground Surface Elevation (ft.): 1968 T

Project Information

Project: Geologist:
Drill Date: 12/05/1986 Geologist's Log:
Company: CHASE WELL DRILLING Driller:
Drilling Method: ROTARY Driller's Log: X
Test Hole Number: Total Drill Hole Depth (ft.): 16.0
Samples:

Well Information

SDGS Well Name: Aquifer:
Water Rights Well: Management Unit:
Other Well Name: PRIVATE Casing Top Elevation:
Casing Type: STEEL Casing Diameter (in.): 8.0
Screen Type: STAINLESS STEEL Screen Length (ft.): 5.0
Total Casing and Screen (ft.): 16.0 Casing Stick-up (ft.):
Well Maintenance Date:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

5 FEET OF STAINLESS STEEL SCREEN, 1 FOOT OF TIGHTWIND BLANK STAINLESS STEEL SCREEN.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1968.00 - 1960.50	0.0 - 7.5	SAND, MEDIUM; TRACE OF SHALE
1960.50 - 1952.00	7.5 - 16.0	SAND, MEDIUM TO COARSE; WITH TRACE OF SHALE

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Location Information

Legal Location: NE NW SEC. 34, T. 042 N., R. 29 W.
County: MELLETTTE Location: 042N-29W-34BA 3
Basin: WHITE Latitude: 43 34' 40"
Hydrologic Unit Code: 10140203 Longitude: 100 45' 43"
Land Owner: CITY OF WHITE RIVER Ground Surface Elevation (ft.): 1968 T

Project Information

Project: Geologist:
Drill Date: 11/01/1985 Geologist's Log:
Company: SARGENT IRRIGATION Driller:
Drilling Method: ROTARY Driller's Log: X
Test Hole Number: Total Drill Hole Depth (ft.): 15.0
Samples:

Well Information

SDGS Well Name: Aquifer:
Water Rights Well: Management Unit:
Other Well Name: 1 WEST Casing Top Elevation:
Casing Type: PVC Casing Diameter (in.): 12.0
Screen Type: PVC, HM. Screen Length (ft.): 3.0
Total Casing and Screen (ft.): 12.5 Casing Stick-up (ft.): 1.16
Well Maintenance Date:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1968.00 - 1965.50	0.0 - 2.5	TOPSOIL
1965.50 - 1963.00	2.5 - 5.0	SAND
1963.00 - 1960.50	5.0 - 7.5	SAND; 6-INCH SHALE LAYER
1960.50 - 1955.00	7.5 - 13.0	SAND, MEDIUM
1955.00 - 1953.00	13.0 - 15.0	SHALE

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Location Information

Legal Location: NE NW SEC. 34, T. 042 N., R. 29 W.
County: MELLETTTE Location: 042N-29W-34BA 4
Basin: WHITE Latitude: 43 34' 40"
Hydrologic Unit Code: 10140203 Longitude: 100 45' 43"
Land Owner: CITY OF WHITE RIVER Ground Surface Elevation (ft.): 1968 T

Project Information

Project: Geologist:
Drill Date: 11/01/1985 Geologist's Log:
Company: SARGENT IRRIGATION Driller:
Drilling Method: ROTARY Driller's Log: X
Test Hole Number: Total Drill Hole Depth (ft.): 15.0
Samples:

Well Information

SDGS Well Name: Aquifer:
Water Rights Well: Management Unit:
Other Well Name: 2 WEST Casing Top Elevation:
Casing Type: PVC Casing Diameter (in.): 12.0
Screen Type: PVC, HM. Screen Length (ft.): 3.0
Total Casing and Screen (ft.): 14.0 Casing Stick-up (ft.): 1.33
Well Maintenance Date:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1968.00 - 1965.50	0.0 - 2.5	TOPSOIL
1965.50 - 1963.00	2.5 - 5.0	SAND; CLAY LAYER
1963.00 - 1960.50	5.0 - 7.5	SAND; TRACE OF GRAVEL
1960.50 - 1958.00	7.5 - 10.0	SAND, MEDIUM
1958.00 - 1953.50	10.0 - 14.5	SAND, MEDIUM TO COARSE
1953.50 - 1953.00	14.5 - 15.0	SHALE

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Location Information

Legal Location: NE NW SEC. 34, T. 042 N., R. 29 W.
County: MELLETTTE Location: 042N-29W-34BA 5
Basin: WHITE Latitude: 43 34' 40"
Hydrologic Unit Code: 10140203 Longitude: 100 45' 43"
Land Owner: CITY OF WHITE RIVER Ground Surface Elevation (ft.): 1968 T

Project Information

Project: Geologist:
Drill Date: 11/01/1985 Geologist's Log:
Company: SARGENT IRRIGATION Driller:
Drilling Method: ROTARY Driller's Log: X
Test Hole Number: Total Drill Hole Depth (ft.): 13.0
Samples:

Well Information

SDGS Well Name: Aquifer:
Water Rights Well: Management Unit:
Other Well Name: 3 WEST Casing Top Elevation:
Casing Type: PVC Casing Diameter (in.): 12.0
Screen Type: PVC, HM. Screen Length (ft.): 3.0
Total Casing and Screen (ft.): 12.0 Casing Stick-up (ft.): 1.25
Well Maintenance Date:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1968.00 - 1965.50	0.0 - 2.5	TOPSOIL
1965.50 - 1963.00	2.5 - 5.0	SAND; CLAY LAYER
1963.00 - 1960.50	5.0 - 7.5	SAND, MEDIUM; TRACE OF FINE GRAVEL
1960.50 - 1955.50	7.5 - 12.5	SAND, COARSE; TRACE OF FINE GRAVEL, SHALE LAYERS
1955.50 - 1955.00	12.5 - 13.0	SHALE

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Location Information

Legal Location: NE NW SEC. 34, T. 042 N., R. 29 W.
County: MELLETTTE Location: 042N-29W-34BA 6
Basin: WHITE Latitude: 43 34' 40"
Hydrologic Unit Code: 10140203 Longitude: 100 45' 43"
Land Owner: CITY OF WHITE RIVER Ground Surface Elevation (ft.): 1968 T

Project Information

Project: Geologist:
Drill Date: 11/01/1985 Geologist's Log:
Company: SARGENT IRRIGATION Driller:
Drilling Method: ROTARY Driller's Log: X
Test Hole Number: Total Drill Hole Depth (ft.): 12.5
Samples:

Well Information

SDGS Well Name: Aquifer:
Water Rights Well: Management Unit:
Other Well Name: 2 SOUTH Casing Top Elevation:
Casing Type: PVC Casing Diameter (in.): 12.0
Screen Type: PVC, HM. Screen Length (ft.): 3.0
Total Casing and Screen (ft.): 12.0 Casing Stick-up (ft.): 1.25
Well Maintenance Date:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1968.00 - 1965.50	0.0 - 2.5	TOPSOIL
1965.50 - 1963.00	2.5 - 5.0	SAND; CLAY LAYER, TRACE OF SHALE
1963.00 - 1960.50	5.0 - 7.5	SAND, MEDIUM; TRACE OF FINE GRAVEL, SHALE LAYERS
1960.50 - 1955.50	7.5 - 12.5	SAND, MEDIUM TO COARSE; TRACE OF FINE GRAVEL, SHALE LAYERS; SHALE AT 12.5 FEET

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Location Information

Legal Location: NE NW SEC. 34, T. 042 N., R. 29 W.
County: MELLETTTE Location: 042N-29W-34BA 7
Basin: WHITE Latitude: 43 34' 40"
Hydrologic Unit Code: 10140203 Longitude: 100 45' 43"
Land Owner: CITY OF WHITE RIVER Ground Surface Elevation (ft.): 1968 T

Project Information

Project: Geologist:
Drill Date: 11/01/1985 Geologist's Log:
Company: SARGENT IRRIGATION Driller:
Drilling Method: ROTARY Driller's Log: X
Test Hole Number: Total Drill Hole Depth (ft.): 14.5
Samples:

Well Information

SDGS Well Name: Aquifer:
Water Rights Well: Management Unit:
Other Well Name: 3 SOUTH Casing Top Elevation:
Casing Type: PVC Casing Diameter (in.): 12.0
Screen Type: PVC, HM. Screen Length (ft.): 3.0
Total Casing and Screen (ft.): 14.0 Casing Stick-up (ft.): 1.54
Well Maintenance Date:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1968.00 - 1965.50	0.0 - 2.5	TOPSOIL
1965.50 - 1963.00	2.5 - 5.0	SAND, MEDIUM; CLAY LAYER
1963.00 - 1960.50	5.0 - 7.5	SAND, MEDIUM; TRACE OF FINE GRAVEL, SHALE LAYERS
1960.50 - 1953.50	7.5 - 14.5	SAND, MEDIUM TO COARSE; SHALE LAYERS, SHALE AT 14.5 FEET
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Location Information

Legal Location: NE NW SEC. 34, T. 042 N., R. 29 W.
County: MELLETTTE Location: 042N-29W-34BA 8
Basin: WHITE Latitude: 43 34' 40"
Hydrologic Unit Code: 10140203 Longitude: 100 45' 43"
Land Owner: CITY OF WHITE RIVER Ground Surface Elevation (ft.): 1968 T

Project Information

Project: Geologist:
Drill Date: 11/01/1985 Geologist's Log:
Company: SARGENT IRRIGATION Driller:
Drilling Method: ROTARY Driller's Log: X
Test Hole Number: Total Drill Hole Depth (ft.): 14.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

TESTHOLE: #2 SOUTH.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1968.00 - 1965.50	0.0 - 2.5	TOPSOIL
1965.50 - 1963.00	2.5 - 5.0	SAND; TRACE OF SHALE
1963.00 - 1954.00	5.0 - 14.0	SAND, MEDIUM; TRACE OF SHALE; SHALE AT 14 FEET

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Location Information

Legal Location: NE NW SEC. 34, T. 042 N., R. 29 W.
County: MELLETTTE Location: 042N-29W-34BA 9
Basin: WHITE Latitude: 43 34' 40"
Hydrologic Unit Code: 10140203 Longitude: 100 45' 43"
Land Owner: CITY OF WHITE RIVER Ground Surface Elevation (ft.): 1968 T

Project Information

Project: Geologist:
Drill Date: 11/01/1985 Geologist's Log:
Company: SARGENT IRRIGATION Driller:
Drilling Method: ROTARY Driller's Log: X
Test Hole Number: Total Drill Hole Depth (ft.): 10.5
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

TESTHOLE: #1 NORTH.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1968.00 - 1965.50	0.0 - 2.5	TOPSOIL
1965.50 - 1963.00	2.5 - 5.0	SAND
1963.00 - 1960.50	5.0 - 7.5	SAND, MEDIUM; TRACE OF SHALE
1960.50 - 1958.00	7.5 - 10.0	SAND, MEDIUM TO COARSE; TRACE OF FINE GRAVEL, SHALE LAYERS
1958.00 - 1957.50	10.0 - 10.5	SHALE

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Location Information

Legal Location: NE NW SEC. 34, T. 042 N., R. 29 W.
County: MELLETTTE Location: 042N-29W-34BA 10
Basin: WHITE Latitude: 43 34' 40"
Hydrologic Unit Code: 10140203 Longitude: 100 45' 43"
Land Owner: CITY OF WHITE RIVER Ground Surface Elevation (ft.): 1968 T

Project Information

Project: Geologist:
Drill Date: 11/01/1985 Geologist's Log:
Company: SARGENT IRRIGATION Driller:
Drilling Method: ROTARY Driller's Log: X
Test Hole Number: Total Drill Hole Depth (ft.): 15.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

TESTHOLE: #1 EAST.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1968.00 - 1965.50	0.0 - 2.5	TOPSOIL
1965.50 - 1963.00	2.5 - 5.0	SAND AND CLAY
1963.00 - 1960.50	5.0 - 7.5	SAND, FINE TO MEDIUM
1960.50 - 1955.50	7.5 - 12.5	SAND, MEDIUM; SHALE LAYERS
1955.50 - 1953.50	12.5 - 14.5	SAND, MEDIUM TO COARSE; SHALE LAYERS
1953.50 - 1953.00	14.5 - 15.0	SHALE

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Location Information

Legal Location:	NE NW SEC. 34, T. 042 N., R. 29 W.
County: MELLETTTE	Location: 042N-29W-34BA 11
Basin: WHITE	Latitude: 43 34' 40"
Hydrologic Unit Code: 10140203	Longitude: 100 45' 43"
Land Owner: CITY OF WHITE RIVER	Ground Surface Elevation (ft.): 1968 T

Project Information

Project:	Geologist:
Drill Date: 11/01/1985	Geologist's Log:
Company: SARGENT IRRIGATION	Driller:
Drilling Method: ROTARY	Driller's Log: X
Test Hole Number:	Total Drill Hole Depth (ft.): 13.0
Samples:	

Geophysical Information

Spontaneous Potential:	Single Point Resistivity:
Natural Gamma:	Extra:

TESTHOLE: #2 SOUTHEAST.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1968.00 - 1965.50	0.0 - 2.5	TOPSOIL; CLAY
1965.50 - 1963.00	2.5 - 5.0	SAND, MEDIUM TO COARSE; CLAY LAYER
1963.00 - 1955.50	5.0 - 12.5	SAND, MEDIUM TO COARSE; TRACE OF FINE GRAVEL, SHALES LAYERS
1955.50 - 1955.00	12.5 - 13.0	SHALE
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Location Information

Legal Location: NE NW SEC. 34, T. 042 N., R. 29 W.
County: MELLETTTE Location: 042N-29W-34BA 12
Basin: WHITE Latitude: 43 34' 40"
Hydrologic Unit Code: 10140203 Longitude: 100 45' 43"
Land Owner: CITY OF WHITE RIVER Ground Surface Elevation (ft.): 1968 T

Project Information

Project: Geologist:
Drill Date: 11/01/1985 Geologist's Log:
Company: SARGENT IRRIGATION Driller:
Drilling Method: ROTARY Driller's Log: X
Test Hole Number: Total Drill Hole Depth (ft.): 16.0
Samples:

Well Information

SDGS Well Name: Aquifer:
Water Rights Well: Management Unit:
Other Well Name: 1 SOUTH Casing Top Elevation:
Casing Type: Casing Diameter (in.):
Screen Type: Screen Length (ft.):
Total Casing and Screen (ft.): Casing Stick-up (ft.):
Well Maintenance Date:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

TESTHOLE: #1 SOUTH.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1968.00 - 1965.50	0.0 - 2.5	TOPSOIL
1965.50 - 1963.00	2.5 - 5.0	SAND; CLAY LAYER
1963.00 - 1960.50	5.0 - 7.5	SAND, MEDIUM; TRACE OF FINE GRAVEL, SHALE LAYERS
1960.50 - 1952.00	7.5 - 16.0	SAND, MEDIUM TO COARSE; TRACE OF FINE GRAVEL, SHALE LAYERS; SHALE AT 16 FEET

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Location Information

Legal Location:	NE NW SEC. 34, T. 042 N., R. 29 W.	
County: MELLETTTE		Location: 042N-29W-34BA 13
Basin: WHITE		Latitude: 43 34' 40"
Hydrologic Unit Code: 10140203		Longitude: 100 45' 43"
Land Owner: CITY OF WHITE RIVER		Ground Surface Elevation (ft.): 1968 T

Project Information

Project:		Geologist:	
Drill Date: 11/01/1985		Geologist's Log:	
Company: SARGENT IRRIGATION		Driller:	
Drilling Method: ROTARY		Driller's Log: X	
Test Hole Number:		Total Drill Hole Depth (ft.):	14.0
Samples:			

Geophysical Information

Spontaneous Potential:		Single Point Resistivity:	
Natural Gamma:		Extra:	

TESTHOLE: #1.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1968.00 - 1966.00	0.0 - 2.0	TOPSOIL
1966.00 - 1964.00	2.0 - 4.0	CLAY
1964.00 - 1960.50	4.0 - 7.5	SAND; CLAY LAYER
1960.50 - 1954.00	7.5 - 14.0	SAND, MEDIUM; SHALE AT 14 FEET

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Location Information

Legal Location:NE NE NE SW SEC. 34, T. 042 N., R. 29 W.
County:MELLETTTE Location:042N-29W-34CAA
Basin:WHITE Latitude:43 34' 20"
Hydrologic Unit Code:10140203 Longitude:100 45' 36"
Land Owner: Ground Surface Elevation (ft.):1958 T

Project Information

Project:LITTE WHITE RIVER VALLEY Geologist:A. BARARI
Drill Date:01/01/1969 Geologist's Log:X
Company:FERGUSON-MEADOR Driller:
Drilling Method: Driller's Log:
Test Hole Number:20 Total Drill Hole Depth (ft.):23.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

DEPTH TO WATER: 9 FEET.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1958.00 - 1953.00	0.0 - 5.0	CLAY AND SAND; BUILT UP AREA
1953.00 - 1938.00	5.0 - 20.0	SAND, COARSE
1938.00 - 1935.00	20.0 - 23.0	SHALE, GRAY

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Location Information

Legal Location: NW SW SEC. 12, T. 042 N., R. 30 W.
County: MELLETTTE Location: 042N-30W-12CB
Basin: WHITE Latitude: 43 37' 40"
Hydrologic Unit Code: 10140202 Longitude: 100 50' 47"
Land Owner: W. JENSEN Ground Surface Elevation (ft.): 2005 T

Project Information

Project: Geologist:
Drill Date: 02/27/1961 Geologist's Log:
Company: HURON DRILLING Driller:
Drilling Method: Driller's Log: X
Test Hole Number: Total Drill Hole Depth (ft.): 1930.0
Samples:

Well Information

SDGS Well Name: Aquifer:
Water Rights Well: Management Unit:
Other Well Name: PRIVATE Casing Top Elevation:
Casing Type: Casing Diameter (in.):
Screen Type: Screen Length (ft.):
Total Casing and Screen (ft.): Casing Stick-up (ft.):
Well Maintenance Date:

Geophysical Information

Spontaneous Potential: X Single Point Resistivity: X
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2005.00 - 1126.00	0.0 - 879.0	PIERRE SHALE
1126.00 - 985.00	879.0 - 1020.0	NIOBRARA FORMATION
985.00 - 630.00	1020.0 - 1375.0	CARLILE SHALE
630.00 - 515.00	1375.0 - 1490.0	GREENHORN LIMESTONE
515.00 - 333.00	1490.0 - 1672.0	GRANEROS SHALE
333.00 - 75.00	1672.0 - 1930.0	DAKOTA FORMATION

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Location Information

Legal Location:SE SE SE NE SEC. 08, T. 042 N., R. 31 W.
County:MELLETTTE Location:042N-31W-08ADDD
Basin:WHITE Latitude:43 38' 03"
Hydrologic Unit Code:10140203 Longitude:101 01' 13"
Land Owner: Ground Surface Elevation (ft.):2253 T

Project Information

Project:MELLETTTE-TODD CO. STUDY Geologist:R. HAMMOND
Drill Date:07/08/1996 Geologist's Log:X
Company:SDGS Driller:G. JENSEN
Drilling Method:ROTARY Driller's Log:
Test Hole Number:R2-96-21 Total Drill Hole Depth (ft.):62.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2253.00 - 2225.00	0.0 - 28.0	SILTSTONE, YELLOWISH-GRAY (5YR 7/2), CLAYEY; SOME EUHEDRAL GYPSUM; CALCAREOUS, MASSIVE (CHADRON FORMATION)
2225.00 - 2215.00	28.0 - 38.0	GRAVEL, LIGHT-OLIVE-GRAY, MEDIUM-GRAINED, SUBANGULAR TO SUBROUNDED, SILTY, SANDY; CALCAREOUS; COMPOSED OF WHITE SILTSTONE, SHALE, AND QUARTZ CLASTS (CHADRON FORMATION)
2215.00 - 2191.00	38.0 - 62.0	CLAYSTONE, DARK-GREENISH-GRAY; CALCAREOUS, FISSILE (PIERRE SHALE)

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Location Information

Legal Location: NE NW NE SEC. 34, T. 042 N., R. 31 W.
County: MELLETTTE Location: 042N-31W-34ABA
Basin: WHITE Latitude: 43 34' 35"
Hydrologic Unit Code: 10140202 Longitude: 100 59' 11"
Land Owner: C. CHAMBERLAIN Ground Surface Elevation (ft.): 2350 T

Project Information

Project: Geologist:
Drill Date: Geologist's Log:
Company: HURON DRILLING Driller:
Drilling Method: Driller's Log: X
Test Hole Number: Total Drill Hole Depth (ft.): 2300.0
Samples:

Well Information

SDGS Well Name: Aquifer:
Water Rights Well: Management Unit:
Other Well Name: PRIVATE Casing Top Elevation:
Casing Type: Casing Diameter (in.):
Screen Type: Screen Length (ft.):
Total Casing and Screen (ft.): Casing Stick-up (ft.):
Well Maintenance Date:

Geophysical Information

Spontaneous Potential: X Single Point Resistivity: X
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2350.00 - 1056.00	0.0 - 1294.0	PIERRE SHALE
1056.00 - 930.00	1294.0 - 1420.0	NIOBRARA FORMATION
930.00 - 590.00	1420.0 - 1760.0	CARLILE SHALE
590.00 - 470.00	1760.0 - 1880.0	GREENHORN LIMESTONE
470.00 - 270.00	1880.0 - 2080.0	GRANEROS SHALE
270.00 - 50.00	2080.0 - 2300.0	DAKOTA FORMATION

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Location Information

Legal Location:SE SE SE NE SEC. 02, T. 042 N., R. 33 W.
County:MELLETTTE Location:042N-33W-02ADDD
Basin:WHITE Latitude:43 38' 37"
Hydrologic Unit Code:10140202 Longitude:101 11' 59"
Land Owner: Ground Surface Elevation (ft.):2323 T

Project Information

Project:MELLETTTE-TODD CO. STUDY Geologist:M. JARRETT
Drill Date:08/18/1992 Geologist's Log:X
Company:SDGS Driller:D. IVERSON
Drilling Method:ROTARY Driller's Log:
Test Hole Number:R20-92-34 Total Drill Hole Depth (ft.):65.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

HOLE CORED FROM 8 TO 65 FEET. HOLE ABANDONMENT: TREMIE PIPE TO 47 FEET, BENTONITE GROUT 65 FEET TO SURFACE. TWO BAGS GRANULES USED. TOP 5 FEET CEMENTED 10/92.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2323.00 - 2319.00	0.0 - 4.0	CLAY, BROWN, SILTY
2319.00 - 2315.00	4.0 - 8.0	CLAY, TAN, SILTY
2315.00 - 2311.00	8.0 - 12.0	CLAY, TAN, BROWN AND ORANGE; 4 FEET CORE
2311.00 - 2308.00	12.0 - 15.0	SAND; NO CORE
2308.00 - 2292.00	15.0 - 31.0	GRAVEL AND SAND, MEDIUM SAND TO COARSE GRAVEL; NO CORE
2292.00 - 2288.00	31.0 - 35.0	CLAY, VARIEGATED RED, BROWN, ORANGE AND TAN; 3 FEET CORE
2288.00 - 2283.00	35.0 - 40.0	CLAY, VARIEGATED RED, BROWN, ORANGE AND TAN; 5 FEET CORE
2283.00 - 2268.00	40.0 - 55.0	CLAY, VARIEGATED RED, BROWN, ORANGE, TAN, LIGHT-GRAY TO BLUE; 15 FEET CORE
2268.00 - 2263.00	55.0 - 60.0	CLAY, LIGHT- TO DARK-GRAY-BROWN; 5 FEET CORE
2263.00 - 2258.00	60.0 - 65.0	CLAY, DARK-GRAY; 5 FEET CORE (PIERRE SHALE)

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Location Information

Legal Location:NE NE NW NW SEC. 25, T. 042 N., R. 33 W.
County:MELLETTTE Location:042N-33W-25BBAA
Basin:WHITE Latitude:43 35' 30"
Hydrologic Unit Code:10140202 Longitude:101 11' 43"
Land Owner: Ground Surface Elevation (ft.):2333 T

Project Information

Project:MELLETTTE-TODD CO. STUDY Geologist:R. HAMMOND/M. JARRETT
Drill Date:08/25/1992 Geologist's Log:X
Company:SDGS Driller:D. IVERSON
Drilling Method:ROTARY Driller's Log:
Test Hole Number:R20-92-35 Total Drill Hole Depth (ft.):247.0
Samples:

Geophysical Information

Spontaneous Potential:X Single Point Resistivity:X
Natural Gamma:X Extra:

THIS TEST WAS CONSIDERED TWO HOLES BY DRILLER, THEREFORE IT IS BOTH R20-92-35 AND R20-92-36. TWO 'E' LOGS EXIST: R20-92-35 AND R20-92-35A. PLUGGED FROM TOTAL DEPTH TO TOP WITH HIGH SOLIDS BENTONITE, SETTLED FOR TWO DAYS, FILLED WITH BENTONITE CRUMBLES TO 8 FEET, CEMENT FROM 8 FEET TO SURFACE.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2333.00 - 2316.00	0.0 - 17.0	SILTSTONE, TAN TO REDDISH-BROWN, SANDY, SILTY; NONCALCAREOUS TO MODERATELY CALCAREOUS, NUMEROUS WHITE SUB- ANGULAR TO SUBROUNDED CALCAREOUS PEBBLES, UP TO 1.5 INCHES IN DIAMETER, MASSIVE, SOME CARBONACEOUS PARTING
2316.00 - 2302.00	17.0 - 31.0	CLAYSTONE, WHITE TO LIGHT-BROWNISH-GRAY, SILTY; NONCALCAREOUE, SOME GRAY MOTTLES NEAR BASE
2302.00 - 2289.00	31.0 - 44.0	CLAYSTONE, GRAYISH-GREEN, SLIGHTLY SILTY; MASSIVE, NONCALCAREOUS
2289.00 - 2256.00	44.0 - 77.0	CLAYSTONE, LIGHT-OLIVE-GRAY; NON- CALCAREOUS, GRADES TO SLIGHTLY SILTY GRAYISH-OLIVE CLAYSTONE BELOW 52 FEET, MASSIVE; SAND FROM 76 TO 77 FEET, VERY COARSE TO COARSE, QUARTZOSE, SUBROUNDED (CHADRON FORMATION?)
2256.00 - 2242.00	77.0 - 91.0	CLAYSTONE AND SILTSTONE, GREENISH-GRAY TO DARK-GREENISH-GRAY; MASSIVE, INTER- BEDDED, NONCALCAREOUS (CHADRON FORMATION?)
2242.00 - 2210.00	91.0 - 123.0	CLAY, DARK-YELLOWISH-ORANGE MOTTLED WITH GRAY, RED AND PINK; NONCALCAREOUS, MASSIVE, GRADES TO YELLOWISH-BROWN FISSLE CLAYSTONE BY 100 FEET, DARK- YELLOWISH-ORANGE AND GREENISH-GRAY TO 110 FEET; PRIMARILY OLIVE-BLACK BY 120 FEET, WEATHERED (PIERRE SHALE)

2210.00 - 2086.00

123.0 - 247.0

SHALE, OLIVE-BLACK, SLIGHTLY SILTY; SLIGHTLY TO
MODERATELY CALCAREOUS; POORLY FISSLE, BENTONITE
LENSES AND CONCRETIONS NEAR 133 AND 135 FEET;
WHITE BENTONITE AT 189 TO 191 FEET (MOBRIDGE
MEMBER - PIERRE SHALE)

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Location Information

Legal Location: NW NW NW SE SEC. 07, T. 043 N., R. 25 W.
County: MELLETTTE Location: 043N-25W-07DBBB
Basin: WHITE Latitude: 43 43' 00"
Hydrologic Unit Code: 10140204 Longitude: 100 20' 23"
Land Owner: Ground Surface Elevation (ft.): 1680 T

Project Information

Project: USGS Geologist:
Drill Date: Geologist's Log:
Company: USGS Driller:
Drilling Method: Driller's Log: X
Test Hole Number: Total Drill Hole Depth (ft.): 22.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1680.00 - 1674.00	0.0 - 6.0	TOPSOIL; SILT
1674.00 - 1671.00	6.0 - 9.0	SILT AND SAND, COARSE SAND
1671.00 - 1669.00	9.0 - 11.0	SAND, FINE; SOME SMALL GRAVEL
1669.00 - 1665.00	11.0 - 15.0	SAND, TAN, MEDIUM
1665.00 - 1663.00	15.0 - 17.0	SAND, BROWN, MEDIUM
1663.00 - 1660.00	17.0 - 20.0	GRAVEL, MEDIUM TO LARGE
1660.00 - 1658.00	20.0 - 22.0	SHALE, DARK-GRAY

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Location Information

Legal Location: SW NE NE SW SEC. 09, T. 043 N., R. 25 W.
 County: MELLETTE Location: 043N-25W-09CAAC
 Basin: WHITE Latitude: 43 42' 57"
 Hydrologic Unit Code: 10140204 Longitude: 100 18' 08"
 Land Owner: Ground Surface Elevation (ft.): 1660 T

Project Information

Project: USBR Geologist:
 Drill Date: 05/21/1954 Geologist's Log:
 Company: USBR Driller:
 Drilling Method: Driller's Log: X
 Test Hole Number: Total Drill Hole Depth (ft.): 30.0
 Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
 Natural Gamma: Extra:

DEPTH TO WATER: 17.0 FEET MEASURED 05-21-1954.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1660.00 - 1659.00	0.0 - 1.0	LOAM
1659.00 - 1658.50	1.0 - 1.5	LOAM, FINE, SANDY
1658.50 - 1657.50	1.5 - 2.5	LOAM, VERY FINE, SANDY
1657.50 - 1654.50	2.5 - 5.5	LOAM, CLAYEY
1654.50 - 1653.50	5.5 - 6.5	LOAM, FINE, SANDY
1653.50 - 1651.00	6.5 - 9.0	LOAM, LIGHT, CLAYEY
1651.00 - 1648.00	9.0 - 12.0	LOAM, FINE, SANDY
1648.00 - 1643.00	12.0 - 17.0	LOAM, SANDY
1643.00 - 1638.00	17.0 - 22.0	GRAVEL AND LOAM, COARSE GRAVEL, SANDY LOAM
1638.00 - 1630.00	22.0 - 30.0	SHALE

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Location Information

Legal Location:NE SW NE SW SEC. 09, T. 043 N., R. 25 W.
County:MELLETTTE Location:043N-25W-09CACA
Basin:WHITE Latitude:43 42' 53"
Hydrologic Unit Code:10140203 Longitude:100 18' 13"
Land Owner: Ground Surface Elevation (ft.):1662 T

Project Information

Project:MELLETTTE-TODD CO. STUDY Geologist:R. HAMMOND
Drill Date:07/10/1996 Geologist's Log:X
Company:SDGS Driller:G. JENSEN
Drilling Method:ROTARY Driller's Log:
Test Hole Number:R2-96-33 Total Drill Hole Depth (ft.):28.0
Samples:

Well Information

SDGS Well Name: R2-96-33 Aquifer:ALLUVIUM
Water Rights Well: Management Unit:
Other Well Name: Casing Top Elevation:1664.00 T
Casing Type:PVC, SCH. 80 Casing Diameter (in.):2.0
Screen Type:PVC, MFG., 0.018 IN. SLOT Screen Length (ft.):10.0
Total Casing and Screen (ft.):24.0 Casing Stick-up (ft.):2.00
Well Maintenance Date:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

WELL WAS FILTER PACKED FROM 28 TO 10 FEET WITH GRADED SAND; GROUTED FROM 10 FEET TO LAND SURFACE WITH NEAT CEMENT GROUT.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1662.00 - 1660.00	0.0 - 2.0	TOPSOIL, BROWN
1660.00 - 1652.00	2.0 - 10.0	SILT, BROWN (ALLUVIUM)
1652.00 - 1638.00	10.0 - 24.0	SAND AND GRAVEL
1638.00 - 1634.00	24.0 - 28.0	SHALE, BLACK (PIERRE SHALE)

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Location Information

Legal Location:NE SE NE SW SEC. 09, T. 043 N., R. 25 W.
County:MELLETTTE Location:043N-25W-09CADA
Basin:WHITE Latitude:43 42' 54"
Hydrologic Unit Code:10140204 Longitude:100 18' 02"
Land Owner: Ground Surface Elevation (ft.):1655 T

Project Information

Project:WATER RIGHTS Geologist:D. DRISCOLL
Drill Date:08/08/1957 Geologist's Log:X
Company:GRIMSHAW DRILLING Driller:J. HUTMACHER
Drilling Method: Driller's Log:
Test Hole Number: Total Drill Hole Depth (ft.):30.0
Samples:

Well Information

SDGS Well Name: Aquifer:ALLUVIUM
Water Rights Well:MT-57B Management Unit:
Other Well Name:W-4 Casing Top Elevation:
Casing Type:STEEL Casing Diameter (in.):1.5
Screen Type:STEEL Screen Length (ft.):
Total Casing and Screen (ft.):26.8 Casing Stick-up (ft.):1.10
Well Maintenance Date:06/21/1984

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

TWO SIZES OF CASING IN THIS WELL, 6 FEET OF 1.5 INCHES AND THE REST IS 1.25 INCHES.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1655.00 - 1643.00	0.0 - 12.0	SAND, SILTY
1643.00 - 1632.00	12.0 - 23.0	SAND, FINE
1632.00 - 1625.00	23.0 - 30.0	CLAY (SHALE)

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Location Information

Legal Location:NE SE NE SW SEC. 09, T. 043 N., R. 25 W.
County:MELLETTTE Location:043N-25W-09CADA 1
Basin:WHITE Latitude:43 42' 57"
Hydrologic Unit Code:10140204 Longitude:100 18' 08"
Land Owner: Ground Surface Elevation (ft.):1655 T

Project Information

Project:USGS Geologist:
Drill Date:08/17/1966 Geologist's Log:
Company:USGS Driller:
Drilling Method: Driller's Log:
Test Hole Number: Total Drill Hole Depth (ft.):34.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

DEPTH TO WATER: ABOUT 7 FEET ON 08-17-1966.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1655.00 - 1650.00	0.0 - 5.0	SILT
1650.00 - 1645.00	5.0 - 10.0	SAND, MEDIUM
1645.00 - 1637.00	10.0 - 18.0	SAND, BROWN, VERY COARSE
1637.00 - 1631.00	18.0 - 24.0	SAND, GRAY, VERY COARSE, SILTY
1631.00 - 1621.00	24.0 - 34.0	SAND; GRAY SHALE
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Location Information

Legal Location:NE NW SE SW SEC. 09, T. 043 N., R. 25 W.
County:MELLETTTE Location:043N-25W-09CDBA
Basin:WHITE Latitude:43 42' 47"
Hydrologic Unit Code:10140204 Longitude:100 18' 12"
Land Owner: Ground Surface Elevation (ft.):1660 T

Project Information

Project:USGS Geologist:
Drill Date:08/17/1966 Geologist's Log:
Company:USGS Driller:
Drilling Method: Driller's Log:X
Test Hole Number: Total Drill Hole Depth (ft.):27.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

DEPTH TO WATER: ABOUT 14 FEET ON 08-17-1966.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1660.00 - 1658.00	0.0 - 2.0	SILT
1658.00 - 1651.00	2.0 - 9.0	CLAY, BROWN
1651.00 - 1646.00	9.0 - 14.0	SAND, FINE
1646.00 - 1638.00	14.0 - 22.0	SAND AND GRAVEL, MEDIUM TO COARSE SAND, MEDIUM GRAVEL
1638.00 - 1634.00	22.0 - 26.0	GRAVEL AND SAND, FINE TO MEDIUM GRAVEL, COARSE SAND
1634.00 - 1633.00	26.0 - 27.0	SHALE, DARK-GRAY

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Location Information

Legal Location: NW SW SE SW SEC. 09, T. 043 N., R. 25 W.
County: MELLETTTE Location: 043N-25W-09CDCB
Basin: WHITE Latitude: 43 42' 43"
Hydrologic Unit Code: 10140204 Longitude: 100 18' 17"
Land Owner: Ground Surface Elevation (ft.): 1600 T

Project Information

Project: USGS Geologist:
Drill Date: 08/17/1966 Geologist's Log:
Company: USGS Driller:
Drilling Method: Driller's Log: X
Test Hole Number: Total Drill Hole Depth (ft.): 37.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

DEPTH TO WATER: ABOUT 15 FEET ESTIMATED 08-17-1966.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1600.00 - 1596.00	0.0 - 4.0	SILT
1596.00 - 1586.00	4.0 - 14.0	CLAY, BROWN
1586.00 - 1581.00	14.0 - 19.0	SAND, MEDIUM TO FINE, SILTY
1581.00 - 1575.00	19.0 - 25.0	SAND AND GRAVEL, MEDIUM TO COARSE SAND, MEDIUM GRAVEL
1575.00 - 1570.00	25.0 - 30.0	GRAVEL, MEDIUM TO LARGE
1570.00 - 1563.00	30.0 - 37.0	SHALE, DARK-GRAY

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Location Information

Legal Location: NW NE NW NW SEC. 16, T. 043 N., R. 25 W.
County: MELLETTTE Location: 043N-25W-16BBAB
Basin: WHITE Latitude: 43 42' 35"
Hydrologic Unit Code: 10140204 Longitude: 100 18' 25"
Land Owner: Ground Surface Elevation (ft.): 1665 T

Project Information

Project: USGS Geologist:
Drill Date: 08/17/1966 Geologist's Log:
Company: USGS Driller:
Drilling Method: Driller's Log: X
Test Hole Number: Total Drill Hole Depth (ft.): 55.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

DEPTH TO WATER: 14 FEET ESTIMATED 08-17-1966.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1665.00 - 1663.00	0.0 - 2.0	SILT
1663.00 - 1655.00	2.0 - 10.0	SAND AND GRAVEL, COARSE TO VERY COARSE SAND, MEDIUM GRAVEL
1655.00 - 1646.00	10.0 - 19.0	SAND, MEDIUM
1646.00 - 1636.00	19.0 - 29.0	SAND AND GRAVEL, VERY COARSE SAND, FINE GRAVEL
1636.00 - 1626.00	29.0 - 39.0	GRAVEL, MEDIUM, SILTY
1626.00 - 1620.00	39.0 - 45.0	SAND, MEDIUM, SILTY
1620.00 - 1610.00	45.0 - 55.0	SHALE, DARK-GRAY

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Location Information

Legal Location:NE SE NW NW SEC. 16, T. 043 N., R. 25 W.
County:MELLETTTE Location:043N-25W-16BBDA
Basin:WHITE Latitude:43 42' 29"
Hydrologic Unit Code:10140204 Longitude:100 18' 21"
Land Owner: Ground Surface Elevation (ft.):1670 T

Project Information

Project:USGS Geologist:
Drill Date: Geologist's Log:
Company:USGS Driller:
Drilling Method: Driller's Log:X
Test Hole Number: Total Drill Hole Depth (ft.):32.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1670.00 - 1660.00	0.0 - 10.0	CLAY, SAND AND GRAVEL, BROWN CLAY, YELLOW GRAVEL, COARSE SAND, MEDIUM GRAVEL
1660.00 - 1651.00	10.0 - 19.0	CLAY, BROWN
1651.00 - 1641.00	19.0 - 29.0	SILT, SANDY
1641.00 - 1639.00	29.0 - 31.0	SILT, BROWN, CLAYEY; MOIST AT 30 FEET
1639.00 - 1638.00	31.0 - 32.0	CLAY, DARK-BROWN; SHALE, DARK-GRAY, BIT SAMPLE

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Location Information

Legal Location: NW NW NW SE SEC. 17, T. 043 N., R. 25 W.
County: MELLETTTE Location: 043N-25W-17DBBB
Basin: WHITE Latitude: 43 42' 09"
Hydrologic Unit Code: 10140204 Longitude: 100 19' 12"
Land Owner: Ground Surface Elevation (ft.): 1844 T

Project Information

Project: MELLETTTE-TODD CO. STUDY Geologist: M. JARRETT
Drill Date: 07/27/1993 Geologist's Log: X
Company: SDGS Driller: J. REZAC
Drilling Method: AUGER Driller's Log:
Test Hole Number: A1-93-34 Total Drill Hole Depth (ft.): 23.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1844.00 - 1840.00	0.0 - 4.0	CLAY, GRAY, SANDY
1840.00 - 1838.00	4.0 - 6.0	SAND, LIGHT-BROWN, MEDIUM, CLAYEY
1838.00 - 1828.00	6.0 - 16.0	SAND, LIGHT-BROWN, MEDIUM; SOME GRAVEL TO ONE HALF INCH IN DIAMETER
1828.00 - 1824.00	16.0 - 20.0	GRAVEL; WITH DARK-BROWN CLAY; SATURATED AT APPROXIMATELY 17 FEET
1824.00 - 1821.00	20.0 - 23.0	SHALE, BLACK
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Location Information

Legal Location:SE SE NE NE SEC. 22, T. 043 N., R. 25 W.
County:MELLETTTE Location:043N-25W-22AADD
Basin:WHITE Latitude:43 41' 35"
Hydrologic Unit Code:10140204 Longitude:100 16' 14"
Land Owner: Ground Surface Elevation (ft.):1833 T

Project Information

Project:MELLETTTE-TODD CO. STUDY Geologist:M. JARRETT
Drill Date:07/27/1993 Geologist's Log:X
Company:SDGS Driller:G. DUCHOSSOIS
Drilling Method:AUGER Driller's Log:
Test Hole Number:A1-93-35 Total Drill Hole Depth (ft.):33.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1833.00 - 1831.00	0.0 - 2.0	TOPSOIL, BROWN
1831.00 - 1829.00	2.0 - 4.0	CLAY, BROWN, SANDY, SILTY
1829.00 - 1826.00	4.0 - 7.0	SAND, YELLOWISH-BROWN, VERY CLAYEY; DRY
1826.00 - 1823.00	7.0 - 10.0	SAND, YELLOWISH-BROWN, FINE TO MEDIUM; DRY
1823.00 - 1818.00	10.0 - 15.0	CLAY, DARK-YELLOWISH-BROWN, SILTY, SANDY; DRY
1818.00 - 1816.00	15.0 - 17.0	SAND, YELLOWISH-BROWN, FINE TO MEDIUM; DRY
1816.00 - 1814.00	17.0 - 19.0	CLAY, YELLOWISH-BROWN, SILTY
1814.00 - 1808.00	19.0 - 25.0	SAND AND GRAVEL, YELLOWISH-BROWN, FINE SAND TO GRAVEL ONE AND ONE HALF INCHES IN DIAMETER; DRY
1808.00 - 1806.00	25.0 - 27.0	CLAY, DARK-YELLOWISH-BROWN, SANDY, PEBBLY; SATURATED AT 26 FEET (REWORKED SHALE?)
1806.00 - 1804.00	27.0 - 29.0	CLAY, DARK-YELLOWISH-BROWN, SILTY; SATURATED (REWORKED SHALE)
1804.00 - 1800.00	29.0 - 33.0	CLAYSTONE, DARK-GRAY; SATURATED (PIERRE SHALE)

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Location Information

Legal Location: NW NW NW NE SEC. 29, T. 043 N., R. 25 W.
County: MELLETTTE Location: 043N-25W-29ABBB
Basin: WHITE Latitude: 43 40' 51"
Hydrologic Unit Code: 10140204 Longitude: 100 19' 11"
Land Owner: Ground Surface Elevation (ft.): 1970 T

Project Information

Project: USGS Geologist:
Drill Date: Geologist's Log:
Company: USGS Driller:
Drilling Method: Driller's Log: X
Test Hole Number: Total Drill Hole Depth (ft.): 22.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1970.00 - 1968.00	0.0 - 2.0	CLAY, BROWN
1968.00 - 1966.00	2.0 - 4.0	SAND, MEDIUM
1966.00 - 1960.00	4.0 - 10.0	GRAVEL AND SAND, MEDIUM GRAVEL, COARSE SAND
1960.00 - 1956.00	10.0 - 14.0	SAND AND GRAVEL, COARSE SAND, MEDIUM GRAVEL
1956.00 - 1952.00	14.0 - 18.0	CLAY, YELLOW-BROWN
1952.00 - 1950.00	18.0 - 20.0	CLAY, DARK-BROWN
1950.00 - 1948.00	20.0 - 22.0	SHALE, DARK-GRAY

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Location Information

Legal Location:SE SW SE SE SEC. 31, T. 043 N., R. 25 W.
County:MELLETTTE Location:043N-25W-31DDCD
Basin:WHITE Latitude:43 39' 08"
Hydrologic Unit Code:10140204 Longitude:100 20' 10"
Land Owner: Ground Surface Elevation (ft.):2050 T

Project Information

Project:MELLETTTE-TODD CO. STUDY Geologist:M. JARRETT
Drill Date:07/21/1993 Geologist's Log:X
Company:SDGS Driller:G. DUCHOSSOIS
Drilling Method:AUGER Driller's Log:
Test Hole Number:A1-93-29 Total Drill Hole Depth (ft.):33.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2050.00 - 2048.00	0.0 - 2.0	TOPSOIL, BROWN
2048.00 - 2044.00	2.0 - 6.0	SAND, YELLOW-BROWN, FINE TO MEDIUM, GRAVELLY AT BASE, DRY
2044.00 - 2041.00	6.0 - 9.0	CLAY, YELLOWISH-BROWN, SANDY
2041.00 - 2030.00	9.0 - 20.0	SAND AND GRAVEL, YELLOWISH-BROWN, FINE SAND TO FINE PEBBLE GRAVEL; HIGHLY QUARTZOSE SAND, DRY
2030.00 - 2027.00	20.0 - 23.0	SILT, YELLOWISH-BROWN, VERY CLAYEY AND SANDY; SAND IS FINE-GRAINED, DRY
2027.00 - 2025.00	23.0 - 25.0	CLAY, YELLOWISH-BROWN, SILTY; CALCAREOUS
2025.00 - 2023.00	25.0 - 27.0	CLAYSTONE, YELLOWISH-BROWN; CALCAREOUS, WEATHERED (PIERRE SHALE)
2023.00 - 2021.00	27.0 - 29.0	CLAYSTONE, GRAY AND YELLOWISH-BROWN; CALCAREOUS, WEATHERED (PIERRE SHALE)
2021.00 - 2017.00	29.0 - 33.0	CLAYSTONE, DARK-GRAY; SLIGHTLY CALCAREOUS (PIERRE SHALE)

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Location Information

Legal Location:SE SE SE SE SEC. 32, T. 043 N., R. 25 W.
County:MELLETTTE Location:043N-25W-32DDDD
Basin:WHITE Latitude:43 39' 10"
Hydrologic Unit Code:10140204 Longitude:100 18' 37"
Land Owner: Ground Surface Elevation (ft.):2017 T

Project Information

Project:USGS Geologist:
Drill Date: Geologist's Log:
Company:USGS Driller:
Drilling Method: Driller's Log:X
Test Hole Number: Total Drill Hole Depth (ft.):102.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2017.00 - 2016.00	0.0 - 1.0	TOPSOIL AND SAND, FINE SAND
2016.00 - 2014.00	1.0 - 3.0	SILT, WHITE
2014.00 - 2007.00	3.0 - 10.0	SAND, LIGHT-TAN, FINE TO MEDIUM
2007.00 - 2003.00	10.0 - 14.0	SAND, VERY FINE TO FINE
2003.00 - 1993.00	14.0 - 24.0	SAND AND GRAVEL, MEDIUM TO COARSE SAND, FINE TO COARSE GRAVEL
1993.00 - 1967.00	24.0 - 50.0	SAND AND GRAVEL, COARSE TO VERY COARSE SAND, FINE TO COARSE GRAVEL
1967.00 - 1963.00	50.0 - 54.0	SAND, COARSE, CLAYEY; SOME MEDIUM GRAVEL
1963.00 - 1957.00	54.0 - 60.0	CLAY AND GRAVEL, MEDIUM GRAVEL
1957.00 - 1940.00	60.0 - 77.0	CLAY AND SAND, BROWN, MEDIUM SAND
1940.00 - 1918.00	77.0 - 99.0	SAND, FINE TO MEDIUM; MOIST AT 80 FEET
1918.00 - 1915.00	99.0 - 102.0	SHALE, DARK-GRAY

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Location Information

Legal Location:SE SE SE SE SEC. 32, T. 043 N., R. 25 W.
County:MELLETTTE Location:043N-25W-32DDDD 1
Basin:WHITE Latitude:43 39' 07"
Hydrologic Unit Code:10140204 Longitude:100 18' 37"
Land Owner: Ground Surface Elevation (ft.):2015 T

Project Information

Project:MELLETTTE-TODD CO. STUDY Geologist:M. JARRETT
Drill Date:07/21/1993 Geologist's Log:X
Company:SDGS Driller:J. REZAC
Drilling Method:AUGER Driller's Log:
Test Hole Number:A1-93-30 Total Drill Hole Depth (ft.):30.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2015.00 - 2013.00	0.0 - 2.0	TOPSOIL
2013.00 - 2011.00	2.0 - 4.0	CLAY, SANDY; SAND IS MEDIUM GRAIN SIZE
2011.00 - 1999.00	4.0 - 16.0	SAND, LIGHT-BROWN TO CLEAR, FINE; HIGHLY QUARTZOSE
1999.00 - 1997.00	16.0 - 18.0	SAND, CLAYEY; SOME GRAVEL TO HALF INCH IN DIAMETER
1997.00 - 1985.00	18.0 - 30.0	SAND, FINE; HIGHLY QUARTZOSE; AUGER STUCK, ABANDONED HOLE
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Location Information

Legal Location:NE SW SW SW SEC. 06, T. 043 N., R. 26 W.
County:MELLETTTE Location:043N-26W-06CCCA
Basin:WHITE Latitude:43 43' 34"
Hydrologic Unit Code:10140204 Longitude:100 28' 05"
Land Owner: Ground Surface Elevation (ft.):1700 T

Project Information

Project:USBR Geologist:
Drill Date:05/21/1964 Geologist's Log:
Company:USBR Driller:
Drilling Method: Driller's Log:X
Test Hole Number: Total Drill Hole Depth (ft.):30.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

DEPTH TO WATER: 12 FEET ON 05-21-1964.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1700.00 - 1698.50	0.0 - 1.5	LOAM, VERY FINE, SANDY
1698.50 - 1695.00	1.5 - 5.0	SAND, FINE, CLAYEY
1695.00 - 1690.00	5.0 - 10.0	SAND, FINE
1690.00 - 1680.50	10.0 - 19.5	SAND, MEDIUM
1680.50 - 1679.50	19.5 - 20.5	SHALE AND SILT
1679.50 - 1670.00	20.5 - 30.0	SHALE

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Location Information

Legal Location:NW NW NW SW SEC. 12, T. 043 N., R. 26 W.	
County:MELLETTTE	Location:043N-26W-12CBBB
Basin:WHITE	Latitude:43 43' 01"
Hydrologic Unit Code:10140203	Longitude:100 22' 13"
Land Owner:	Ground Surface Elevation (ft.):1866 T

Project Information

Project:MELLETTTE-TODD CO. STUDY	Geologist:R. HAMMOND
Drill Date:07/10/1996	Geologist's Log:X
Company:SDGS	Driller:G. JENSEN
Drilling Method:ROTARY	Driller's Log:
Test Hole Number:R-96-36	Total Drill Hole Depth (ft.):22.0
Samples:	

Geophysical Information

Spontaneous Potential:	Single Point Resistivity:
Natural Gamma:	Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1866.00 - 1864.00	0.0 - 2.0	TOPSOIL, BROWN
1864.00 - 1858.00	2.0 - 8.0	SILT, BROWN
1858.00 - 1849.00	8.0 - 17.0	SAND AND GRAVEL
1849.00 - 1844.00	17.0 - 22.0	SHALE, BLACK (PIERRE SHALE)

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Location Information

Legal Location: NW NW SW SW SEC. 24, T. 043 N., R. 26 W.
County: MELLETTE Location: 043N-26W-24CCBB
Basin: WHITE Latitude: 43 41' 03"
Hydrologic Unit Code: 10140203 Longitude: 100 22' 13"
Land Owner: Ground Surface Elevation (ft.): 1997 T

Project Information

Project: MELLETTE-TODD CO. STUDY Geologist: R. HAMMOND
Drill Date: 07/10/1996 Geologist's Log: X
Company: SDGS Driller: G. JENSEN
Drilling Method: ROTARY Driller's Log:
Test Hole Number: R2-96-35 Total Drill Hole Depth (ft.): 42.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1997.00 - 1995.00	0.0 - 2.0	TOPSOIL, BROWN
1995.00 - 1984.00	2.0 - 13.0	SAND AND GRAVEL
1984.00 - 1955.00	13.0 - 42.0	SHALE, BLACK (PIERRE SHALE)

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Location Information

Legal Location: SE SE NE SEC. 33, T. 043 N., R. 26 W.
County: MELLETTTE Location: 043N-26W-33ADD
Basin: WHITE Latitude: 43 39' 38"
Hydrologic Unit Code: 10140204 Longitude: 100 24' 40"
Land Owner: J. TILL Ground Surface Elevation (ft.): 1900 T

Project Information

Project: Geologist:
Drill Date: Geologist's Log:
Company: HURON DRILLING Driller:
Drilling Method: Driller's Log: X
Test Hole Number: Total Drill Hole Depth (ft.): 2172.0
Samples:

Well Information

SDGS Well Name: Aquifer:
Water Rights Well: Management Unit:
Other Well Name: PRIVATE Casing Top Elevation:
Casing Type: Casing Diameter (in.):
Screen Type: Screen Length (ft.):
Total Casing and Screen (ft.): Casing Stick-up (ft.):
Well Maintenance Date:

Geophysical Information

Spontaneous Potential: X Single Point Resistivity: X
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1900.00 - 1186.00	0.0 - 714.0	PIERRE SHALE
1186.00 - 1056.00	714.0 - 844.0	NIOBRARA FORMATION
1056.00 - 677.00	844.0 - 1223.0	CARLILE SHALE
677.00 - 570.00	1223.0 - 1330.0	GREENHORN LIMESTONE
570.00 - 390.00	1330.0 - 1510.0	GRANEROS SHALE
390.00 - 87.00	1510.0 - 1813.0	DAKOTA FORMATION
87.00 - -15.00	1813.0 - 1915.0	SKULL CREEK SHALE
-15.00 - -165.00	1915.0 - 2065.0	INYAN KARA GROUP
-165.00 - -205.00	2065.0 - 2105.0	UNDIFFERENTIATED MATERIAL; PRE-INYAN KARA - POST MINNELUSA
-205.00 - -272.00	2105.0 - 2172.0	MINNELUSA FORMATION

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Location Information

Legal Location: NW NW SW SW SEC. 36, T. 043 N., R. 26 W.
County: MELLETTTE Location: 043N-26W-36CCBB
Basin: WHITE Latitude: 43 39' 19"
Hydrologic Unit Code: 10140203 Longitude: 100 22' 13"
Land Owner: Ground Surface Elevation (ft.): 2043 T

Project Information

Project: MELLETTTE-TODD CO. STUDY Geologist: R. HAMMOND
Drill Date: 07/10/1996 Geologist's Log: X
Company: SDGS Driller: G. JENSEN
Drilling Method: ROTARY Driller's Log:
Test Hole Number: R2-96-34 Total Drill Hole Depth (ft.): 22.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2043.00 - 2041.00	0.0 - 2.0	TOPSOIL, BROWN
2041.00 - 2027.00	2.0 - 16.0	SILT, BROWN
2027.00 - 2021.00	16.0 - 22.0	SHALE, BLACK (PIERRE SHALE)

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Location Information

Legal Location:SE SE SE NE SEC. 08, T. 043 N., R. 27 W.
County:MELLETTTE Location:043N-27W-08ADDD
Basin:WHITE Latitude:43 43' 04"
Hydrologic Unit Code:10140204 Longitude:100 33' 00"
Land Owner: Ground Surface Elevation (ft.):1968 T

Project Information

Project:MELLETTTE-TODD CO. STUDY Geologist:M. JARRETT
Drill Date:07/27/1993 Geologist's Log:X
Company:SDGS Driller:J. REZAC
Drilling Method:AUGER Driller's Log:
Test Hole Number:A1-93-38 Total Drill Hole Depth (ft.):48.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1968.00 - 1966.00	0.0 - 2.0	TOPSOIL
1966.00 - 1962.00	2.0 - 6.0	CLAY, GRAY, SANDY
1962.00 - 1954.00	6.0 - 14.0	SAND, LIGHT-GRAYISH-BROWN, MEDIUM, WELL-SORTED; HIGHLY QUARTZOSE, CLEAN
1954.00 - 1927.00	14.0 - 41.0	SAND, LIGHT-GRAYISH-BROWN, MEDIUM; SOME GRAVEL AND SHALE PEBBLES
1927.00 - 1925.00	41.0 - 43.0	SAND WITH SHALE PEBBLES
1925.00 - 1920.00	43.0 - 48.0	CLAY, DARK-GRAY, PEBBLY
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Location Information

Legal Location:NE NW NW NW SEC. 21, T. 043 N., R. 27 W.
County:MELLETTTE Location:043N-27W-21BBBA
Basin:WHITE Latitude:43 41' 46"
Hydrologic Unit Code:10140204 Longitude:100 32' 52"
Land Owner: Ground Surface Elevation (ft.):2065 T

Project Information

Project:MELLETTTE-TODD CO. STUDY Geologist:M. JARRETT
Drill Date:07/27/1993 Geologist's Log:X
Company:SDGS Driller:G. DUCHOSSOIS
Drilling Method:AUGER Driller's Log:
Test Hole Number:A1-93-37 Total Drill Hole Depth (ft.):33.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2065.00 - 2062.00	0.0 - 3.0	TOPSOIL, DARK-BROWN
2062.00 - 2059.00	3.0 - 6.0	SAND AND SILT, YELLOWISH-BROWN, FINE; DRY
2059.00 - 2050.00	6.0 - 15.0	SAND AND GRAVEL, YELLOWISH-BROWN, FINE SAND TO ONE-INCH PEBBLES, CLAYEY FROM 8 TO 10 FEET
2050.00 - 2048.00	15.0 - 17.0	SAND, YELLOWISH-BROWN, FINE
2048.00 - 2036.00	17.0 - 29.0	CLAY, DARK-YELLOWISH-BROWN, SANDY; SATURATED AT 20 FEET (WEATHERED SHALE?)
2036.00 - 2032.00	29.0 - 33.0	CLAYSTONE, DARK-GRAY; SATURATED (PIERRE SHALE)

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Location Information

Legal Location: SW SW SEC. 27, T. 043 N., R. 27 W.
County: MELLETTTE Location: 043N-27W-27CC
Basin: WHITE Latitude: 43 40' 07"
Hydrologic Unit Code: 10140204 Longitude: 100 31' 37"
Land Owner: H. SHERWOOD Ground Surface Elevation (ft.): 2140 T

Project Information

Project: Geologist:
Drill Date: 12/28/1984 Geologist's Log:
Company: JURACEK WELL BORING Driller:
Drilling Method: BORED Driller's Log: X
Test Hole Number: Total Drill Hole Depth (ft.): 84.0
Samples:

Well Information

SDGS Well Name: Aquifer:
Water Rights Well: Management Unit:
Other Well Name: PRIVATE Casing Top Elevation:
Casing Type: CEMENT Casing Diameter (in.):
Screen Type: HAYDITE TILE Screen Length (ft.): 30.0
Total Casing and Screen (ft.): Casing Stick-up (ft.):
Well Maintenance Date:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2140.00 - 2138.00	0.0 - 2.0	TOPSOIL
2138.00 - 2087.00	2.0 - 53.0	SAND; DRY
2087.00 - 2060.00	53.0 - 80.0	SAND AND WATER
2060.00 - 2056.00	80.0 - 84.0	SHALE

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Location Information

Legal Location: NE SE SEC. 30, T. 043 N., R. 27 W.
County: MELLETTTE Location: 043N-27W-30DA
Basin: WHITE Latitude: 43 40' 20"
Hydrologic Unit Code: 10140204 Longitude: 100 34' 19"
Land Owner: D. OBRYAN Ground Surface Elevation (ft.): 2100 T

Project Information

Project: Geologist:
Drill Date: 09/14/1984 Geologist's Log:
Company: SUMMERS DRILLING Driller:
Drilling Method: BORED Driller's Log: X
Test Hole Number: Total Drill Hole Depth (ft.): 30.0
Samples:

Well Information

SDGS Well Name: Aquifer:
Water Rights Well: Management Unit:
Other Well Name: PRIVATE Casing Top Elevation:
Casing Type: CEMENT TILE Casing Diameter (in.):
Screen Type: Screen Length (ft.):
Total Casing and Screen (ft.): Casing Stick-up (ft.):
Well Maintenance Date:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2100.00 - 2099.00	0.0 - 1.0	TOPSOIL
2099.00 - 2090.00	1.0 - 10.0	SAND AND GRAVEL
2090.00 - 2070.00	10.0 - 30.0	CLAY, GRAVEL AND SHALE

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Location Information

Legal Location:SW SW SW NW SEC. 01, T. 043 N., R. 28 W.
County:MELLETTTE Location:043N-28W-01BCCC
Basin:WHITE Latitude:43 43' 55"
Hydrologic Unit Code:10140204 Longitude:100 36' 33"
Land Owner: Ground Surface Elevation (ft.):1968 T

Project Information

Project:USGS Geologist:
Drill Date: Geologist's Log:
Company:USGS Driller:
Drilling Method: Driller's Log:X
Test Hole Number: Total Drill Hole Depth (ft.):30.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1968.00 - 1965.00	0.0 - 3.0	TOPSOIL
1965.00 - 1959.00	3.0 - 9.0	SILT, SANDY
1959.00 - 1954.00	9.0 - 14.0	SAND, FINE TO MEDIUM
1954.00 - 1949.00	14.0 - 19.0	SAND AND GRAVEL, MEDIUM SAND, MEDIUM GRAVEL
1949.00 - 1946.00	19.0 - 22.0	SAND AND GRAVEL, COARSE
1946.00 - 1938.00	22.0 - 30.0	CLAY, LIGHT-TAN; DARK-GRAY SHALE, BIT SAMPLE
		* * * *

Location Information

Legal Location:SE SE SE NE SEC. 02, T. 043 N., R. 28 W.
County:MELLETTTE Location:043N-28W-02ADDD
Basin:WHITE Latitude:43 43' 56"
Hydrologic Unit Code:10140204 Longitude:100 36' 36"
Land Owner: Ground Surface Elevation (ft.):1965 T

Project Information

Project:MELLETTTE-TODD CO. STUDY Geologist:M. JARRETT
Drill Date:07/28/1993 Geologist's Log:X
Company:SDGS Driller:G. DUCHOSSOIS
Drilling Method:AUGER Driller's Log:
Test Hole Number:A1-93-41 Total Drill Hole Depth (ft.):28.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1965.00 - 1961.00	0.0 - 4.0	TOPSOIL, DARK-BROWN
1961.00 - 1958.00	4.0 - 7.0	CLAY, DARK-YELLOWISH-BROWN, SILTY
1958.00 - 1954.00	7.0 - 11.0	SAND, FINE, CLAYEY, SILTY; SOME MEDIUM TO COARSE SAND, DRY
1954.00 - 1945.00	11.0 - 20.0	SAND, YELLOWISH-BROWN, FINE TO MEDIUM; SOME FINE PEBBLES, DRY
1945.00 - 1943.00	20.0 - 22.0	SAND, MODERATE-BROWN, FINE TO MEDIUM, CLAYEY
1943.00 - 1940.00	22.0 - 25.0	GRAVEL, FINE; MOSTLY SHALE PEBBLES
1940.00 - 1937.00	25.0 - 28.0	CLAYSTONE, DARK-GRAY (PIERRE SHALE)

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Location Information

Legal Location:SW SE SE SW SEC. 03, T. 043 N., R. 28 W.
County:MELLETTTE Location:043N-28W-03CDDC
Basin:WHITE Latitude:43 43' 31"
Hydrologic Unit Code:10140204 Longitude:100 38' 34"
Land Owner: Ground Surface Elevation (ft.):1975 T

Project Information

Project:MELLETTTE-TODD CO. STUDY Geologist:M. JARRETT
Drill Date:07/28/1993 Geologist's Log:X
Company:SDGS Driller:J. REZAC
Drilling Method:AUGER Driller's Log:
Test Hole Number:A1-93-40 Total Drill Hole Depth (ft.):11.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1975.00 - 1973.00	0.0 - 2.0	TOPSOIL, DARK-BROWN
1973.00 - 1970.00	2.0 - 5.0	CLAY, BROWN, SANDY
1970.00 - 1966.00	5.0 - 9.0	SAND, LIGHT-YELLOWISH-BROWN, FINE, SILTY
1966.00 - 1964.00	9.0 - 11.0	SILT, LIGHT-OLIVE-GRAY, CLAYEY; DRY

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Location Information

Legal Location:SW SW SW SE SEC. 03, T. 043 N., R. 28 W.
County:MELLETTTE Location:043N-28W-03DCCC
Basin:WHITE Latitude:43 43' 30"
Hydrologic Unit Code:10140204 Longitude:100 38' 23"
Land Owner: Ground Surface Elevation (ft.):1970 T

Project Information

Project:USGS Geologist:
Drill Date:08/15/1966 Geologist's Log:
Company:USGS Driller:
Drilling Method: Driller's Log:
Test Hole Number: Total Drill Hole Depth (ft.):39.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

DEPTH TO WATER: ABOUT 33 FEET ON 08-15-1966.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1970.00 - 1968.00	0.0 - 2.0	SILT
1968.00 - 1955.00	2.0 - 15.0	SAND, LIGHT-BROWN, VERY FINE
1955.00 - 1945.00	15.0 - 25.0	SAND, FINE, SILTY
1945.00 - 1940.00	25.0 - 30.0	SAND AND GRAVEL, MEDIUM SAND, SMALL GRAVEL
1940.00 - 1934.00	30.0 - 36.0	SAND AND GRAVEL, MEDIUM, CLAYEY
1934.00 - 1931.00	36.0 - 39.0	SHALE, DARK-GRAY

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Location Information

Legal Location:SE SE SW SE SEC. 04, T. 043 N., R. 28 W.
County:MELLETTTE Location:043N-28W-04DCDD
Basin:WHITE Latitude:43 43' 30"
Hydrologic Unit Code:10140204 Longitude:100 39' 19"
Land Owner: Ground Surface Elevation (ft.):1785 T

Project Information

Project:LITTE WHITE RIVER VALLEY Geologist:A. BARARI
Drill Date:01/01/1969 Geologist's Log:X
Company:FERGUSON-MEADOR Driller:
Drilling Method: Driller's Log:
Test Hole Number:1 Total Drill Hole Depth (ft.):28.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

DEPTH TO WATER: 10 FEET.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1785.00 - 1784.00	0.0 - 1.0	TOPSOIL
1784.00 - 1773.00	1.0 - 12.0	CLAY, YELLOWISH-BROWN
1773.00 - 1765.00	12.0 - 20.0	CLAY AND GRAVEL
1765.00 - 1760.00	20.0 - 25.0	GRAVEL
1760.00 - 1757.00	25.0 - 28.0	SHALE, DARK-GRAY
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Location Information

Legal Location: NE SW SW SEC. 08, T. 043 N., R. 28 W.
County: MELLETTTE Location: 043N-28W-08CCA 1
Basin: WHITE Latitude: 43 42' 47"
Hydrologic Unit Code: 10140202 Longitude: 100 41' 11"
Land Owner: Ground Surface Elevation (ft.): 1785 T

Project Information

Project: USGS Geologist:
Drill Date: 08/09/1966 Geologist's Log:
Company: USGS Driller:
Drilling Method: Driller's Log: X
Test Hole Number: Total Drill Hole Depth (ft.): 24.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

DEPTH TO WATER: 10.5 FEET ON 08-09-1966.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1785.00 - 1778.00	0.0 - 7.0	SILT, WHITE
1778.00 - 1775.00	7.0 - 10.0	CLAY, BROWN
1775.00 - 1770.00	10.0 - 15.0	SAND, MEDIUM; CLEAN
1770.00 - 1762.00	15.0 - 23.0	SAND, MEDIUM TO COARSE; CLEAN
1762.00 - 1761.00	23.0 - 24.0	SHALE, DARK-GRAY
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Location Information

Legal Location: SE SW SW SEC. 08, T. 043 N., R. 28 W.
County: MELLETTTE Location: 043N-28W-08CCD
Basin: WHITE Latitude: 43 42' 39"
Hydrologic Unit Code: 10140202 Longitude: 100 41' 11"
Land Owner: Ground Surface Elevation (ft.): 1790 T

Project Information

Project: USGS Geologist:
Drill Date: 08/09/1966 Geologist's Log:
Company: USGS Driller:
Drilling Method: Driller's Log: X
Test Hole Number: Total Drill Hole Depth (ft.): 25.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

DEPTH TO WATER: 11.1 FEET ON 08-09-1966.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1790.00 - 1783.00	0.0 - 7.0	SILT
1783.00 - 1778.00	7.0 - 12.0	CLAY, LIGHT-BROWN
1778.00 - 1773.00	12.0 - 17.0	SAND, VERY FINE TO FINE
1773.00 - 1766.00	17.0 - 24.0	SAND AND GRAVEL, COARSE SAND, MEDIUM GRAVEL; CLEAN
1766.00 - 1765.00	24.0 - 25.0	SHALE, DARK-GRAY

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Location Information

Legal Location:SW SE SW SW SEC. 08, T. 043 N., R. 28 W.
County:MELLETTTE Location:043N-28W-08CCDC
Basin:WHITE Latitude:43 42' 37"
Hydrologic Unit Code:10140202 Longitude:100 41' 11"
Land Owner: Ground Surface Elevation (ft.):1785 T

Project Information

Project:WATER RIGHTS Geologist:D. DRISCOLL
Drill Date:08/08/1957 Geologist's Log:X
Company:GRIMSHAW DRILLING Driller:J. HUTMACHER
Drilling Method: Driller's Log:
Test Hole Number: Total Drill Hole Depth (ft.):30.0
Samples:

Well Information

SDGS Well Name: Aquifer:ALLUVIUM
Water Rights Well:MT-57A Management Unit:
Other Well Name:W-3 Casing Top Elevation:
Casing Type:STEEL Casing Diameter (in.):1.5
Screen Type:STEEL Screen Length (ft.):
Total Casing and Screen (ft.):23.6 Casing Stick-up (ft.):
Well Maintenance Date:06/14/1984

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

TWO CASING SIZES, 12 FEET OF 1.5 INCHES AND 9 FEET OF 1.25 INCHES.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1785.00 - 1780.00	0.0 - 5.0	TOPSOIL, SILTY, SANDY
1780.00 - 1769.00	5.0 - 16.0	CLAY, GRAY
1769.00 - 1761.00	16.0 - 24.0	SAND, FINE
1761.00 - 1755.00	24.0 - 30.0	SHALE

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Location Information

Legal Location:NE NE NE NE SEC. 09, T. 043 N., R. 28 W.
County:MELLETTTE Location:043N-28W-09AAAA
Basin:WHITE Latitude:43 43' 28"
Hydrologic Unit Code:10140203 Longitude:100 39' 03"
Land Owner: Ground Surface Elevation (ft.):1800 T

Project Information

Project:MELLETTTE-TODD CO. STUDY Geologist:M. JARRETT
Drill Date:07/28/1993 Geologist's Log:X
Company:SDGS Driller:G. DUCHOSSOIS
Drilling Method:AUGER Driller's Log:
Test Hole Number:A1-93-39 Total Drill Hole Depth (ft.):34.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1800.00 - 1799.00	0.0 - 1.0	TOPSOIL, BROWN
1799.00 - 1798.00	1.0 - 2.0	SAND, FINE TO MEDIUM
1798.00 - 1791.00	2.0 - 9.0	SILT, YELLOWISH-BROWN, SANDY; DRY
1791.00 - 1786.00	9.0 - 14.0	SILT, CLAYEY, SANDY; DRILLS HARD
1786.00 - 1781.00	14.0 - 19.0	CLAY, DARK-YELLOW-BROWN, SILTY; DRY
1781.00 - 1776.00	19.0 - 24.0	CLAY, MODERATE-BROWN; SATURATED
1776.00 - 1773.00	24.0 - 27.0	SILT, MODERATE-BROWN, SANDY, CLAYEY; SATURATED, SOFT
1773.00 - 1769.00	27.0 - 31.0	SILT, LIGHT-BROWN, SANDY; SATURATED, SOFT
1769.00 - 1766.00	31.0 - 34.0	CLAYSTONE, DARK-GRAY; SLIGHTLY BENTONITIC, HARD (PIERRE SHALE)

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Location Information

Legal Location: NW NW NW NE SEC. 09, T. 043 N., R. 28 W.
County: MELLETTTE Location: 043N-28W-09ABBB
Basin: WHITE Latitude: 43 43' 27"
Hydrologic Unit Code: 10140203 Longitude: 100 39' 35"
Land Owner: Ground Surface Elevation (ft.): 1782 T

Project Information

Project: LITTE WHITE RIVER VALLEY Geologist: A. BARARI
Drill Date: 01/01/1969 Geologist's Log: X
Company: FERGUSON-MEADOR Driller:
Drilling Method: Driller's Log:
Test Hole Number: 2 Total Drill Hole Depth (ft.): 28.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

DEPTH TO WATER: 6 FEET.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1782.00 - 1781.00	0.0 - 1.0	TOPSOIL
1781.00 - 1778.00	1.0 - 4.0	SAND, LIGHT-BROWN, MEDIUM
1778.00 - 1762.00	4.0 - 20.0	SAND, COARSE TO VERY COARSE
1762.00 - 1756.00	20.0 - 26.0	SAND AND GRAVEL
1756.00 - 1754.00	26.0 - 28.0	CLAY
		* * * *

Location Information

Legal Location:SW SE NW NE SEC. 09, T. 043 N., R. 28 W.
County:MELLETTTE Location:043N-28W-09ABDC
Basin:WHITE Latitude:43 43' 15"
Hydrologic Unit Code:10140203 Longitude:100 39' 25"
Land Owner: Ground Surface Elevation (ft.):1782 T

Project Information

Project:LITTE WHITE RIVER VALLEY Geologist:A. BARARI
Drill Date:01/01/1969 Geologist's Log:X
Company:FERGUSON-MEADOR Driller:
Drilling Method: Driller's Log:
Test Hole Number:3 Total Drill Hole Depth (ft.):24.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

DEPTH TO WATER: 7 FEET.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1782.00 - 1781.00	0.0 - 1.0	TOPSOIL
1781.00 - 1775.00	1.0 - 7.0	SAND, MEDIUM
1775.00 - 1768.00	7.0 - 14.0	SAND, MEDIUM TO COARSE
1768.00 - 1759.00	14.0 - 23.0	SAND AND GRAVEL
1759.00 - 1758.00	23.0 - 24.0	SHALE, GRAY
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Location Information

Legal Location:SE NE SW NE SEC. 09, T. 043 N., R. 28 W.
County:MELLETTTE Location:043N-28W-09ACAD
Basin:WHITE Latitude:43 43' 09"
Hydrologic Unit Code:10140203 Longitude:100 39' 17"
Land Owner: Ground Surface Elevation (ft.):1791 T

Project Information

Project:LITTE WHITE RIVER VALLEY Geologist:A. BARARI
Drill Date:01/01/1969 Geologist's Log:X
Company:FERGUSON-MEADOR Driller:
Drilling Method: Driller's Log:
Test Hole Number:5 Total Drill Hole Depth (ft.):26.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

DEPTH TO WATER: 6 FEET.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1791.00 - 1783.00	0.0 - 8.0	SAND, LIGHT-BROWN, GRADING TO GRAY, COARSE, WELL-SORTED
1783.00 - 1773.00	8.0 - 18.0	SAND, COARSE
1773.00 - 1770.00	18.0 - 21.0	SAND, COARSE TO VERY COARSE; SOME CLAY
1770.00 - 1765.00	21.0 - 26.0	CLAY, GRAY
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Location Information

Legal Location: SE SE NE SEC. 09, T. 043 N., R. 28 W.
County: MELLETTTE Location: 043N-28W-09ADD
Basin: WHITE Latitude: 43 43' 04"
Hydrologic Unit Code: 10140203 Longitude: 100 39' 04"
Land Owner: Ground Surface Elevation (ft.): 1785 T

Project Information

Project: USGS Geologist:
Drill Date: 08/10/1966 Geologist's Log:
Company: USGS Driller:
Drilling Method: Driller's Log: X
Test Hole Number: Total Drill Hole Depth (ft.): 22.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

DEPTH TO WATER: 4 FEET ON 08-10-1966.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1785.00 - 1780.00	0.0 - 5.0	SAND, WHITE, FINE
1780.00 - 1765.00	5.0 - 20.0	SAND, DARK-GRAY, FINE TO MEDIUM
1765.00 - 1763.00	20.0 - 22.0	SHALE, DARK-GRAY

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Location Information

Legal Location:SE SE SE NE SEC. 09, T. 043 N., R. 28 W.
County:MELLETTTE Location:043N-28W-09ADDD
Basin:WHITE Latitude:43 43' 02"
Hydrologic Unit Code:10140203 Longitude:100 38' 30"
Land Owner: Ground Surface Elevation (ft.):1799 T

Project Information

Project:LITTLE WHITE RIVER VALLEY Geologist:A. BARARI
Drill Date:01/01/1969 Geologist's Log:X
Company:FERGUSON-MEADOR Driller:
Drilling Method: Driller's Log:
Test Hole Number:6 Total Drill Hole Depth (ft.):23.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

DEPTH TO WATER: 6 FEET.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1799.00 - 1798.00	0.0 - 1.0	TOPSOIL
1798.00 - 1794.00	1.0 - 5.0	SAND, MEDIUM
1794.00 - 1781.00	5.0 - 18.0	SAND, GRAY, MEDIUM; SOME CLAY
1781.00 - 1776.00	18.0 - 23.0	SHALE

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Location Information

Legal Location:NE NE SE NW SEC. 09, T. 043 N., R. 28 W.
County:MELLETTTE Location:043N-28W-09BDAA
Basin:WHITE Latitude:43 43' 01"
Hydrologic Unit Code:10140203 Longitude:100 39' 36"
Land Owner: Ground Surface Elevation (ft.):1783 T

Project Information

Project:LITTLE WHITE RIVER VALLEY Geologist:A. BARARI
Drill Date:01/01/1969 Geologist's Log:X
Company:FERGUSON-MEADOR Driller:
Drilling Method: Driller's Log:
Test Hole Number:4 Total Drill Hole Depth (ft.):25.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

DEPTH TO WATER: 7 FEET.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1783.00 - 1779.00	0.0 - 4.0	CLAY
1779.00 - 1775.00	4.0 - 8.0	SAND, GRAY, MEDIUM TO FINE
1775.00 - 1765.00	8.0 - 18.0	SAND, MEDIUM
1765.00 - 1762.00	18.0 - 21.0	SAND, COARSE; SOME PEBBLES
1762.00 - 1758.00	21.0 - 25.0	SHALE, GRAY
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Location Information

Legal Location: SE NW SE SEC. 09, T. 043 N., R. 28 W.
County: MELLETTTE Location: 043N-28W-09DBD
Basin: WHITE Latitude: 43 42' 53"
Hydrologic Unit Code: 10140203 Longitude: 100 39' 23"
Land Owner: Ground Surface Elevation (ft.): 1790 T

Project Information

Project: USGS Geologist:
Drill Date: Geologist's Log:
Company: USGS Driller:
Drilling Method: Driller's Log: X
Test Hole Number: Total Drill Hole Depth (ft.): 27.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1790.00 - 1770.00	0.0 - 20.0	SAND, FINE; MOIST AT 18 FEET
1770.00 - 1763.00	20.0 - 27.0	SHALE, DARK-GRAY
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Location Information

Legal Location: SW SW NW SEC. 10, T. 043 N., R. 28 W.
County: MELLETTTE Location: 043N-28W-10BCC
Basin: WHITE Latitude: 43 43' 04"
Hydrologic Unit Code: 10140203 Longitude: 100 38' 53"
Land Owner: Ground Surface Elevation (ft.): 1790 T

Project Information

Project: USGS Geologist:
Drill Date: 08/10/1966 Geologist's Log:
Company: USGS Driller:
Drilling Method: Driller's Log: X
Test Hole Number: Total Drill Hole Depth (ft.): 24.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

DEPTH TO WATER: 6.8 FEET ON 08-10-1966.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1790.00 - 1789.50	0.0 - 0.5	SILT
1789.50 - 1780.00	0.5 - 10.0	CLAY, BROWN
1780.00 - 1768.00	10.0 - 22.0	SAND, VERY FINE, SILTY
1768.00 - 1766.00	22.0 - 24.0	SHALE, DARK-GRAY

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Location Information

Legal Location:NE NE NE NE SEC. 11, T. 043 N., R. 28 W.
County:MELLETTTE Location:043N-28W-11AAAA
Basin:WHITE Latitude:43 43' 27"
Hydrologic Unit Code:10140204 Longitude:100 36' 37"
Land Owner: Ground Surface Elevation (ft.):1980 T

Project Information

Project:USGS Geologist:
Drill Date: Geologist's Log:
Company:USGS Driller:
Drilling Method: Driller's Log:X
Test Hole Number: Total Drill Hole Depth (ft.):47.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1980.00 - 1970.00	0.0 - 10.0	CLAY, LIGHT-BROWN; MIXED WITH SOME FINE SAND
1970.00 - 1965.00	10.0 - 15.0	CLAY, TAN
1965.00 - 1963.00	15.0 - 17.0	CLAY, TAN; WITH PEBBLES
1963.00 - 1960.00	17.0 - 20.0	SAND AND GRAVEL, COARSE SAND
1960.00 - 1953.00	20.0 - 27.0	SAND, LIGHT-TAN, FINE TO VERY FINE; TRACE OF PEBBLES
1953.00 - 1945.00	27.0 - 35.0	SAND, MEDIUM; TRACE OF GRAVEL
1945.00 - 1933.00	35.0 - 47.0	NO SAMPLES

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Location Information

Legal Location:SW SW SW NW SEC. 12, T. 043 N., R. 28 W.
County:MELLETTTE Location:043N-28W-12BCCC
Basin:WHITE Latitude:43 43' 03"
Hydrologic Unit Code:10140204 Longitude:100 36' 34"
Land Owner: Ground Surface Elevation (ft.):2065 T

Project Information

Project:USGS Geologist:
Drill Date: Geologist's Log:
Company:USGS Driller:
Drilling Method: Driller's Log:X
Test Hole Number: Total Drill Hole Depth (ft.):27.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2065.00 - 2062.00	0.0 - 3.0	TOPSOIL
2062.00 - 2055.00	3.0 - 10.0	SILT AND SAND, VERY FINE
2055.00 - 2050.00	10.0 - 15.0	SAND AND GRAVEL, MEDIUM SAND, MEDIUM TO COARSE GRAVEL
2050.00 - 2045.00	15.0 - 20.0	GRAVEL AND SAND, COARSE GRAVEL, MEDIUM SAND, CLAYEY
2045.00 - 2040.00	20.0 - 25.0	CLAY, BROWN TO YELLOW
2040.00 - 2038.00	25.0 - 27.0	SHALE, DARK-GRAY

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Location Information

Legal Location:SW SW SW SW SEC. 12, T. 043 N., R. 28 W.
County:MELLETTTE Location:043N-28W-12CCCC
Basin:WHITE Latitude:43 42' 37"
Hydrologic Unit Code:10140204 Longitude:100 36' 34"
Land Owner: Ground Surface Elevation (ft.):2075 T

Project Information

Project:USGS Geologist:
Drill Date:08/16/1966 Geologist's Log:
Company:USGS Driller:
Drilling Method: Driller's Log:X
Test Hole Number: Total Drill Hole Depth (ft.):42.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

DEPTH TO WATER: ABOUT 20 FEET ON 08-16-1966.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2075.00 - 2073.00	0.0 - 2.0	TOPSOIL
2073.00 - 2072.00	2.0 - 3.0	SILT
2072.00 - 2066.00	3.0 - 9.0	CLAY, LIGHT-BROWN
2066.00 - 2059.00	9.0 - 16.0	SAND, MEDIUM; CLEAN
2059.00 - 2055.00	16.0 - 20.0	SAND AND GRAVEL, MEDIUM TO COARSE SAND, FINE GRAVEL
2055.00 - 2052.00	20.0 - 23.0	SAND AND GRAVEL, COARSE SAND, MEDIUM GRAVEL
2052.00 - 2048.00	23.0 - 27.0	SAND, COARSE
2048.00 - 2040.00	27.0 - 35.0	CLAY AND SAND, GRAY, MEDIUM SAND
2040.00 - 2035.00	35.0 - 40.0	SAND, GRAY, MEDIUM, CLAYEY
2035.00 - 2033.00	40.0 - 42.0	SHALE, DARK-GRAY

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Location Information

Legal Location:SE NW SW NE SEC. 15, T. 043 N., R. 28 W.
County:MELLETTTE Location:043N-28W-15ACBD
Basin:WHITE Latitude:43 42' 19"
Hydrologic Unit Code:10140203 Longitude:100 38' 15"
Land Owner: Ground Surface Elevation (ft.):1795 T

Project Information

Project:LITTLE WHITE RIVER VALLEY Geologist:A. BARARI
Drill Date:01/01/1969 Geologist's Log:X
Company:FERGUSON-MEADOR Driller:
Drilling Method: Driller's Log:
Test Hole Number:9 Total Drill Hole Depth (ft.):23.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

DEPTH TO WATER: 4 FEET.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1795.00 - 1793.00	0.0 - 2.0	TOPSOIL
1793.00 - 1788.00	2.0 - 7.0	SAND, FINE; SOME CLAY
1788.00 - 1780.00	7.0 - 15.0	SAND, GRAY, MEDIUM TO COARSE
1780.00 - 1772.00	15.0 - 23.0	CLAY, GRAY

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Location Information

Legal Location:SE SW SW NE SEC. 15, T. 043 N., R. 28 W.
County:MELLETTTE Location:043N-28W-15ACCD
Basin:WHITE Latitude:43 42' 10"
Hydrologic Unit Code:10140203 Longitude:100 38' 15"
Land Owner: Ground Surface Elevation (ft.):1798 T

Project Information

Project:LITTLE WHITE RIVER VALLEY Geologist:A. BARARI
Drill Date:01/01/1969 Geologist's Log:X
Company:FERGUSON-MEADOR Driller:
Drilling Method: Driller's Log:
Test Hole Number:10 Total Drill Hole Depth (ft.):17.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

DEPTH TO WATER: 6 FEET.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1798.00 - 1797.00	0.0 - 1.0	TOPSOIL
1797.00 - 1791.00	1.0 - 7.0	SAND; SOME CLAY
1791.00 - 1783.00	7.0 - 15.0	SAND, MEDIUM TO COARSE, WELL-SORTED
1783.00 - 1781.00	15.0 - 17.0	CLAY, GRAY

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Location Information

Legal Location:SW NE NE NW SEC. 15, T. 043 N., R. 28 W.
County:MELLETTTE Location:043N-28W-15BAAC
Basin:WHITE Latitude:43 42' 31"
Hydrologic Unit Code:10140203 Longitude:100 38' 32"
Land Owner: Ground Surface Elevation (ft.):1794 T

Project Information

Project:LITTLE WHITE RIVER VALLEY Geologist:A. BARARI
Drill Date:01/01/1969 Geologist's Log:X
Company:FERGUSON-MEADOR Driller:
Drilling Method: Driller's Log:
Test Hole Number:8 Total Drill Hole Depth (ft.):18.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

DEPTH TO WATER: 4 FEET.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1794.00 - 1792.00	0.0 - 2.0	TOPSOIL
1792.00 - 1790.00	2.0 - 4.0	SAND, BROWN, FINE TO MEDIUM
1790.00 - 1782.00	4.0 - 12.0	SAND, BROWN CHANGING TO GRAY, MEDIUM
1782.00 - 1776.00	12.0 - 18.0	CLAY, DARK-GRAY (SHALE)

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Location Information

Legal Location: NW NE NW NW SEC. 15, T. 043 N., R. 28 W.
County: MELLETTTE Location: 043N-28W-15BBAB
Basin: WHITE Latitude: 43 42' 35"
Hydrologic Unit Code: 10140203 Longitude: 100 37' 48"
Land Owner: Ground Surface Elevation (ft.): 1794 T

Project Information

Project: LITTLE WHITE RIVER VALLEY Geologist: A. BARARI
Drill Date: 01/01/1969 Geologist's Log: X
Company: FERGUSON-MEADOR Driller:
Drilling Method: Driller's Log:
Test Hole Number: 7 Total Drill Hole Depth (ft.): 27.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

DEPTH TO WATER: 4 FEET.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1794.00 - 1792.00	0.0 - 2.0	TOPSOIL
1792.00 - 1790.00	2.0 - 4.0	SAND, FINE, SILTY
1790.00 - 1785.00	4.0 - 9.0	SAND, BROWN, MEDIUM TO COARSE
1785.00 - 1767.00	9.0 - 27.0	CLAY, DARK-GRAY (SHALE)

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Location Information

Legal Location:SE NE NW SE SEC. 15, T. 043 N., R. 28 W.
County:MELLETTTE Location:043N-28W-15DBAD
Basin:WHITE Latitude:43 42' 05"
Hydrologic Unit Code:10140203 Longitude:100 38' 07"
Land Owner: Ground Surface Elevation (ft.):1802 T

Project Information

Project:LITTLE WHITE RIVER VALLEY Geologist:A. BARARI
Drill Date:01/01/1969 Geologist's Log:X
Company:FERGUSON-MEADOR Driller:
Drilling Method: Driller's Log:
Test Hole Number:11 Total Drill Hole Depth (ft.):18.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

DEPTH TO WATER: 6 FEET.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1802.00 - 1801.00	0.0 - 1.0	TOPSOIL
1801.00 - 1797.00	1.0 - 5.0	SAND, BROWN, MEDIUM TO COARSE
1797.00 - 1785.00	5.0 - 17.0	SAND, GRAY; SOME PEBBLES
1785.00 - 1784.00	17.0 - 18.0	SHALE

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Location Information

Legal Location:SW NW SE SE SEC. 15, T. 043 N., R. 28 W.
County:MELLETTTE Location:043N-28W-15DDBC
Basin:WHITE Latitude:43 41' 53"
Hydrologic Unit Code:10140203 Longitude:100 38' 03"
Land Owner: Ground Surface Elevation (ft.):1805 T

Project Information

Project:LITTLE WHITE RIVER VALLEY Geologist:A. BARARI
Drill Date:01/01/1969 Geologist's Log:X
Company:FERGUSON-MEADOR Driller:
Drilling Method: Driller's Log:
Test Hole Number:12 Total Drill Hole Depth (ft.):23.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

DEPTH TO WATER: 7 FEET.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1805.00 - 1804.00	0.0 - 1.0	TOPSOIL
1804.00 - 1801.00	1.0 - 4.0	SAND, BROWN, FINE
1801.00 - 1797.00	4.0 - 8.0	SAND, MEDIUM
1797.00 - 1787.50	8.0 - 17.5	SAND, MEDIUM; SOME CLAY
1787.50 - 1782.00	17.5 - 23.0	CLAY, DARK-GRAY (SHALE)
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Location Information

Legal Location: NE NW NW SEC. 17, T. 043 N., R. 28 W.
County: MELLETTTE Location: 043N-28W-17BBA
Basin: WHITE Latitude: 43 42' 33"
Hydrologic Unit Code: 10140202 Longitude: 100 41' 08"
Land Owner: Ground Surface Elevation (ft.): 1795 T

Project Information

Project: USGS Geologist:
Drill Date: 08/09/1966 Geologist's Log:
Company: USGS Driller:
Drilling Method: Driller's Log: X
Test Hole Number: Total Drill Hole Depth (ft.): 27.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

DEPTH TO WATER: 11.6 FEET ON 08-09-1966.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1795.00 - 1785.00	0.0 - 10.0	SILT, LIGHT-BROWN
1785.00 - 1780.00	10.0 - 15.0	CLAY, BROWN
1780.00 - 1774.00	15.0 - 21.0	SAND, COARSE
1774.00 - 1772.00	21.0 - 23.0	SAND, COARSE; FINE GRAVEL
1772.00 - 1768.00	23.0 - 27.0	SHALE, DARK-GRAY
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Location Information

Legal Location: SW NW SE SEC. 18, T. 043 N., R. 28 W.
County: MELLETTTE Location: 043N-28W-18DBC
Basin: WHITE Latitude: 43 42' 00"
Hydrologic Unit Code: 10140202 Longitude: 100 41' 55"
Land Owner: Ground Surface Elevation (ft.): 1990 T

Project Information

Project: USGS Geologist:
Drill Date: Geologist's Log:
Company: USGS Driller:
Drilling Method: Driller's Log: X
Test Hole Number: Total Drill Hole Depth (ft.): 37.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1990.00 - 1982.00	0.0 - 8.0	SILT
1982.00 - 1979.00	8.0 - 11.0	SAND AND GRAVEL, COARSE SAND, FINE GRAVEL
1979.00 - 1976.00	11.0 - 14.0	GRAVEL, COARSE
1976.00 - 1971.00	14.0 - 19.0	CLAY AND GRAVEL, MEDIUM GRAVEL
1971.00 - 1963.00	19.0 - 27.0	CLAY AND SAND, COARSE SAND
1963.00 - 1960.00	27.0 - 30.0	CLAY, DARK-BROWN TO GRAY
1960.00 - 1953.00	30.0 - 37.0	SHALE, DARK-GRAY

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Location Information

Legal Location:NE SE NW NE SEC. 22, T. 043 N., R. 28 W.
County:MELLETTTE Location:043N-28W-22ABDA
Basin:WHITE Latitude:43 41' 37"
Hydrologic Unit Code:10140203 Longitude:100 38' 03"
Land Owner: Ground Surface Elevation (ft.):1814 T

Project Information

Project:LITTLE WHITE RIVER VALLEY Geologist:A. BARARI
Drill Date:01/01/1969 Geologist's Log:X
Company:FERGUSON-MEADOR Driller:
Drilling Method: Driller's Log:
Test Hole Number:14 Total Drill Hole Depth (ft.):18.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

DEPTH TO WATER: 7 FEET.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1814.00 - 1813.00	0.0 - 1.0	TOPSOIL
1813.00 - 1810.00	1.0 - 4.0	SAND, BROWN, FINE
1810.00 - 1808.00	4.0 - 6.0	SAND, MEDIUM; SOME CLAY
1808.00 - 1802.00	6.0 - 12.0	SAND, MEDIUM TO COARSE
1802.00 - 1799.00	12.0 - 15.0	SAND; SOME CLAY
1799.00 - 1796.00	15.0 - 18.0	CLAY, GRAY (SHALE)

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Location Information

Legal Location:SE SE NW NE SEC. 22, T. 043 N., R. 28 W.
County:MELLETTTE Location:043N-28W-22ABDD
Basin:WHITE Latitude:43 41' 32"
Hydrologic Unit Code:10140203 Longitude:100 38' 03"
Land Owner: Ground Surface Elevation (ft.):1813 T

Project Information

Project:LITTLE WHITE RIVER VALLEY Geologist:A. BARARI
Drill Date:01/01/1969 Geologist's Log:X
Company:FERGUSON-MEADOR Driller:
Drilling Method: Driller's Log:
Test Hole Number:13 Total Drill Hole Depth (ft.):21.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

DEPTH TO WATER: 8 FEET.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1813.00 - 1812.00	0.0 - 1.0	TOPSOIL
1812.00 - 1806.00	1.0 - 7.0	SAND, BROWN, FINE
1806.00 - 1805.00	7.0 - 8.0	SAND, MEDIUM
1805.00 - 1793.50	8.0 - 19.5	CLAY, GRAY; SOFT DRILLING
1793.50 - 1792.00	19.5 - 21.0	SHALE
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Location Information

Legal Location: NE SE NE NE SEC. 23, T. 043 N., R. 28 W.
County: MELLETTE Location: 043N-28W-23AADA
Basin: WHITE Latitude: 43 41' 36"
Hydrologic Unit Code: 10140203 Longitude: 100 36' 36"
Land Owner: Ground Surface Elevation (ft.): 2092 T

Project Information

Project: MELLETTE-TODD CO. STUDY Geologist: M. JARRETT
Drill Date: 07/28/1993 Geologist's Log: X
Company: SDGS Driller: J. REZAC
Drilling Method: AUGER Driller's Log:
Test Hole Number: A1-93-42 Total Drill Hole Depth (ft.): 36.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2092.00 - 2091.00	0.0 - 1.0	TOPSOIL
2091.00 - 2087.00	1.0 - 5.0	CLAY, OLIVE-GRAY
2087.00 - 2085.00	5.0 - 7.0	SAND, BROWN, SILTY
2085.00 - 2082.00	7.0 - 10.0	CLAY, GRAYISH-BROWN, SILTY
2082.00 - 2079.00	10.0 - 13.0	SAND, LIGHT-BROWN, FINE; SOME GRAVEL
2079.00 - 2070.00	13.0 - 22.0	SAND AND GRAVEL, LIGHT-BROWN, COARSE SAND TO FINE GRAVEL, CLAYEY
2070.00 - 2062.00	22.0 - 30.0	SAND, LIGHT-BROWN, FINE, SOMEWHAT CLAYEY
2062.00 - 2056.00	30.0 - 36.0	GRAVEL, BROWN, COARSE, CLAYEY; SOME SHALE PEBBLES

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Location Information

Legal Location:SW NE NW NW SEC. 27, T. 043 N., R. 28 W.
County:MELLETTTE Location:043N-28W-27BBAC
Basin:WHITE Latitude:43 40' 45"
Hydrologic Unit Code:10140203 Longitude:100 38' 49"
Land Owner: Ground Surface Elevation (ft.):1822 T

Project Information

Project:LITTLE WHITE RIVER VALLEY Geologist:A. BARARI
Drill Date:01/01/1969 Geologist's Log:X
Company:FERGUSON-MEADOR Driller:
Drilling Method: Driller's Log:
Test Hole Number:15 Total Drill Hole Depth (ft.):16.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

DEPTH TO WATER: 5 FEET.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1822.00 - 1821.00	0.0 - 1.0	TOPSOIL
1821.00 - 1818.00	1.0 - 4.0	SAND, FINE; SOME CLAY
1818.00 - 1809.00	4.0 - 13.0	SAND, MEDIUM TO COARSE
1809.00 - 1806.00	13.0 - 16.0	CLAY, DARK-GRAY

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Location Information

Legal Location:SW NW SE NE SEC. 28, T. 043 N., R. 28 W.
County:MELLETTTE Location:043N-28W-28ADBC
Basin:WHITE Latitude:43 40' 33"
Hydrologic Unit Code:10140203 Longitude:100 39' 16"
Land Owner: Ground Surface Elevation (ft.):1823 T

Project Information

Project:LITTLE WHITE RIVER VALLEY Geologist:A. BARARI
Drill Date:01/01/1969 Geologist's Log:X
Company:FERGUSON-MEADOR Driller:
Drilling Method: Driller's Log:
Test Hole Number:8 Total Drill Hole Depth (ft.):21.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

DEPTH TO WATER: 8 FEET.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1823.00 - 1822.00	0.0 - 1.0	TOPSOIL
1822.00 - 1818.00	1.0 - 5.0	SAND, FINE
1818.00 - 1815.00	5.0 - 8.0	SAND, MEDIUM
1815.00 - 1811.00	8.0 - 12.0	SAND, COARSE
1811.00 - 1810.00	12.0 - 13.0	CLAY, GRAY
1810.00 - 1804.00	13.0 - 19.0	SAND AND GRAVEL
1804.00 - 1802.00	19.0 - 21.0	SHALE

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Location Information

Legal Location: SE NW SEC. 33, T. 043 N., R. 28 W.
County: MELLETTTE Location: 043N-28W-33BD
Basin: WHITE Latitude: 43 39' 41"
Hydrologic Unit Code: 10140204 Longitude: 100 39' 43"
Land Owner: A. STROMER Ground Surface Elevation (ft.): 1840 T

Project Information

Project: Geologist:
Drill Date: 11/26/1984 Geologist's Log:
Company: SUMMERS DRILLING Driller:
Drilling Method: BORED Driller's Log: X
Test Hole Number: Total Drill Hole Depth (ft.): 16.0
Samples:

Well Information

SDGS Well Name: Aquifer:
Water Rights Well: Management Unit:
Other Well Name: PRIVATE Casing Top Elevation:
Casing Type: CEMENT TILE Casing Diameter (in.):
Screen Type: Screen Length (ft.):
Total Casing and Screen (ft.): Casing Stick-up (ft.):
Well Maintenance Date:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1840.00 - 1839.00	0.0 - 1.0	TOPSOIL
1839.00 - 1824.00	1.0 - 16.0	SAND
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Location Information

Legal Location:NW NE NW NW SEC. 09, T. 043 N., R. 32 W.
County:MELLETTTE Location:043N-32W-09BBAB
Basin:WHITE Latitude:43 43' 19"
Hydrologic Unit Code:10140203 Longitude:101 08' 12"
Land Owner: Ground Surface Elevation (ft.):2358 T

Project Information

Project:MELLETTTE-TODD CO. STUDY Geologist:R. HAMMOND
Drill Date:07/09/1996 Geologist's Log:X
Company:SDGS Driller:G. JENSEN
Drilling Method:ROTARY Driller's Log:
Test Hole Number:R2-96-28 Total Drill Hole Depth (ft.):122.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2358.00 - 2356.00	0.0 - 2.0	TOPSOIL, BROWN
2356.00 - 2313.00	2.0 - 45.0	SILT, TAN-BROWN TO REDDISH-BROWN
2313.00 - 2310.00	45.0 - 48.0	SILT, OLIVE-GREEN
2310.00 - 2303.00	48.0 - 55.0	SILT, TAN-BROWN
2303.00 - 2281.00	55.0 - 77.0	SILT, LIGHT-GRAY TO BLUE-GRAY
2281.00 - 2264.00	77.0 - 94.0	SILT, LIGHT-GREEN
2264.00 - 2259.00	94.0 - 99.0	SAND
2259.00 - 2243.00	99.0 - 115.0	CLAY, YELLOWISH-BROWN
2243.00 - 2236.00	115.0 - 122.0	SHALE, BLACK (PIERRE SHALE)

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Location Information

Legal Location:SW NE SE SE SEC. 02, T. 043 N., R. 33 W.
County:MELLETTTE Location:043N-33W-02DDAC
Basin:WHITE Latitude:43 43' 27"
Hydrologic Unit Code:10140202 Longitude:101 12' 06"
Land Owner: Ground Surface Elevation (ft.):2285 T

Project Information

Project:MELLETTTE-TODD CO. STUDY Geologist:M. JARRETT
Drill Date:08/18/1992 Geologist's Log:X
Company:SDGS Driller:D. IVERSON
Drilling Method:ROTARY Driller's Log:
Test Hole Number:R20-92-32 Total Drill Hole Depth (ft.):50.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

PLUGGED FROM TOTAL DEPTH TO TOP WITH HIGH SOLIDS BENTONITE PLUGGING FLUID, SETTLED FOR TWO DAYS, FILLED WITH BENTONITE CRUMBLES TO AROUND 8 FEET, CEMENT FROM 8 FEET TO SURFACE.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2285.00 - 2284.00	0.0 - 1.0	TOPSOIL, TAN
2284.00 - 2280.00	1.0 - 5.0	CLAY, BROWN TO LIGHT-GRAY, SILTY
2280.00 - 2264.00	5.0 - 21.0	CLAY, LIGHT-GRAY, SILTY
2264.00 - 2235.00	21.0 - 50.0	CLAY, DARK-GRAY; GREASY (PIERRE SHALE)

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Location Information

Legal Location: NW SE NE SW SEC. 25, T. 043 N., R. 33 W.
County: MELLETTE Location: 043N-33W-25CADB
Basin: WHITE Latitude: 43 40' 11"
Hydrologic Unit Code: 10140202 Longitude: 101 11' 30"
Land Owner: Ground Surface Elevation (ft.): 2331 T

Project Information

Project: MELLETTE-TODD CO. STUDY Geologist: M. JARRETT
Drill Date: 08/18/1992 Geologist's Log: X
Company: SDGS Driller: D. IVERSON
Drilling Method: ROTARY Driller's Log:
Test Hole Number: R20-92-33 Total Drill Hole Depth (ft.): 67.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

PLUGGED FROM TOTAL DEPTH TO TOP WITH HIGH SOLIDS BENTONITE PLUGGING FLUID, SETTLED TWO DAYS, FILLED WITH BENTONITE CRUMBLES TO 8 FEET, CEMENT FROM 8 FEET TO SURFACE.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2331.00 - 2330.00	0.0 - 1.0	TOPSOIL, TAN
2330.00 - 2328.00	1.0 - 3.0	CLAY, TAN, VERY SILTY
2328.00 - 2325.00	3.0 - 6.0	SAND, YELLOWISH-BROWN, FINE TO MEDIUM
2325.00 - 2318.00	6.0 - 13.0	CLAY, WHITE TO LIGHT-TAN, VERY SILTY
2318.00 - 2311.00	13.0 - 20.0	SAND, FINE TO MEDIUM; HIGHLY QUARTZOSE, CLEAN
2311.00 - 2303.00	20.0 - 28.0	CLAY, RED, TAN, BUFF, AND GREEN LAMINATIONS, SILTY
2303.00 - 2288.00	28.0 - 43.0	CLAY, LIGHT-GRAY TO YELLOWISH-BROWN; WEATHERED (PIERRE SHALE)
2288.00 - 2264.00	43.0 - 67.0	CLAY, DARK-GRAY; GREASY (PIERRE SHALE)

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Location Information

Legal Location:SW NW NW SW SEC. 36, T. 044 N., R. 28 W.
County:MELLETTTE Location:044N-28W-36CBBC
Basin:WHITE Latitude:43 44' 42"
Hydrologic Unit Code:10140204 Longitude:100 36' 34"
Land Owner: Ground Surface Elevation (ft.):1950 T

Project Information

Project:USGS Geologist:
Drill Date: Geologist's Log:
Company:USGS Driller:
Drilling Method: Driller's Log:X
Test Hole Number: Total Drill Hole Depth (ft.):34.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1950.00 - 1947.00	0.0 - 3.0	TOPSOIL, DARK-BROWN
1947.00 - 1934.00	3.0 - 16.0	SILT, LIGHT-TAN; SAND, VERY FINE
1934.00 - 1931.00	16.0 - 19.0	CLAY, LIGHT-BROWN
1931.00 - 1928.00	19.0 - 22.0	GRAVEL, MEDIUM TO COARSE, CLAYEY
1928.00 - 1922.00	22.0 - 28.0	CLAY, BROWN
1922.00 - 1916.00	28.0 - 34.0	SHALE, DARK-GRAY

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Location Information

Legal Location:SE NW NW SE SEC. 33, T. 044 N., R. 30 W.
County:MELLETTTE Location:044N-30W-33DBBD
Basin:WHITE Latitude:43 44' 37"
Hydrologic Unit Code:10140202 Longitude:100 54' 00"
Land Owner: Ground Surface Elevation (ft.):2185 T

Project Information

Project:USBR Geologist:
Drill Date:05/20/1954 Geologist's Log:
Company:USBR Driller:
Drilling Method: Driller's Log:X
Test Hole Number: Total Drill Hole Depth (ft.):30.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

DEPTH TO WATER: 10.0 FEET MEASURED 05-20-1954.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2185.00 - 2184.00	0.0 - 1.0	LOAM
2184.00 - 2181.00	1.0 - 4.0	LOAM, VERY FINE, SANDY
2181.00 - 2179.00	4.0 - 6.0	LOAM, SANDY
2179.00 - 2178.00	6.0 - 7.0	LOAM, FINE, SILTY
2178.00 - 2174.00	7.0 - 11.0	LOAM, SANDY
2174.00 - 2164.00	11.0 - 21.0	SAND, COARSE
2164.00 - 2155.00	21.0 - 30.0	SHALE

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Location Information

Legal Location: SW NE SEC. 35, T. 044 N., R. 30 W.
County: MELLETTTE Location: 044N-30W-35AC
Basin: WHITE Latitude: 43 44' 50"
Hydrologic Unit Code: 10140202 Longitude: 100 51' 25"
Land Owner: W. ASTELFORD Ground Surface Elevation (ft.): 2000 T

Project Information

Project: Geologist:
Drill Date: 09/10/1983 Geologist's Log:
Company: JURACEK WELL BORING Driller:
Drilling Method: BORED Driller's Log: X
Test Hole Number: Total Drill Hole Depth (ft.): 60.0
Samples:

Well Information

SDGS Well Name: Aquifer:
Water Rights Well: Management Unit:
Other Well Name: PRIVATE Casing Top Elevation:
Casing Type: CEMENT Casing Diameter (in.):
Screen Type: Screen Length (ft.):
Total Casing and Screen (ft.): Casing Stick-up (ft.):
Well Maintenance Date:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2000.00 - 1997.00	0.0 - 3.0	TOPSOIL
1997.00 - 1981.00	3.0 - 19.0	CLAY
1981.00 - 1979.00	19.0 - 21.0	CLAY, WATER AND GRAVEL
1979.00 - 1940.00	21.0 - 60.0	SHALE

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Location Information

Legal Location: NW NW NW NW SEC. 09, T. 044 N., R. 31 W.
County: MELLETTTE Location: 044N-31W-09BBBB
Basin: WHITE Latitude: 43 48' 32"
Hydrologic Unit Code: 10140203 Longitude: 101 01' 10"
Land Owner: Ground Surface Elevation (ft.): 2335 T

Project Information

Project: MELLETTTE-TODD CO. STUDY Geologist: R. HAMMOND
Drill Date: 07/09/1996 Geologist's Log: X
Company: SDGS Driller: G. JENSEN
Drilling Method: ROTARY Driller's Log:
Test Hole Number: R2-96-25 Total Drill Hole Depth (ft.): 22.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2335.00 - 2333.00	0.0 - 2.0	TOPSOIL, BLACK
2333.00 - 2317.00	2.0 - 18.0	SAND AND GRAVEL
2317.00 - 2313.00	18.0 - 22.0	SHALE, BLACK (PIERRE SHALE)

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Location Information

Legal Location: NW NW NW SEC. 20, T. 044 N., R. 31 W.
County: MELLETTTE Location: 044N-31W-20BBB
Basin: WHITE Latitude: 43 46' 47"
Hydrologic Unit Code: 10140202 Longitude: 101 02' 20"
Land Owner: G. ENGLAND Ground Surface Elevation (ft.): 2340 T

Project Information

Project: Geologist:
Drill Date: Geologist's Log:
Company: HURON DRILLING Driller:
Drilling Method: Driller's Log: X
Test Hole Number: Total Drill Hole Depth (ft.): 2315.0
Samples:

Well Information

SDGS Well Name: Aquifer:
Water Rights Well: Management Unit:
Other Well Name: PRIVATE Casing Top Elevation:
Casing Type: Casing Diameter (in.):
Screen Type: Screen Length (ft.):
Total Casing and Screen (ft.): Casing Stick-up (ft.):
Well Maintenance Date:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2340.00 - 2300.00	0.0 - 40.0	SOIL AND ALLUVIUM
2300.00 - 1080.00	40.0 - 1260.0	SHALE
1080.00 - 880.00	1260.0 - 1460.0	UNREPORTED; CHANGE OF FORMATION
880.00 - 820.00	1460.0 - 1520.0	CODELL SANDSTONE MEMBER - CARLILE SHALE
820.00 - 665.00	1520.0 - 1675.0	GREENHORN LIMESTONE
665.00 - 540.00	1675.0 - 1800.0	SHALE
540.00 - 510.00	1800.0 - 1830.0	UNREPORTED; CHANGE OF FORMATION
510.00 - 390.00	1830.0 - 1950.0	SHALE
390.00 - 380.00	1950.0 - 1960.0	SHALE; WITH MANY HARD SANDY STREAKS
380.00 - 320.00	1960.0 - 2020.0	SANDSTONE
320.00 - 260.00	2020.0 - 2080.0	SHALE, SANDY
260.00 - 180.00	2080.0 - 2160.0	SANDSTONE

180.00 - 160.00	2160.0 - 2180.0	SANDSTONE; WITH SHALEY STREAKS
160.00 - 150.00	2180.0 - 2190.0	SHALE
150.00 - 35.00	2190.0 - 2305.0	SAND
35.00 - 25.00	2305.0 - 2315.0	SHALE

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Location Information

Legal Location:NE NW NE NE SEC. 26, T. 044 N., R. 31 W.
County:MELLETTTE Location:044N-31W-26AABA
Basin:WHITE Latitude:43 45' 57"
Hydrologic Unit Code:10140202 Longitude:100 57' 46"
Land Owner:VOLLMER Ground Surface Elevation (ft.):2345 T

Project Information

Project:MEDICAL WASTE INVEST. Geologist:D. ILES
Drill Date:09/11/1990 Geologist's Log:X
Company:SDGS Driller:D. IVERSON
Drilling Method:ROTARY Driller's Log:
Test Hole Number:R20-90-44 Total Drill Hole Depth (ft.):118.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:X
Natural Gamma:X Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2345.00 - 2300.00	0.0 - 45.0	SAND, LIGHT-BROWN TO BROWN, FINE TO VERY COARSE; WITH SOME VERY FINE TO VERY COARSE PEBBLE GRAVEL, WITH MINOR AMOUNTS OF CLAY AND SILT, SOME OF THE GRAVEL WAS COMPOSED OF CARBONATE CLASTS
2300.00 - 2263.00	45.0 - 82.0	SAND, LIGHT-BROWN TO BROWN, FINE TO VERY COARSE; VERY MINOR AMOUNTS OF WHITE CLAY APPEARED IN THE CUTTINGS, SOME ANGULAR SHALE CLASTS WERE EVIDENT BELOW 50 FEET
2263.00 - 2260.00	82.0 - 85.0	CLAY, LIGHT-BROWN
2260.00 - 2240.00	85.0 - 105.0	CLAY, GRAY; GREASY, SOFT (PIERRE SHALE)
2240.00 - 2227.00	105.0 - 118.0	CLAY, GRAY WITH SOME DARK-GRAY TO BLACK; NOT GREASY, HARDER THAN IN INTERVAL FROM 85 TO 105 FEET (PIERRE SHALE)

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Location Information

Legal Location:SE NW NE NE SEC. 26, T. 044 N., R. 31 W.
County:MELLETTTE Location:044N-31W-26AABD
Basin:WHITE Latitude:43 45' 53"
Hydrologic Unit Code:10140202 Longitude:100 57' 46"
Land Owner:R. VOLLMER Ground Surface Elevation (ft.):2347.01 I

Project Information

Project:MEDICAL WASTE INVEST. Geologist:J. GILBERTSON
Drill Date:10/22/1990 Geologist's Log:X
Company:SDGS Driller:D. IVERSON
Drilling Method:HOLLOWSTEM Driller's Log:
Test Hole Number:R20-90-63 Total Drill Hole Depth (ft.):55.0
Samples:

Well Information

SDGS Well Name: R20-90-63 Aquifer:
Water Rights Well: Management Unit:
Other Well Name: Casing Top Elevation:2348.84 I
Casing Type:PVC, SCH. 80, FLUSH Casing Diameter (in.):2.0
Screen Type:PVC, SCH. 80, MFG., 0.018 SLOT Screen Length (ft.):10.0
Total Casing and Screen (ft.):56.8 Casing Stick-up (ft.):1.83
Well Maintenance Date:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

WELL DATA: NATURAL SEDIMENT - 55.0 TO 40.0 FEET; GRANULAR BENTONTIE - 40.0 TO 39.0 FEET; BENTONITE SLURRY - 39.0 TO 20.0 FEET; CEMENT - 20.0 TO 0 FEET; LOCKING STEEL WELL PROTECTOR INSTALLED.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2347.01 - 2343.01	0.0 - 4.0	SAND, DARK-BROWN TO TAN, FINE TO MEDIUM, SILTY, PEBBLY; NONCALCAREOUS
2343.01 - 2339.01	4.0 - 8.0	SILT, TAN; SOME FINE TO MEDIUM SAND; CALCAREOUS (LOESS?)
2339.01 - 2334.01	8.0 - 13.0	SAND, TAN, FINE TO COARSE, SILTY; WEAKLY CALCAREOUS; SCATTERED PEBBLES; LENSES OF CALCAREOUS SANDY SILT
2334.01 - 2296.01	13.0 - 51.0	SAND, TAN TO LIGHT-BROWN, FINE TO COARSE; WEAKLY CALCAREOUS; MINOR AMOUNTS OF SILT AND CLAY; SCATTERED CALCAREOUS SANDY SILT LAYERS; SOME PEBBLES, MOSTLY QUARTZ AND SHALE, WITH SHALE CLASTS DOMINANT IN LOWER PART OF INTERVAL
2296.01 - 2292.01	51.0 - 55.0	CLAY, DARK-GRAY WITH BROWN MOTTLING; NONCALCAREOUS (PIERRE SHALE)

CORE TAKEN WITH SPLIT-SPOON SAMPLER FROM 10 TO 11.5 FEET, 18 TO 20 FEET, 23 TO 25 FEET, 33 TO 35 FEET, 43 TO 45 FEET AND 53 TO 55 FEET.

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Location Information

Legal Location:SE SW NE NE SEC. 26, T. 044 N., R. 31 W.
County:MELLETTTE Location:044N-31W-26AACD
Basin:WHITE Latitude:43 45' 47"
Hydrologic Unit Code:10140202 Longitude:100 57' 48"
Land Owner:R. VOLLMER Ground Surface Elevation (ft.):2335.28 I

Project Information

Project:MEDICAL WASTE INVEST. Geologist:J. GILBERTSON
Drill Date:10/23/1990 Geologist's Log:X
Company:SDGS Driller:D. IVERSON
Drilling Method:HOLLOWSTEM Driller's Log:
Test Hole Number:R20-90-64 Total Drill Hole Depth (ft.):30.0
Samples:

Well Information

SDGS Well Name: R20-90-64 Aquifer:
Water Rights Well: Management Unit:
Other Well Name: Casing Top Elevation:2338.28 I
Casing Type:PVC, SCH. 80, FLUSH Casing Diameter (in.):2.0
Screen Type:PVC, SCH. 80, MFG., 0.018 SLOT Screen Length (ft.):10.0
Total Casing and Screen (ft.):30.0 Casing Stick-up (ft.):3.00
Well Maintenance Date:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

WELL DATA: NATURAL SEDIMENT - 30 TO 24 FEET; FILTER PACK (GRAIN SIZE 0.65 TO 0.75 MM) - 24 TO 15 FEET; GRANULAR BENTONITE - 15 TO 14 FEET; CEMENT - 14 TO 0.5 FEET; LOCKING STEEL WELL PROTECTOR INSTALLED.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2335.28 - 2331.28	0.0 - 4.0	SAND, BROWN TO TAN, MEDIUM TO COARSE; NONCALCAREOUS; SOME PEBBLES
2331.28 - 2326.28	4.0 - 9.0	SAND, TAN, FINE TO MEDIUM; WEAKLY CALCAREOUS; MINOR SILT AND CLAY; SCATTERED PEBBLES
2326.28 - 2322.28	9.0 - 13.0	SILT, TAN TO LIGHT-BROWN, VERY SANDY, PEBBLY; CALCAREOUS; SMALL, LESS THAN 2 MM, SECONDARY CARBONATE NODULES
2322.28 - 2310.28	13.0 - 25.0	SAND, TAN TO LIGHT-BROWN, FINE TO COARSE; WEAKLY CALCAREOUS; MINOR SILT AND CLAY; SCATTERED PEBBLES, MOSTLY CARBONATE AND SHALE
2310.28 - 2309.28	25.0 - 26.0	CLAY, GRAY WITH BROWN MOTTLES; NON- CALCAREOUS (PIERRE SHALE)
2309.28 - 2305.28	26.0 - 30.0	CLAY, GRAY; NONCALCAREOUS (PIERRE SHALE)

CORE TAKEN WITH SPLIT-SPOON SAMPLER FROM 9 TO 10 FEET, 18 TO 20 FEET, AND 28 TO 30 FEET.

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Location Information

Legal Location:NE NE NW NE SEC. 26, T. 044 N., R. 31 W.
County:MELLETTTE Location:044N-31W-26ABAA
Basin:WHITE Latitude:43 45' 57"
Hydrologic Unit Code:10140202 Longitude:100 57' 53"
Land Owner:R. VOLLMER Ground Surface Elevation (ft.):2317.33 I

Project Information

Project:MEDICAL WASTE INVEST. Geologist:J. GILBERTSON
Drill Date:10/23/1990 Geologist's Log:X
Company:SDGS Driller:D. IVERSON
Drilling Method:HOLLOWSTEM Driller's Log:
Test Hole Number:R20-90-65 Total Drill Hole Depth (ft.):86.0
Samples:

Well Information

SDGS Well Name: R20-90-65 Aquifer:
Water Rights Well: Management Unit:
Other Well Name: Casing Top Elevation:2319.19 I
Casing Type:PVC, SCH. 80, FLUSH Casing Diameter (in.):2.0
Screen Type:PVC, SCH. 80, MFG., 0.018 SLOT Screen Length (ft.):10.0
Total Casing and Screen (ft.):87.3 Casing Stick-up (ft.):1.86
Well Maintenance Date:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

WELL DATA: NATURAL SEDIMENT - 86 TO 59 FEET; GRANULAR BENTONITE - 59 TO 38 FEET;
BENTONITE SLURRY - 38 TO 20 FEET; CEMENT - 20 TO 0 FEET; LOCKING STEEL WELL
PROTECTOR INSTALLED.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2317.33 - 2313.33	0.0 - 4.0	SILT, BROWN, PEBBLY; NONCALCAREOUS; MINOR SAND
2313.33 - 2311.33	4.0 - 6.0	SAND, BROWN, FINE TO MEDIUM, SILTY; NON-CALCAREOUS
2311.33 - 2310.33	6.0 - 7.0	SILT, TAN, SANDY; CALCAREOUS
2310.33 - 2297.33	7.0 - 20.0	SAND, TAN TO LIGHT-BROWN, FINE TO COARSE; NONCALCAREOUS; FEW PEBBLES; MINOR SILT AND CLAY
2297.33 - 2281.33	20.0 - 36.0	SAND, TAN TO LIGHT-BROWN, FINE TO COARSE; NONCALCAREOUS; ABUNDANT FINE TO MEDIUM PEBBLES; SOME SILT AND CLAY
2281.33 - 2244.33	36.0 - 73.0	SAND, TAN TO LIGHT-BROWN, FINE TO COARSE; NONCALCAREOUS; FEW PEBBLES; MINOR SILT AND CLAY
2244.33 - 2237.33	73.0 - 80.0	SILT, TAN TO LIGHT-BROWN; CALCAREOUS; SOME FINE SAND

2237.33 - 2235.33	80.0 - 82.0	SILT, TAN TO LIGHT-BROWN; CALCAREOUS; LENSES OF DARK-GRAY, SANDY CLAY
2235.33 - 2232.33	82.0 - 85.0	CLAY, DARK-GRAY, SANDY, SILTY; CALCAREOUS; SOME FINE PEBBLES; LENSES OF TAN, CALCAREOUS SILT
2232.33 - 2231.33	85.0 - 86.0	CLAY, DARK-GRAY; NONCALCAREOUS (PIERRE SHALE)

CORE TAKEN WITH SPLIT-SPOON SAMPLER FROM 8 TO 10 FEET, 18 TO 19.5 FEET, 28 TO 30 FEET, 38 TO 40 FEET, 48 TO 50 FEET, 58 TO 60 FEET, 68 TO 70 FEET, 78 TO 80 FEET, AND 81 TO 85 FEET.

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Location Information

Legal Location: NW NE NW NE SEC. 26, T. 044 N., R. 31 W.
County: MELLETTTE Location: 044N-31W-26ABAB
Basin: WHITE Latitude: 43 45' 57"
Hydrologic Unit Code: 10140202 Longitude: 100 58' 00"
Land Owner: VOLLMER Ground Surface Elevation (ft.): 2306.45 I

Project Information

Project: MEDICAL WASTE INVEST. Geologist: L. SCHULZ
Drill Date: 09/18/1990 Geologist's Log: X
Company: SDGS Driller: D. IVERSON
Drilling Method: HOLLOWSTEM Driller's Log:
Test Hole Number: R20-90-45 Total Drill Hole Depth (ft.): 63.5
Samples:

Well Information

SDGS Well Name: R20-90-45 Aquifer:
Water Rights Well: Management Unit:
Other Well Name: Casing Top Elevation: 2308.37 I
Casing Type: PVC, SCH. 80, FLUSH Casing Diameter (in.): 2.0
Screen Type: PVC, SCH. 80, MFG., 0.018 SLOT Screen Length (ft.): 10.0
Total Casing and Screen (ft.): 62.0 Casing Stick-up (ft.): 1.92
Well Maintenance Date:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

WELL DATA: NATURAL SEDIMENT - 63.5 TO 45.4 FEET; FILTER PACK (GRAIN SIZE 0.65 TO 0.75 MM) - 45.4 TO 43.4 FEET; GRANULAR BENTONITE - 43.4 TO 40 FEET; BENTONITE SLURRY - 40 TO 21 FEET; CEMENT - 21 TO 1 FEET; LOCKING STEEL WELL PROTECTOR INSTALLED.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2306.45 - 2299.85	0.0 - 6.6	SAND, BROWN, MEDIUM TO VERY COARSE; NONCALCAREOUS, WITH SOME VERY FINE TO COARSE PEBBLE GRAVEL
2299.85 - 2299.25	6.6 - 7.2	SAND, LIGHT-BROWN, FINE TO MEDIUM; CALCAREOUS, WITH SOME SILT
2299.25 - 2298.95	7.2 - 7.5	SAND, LIGHT-BROWN, FINE; CALCAREOUS
2298.95 - 2294.95	7.5 - 11.5	SAND, LIGHT-BROWN, FINE TO MEDIUM; NONCALCAREOUS, WITH SOME COARSE SAND TO FINE PEBBLE GRAVEL
2294.95 - 2282.75	11.5 - 23.7	SAND, LIGHT-BROWN, FINE TO MEDIUM; CALCAREOUS, WITH SOME COARSE SAND TO FINE PEBBLE GRAVEL
2282.75 - 2266.25	23.7 - 40.2	SAND, LIGHT-BROWN, FINE TO MEDIUM; CALCAREOUS, WITH SOME FINE PEBBLE GRAVEL

2266.25 - 2263.35	40.2 - 43.1	SAND, LIGHT-BROWN, MEDIUM; CALCAREOUS, WITH COARSE SAND TO VERY COARSE PEBBLE GRAVEL INCLUDING MANY SHALE CLASTS
2263.35 - 2255.75	43.1 - 50.7	SAND, LIGHT-BROWN, MEDIUM; CALCAREOUS
2255.75 - 2252.95	50.7 - 53.5	SAND, LIGHT-BROWN, FINE TO MEDIUM; CALCAREOUS
2252.95 - 2251.65	53.5 - 54.8	SAND, LIGHT-BROWN, MEDIUM; CALCAREOUS, WITH SOME COARSE SAND TO MEDIUM PEBBLE GRAVEL
2251.65 - 2247.95	54.8 - 58.5	SAND, LIGHT-BROWN, MEDIUM TO COARSE; CALCAREOUS, WITH SOME FINE TO VERY COARSE PEBBLE GRAVEL INCLUDING SOME SHALE CLASTS
2247.95 - 2242.95	58.5 - 63.5	CLAY, GRAY; NONCALCAREOUS (PIERRE SHALE)

CONTINUOUS CORE TAKEN WITH SPLIT-SPOON SAMPLER FROM 5.5 TO 63.5 FEET.

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Location Information

Legal Location:NE NW NW NE SEC. 26, T. 044 N., R. 31 W.
County:MELLETTTE Location:044N-31W-26ABBA
Basin:WHITE Latitude:43 45' 57"
Hydrologic Unit Code:10140202 Longitude:100 58' 05"
Land Owner:R. VOLLMER Ground Surface Elevation (ft.):2307.76 I

Project Information

Project:MEDICAL WASTE INVEST. Geologist:J. GILBERTSON
Drill Date:10/24/1990 Geologist's Log:X
Company:SDGS Driller:D. IVERSON
Drilling Method:HOLLOWSTEM Driller's Log:
Test Hole Number:R20-90-66 Total Drill Hole Depth (ft.):60.0
Samples:

Well Information

SDGS Well Name: R20-90-66 Aquifer:
Water Rights Well: Management Unit:
Other Well Name: Casing Top Elevation:2309.80 I
Casing Type:PVC, SCH. 80, FLUSH Casing Diameter (in.):2.0
Screen Type:PVC, SCH. 80, MFG., 0.018 SLOT Screen Length (ft.):10.0
Total Casing and Screen (ft.):60.0 Casing Stick-up (ft.):2.04
Well Maintenance Date:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

WELL DATA: NATURAL SEDIMENT - 60 TO 48 FEET; FILTER PACK (GRAIN SIZE 0.65 TO 0.75 MM) - 48 TO 46 FEET; GRANULAR BENTONITE - 46 TO 37 FEET, BENTONITE SLURRY - 37 TO 21 FEET; CEMENT - 21 TO 0 FEET; LOCKING STEEL WELL PROTECTOR INSTALLED.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2307.76 - 2303.76	0.0 - 4.0	SAND, BROWN, FINE TO MEDIUM, VERY SILTY; NONCALCAREOUS
2303.76 - 2299.76	4.0 - 8.0	SILT, TAN, SANDY; CALCAREOUS
2299.76 - 2289.76	8.0 - 18.0	SAND, TAN TO LIGHT-BROWN, FINE TO COARSE; WEAKLY CALCAREOUS; MINOR SILT AND CLAY; SCATTERED PEBBLES
2289.76 - 2281.76	18.0 - 26.0	SAND, TAN, FINE TO MEDIUM, SILTY; CALCAREOUS
2281.76 - 2259.76	26.0 - 48.0	SAND, TAN TO LIGHT-BROWN, FINE TO COARSE; WEAKLY CALCAREOUS; MINOR SILT AND SAND; SCATTERED PEBBLES
2259.76 - 2249.76	48.0 - 58.0	SILT, TAN TO BROWN, SANDY; CALCAREOUS; LENSES OF PEBBLY, SILTY SAND
2249.76 - 2247.76	58.0 - 60.0	CLAY, DARK-GRAY; NONCALCAREOUS (PIERRE SHALE)

CORE TAKEN WITH SPLIT-SPOON SAMPLER FROM 9 TO 10 FEET, 18 TO 20 FEET, 28 TO 30 FEET,
38 TO 40 FEET, AND 48 TO 50 FEET.

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Location Information

Legal Location: NW NW NW NE SEC. 26, T. 044 N., R. 31 W.	Location: 044N-31W-26ABBB
County: MELLETTE	Latitude: 43 45' 57"
Basin: WHITE	Longitude: 100 58' 11"
Hydrologic Unit Code: 10140202	Ground Surface Elevation (ft.): 2289 T
Land Owner: VOLLMER	

Project Information

Project: MEDICAL WASTE INVEST.	Geologist: L. SCHULZ
Drill Date: 09/12/1990	Geologist's Log: X
Company: SDGS	Driller: D. IVERSON
Drilling Method: HOLLOWSTEM	Driller's Log:
Test Hole Number: R20-90-47	Total Drill Hole Depth (ft.): 37.0
Samples:	

Geophysical Information

Spontaneous Potential:	Single Point Resistivity:
Natural Gamma:	Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2289.00 - 2269.20	0.0 - 19.8	SAND, LIGHT-BROWN, FINE TO MEDIUM; CALCAREOUS, WITH SOME COARSE SAND TO MEDIUM PEBBLE GRAVEL
2269.20 - 2266.90	19.8 - 22.1	SAND, LIGHT-BROWN, FINE TO MEDIUM; CALCAREOUS, WITH MUCH COARSE SAND TO MEDIUM PEBBLE GRAVEL
2266.90 - 2266.50	22.1 - 22.5	CLAY, LIGHT-OLIVE-GREEN
2266.50 - 2261.00	22.5 - 28.0	SAND AND GRAVEL, LIGHT-BROWN, FINE SAND TO COARSE PEBBLE GRAVEL, CLAYEY IN SPOTS; CALCAREOUS, WITH SOME SHALE CLASTS
2261.00 - 2259.10	28.0 - 29.9	SAND, LIGHT-BROWN, FINE TO MEDIUM, CLAYEY IN SPOTS; CALCAREOUS
2259.10 - 2255.10	29.9 - 33.9	SAND, LIGHT-BROWN TO LIGHT-OLIVE-GREEN, FINE TO MEDIUM, SILTY, CLAYEY; SOMETIMES VERY SILTY AND CLAYEY, CALCAREOUS
2255.10 - 2252.00	33.9 - 37.0	CLAY, GRAY WITH SOME BROWN MOTTLING (PIERRE SHALE)

CONTINUOUS CORE TAKEN WITH SPLIT-SPOON SAMPLER FROM 5 TO 37 FEET.

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Location Information

Legal Location:SW NW NW NE SEC. 26, T. 044 N., R. 31 W.
County:MELLETTTE Location:044N-31W-26ABBC
Basin:WHITE Latitude:43 45' 52"
Hydrologic Unit Code:10140202 Longitude:100 58' 11"
Land Owner:R. VOLLMER Ground Surface Elevation (ft.):2285.47 I

Project Information

Project:MEDICAL WASTE INVEST. Geologist:J. GILBERTSON
Drill Date:10/18/1990 Geologist's Log:X
Company:SDGS Driller:D. IVERSON
Drilling Method:HOLLOWSTEM Driller's Log:
Test Hole Number:R20-90-62 Total Drill Hole Depth (ft.):19.5
Samples:

Well Information

SDGS Well Name: R20-90-62 Aquifer:
Water Rights Well: Management Unit:
Other Well Name: Casing Top Elevation:2287.35 I
Casing Type:PVC, SCH. 80, FLUSH Casing Diameter (in.):2.0
Screen Type:PVC, SCH. 80, MFG., 0.018 SLOT Screen Length (ft.):10.0
Total Casing and Screen (ft.):20.0 Casing Stick-up (ft.):1.88
Well Maintenance Date:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

WELL DATA: NATURAL SEDIMENT - 19.5 TO 17.0 FEET; FILTER PACK (GRAIN SIZE 0.65 TO 0.75 MM) - 17.0 TO 6.0 FEET; GRANULAR BENTONITE - 6.0 TO 5.25 FEET; CEMENT - 5.25 TO 0 FEET; LOCKING STEEL WELL PROTECTOR INSTALLED.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2285.47 - 2276.47	0.0 - 9.0	CLAY, GRAY, VERY SANDY, SILTY; SCATTERED PEBBLES; NONCALCAREOUS; MINOR SAND OR CLAYEY SILT LENSES (ALLUVIUM)
2276.47 - 2273.17	9.0 - 12.3	CLAY, GRAY WITH ABUNDANT BROWN MOTTLING; NONCALCAREOUS (PIERRE SHALE)
2273.17 - 2267.97	12.3 - 17.5	CLAY, GRAY TO DARK-GRAY WITH SOME BROWN MOTTLING; NONCALCAREOUS (PIERRE SHALE)
2267.97 - 2265.97	17.5 - 19.5	CLAY, DARK-GRAY; NONCALCAREOUS (PIERRE SHALE)

CORE TAKEN WITH SPLIT-SPOON SAMPLER FROM 10 TO 14 FEET AND 18.5 TO 19.5 FEET.

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Location Information

Legal Location:NE SW NW NE SEC. 26, T. 044 N., R. 31 W.
County:MELLETTTE Location:044N-31W-26ABCA
Basin:WHITE Latitude:43 45' 49"
Hydrologic Unit Code:10140202 Longitude:100 58' 03"
Land Owner:R. VOLLMER Ground Surface Elevation (ft.):2293.58 I

Project Information

Project:MEDICAL WASTE INVEST. Geologist:J. GILBERTSON
Drill Date:10/24/1990 Geologist's Log:X
Company:SDGS Driller:D. IVERSON
Drilling Method:HOLLOWSTEM Driller's Log:
Test Hole Number:R20-90-67 Total Drill Hole Depth (ft.):25.0
Samples:

Well Information

SDGS Well Name: R20-90-67 Aquifer:
Water Rights Well: Management Unit:
Other Well Name: Casing Top Elevation:2295.39 I
Casing Type:PVC, SCH. 80, FLUSH Casing Diameter (in.):2.0
Screen Type:PVC, SCH. 80, MFG., 0.018 SLOT Screen Length (ft.):10.0
Total Casing and Screen (ft.):26.5 Casing Stick-up (ft.):1.81
Well Maintenance Date:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

WELL DATA: NATURAL SEDIMENT - 25 TO 22 FEET; FILTER PACK (GRAIN SIZE 0.65 TO 0.75 MM) - 22 TO 12.5 FEET; GRANULAR BENTONITE - 12.5 TO 12.0 FEET; CEMENT - 12.0 TO 0.5 FEET; LOCKING STEEL WELL PROTECTOR INSTALLED.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2293.58 - 2285.58	0.0 - 8.0	SILT, DARK-BROWN, SANDY, PEBBLY; NON-CALCAREOUS (ALLUVIUM/COLLUVIUM)
2285.58 - 2277.08	8.0 - 16.5	CLAY, DARK-GRAY, SANDY, PEBBLY; CALCAREOUS; SOME GRAY AND TAN MOTTLING (COLLUVIUM)
2277.08 - 2271.58	16.5 - 22.0	CLAY, DARK-GRAY WITH BROWN MOTTLES; NON-CALCAREOUS (PIERRE SHALE)
2271.58 - 2268.58	22.0 - 25.0	CLAY, DARK-GRAY; NONCALCAREOUS (PIERRE SHALE)

CORE TAKEN WITH SPLIT-SPOON SAMPLER FROM 8 TO 10 FEET, 17.5 TO 19 FEET, AND 24 TO 25 FEET.

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Location Information

Legal Location: NW SW NW NE SEC. 26, T. 044 N., R. 31 W.
County: MELLETTTE Location: 044N-31W-26ABCB 1
Basin: WHITE Latitude: 43 45' 50"
Hydrologic Unit Code: 10140202 Longitude: 100 58' 08"
Land Owner: VOLLMER Ground Surface Elevation (ft.): 2288 T

Project Information

Project: MEDICAL WASTE INVEST. Geologist: L. SCHULZ
Drill Date: 09/12/1990 Geologist's Log: X
Company: SDGS Driller: D. IVERSON
Drilling Method: HOLLOWSTEM Driller's Log:
Test Hole Number: R20-90-46 Total Drill Hole Depth (ft.): 20.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2288.00 - 2283.00	0.0 - 5.0	CLAY, BROWN-GRAY; WITH SOME SAND AND GRAVEL
2283.00 - 2281.60	5.0 - 6.4	CLAY, GRAY; WITH SOME GYPSUM FILLED FRACTURES AND ROOT CASTS, WITH SOME VERY MINOR AMOUNTS OF SAND
2281.60 - 2279.60	6.4 - 8.4	CLAY, GRAY WITH SOME BROWN MOTTILING, SANDY
2279.60 - 2279.20	8.4 - 8.8	SAND, BROWN, MEDIUM TO COARSE, SLIGHTLY CLAYEY
2279.20 - 2276.30	8.8 - 11.7	CLAY, GRAY WITH BROWN MOTTILING, SANDY TO VERY SANDY; WITH SOME GRAVEL
2276.30 - 2275.70	11.7 - 12.3	CLAY, DARK-GRAY WITH SOME BROWN MOTTILING
2275.70 - 2275.30	12.3 - 12.7	CLAY, GRAY WITH BROWN MOTTILING; WITH SOME COARSE GRAVEL INCLUDING SOME CARBONATE CLASTS
2275.30 - 2272.80	12.7 - 15.2	CLAY, GRAY WITH MUCH BROWN MOTTILING (PIERRE SHALE)
2272.80 - 2272.00	15.2 - 16.0	CLAY, GRAY WITH SOME BROWN MOTTILING (PIERRE SHALE)
2272.00 - 2268.00	16.0 - 20.0	CLAY, GRAY (PIERRE SHALE)

CONTINUOUS CORE TAKEN WITH SPLIT-SPOON SAMPLER FROM 5 TO 20 FEET.

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Location Information

Legal Location: NW SW NW NE SEC. 26, T. 044 N., R. 31 W.
County: MELLETTTE Location: 044N-31W-26ABCB 2
Basin: WHITE Latitude: 43 45' 50"
Hydrologic Unit Code: 10140202 Longitude: 100 58' 08"
Land Owner: VOLLMER Ground Surface Elevation (ft.): 2289.03 I

Project Information

Project: MEDICAL WASTE INVEST. Geologist: L. SCHULZ
Drill Date: 09/18/1990 Geologist's Log: X
Company: SDGS Driller: D. IVERSON
Drilling Method: HOLLOWSTEM Driller's Log:
Test Hole Number: R20-90-49 Total Drill Hole Depth (ft.): 19.0
Samples:

Well Information

SDGS Well Name: R20-90-49 Aquifer:
Water Rights Well: Management Unit:
Other Well Name: Casing Top Elevation: 2290.77 I
Casing Type: PVC, SCH. 80, FLUSH Casing Diameter (in.): 2.0
Screen Type: PVC, SCH. 80, MFG., 0.018 SLOT Screen Length (ft.): 10.0
Total Casing and Screen (ft.): 20.0 Casing Stick-up (ft.): 1.74
Well Maintenance Date:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

WELL DATA: FILTER PACK - 18 TO 6 FEET (GRAIN SIZE 0.65 TO 0.75 MM); GRANULAR BENTONITE - 6 TO 5 FEET; CEMENT - 5 TO 0 FEET; LOCKING STEEL WELL PROTECTOR INSTALLED.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2289.03 - 2281.03	0.0 - 8.0	CLAY, BROWN TO BLACK, SILTY; SOME SAND AND PEBBLES, DRY (ALLUVIUM)
2281.03 - 2276.03	8.0 - 13.0	CLAY, OLIVE-BROWN, SILTY, SANDY; MANY PEBBLES, CALCAREOUS, MANY SMALL GYPSUM CRYSTALS PRESENT, NUMEROUS SHALE CLASTS, MOSTLY OXIDIZED, SATURATED AT APPROXIMATELY 13 FEET (ALLUVIUM)
2276.03 - 2273.03	13.0 - 16.0	CLAY, GRAY AND BROWN MOTTLED; MUCH GYPSUM, CALCAREOUS (PIERRE SHALE)
2273.03 - 2270.03	16.0 - 19.0	CLAY, GRAY-BLACK; LACKS BROWN MOTTLING, MUCH GYPSUM, CALCAREOUS; THIS INTERVAL INTERPRETED FROM CORE TAKEN FROM 18 TO 19 FEET AND CUTTINGS FROM AUGER FLIGHTS (PIERRE SHALE)

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Location Information

Legal Location:SE SE NW NE SEC. 26, T. 044 N., R. 31 W.
County:MELLETTTE Location:044N-31W-26ABDD
Basin:WHITE Latitude:43 45' 47"
Hydrologic Unit Code:10140202 Longitude:100 57' 56"
Land Owner:VOLLMER Ground Surface Elevation (ft.):2336 T

Project Information

Project:MEDICAL WASTE INVEST. Geologist:L. SCHULZ
Drill Date:09/18/1990 Geologist's Log:X
Company:SDGS Driller:D. IVERSON
Drilling Method:HOLLOWSTEM Driller's Log:
Test Hole Number:R20-90-48 Total Drill Hole Depth (ft.):25.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2336.00 - 2330.10	0.0 - 5.9	SAND, LIGHT-TAN-BROWN, FINE TO MEDIUM, WELL-ROUNDED; SOME GRAVEL AND PEBBLES, MANY SHALE CLASTS, CALCAREOUS, SOME SILT
2330.10 - 2329.20	5.9 - 6.8	CLAY, LIGHT-TAN, VERY SANDY, VERY SILTY; CALCAREOUS, MANY SMALL SHALE CLASTS, SOME SMALL GYPSUM CRYSTALS PRESENT
2329.20 - 2318.40	6.8 - 17.6	SAND, LIGHT-BROWN, FINE TO MEDIUM; SOME GRAVEL AND COBBLES FROM 12 TO 12.6 FEET, SILT AND CLAY FROM 12.6 TO 13 FEET, COARSE GRAVEL AND LARGE SHALE CLASTS FROM 13 TO 17.6 FEET, CALCAREOUS
2318.40 - 2316.50	17.6 - 19.5	CLAY, OLIVE-BROWN TO GRAY WITH SOME BROWN MOTTLING; FISSILE, NONCALCAREOUS, SOME IRON STAINING AND GYPSUM IN HORIZONTAL FRACTURES (PIERRE SHALE)
2316.50 - 2311.00	19.5 - 25.0	CLAY, DARK-GRAY TO BLACK, SOME TAN-BROWN MOTTLING; BLOCKY, SEMI-FISSILE, NON-CALCAREOUS, IRON STAINING IN HORIZONTAL FRACTURES WITH SOME GYPSUM, SMALL BAND OF ORANGE-BROWN LIMONITE AND IRON FROM 20.0 TO 20.4 FEET, LAYERS OF TAN-BROWN CLAY THROUGHOUT (PIERRE SHALE)

TEST-HOLE CORED FROM 5 TO 25 FEET; SAMPLES FROM 7 TO 9 FEET MISSING.

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Location Information

Legal Location: NW SW SE NE SEC. 26, T. 044 N., R. 31 W.
County: MELLETTTE Location: 044N-31W-26ADCB
Basin: WHITE Latitude: 43 45' 35"
Hydrologic Unit Code: 10140202 Longitude: 100 57' 52"
Land Owner: VOLLMER Ground Surface Elevation (ft.): 2319 T

Project Information

Project: MEDICAL WASTE INVEST. Geologist: L. SCHULZ
Drill Date: 09/19/1990 Geologist's Log:
Company: SDGS Driller: D. IVERSON
Drilling Method: HOLLOWSTEM Driller's Log: X
Test Hole Number: R20-90-54 Total Drill Hole Depth (ft.): 14.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2319.00 - 2316.00	0.0 - 3.0	CLAY, BROWN
2316.00 - 2315.00	3.0 - 4.0	CLAY, TAN TO LIGHT-TAN
2315.00 - 2307.00	4.0 - 12.0	CLAY, TAN, SILTY
2307.00 - 2305.00	12.0 - 14.0	CLAY, GRAY (PIERRE SHALE)

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Location Information

Legal Location:SW SW SE NE SEC. 26, T. 044 N., R. 31 W.
County:MELLETTTE Location:044N-31W-26ADCC
Basin:WHITE Latitude:43 45' 32"
Hydrologic Unit Code:10140202 Longitude:100 57' 53"
Land Owner:VOLLMER Ground Surface Elevation (ft.):2305 T

Project Information

Project:MEDICAL WASTE INVEST. Geologist:L. SCHULZ
Drill Date:09/19/1990 Geologist's Log:X
Company:SDGS Driller:D. IVERSON
Drilling Method:HOLLOWSTEM Driller's Log:
Test Hole Number:R20-90-51 Total Drill Hole Depth (ft.):10.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2305.00 - 2302.00	0.0 - 3.0	CLAY, BROWN WITH SOME GRAY MOTTLING; MINOR AMOUNT OF GYPSUM (PIERRE SHALE)
2302.00 - 2297.00	3.0 - 8.0	CLAY, OLIVE-GRAY TO GRAY WITH SOME BROWN MOTTLING (PIERRE SHALE)
2297.00 - 2295.00	8.0 - 10.0	CLAY, GRAY TO BLACK, VERY LITTLE BROWN MOTTLING; SOME GYPSUM (PIERRE SHALE)

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Location Information

Legal Location: NW SE SE NE SEC. 26, T. 044 N., R. 31 W.
County: MELLETTTE Location: 044N-31W-26ADDB
Basin: WHITE Latitude: 43 45' 35"
Hydrologic Unit Code: 10140202 Longitude: 100 57' 44"
Land Owner: VOLLMER Ground Surface Elevation (ft.): 2330 T

Project Information

Project: MEDICAL WASTE INVEST. Geologist: L. SCHULZ
Drill Date: 09/19/1990 Geologist's Log:
Company: SDGS Driller: D. IVERSON
Drilling Method: HOLLOWSTEM Driller's Log: X
Test Hole Number: R20-90-53 Total Drill Hole Depth (ft.): 17.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2330.00 - 2327.00	0.0 - 3.0	CLAY, BROWN
2327.00 - 2325.00	3.0 - 5.0	CLAY, TAN
2325.00 - 2316.00	5.0 - 14.0	CLAY, TAN, SILTY
2316.00 - 2313.00	14.0 - 17.0	CLAY, GRAY (PIERRE SHALE)

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Location Information

Legal Location:SW SE SE NE SEC. 26, T. 044 N., R. 31 W.
County:MELLETTTE Location:044N-31W-26ADDC
Basin:WHITE Latitude:43 45' 32"
Hydrologic Unit Code:10140202 Longitude:100 57' 41"
Land Owner:VOLLMER Ground Surface Elevation (ft.):2328 T

Project Information

Project:MEDICAL WASTE INVEST. Geologist:L. SCHULZ
Drill Date:09/19/1990 Geologist's Log:
Company:SDGS Driller:D. IVERSON
Drilling Method:HOLLOWSTEM Driller's Log:X
Test Hole Number:R20-90-52 Total Drill Hole Depth (ft.):8.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2328.00 - 2325.00	0.0 - 3.0	CLAY, BROWN
2325.00 - 2323.00	3.0 - 5.0	CLAY, TAN
2323.00 - 2320.00	5.0 - 8.0	CLAY, GRAY (PIERRE SHALE)

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Location Information

Legal Location:NE NE NE NW SEC. 26, T. 044 N., R. 31 W.
County:MELLETTTE Location:044N-31W-26BAAA
Basin:WHITE Latitude:43 45' 57"
Hydrologic Unit Code:10140202 Longitude:100 58' 13"
Land Owner:VOLLMER Ground Surface Elevation (ft.):2285.27 I

Project Information

Project:MEDICAL WASTE INVEST. Geologist:L. SCHULZ
Drill Date:09/19/1990 Geologist's Log:X
Company:SDGS Driller:D. IVERSON
Drilling Method:HOLLOWSTEM Driller's Log:
Test Hole Number:R20-90-50 Total Drill Hole Depth (ft.):35.0
Samples:

Well Information

SDGS Well Name: R20-90-50 Aquifer:
Water Rights Well: Management Unit:
Other Well Name: Casing Top Elevation:2287.39 I
Casing Type:PVC, SCH. 80, FLUSH Casing Diameter (in.):2.0
Screen Type:PVC, SCH. 80, MFG., 0.018 SLOT Screen Length (ft.):10.0
Total Casing and Screen (ft.):37.0 Casing Stick-up (ft.):2.12
Well Maintenance Date:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

WELL DATA: NATURAL SEDIMENT - 35 TO 26.3 FEET; FILTER PACK (GRAIN SIZE 0.65 TO 0.75 MM) - 26.3 TO 22.0 FEET; GRANULAR BENTONITE - 22 TO 21 FEET; CEMENT - 21 TO 0 FEET; LOCKING STEEL WELL PROTECTOR INSTALLED.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2285.27 - 2280.27	0.0 - 5.0	CLAY, BROWN-GRAY, SILTY, SANDY; SOME PEBBLES AND GRAVEL, CALCAREOUS, DRY (ALLUVIUM)
2280.27 - 2278.27	5.0 - 7.0	CLAY, LIGHT-BROWN-GRAY, SILTY; POWDERY AND DRY, CALCAREOUS (ALLUVIUM)
2278.27 - 2269.27	7.0 - 16.0	SAND, LIGHT-BROWN, FINE TO COARSE, WELL-ROUNDED; SOME COBBLES AND GRAVEL FROM 11 TO 15 FEET, CALCAREOUS, MANY SHALE CLASTS THROUGHOUT
2269.27 - 2262.27	16.0 - 23.0	SAND AND GRAVEL, BROWN, COARSE GRAVEL, FINE TO MEDIUM SAND, WELL-ROUNDED; SMALL STRINGERS OF OLIVE-BROWN, NONCLACAREOUS CLAY FROM 16 TO 19 FEET, SAND AND GRAVEL IS CALCAREOUS
2262.27 - 2254.27	23.0 - 31.0	SAND, LIGHT-TAN-BROWN, VERY FINE, SILTY, WELL-ROUNDED; SOME CLAY STRINGERS AT TOP OF

INTERVAL, MANY SMALL SHALE CLASTS, COBBLES FROM
28 TO 29 FEET

2254.27 - 2252.27	31.0 - 33.0	CLAY, DARK-BROWN TO GRAY MOTTLED; SEMI- FISSILE, HARD AND DRY (PIERRE SHALE)
2252.27 - 2250.27	33.0 - 35.0	CLAY, DARK-GRAY TO BLACK, SOME OLIVE- BROWN WEATHERING; SOME GYPSUM, THIS INTERVAL INTERPRETED FROM CORE SAMPLE TAKEN FROM 33 TO 35 FEET (PIERRE SHALE)

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Location Information

Legal Location: NW SE NW NW SEC. 28, T. 044 N., R. 31 W.
County: MELLETTTE Location: 044N-31W-28BBDB
Basin: WHITE Latitude: 43 45' 51"
Hydrologic Unit Code: 10140202 Longitude: 101 01' 03"
Land Owner: Ground Surface Elevation (ft.): 1950 T

Project Information

Project: USGS Geologist:
Drill Date: Geologist's Log:
Company: USGS Driller:
Drilling Method: Driller's Log: X
Test Hole Number: Total Drill Hole Depth (ft.): 27.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
1950.00 - 1940.00	0.0 - 10.0	SILT, WHITE
1940.00 - 1938.00	10.0 - 12.0	CLAY, BROWN
1938.00 - 1930.00	12.0 - 20.0	SILT, WHITE; MOIST AT 14 FEET
1930.00 - 1926.00	20.0 - 24.0	SILT, GRAY
1926.00 - 1923.00	24.0 - 27.0	SHALE, DARK-GRAY

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Location Information

Legal Location: NW SW SW SW SEC. 28, T. 044 N., R. 31 W.
County: MELLETTTE Location: 044N-31W-28CCCB
Basin: WHITE Latitude: 43 45' 11"
Hydrologic Unit Code: 10140203 Longitude: 101 01' 11"
Land Owner: Ground Surface Elevation (ft.): 2333 T

Project Information

Project: MELLETTTE-TODD CO. STUDY Geologist: R. HAMMOND
Drill Date: 07/09/1996 Geologist's Log: X
Company: SDGS Driller: G. JENSEN
Drilling Method: ROTARY Driller's Log:
Test Hole Number: R2-96-24 Total Drill Hole Depth (ft.): 42.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2333.00 - 2331.00	0.0 - 2.0	TOPSOIL, BLACK
2331.00 - 2323.00	2.0 - 10.0	SAND, FINE
2323.00 - 2315.00	10.0 - 18.0	SILT, DARK-BROWN
2315.00 - 2291.00	18.0 - 42.0	SHALE, BLACK (PIERRE SHALE)

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Location Information

Legal Location: NW SE NE NE SEC. 36, T. 044 N., R. 31 W.
County: MELLETTE Location: 044N-31W-36AADB 1
Basin: WHITE Latitude: 43 44' 58"
Hydrologic Unit Code: 10140202 Longitude: 100 56' 33"
Land Owner: VOLLMER Ground Surface Elevation (ft.): 2222 T

Project Information

Project: MEDICAL WASTE INVEST. Geologist: L. SCHULZ
Drill Date: 09/26/1990 Geologist's Log: X
Company: SDGS Driller: D. IVERSON
Drilling Method: HOLLOWSTEM Driller's Log:
Test Hole Number: R20-90-55 Total Drill Hole Depth (ft.): 54.0
Samples:

Well Information

SDGS Well Name: R20-90-55 Aquifer:
Water Rights Well: Management Unit:
Other Well Name: Casing Top Elevation:
Casing Type: PVC, SCH. 80, FLUSH Casing Diameter (in.): 2.0
Screen Type: PVC, SCH. 80, MFG., 0.018 SLOT Screen Length (ft.): 5.0
Total Casing and Screen (ft.): 52.0 Casing Stick-up (ft.): 1.79
Well Maintenance Date:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

WELL DATA: NATURAL SEDIMENT - 54 TO 48.9 FEET; FILTER PACK (GRAIN SIZE 0.65 TO 0.75 MM) - 48.9 TO 41.9; GRANULAR BENTONITE - 41.9 TO 38.3 FEET; BENTONITE SLURRY - 38.3 TO 20.3 FEET; CEMENT - 20.3 TO 0; LOCKING STEEL WELL PROTECTOR INSTALLED.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2222.00 - 2217.00	0.0 - 5.0	CLAY, BROWN AND BLACK MOTTLED; SOME LAYERING; WEATHERED, DRILLED WITH PLUG IN HOLLOWSTEM AUGERS TO 5 FEET (PIERRE SHALE)
2217.00 - 2209.00	5.0 - 13.0	CLAY, GRAY WITH BROWN MOTTLING; MANY GYPSUM FILLED HORIZONTAL FRACTURES, LESS FRACTURING FROM 10 TO 11 FEET (PIERRE SHALE)
2209.00 - 2207.00	13.0 - 15.0	CLAY, GRAY TO DARK-GRAY AT 14 FEET, SOME BROWN MOTTLING; SOME HORIZONTAL FRACTURES WITH GYPSUM, CALCAREOUS, FISSILE (PIERRE SHALE)
2207.00 - 2201.00	15.0 - 21.0	CLAY, DARK-GRAY, LITTLE BROWN MOTTLING; VERTICAL FRACTURE SHOWING IRON STAINING FROM 15 TO 17 FEET, VERY LITTLE GYPSUM, FISSILE, CALCAREOUS (PIERRE SHALE)
2201.00 - 2168.00	21.0 - 54.0	CLAY, DARK-GRAY TO BLACK; SOME GYPSUM, FISSILE,

CALCAREOUS, SMALL LAYER OF LIGHT-GRAY TO WHITE,
HIGHLY CALCAREOUS CLAY FROM 32 TO 32.4 FEET AND
43.6 TO 43.9 FEET

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Location Information

Legal Location: NW SE NE NE SEC. 36, T. 044 N., R. 31 W.
County: MELLETTE Location: 044N-31W-36AADB 2
Basin: WHITE Latitude: 43 44' 58"
Hydrologic Unit Code: 10140202 Longitude: 100 56' 33"
Land Owner: VOLLMER Ground Surface Elevation (ft.): 2222 T

Project Information

Project: MEDICAL WASTE INVEST. Geologist: L. SCHULZ
Drill Date: 09/26/1990 Geologist's Log: X
Company: SDGS Driller: D. IVERSON
Drilling Method: HOLLOWSTEM Driller's Log:
Test Hole Number: R20-90-56 Total Drill Hole Depth (ft.): 25.0
Samples:

Well Information

SDGS Well Name: R20-90-56 Aquifer:
Water Rights Well: Management Unit:
Other Well Name: Casing Top Elevation:
Casing Type: PVC, SCH. 80, FLUSH Casing Diameter (in.): 2.0
Screen Type: PVC, SCH. 80, MFG., 0.018 SLOT Screen Length (ft.): 10.0
Total Casing and Screen (ft.): 26.7 Casing Stick-up (ft.): 2.31
Well Maintenance Date:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

WELL DATA: NATURAL SEDIMENT - 25 TO 22 FEET; FILTER PACK (GRAIN SIZE 0.65 TO 0.75 MM) - 22 TO 12 FEET; GRANULAR BENTONITE - 12 TO 11.1 FEET; CEMENT - 11.1 TO 0 FEET; LOCKING STEEL WELL PROTECTOR INSTALLED.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2222.00 - 2217.00	0.0 - 5.0	CLAY, BROWN AND GRAY MOTTLED; SOME ORANGE-BROWN LAYERING (PIERRE SHALE)
2217.00 - 2206.00	5.0 - 16.0	CLAY, DARK-BROWN TO GRAY MOTTLED; SOME GYPSUM, MUCH ORANGE-BROWN IRON STAINING IN FRACTURES, CALCAREOUS (PIERRE SHALE)
2206.00 - 2201.00	16.0 - 21.0	CLAY, GRAY-BLACK WITH SOME OLIVE-BROWN MOTTLING; CALCAREOUS, FISSILE AND PARTLY BLOCKY, SOME SMALL GYPSUM CRYSTALS PRESENT, LOSING THE IRON STAINED FRACTURING (PIERRE SHALE)
2201.00 - 2197.00	21.0 - 25.0	CLAY, GRAY-BLACK; CALCAREOUS, FISSILE, NOT AS BLOCKY AS PREVIOUS INTERVAL, DRY AND HARD (PIERRE SHALE)

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Location Information

Legal Location:SW SE NE NE SEC. 36, T. 044 N., R. 31 W.
County:MELLETTTE Location:044N-31W-36AADC 1
Basin:WHITE Latitude:43 44' 57"
Hydrologic Unit Code:10140202 Longitude:100 56' 33"
Land Owner:VOLLMER Ground Surface Elevation (ft.):2198 T

Project Information

Project:MEDICAL WASTE INVEST. Geologist:L. SCHULZ
Drill Date:09/27/1990 Geologist's Log:X
Company:SDGS Driller:D. IVERSON
Drilling Method:HOLLOWSTEM Driller's Log:
Test Hole Number:R20-90-57 Total Drill Hole Depth (ft.):55.0
Samples:

Well Information

SDGS Well Name: R20-90-57 Aquifer:
Water Rights Well: Management Unit:
Other Well Name: Casing Top Elevation:
Casing Type:PVC, SCH. 80, FLUSH Casing Diameter (in.):2.0
Screen Type:PVC, SCH. 80, MFG., 0.018 SLOT Screen Length (ft.):5.0
Total Casing and Screen (ft.):49.7 Casing Stick-up (ft.):1.71
Well Maintenance Date:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

WELL DATA: NATURAL SEDIMENT - 55 TO 47.6 FEET; FILTER PACK (GRAIN SIZE 0.65 TO 0.75 MM) - 47.6 TO 40.3 FEET; GRANULAR BENTONITE - 40.3 TO 29.7 FEET; CEMENT - 29.7 TO 0 FEET; LOCKING STEEL WELL PROTECTOR INSTALLED.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2198.00 - 2192.40	0.0 - 5.6	CLAY, BROWN WITH SOME GRAY MOTTLING; SLIGHTLY CALCAREOUS, VERY DRY, HARD, SOME PLANT ROOTS PRESENT (PIERRE SHALE)
2192.40 - 2187.00	5.6 - 11.0	CLAY, DARK-BROWN WITH SOME GRAY MOTTLING; SLIGHTLY CALCAREOUS, VERTICAL AND HORIZONTAL FRACTURING WITH GYPSUM AND IRON STAINING, SOME PLANT ROOTS, BLOCKY (PIERRE SHALE)
2187.00 - 2185.70	11.0 - 12.3	CLAY, DARK-BROWN TO BLACK; CALCAREOUS, VERTICAL AND HORIZONTAL FRACTURES WITH GYPSUM AND IRON STAINING, BLOCKY TO SLIGHTLY FISSILE (PIERRE SHALE)
2185.70 - 2181.00	12.3 - 17.0	CLAY, DARK-GRAY TO BLACK; CALCAREOUS, HORIZONTAL FRACTURING, SOME VERTICAL FRACTURES WITH IRON STAINING AND GYPSUM, FISSILE (PIERRE SHALE)

2181.00 - 2143.00

17.0 - 55.0

CLAY, DARK-GRAY TO BLACK; CALCAREOUS, FISSILE,
A VERY CALCAREOUS OLIVE-GREEN TO BROWN LAYER
FROM 20.6 TO 20.7 FEET (PIERRE SHALE)

CONTINUOUS CORE TAKEN TO 26 FEET; DRILLED WITH PLUG AND SPLIT-SPOON SAMPLER
ALTERNATING EACH TO A DEPTH OF 55 FEET; BOTTOM HOLE SAMPLE SHOWED A GRAY SHALE.

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Location Information

Legal Location:SW SE NE NE SEC. 36, T. 044 N., R. 31 W.
County:MELLETTTE Location:044N-31W-36AADC 2
Basin:WHITE Latitude:43 44' 57"
Hydrologic Unit Code:10140202 Longitude:100 56' 33"
Land Owner:VOLLMER Ground Surface Elevation (ft.):2198 T

Project Information

Project:MEDICAL WASTE INVEST. Geologist:L. SCHULZ
Drill Date:09/27/1990 Geologist's Log:X
Company:SDGS Driller:D. IVERSON
Drilling Method:HOLLOWSTEM Driller's Log:
Test Hole Number:R20-90-58 Total Drill Hole Depth (ft.):23.0
Samples:

Well Information

SDGS Well Name: R20-90-58 Aquifer:
Water Rights Well: Management Unit:
Other Well Name: Casing Top Elevation:
Casing Type:PVC, SCH. 80, FLUSH Casing Diameter (in.):2.0
Screen Type:PVC, SCH. 80, MFG., 0.018 SLOT Screen Length (ft.):10.0
Total Casing and Screen (ft.):22.0 Casing Stick-up (ft.):1.79
Well Maintenance Date:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

WELL DATA: NATURAL SEDIMENT - 23 TO 17.6 FEET; FILTER PACK (GRAIN SIZE 0.65 TO 0.75 MM) - 17.6 TO 8.3 FEET; GRANULAR BENTONITE - 8.3 TO 7.8 FEET; CEMENT - 7.8 TO 0 FEET; LOCKING STEEL WELL PROTECTOR INSTALLED.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2198.00 - 2192.00	0.0 - 6.0	CLAY, BROWN AND GRAY MOTTLED; SEMI- FISSILE, BLOCKY, CALCAREOUS, SOME GYPSUM (PIERRE SHALE)
2192.00 - 2185.00	6.0 - 13.0	CLAY, DARK-BROWN AND GRAY MOTTLED; CALCAREOUS, MUCH IRON STAINING, SEMI- FISSILE, SOME GYPSUM (PIERRE SHALE)
2185.00 - 2182.00	13.0 - 16.0	CLAY, GRAY-BLACK WITH SOME BROWN MOTTLING; CALCAREOUS, LESS IRON STAINING WITH DEPTH, SOME GYPSUM, BLOCKY, SEMI-FISSILE (PIERRE SHALE)
2182.00 - 2175.00	16.0 - 23.0	CLAY, GRAY-BLACK; CALCAREOUS, FISSILE, VERY SMALL AMOUNT OF IRON STAINING, NO BROWN MOTTLING PRESENT, SOME GYPSUM (PIERRE SHALE)

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Location Information

Legal Location:NE SW SE SE SEC. 10, T. 044 N., R. 33 W.
County:MELLETTTE Location:044N-33W-10DDCA
Basin:WHITE Latitude:43 47' 47"
Hydrologic Unit Code:10140202 Longitude:101 13' 23"
Land Owner: Ground Surface Elevation (ft.):2025 T

Project Information

Project:USGS Geologist:
Drill Date: Geologist's Log:
Company:USGS Driller:
Drilling Method: Driller's Log:X
Test Hole Number: Total Drill Hole Depth (ft.):29.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2025.00 - 2016.00	0.0 - 9.0	SILT
2016.00 - 2010.00	9.0 - 15.0	SAND, COARSE; GRAVEL, FINE
2010.00 - 2004.00	15.0 - 21.0	SAND, COARSE; GRAVEL, COARSE
2004.00 - 1996.00	21.0 - 29.0	SAND, LIGHT-GRAY, SILTY; DARK-GRAY SHALE BIT SAMPLE

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Location Information

Legal Location:SW NW SW NW SEC. 14, T. 044 N., R. 33 W.
County:MELLETTTE Location:044N-33W-14BCBC
Basin:WHITE Latitude:43 47' 23"
Hydrologic Unit Code:10140202 Longitude:101 13' 04"
Land Owner: Ground Surface Elevation (ft.):2020 T

Project Information

Project:USGS Geologist:
Drill Date: Geologist's Log:
Company:USGS Driller:
Drilling Method: Driller's Log:X
Test Hole Number: Total Drill Hole Depth (ft.):34.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2020.00 - 2010.00	0.0 - 10.0	SILT; FINE SAND
2010.00 - 2005.00	10.0 - 15.0	SAND, VERY FINE; MOIST AT 12 FEET
2005.00 - 2001.00	15.0 - 19.0	SAND, MEDIUM
2001.00 - 1986.00	19.0 - 34.0	SAND, COARSE; FINE GRAVEL; DARK-GRAY SHALE BIT SAMPLE

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Location Information

Legal Location: NW NE NE NE SEC. 15, T. 044 N., R. 33 W.
County: MELLETTTE Location: 044N-33W-15AAAB
Basin: WHITE Latitude: 43 47' 40"
Hydrologic Unit Code: 10140202 Longitude: 101 13' 19"
Land Owner: Ground Surface Elevation (ft.): 2015 T

Project Information

Project: USGS Geologist:
Drill Date: Geologist's Log:
Company: USGS Driller:
Drilling Method: Driller's Log: X
Test Hole Number: Total Drill Hole Depth (ft.): 32.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2015.00 - 2007.00	0.0 - 8.0	SILT, BROWN TO LIGHT-TAN
2007.00 - 2005.00	8.0 - 10.0	SAND, MEDIUM
2005.00 - 2003.00	10.0 - 12.0	SAND, MEDIUM; GRAVEL, MEDIUM
2003.00 - 1994.00	12.0 - 21.0	SAND, MEDIUM; GRAVEL, MEDIUM, MOIST AT 13 FEET
1994.00 - 1986.00	21.0 - 29.0	GRAVEL, SMALL TO MEDIUM, SILTY
1986.00 - 1983.00	29.0 - 32.0	SHALE, DARK-GRAY
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Location Information

Legal Location:NE SE NE NE SEC. 15, T. 044 N., R. 33 W.
County:MELLETTTE Location:044N-33W-15AADA
Basin:WHITE Latitude:43 47' 34"
Hydrologic Unit Code:10140202 Longitude:101 13' 12"
Land Owner: Ground Surface Elevation (ft.):2015 T

Project Information

Project:USGS Geologist:
Drill Date: Geologist's Log:
Company:USGS Driller:
Drilling Method: Driller's Log:X
Test Hole Number: Total Drill Hole Depth (ft.):27.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2015.00 - 2010.00	0.0 - 5.0	SILT
2010.00 - 1997.00	5.0 - 18.0	SAND, MEDIUM; GRAVEL, MEDIUM, MOIST AT 13 FEET
1997.00 - 1992.00	18.0 - 23.0	SAND, COARSE; GRAVEL, FINE
1992.00 - 1989.00	23.0 - 26.0	GRAVEL, GRAY, MEDIUM, SILTY
1989.00 - 1988.00	26.0 - 27.0	SHALE, DARK-GRAY

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Location Information

Legal Location: NW NE SW NE SEC. 22, T. 044 N., R. 33 W.
County: MELLETTTE Location: 044N-33W-22ACAB
Basin: WHITE Latitude: 43 46' 36"
Hydrologic Unit Code: 10140202 Longitude: 101 13' 38"
Land Owner: Ground Surface Elevation (ft.): 2040 T

Project Information

Project: USGS Geologist:
Drill Date: Geologist's Log:
Company: USGS Driller:
Drilling Method: Driller's Log: X
Test Hole Number: Total Drill Hole Depth (ft.): 32.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2040.00 - 2028.00	0.0 - 12.0	SILT, LIGHT-GRAY
2028.00 - 2025.00	12.0 - 15.0	SILT AND CLAY
2025.00 - 2023.00	15.0 - 17.0	CLAY, LIGHT-BROWN; WITH WHITE SILT PEBBLES
2023.00 - 2021.00	17.0 - 19.0	SILT
2021.00 - 2011.00	19.0 - 29.0	CLAY, BROWN; GRAVEL, MEDIUM
2011.00 - 2008.00	29.0 - 32.0	SHALE, DARK-GRAY
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Location Information

Legal Location: NW SW NE SEC. 22, T. 044 N., R. 33 W.
County: MELLETTTE Location: 044N-33W-22ACB
Basin: WHITE Latitude: 43 46' 32"
Hydrologic Unit Code: 10140202 Longitude: 101 13' 39"
Land Owner: Ground Surface Elevation (ft.): 2030 T

Project Information

Project: USGS Geologist:
Drill Date: 08/18/1966 Geologist's Log:
Company: Driller:
Drilling Method: Driller's Log: X
Test Hole Number: Total Drill Hole Depth (ft.): 22.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

DEPTH TO WATER: 11.1 FEET MEASURED 08-18-1966.

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2030.00 - 2023.00	0.0 - 7.0	SILT AND CLAY, BROWN
2023.00 - 2017.00	7.0 - 13.0	SAND, FINE
2017.00 - 2015.00	13.0 - 15.0	SAND, MEDIUM TO COARSE
2015.00 - 2011.00	15.0 - 19.0	SAND AND GRAVEL; SHALE
2011.00 - 2008.00	19.0 - 22.0	SHALE, DARK-GRAY
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Location Information

Legal Location:NE NW SE NE SEC. 22, T. 044 N., R. 33 W.
County:MELLETTTE Location:044N-33W-22ADBA
Basin:WHITE Latitude:43 46' 35"
Hydrologic Unit Code:10140202 Longitude:101 13' 21"
Land Owner: Ground Surface Elevation (ft.):2353 T

Project Information

Project:USGS Geologist:
Drill Date: Geologist's Log:
Company:USGS Driller:
Drilling Method: Driller's Log:X
Test Hole Number: Total Drill Hole Depth (ft.):32.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2353.00 - 2338.00	0.0 - 15.0	SILT AND CLAY; SAND, VERY FINE, BROWN
2338.00 - 2334.00	15.0 - 19.0	CLAY, BROWN
2334.00 - 2329.00	19.0 - 24.0	SAND, COARSE; GRAVEL, FINE, SILTY
2329.00 - 2326.00	24.0 - 27.0	GRAVEL, MEDIUM
2326.00 - 2324.00	27.0 - 29.0	CLAY, BROWN
2324.00 - 2321.00	29.0 - 32.0	SHALE, DARK-GRAY
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Location Information

Legal Location:SW SE NE NE SEC. 27, T. 044 N., R. 33 W.
County:MELLETTTE Location:044N-33W-27AADC
Basin:WHITE Latitude:43 45' 44"
Hydrologic Unit Code:10140202 Longitude:101 13' 19"
Land Owner: Ground Surface Elevation (ft.):2050 T

Project Information

Project:USGS Geologist:
Drill Date: Geologist's Log:
Company:USGS Driller:
Drilling Method: Driller's Log:X
Test Hole Number: Total Drill Hole Depth (ft.):14.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2050.00 - 2048.00	0.0 - 2.0	SILT
2048.00 - 2045.00	2.0 - 5.0	SAND, MEDIUM
2045.00 - 2040.00	5.0 - 10.0	SAND, FINE, SILTY
2040.00 - 2036.00	10.0 - 14.0	SILT AND CLAY, DARK-BROWN; SHALE, BIT SAMPLE

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Location Information

Legal Location:SE SE NE NW SEC. 33, T. 045 N., R. 31 W.
County:MELLETTTE Location:045N-31W-33BADD
Basin:WHITE Latitude:43 50' 09"
Hydrologic Unit Code:10140203 Longitude:101 01' 56"
Land Owner: Ground Surface Elevation (ft.):2120 T

Project Information

Project:MELLETTTE-TODD CO. STUDY Geologist:R. HAMMOND
Drill Date:07/09/1996 Geologist's Log:X
Company:SDGS Driller:G. JENSEN
Drilling Method:ROTARY Driller's Log:
Test Hole Number:R2-96-27 Total Drill Hole Depth (ft.):42.0
Samples:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

<u>Elevation (ft.)</u>	<u>Depth (ft.)</u>	<u>Description</u>
2120.00 - 2118.00	0.0 - 2.0	TOPSOIL, BLACK
2118.00 - 2114.00	2.0 - 6.0	SILT, BROWN
2114.00 - 2095.00	6.0 - 25.0	SAND AND GRAVEL
2095.00 - 2078.00	25.0 - 42.0	SHALE, BLACK (PIERRE SHALE)

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