

MONITORING WELL CONSTRUCTION DIAGRAM (FLUSH MOUNT)

Facility/Project Name Former Cliff Dow Site	Facility Location/Address 100 Wright St./ Lake Shore Blvd Marquette Mi	Client Name City of Marquette
Well Name UPG-200B		Date Well Installed 9/21/2009
TriMedia Project Number 99-059		Drill Crew DDM, TJM
Type of Well Water Table Observation Well <input checked="" type="checkbox"/> Piezometer <input type="checkbox"/> Other <input type="checkbox"/>	Location of Well from Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input type="checkbox"/> Downgradient <input checked="" type="checkbox"/> Not Known	Geologist/Technician DDM
		Comments

<p>A. Well Casing (top elevation) <u>603.88</u> ft</p> <p>B. Land Surface Elevation <u>604.44</u> ft</p> <p>C. Surface Seal (bottom) <u>1</u> ft</p> <p>D. Annular Seal (bottom) <u>none</u> ft</p> <p>E. Bentonite Seal (bottom) <u>8</u> ft</p> <p>F. Fine Sand (bottom) <u>none</u> ft</p> <p>G. Filter Pack (top) <u>8</u> ft</p> <p>H. Screen Joint (top) <u>10.61</u> ft</p> <p>I. Well Bottom <u>15.61</u> ft</p> <p>J. Filter Pack (bottom) <u>15.61</u> ft</p> <p>K. Borehole Bottom <u>15.8</u> ft</p>		<p>1 Cap and Lock <u>x</u> Yes <u> </u> No</p> <p>2 Protective Pipe <u> </u> Yes <u> </u> No Length <u> </u> ft Material <u> </u> Steel <u> </u> <u> </u> Other <u> </u> Additional Protection <u>x</u> Yes <u> </u> No <u> </u> Flushmount <u> </u></p> <p>3 Surface Seal <u> </u> Bentonite <u> </u> <u> </u> Concrete <u>x</u> <u> </u> <u> </u> Other <u> </u></p> <p>4 Material between well casing and protective pipe <u> </u> Bentonite <u> </u> <u> </u> Annual Space Seal <u> </u> <u> </u> none <u> </u> Other <u> </u></p> <p>5 Annular Space Seal <u> </u> Bentonite Chips <u> </u> <u> </u> Bentonite/Cuttings Mixture <u> </u> <u> </u> none <u> </u> Other <u> </u> Insulation: Tremie <u> </u> Gravity <u> </u></p> <p>6 Bentonite Seal <u> </u> Bentonite Chips <u>x</u> <u> </u> <u> </u> 1/4 inch <u> </u> Bentonite Pellets <u> </u> <u>x</u> <u> </u> 3/8 inch <u> </u></p> <p>7 Fine Sand Material <u> </u> Manuf., Prod. Name, and Mesh Size <u> </u> K&E well gravel 20/40 <u> </u></p> <p>8 Filter Pack Material <u> </u> Manuf., Prod. Name, and Mesh Size <u> </u> K&E well gravel 20/40 <u> </u></p> <p>9 Well Casing Material <u> </u> sch 40 pvc <u> </u> <u> </u> Flush Thread <u>x</u> <u> </u> <u> </u> Other <u> </u></p> <p>10 Screen Material <u> </u> Screen type: Factory Cut <u>x</u> <u> </u> <u> </u> sch 40 pvc <u> </u> Other <u> </u> <u> </u> Slot Size <u> </u> 0.1 <u> </u> <u> </u> Slot Length <u> </u> 5' <u> </u></p> <p>11 Backfill Material (below filter pack) <u> </u> None <u>x</u> <u> </u> <u> </u> Other <u> </u></p>
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Borehole Data	
Borehole Diameter	<u>2.25</u> in
O.D. Well Casing	<u>0.8</u> in
I.D. Well Casing	<u>0.75</u> in

DDM	Geologist/Technician
TAG	Reviewed

