

65530

WELL RECORD

PWTS Permit No. 9433188

Iowa Department of Natural Resources - Geological Survey
109 Trowbridge Hall, Iowa City, IA 52242-1319 PH (319) 335-1575

PWTS Well No. _____

County Permit No. _____

Site identification

Property Owner Georgia-Pacific Gypsum LLC Other ID _____
 Address 2374 Mill Rd, Fort Dodge, IA 50501
 Tenant _____
 Well Depth 2049 ft Date completed 9/22/08

Location County WEBSTER

_____ mi. ^N/_S and _____ mi. ^E/_W of intersection of _____ and _____
NW 1/4 of the NW 1/4 of the NW 1/4 of Sec 5 TWP 88 RANG 28 ^E/_W

GPS Coordinates (NAD83 datum only) decimal degrees:
 _____ N. Latitude _____ W. Longitude.

Show exact location of well in section grid with a dot (•). Sketch map of well location on property.

SEE ATTACHED MAP

upland hillside valley level surface Elevation (if known) 1115'

Formation log

From	To	Color	Hardness	Formation description
0	3			Top Soil
3	41	BEN		Glacial Till
41	64	GRAY		Gypsum
64	86	GRAY		Shale
86	151	Red		Shale
151	169	GRAY		Shale + Limestone
169	194	GRAY		Shale
194	251	TAN		Limestone
251	292	BKN		Limestone
292	317	GRAY		Shale
317	539	TAN		Limestone
539	601	GRAY		Dolomite
601	638	GRAY		Shale
638	1160	GRAY		Dolomite

use additional sheets as needed

Remarks (including depth of lost drilling fluids, materials, or tools)

NONE

Well use

Domestic Heat pump Commercial Monitoring
 Livestock Public supply Other NON-TRANSIENT
 Test well Irrigation Other NON-Community PWS

Drill method rotary auger cable other _____

Hole size

<u>23</u> inch from <u>0</u> ft to <u>251</u> ft	hole size continued <u>12</u> inch from <u>1168</u> ft to <u>2049</u> ft
<u>17 1/2</u> inch from <u>251</u> ft to <u>1168</u> ft	_____ inch from _____ ft to _____ ft

Record all depth measurements from ground level (GL). Use (+) for above GL measurements.

Casing Drive shoe (yes) Pileless adapter (yes)

Size (ID/OD)	Type / Wt	Depth top	Depth bottom	Amount (length)
<u>18 5/8"</u>	<u>Steel 4.30</u>	<u>0</u>	<u>251'</u>	<u>251'</u>
<u>13 3/8"</u>	<u>Steel 6.25 wall</u>	<u>+3"</u>	<u>1168'</u>	<u>1167'</u>

Perforated or slotted casing? (yes)

Perforated / slotted from _____ ft to _____ ft
 Perforated / slotted from _____ ft to _____ ft

Casing grouted? (yes) Placement method Pressure Pumping Bottom to Surface

Type	Depth top	Depth bottom	Amount (vol/wt)
<u>Neat Cement</u>	<u>0</u>	<u>251'</u>	<u>232 SCS</u>
<u>Neat Cement</u>	<u>0</u>	<u>1168'</u>	<u>1040 SCS</u>

Well screen? (yes)

Diameter	Slot size	Depth top	Depth bottom	Length	Material
	<u>0</u>				
	<u>0</u>				

Bottom capped (yes) with _____
 Seals / Packers (yes) kind _____ depth _____ ft
 Gravel packed (yes) from _____ ft to _____ ft
 type _____ amount _____

Well developed? (yes)
 Explain Pumping & Surging
 (bumped, airlifted, bailed) for 20 hrs at 450 GPM

Pump installed? (yes / no) Date 10/18/08
 Installer's name Don Murphy - Northway Well & Pump Co. Cert #4178
 Type of pump Submersible Depth to intake 379 ft
 Pump diameter 6" Rated capacity 250 GPM

Water information Aquifer: sand / gravel limestone sandstone
 Main water-supply zone from _____ ft to _____ ft seepage well
 Static water level 260 ft (below / above) GL; tape airline E-line estimate
 Pumping water level 313 ft below GL; tape airline E-line estimate
 At yield of 430 GPM; orifice volumetric estimate for _____ hours
 Measurements taken at 10:30 (AM PM) Date 9/23/08

Water quality test? (yes) Date tested 9/23/08
 Tested by Keystone Lab - Samples taken by Don Murphy

Contractor Grosch Drilling Co.
 Address PO Box 337 Silver Creek, NE 68403
 Driller Mike Tritton Certification no. 6742

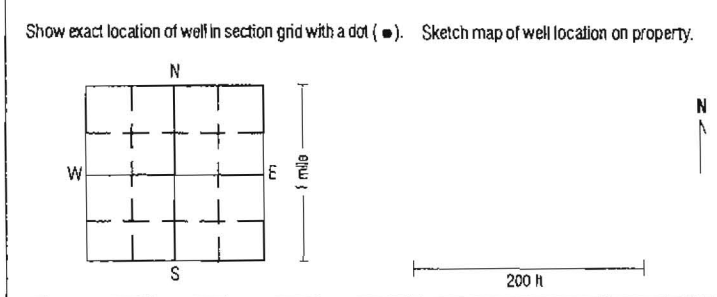
Site identification

Property Owner _____ Other ID _____
 Address _____
 Tenant _____
 Well Depth _____ ft Date completed ____/____/____

Location County _____

_____ mi. ^N and _____ mi. ^E of intersection of _____ and _____
 _____ 1/4 of the _____ 1/4 of the _____ 1/4 of Sec _____ TWP _____ RNG _____ ^E_W

GPS Coordinates (NAD83 datum only) decimal degrees:
 _____ N. Latitude _____ W. Longitude.



upland hillside valley level surface Elevation (if known) _____

Formation log

From	To	Color	Hardness	Formation description
1100	1400	TAN		Dolomite
1400	1529	Blu-Gray		Shale
1529	1582	white		Sandstone - St. Peter
1582	1850	TAN		Dolomite
1850	1907	TAN		Sandstone - Jordan
1907	2049	Dark Gray		Dolomite

use additional sheets as needed

Remarks (including depth of lost drilling fluids, materials, or tools)

Well use

Domestic Heat pump Commercial Monitoring
 Livestock Municipal Other _____
 Test well Public Supply Irrigation

Drill method rotary auger cable other _____

Hole size

_____ inch from 0 ft to _____ ft	hole size continued
_____ inch from _____ ft to _____ ft	_____ inch from _____ ft to _____ ft

Record all depth measurements from ground level (GL). Use (+) for above GL measurements.

Casing Drive shoe (yes/no) _____ Pitless adapter (yes/no) _____

Size (ID/OD)	Type / Wt	Depth top	Depth bottom	Amount (length)

Perforated or slotted casing? (yes/no)

Perforated / slotted from _____ ft to _____ ft
 Perforated / slotted from _____ ft to _____ ft

Casing grouted? (yes/no) Placement method _____

Type	Depth top	Depth bottom	Amount (vol/wt)

Well screen? (yes/no)

Diameter	Slot size	Depth top	Depth bottom	Length	Material
	0. _____				
	0. _____				

Bottom capped (yes/no) with _____
 Seals/Packers (yes/no) kind _____ depth _____ ft
 Gravel packed (yes/no) from _____ ft to _____ ft
 type _____ amount _____

Well developed? (yes/no)

Explain _____
 (pumped, airlifted, bailed) for _____ hrs at _____ GPM

Pump installed? (yes/no) Date ____/____/____

Installer's name _____
 Type of pump _____ Depth to intake _____ ft
 Pump diameter _____ Rated capacity _____ GPM

Water information Aquifer: sand/gravel limestone sandstone

Main water-supply zone from _____ ft to _____ ft seepage well

Static water level _____ ft (below/above) GL; tape airline E-line estimate

Pumping water level _____ ft below GL; tape airline E-line estimate

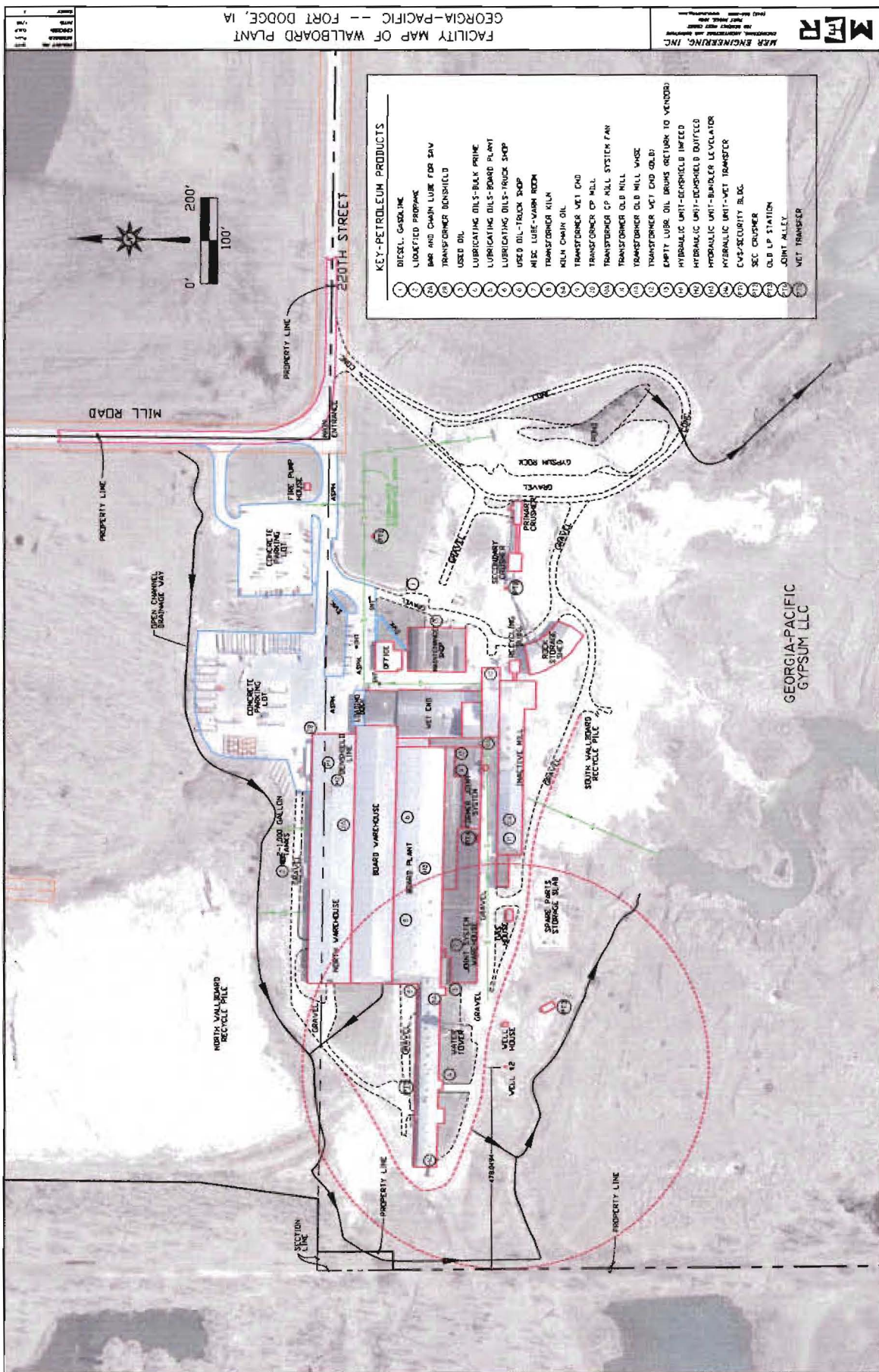
At yield of _____ GPM; orifice volumetric estimate for _____ hours

Measurements taken at _____ (AM/PM) Date ____/____/____

Water quality test? (yes/no) Date tested ____/____/____

Tested by _____

Contractor _____
 Address _____
 Driller _____ Certification no. _____





GROSCH DRILLING COMPANY

65530

3110 33rd Rd, P.O. Box 337
 Silver Creek, NE 68663-0337

Phone 308-773-2261 Fax 308-773-2414

NAME Georgia-Pacific Gypsum, LLC DATE 22-Sep-08
2374 Mill Road
Fort Dodge, Iowa 50501
 Jordan Well #GP2
 Total Well Depth 2049'
 Elevation 1115'

Production Well Log		
FOOTAGE		DESCRIPTION
0	3	Top Soil
3	41	Brown Clacial Till
41	64	Gray Gypsum
64	86	Gray Shale
86	161	Red Shale
151	169	Gray Shale & Limestone
169	194	Gray Shale
194	251	Tan Limestone
251	292	Brown Limestone
292	317	Gray Shale
317	539	Tan Limestone
539	601	Gray Dolomite
601	638	Gray Shale
638	1160	Gray Dolomite
1160	1466	Tan Dolomite
1466	1529	Blue-Gray Shale
1529	1582	White Sandstone (St. Peter)
1582	1850	Tan Dolomite
1850	1907	Tan Sandstone (Jordan)
1907	2049	Dark Gray Dolomite
0	0	
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DRILLER	Mike Fritton #6742
	Scott Grosch #6743
	Mark Evans #2392

GROSCH DRILLING CO.
SILVER CREEK, NEBRASKA

65530

FINAL "AS BUILT" DESIGN FOR JORDAN WELL GP #2

COMPLETION DATE: 9/22/08

OWNER
GEORGIA PACIFIC CORPORATION
MONT DODGE, IOWA

LOCATION:
NW 1/4, NW 1/4, NW 1/4, SEC 5, T2W 2R, R 20E
WEBSTER COUNTY, IOWA

