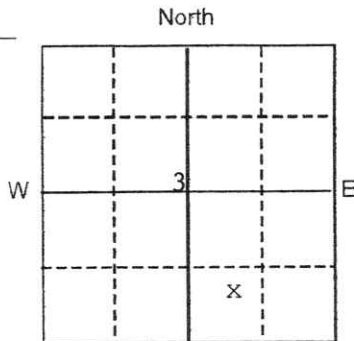


SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-02

Location SW $\frac{1}{4}$ SE $\frac{1}{4}$ Sec 03 Twp 5N Rg 5ECounty MeadePlease mark well
location with an "X"

Well Completion Date

04-05-2024

1 Mile

Distance to nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)?

100 ft. from Septic (identify source)

PROPOSED USE:

☒ Domestic/Stock ☐ Municipal ☐ Business ☐ Test holes
☐ Irrigation ☐ Industrial ☐ Institutional ☐ Monitoring well

METHOD OF DRILLING:

Rotary Air Hammer

CASING DATA:

☐ Steel ☒ Plastic ☐ Other

If other describe

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
SDR51 LB/FT	10.0 IN	0 FT	20 FT	14-3/4 IN
SDR17 LB/FT	5.0 IN	+2 FT	360 FT	8-3/4 IN
LB/FT	IN	FT	FT	IN

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight	From	To
Bentonite	80ft ³	9.5 Lb/gal	0 Ft	305 Ft
Gravel Filter		Lb/gal	305 Ft	360 Ft

Describe grouting procedure

Tremmied Quick Grout

SCREEN:

☐ Perforated pipe ☒ Manufactured
Diameter 5.0 Inches Length 40 FeetMaterial PVC SDR 17Slot Size .025 Set From 320 Feet to 360 FeetOther information Gravel Packed 3/8 pea 305-360
CappedWAS A PACKER OR SEAL USED? ☐ Yes ☒ No

If so, what material?

Describe packer(s) and location

DISINFECTION: Was well disinfected upon completion?

☒ Yes, How? Chlorine Injection☐ No, Why Not?Lab to which water
quality sample sent for analysisWell Owner: Whiskey Ridge, LLCBusiness Name: Whiskey Ridge, LLCAddress: 2327 Junction AveCity, State, Zip: Sturgis, SD 57785

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
Sand, Sandstone	0	20
Black Shale	20	50
Pink Sandstone	50	200
Red Shale fine Gravel	200	240
Grey Shale	240	320
Grey Sand (Dakota)	320	325
Grey Shale	325	340
Grey Sand (Lakota)	340	360
Tan Shale	360	380

STATIC WATER LEVEL 210 FEET

If flowing: closed in pressure _____ PSI

GPM flow _____ through _____ Inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other _____

Reduced flow rate _____ GPM

Can well be completely shut in?

WELL TEST DATA:

☐ Pumped Describe: Airlifted 25+gpm from 320☐ Bailed☐ Other

Pumping Level Below Land Surface

_____ Ft. After _____ Hrs. pumped _____ GPM

_____ Ft. After _____ Hrs. pumped _____ GPM

If pump installed, pump rate: _____ GPM

REMARKS

No pump installed at time of drilling
equipment demobilizationThis well was drilled under license # 205 and this
report is true and accurate.Drilling firm: Tim Barritt, LLC/Tyvo Drilling, LLC

Signature of License Representative:

Signature of Well Owner or Equitable Property Holder:

Date:

RECEIVED

APR 19 2024

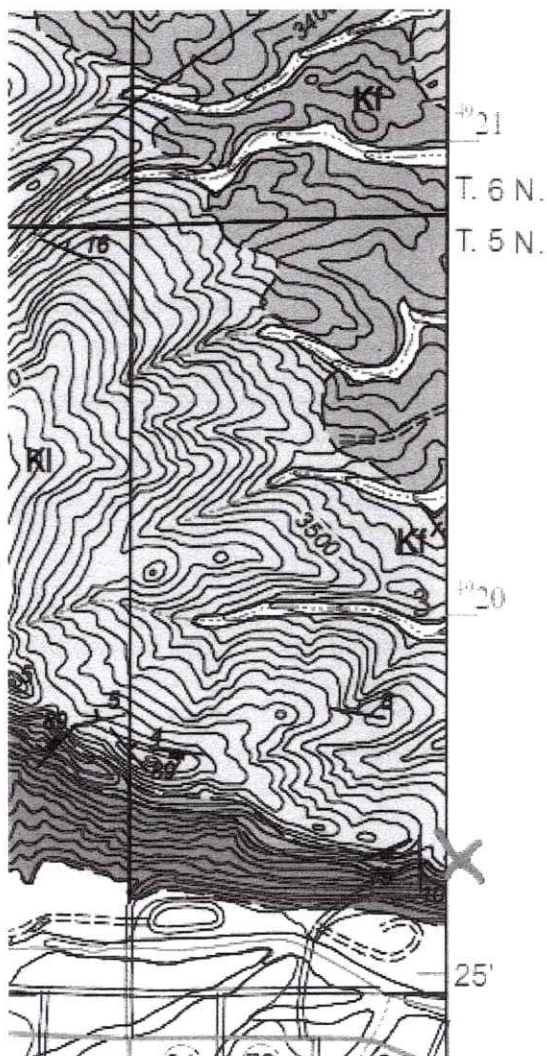
OFFICE OF
WATER

Kilts, Whitney (DENR)

From: Fagnan, Brian
Sent: Wednesday, April 24, 2024 10:34 AM
To: Kilts, Whitney (DENR); Noyes, Joanne
Cc: Mathiowetz, Adam (DENR)
Subject: RE: Sturgis area geology question

Hello Whitney,

Based on the geo map below (red mark for well location) and the thicknesses from the map explanation, I would agree with your assumptions. I would say the depth of the well reaches the "top" of the lower quarter of the Sundance Formation, or roughly 300' into the Sundance Formation. However without a geologic map for this specific location, this is just an estimate.



Brian Fagnan, CPG, MS
Environmental Scientist III (Geologist)
Geological Survey Program
SD Dept. of Agriculture and Natural Resources

From: Kilts, Whitney (DENR) <Whitney.Kilts@state.sd.us>
Sent: Wednesday, April 24, 2024 9:12 AM
To: Fagnan, Brian <Brian.Fagnan@state.sd.us>; Noyes, Joanne <Joanne.Noyes@state.sd.us>
Cc: Mathiowetz, Adam (DENR) <Adam.Mathiowetz@state.sd.us>
Subject: Sturgis area geology question

Brian and Joanne,

I attached a well log that I am having trouble with the geology on. I believe the location is correct (SW SE Sec 3-T5N-R5E) since the well is tied to a water permit, but that would mean the driller's Dakota and Lakota calls don't seem to match up with what I am seeing looking at the geologic mapping.

The location is just off the east side of the Sturgis quadrangle. Based on the location and depth I would say the well is screened into the Sundance. But I wanted to get a second opinion because I am not sure how well the drillers gray sand and gray shale descriptions match up to the lower members of the Sundance (Stockade Beaver Shale and Canyon Springs Sandstone)? (Also the driller is out of WY so he uses WY terminology a lot.)

driller geology	depth		estimated elevation		WK guesses
sandstone	0	20	3500	3480	Lakota?
black shale	20	50	3480	3450	Morrison?
pink sandstone	50	200	3450	3300	upper and middle Sundar
red shale, fine gravel	200	240	3300	3260	
grey shale	240	320	3260	3180	Lower Sundance?
gray sand (Dakota)	320	325	3180	3175	
gray shale	325	340	3175	3160	
grey sand (Lakota)	340	360	3160	3140	
tan shale	360	380	3140	3120	

Thank You,



Whitney Kilts
Office of Water-Water Rights Program
 Department of Agriculture and Natural Resources
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