Kansas Department of Agriculture Division of Water Resources

CHANGE: P/D WORKSHEET

Document Signature DWB

1. File Number:	2. Status Change Date:	3. Change Num:	4. Field Office:	5. GMD:
18,595	5/14/2018	**	04	03
6. Status: ☐ Approved ☐ Den	ied by DWR/GMD	Dismiss by Reques	t/Failure to Return	7. Filing Date of Change:
				2/13/18
8a. Applicant(s) New to system □	Person ID 12492 Add Seq#	8c. pc New to sy	stem 🗌	Person ID Add Seq#
THOMAS R. DOWNEY 28705 9 RD MONTEZUMA KS 67867		РО ВО	AS R. DOWNEY X 278 GTON NE 68850	
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				
8b. Landowner(s)	Person ID			Person ID
New to system □	Add Seq#	New to sy	stem 🔲	Add Seq#
2				
9. Documents and Enclosure(s): DV	VR Meter(s) Date to Compl	y:	N & P Date to	Comply:
☐ Check Valve ☐ N & P Fo	orm Water Tube	e 🔲 Driller	Copy H&	E Letter
☐ Conservation Plan Date Requir	ed: Da	te Approved:	Date to	Comply:
10. Use Made of Water From:		To: _		
SEE PAGE Z CHANGE SOURCE FROM DAKOFA	of SUPPOLY to OgallAI		Date Prepared: 4/3/18 Date Entered: 5/15/	

File No. 18,595	11. County: G	Υ	Bas	sin:						S	tream:							Fo	rmation C	ode: 21 1	Special Use:	
12. Points of Diversion T MOD													ı		and Qu	uantity zed		Ad	dditional			
DEL PDIV ENT Qualifier	S T	F	₹	ID	í	N	'W		Com	ment			!	Rate		Quantit af/mgy		Rate gpm/c		antity mgy	Overlap PD Files	
13. Storage: Rate	NF		Quan	tity					ac/ft	А	ddition	al Rat	e				NF	Addi	tional Qua	intity		ac/ft
14. Limitation:																						
Limitation:	af/yr at _					gpm (_				cfs) w	hen co	mbine	d with	file nu	ımber((s)						
15. 5YR Allocation: Allocation	Туре	Start	t Year			5 YR	Amour	nt		Amo	ount Ur	nit		Base	Acres		_ Co	mment _				
16. Place of Use			NE	1/4			NW	11/4			SW	V¹/4			S	E1⁄4		Total	Owner	Chg?	Overlap Files	
MOD DEL ENT PUSE S T R	ID	NE 1/4	NW 1/4	SW 1/4	SE ¼	NE ¼	NW 1/4	SW ¼	SE ¼	NE 1⁄4	NW 1/4	SW 1/4	SE ¼	NE 1/4	NW 1/4	SW 1/4	SE ¼			-		
							-															
												_										
Comments:																						

KANSAS DEPARTMENT OF AGRICULTURE Division of Water Resources

<u>MEMORANDUM</u>

TO: Files DATE: April 4, 2018

FROM: Brent A. Turney RE: Water Right

File No. 18,595

Jeff and Jennifer Jantz, owners of the referenced water right have filed an application to change the points of diversion under the above referenced water right, which was received in the office of the Chief Engineer on February 13, 2018.

The application proposes to move the authorized point of diversion to a new well proposed to be drilled to a depth of 441 feet below land surface through the Graneros Shale and into the Dakota formation. The existing well authorized under Water Right, File No. 18,595, was drilled to a depth of 365 below land surface to the top of the Graneros Shale. Because the water right was never developed with water from the confined Dakota formation, approval of the change in point of diversion would change the local source of supply, in violation of K.S.A. 82a-708b(a). The well logs of the existing well and the proposed well were submitted to the Kansas Geologic Survey for review and interpretation. In an email dated March 6, 2018, Dr. Don Whitemore, PHD, Senior Scientific Fellow, Environmental Geochemistry, Emeritus, submitted a report that indicated the Graneros shall was present in both the existing and proposed well logs and that the Graneros identified in the log of the proposed well was of sufficient thickness to act as a confining layer sealing off the overlaying Ogallala formation from the Dakota formation.

In a letter dated March 7, 2018, the applicant was informed that the application to change the point of diversion did not relate to the same local source of supply as to which the water right relates in violation of K.S.A. 82a-708b. In the letter the City was informed that the application did not comply with K.S.A. 82a-708b(a), and that the application would be submitted to the Chief Engineer along with a recommendation that they be denied and dismissed.

The City was given until March 23, 2018, to either supply additional information to show why our evaluation should be reconsidered or ask for additional time. In a letter dated March 19, 2018, Thomas R. Downey, on behalf of the applicant, submitted a letter that stated he did not believe that the Graneros Shale was significant enough to act as a confining layer to the Dakota formation.

File No. 18,595 Page No. 2

After review of the submitted information, there does not appear to be sufficient information to show that the Dakota formation at the proposed location is not confined by the Graneros Shale, therefore, the application will be submitted to the Chief Engineer with a recommendation for denial.

Based upon the above information, it is recommended that the referenced change application be denied and dismissed, and its priority forfeited.

Brent A. Turney, P.G.

Change Application Unit Supervisor



1320 Research Park Drive Manhattan, Kansas 66502 785-564-6700

Secretary Jackie McClaskey

900 SW Jackson, Room 456 Topeka, Kansas 66612 785-296-3556

Governor Jeff Colyer, M.D.

May 15, 2018



JEFF AND JENNIFER JANTZ 28705 9 RD MONTEZUMA KS 67867

RE:

Dismissal of Application

File No. 18,595

Dear Mr. and Mrs. Jantz:

Enclosed is the Findings and Order by the Chief Engineer, Division of Water Resources, Kansas Department of Agriculture, dismissing the Application to Change the Authorized Point of Diversion, under Water Right, File No. 18,595.

Please be reminded that reports of water usage must be submitted to this office annually. Records indicating the amount of water used should be furnished to the Chief Engineer by March 1 following the end of the previous calendar year so that the continued use of water becomes a matter of record in this office.

If you have any questions, please contact me at (785) 296-4617. If you wish to discuss a specific file, please have the file number ready so that we may help you more efficiently.

Sincerely.

Brent A. Turney, P.G.

Change Application Unit Supervisor

Water Appropriation Program

BAT

Enclosures

pc:

Garden City Field Office

GMD No. 3

Thomas R. Downey

KANSAS DEPARTMENT OF AGRICULTURE Jackie McClaskey, Secretary of Agriculture

DIVISION OF WATER RESOURCESDavid W. Barfield, Chief Engineer

FINDINGS AND ORDER
IN THE MATTER OF THE
APPLICATION FOR APPROVAL
TO CHANGE THE AUTHORIZED
POINT OF DIVERSION,
UNDER
WATER RIGHT, FILE NO. 18,595

After due consideration, the Chief Engineer, Division of Water Resources, Kansas Department of Agriculture (hereinafter referred to as the "Chief Engineer"), makes the following findings and order:

FINDINGS

- 1. That on August 17, 1982, the Chief Engineer, in accordance with K.S.A. 82a-714, issued a certificate of appropriation pursuant to Appropriation of Water Right, File No. 18,595, for permit to appropriate water for irrigation use.
- 2. That on February 13, 2018, an Application for Approval to Change the Authorized Point of Diversion was received in the office of the Chief Engineer under File No. 18,595. The application requests to change the location of the point of diversion to a proposed well located near the center of the Northeast Quarter of Section 26, more particularly located near a point 3,901 feet North and 1,365 feet West of the southeast corner of said Section, Township 27 South, Range 30 West, Gray County, Kansas, at a proposed well depth of 441 feet below land surface.
- 3. That K.S.A. 82a-708b of the Kansas Water Appropriation Act states in part:
 - "(a) Any owner of a water right may change the place of use, point of diversion or the use made of water, without losing priority of right, provided such owner shall: ... (3) demonstrate to the chief engineer that any proposed change relates to the same local source of supply as that to which the water right relates ..."
- 4. That the existing well is completed to the Graneros Shale to a depth of 365 feet below land surface, while the well requested in the application proposes to be drilled to a depth of 441 feet below land surface, into the Dakota formation. The location of both the existing and proposed wells are located in a mapped area that is shown to be confined Dakota formation as indicated by Kansas Geological Survey Open File Report 98-37 Plate A.
- 5. That in a letter dated March 7, 2018, the water right owner was informed that the Application for Approval to Change the Authorized Point of Diversion under Water Right, File No. 18,595, would be denied and dismissed because the proposed well does not relate to the same local source of supply as to that which the water relates, in violation of K.S.A. 82a-708b(a). The water right owner was advised they had a period of 15 days from the date of the letter (until March 23, 2018) to either submit additional information to the office of the Chief Engineer or to request additional time beyond the 15 days to submit additional information. The water right owners were further informed that if they did not request more time within the 15 day period, or if their request was not granted, that the application would be submitted to the Chief Engineer with a recommendation to deny the application.

- 6. That on March 19, 2018, Thomas R. Downey, of Downey Drilling, Inc., submitted a letter to the Chief Engineer that contends that the Dakota formation at the proposed location is not confined by the Graneros Shale. Further, Mr. Downey contends that records at the Division of Water Resources indicate the source of supply for the existing well is the Dakota formation.
- 7. However, the letter did not provide sufficient information to show that the 60 feet of Graneros Shale present at the proposed well location does not act to confine the Dakota formation from the overlying Ogallala formation. Because the Dakota formation is considered to be a new source of supply to the water right, the change to drill the proposed well deeper does not relate to the same local source of water to which the water right relates in violation of K.S.A. 82a-708b. Further, because the existing well was never completed into the Dakota formation, the entry in the WRIS data base that states the source is Dakota formation, has been determined to be in error and has been corrected.
- 8. Since no substantial information to show that the proposed well relates to the same local source of supply to which the water right relates was been received, the Application for Approval to Change the Authorized Point of Diversion should be dismissed for failure to meet the requirements of 82a-708b(a) of the Kansas Water Appropriation Act.

ORDER

NOW, THEREFORE, It is the decision and order of the Chief Engineer, Division of Water Resources, Kansas Department of Agriculture, that effective the date of this order, the Application for Approval to Change the Authorized Point of Diversion received on February 13, 2018, under Water Right, File No. 18,595, shall be denied and dismissed.

In all other respects, the Certificate of Appropriation for Beneficial Use of Water, issued pursuant to File No. 18,595, dated August 17, 2018, remains as authorized.

David W. Barfield, P.E.

Chief Engineer

Division of Water Resources

Division of Water Resources

Department of Agriculture Dated at Topeka, Kansas, this . 2018.

State of Kansas

) SS

County of Shawnee

The foregoing instrument was acknowledged before me this 14^{4} day of by David W. Barfield, P.E., Chief Engineer, Division of Water Resources, Kansas Department of Agriculture.



RIGHT TO A HEARING AND TO ADMINISTRATIVE REVIEW

If you are aggrieved by this Order, then pursuant to K.S.A. 82a-1901, you may:

- 1) request an evidentiary hearing before the Chief Engineer, or
- 2) request administrative review by the Secretary of Agriculture.

Failure to request an evidentiary hearing before the Chief Engineer does not preclude your right to administrative review by the Secretary.

To obtain an evidentiary hearing before the Chief Engineer, a written request for hearing must be filed within 15 days after service of this Order as provided in K.S.A. 77-531 (i.e., within a total of 18 days after this Order was mailed to you), with:

Kansas Department of Agriculture Attn: Legal Section 1320 Research Park Drive Manhattan, Kansas 66502 Fax: (785) 564-6777

If you do not file a request for an evidentiary hearing before the Chief Engineer, you may petition for administrative review of the Order by the Secretary of Agriculture. A petition for review shall be in writing and state the basis for requesting administrative review. The request for hearing may be denied if the request fails to clearly establish factual or legal issues for review. See K.S.A. 77-527. The petition must be filed within 30 days after service of this Order as provided in K.S.A. 77-531 (i.e., within a total of 33 days after this Order was mailed to you), and be filed with:

Secretary of Agriculture Attn: Legal Section Kansas Department of Agriculture 1320 Research Park Drive Manhattan, Kansas 66502 Fax: (785) 564-6777

If neither a request for an evidentiary hearing nor a petition for administrative review is filed as set forth above, then this Order shall be effective and become a final agency action as defined in K.S.A. 77-607(b). Failure to timely request either an evidentiary hearing or administrative review may preclude further judicial review under the Kansas Judicial Review Act.

CERTIFICATE OF SERVICE

On this Study of Way, 2018, I hereby certify that the attached Dismissal of Application to Change the Authorized Point of Diversion, File No. 18,595, dated Way 145 was mailed postage prepaid, first class, US mail to the following:

JEFF AND JENNIFER JANTZ 28705 9 RD MONTEZUMA KS 67867

With photocopies to:

Garden City Field Office
Groundwater Management District No. 3

THOMAS R. DOWNEY PO BOX 278 LEXINGTON NE 68850

Division of Water Resources

DEPARTMENT OF AGRICULTURE 1320 RESEARCH PARK DRIVE MANHATTAN, KS 66502 PHONE: (785) 564-6700 FAX: (785) 564-6777

STATE OF KANSAS

RNOR JEFF COLYER

900 SW JACKSON, ROOM 456 TOPEKA, KS 66612 PHONE: (785) 296-3556 www.agriculture.ks.gov

GOVERNOR JEFF COLYER, M.D.

JACKIE McClaskey, Secretary of Agriculture

March 7, 2018

JEFF AND JENNIFER JANTZ 28705 9 RD MONTEZUMA KS 67867

RE: Water Right, File No. 18,595

Dear Mr. and Mrs. Jantz,

FILE COPY

Reference is made to the application for approval of the Chief Engineer to change the point of diversion under the referenced file number which was received in the office of the Chief Engineer on February 13, 2018. Upon review of the application and supporting well logs, we find that the application cannot be approved as proposed.

Please note that K.S.A. 82a-708b(a) of the Kansas Water Appropriation Act states in part:

"(a) Any owner of a water right may change the place of use, the point of diversion or the use made of water, without losing priority of right, provided such owner shall: ... (3) demonstrate to the chief engineer that any proposed change relates to the same local source of supply as that to which the water right relates ..."

Your application proposes to drill a new well to a depth of 441 feet below land surface, while the currently authorized well is drilled to a depth of 365 feet. The location of both the existing and proposed wells is located in a mapped area that is shown to be confined Dakota formation as indicated by Kansas Geological Survey Open File Report 98-37 Plate A.

In support of the application several well logs and a geophysical log were submitted to show that the source of supply for the proposed well would be not only the Ogallala formation, but the unconfined Dakota formation. At the request of this office the well log for the existing well, two well logs for the proposed well and the geophysical log were submitted to the Kansas Geological Survey for their review and recommendation for the formations logged. In an email dated March 6, 2018, Dr. Don Whittemore, P.H.D., Senior Scientific Fellow, Environmental Geochemistry, Emeritus, presented a report that indicates the Dakota formation in this area is confined. Dr. Whittemore finds that the logs for the proposed well indicate that the Graneros Shale is encountered somewhere below the top of the 310-323 foot interval, while the bottom of the Graneros or top of the Dakota is probably around 378 feet below land surface. This indicates there is approximately 60 to 70 feet of Graneros Shale confining the Dakota formation.

Since it is proposed that the new well be drilled to a depth of 441 feet, it would appropriate water from the confined Dakota formation in violation of K.S.A. 82a-708b(a).



Jeff and Jenifer Jantz File No. 18,595 Page No. 2

For the reason given above, it will be recommended to the Chief Engineer that the Application for Approval to Change the Authorized Point of Diversion under Water Right, File No. 18,595, be denied and dismissed because the proposed well location does not relate to the same local source of supply as to that which the water right relates, in violation of K.S.A. 82a-708b(a).

We are advising you of this recommendation in order to allow you to submit additional information to show why the evaluation should be reconsidered. You have a period of 15 days (until March 23, 2018) to either (1) submit additional information to our office or (2) to request additional time beyond the 15 days to submit additional information. If you wish to request additional time, you must do so in writing, before the 15 day period expires. Such a request should state what steps are being taken to obtain the information and the amount of time you will need to supply the information to our office.

If you do not request more time within the 15 day period, or if your request is not granted, the above-referenced application will be submitted to the Chief Engineer with a recommendation to deny the point of diversion change for File No. 18,595 based on the recommendation stated above. If you do submit additional information within the 15 day period (or any authorized extension), that information will be given due consideration prior to final action on the application.

If you plan to go to the Division of Water Resources Field Office in your area for assistance, please take this letter with you.

If you have any questions, please contact me at (785) 564-6645. If you wish to discuss a specific file, please have the file number ready so that I may help you more efficiently.

Sincerely,

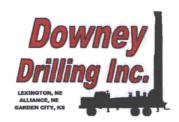
Change Application Unit Supervisor

Water Appropriation Program

BAT Enclosures

pc: Garden City Field Office

GMD No. 3



PO Box 278 Lexington, NE 68850 PHONE: 308-324-2303 FAX: 308-324-4825

March 19, 2018

Brent A. Turney, P.G. Kansas Department of Agriculture 1320 Research Park Drive Manhattan, KS 66502

RE: JEFF AND JENNIFER JANTZ 28705 9 RD MONTEZUMA, KS 67867

Water Right File No. 18,595

Dear Mr. Turney,

I am contacting you on behalf of Jeff and Jennifer Jantz, in response to your letter dated March 7, 2018. Mr. and Mrs. Jantz request that you and your department reconsider the evaluation of the application for a replacement irrigation well to a depth of 441 feet for the following reasons:

- 1. The geophysical log, in addition to the test hole log, by our firm indicates that there is not a continuous confining layer of Graneros Shale of 60 to 70 feet. My interpretation is that there may be a clay/shale layer at approximately 364 feet to 370 feet, and from 381 feet to 385 feet. I have included an attachment with the geophysical log and notations in these areas. Both the gamma and resistivity curves support my interpretation. While these zones may certainly be Graneros Shale, the geophysical log, in my opinion, does not support, or show, a "60 to 70 foot" layer confining the Dakota Formation.
- 2. I have attached the "WATER RIGHT INFORMATION REPORT FOR: 18595 00". This report indicates the following:

PAGE 1:

A. PRIORITY DATE: 23-NOV-1971

B. CERTIFICATE ISSUED DATE: 17-AUG-1982

PAGE 2:

A. AUTHORIZED POINT(S) OF DIVERSION Section 26, T27, R 30W QUALIFIERS: SE SE NE

B. AQUIFER(S):

DAKOTA FORMATION

If I am interpreting this correctly, this Appropriation which has a Priority Date of November 23, 1971, has been, and currently is, authorized in the Dakota Aquifer. Please confirm.

Mr. Brent A. Turney, P.G. File No. 18,595

We, Mr. and Mrs. Jantz, and I (as a Ground Water Professional with nearly 40 years' experience), do hereby ask that you and your department reconsider your recommendation, and allow the replacement irrigation well to be constructed as proposed.

Sincerely,

Thomas R. Downey, CWD/PI

President / CEO Downey Drilling, Inc.

Kansas License #948
Nebraska License #39250
Oklahoma License #DPC-0954
Texas License #59991
Colorado License #1319
Wyoming License #NEWDPI107
South Dakota License #790
lowa License #9140

WELL LOG



DATE: 1/31/2018

CUSTOMER NAME: JEFF JANTZ

LEGAL: NE 26-27S-30W TEST HOLE #1

COUNTY: GRAY

GPS: 37 40' 29.4" N

> -100 33' 57.6" W

			DRILLER:	RYAN			WO#:	18-036	
TW	FROM	то	ТҮРЕ	HARDNESS	COLOR	SPEED	PULL DOWN	OTHER / DRILLING ACTION	
	0	2	TOP SOIL	SOFT	BLACK	FAST	NO	SMOOTH	
	2	78	SILTY SANDY CLAY AND VERY FINE SAND	SOFT	BROWN	FAST	NO	SMOOTH	
Χ	78	110	FINE-MEDIUM-COARSE SAND AND FINE-TRACE OF MEDIUM GRAVEL	SOFT	RED / TAN	FAST	NO	CHATTER	
	110	113	CLAY AND SILT LAYER	SOFT	BROWN	FAST	NO	SMOOTH	
X	113	141	FINE-MEDIUM-COARSE SAND AND FINE GRAVEL	SOFT	RED	FAST	NO	CHATTER	
X	141	167	FINE-MEDIUM-COARSE SAND AND FINE-MEDIUM-TRACE OF COARSE GRAVEL	SOFT	RED	FAST	NO	CHATTER	
	167	175	CLAY	SOFT	BROWN	FAST	NO	SMOOTH	
X	175	177	FINE-MEDIUM-COARSE SAND AND FINE-MEDIUM GRAVEL	SOFT	RED	FAST	NO	CHATTER	
	177	180	CLAY	SOFT	BROWN	FAST	NO	SMOOTH	
	180	201	CLAY, MAG LAYERS, AND VERY FINE-FINE SAND	FIRM	TAN / WHITE	SLOW	NO	CHOPPY AT TIMES	
	201	208	CLAY AND FINE-TRACE OF MEDIUM SAND	SOFT	BROWN	SLOW	NO	sмоотн	
	208	211	FINE-MEDIUM SAND AND CLAY	SOFT	TAN	FAST	NO	SLIGHT CHATTER	
	211	230	FINE-MEDIUM SAND, TRACE OF SANDSTONE, AND SANDY CLAY	SOFT	BROWN / TAN	FAST	NO	SLIGHT CHATTER	
	230	245	FINE-MEDIUM SAND AND SANDY CLAY STRINGERS 240' SWL	SOFT	TAN	FAST	NO	SLIGHT CHATTER	
	245	252	SANDY CLAY AND FINE-TRACE OF MEDIUM SAND LAYERS	SOFT	TAN	SLOW	NO	SMOOTH	
X 📻	252	261	FINE-MEDIUM-TRACE OF COARSE SAND	SOFT	TAN	FAST	NO	CHATTER	
*	261	270	FINE-MEDIUM-TRACE OF COARSE SAND AND SANDY CLAY LENSES	SOFT	TAN	FAST	NO	SLIGHT CHATTER	
x 🏻	270	275	FINE-MEDIUM-TRACE OF COARSE SAND	SOFT	TAN	FAST	NO 🧍	CHATTER	
	275	285	FINE-MEDIUM-TRACE OF COARSE SAND AND SANDY CLAY LENSES	SOFT	TAN	FAST	NO	SLIGHT CHATTER	
	285	294	FINE-MEDIUM SAND AND SANDY CLAY	SOFT	TAN	FAST	NO	IN & OUT CHATTER	
X	294	310	FINE-MEDIUM-COARSE SAND AND VERY FINE-FINE GRAVEL	SOFT	TAN	FAST	NO	CHATTER	
	310	323	GOLD SILTY CLAY, SILTSTONE, LIMESTONE LEDGES, AND VERY FINE	FIRM	GOLD / BLACK	SLOW	NO	CHOPPY AT TIMES	
X	323	330	GOLD SILTY CLAY, BROWN ROCK, AND VERY FINE-FINE SAND	SOFT	BROWN	SLOW	NO F	CHATTER	
	330	341	VERY FINE-FINE SAND AND GRAY CLAY	SOFT	GRAY	FAST	NO	CHATTER	
	341	370	FINE-TRACE OF MEDIUM SAND AND GRAY LENSE	SOFT	GRAY	FAST	NO	CHATTER	
	370	372	LIMESTONE	HARD	BLACK	SLOW	x	СНОРРУ	
	372	378	VERY FINE-FINE SAND, LIMESTONE, W/CLAY LAYERS	HARD	GRAY / BLACK	SLOW	x	СНОРРУ	
x	378	385	FINE-MEDIUM SAND	SOFT	GRAY	FAST	NO	CHATTER	
	385	401	GRAY CLAY, VERY FINE-FINE SAND LAYERS, AND ORANGE BROWN SILT	FIRM	GRAY / BROWN	SLOW	NO	CHOPPY AT TIMES	
x 📙	401	405	FINE-MEDIUM SAND LAYERS	SOFT	GRAY	FAST	NO	CHATTER	
	405	415	FINE-TR. MEDIUM SAND	SOFT		SLOW	NO	IN & OUT CHATTER	
X	415	418	FINE-MEDIUM SAND, TR. SANDSTONE	SOFT	GRAY	FAST	NO §	СНОРРУ	
	418	419	LIMESTONE	HARD	BLACK	SLOW	×	СНОРРУ	
	419	426	FINE SAND	SOFT	GRAY	FAST	NO	SLIGHT CHATTER	
-	426	428	LIMESTONE	HARD	GRAY	SLOW	x	СНОРРУ	

TW	FROM	то	ТҮРЕ		HARDNESS	COLOR	SPEED	PD	OTHER / DRILLING ACTION
	428	431	FINE SAND		SOFT	GRAY	FAST	NO	CHATTER
	431		DARK GRAY SHALE, VERY FINE SAND LENSES, A	AND LIMESTONE		GRAY	SLOW	NO	IN & OUT CHATTER
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JEFF JANTZ

COMPANY

: DOWNEY DRILLING INC.

WELL

: JEFF JANTZ

LOCATION/FIELD :

: GRAY

COUNTY LOCATION

: NE

SECTION

DATE : 01/31/18 DEPTH DRILLER

: 441

LOG BOTTOM

: 441.10

LOG TOP

: 0.40

CASING DIAMETER: 10.

CASING TYPE :

CASING THICKNESS:

BIT SIZE

: 6.50

MAGNETIC DECL. : 0

MATRIX DENSITY : 2.71

NEUTRON MATRIX : LIMESTONE

OTHER SERVICES:

TOWNSHIP

: 27S

KB

RANGE: 30W

DF

GL

LOGGING UNIT : 1319

RM TEMPERATURE :

MATRIX DELTA T

FIELD OFFICE

RM

: DDI

RECORDED BY

PERMANENT DATUM : GL

LOG MEASURED FROM: GL

DRL MEASURED FROM: GL

: DAVE

: 49

BOREHOLE FLUID : MUD

FILE : ORIGINAL

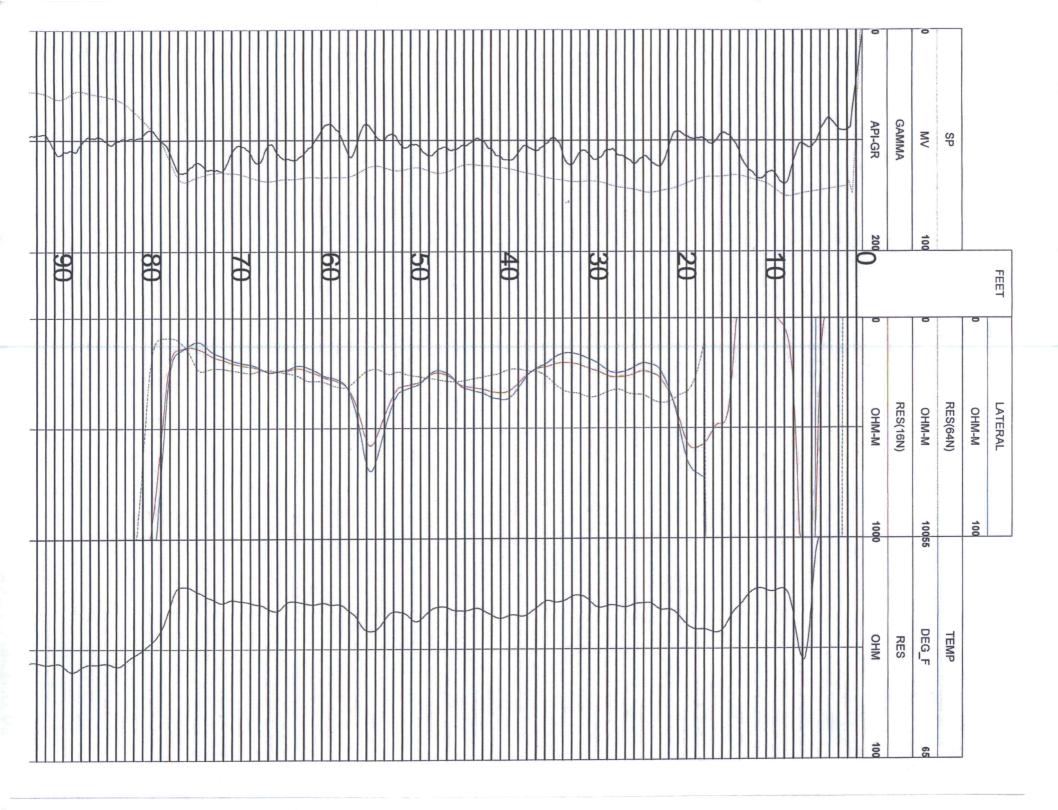
TYPE : 9057A

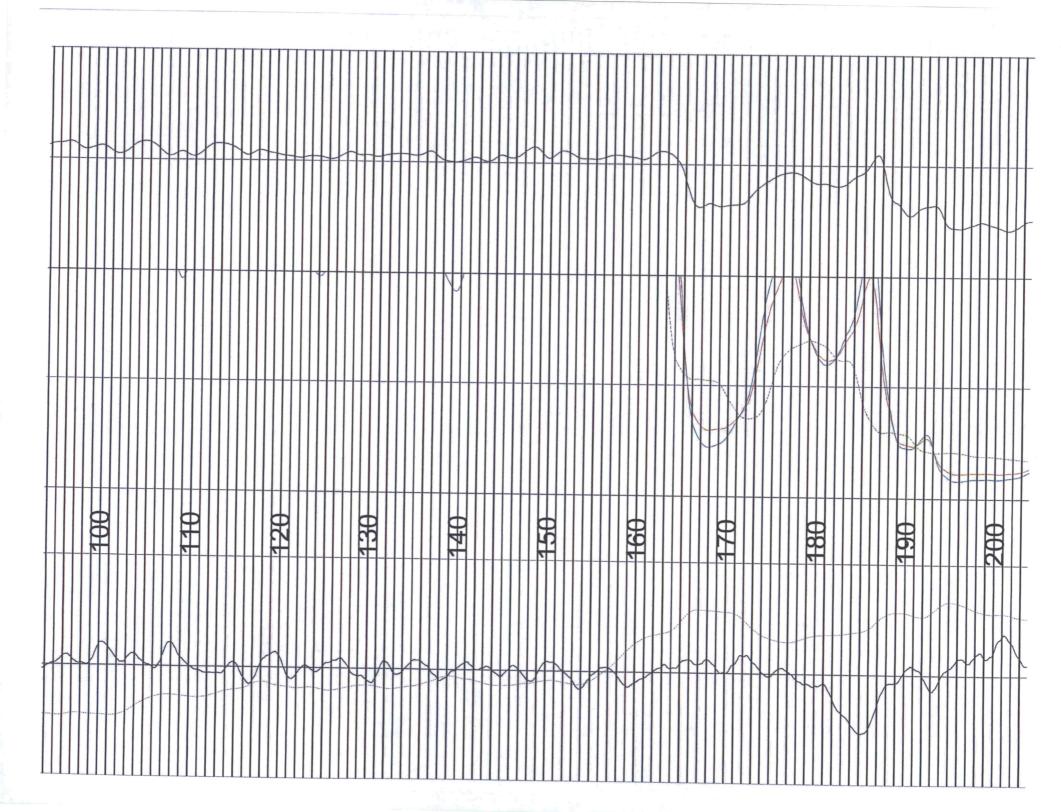
LGDATE: 01/31/18 LGTIME: 12:50:

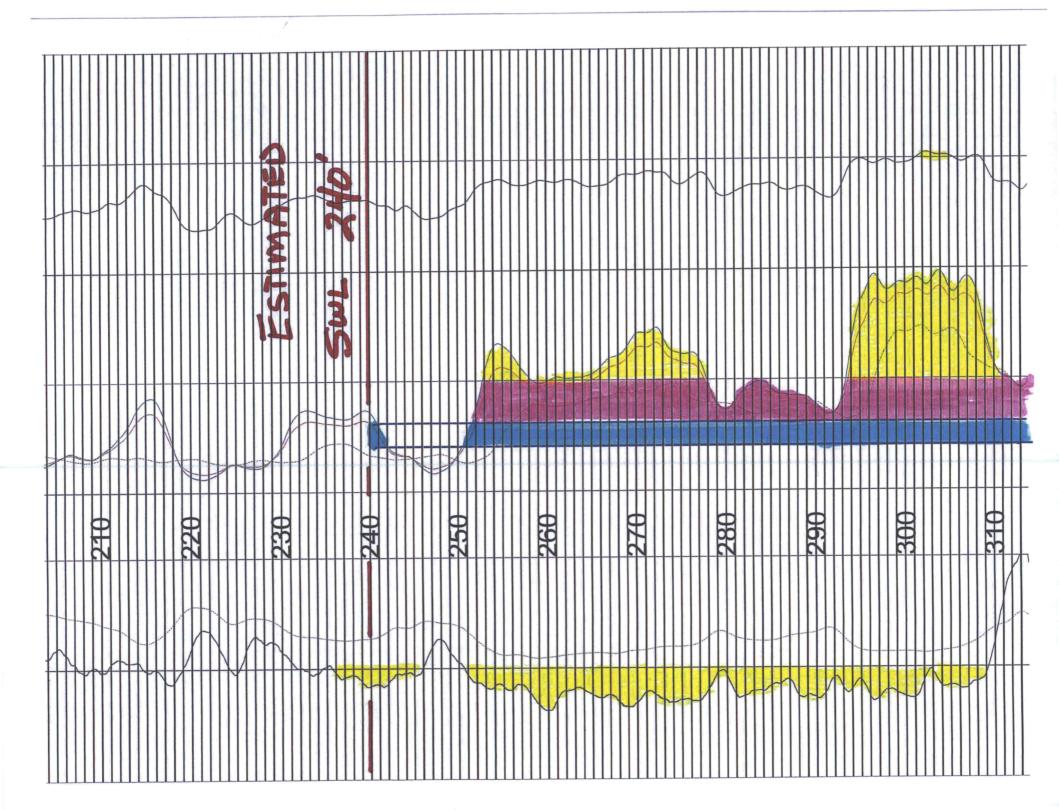
THRESH: 99999

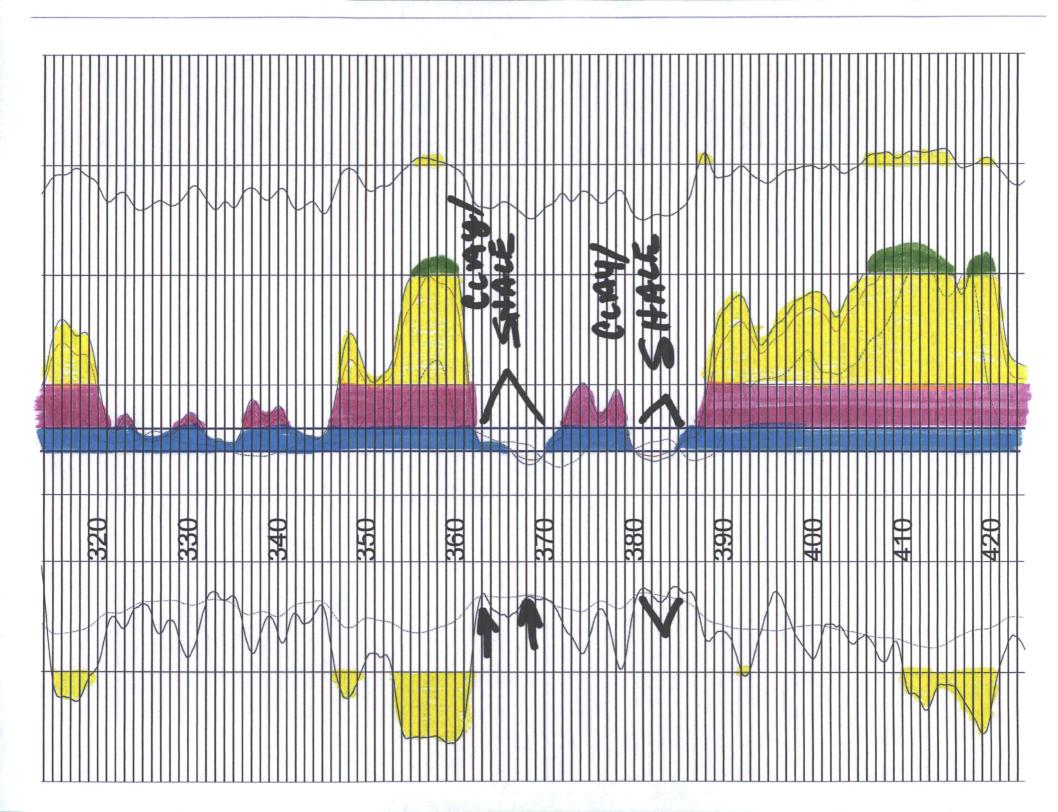
N 37-40-29.4 W-100-33-57.6

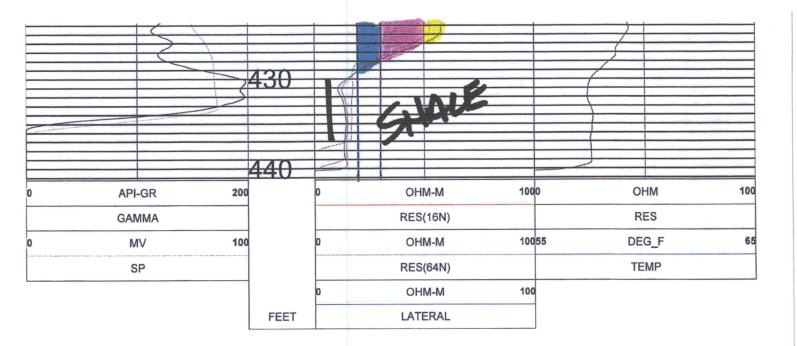
ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS











TOOL CALIBRATION JEFF JANTZ 01/31/18 12:50 TOOL 9057A TM VERSION 4 SERIAL NUMBER 4607

	OLI WIL HOME	DEIT 4001					
	DATE	TIME	SENSOR	STANI	DARD "	RESI	PONSE
1	Jun28,13	07:29:49	GAMMA	1.000	[API-GR]	0.000	[CPS]
	Jun28,13	07:29:49	GAMMA	340.000	[API-GR]	310,000	[CPS]
2	Jun28,13	08:56:32	NEUTRON	Default	[CPS]	Default	[CPS]
	Jun28,13	08:56:32	NEUTRON	271.000	[API-N]	45.000	[CPS]
3	Jun28,13	07:27:57	SP	0.000	[MV]	320998.000	[CPS]
	Jun28,13	07:27:57	SP	331.000	[MV]	158565.000	[CPS]
4	Jan25,18	13:28:44	RES(16N)	0.000	[OHM-M]	3930.000	[CPS]
	Jan25,18	13:28:44	RES(16N)	1955.000	[OHM-M]	431300.000	[CPS]
5	Jan25,18	13:28:30	RES(64N)	0.000	[OHM-M]	3470.000	[CPS]
	Jan25,18	13:28:30	RES(64N)	1988.000	[OHM-M]	432139.000	[CPS]
6	Jun28,13	08:48:59	TEMP	40.800	[DEG_F]	336359.000	[CPS]
	Jun28,13	08:48:59	TEMP	106.100	[DEG_F]	380231.000	[CPS]
7	Jan25,18	13:28:58	RES	0.000	[OHM]	4315.000	[CPS]
	Jan25,18	13:28:58	RES	945.000	[OHM]	163825.000	[CPS]
8	Jun28,13	08:57:34	POR(NEU)	100.000	[PERCENT]	45.000	[CPS]
I							

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WATER RIGHT INFORMATION REPORT FOR : 18595 00
RIGHT TYPE: Appropriation
SOURCE: Groundwater
                        USE: IRR
CURRENT STATUS: Certificate Issued
PRIORITY DATE: 23-NOV-71
CURRENT COMPLETE BY DATE: 31-DEC-73
COMPLETION ACKNOWLEDGED DATE: 29-JAN-73
CURRENT PERFECT BY DATE: 31-DEC-77
YEAR PERFECTED:
CERTIFICATE ISSUED DATE: 17-AUG-82
.................
APPLICANT(S):
> DAVID JOHN KOEHN 23706 6 RD MONTEZUMA KS 67867
> PERSON ID (Old Address Code): 9671
> CORRESPONDENT SEQUENCE NUMBER: 1
>-----
................
WATER USE CORRESPONDENT(S):
> JEFF & JENNIFER JANTZ 28705 9 RD MONTEZUMA KS 67867
> PERSON ID (Old Address Code): 61833
> CORRESPONDENT SEQUENCE NUMBER:
>-----
................
ACTION TRAIL:
23-NOV-71 Pending Initial Review
29-SEP-72 Approved Pending Completion N+P BY 31-DEC-73 PERF BY 31-DEC-77
29-JAN-73 Completed Pending Inspection
24-AUG-81 Inspected Pending Perfection
16-SEP-81 Proposed Certificate
17-AUG-82 Certificate Issued
02-JUL-91 Change Application For Point Of Diversion
02-JUL-91 Change Approved
02-JUL-91 N&P By12/31/92 Chg Approval
02-JUL-91 Tested-1981-908gpm 26-27-30w 01
06-JUL-92 N&P 10-91 (Chg)
30-APR-93 Compliance Check/In Comp
20-SEP-12 Landowner Chg - John C Abel
20-SEP-12 Wur From David John Koehn To John C Abel
31-JUL-14 Wur From John A Abel To Travis & Brooke Jantz
22-MAR-16 Compliance Check/In Comp Id 2
02-AUG-16 Cl Fo Change App Pu Filed
10-AUG-16 C1 Fo Change Pu Approved
10-AUG-16 Landowner Chg - Jeff & Jennifer Jantz
10-AUG-16 Wur From Travis & Brooke Jantz To Jeff & Jennifer Jantz
................
CONSERVATION CONTRACT ACTION TRAIL:
.................
CONSERVATION PLAN ACTION TRAIL:
...............
SPECIAL CONDITIONS:
................
QUANTITIES:
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>AUTHORIZED 293.000 AF ADDITIONAL 293.000 AF RATES: >AUTHORIZED 910.000 gpm ADDITIONAL 910.000 gpm LIMITATIONS: None STORAGE QUANTITIES: No active storage quantities associated with IRR use under this water right STORAGE RATES: No active storage rates associated with IRR use under this water right AUTHORIZED POINTS(S) OF DIVERSION Section 26, T 27, R 30W, ID 2 (Internal PDIV ID = 9596) QUALIFIERS: SE SE NE DIST. FROM SE CORNER: 2850 ft North 340 ft West NUMBER OF WELLS: 1 COMMENT: 150'N & 190'W ORIG WELL OLD LONGITUDE: 100.562235 OLD LATITUDE: 37.675294 NEW LONGITUDE: 100.562027 NEW LATITUDE: 37.671927 GPS LONGITUDE: 100.562100 GPS LATITUDE: 37.672180 GPS FEET NORTH: 2945 GPS FEET WEST: 361 COUNTY: GRAY FIELD OFFICE: GARDEN CITY FIELD OFFICE GMD : 3 BASIN: ARKANSAS RIVER STREAM: SPECIAL USE AREA(S): AQUIFER(S): > DAKOTA FORMATION TEST INFORMATION: METER ACTION TRAIL: > 02-JUL-91 Meter Required BY Change Point of Diversion Install by: 31-DEC-92 > 06-JUL-92 Meter Reported Installed > 11-NOV-92 Meter Required GWMD Order Install by: 01-JUL-94 > 30-APR-93 In Compliance - Meter METER INFORMATION: Date Installed : Currently Installed? Y > Manufacturer: MCCROMETER Model: MO310-2300 > Type: Propellor Serial No.: 91-10-1256N > Meter Unit: Gallons Meter Size: 14 Inch Multiplier: 000 > Portable Pump Installation? N Multiple PDs? N Straightening Vanes? N > Measuring Chamber? Y Meter Comment: 3-22-16 CMP CK, MTR SZ 10.75/10.374,GMD #2371 METER INFORMATION: Date Installed: Currently Installed? N > Manufacturer: MCCROMETER Model: MO310-2300 Serial No.: 91101256N > Type: Not Available > Meter Unit: N/A Meter Size: N/A Multiplier: > Portable Pump Installation? N Multiple PDs? N Straightening Vanes? N > Measuring Chamber? Meter Comment: OVERLAPS:

AUTHORIZED PLACE(S) OF USE

762

Section 26, T 27, R 30W, ID 2 (Internal PUSE_ID = 8258)

OWNER: JEFF & JENNIFER JANTZ

Address:

** 28705 9 RD

** MONTEZUMA KS 67867

Total acres authorized = 160.00 Acres

| NE | NW | SW | SE | NO | .00| .00| .00| .00| .00| .00|

COMMENT:

OVERLAPS:

> A 25196 D1 IRR

Section 25, T 27, R 30W, ID 1 (Internal PUSE_ID = 2463)

OWNER: JEFF & JENNIFER JANTZ

Address:

** 28705 9 RD

** MONTEZUMA KS 67867

Total acres authorized = 160.00 Acres

COMMENT: OVERLAPS:

> A 25196 D1 IRR

.....

WATER USE INFORMATION:

Year	Qualif	iers SC	ID	Date Rcvd	Hours	GPM A	cre-feet	Code	Ac_Irr	Date Msrd	Wtr_Dp	Well_Dp Re	el l	Blip
2017	2850N	340W 26	2			N	/A		N/A	N/A				
2016	2850N	340W 26	2	13-FEB-17		400	159.	3 1	1 125		N/A	N/A	96	3658
2015	2850N	340W 26	2	04-FEB-16		38.	9 M	120		N/A	N/A	92 2746	i	
2014	2850N	340W 26	2	27-FEB-15		177.	0 M	120		N/A	N/A	89 233	ł	
2013	2850N	340W 26	2	10-MAR-14		241.	1 M	167		N/A	N/A	84 2669	,	
2012	2850N	340W 26	2	29-APR-13		187.	0 M	120		N/A	N/A	80 1962	ł	
2011	2850N	340W 26	2	24-FEB-12		500	253.	B 1	1 121		N/A	N/A	73	528
2010	2850N	340W 26	2	24-FEB-11		500	195.	2 1	150		N/A	N/A	67	427
2009	2850N	340W 26	2	08-FEB-10		550	240.	1 N	1 121		N/A	N/A	60	494
2008	2850N	340W 26	2	27-FEB-09		600	222.	5 N	121		N/A	N/A	55	2005
2007	2850N	340W 26	2	22-FEB-08		600	194.	6 I	1 149		N/A	N/A	48	2463
2006	2850N	340W 26	2	26-FEB-07		180.	0 M	121		N/A	N/A	42 2681	L	
2005	2850N	340W 26	2	27-FEB-06		195.	3 M	121		N/A	N/A	37 1152	2	
2004	2850N	340W 26	2	02-MAR-05		239.	3 M	121		N/A	N/A	32 43	5	
2003	2850N	340W 26	2	01-MAR-04		174.	7 M	121		N/A	N/A	25 2152	2	
2002	2850N	340W 26	2	03-MAR-03		600	231.	8 1	1 121		N/A	N/A	20	493
2001	2850N	340W 26	2	01-MAR-02		600	172.	1 1	121		N/A	335	14	745
2000	2850N	340W 26	2	02-MAR-01		235.	6 M	122		N/A	33	5 8 51	2	
1999	2850N	340W 26	2	28-FEB-00		180.	4 M	120		N/A	33	5 3 122	5	
1998	2850N	340W 26	2	24-FEB-99		600	212.	7 1	120		N/A	335	94	159
1997	2850N	340W 26	2	02-MAR-98		187.	0 M	120		N/A	33	5 88 318	3	
1996	2850N	340W 26	2	03-MAR-97	1491	600	164.	7	3 120		N/A	335	82	3071
1995	2850N	340W 26	2	29-FEB-96	1714	600	189.	4	G 120		N/A	335	76	2546



									Report	Date Tues	day,	Februa	ry	13 2018
1994	2850N	340W 26	2 03-APR-95	1830	600	202.2	G	126		N/A		335	72	2054
1993	2850N	340W 26	2 01-MAR-94	1464	625	168.5	8	125 0	1-FEB-94	153		335	65	3143
1992	2850N	340W 26	2 01-MAR-93	1571	600	173.6	G	120		N/A		335	59	3191
1991	2850N	340W 26	2 02-MAR-92	1860	600	205.5	G	120 0	1-FEB-92	151		335	54	582
1990	2700N	150W 26	1 04-MAR-91	2115	600	233.7	G	120 0)1-FEB-91	147		345	47	2821
1989	2700N	150W 26	1 02-MAR-90	1825	650	218.4	G	120 0)1-FEB-90	144		345	41	2654
1988	2700N	150W 26	1	2328	600	257.2	G	130 2	24-FEB-89	142		345	36	3747
1987	2700N	150W 26	1	1687	650	201.9	G	106		N/A		345	37	425
1986	2700N	150W 26	1	2052	700	264.5	G	116		N/A	N/A		37	706
1985	2700N	150W 26	1	2160	700	278.4	G	120		N/A	N/A		37	706
1984	2700N	150W 26	1	1837	750	253.7	G	130		N/A	N/A		37	706
1983	2700N	150W 26	1	1280	750	176.8	G	130		N/A	N/A		37	706
1982	2700N	150W 26	1	1565	750	216.1	G	130		N/A	N/A		37	706
1981	2700N	150W 26	1	1317	750	181.9	G	130		N/A		345	37	706
1980	2700N	150W 26	1	1548	800	228.0	G	130 0	06-FEB-81	118		389	99	9999
1979	2700N	150W 26	1	1428	800	210.4	G	130 2	28-FEB-80	115		389	99	9999
1978	2700N	150W 26	1	1342	800	197.7	G	130 0	06-FEB-79	110		389	99	9999
1977	2700N	150W 26	1	1268	800	186.8	G	130 2	23-FEB-78	105		389	99	9999
1976	2700N	150W 26	1	2384	800	351.2	G	130 3	31-JAN-77	102		380	99	9999
1975	2700N	150W 26	1	2255	800	332.2	G	130 1	19-DEC-75	100		380	99	9999
1974	2700N	150W 26	1	1030	1800	341.4	G	160 2	24-JAN-75	98		380	99	9999
1973	2700N	150W 26	1	953	1800	315.9	G	130 2	24-JAN-74	97		380	99	9999
1972	2700N	150W 26	1	713	1800	236.3	G	122 1	17-JAN-73	97		340	99	9999

Turney, Brent [KDA]

From:

Don Whittemore <donwhitt@kgs.ku.edu>

Sent:

Tuesday, March 6, 2018 3:28 PM

To:

Brownie Wilson

Cc:

Turney, Brent [KDA]; Letourneau, Lane [KDA]; Meyer, Mike [KDA]

Subject:

Re: Fwd: Confined Dakota?

Brownie,

The information provided suggests to me that about 50-60 ft of Graneros Shale confines the Dakota aquifer at the well location.

The depth to the top of the Dakota based on Macfarlane's map and the surface elevation of the site is around 410-420 ft below land surface (surface elevation 2790; Macfarlane top of Dakota less than 2400, somewhere around 2370-2380). One has to use the best estimate of the top of the Dakota and where the Dakota is confined. This map that Macfarlane and others created in 1998 should be the best existing to determine that information in the GMD3 area. The map is a little different from the KGS Open-File 93-1 series of maps of the Dakota and other Cretaceous strata along the area of the unconfined Dakota and confined Dakota boundary. I know that Allen worked to refine the information in the area of the boundary for the 1998 map. The following interpretation of the well logs for the 27S-30W-Sec. 26 location is based on assuming that the KGS OFR 98-37 map is correct.

The 1991 well has a depth to the Cretaceous (Graneros) of about 333 ft below land surface (the top of the interval of hard yellow gray clay that probably represents the top of the weathered Graneros), which is underlain by blue shale at the bottom of the drill hole.

The 2018 well logs are the same except a change from the word "shale" to "clay" in the 330-370 ft interval. It really doesn't matter much whether it is called shale or clay, it still is Graneros Shale that may be partially weathered such that it is soft for drilling.

The depth to the Cretaceous based on the 2018 well log is at about 315 ft depth (somewhere below the top of the 310-323 interval). Note that the color is gold/black: the gold color (or recorded as yellow by other drillers) is caused the weathering of pyrite in the shale to yellow to yellow-brown ferric oxyhydroxides; the black color is an indicator of the black shale in parts of the Graneros.

The bottom of the Graneros/top of the Dakota is probably around 378 ft: the 372-378 interval includes some hard, black shale that is probably Graneros. This depth is not too different from that of 410-420 ft estimated from the Macfarlane et al. 1998 map.

That's my interpretation.

Don

On 3/6/2018 10:08 AM, Brownie Wilson wrote:

Hi Don,

Any insight on this well? It is right on the edge of the confined Dakota and as Brent says- right, wrong, or indifferent, the log was modified to remove any mention of shale right above the sandstone layers.

Thanks,

Brownie

----- Forwarded Message ------

Subject: Confined Dakota?

Date:Tue, 6 Mar 2018 14:33:10 +0000

From:Turney, Brent [KDA] <<u>Brent.Turney@ks.gov></u>
To:bwilson@kgs.ku.edu

bwilson@kgs.ku.edu>

CC:Letourneau, Lane [KDA] <Lane.Letourneau@ks.gov>, Meyer, Mike [KDA] <Mike.Meyer@ks.gov>

Brownie,

We need the advice of an expert and are hoping that you could direct this email to the appropriate person. We are currently working an application for change in point of diversion and would like to know if the proposed well will be located in the confined or unconfined Dakota formation. The proposed well is located in Northeast Quarter of Section 26, Township 27 South, Range 30 West, Gray County and is located within the boundaries of GMD NO. 3. GMD No. 3 rules have adopted KGS Open File Report 98- 37 Plate A, by reference to determine if a well is in the confined Dakota. Other information site specific data maybe used in place of the map to determine the extent of the confined Dakota, if available. A copy of a portion of Plate A has been attached for reference as well as other site specific data submitted by the well driller.

You will also find attached the following:

- 1. Log of the current well
- 2. Log identified as #1 NE 26 (This was the first log filed with the application) (note 330' 370')
- 3. Log identified as #2 NE 26 (This is Log #1, that was later modified by the driller starting at a depth of 330 feet) (Note 330'- 370')
 - 4. Geophysical log of test hole #1 and #2

Log #1 and Log #2 are the same log, however, Log #2 was modified by the well driller at a later date, starting at a depth of 330 feet so that it would appear that there is not a substantial shale layer in the log. If any of the logs are determined to be confined Dakota that is enough information to make our decision.

Any assistance you can provide would be greatly appreciated, and please don't hesitate to contact me if you have any questions. Looking forward to KRWA in a few weeks, see you there.

Thanks,

Brent

Brent A. Turney, P.G. Kansas Department of Agriculture Division of Water Resources 1320 Research Park Drive Manhattan Kansas 66502 (785) 564-6645

MINTER-WILSON DRILLING CO. Confine Reserved In the Control of the

GARDEN CITY, KANSAS 67846

David J. Koehn Gray County 06/28/91

TV 13-6 East, 11 North, west side of road - 290' Northwest of old well

Static Water Level - 159'

Test #1 0 Top soil 5 10 Brown sandy clay Brown clay 10 25 Fine sand 38 Brown sandy clay 38 Fine sand 62 66 Brown sandy clay Fine to medium sand gravel loose 95 174 Coarse gravel loose 174 187 Brown sandy clay 187 219 Brown sandy clay white rock mixed 219 Brown sandy clay white rock mixed small streak sand 241 Brown sandy clay Brown clay 247 Fine sand loose 269 292 292 305 Brown clay 305 Medium coarse gravel yellow rock mixed loose Yellow clay hard 333 352 Yellow gray clay nard Blue shale hard pull down

LOG OF CURRENT WEll

JUL 0 2 1991

Division of Water Resources GARDEN CITY



1 NE Z6 CUSTOMER NAME: JEFF JANTZ

LEGAL: NE 25-275-30W

COUNTY: GRAY

GPS: 37 40' 29.4" N

-100 33' 57.6" W

DRILLER: RYAN WO#: 18-036

			DRILLER:	RTAN			WO#:	18-036
TW	FROM	то	TYPE	HARDNESS	COLOR	SPEED	PULL DOWN	OTHER / DRILLING ACTION
	0	2	TOP SOIL	SOFT	BLACK	FAST	NO	SMOOTH
	2	78	SILTY SANDY CLAY AND VERY FINE SAND	SOFT	BROWN	FAST	NO	SMOOTH
	78	110	FINE-MEDIUM-COARSE SAND AND FINE-TRACE OF MEDIUM GRAVEL	SOFT	RED/TAN	FAST	NO	CHATTER
	110	113	CLAY AND SILT LAYER	SOFT	BROWN	FAST	NO	SMOOTH
	113	141	FINE-MEDIUM-COARSE SAND AND FINE GRAVEL	SOFT	RED	FAST	NO	CHATTER
Κ .	141	167	FINE-MEDIUM-COARSE SAND AND FINE-MEDIUM-TRACE OF COARSE GRAVEL	SOFT	RED	FAST	NO	CHATTER
	167	175	CLAY	SOFT	BROWN	FAST	NO	SMOOTH
(175	177	FINE-MEDIUM-COARSE SAND AND FINE-MEDIUM GRAVEL	SOFT	RED	FAST	NO	CHATTER
1	177	180	CLAY	SOFT	BROWN	FAST	NO	SMOOTH
	180	201	CLAY, MAG LAYERS, AND VERY FINE-FINE SAND	FIRM	TAN / WHITE	SLOW	NO	CHOPPY AT TIMES
	201	208	CLAY AND FINE-TRACE OF MEDIUM SAND	SOFT	BROWN	SLOW	NO	SMOOTH
	208	211	FINE-MEDIUM SAND AND CLAY	SOFT	TAN	FAST	NO	SLIGHT CHATTER
	211	230	FINE-MEDIUM SAND, TRACE OF SANDSTONE, AND SANDY CLAY	SOFT	BROWN / TAN	FAST	NO	SLIGHT CHATTER
4	230	245	FINE-MEDIUM SAND AND SANDY CLAY STRINGERS	SOFT	TAN	FAST	NO	SLIGHT CHATTER
	245	252	SANDY CLAY AND FINE-TRACE OF MEDIUM SAND LAYERS	SOFT	TAN	SLOW	NO	SMOOTH
(252	261	FINE-MEDIUM-TRACE OF COARSE SAND	SOFT	TAN	FAST	NO	CHATTER
٠	261	270	FINE-MEDIUM-TRACE OF COARSE SAND AND SANDY CLAY LENSES	SOFT	TAN	FAST	NO	SLIGHT CHATTER
ζ.	270	275	FINE-MEDIUM-TRACE OF COARSE SAND	SOFT	TAN	FAST	NO	CHATTER
	275	285	FINE-MEDIUM-TRACE OF COARSE SAND AND SANDY CLAY LENSES	SOFT	TAN	FAST	NO	SLIGHT CHATTER
à	285	294	FINE-MEDIUM SAND AND SANDY CLAY	SOFT	TAN	FAST	NO	IN & OUT CHATTER
×	294	310	FINE-MEDIUM-COARSE SAND AND VERY FINE-FINE GRAVEL	SOFT	TAN	FAST	NO	CHATTER
	310	323	GOLD SILTY CLAY, SILTSTONE, LIMESTONE LEDGES, AND VERY FINE SAND	FIRM	GOLD / BLACK	SLOW	NO	CHOPPY AT TIMES
×	323	330	GOLD SILTY CLAY, BROWN ROCK, AND VERY FINE-FINE SAND	SOFT	GOLD / BROWN	SLOW	NO	CHATTER
	330	341	VERY FINE-FINE SAND AND GRAY SHALE	SOFT	GRAY	FAST	NO	CHATTER
	341	370	FINE-TRACE OF MEDIUM SAND AND GRAY SHALE	SOFT	GRAY	FAST	NO	CHATTER
	370	372	LIMESTONE	HARD	BLACK	SLOW	x	СНОРРУ
	372	378	VERY FINE-FINE SAND, LIMESTONE, AND SHALE LAYERS	HARD	GRAY/ BLACK	SLOW	x	СНОРРУ
x	378	385	FINE-MEDIUM SAND	SOFT	GRAY	FAST	NO	CHATTER
	385	401	GRAY SHALE, VERY FINE-FINE SAND LAYERS, AND ORANGE BROWN SILT	FIRM	GRAY/ BROWN	SLOW	NO	CHOPPY AT TIMES
ĸ	401	405	FINE-MEDIUM SAND LAYERS	SOFT	GRAY	FAST	NO	
`	405	415	GRAY SHALE, ORANGE BROWN SILT, AND FINE-TRACE OF MEDIUM SAND LAYERS		GRAY/ BROWN	SLOW	NO	CHATTER
x	415	418	FINE-MEDIUM SAND LAYERS, SANDSTONE TRACES, AND GOLD ORANGE SILT	SOFT	GRAY		NO	IN & OUT CHATTER
	418	420	LIMESTONE			FAST		CHOPPY
		426	DARK GRAY SHALE AND VERY FINE SAND LAYERS	HARD	DARK	SLOW	X	CHOPPY
	420 426	428	LIMESTONE	SOFT	BLACK	SLOW	X	SLIGHT CHATTER CHOPPY

1859T

FROM		ТҮРЕ	HARDNESS	COLOR	SPEED	PD	OTHER / DRILLING ACTION
428	431	NE SAND LAYER	SOFT	GRAY	FAST	NO	CHATTER
431	441	DARK GRAY SHALE, VERY FINE SAND LENSES, AND LIMESTONE	FIRM	GRAY	SLOW	NO	IN & OUT CHATTER
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WELL LOG

Downey Drilling Inc.

RECEIVED

CUSTOMER NAME: JEFF JANTZ

LEGAL; NE 26-275-30W

TEST HOLE #1

DATE: 1/31/2018

FEB 1 3 2018

COUNTY: GRAY

Garden City Field Office Division of Water Resources

GP\$: 37 40' 29,4" N

-100 33' 57.6" W

WO#: 18-036 OTHER / DRILLING FROM HARDNESS TW COLOR PULL DOWN SPEED ACTION TOP SOIL SOFT BLACK FAST NO SMOOTH 78 SILTY SANDY CLAY AND VERY FINE SAND SOFT BROWN FAST NO SMOOTH 110 FINE-MEDIUM-COARSE SAND AND FINE-TRACE OF MEDIUM GRAVEL RED / TAN NO SOFT FAST CHATTER 110 113 CLAY AND SILT LAYER SOFT BROWN FAST NO SMOOTH FINE-MEDIUM-COARSE SAND AND FINE GRAVEL FINE-MEDIUM-COARSE SAND AND FINE-MEDIUM-TRACE OF COARSE 113 141 SOFT RED FAST NO CHATTER 167 141 GRAVE SOFT RED FAST NO CHATTER 167 175 CLAY SOFT BROWN FAST NO SMOOTH NO 175 177 FINE-MEDIUM-COARSE SAND AND FINE-MEDIUM GRAVEL SOFT RED FAST CHATTER 177 180 NO SOFT BROWN FAST SMOOTH 180 201 CLAY, MAG LAYERS, AND VERY FINE-FINE SAND FIRM WHITE SLOW NO **CHOPPY AT TIMES** 201 208 CLAY AND FINE-TRACE OF MEDIUM SAND BROWN SLOW NO SOFT SMOOTH 208 211 TAN BROWN 7 NO FINE-MEDIUM SAND AND CLAY SOFT FAST SLIGHT CHATTER FINE-MEDIUM SAND, TRACE OF SANDSTONE, AND SANDY CLAY 211 230 SOFT TAN FAST NO SLIGHT CHATTER TAN NO 230 245 FINE-MEDIUM SAND AND SANDY CLAY STRINGERS SOFT FAST SLIGHT CHATTER 245 252 SANDY CLAY AND FINE-TRACE OF MEDIUM SAND LAYERS SOFT TAN SLOW NO SMOOTH 252 261 FINE-MEDIUM-TRACE OF COARSE SAND TAN NO CHATTER SOFT FAST 270 TAN NO SLIGHT CHATTER 261 FINE-MEDIUM-TRACE OF COARSE SAND AND SANDY CLAY LENSES SOFT FAST TAN NO 270 275 FINE-MEDIUM-TRACE OF COARSE SAND SOFT FAST CHATTER 275 285 FINE-MEDIUM-TRACE OF COARSE SAND AND SANDY CLAY LENSES SOFT TAN FAST NO SLIGHT CHATTER TAN NO IN & OUT CHATTER 285 294 FINE-MEDIUM SAND AND SANDY CLAY SOFT FAST FINE-MEDIUM-COARSE SAND AND VERY FINE-FINE GRAVEL GOLD SILTY CLAY, SILTSTONE, LIMESTONE LEDGES, AND VERY FINE TAN GOLD NO 294 310 SOFT FAST CHATTER NO CHOPPY AT TIMES BLACK SLOW 310 323 SAND FIRM 330 GOLD SILTY CLAY, BROWN ROCK, AND VERY FINE-FINE SAND SOFT SLOW NO CHATTER 323 BROWN 330 341 VERY FINE-FINE SAND AND GRAY CLAY SOFT GRAY FAST NO CHATTER 341 370 FINE-TRACE OF MEDIUM SAND AND GRAY LENSE SOFT GRAY FAST NO CHATTER SLOW CHOPPY 370 372 LIMESTONE HARD GRAY / 372 378 X VERY FINE-FINE SAND, LIMESTONE, WICLAY LAYERS HARD BLACK SLOW CHOPPY 385 FINE-MEDIUM SAND SOFT GRAY FAST NO CHATTER 378 GRAY/ NO 385 401 FIRM BROWN SLOW CHOPPY AT TIMES GRAY CLAY, VERY FINE-FINE SAND LAYERS, AND ORANGE BROWN SILT FINE-MEDIUM SAND LAYERS 405 SOFT GRAY FAST NO CHATTER 401 NO IN & OUT CHATTER 405 415 FINE-TR. MEDIUM SAND SOFT GRAY/TAN SLOW CHOPPY 415 418 FINE-MEDIUM SAND, TR. SANDSTONE SOFT GRAY FAST NO 418 419 LIMESTONE HARD BLACK SLOW CHOPPY SOFT GRAY FAST NO SLIGHT CHATTER 419 426 FINE SAND GRAY X CHOPPY LIMESTONE HARD SLOW 426 428

TW	FROM	то	TYPE		HARDNESS	COLOR	SPEED	PD	OTHER / DRILLING ACTION
.00	28	431	FINE SAND		SOFT	GRAY	FAST	NO	CHATTER
			DARK GRAY SHALE, VERY FINE SAND LENSES, A	ND LIMESTONE	FIRM	GRAY	SLOW	1	IN & OUT CHATTER
									- Fall
				70.40					- 272-
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JEFF JANTZ

COMPANY

: DOWNEY DRILLING INC.

WELL

: JEFF JANTZ

LOCATION/FIELD :

COUNTY

: GRAY

LOCATION

SECTION

TOWNSHIP

PERMANENT DATUM : GL

LOG MEASURED FROM: GL

DRL MEASURED FROM: GL

RANGE: 30W

DATE

: 01/31/18

DEPTH DRILLER : 441

LOG BOTTOM

: 441.10 : 0.40

CASING DIAMETER: 10.

CASING TYPE :

LOG TOP

BIT SIZE

CASING THICKNESS:

: 6.50

MAGNETIC DECL. : 0

MATRIX DENSITY : 2.71

NEUTRON MATRIX: LIMESTONE

BOREHOLE FLUID

LOGGING UNIT

FIELD OFFICE

RECORDED BY

RM TEMPERATURE

MATRIX DELTA T

OTHER SERVICES:

: 275

KB

DF

GL

: 1319

: DDI

: DAVE

: MUD

: 49

FILE : ORIGINAL

TYPE : 9057A

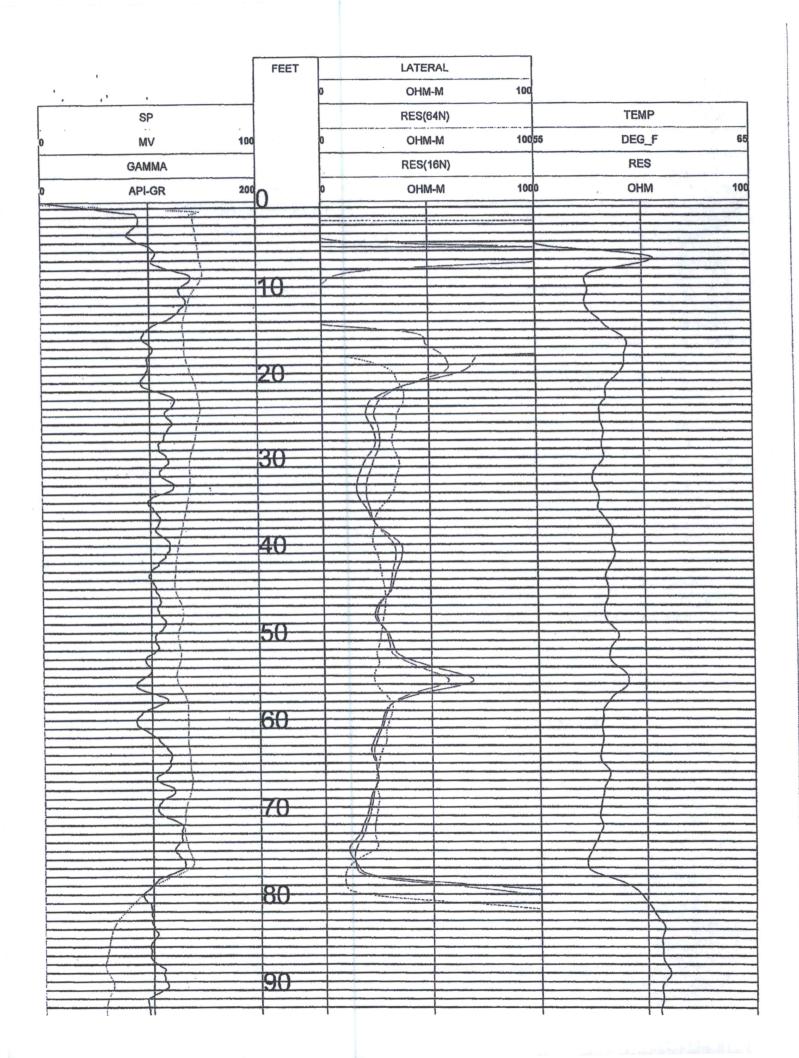
LGDATE: 01/31/18

LGTIME: 12:50:

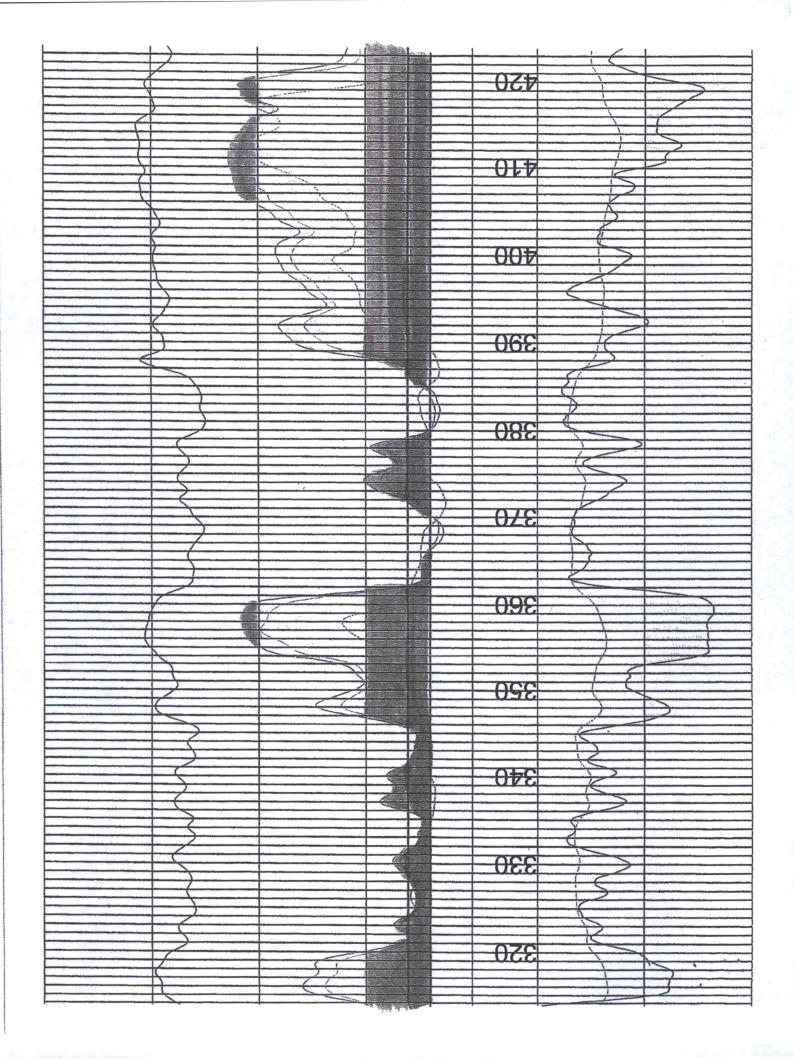
THRESH: 99999

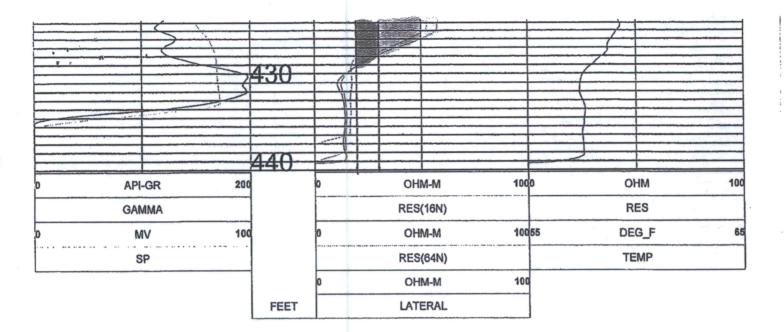
N 37-40-29.4 W-100-33-57.6

ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS









Kansas Department of Agriculture / Division of Water Resources <u>Garden City</u> Field Office

TO: HEADQUARTERS Attn & Brent	
RE	Vater;
File No(s) Co	ounty GrAy
Enclosed are the following checked items:	
A FIR Full Partial Inspection Proposed Certificate to deliver to Certificate Unit	Return to Field Office
A Compliance Check Inspection on	
☐ Meter Install ☐ New App ☐ Chg App ☐ Other ☐ In Compliance ☐ Not in Compliance, why	
Modify Point of Diversion No Yes, document attach	ned
☐ An application and judgment sheet with recommendation.☐ A memorandum dated	
 ☐ A request for an extension of time to perfect or complete. ☐ A verified report. 	Water Resources Received
☐ A closure request.☐ A field investigation report.	FEB 20 2018
☐ Notice of Non-Compliance	KS Dept Of Agriculture
An ownership change (name(s) and address(es) below).	
☐ A water use report for A letter dated	
☐ A copy of an <u>Approval</u> to Change the ☐ place of use and/or ☐ Filing Fee attached.	point of diversion,
An Advanced copy of a change application and the filing fee office.	, to be processed at the field
An original field office change <u>application</u> and the filing fee review and further processing.	needing headquarters office
Other: APPEARS TO BE CHANGE	- 12 Source
OF SUPPLY?	
TPM	2/15/18
Water Commissioner	Date

2/28/2018CANNED

KANSAS DEPARTMENT OF AGRICULTURE Division of Water Resources

MEMORANDUM

TO: Files

FROM: Michael A. Meyer

Water Commissione

DATE:

February 15, 2018

RE:Water Right, File No. 18595

An application to change the point of diversion is being proposed to be dismissed due to change in location source of supply, which is in violation of KSA 82a708b.

The application is proposing to drill to a depth of approximately 420' plus. According to KAR 5-23-14, the proposed well is in the confining unit of the Dakota formation. Therefore, the application does not meet the rule and again proposes a change in source of supply.

The well driller brought in a test hole log for consideration of an application to file, and upon review the test hole appeared to show a gray shale layer from 330'-371', which upon review of the map adopted under KAR 5-23-14, and based on the elevation contour lines of the area topo map and elevation contour of the top of the Dakota formation, this is the elevation (330'-370') depth where the confined Dakota starts and the presence of the gray shale (Graneros Shale) or a confining layer as mapped.

The well driller disagreed. On February 13, this office received an application to change the point of diversion assisted by the GMD3 staff, check and test hole log to submit for review. The test hole log submitted with the application was described different at the log formation of 330'-370' even though it was the exact same test hole log reviewed previously with the driller. The description of the formation at those depth changed from shale to "clay" and shale to "lens". It appears the description was changed to support the driller's conclusion that the "Graneros shale" layer (or a confining layer) was not present even though the map etc. showed it be present.

Upon further review of the area, KGS bulletins etc. it appears that the application is changing the source of supply and the application should be proposed to be denied.

Water Resources
Received

FEB 20 2018



Submit completed application to: Kansas Department of Agriculture Division of Water Resources Field Office for your area. Call for address:

Topeka -- (785) 862-6300 Stafford -- (620) 234-5311 Stockton -- (785) 425-6787 Garden City -- (620) 276-2901 www.ksda.gov/dwr

DWR FIELD OFFICE APPLICATION FOR APPROVAL TO CHANGE THE PLACE OF USE AND/OR THE POINT OF DIVERSION



STATE OF KANSAS

Filing Fee Must Accompany the Application, K.S.A. 82a-708b(b), as amended. Fee Schedule is on the third page of this application form.

tha	ragraph Nos. 1, 2 n 100 feet, or if	place	of use	will b	e cha													
poi	nt(s) of diversion	and/or	place	of use							_					RI 3	ECEI	VED
					ı	File No	. <u>1859</u>	95								FEL	3 1 3	2018
1.	Application is he under the water	right v	vhich is		☐ F ubject	lace o	f Use applic	ation i	n acco	Point ordance	of Dive	ersion the cor				arden sion of	City Fie Water	eld Office Resources
2.	Name and address 128705 9 RD M	ess of	Applic	KS 6	EFF &	JENN		JANTZ	:	Surfa							esour	ces
	Phone Number: Name and addre	ess of	Water	Use C	orresp	onder		Email F & JI		ER JA	NTZ					Rec	eived	
•	28705 9 RD M Phone Number:	()					Email	addre	ss:							0 20	
3.	The presently a Owner of Land -	NA	AME:	JEFF	& JEN				0.70/					K	S De	pt O	f Agri	culture
	(If there is more th							MA KS neets as										Company of
Se	ec. Twp. Range	NE¼		SW1/4	SE¼	NE¼	T T	W¼ SW¼	SE¼	NE¼		V1/4 SW1/4	SE¼	NE¼		E¼ SW¼	SE¼	TOTAL ACRES
_	· · · · · · · · · · · · · · · · · · ·																	-
4.	If this application Owner of Land	NA ADDRI	AME: ESS:	no cha	ange to	acres	3							_				
				Ξ1/4				N1⁄4				V1⁄4				Ε¼		TOTAL ACRES
Se	ec. Twp. Range	NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	ACRES
_							-											
Г	For Office Use	Only:	Code	GT	Fe	e \$	200	_ TR	#		Re	eceipt	Date	2/13	/18	Chec	k#_7	604

5.	Presently authorized point of divers	ion:							
	One in the se0	Quarter of the	se		Quarter of	f the	ne		Quarter
	of Section 26	Township	27		South, Ra	inge	30		W,
	in Gray County, K								section.
	Authorized Rate 910 Au	thorized Quantity _	293	D	epth of we	II		(feet)	
	(DWR use only: Computer ID No						fee	t West)	
	☐ This point will not be changed		be chan	ged as fol	lows:				
	Proposed point of diversion: (Comp	lete only if chang	e is requ	iested)					
	One in the0								
	of Section 26	Township	27		South, Ra	inge	30		W,
	in Gray County, K	(ansas, <u>3901</u>	_feet No	rth136	5 feet	West of S	Southeast o	orner of	section.
	Proposed Rate 910 Proposed Rate				-				
L	This point is: Additional Well	Geo Center List ot	her wate	r rights tha	t will use t	his point			
_									
6.	Presently authorized point of divers								
	One in the0								
	of Section,								
	in County, K								section.
	Authorized Rate Au								
	(DWR use only: Computer ID No	GPS	S		eet North		tee	t West)	
	☐ This point will not be changed	☐ This point will	be chan	ged as fol	lows:	F	EB 13 2	018	3
	Proposed point of diversion: (Comp	plete only if chang	e is requ	<u>iested)</u>					
	One in the								
	of Section,								
	in County, K								
	Proposed Rate Pro				-				
L	This point is: Additional Well	Geo Center List of	ner wate	r rights tha	t will use t	nis point			 -
7	Why do you need a new point of diversion	nn?	13a.	If the prop	osed point	t of divers	ion will be	relocated	within 100
	villy do you nood a now point or divolok			feet of the	e existing p	point of di	version, ind	licate its	location on
	old well needs to be replaced			(PLEASE	MOTE:	The "X"	o the existin	of diagr	am below
				represent	s present	ly authori	zed point of	of diversi	on.)
						Nor			
8.	If a well, is the test hole log attached?	Yes 🗌 No		10	00 50	0	50	100	
					F1	1111	111111	''님	
9.	When do you propose to complete diversion?	the new point	of		F	_		\dashv	
	diversion:			50	F +	_	+	∃50	
					F	=		7	
10.	If the point of diversion is a well:				Ė			=	
	(a) What are you going to do with the o	ld well?		West 0	F'''	1111 <u>X</u>	шПП	ロゴロ	East
		14 11011.			E	_		Ⅎ	
	CAP FOR NOW			50	Ŀч	_		크50	
					├ '	_	1	45	
	(b) When will this be done? 2018				F.	=		7	
11.	Groundwater Management District	t recommendation	on	10	00 50	, [0	50	100	
	attached? Yes No					Scale: 1	" = 100°		
12	Assisted by tpm & CL-GMD3		13b.	If the prop	osed poin	t of divers	ion will be	relocated	more than
12.	Accided by this a or-aining			100 feet	but within	1320 fe	et from th nic map or	e existin	g point of
		Mater December	20	For groun	dwater sou	irces, sho	w all wells	(including	domestic)
		Water Resource	50	within one	-half mile o	of the prop	posed point	of divers	on and the

within one-half mile of the proposed point of diversion and the names and mailing addresses of the owners. For surface water sources, show the names and addresses of the landowner(s) one-half mile downstream and one-half mile upstream from your property lines.



FEB 20 2018



CUSTOMER NAME: JEFF JANTZ

LEGAL: NE 25-27S-30W

FEB 07 2018

RECEIVED

COUNTY: GRAY

29.4" NGarden City Field Office
Division of Water Resources
57.6" W 40'

-100 33'

2010

GPS: <u>37</u>

			FFB 20 2018 DRILLER:	RYAN			WO#:	18-036
TW	FROM	то	TYPE	HARDNESS	COLOR	SPEED	PULL DOWN	OTHER / DRILLING ACTION
	0	2	TOP SOIL KS Dept Of Agriculture	SOFT	BLACK	FAST	NO	SMOOTH
	2	78	SILTY SANDY CLAY AND VERY FINE SAND	SOFT	BROWN	FAST	NO	SMOOTH
х	78	110	FINE-MEDIUM-COARSE SAND AND FINE-TRACE OF MEDIUM GRAVEL	SOFT	RED / TAN	FAST	NO	CHATTER
	110	113	CLAY AND SILT LAYER	SOFT	BROWN	FAST	NO	SMOOTH
х	113	141	FINE-MEDIUM-COARSE SAND AND FINE GRAVEL	SOFT	RED	FAST	NO	CHATTER
x	141	167	FINE-MEDIUM-COARSE SAND AND FINE-MEDIUM-TRACE OF COARSE GRAVEL	SOFT	RED	FAST	NO	CHATTER
	167	175	CLAY	SOFT	BROWN	FAST	NO	SMOOTH
Х	175	177	FINE-MEDIUM-COARSE SAND AND FINE-MEDIUM GRAVEL	SOFT	RED	FAST	NO	CHATTER
	177	180	CLAY	SOFT	BROWN	FAST	NO	SMOOTH
	180	201	CLAY, MAG LAYERS, AND VERY FINE-FINE SAND	FIRM	TAN / WHITE	SLOW	NO	CHOPPY AT TIMES
	201	208	CLAY AND FINE-TRACE OF MEDIUM SAND	SOFT	BROWN	SLOW	NO	SMOOTH
	208	211	FINE-MEDIUM SAND AND CLAY	SOFT	TAN BROWN /	FAST	NO	SLIGHT CHATTER
	211	230	FINE-MEDIUM SAND, TRACE OF SANDSTONE, AND SANDY CLAY	SOFT	TAN	FAST	NO	SLIGHT CHATTER
	230	245	FINE-MEDIUM SAND AND SANDY CLAY STRINGERS	SOFT	TAN	FAST	NO	SLIGHT CHATTER
	245	252	SANDY CLAY AND FINE-TRACE OF MEDIUM SAND LAYERS	SOFT	TAN	SLOW	NO	SMOOTH
x	252	261	FINE-MEDIUM-TRACE OF COARSE SAND	SOFT	TAN	FAST	NO	CHATTER
2450	261	270	FINE-MEDIUM-TRACE OF COARSE SAND AND SANDY CLAY LENSES	SOFT	TAN	FAST	NO	SLIGHT CHATTER
X	270	275	FINE-MEDIUM-TRACE OF COARSE SAND	SOFT	TAN	FAST	NO	CHATTER
	275	285	FINE-MEDIUM-TRACE OF COARSE SAND AND SANDY CLAY LENSES	SOFT	TAN	FAST	NO	SLIGHT CHATTER
	285	294	FINE-MEDIUM SAND AND SANDY CLAY	SOFT	TAN	FAST	NO	IN & OUT CHATTER
x	294	310	FINE-MEDIUM-COARSE SAND AND VERY FINE-FINE GRAVEL	SOFT	TAN	FAST	NO	CHATTER
	310	323	GOLD SILTY CLAY, SILTSTONE, LIMESTONE LEDGES, AND VERY FINE SAND	FIRM	GOLD / BLACK	SLOW	NO	CHOPPY AT TIMES
х	323	330	GOLD SILTY CLAY, BROWN ROCK, AND VERY FINE-FINE SAND	SOFT	GOLD / BROWN	SLOW	NO	CHATTER
1	330	341	VERY FINE-FINE SAND AND GRAY SHALE	SOFT	GRAY	FAST	NO	CHATTER
1	341	370	FINE-TRACE OF MEDIUM SAND AND GRAY SHALE	SOFT	GRAY	FAST	NO	CHATTER
	370	372	LIMESTONE	HARD	BLACK	SLOW	x	CHOPPY
	372	378	VERY FINE-FINE SAND, LIMESTONE, AND SHALE LAYERS	HARD	BLACK	SLOW	x	СНОРРУ
X	378	385	FINE-MEDIUM SAND	SOFT	GRAY	FAST	NO	CHATTER
35.23	385	401	GRAY SHALE, VERY FINE-FINE SAND LAYERS, AND ORANGE BROWN SILT	FIRM	BROWN	SLOW	NO	CHOPPY AT TIMES
Х	401	405	FINE-MEDIUM SAND LAYERS	SOFT	GRAY	FAST	NO	CHATTER
	405	415	GRAY SHALE, ORANGE BROWN SILT, AND FINE-TRACE OF MEDIUM SAND LAYERS	SOFT	GRAY / BROWN	SLOW	NO	IN & OUT CHATTER
х	415	418	FINE-MEDIUM SAND LAYERS, SANDSTONE TRACES, AND GOLD ORANGE SILT	SOFT	GRAY	FAST	NO	СНОРРУ
	418	420	LIMESTONE	HARD	BLACK	SLOW	×	CHOPPY
	420	426	DARK GRAY SHALE AND VERY FINE SAND LAYERS	SOFT	DARK GRAY	FAST	NO	SLIGHT CHATTER
	426	428	LIMESTONE	HARD	BLACK	SLOW	x	CHOPPY

TW	FROM		TYPE	HARDNESS	COLOR	SPEED	PD	OTHER / DRILLING ACTION
g	428	431	NE SAND LAYER	SOFT	GRAY	FAST	NO	CHATTER
10			Control of the Contro	FIRM				IN & OUT CHATTER
						DE0E	/==	
						RECEI	VLD	
						TED A P	2040	
						EB 07	2018	
					Gard	en City F	eld Office	
					Divisio	n of Wate	r Resourc	es
			Wate	Resou	ces			
			R	eceived				
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WELL LOG



RECEIVED

CUSTOMER NAME: JEFF JANTZ

LEGAL: NE 26-27S-30W

TEST HOLE #1

DATE: 1/31/2018

FEB 1 3 2018

Garden City Field Office Division of Water Resources COUNTY: GRAY

GPS: 37

40'

29.4" N

-100 33'

57.6" W

			DRILLER:	RYAN			WO#:	18-036
TW	FROM	то	ТҮРЕ	HARDNESS	COLOR	SPEED	PULL DOWN	OTHER / DRILLING ACTION
	0	2	TOP SOIL	SOFT	BLACK	FAST	NO	SMOOTH
	2	78	SILTY SANDY CLAY AND VERY FINE SAND	SOFT	BROWN	FAST	NO	sмоотн
	78	110	FINE-MEDIUM-COARSE SAND AND FINE-TRACE OF MEDIUM GRAVEL	SOFT	RED / TAN	FAST	NO	CHATTER
	110	113	CLAY AND SILT LAYER	SOFT	BROWN	FAST	NO	SMOOTH
	113	141	FINE-MEDIUM-COARSE SAND AND FINE GRAVEL	SOFT	RED	FAST	NO	CHATTER
	141	167	FINE-MEDIUM-COARSE SAND AND FINE-MEDIUM-TRACE OF COARSE GRAVEL	SOFT	RED	FAST	NO	CHATTER
	167	175	CLAY	SOFT	BROWN	FAST	NO	SMOOTH
	175	177	FINE-MEDIUM-COARSE SAND AND FINE-MEDIUM GRAVEL	SOFT	RED	FAST	NO	CHATTER
	177	180	CLAY	SOFT	BROWN	FAST	NO	sмоотн
	180	201	CLAY, MAG LAYERS, AND VERY FINE-FINE SAND	FIRM	TAN / WHITE	SLOW	NO	CHOPPY AT TIMES
	201	208	CLAY AND FINE-TRACE OF MEDIUM SAND	SOFT	BROWN	SLOW	NO	SMOOTH
-	208	211	FINE-MEDIUM SAND AND CLAY	SOFT	TAN	FAST	NO	SLIGHT CHATTER
			Fc-		BROWN /			
_	211	230	242' SWL	SOFT	TAN	FAST	NO	SLIGHT CHATTER
	230	245	FINE-MEDIUM SAND AND SANDY CLAY STRINGERS	SOFT	TAN	FAST	NO	SLIGHT CHATTER
-	245	252	SANDY CLAY AND FINE-TRACE OF MEDIUM SAND LAYERS	SOFT	TAN	SLOW	NO	SMOOTH
-	252	261	FINE-MEDIUM-TRACE OF COARSE SAND	SOFT	TAN	FAST	NO	CHATTER
	261	270	FINE-MEDIUM-TRACE OF COARSE SAND AND SANDY CLAY LENSES	SOFT	TAN	FAST	NO	SLIGHT CHATTER
	270	275	FINE-MEDIUM-TRACE OF COARSE SAND	SOFT	TAN	FAST	NO	CHATTER
	275	285	FINE-MEDIUM-TRACE OF COARSE SAND AND SANDY CLAY LENSES	SOFT	TAN	FAST	NO	SLIGHT CHATTER
	285	294	FINE-MEDIUM SAND AND SANDY CLAY	SOFT	TAN	FAST	NO	IN & OUT CHATTER
	294	310	FINE-MEDIUM-COARSE SAND AND VERY FINE-FINE GRAVEL	SOFT	TAN	FAST	NO	CHATTER
	310	323	GOLD SILTY CLAY, SILTSTONE, LIMESTONE LEDGES, AND VERY FINE SAND	FIRM	GOLD / BLACK	SLOW	NO	CHOPPY AT TIMES
(323	330	GOLD SILTY CLAY, BROWN ROCK, AND VERY FINE-FINE SAND	SOFT	GOLD / BROWN	SLOW	NO 🧂	CHATTER
	330	341	VERY FINE-FINE SAND AND GRAY CLAY	SOFT	GRAY	FAST	NO	CHATTER
	341	370	FINE-TRACE OF MEDIUM SAND AND GRAY LENSE	SOFT	GRAY	FAST	NO	CHATTER
	370	372	LIMESTONE	HARD	BLACK	SLOW	x	СНОРРУ
	372	378	VERY FINE-FINE SAND, LIMESTONE, W/CLAY LAYERS	HARD	GRAY / BLACK	SLOW	x	СНОРРУ
	378	385	FINE-MEDIUM SAND	SOFT	GRAY	FAST	NO	CHATTER
-	777		GRAY CLAY, VERY FINE-FINE SAND LAYERS, AND ORANGE BROWN SILT	FIRM	GRAY / BROWN	SLOW	NO	CHOPPY AT TIMES
	385	401				FAST	NO	CHATTER
	401	405	FINE-MEDIUM SAND LAYERS	SOFT	GRAY			
	405	415			GRAYCTAN	SLOW	NO	IN & OUT CHATTER
(415	418	FINE-MEDIUM SAND, TR. SANDSTONE	specei		FAST	NO	СНОРРУ
	418	419	LIMESTONE	EB 20	ZU 10 GRAY	SLOW	X	СНОРРУ
	419	426	FINE SAND	SOFT		FAST	NO	SLIGHT CHATTER
	426	428	LIMESTONE KS D	ept Of	G PACultu	SLOW	Х	СНОРРУ



TW	FROM	то	ТҮРЕ	HARDNESS	COLOR	SPEED	PD	OTHER / DRILLING ACTION
MÀ	428	431	FINE SAND	SOFT	GRAY	FAST	NO	CHATTER
	431	441	DARK GRAY SHALE, VERY FINE SAND LENSES, AND LIMESTONE				NO	IN & OUT CHATTER
								·
				-				
							-	
					-		-	
			Receivan					
			1000					
			N. 19 (N. 17)					
		-	estutuangA to reed six		-			

,

WELL LOG

RECEIVED

CUSTOMER NAME: JEFF JANTZ

Manua

LEGAL: NE 26-27S-30W

TEST HOLE #1

DATE: 1/31/2018

FEB 1 3 2018

Garden City Field Office Division of Water Resources COUNTY: GRAY

GPS: 37

29.4" N

-100 33'

40'

57.6" W

DRILLER RYAN

			DRILLER:	RYAN			WO#:	18-036
TW	FROM	то	ТҮРЕ	HARDNESS	COLOR	SPEED	PULL DOWN	OTHER / DRILLING ACTION
	0	2	TOP SOIL	SOFT	BLACK	FAST	NO	SMOOTH
	2	78	SILTY SANDY CLAY AND VERY FINE SAND	SOFT	BROWN	FAST	NO	SMOOTH
K	78	110	FINE-MEDIUM-COARSE SAND AND FINE-TRACE OF MEDIUM GRAVEL	SOFT	RED / TAN	FAST	NO	CHATTER
	110	113	CLAY AND SILT LAYER	SOFT	BROWN	FAST	NO	SMOOTH
X	113	141	FINE-MEDIUM-COARSE SAND AND FINE GRAVEL	SOFT	RED	FAST	NO	CHATTER
X	141	167	FINE-MEDIUM-COARSE SAND AND FINE-MEDIUM-TRACE OF COARSE GRAVEL	SOFT	RED	FAST	NO	CHATTER
	167	175	CLAY	SOFT	BROWN	FAST	NO	sмоотн
X	175	177	FINE-MEDIUM-COARSE SAND AND FINE-MEDIUM GRAVEL	SOFT	RED	FAST	NO	CHATTER
	177	180	CLAY	SOFT	BROWN	FAST	NO	SMOOTH
	180	201	CLAY, MAG LAYERS, AND VERY FINE-FINE SAND	FIRM	TAN / WHITE	SLOW	NO	CHOPPY AT TIMES
	201	208	CLAY AND FINE-TRACE OF MEDIUM SAND	SOFT	BROWN	SLOW	NO	SMOOTH
	208	211	FINE-MEDIUM SAND AND CLAY	SOFT	TAN	FAST	NO	SLIGHT CHATTER
	211	230	FINE-MEDIUM SAND, TRACE OF SANDSTONE, AND SANDY CLAY	SOFT	BROWN / TAN	FAST	NO	SLIGHT CHATTER
	230	245	FINE-MEDIUM SAND AND SANDY CLAY STRINGERS 240' SWL	SOFT	TAN	FAST	NO	SLIGHT CHATTER
	245	252	SANDY CLAY AND FINE-TRACE OF MEDIUM SAND LAYERS	SOFT	TAN	SLOW	NO	SMOOTH
<	252	261	FINE-MEDIUM-TRACE OF COARSE SAND	SOFT	TAN	FAST	NO	CHATTER
100	261	270	FINE-MEDIUM-TRACE OF COARSE SAND AND SANDY CLAY LENSES	SOFT	TAN	FAST	NO	SLIGHT CHATTER
x	270	275	FINE-MEDIUM-TRACE OF COARSE SAND	SOFT	TAN	FAST	NO	CHATTER
	275	285	FINE-MEDIUM-TRACE OF COARSE SAND AND SANDY CLAY LENSES	SOFT	TAN	FAST	NO	SLIGHT CHATTER
-	285	294	FINE-MEDIUM SAND AND SANDY CLAY	SOFT	TAN	FAST	NO	IN & OUT CHATTER
×	294	310	FINE-MEDIUM-COARSE SAND AND VERY FINE-FINE GRAVEL	SOFT	TAN	FAST	NO	CHATTER
	310	323	GOLD SILTY CLAY, SILTSTONE, LIMESTONE LEDGES, AND VERY FINE SAND	FIRM	GOLD / BLACK	SLOW	NO	CHOPPY AT TIMES
x	323	330	GOLD SILTY CLAY, BROWN ROCK, AND VERY FINE-FINE SAND	SOFT	GOLD / BROWN	SLOW	NO 3	CHATTER
	330	341	VERY FINE-FINE SAND AND GRAY CLAY	SOFT	GRAY	FAST	NO	CHATTER
	341	370	FINE-TRACE OF MEDIUM SAND AND GRAY LENSE	SOFT	GRAY	FAST	NO	CHATTER
	370	372	LIMESTONE	HARD	BLACK	SLOW	x	СНОРРУ
	372	378	VERY FINE-FINE SAND, LIMESTONE, W/CLAY LAYERS	HARD	GRAY / BLACK	SLOW	x	СНОРРУ
X.	378	385	FINE-MEDIUM SAND	SOFT	GRAY	FAST	NO	CHATTER
15.	385	401	GRAY CLAY, VERY FINE-FINE SAND LAYERS, AND ORANGE BROWN SILT	FIRM	GRAY / BROWN	SLOW	NO	CHOPPY AT TIMES
(]	401	405	FINE-MEDIUM SAND LAYERS	SOFT	GRAY	FAST	NO	CHATTER
`	405	415	FINE-TR. MEDIUM SAND	SOFT	GRAY/TAN		NO	IN & OUT CHATTER
X	415	418	FINE-INC. MEDICINI SAND FINE-MEDIUM SAND, TR. SANDSTONE Water Reso		GRAY	FAST	NO I	CHOPPY
No.	418	419	LIMESTONE Receive		BLACK	SLOW	X	СНОРРУ
	419	426	FINE SAND. FEB 20		GRAY	FAST	NO	SLIGHT CHATTER
- 1	426	428	LIMESTONE - FEB 20	HARD	GRAY	SLOW	X	CHOPPY







OTHER SERVICES:

JEFF JANTZ

COMPANY

: DOWNEY DRILLING INC.

WELL

: JEFF JANTZ

LOCATION/FIELD

COUNTY : GRAY

LOCATION

: NE

SECTION

TOWNSHIP

: 27\$

DATE

: 01/31/18

DEPTH DRILLER : 441

LOG BOTTOM

: 441.10

LOG TOP

: 0.40

CASING DIAMETER: 10.

CASING TYPE CASING THICKNESS:

BIT SIZE

: 6.50

MAGNETIC DECL. : 0

MATRIX DENSITY : 2.71

NEUTRON MATRIX: LIMESTONE

PERMANENT DATUM : GL

LOG MEASURED FROM: GL

DRL MEASURED FROM: GL

LOGGING UNIT

FIELD OFFICE

RECORDED BY

BOREHOLE FLUID

: MUD

: 1319

: DAVE

: DDI

RM TEMPERATURE MATRIX DELTA T : 49

RANGE: 30W

KB

DF

GL

FILE : ORIGINAL

TYPE : 9057A

LGDATE: 01/31/18

LGTIME: 12:50: THRESH: 99999

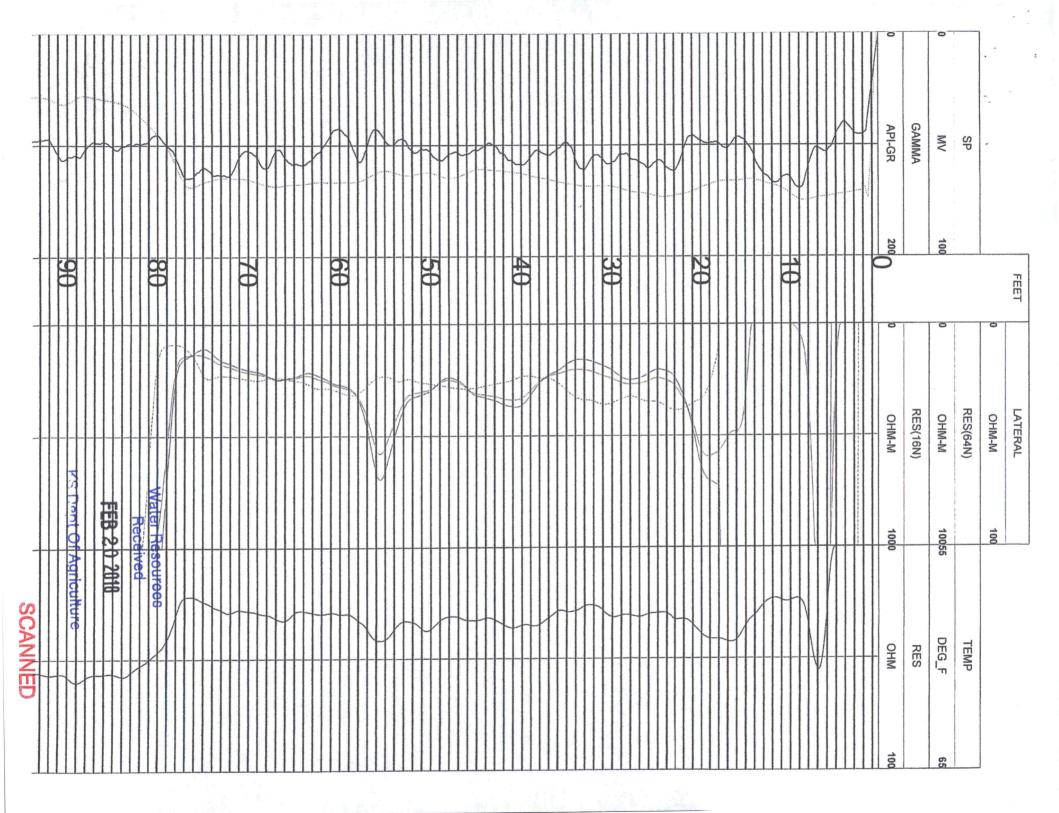
N 37-40-29.4 W-100-33-57.6

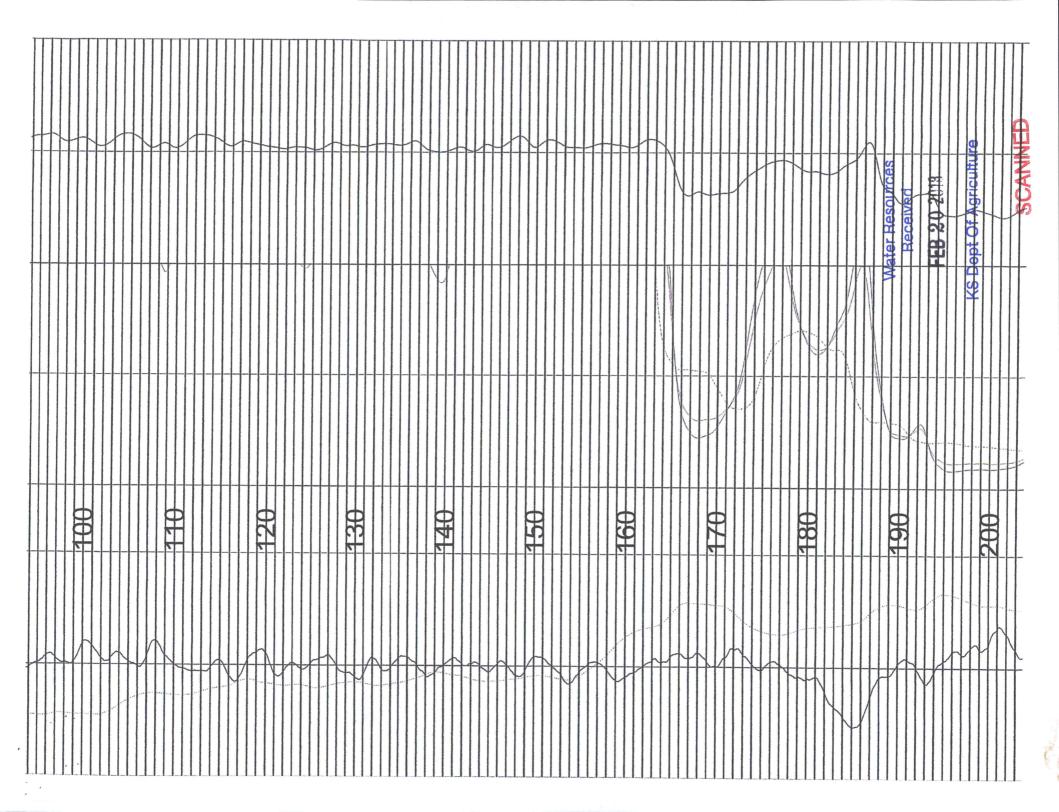
ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS

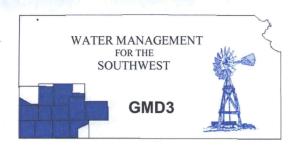
Water Resources Received

FEB 20 2018









Southwest Kansas Groundwater Management District

2009 E. Spruce Street
Garden City, Kansas 67846-6158

(620) 275-7147 phone (620) 275-1431 fax www.gmd3.org

February 13, 2018

RECEIVED

FEB 1 3 2018

Mike Meyer Division of Water Resources 2508 Johns Street Garden City, KS 67846 Garden City Field Office
Division of Water Resources

RE: Application for Change In Point of Diversion

Water Right File No. 18595

Dear Mike,

We have completed a review of the application for the above referenced water right. The proposal is not in conflict with the Management Program of the Southwest Kansas Groundwater Management District. The change in point of diversion is in accordance with K.A.R. 5-23-3(c)(1). It is therefore recommended that the application be approved at this time.

Thank you for the opportunity to review the application and to provide a recommendation. If you have any questions please don't hesitate to contact us.

Sincerely.

Jason Norquest/

Assistant Manager

Water Resources Received

FEB 20 2018



3901 ft N and 1365 ft W of the SE Corner of Section 26, T 27S, R 30W Located at: 100.565568 West Longitude and 37.674806 North Latitude GROUNDWATER ONLY ______ File Number Use ST SR Dist (ft) Q4 Q3 Q2 Q1 FeetN FeetW Sec Twp Rng ID Batt Auth Quan Add Quan Unit A_ 13575 00 IRR NK G 5271 -- SE NW NE 4000 1400 25 27 30W 8 28.00 28.00 AF A__ 18317 00 IRR NK G 272.00 272.00 AF 3906 -- -- NC SW 1320 3960 24 27 30W 2 A__ 18595 00 IRR NK G 1466 -- SE SE NE 2850 340 26 27 30W 2 293.00 293.00 AF A__ 21073 00 IRR NK G 5271 -- SE NW NE 4000 1400 25 27 30W 272.00 272.00 AF A 25196 D1 IRR NK G 2711 -- -- NC NW 3970 3960 25 27 30W 4 260.00 260.00 AF 25962 00 IRR NK G 4162 -- NW NW NE 5180 2500 35 27 30W 380.00 380.00 AF 3775 -- -- NC SW 1300 3960 23 27 30W 3 A__ 29756 00 IRR NK G 248.00 248.00 AF ______ RECEIVED Total Net Quantities Authorized: Direct Storage Total Requested Amount (AF) = .00 .00 .00 .00 Total Permitted Amount (AF) = FEB 1 3 2018 Total Inspected Amount (AF) = .00 .00 .00 .00 Total Pro_Cert Amount (AF) = Garden City Field Office Total Certified Amount (AF) = 1753.00 .00 Division of Water Resources Total Vested Amount (AF) = .00 TOTAL AMOUNT (AF) = 1753.00 .00 An * after the source of supply indicates a pending application for change for the file number. An * after the ID indicates a 15 AF exemption was granted for the file number. A "G" in the Batt column indicates the GEO CTR of a battery. A "B" indicates a well in the battery. The number in the Batt column is the number of wells in the battery. Water Rights and Points of Diversion Within 1.00 miles of point defined as: 100.565568 West Longitude and 37.674806 North Latitude GROUNDWATER ONLY WATER USE CORRESPONDENTS: ______ File Number Use ST SR A 13575 00 IRR NK G > LEONARD L & PATRICIA KOEHN > PO BOX 13 MONTEZUMA KS 67867 18317 00 IRR NK G > LEONARD L & PATRICIA KOEHN PO BOX 13 Water Resources > MONTEZUMA KS 67867 **.....** Received > ROSS E & SHERRY R KOEHN FEB 20 2018 > 7505 BB RD KS Dept Of Agriculture MONTEZUMA KS 67867 A__ 18595 00 IRR NK G > JEFF & JENNIFER JANTZ

Water Rights and Points of Diversion Within 1.00 miles of point defined as:



> 28705 9 RD > MONTEZUMA KS 67867 >----A__ 21073 00 IRR NK G > LEONARD L & PATRICIA KOEHN > PO BOX 13 > MONTEZUMA KS 67867 >-----A__ 25196 D1 IRR NK G > JEFF & JENNIFER JANTZ > 28705 9 RD > MONTEZUMA KS 67867 >-----A__ 25962 00 IRR NK G > GREGORY C & SUE LOVE > 24506 13 RD > MONTEZUMA KS 67867 >-----A__ 29756 00 IRR NK G > IVAL EUGENE NALLY > 123 YY RD > PIERCEVILLE KS 67868 ______

Cavisor All Cavisors

14. If the proposed groundwater point of diversion is 300 or fewer feet fro	m existing point of diversion, complete the following:
(a) Does the undersigned represent all owners of the currently author☐ Yes☐ No(If no, all owners must sign this application)	
 (b) Will the ownership interest of any owner of the currently author affected if this application is approved as requested? ☐ Yes ☐ No (If yes, all owners must sign this application) 	FER 1.3 2018
(c) If this application is not approved expeditiously, will there be sublined Yes ☐ No (If no, all owners must sign this application)	
If the application proposes a surface water change in point of diversion, a or a change in place of use, the application must be signed by all owners agent (attach notarized statement authorizing representation).	
I hereby verify, being first duly sworn upon my oath or affirmage and the owner, the spouse of the owner, or a duly authoritheir behalf, in regard to the water right(s) to which this appropriate in this application are true, correct and complete.	zed agent of the owner(s) to make this application on lication pertains. I further verify that the statements
Dated at Jarden Cog, Kansas, this	13 day of Febuary , 20 18.
Jeff Jant	Thnifer Janh (Spouse)
Jeff Tanta	(Tennifer Tanto
(Please Print)	(Please Print)
(Owner)	(Spouse)
(Please Print)	(Please Print)
(Owner)	(Spouse)
(Please Print)	(Please Print)
State of Kansas SS NOTARY PUBLIC BRAND BRAND WARDOT Expire	C - State of Kansas I SNEATH
I hereby certify that the foregoing application was signed in my	presence and sworn to before me this 13thday of
,20	Brandi Snoot
My Commission Expires 1010112019.	Notary Public
ONLY COMPLETE APPLICATIONS WILL BE PROCESSED. To be complete, all caccurate information; maps, if necessary, must be included; signatures of all the apthe appropriate fee must be paid.	
FEE SCHEDU	<u>LE</u>
Each application to change the place of use or the point of diversion under forth in the schedule below: Make checks payable to: Kansas Departmet (1) Application to change a point of diversion 300 feet or less (2) Application to change a point of diversion more than 300 feet (3) Application to change the place of use	r this section shall be accompanied by the application fee set ent of Agriculture \$100 \$200 \$200 \$200
	Received
	FEB 20 2018

KS Dept Of Agriculture

SCANNED

File No. ____/8595____

SUMMARY ORDER APPROVING APPLICATION FOR CHANGE AND IMPOSING CONDITIONS

This Summary Order is issued under authority of K.S.A. 82a-708b, as amended, and K.A.R. 5-14-3 and other applicable provisions of the *Kansas Water Appropriation Law, K.S.A.* 82a-701 et. seq., and rules and regulations promulgated thereunder, K.A.R. 5-1-1 et.seq. With the exception of those conditions expressly contained herein, this Summary Order does not change the terms, conditions and limitations of File No. 18595 requesting that the place of use and / or point of A change application was received on diversion authorized under the above-referenced file number be changed as described in the application. On and after the effective date of this summary order, the authorized place(s) of use shall be located substantially as shown on the topographic map accompanying the application to change the place of use.

Applicable Not Applicable The change in point of diversion shall not impair existing rights and shall be limited to the same source or sources of water as previously authorized. The point of diversion authorized by this summary order shall be located within a _______foot radius of the authorized point(s) of diversion. ☐ Applicable ☐ Not Applicable The point(s) of diversion authorized herein shall not actually be located more than ___ authorized point(s) of diversion.

Applicable

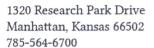
Not Applicable feet from the previously As required by K.A.R. 5-3-5d, if the works for diversion is a well with a diversion rate of 100 gallons per minute or more, a tube or other device suitable for making water level measurements shall be installed, operated and maintained in accordance with K.A.R. 5-6-13. ☐ Applicable ☐ Not Applicable The owner of the authorized place(s) of use shall properly install an acceptable water flow meter on or before December 31, 2018, or before the first use of water, whichever occurs first. The water flow meter shall be installed, operated and maintained in accordance with K.A.R. 5-1-4 through 5-1-12. As required by K.S.A. 82a-732, as amended, and K.A.R. 5-3-5e, the owner shall maintain records and report the reading of the water flow meter and the total quantity of water diverted annually to the Chief Engineer by March 1 following the end of each calendar year.

Applicable

Not Applicable Installation of the works for diversion of water shall be completed on or before December 31, 20 authorized extension of time. By March 1, 20____ the applicant shall notify the Chief Engineer that construction of the works for diversion has been completed, on the form provided by the Chief Engineer, as required by K.A.R. 5-8-4e. ☐ Not Applicable Applicable Applicable The completed well log shall be submitted with the required notice. ☐ Not Applicable All diversion works into which any type of chemical or other foreign substance will be injected into the water shall be equipped with an in-line, automatic, quick-closing check valve capable of preventing pollution of the source of the water supply. The check valve(s) shall be installed, operated and maintained in accordance with K.A.R. 5-3-5c.

Applicable
Not Applicable Additional Conditions are attached. ☐ Yes 11. In accordance with K.S.A. 82a-708a, as amended, and K.A.R. 5-5-14, all of the owners of the authorized place(s) of use of water appropriated under the above-referenced file number are responsible for compliance with its terms, conditions and limitations, as amended and/or supplemented by this Summary Order, and with applicable provisions of the *Kansas Water Appropriation Law* and the *Rules and Regulations* promulgated thereunder. Failure to comply with these provisions may result in civil penalties pursuant to K.S.A. 82a-737, as amended, and/or the suspension or revocation and dismissal of the water or appropriation right or any other enforcement actions authorized by law. FOR OFFICE USE ONLY Administrative Appeal and Effective Date of Order APPLICATION APPROVED AND You have the right to a hearing in accordance with K.A.R. 5-SUMMARY ORDER ISSUED 14-3 before this Summary Order becomes final action of the Kansas Department of Agriculture. Any request for a hearing must be filed with the Chief Engineer, Division of Water Resources, Kansas Department of Agriculture, 109 SW 9th Street, Topeka, Kansas 66612, within 15 days after the Ву: __ Duly Authorized Designee of the Chief Engineer date shown on the Certificate of Service attached hereto. If a hearing is not requested in accordance with K.A.R. 5-14-3, this Summary Order will become effective on the 15th day (Print Name): Division of Water Resources - Kansas Department of Agriculture after the date shown on the Certificate of Service. Date of Issuance: For Use by Register of Deeds State of Kansas) SS County of Acknowledged before me on _____ Water Resources Received Signature: FEB 20 2018 **Notary Public** 100 Dant Of Agriculture My commission expires: _____ (Notary Seal) File No. __/8595 DWR 1-121 (Revised 01/05/2010) Page 4

SCANNED





900 SW Jackson, Room 456 Topeka, Kansas 66612 785-296-3556

Secretary Jackie McClaskey

Governor Jeff Colyer, M.D.

JEFF & JENNIFER JANTZ 28705 9 RD

February 28, 2018

MONTEZUMA, KS 67867

RE: File No 18595

Dear Sir or Madam:

An application for approval of the Chief Engineer to change the following condition or conditions of the file number referred to above has been received:

> place of use PD point of diversion use made of water

As a matter of record, the Division of Water Resources has on hand a large number of applications awaiting processing. Therefore, to be fair to all concerned, and so that we can process those applications on hand in the order they were received, we intend to concentrate on the backlog of applications until the issue is resolved. You will be contacted regarding this application as soon as it has been examined.

In accordance with the provisions of the Kansas Water Appropriation Act, a portion of which is included below, the use of water prior to approval of the application is unlawful. You should not proceed and divert water as indicated by your plans in your application for a change for this file until you receive approval for this change from the Chief Engineer. Once approved, compliance with the terms, conditions and limitations of the permit is necessary. Conservation of the water resources of Kansas is required.

Section 82a-728 of the Kansas Water Appropriation Act, provides (a) except for the appropriation of water for the purpose of domestic use, . . . it shall be unlawful for any person to appropriate or threaten to appropriate water from any source without first applying for and obtaining a permit to appropriate water in accordance with the provisions of the Water Appropriation Act or for any person to violate any condition of a vested right, appropriation right or an approved application for a permit to appropriate water for beneficial use.

(b) (1) The violation of any provision of this section by any person is a class C misdemeanor... A class C misdemeanor is punishable by a fine not to exceed \$500 and/or a term of confinement not to exceed one month in the county jail. Each day that the violation occurs constitutes a separate offense.

If you have any questions, please contact me at (785) 564-6645. If you wish to discuss a specific file, please have the file number ready so that we may help you more efficiently.

Sincerely,

Brent Tourney, L.G.

Change Applications Unit Supervisor

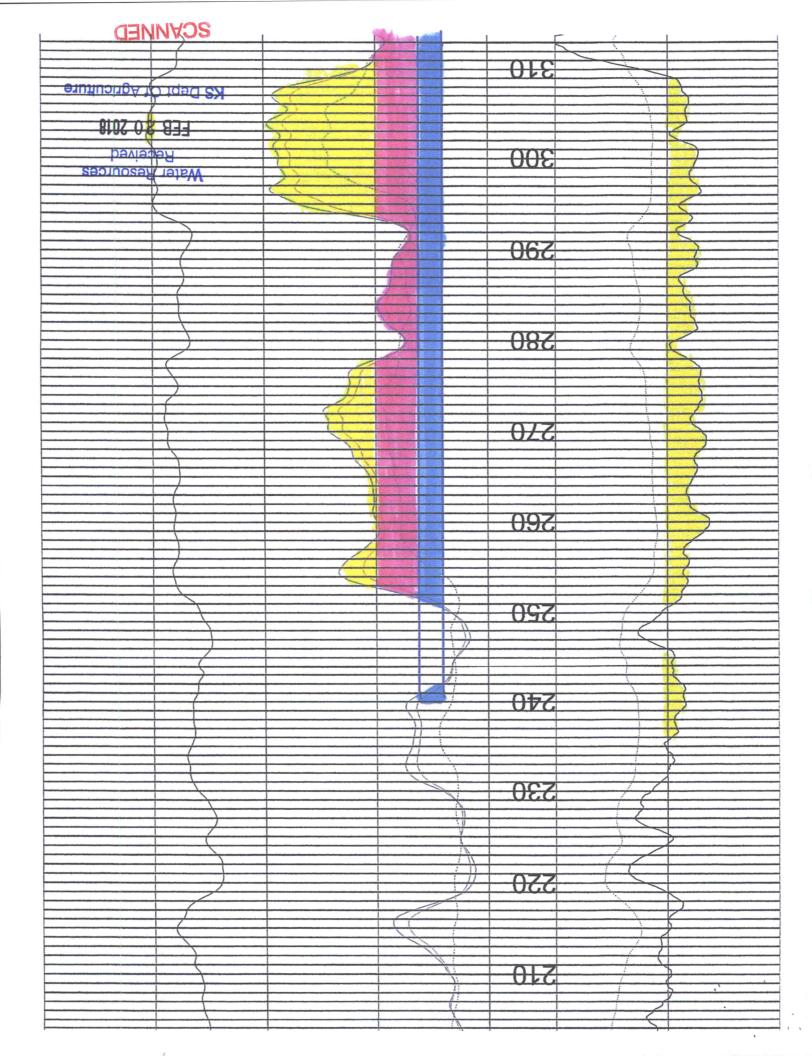
Water Appropriation Program

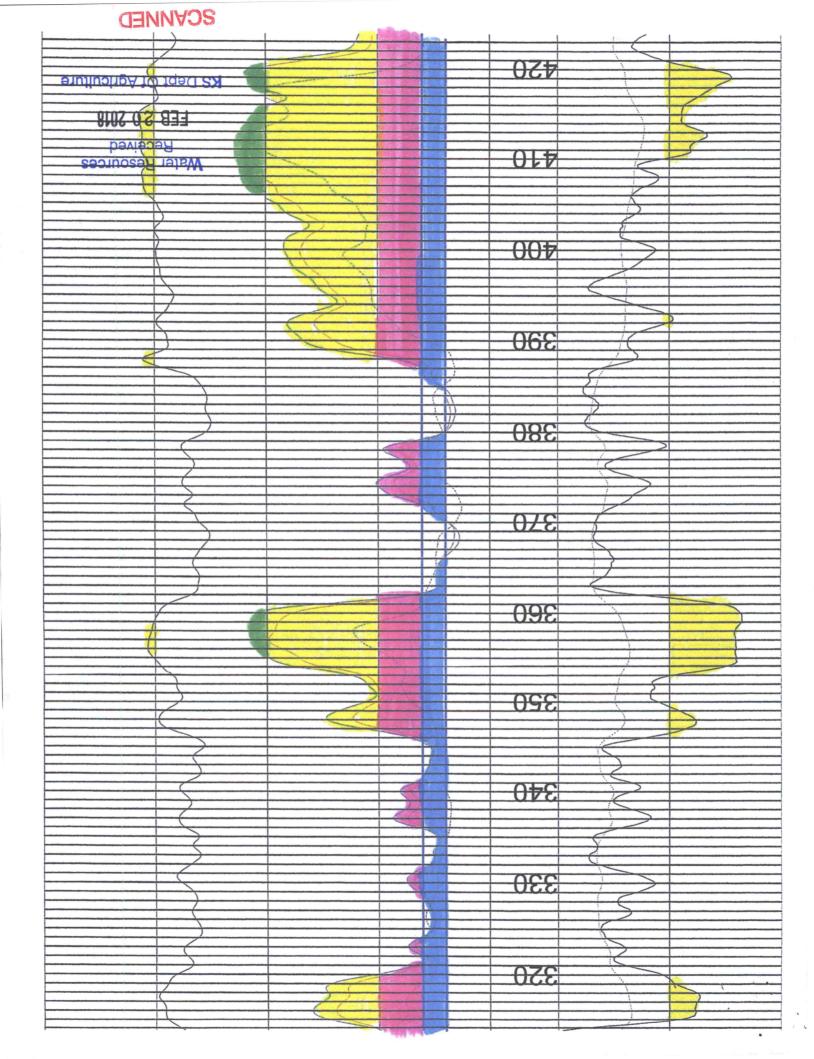
Brond A. Juney

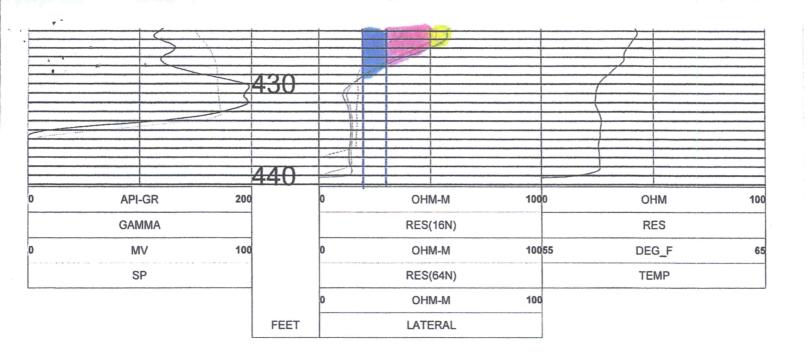
BAT: DLW

pc: GARDEN CITY Field Office GMD









Water Resources Received

FEB 20 2018





Division of Water Resources

18595 Redrill Topo Map

