

Well # 6
WATER WELL RECORD

Form WWC-5

Division of Water Resources; App. No.

1 LOCATION OF WATER WELL: County: <u>SEWARD</u>	Fraction <u>NE 1/4 NE 1/4 SE 1/4</u>	Section Number <u>23</u>	Township Number T <u>33 (S)</u>	Range Number R <u>32 E (W)</u>
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Distance and direction from nearest town or city street address of well if located within city?
~ 97' west of Carhardt Rd + 1150' S of Intersection of Co. Rd 5

Global Positioning Systems (decimal degrees, min. of 4 digits)
 Latitude: 37° 9.6933' N
 Longitude: 100° 45.6417' W
 Elevation: _____
 Datum: _____
 Data Collection Method: _____

2 WATER WELL OWNER: Sunflower Electric Power Corporation
 RR#, St. Address, Box # : 2449 Holcomb Lane 100 Box 430
 City, State, ZIP Code : Holcomb, KS 67851

3 LOCATE WELL'S LOCATION WITH AN "X" IN SECTION BOX:

N

W	-- NW --	-- NE --		E
			X	
	-- SW --	-- SE --		
				S

4 DEPTH OF COMPLETED WELL 20.8 ft. From GL.

Depth(s) Groundwater Encountered (1)..... ft. (2)..... ft. (3)..... ft.
 WELL'S STATIC WATER LEVEL..... 91 ft. below land surface measured on mo/day/yr. 10/24/12
 Pump test data: Well water was..... 114.9ft. after..... 11 hours pumping..... 500 gpm
 Est. Yield. 500 gpm: Well water was.....ft. after..... hours pumping..... gpm
 WELL WATER TO BE USED AS: 5 Public water supply 8 Air conditioning 11 Injection well
 1 Domestic 3 Feedlot 6 Oil field water supply 9 Dewatering 12 Other (Specify below)
 2 Irrigation ④ Industrial 7 Domestic (lawn & garden) 10 Monitoring well

Was a chemical/bacteriological sample submitted to Department? Yes; If yes, mo/day/yr
 Sample was submitted..... Water well disinfected? No

5 TYPE OF CASING USED:

<input checked="" type="radio"/> Steel	3 RMP (SR)	6 Asbestos-Cement	9 Other (specify below)	CASING JOINTS: Glued..... Clamped.....
2 PVC	4 ABS	7 Fiberglass		<input checked="" type="radio"/> Welded.....
				Threaded.....

Blank casing diameter ... 48 in. to ... 20 ft., Diameter. 16 in. to ... 133 ft., Diameter in. to ft.
 Casing height above land surface..... 36 in., Weight..... lbs./ft. Wall thickness or guage No. 3.75 wall.....

TYPE OF SCREEN OR PERFORATION MATERIAL:

1 Steel	<input checked="" type="radio"/> Stainless Steel	5 Fiberglass	7 PVC	9 ABS	11 Other (Specify)
2 Brass	4 Galvanized Steel	6 Concrete tile	8 RM (SR)	10 Asbestos-Cement	12 None used (open hole)

SCREEN OR PERFORATION OPENINGS ARE:

1 Continuous slot	3 Mill slot	5 Guazed wrapped	7 Torch cut	9 Drilled holes	11 None (open hole)
2 Louvered shutter	4 Key punched	<input checked="" type="radio"/> Wire wrapped	8 Saw Cut	10 Other (specify)	

SCREEN-PERFORATED INTERVALS: From... 20.3 ft. to ... 13.3 ft., From ft. to ft.
.050 slot
 From..... ft. to ft., From ft. to ft.

GRAVEL PACK INTERVALS: From... 21.2 ft. to ... 6.2 ft., From ft. to ft.
 From... 2.9 ft. to ... 2.0 ft., From ft. to ft.

6 GROUT MATERIAL: 1 Neat cement Cement grout Bentonite 4 Other

Grout Intervals: From ... 2.0 ft. to ... 0 ft., From ... 6.2 ft. to ... 2.9 ft., From ft. to ft.

What is the nearest source of possible contamination:

1 Septic tank	4 Lateral lines	7 Pit privy	10 Livestock pens	13 Insecticide Storage	<input checked="" type="radio"/> Other (specify below)
2 Sewer lines	5 Cess pool	8 Sewage lagoon	11 Fuel storage	14 Abandoned water well	
3 Watertight sewer lines	6 Seepage pit	9 Feedyard	12 Fertilizer Storage	15 Oil well/gas well	<u>Unknown</u>

Direction from well? How many feet?

FROM	TO	LITHOLOGIC LOG	FROM	TO	PLUGGING INTERVALS
		<u>Ref Attached</u>			

7 CONTRACTOR'S OR LANDOWNER'S CERTIFICATION: This water well was constructed, reconstructed, or plugged under my jurisdiction and was completed on (mo/day/year) .. 10/24/12 .. and this record is true to the best of my knowledge and belief.
 Kansas Water Well Contractor's License No. 102 ... This Water Well Record was completed on (mo/day/year) 11/19/12
 under the business name of LAYNE CHRISTENSEN COMPANY by (signature) [Signature] **SHAD ISEMAN PROJECT MANAGER**

INSTRUCTIONS: Use typewriter or ball point pen. PLEASE PRESS FIRMLY and PRINT clearly. Please fill in blanks, underline or circle the correct answers. Send top three copies to Kansas Department of Health and Environment, Bureau of Water, Geology Section, 1000 SW Jackson St., Suite 420, Topeka, Kansas 66612-1367. Telephone 785-296-5522. Send one to WATER WELL OWNER and retain one for your records. Fee of \$5.00 for each constructed well. Visit us at <http://www.kdhe.state.ks.us/geo/waterwells>.



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TEST HOLE REPORT

LAYNE Western
 A Division of LAYNE Christensen Company
 Wichita, Kansas

Contract Name: Sunflower Electric	Test Hole No. TH1-12 (North)
18302	Date: 5-22-12
	Driller: Hollub

Location of Test Hole:	Elevation of Test Hole:
<i>North of Highway 54 on Panhandle road</i>	
	Static Water Level:
	Measured Hours After Completion

From	To	Description of Strata
0	1	Fine sand
1	6	Fine to medium sand
6	15	Medium sand with sandy tan clay
15	30	Cemented sand med. grain into medium gravel and brown clay
30	36	Fine to medium sand trace brown clay
36	38	Gray clay
38	46	Brown clay
46	52	Fine to medium sand
52	53	Gray clay
53	56	Fine to medium sand
56	63	Tan clay
63	65	Fine to medium sand
65	75	Fine to medium sand with tan clay lenses
75	94	Fine to medium sand with tan clay lenses trace of fine gravel
94	97	Tan clay very sandy
97	123	Fine to medium sand
123	124	Tan clay
124	170	Fine to medium sand with tan and gray clay lenses
170	185	Fine to medium sand trace coarse sand



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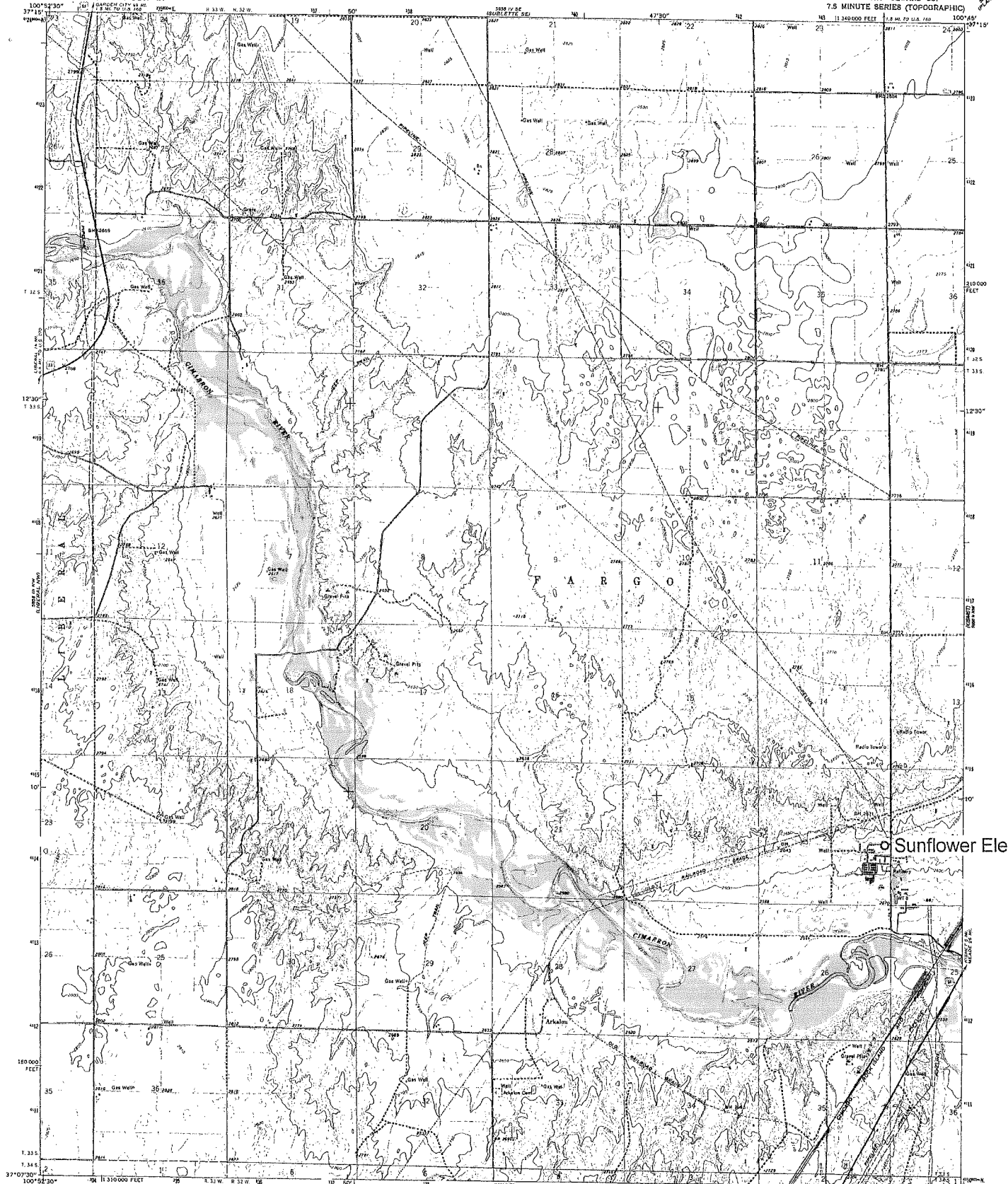
TEST HOLE REPORT

LAYNE Western
A Division of LAYNE Christensen Company
Wichita, Kansas

Table with 2 columns: Contract Name (Sunflower Electric 18302) and Test Hole No.1 (North) (Date: 5-22-12, Driller: Holub)

Table with 2 columns: Location of Test Hole and Elevation of Test Hole (Static Water Level, Measured Hours After Completion)

Main data table with columns: From, To, and Description of Strata. Includes entries for sand trace of caliche and brown clay, ending with T.D. 200.



Sunflower Electric

Maped, edited, and published by the Geological Survey
in cooperation with State of Kansas agencies

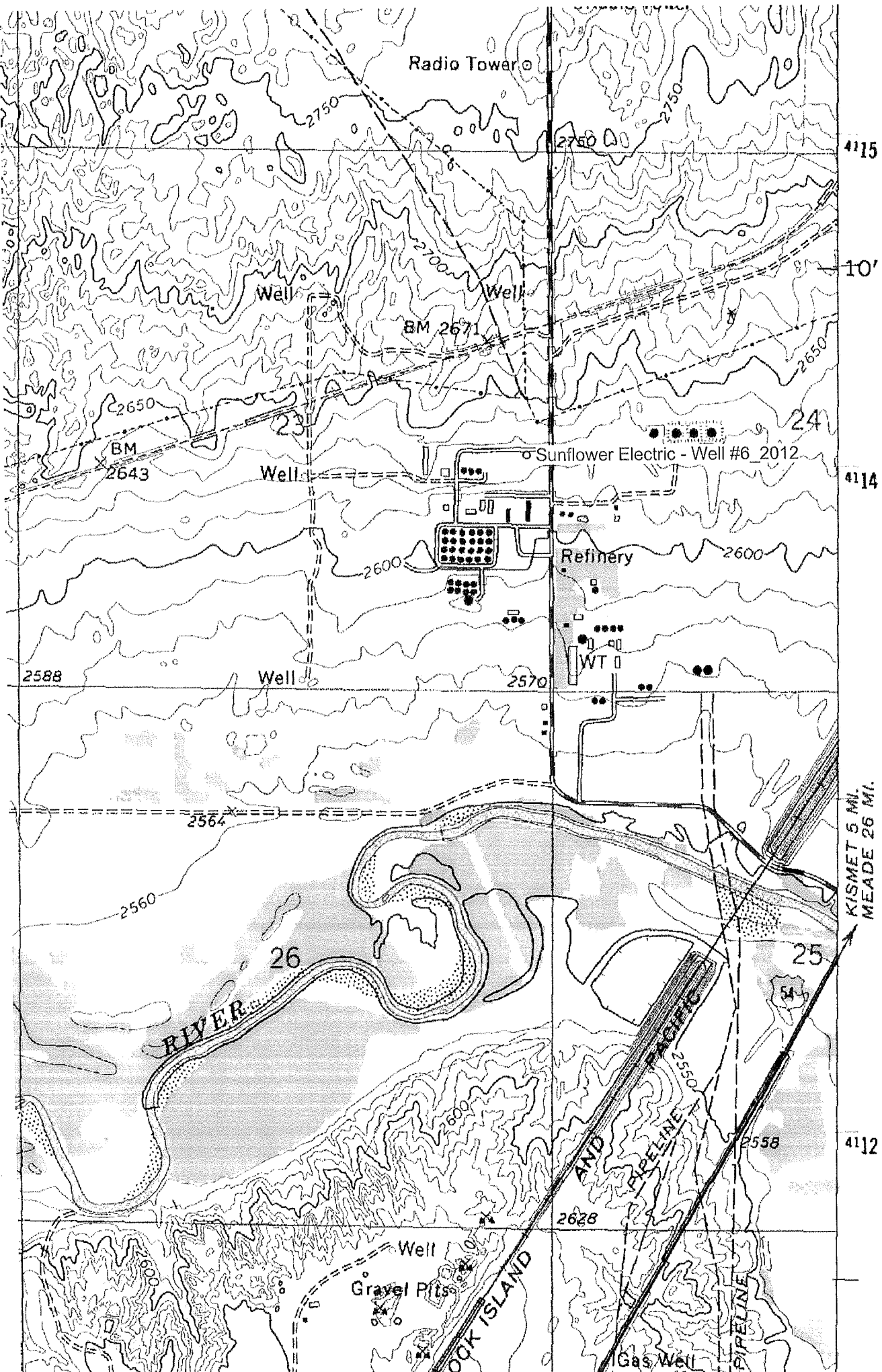
Control by USGS and USC&GS
Topography by photogrammetric methods from aerial
photographs taken 1966 and planimetric survey 1968
Polyconic projection, 1927 North American datum
10,000-foot grid based on Kansas coordinate system, south zone
1000-meter/International Transverse Mercator grid ticks,
zone 14, shown in blue
To place on the projected North American Datum 1983
move the projection lines 2 meters north and
37 meters west as shown by dashed corner ticks
Map photoreproduced 1977
No major culture or drainage changes observed

1:62,500
SCALE 1:24,000

CONTOUR INTERVAL 10 FEET
DOTTED LINES REPRESENT 5-FOOT CONTOURS
NATIONAL GEODESIC VERTICAL DATUM OF 1929

ROAD CLASSIFICATION
Heavy duty ——— Light duty ———
Medium duty ——— Unimproved dirt ———
U.S. Route

LIBERAL NE, KANS.
N3707.5-N15045.7-3
PHOTOREPRODUCED 1977
AMS 3658 III NE-SERIES V378



KISMET 5 MI.
MEADE 26 MI.