

WATER WELL RECORD

Form WWC-5

Division of Water Resources App. No.

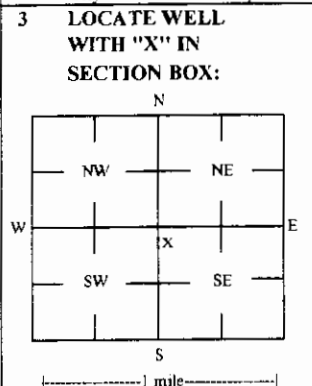
Well ID

MW4

Original Record [] Correction [X] Change in Well Use []

1 LOCATION OF WATER WELL: County Lyon Fraction NW 1/4 NW 1/4 NW 1/4 SE 1/4 Section Number 10 Township Number T 19 S Range Number R 11 E W

2 WELL OWNER: Last Name: Shepard First: Jim Street or Rural Address where well is located (if unknown, distance and direction from nearest town or intersection): If at owner's address, check here: [] -50' N of 1102 Commercial, Emporia, KS



4 DEPTH OF COMPLETED WELL: 45.5 ft Depth(s) Groundwater Encountered: 1) _____ ft 2) _____ ft 3) _____ ft, or 4) [] Dry Well WELLS STATIC WATER LEVEL: 39.00 ft [X] below land surface, measured on (mo-day-yr) 3/22/2017 [] above land surface, measured on (mo-day-yr) _____ Pump test data: Well water was _____ ft after _____ hours pumping _____ gpm Water well was _____ ft after _____ hours pumping _____ gpm Estimated Yield: _____ gpm Bore Hole Diameter: 7.25 in to _____ ft, and _____ in to _____ ft

5 Latitude: 38.41165 (decimal degrees) Longitude: 96.17964 (decimal degrees) Horizontal Datum: [] WGS 84 [] NAD 83 [] NAD 27 Source for Latitude/Longitude: [] GPS (unit make/model: _____) (WAAS enabled? [] Yes [] No) [X] Land Survey [] Topographic Map [] Online Mapper 6 Elevation 1163.41 ft [] Ground Level [X] TOC Source [X] Land Survey [] GPS [] Topographic Map [] Other _____

7 WELL WATER TO BE USED AS: 1 Domestic: [] Household [] Lawn & Garden [] Livestock [] Irrigation [] Feedlot [] Industrial 2 [] 3 [] 4 [] 5 [] Public Water Supply: well ID _____ 6 [] Dewatering: how many wells? _____ 7 [] Aquifer Recharge: well ID _____ 8 [X] Monitoring: well ID MW4 9 Environmental Remediation: well ID _____ [] Air Sparge [] Soil Vapor Extractor [] Recovery [] Injection 10 [] Oil Field Water Supply: lease _____ 11 Test Hole: well ID _____ [] Cased [] Uncased [] Geotechnical 12 Geothermal: How many bores? _____ a) Closed Loop [] Horizontal [] Vertical b) Open Loop [] Surface Discharge [] Inj. of Water [] Other (specify): _____

Was a chemical/bacteriological sample submitted to KDHE? [] Yes [X] No If yes, date sample was submitted: _____ Water well disinfected? [] Yes [X] No

8 TYPE OF CASING USED: [] Steel [X] PVC [] Other _____ CASING JOINTS: [] Glued [] Clamped [] Welded [X] Threaded Casing diameter 2 in. to 30.5 ft, Diameter _____ in. to _____ ft, Diameter _____ in. to _____ ft, Casing height above land surface -0.28 in. Weight _____ lbs./ft. Well thickness or gauge No _____ TYPE OF SCREEN OR PERFORATION MATERIAL: [] Steel [] Stainless Steel [] Fiberglass [X] PVC [] Other (Specify) _____ [] Brass [] Galvanized Steel [] Concrete tile [] None used (open hole) SCREEN OR PERFORATION OPENINGS ARE: [] Continuous Slot [X] Mill Slot [] Gauze Wrapped [] Torch Cut [] Drilled Holes [] Other (Specify) _____ [] Louvered Shutter [] Key Punched [] Wire Wrapped [] Saw Cut [] None (Open Hole) SCREEN-PERFORATED INTERVALS: From 30.5 ft. to 45.5 ft, From _____ ft. to _____ ft, From _____ ft. to _____ ft, GRAVEL PACK INTERVALS: From 28 ft. to 45.5 ft, From _____ ft. to _____ ft, From _____ ft. to _____ ft,

9 GROUT MATERIAL: [] Neat cement [] Cement grout [X] Bentonite [X] Other Concrete: 0-0.5' Grout intervals: From 0.5 ft. to 28 ft, From _____ ft. to _____ ft, From _____ ft. to _____ ft,

Nearest source of possible contamination: [] Septic Tank [] Lateral Lines [] Pit Privy [] Livestock Pens [] Insecticide Storage [] Sewer Lines [] Cess Pool [] Sewage Lagoon [X] Fuel Storage [] Abandoned Water Well [] Watertight Sewer Lines [] Seepage Pit [] Feedyard [] Fertilizer Storage [] Oil Well / Gas Well [] Other (Specify) _____ Direction from well? S Distance from well? ~120 ft

Table with 6 columns: FROM, TO, LITHOLOGIC LOG, FROM, TO, LITHO. LOG (cont.) or PLUGGING INTERVALS. Rows: 0-0.3 Concrete; 0.3-33.5 Silty clay some ceramic fill; 33.5-36 Silty clay w/ some fine sand; 36-45.5 Chert gravel and coarse sand

Notes: KDHE ID: S&S Oil - Downtown; U3-056-14869 Target of monitoring well is shallow groundwater, <20' of grout was installed at the direction of KDHE.

11 CONTRACTOR'S OR LANDOWNER'S CERTIFICATION: This water well was [X] constructed, [] reconstructed, or [] plugged under my jurisdiction and was completed on (mo-day-year) 3/21/17 and this record is true to the best of my knowledge and belief, Kansas Water Well Contractor's License No. 757 This Water Well Record was completed on (mo-day-year) 4/11/17 under the business name of Larsen & Associates, Inc. Signature _____

DENNIS L HANDKE

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TOPEKA, KANSAS 66618
785-286-4047 Home
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Jessica Chapman
Larsen & Associates
1311 E. 25th Street, Suite B
Lawrence, Kansas, 66046

March 30, 2017

RE: Monitor Well Elevation Survey
1102 Commercial, Emporia, Kansas

Proj. 17-00M
S & S Oil - Downtown
U3-056-14869

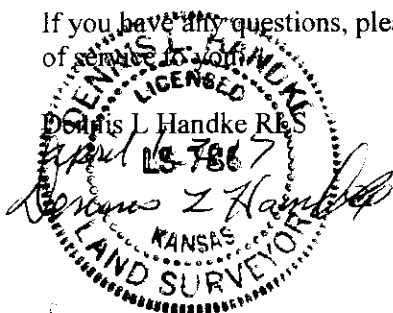
Bench Mark: Chisled Square on South center of concrete pump island West of the building.
Elev: 1163.12 North 2297 West 2586 (from SE Cor. Sec. 10-19-11E)

MW-1	rim	1162.46	North	2266	NW1/4,NW1/4,NW1/4,SE1/4
	top pipe	1162.19	West	2566	Lat= 38.41122 Long = 96.17985
MW-2	rim	1162.60	North	2306	NW1/4,NW1/4,NW1/4,SE1/4
	top pipe	1162.35	West	2592	Lat= 38.41133 Long = 96.17994
MW-3	rim	1162.92	North	2284	NW1/4,NW1/4,NW1/4,SE1/4
	top pipe	1162.57	West	2470	Lat= 38.41127 Long = 96.17952
MW-4	rim	1163.69	North	2425	NW1/4,NW1/4,NW1/4,SE1/4
	top pipe	1163.41	West	2507	Lat= 38.41165 Long = 96.17964
MW-5	rim	1160.52	North	2199	SW1/4,NW1/4,NW1/4,SE1/4
	top pipe	1160.27	West	2551	Lat= 38.41103 Long = 96.17980
MW-6	rim	1160.53	North	2168	SE1/4,NE1/4,NE1/4,SW1/4
	top pipe	1160.23	West	2700	Lat= 38.41095 Long = 96.18032
MW-7	rim	1161.57	North	2328	NE1/4,NE1/4,NE1/4,SW1/4
	top pipe	1161.26	West	2680	Lat= 38.41139 Long = 96.18025

Lat & Long derived existing Emporia 7.5' quad map. WGS 84.

Elevation established from USGS BM V222 NAVD 83.

If you have any questions, please feel free to call me. Thank you for the opportunity to be of service to you.



RECEIVED

MAY 30 2017

BUREAU OF WATER