

**WATER WELL RECORD Form WWC-5**

Division of Water Resources App. No.                      Well ID MW-3

Original Record  Correction  Change in Well Use

**1 LOCATION OF WATER WELL:**  
 County: **Seward** Fraction **NW 1/4 NW 1/4 NW 1/4 NW 1/4** Section Number **32** Township Number **T 34 S** Range Number **R 33**  E  W

**2 WELL OWNER:** Last Name: **Frontier Fuel** First:  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:   
 Business: **Frontier Fuel** Address: **P.O. Box 148**  
 Address:  City: **Liberal** State: **KS** ZIP: **67905**  
**1421 N Western Ave, Liberal, KS**

**3 LOCATE WELL WITH "X" IN SECTION BOX:**  
 N  

NW	NE
SW	SE

 S  
 |-----1 mile-----|

**4 DEPTH OF COMPLETED WELL:** **205** ft.  
 Depth(s) Groundwater Encountered: 1)  ft.  
 2)  ft. 3)  ft., or 4)  Dry Well  
 WELL'S STATIC WATER LEVEL: **179.00** ft.  
 below land surface, measured on (mo-day-yr) **6/20/17**  
 above land surface, measured on (mo-day-yr)   
 Pump test data: Well water was  ft.  
 after  hours pumping  gpm  
 Well water was  ft.  
 after  hours pumping  gpm  
 Estimated Yield:  gpm  
 Bore Hole Diameter: **8.5** in. to  ft. and  in. to  ft.

**5 Latitude:** **37.054006** (decimal degrees)  
**Longitude:** **100.940127** (decimal degrees)  
 Horizontal Datum:  WGS 84  NAD 83  NAD 27  
 Source for Latitude/Longitude:  GPS (unit make/model: **EPOCH**)  
 (WAAS enabled?  Yes  No)  
 Land Survey  Topographic Map  
 Online Mapper:   
**6 Elevation:** **2860.48** ft.  Ground Level  TOC  
 Source:  Land Survey  GPS  Topographic Map  
 Other

**7 WATER TO BE USED AS:**

1. <input type="checkbox"/> Domestic: <input type="checkbox"/> Household <input type="checkbox"/> Lawn & Garden <input type="checkbox"/> Livestock 2. <input type="checkbox"/> Irrigation 3. <input type="checkbox"/> Feedlot 4. <input type="checkbox"/> Industrial	5. <input type="checkbox"/> Public Water Supply: well ID <b>                    </b> 6. <input type="checkbox"/> Dewatering: how many wells? <b>                    </b> 7. <input type="checkbox"/> Aquifer Recharge: well ID <b>                    </b> 8. <input checked="" type="checkbox"/> Monitoring: well ID <b>MW-3</b> 9. Environmental Remediation: well ID <b>                    </b> <input type="checkbox"/> Air Sparge <input type="checkbox"/> Soil Vapor Extraction <input type="checkbox"/> Recovery <input type="checkbox"/> Injection	10. <input type="checkbox"/> Oil Field Water Supply: lease <b>                    </b> 11. Test Hole: well ID <b>                    </b> <input type="checkbox"/> Cased <input type="checkbox"/> Uncased <input type="checkbox"/> Geotechnical 12. Geothermal: how many bores? <b>                    </b> a) Closed Loop <input type="checkbox"/> Horizontal <input type="checkbox"/> Vertical b) Open Loop <input type="checkbox"/> Surface Discharge <input type="checkbox"/> Inj. of Water 13. <input type="checkbox"/> Other (specify): <b>                    </b>
--	---	---

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

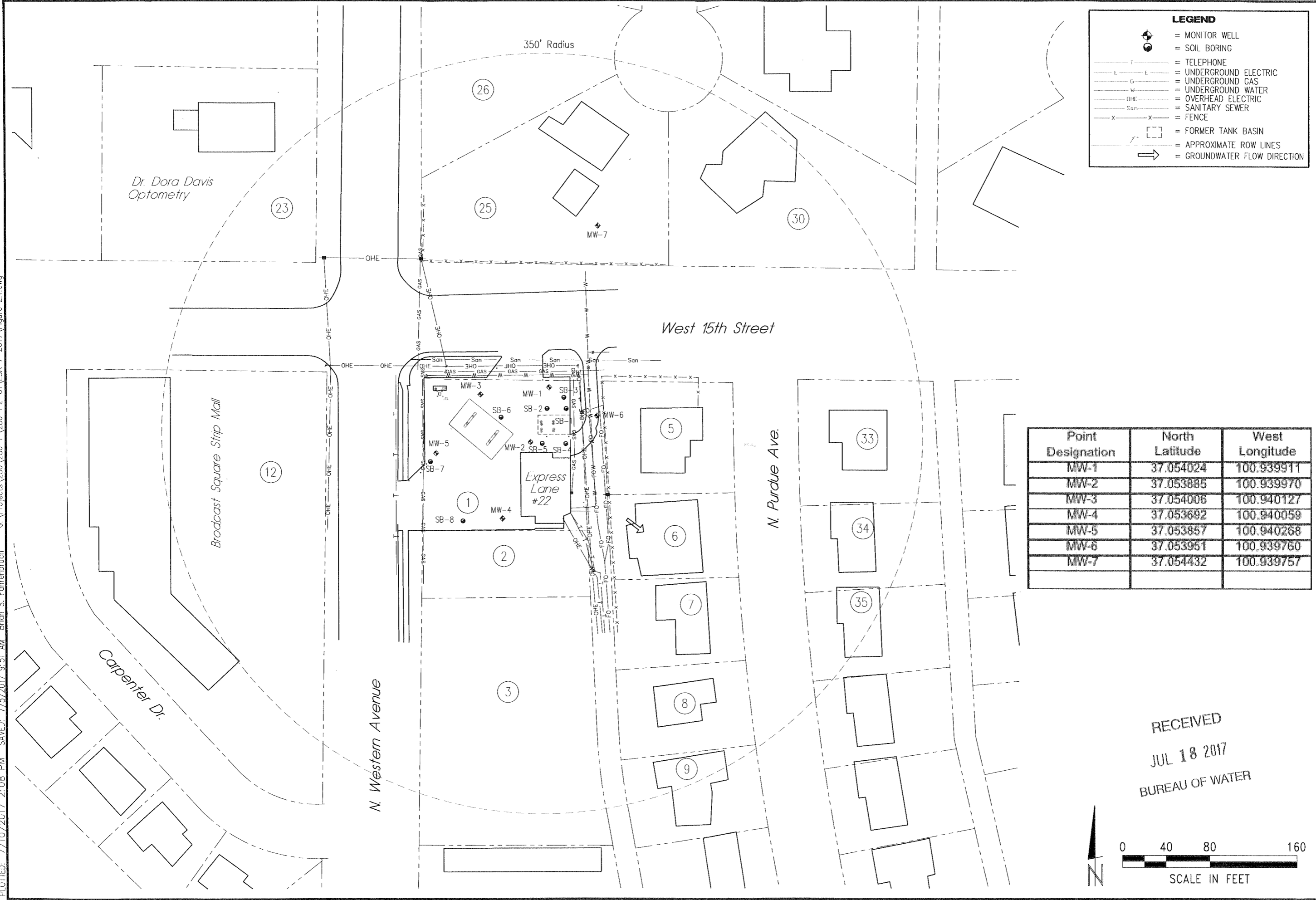
**8 TYPE OF CASING USED:**  Steel  PVC  Other  CASING JOINTS:  Glued  Clamped  Welded  Threaded  
 Casing diameter **4** in. to **165** ft., Diameter  in. to  ft., Diameter  in. to  ft.  
 Casing height above land surface **-6** in. Weight  lbs./ft. Wall thickness or gauge No. **Sch 40**  
 TYPE OF SCREEN OR PERFORATION MATERIAL:  
 Steel  Stainless Steel  Fiberglass  PVC  Other (Specify)   
 Brass  Galvanized Steel  Concrete tile  None used (open hole)  
 SCREEN OR PERFORATION OPENINGS ARE:  
 Continuous Slot  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 **165** ft. to **205** ft., From  ft. to  ft., From  ft. to  ft.  
 GRAVEL PACK INTERVALS: From **160** ft. to **205** ft., From  ft. to  ft., From  ft. to  ft.

**9 GROUT MATERIAL:**  Neat cement  Cement grout  Bentonite  Other **concrete 0-1ft**  
 Grout intervals: From **1** ft. to **160** 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  Fuel Storage  Abandoned Water Well  
 Watertight Sewer Lines  Seepage Pit  Feedyard  Fertilizer Storage  Oil Well/Gas Well  
 Other (Specify)   
 Direction from well?  Distance from well?  ft.

10 FROM	TO	LITHOLOGIC LOG	FROM	TO	LITHO. LOG (cont.) or PLUGGING INTERVALS
0	0.5	Concrete	131	183	Clay and caliche with sand and gravel
0.5	5	Clayey Silt	183	205	Sand with clay and caliche
5	26	Sand			
26	35	Clayey Silt with sandy clay			
35	46	Sand with clay and caliche			
46	63	Clayey Silte with caliche and sandy clay			
63	71	Sand with clay and caliche			Notes: Express Lane #22 site; KDHE project code: U1-088-14879
71	122	Clay and caliche with sand			
122	131	Sand with clay and caliche			

**11 CONTRACTOR'S OR LANDOWNER'S CERTIFICATION:** This water well was  constructed,  reconstructed, or  plugged under my jurisdiction and was completed on (mo-day-year) **6/16/17** and this record is true to the best of my knowledge and belief. Kansas Water Well Contractor's License No. **881** This Water Well Record was completed on (mo-day-year) **7/11/17** under the business name of **Woolter Pump and Well** Signature

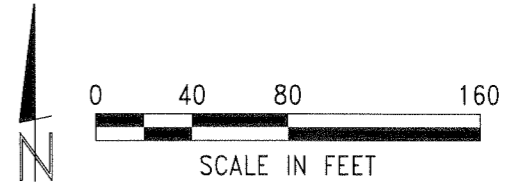
PLOTTED: 7/10/2017 2:08 PM SAVED: 7/5/2017 9:51 AM Brian S. Fahrenbruch G:\Projects\286\286-P2-01\LSA 7-2017\Figure 2.1.dwg



**LEGEND**

- = MONITOR WELL
- = SOIL BORING
- = TELEPHONE
- = UNDERGROUND ELECTRIC
- = UNDERGROUND GAS
- = UNDERGROUND WATER
- = OVERHEAD ELECTRIC
- = SANITARY SEWER
- = FENCE
- = FORMER TANK BASIN
- = APPROXIMATE ROW LINES
- = GROUNDWATER FLOW DIRECTION

Point Designation	North Latitude	West Longitude
MW-1	37.054024	100.939911
MW-2	37.053885	100.939970
MW-3	37.054006	100.940127
MW-4	37.053692	100.940059
MW-5	37.053857	100.940268
MW-6	37.053951	100.939760
MW-7	37.054432	100.939757



RECEIVED  
JUL 18 2017  
BUREAU OF WATER

REVISIONS	BY
<b>MILCO</b> Environmental Services, Inc. Kearney, NE (308) 237-5923 McCook, NE (308) 345-4741	
EXPRESS LANE #22 <b>SITE BASE MAP - 350' RADIUS</b> 1421 N. WESTERN AVENUE - LIBERAL, KANSAS U1-088-14879	
<p>SCALE: AS SHOWN</p> <p>PROJECT NO. M286-P2-01</p> <p>DATE: JULY, 2017</p> <p>FIELD BOOK M&amp;A DWG NO.</p> <p>DRAWN BY: BSF      APRVD BY:</p> <p>SHEET</p>	
<b>FIGURE 2.1</b>	

This document and the data and designs incorporated herein, as an instrument of professional service, is the property of MILCO and is not to be used by anyone other than the client without the written authorization of MILCO.