BEFORE THE STATE CORPORATION COMMISSION
OF THE STATE OF KANSAS

In the matter of the Application of Murfin Drilling Company for an exception to the 10-year time limitation of K.A.R. 82-3-111 for its Ladenburger 1-6 located in the SW SW NW/4 of Section 6, Township 1 South, Range 35 West, Rawlins County, Kansas.	Docket No.: 25-CONS-3137-CEXC CONSERVATION DIVISION License No.: 30606

APPLICATION

COMES NOW Murfin Drilling Company (Applicant) in support of its Application in the captioned matter and states as follows:

1. Applicant is an oil company authorized to do business in the State of Kansas. Applicant's address is 250 N. Water St., Ste 300, Wichita, Kansas, 67202.

2. Applicant has been issued by the Kansas Corporation Commission Operator's License # 30606, which expires on December 20, 2024.

3. Applicant is the owner and operator of the Ladenburger 1-6 well, API # 15-153-21027, which is located in the Southwest Quarter of the Southwest Quarter of the Northwest Quarter of Section 6, Township 1 South, Range 35 West, Rawlins County, Kansas. The Subject Well is located on an active oil and gas lease or unit comprising the following lands:

> Northwest Quarter of Section 6, Township 1 South, Range 35 West, Rawlins County, Kansas, less a parcel lying West and North of County Road 7 which cuts the Northwest (NW) corner of said land.

4. Pursuant to K.A.R. 82-3-111, the well was shut in, or Applicant obtained temporary abandonment status, for the Subject Well on September 18, 2014. The Subject Well has maintained such status from September 18, 2014, to the present date.

5. On or about August 13, 2024, the Kansas Corporation Commission notified Applicant temporary abandonment status for the Subject Well would be denied from and after September 12, 2024, because the Subject Well had been temporarily abandoned for more than ten (10) years.

6. K.A.R. 82-3-111 imposes a 10-year limitation on the amount of time during which wells may be temporarily abandoned, but an exception to the 10-year limitation may be obtained pursuant to said regulation through an Application filed with the Commission pursuant to K.A.R. 82-3-100. Applicant seeks such an exception.

7. A Commission Staff-witnessed casing-mechanical-integrity test of the Subject Well is pending the harvest of crops surrounding the well, which is expected to be completed by December 2024.

8. Applicant wishes to continue TA status for the Subject Well, because Applicant intends to use the well for the following purpose:

> Murfin Drilling Company intends to use the Ladenburger 1-6 as either an injection or producing well in a future, unitized waterflood.

9. Applicant submits the following information regarding the well in support of the Application.

a. The Ladenburger 1-6 is located on the southeastern edge of the SCODA field (see attached ½-mile-radius map and LKC D-porosity-thickness map).

b. Discovered in 2013, the SCODA field is a large field encompassing the E2, S2-T1S-R36W; S1-T1S-R36W; & W2, S6-T1S-R35W of Rawlins County, Kansas, and the SW4, S32-T1N-R35W & S31-T1N-R35W of Hitchcock County, Nebraska.

c. Murfin Drilling Company operates the Kansas side of the SCODA field. Berexco LLC operates the Nebraska side of the SCODA field.

d. The SCODA field produces from the Lansing Kansas City (LKC) formation. The Kansas portion of the SCODA field has produced 1,305,628 bbls oil thru August 2024.

e. The SCODA field currently produces under primary, solution-gas-drive energy. This reservoir energy has significantly diminished in the last 10 years. The field, however, has the potential to be an excellent waterflood, perhaps doubling the amount of oil recovered from primary production alone.

f. Due to multiple ownership, the SCODA field needs to be unitized before a waterflood can be implemented. Unitization is a slow and lengthy process. The SCODA field is in the early phases of unitization.

g. The Ladenburger 1-6 is a single-well lease consisting of one TA'd wellbore. The lease consists of the NW/4 of 6-T1S-R35W, Rawlins County, less a +/- 20-acre parcel in the northwest corner of the quarter.

h. There is no current production at the Ladenburger lease, nor has the lease ever produced. The Ladenburger 1-6 wellbore has been preserved the last 10 years, the intent being to use the well in a future, unitized waterflood. Murfin has renewed the lease multiple times in the last 10 years. The current lease is valid through May 27, 2025.

i. Ladenburger 1-6 is uneconomic to produce under primary. However, as stated earlier, the wellbore should be preserved as it has geographic and geological significance in a future, unitized waterflood. Specifically, the attached LKC D phi-h (porosity-thickness) map shows an area near Ladenburger 1-6 that has LKC-D waterfloodable pore volume.

j. Plugging the Ladenburger 1-6 is estimated to cost $30,000 to $35,000. More importantly, oil reserves will be lost should the Ladenburger 1-6 be prematurely plugged.

k. A reasonable estimate of oil reserves lost should Ladenburger 1-6 be prematurely plugged are determined 1) by calculating the Original Oil In Place (OOIP) of the Ladenburger area that can be reasonably assumed to be waterflooded, and 2) multiplying that OOIP by an assumed waterflood recovery estimate.

    1) As per the attached worksheet, the estimated OOIP in the Ladenburger area that can be targeted for waterflooding is 140,616 STB (stock-tank-bbls) oil.

    2) It is estimated 15% of those oil reserves will be recovered by a larger, unitized waterflood. This 15% recovery estimate is conservative considering the Ladenburger lease has not produced under primary. As per the attached

worksheet, 15% of 140,616 bo is 21,092 bo. Those 21,092 bbls of oil will likely be lost if the Ladenburger 1-6 is prematurely plugged.

l. As mentioned, the objective is to use the Ladenburger 1-6 in a larger, unitized waterflood. Murfin's unitization efforts to date are:

1) Generating phi-h (porosity-thickness) maps of the entire field.
2) Compiling per well per zone cumulative production data for all Kansas wells in the field.
3) Preparing a preliminary facility design of the equipment needed to waterflood the Kansas side of a unitized waterflood.

Remaining unitization and waterflood efforts include:

1) Developing a waterflood design and unit formula to which all operating parties can agree, then acquiring mineral-interest owner approval.
2) Investing significant capital to convert the field from primary production to waterflood.
3) Implementing the unitized waterflood.

m. The cost to incorporate the Ladenburger 1-6 into a unitized waterflood varies depending on what is done.

1) The cost to equip Ladenburger 1-6 for production is approximately $103,000.
2) The cost to equip Ladenburger 1-6 for injection is approximately $90,000.
3) The cost to unitize and equip the Murfin portion of a unitized waterflood could exceed $750,000.

10. Applicant has included a plat map showing the locations of all producing, injection, temporarily abandoned, abandoned, and plugged wells located on the same leased premises as the Subject Well.

11. Based on the foregoing, Applicant requests the Commission grant an exception to the 10-year limitation, specifically to allow the Subject Well to remain eligible for temporary abandonment status for three (3) years following the expiration of the 10-year limitation. Applicant understands that the exception would be valid for three (3) years, but Applicant would still need to apply annually to the Conservation Division District Office for approval of an application for

temporary abandonment status.

12. Listed in the attached Exhibit "A" are the names and addresses of the following persons:

A. Each operator of each oil and gas lease covering lands within one-half (1/2) mile radius of the Subject Well, of which Murfin is the only one; and

B. Each person who owns any mineral interest of record in and under any lands located within one-half (1/2) mile radius of the Subject Well (provided that such mineral interest is not covered by any oil and gas lease), of which LADFARMS is the only one.

13. Notice of this Application will be published pursuant to K.A.R. 82-3-135a. In addition, notice of the hearing to be held in this matter will be provided as prescribed by K.A.R. 82-3-135.

WHEREFORE, Applicant prays that this matter be granted administratively without a hearing, or in the alternative be set for hearing, and upon hearing that the Commission grant Applicant's request, for an exception to the K.A.R. 82-3-111 ten (10) year limitation, to allow the Subject Well to remain temporarily abandoned for three (3) years, subject to annual approval by the Conservation Division District Office of an application for temporary abandonment status.

Respectfully Submitted,

Richard E Pancake
Murfin Drilling Company
250 N. Water St., Ste 300
Wichita, Kansas 67202 (316)
858-8699

By _____
Richard E Pancake

VERIFICATION

STATE OF KANSAS)
) ss:
COUNTY OF SEDGWICK)

Richard E Pancake, of lawful age, being duly sworn upon his oath deposes and states:

That he has the authority on behalf of Murfin Drilling Company to file this application, that he has read the above and foregoing application and is familiar with the contents thereof; and, that the statements made therein are true and correct to the best of his knowledge and belief.

Richard E Pancake

SUBSCRIBED AND SWORN to before me this 10th day of October, 2024.

Sarah Kerstetter
Notary Public

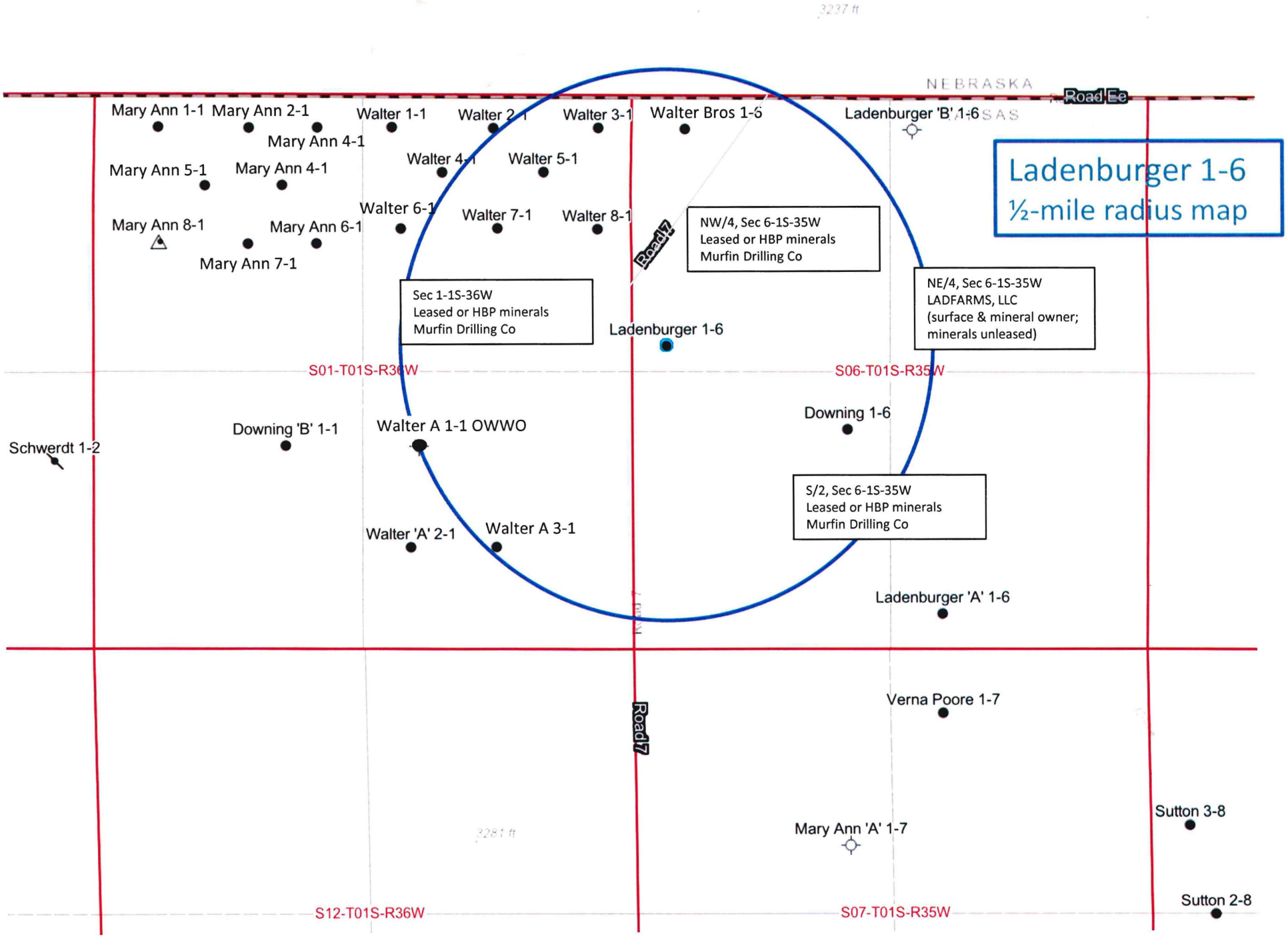
My Appointment Expires:

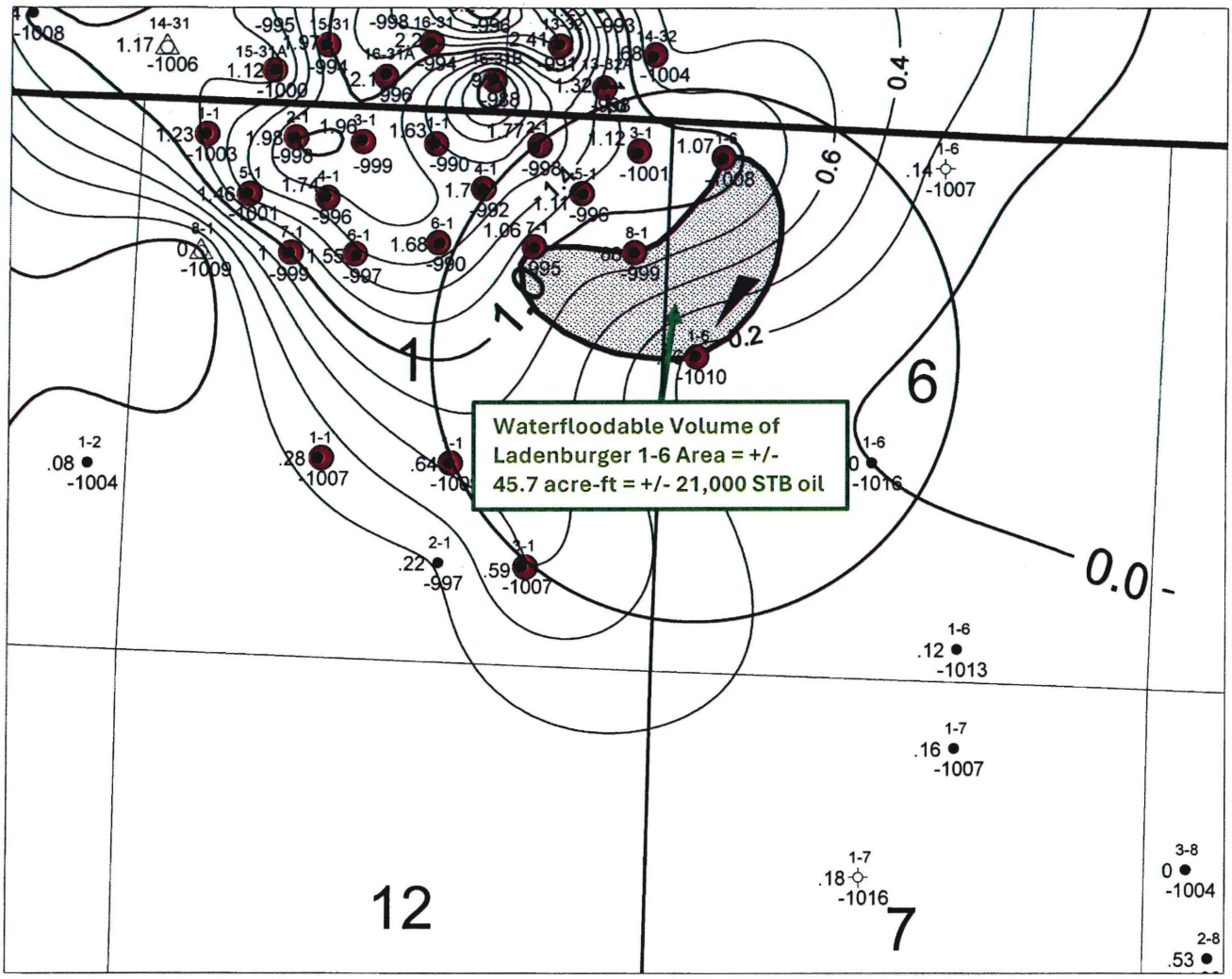
June 7, 2026

STATE OF KANSAS NOTARY PUBLIC
SARAH KERSTETTER
My Appointment Expires
June 7, 2026

CERTIFICATE OF SERVICE

I hereby certify on this 10th day of October, 2024, true and correct copies of the above and foregoing Application and the Notice of Application were served by depositing copies of the same in the United States Mail, postage prepaid, and properly addressed to the landowner/s set forth in paragraph 12 of said Application, each party set forth in Exhibit "A" attached to said Application filed by Applicant, and the original to the Kansas Corporation Commission.


Ladenburger 1-6
½-mile radius map
NEBRASKA
KANSAS
Road Ee
Road 7
Mary Ann 1-1
Mary Ann 2-1
Mary Ann 4-1
Walter 1-1
Walter 2-1
Walter 3-1
Walter Bros 1-6
Ladenburger 'B' 1-6
Mary Ann 5-1
Mary Ann 4-1
Walter 4-1
Walter 5-1
Mary Ann 8-1
Mary Ann 6-1
Mary Ann 7-1
Walter 6-1
Walter 7-1
Walter 8-1
NW/4, Sec 6-1S-35W
Leased or HBP minerals
Murfin Drilling Co
Sec 1-1S-36W
Leased or HBP minerals
Murfin Drilling Co
NE/4, Sec 6-1S-35W
LADFARMS, LLC
(surface & mineral owner;
minerals unleased)
Ladenburger 1-6
S01-T01S-R36W
S06-T01S-R35W
Downing 1-6
Schwerdt 1-2
Downing 'B' 1-1
Walter A 1-1 OWWO
S/2, Sec 6-1S-35W
Leased or HBP minerals
Murfin Drilling Co
Walter 'A' 2-1
Walter A 3-1
Ladenburger 'A' 1-6
Verna Poore 1-7
Mary Ann 'A' 1-7
Sutton 3-8
Sutton 2-8
S12-T01S-R36W
S07-T01S-R35W



MURFIN DRILLING COMPANY, INC.
WICHITA, KANSAS

Ladenburger #1-6 TA Limit Application
Sec. 6-1S-35W
Rawlins Co., KS

LKC D Phiht (porosity x thickness)
LKC D Structural Datum
LKC D zone Producers

Author: K Dean
Date: 7 October, 2024
Horizontal Scale: 1":1693'
Contour Interval: .2 porosity feet

Ladenburger Area OOIP Calculation & Waterflood Recovery Estimate

Sw by Archie Eq. - used to calculate reservoir water saturations, from which oil saturation is determined.

LKC Sw = $[Rw/(Phi)^m \times Rt]^{1/n}$	Parameters	
	a	1
	m	variable
	n	2
	Rw (LKC)	0.050

* From OH logs

** From literature

Ladenburger 1-6 (SW, SW, NW, 6-1-35)					
Zone	Depth *	Phi *	Rt *	m **	Sw
LKC D	4220 - 4222	0.12	7	2.0	**0.70**
perfs =	4222 - 4224	0.06	15	2.0	1.01
perfs =	4224 - 4226	0.04	18	2.0	1.32
perfs =	4226 - 4228	0.03	27	2.0	1.43
perfs =	4228 - 4229	0.03	33	2.0	1.30
Avg (4220-4222) =	2	0.12			**0.70**

Walter 8-1 (E2, E2, NE, 1-1-36)					
Zone	Depth *	Phi *	Rt *	m **	Sw
LKC D	4200 - 4202	0.11	7	2.0	**0.77**
perfs =	4202 - 4204	0.11	17	2.0	**0.49**
perfs =	4204 - 4206	0.11	30	2.0	**0.39**
perfs =	4206 -4208	0.12	50	2.0	**0.26**
	4208 -4210	0.05	35	2.0	0.76
	4210 - 4212	0.07	15	2.0	0.82
Avg (4200-4208) =	8	0.11			**0.48**

The Walter 8-1 is an adjacent well to the Ladenburger 1-6. The Walter 8-1 has reservoir characteristics that likely exist between itself and the Ladenburger 1-6.

OOIP (Original Oil in Place) by Volumetrics

OOIP = [7758 x Area (A) x Net Height (H) x Porosity (Phi) x (1 - Sw)]/Formation Volume Factor (Boi) [in STB]

A = Ladenburger area waterfloodable acres as per enclosed LKC D phi-H map
H = Ladenburger area waterfloodable net formation height as per enclosed LKC D phi-H map
Phi = Ladenburger area average porosity of perfed interval as per enclosed LKC D phi-H map
Sw = average water saturation of perfed interval between Ladenburger 1-6 and Walter 8-1

Zone	Waterfloodable Area x Avg Net Height x Avg Porosity (acre-ft)	Avg Sw	(1-Sw)	(from CORE Lab Hall Gurney - Letsch #7) Boi	**OOIP (STB)**
LKC D	45.7	0.59	0.41	1.031	**140,616**
	Ladenburger Area OOIP of Waterfloodable Acres (STB) =				**140,616**

Ladenburger Area Waterflood Recovery Estimate *

* Assume a larger, unitized waterflood incorporating the Ladenburger lease and the southeast portion of the Walter lease will recover 15% of the waterfloodable OOIP in that area. A 15% waterflood-recovery estimate is conservative considering the Ladenburger lease has not produced under primary.

Ladenburger Area Waterflood Oil Recovery Estimate = 15% x OOIP bo

= 0.15 x 140,616 bo

Ladenburger Area Waterflood Oil Recovery Estimate = 21,092 bo

EXHIBIT A

A TABULATION SHOWING THE NAMES AND ADDRESSES OF EACH OPERATOR/LESSEE AND OWNER, AS SET FORTH IN THE KCC REGULATIONS K.A.R. 82-3-135A, FOR ALL LANDS WITHIN ONE-HALF MILE OF THE SUBJECT WELL, AS DISCLOSED BY THE PUBLIC RECORDS OF RAWLINS COUNTY, KANSAS, TO-WIT:

SUBJECT WELL: LADENBURGER 1-6, API 15-153-21027

E/2 SECTION 1-T1S-R36W OF THE 6TH PM, RAWLINS COUNTY, KANSAS
NW/4, S/2 SECTION 6-T1S-R35W OF THE 6TH PM, RAWLINS COUNTY, KANSAS

MURFIN DRILLING COMPANY, INC. 250 N Water, Ste 300 Wichita, KS 67202	WI, OPERATOR

NE/4 SECTION 6-T1S-R35W OF THE 6TH PM, RAWLINS COUNTY, KANSAS

LADFARMS, LLC 35135 Road 703 Stratton, NE 69043-9724	SURFACE & MINERAL OWNER - UNLEASED