

APPLICANT



**PETROLEX**  
**OPERATING VENTURES, LLC**

## **Green Lake Field**

WEST BATON ROUGE PARISH, LOUISIANA

**TUSCALOOSA ZONE**  
**TUSC GL UDS SUA**

Docket No. 17-400  
August 8, 2017

**Witness: David Comeaux**  
*Geological Exhibits*

**Witness: Bryan S. Groves**  
*3-D Seismic Data Exhibits*

**Attorney: James L. Bullen**

# Jeanerette Minerals L.L.C. No. 1

SN: 245356  
Spud: 9-19-12  
Comp: 12-23-14 (WH-1)  
Perfs: 28,480'-635'; 28,730'-808'  
29,044'-052'; 29,074'-150' (deepest completion in the State)  
IP: 43,500 MCFD; 0 BOPD; 787 BWPD  
FTP: 11,955 PSIG  
CK: 23/64"  
SITP: 20,790 PSIG  
Cum: 17.7 BCF (11/16/16)  
Recent: (04/09/2016)  
48,766 MCFD, 381 BWPD (Fresh), 0 BCPD,  
FTP 12,569 PSIG; SITP 19546 PSIG  
CK 18/64"  
BHP: 24,325 PSI (highest worldwide) <sup>(1)</sup>  
BHT: 440° F (highest worldwide) <sup>(1)</sup>  
Net Pay: 127'  
H2S: 55-60 ppm average  
CO2: +/- 8%

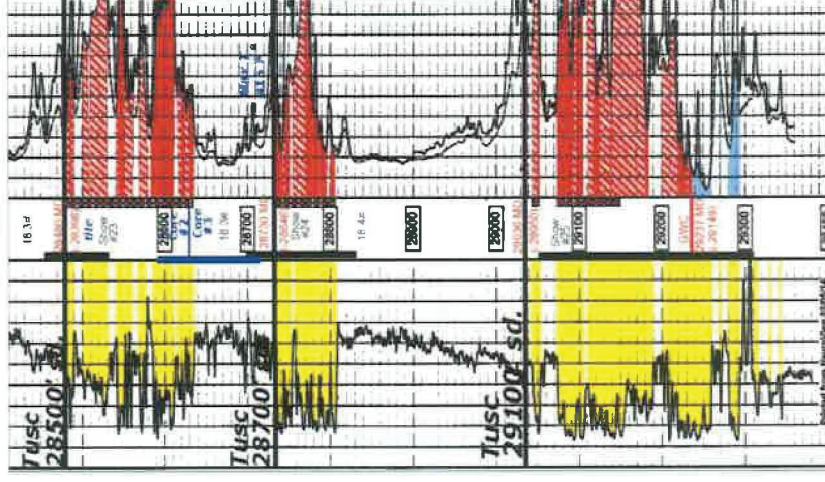



EXHIBIT No. G-

Docket No. 17-54

 <b>McMoRan Oil &amp; Gas</b>
<b>BAYOU LONG FIELD</b> ST. MARTIN PARISH, LOUISIANA
POD Revision
Type Log
Date: 1-8-17
Geology: LOUIS GILBERT & ASSOCIATES, INC.

Current: May 2017 1.4 BCF  
Cum: 2/15 thru 5/31/17: 28.8 BCF

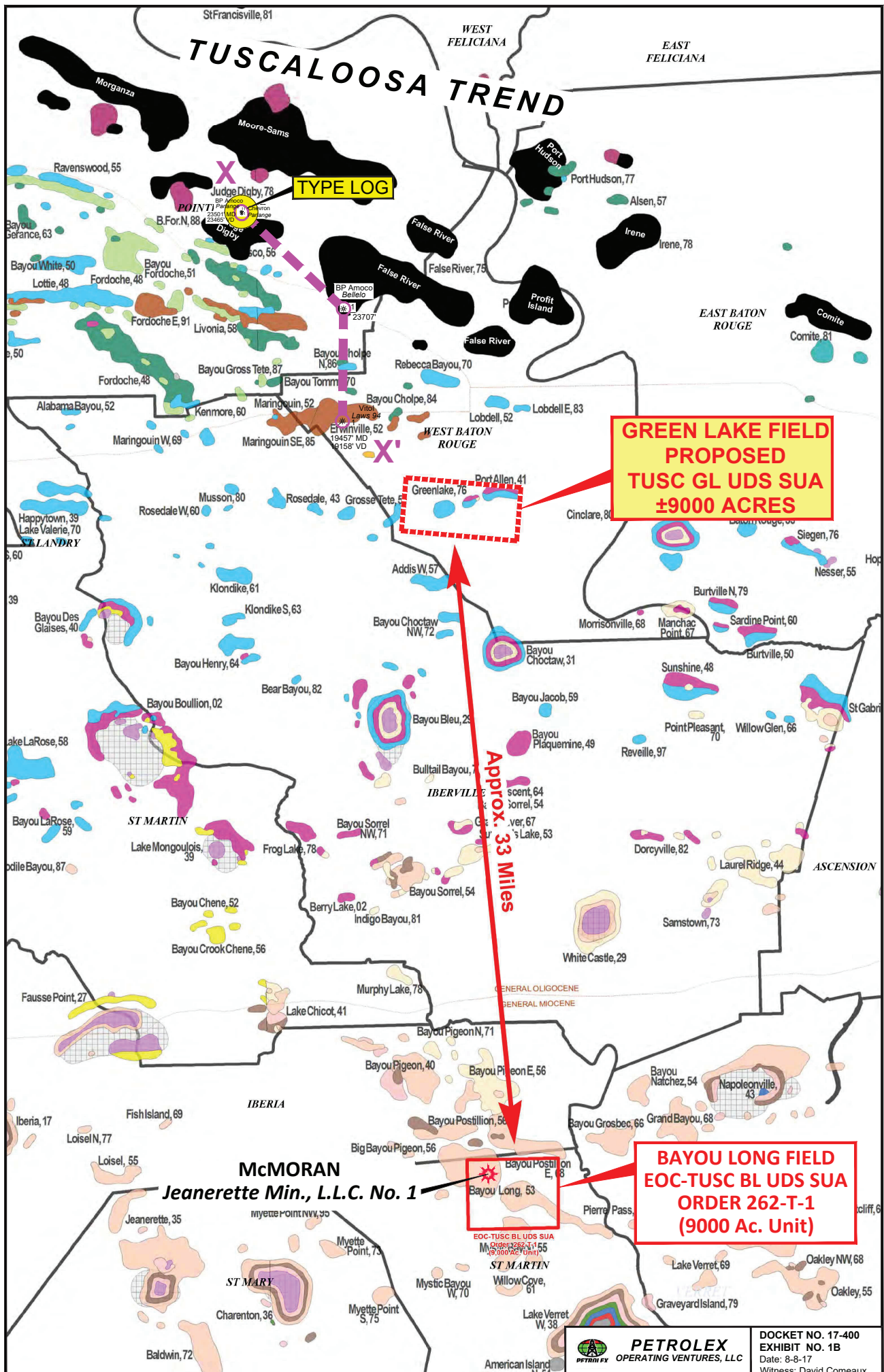
(1) Blade Energy Partners



**PETROLEX**  
OPERATING VENTURES, LLC

DOCKET NO. 17-400  
EXHIBIT NO. 1A  
Date: 8-8-17

Witness: David Comeaux



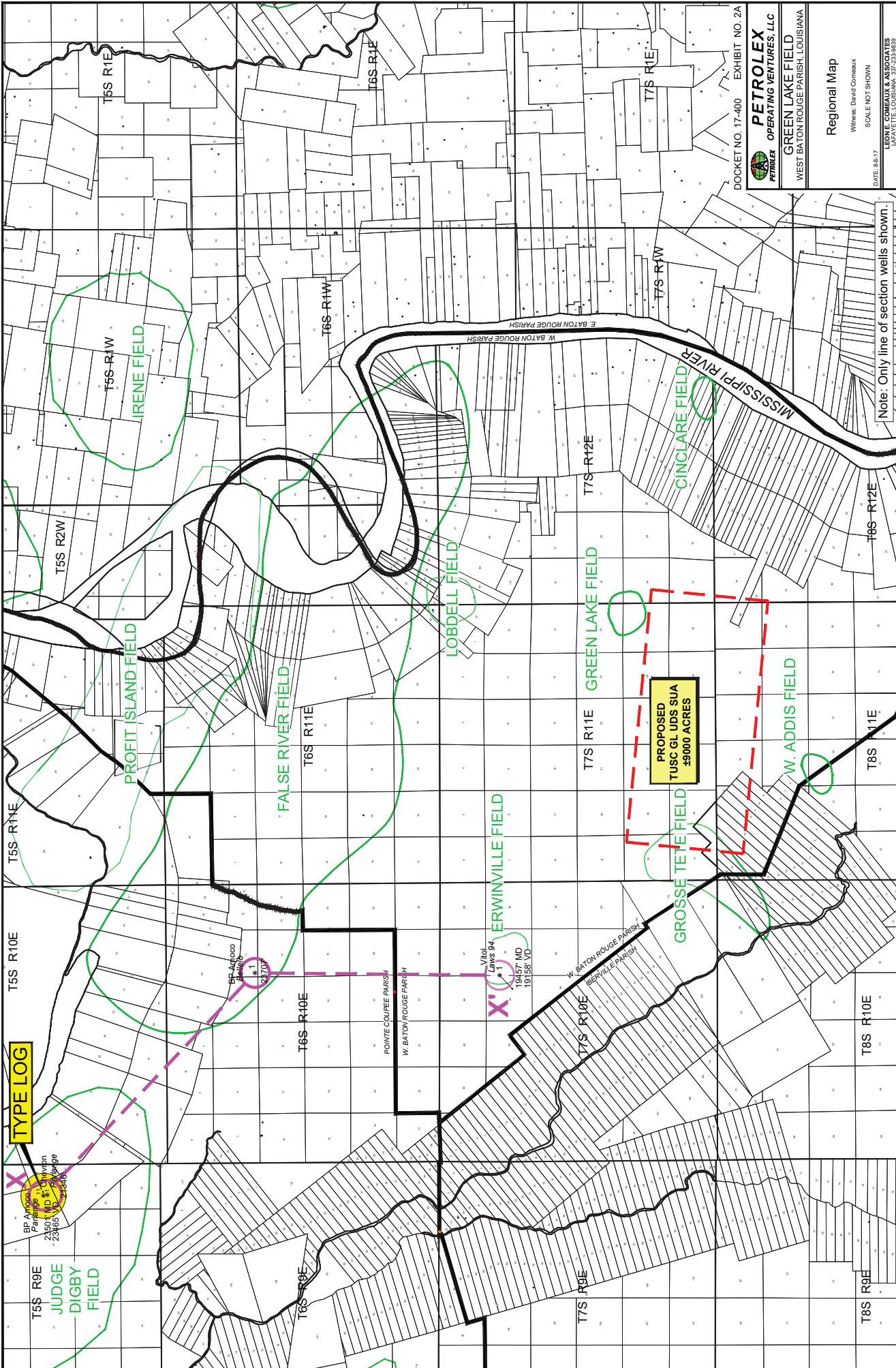
**GREEN LAKE FIELD  
PROPOSED  
TUSC GL UDS SUA  
±9000 ACRES**

**BAYOU LONG FIELD  
EOC-TUSC BL UDS SUA  
ORDER 262-T-1  
(9000 Ac. Unit)**

**TYPE LOG**

**Approx. 33 Miles**

**McMORAN  
Jeanerette Min., L.L.C. No. 1**



**TYPE LOG**

BP Arco  
 23604 MD  
 23185 ND  
 23186 ND

BP Arco  
 23707 ND

Vitol  
 Leys 9A  
 19457 MD  
 19 158 ND

**PROPOSED  
 TUSC GL UDS SUA  
 ±9000 ACRES**

DOCKET NO. 17-400 EXHIBIT NO. 2A

**PETROLEX**  
 OPERATING VENTURES, LLC  
 WEST BATON ROUGE PARISH, LOUISIANA

**GREEN LAKE FIELD**

Regional Map  
 Witness: David Corneaux  
 SCALE: NOT SHOWN  
 DATE: 8-8-17

LEWIS CORRELY & ASSOCIATES  
 LOUISIANA, INC.  
 LOUISIANA, 70002-3433

Note: Only line of section wells shown.

X

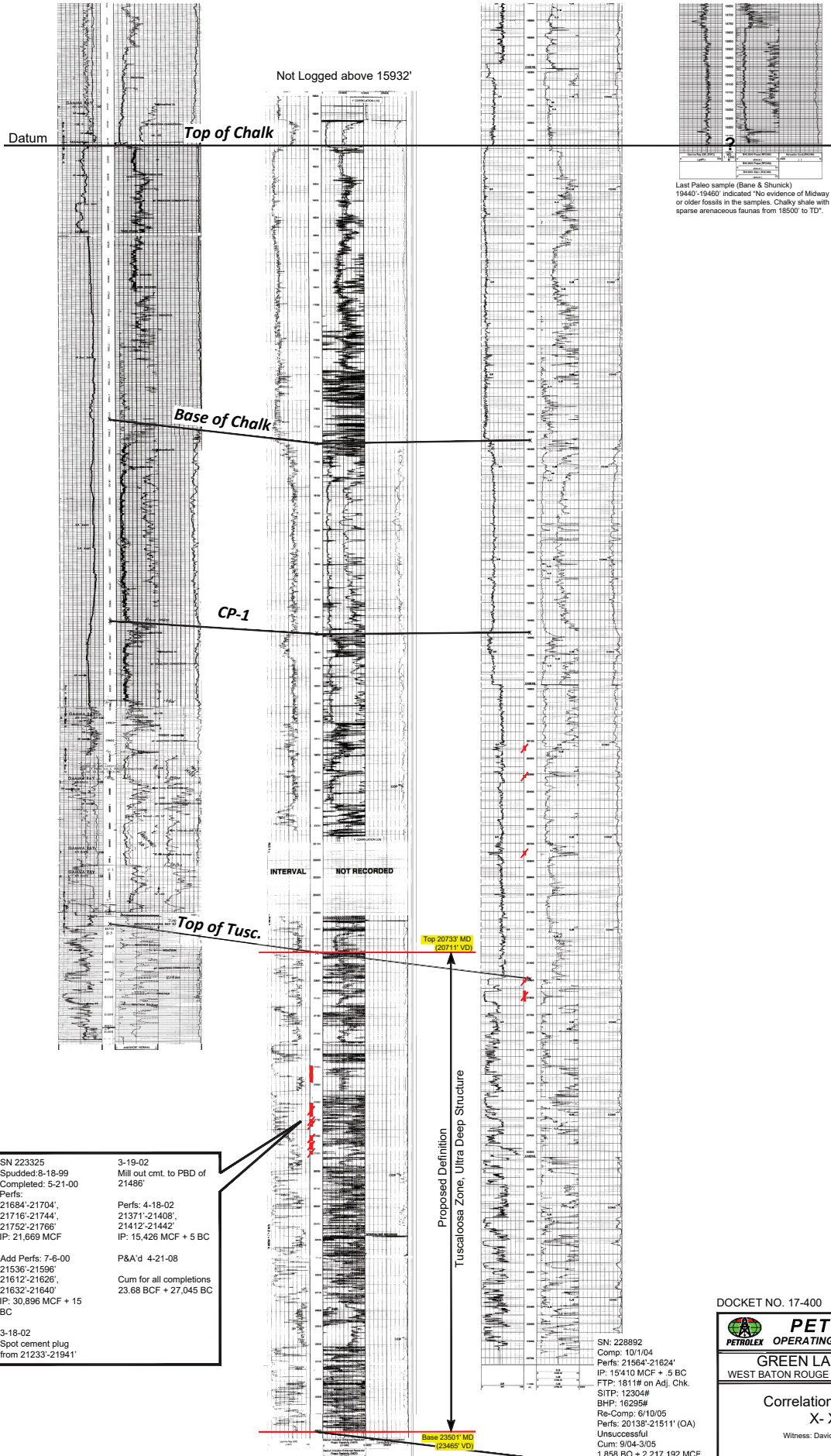
Chevron U.S.A., Inc.  
W. C. Parlange, Jr., et al No. 1  
Sec. 49, T5S-R9E  
SN: 154126

BP America Prod. Co.  
W. C. Parlange No. 11 Alt.  
Sec. 49, T5S-R9E  
SN: 223325

BP America Prod. Co.  
Bellelo, et al No. 1  
Sec. 11, T6S-R10E  
SN: 228892

Vitol Resources  
Laws, et al 94 No. 1  
Sec. 94, T7S-R10E  
SN: 248370

X'



SN 223325  
Spudded: 8-18-99  
Completed: 5-21-00  
Perfs:  
21684'-21704'  
21716'-21744'  
21752'-21786'  
IP: 21,669 MCF  
  
Add Perfs: 7-6-00  
21536'-21596'  
21612'-21626'  
21632'-21640'  
IP: 30,896 MCF + 15 BC  
  
3-18-02  
Spot cement plug  
from 21233'-21941'

3-19-02  
Mill out cmt. to PBD of  
21486'  
Perfs: 4-18-02  
21371'-21408'  
21412'-21442'  
IP: 15,426 MCF + 5 BC  
  
P&A'd 4-21-08  
Cum for all completions  
23.68 BCF + 27,045 BC

SN: 228892  
Comp: 10/1/04  
Perfs: 21564'-21624'  
IP: 15410 MCF + 5 BC  
FTP: 1811# on Adj. Chk.  
SITP: 12304#  
BHP: 16295#  
Re-Comp: 6/10/05  
Perfs: 20138'-21511' (OA)  
Unsuccessful  
Cum: 9/04-3/05  
1,858 BO + 2,217,192 MCF  
P&A: 10/5/05

DOCKET NO. 17-400 EXHIBIT NO. 2B

**PETROLEX**  
OPERATING VENTURES, LLC

**GREEN LAKE FIELD**  
WEST BATON ROUGE PARISH, LOUISIANA

Correlation Section  
X-X'

Witness: David Comeaux

DATE: 8-8-17

LEON E. COMEAUX & ASSOCIATES  
LAFAYETTE, LOUISIANA 337-233-9839

**LEON E. COMEAUX**  
**& ASSOCIATES**  
Geological & Petroleum Consultants

P.O. Box 53922 Lafayette, LA 70505 lcomeaux@cox-internet.com

Phone 337 233-9839 Fax 337 233-2131

**DAVID COMEAUX** davecomeaux@cox-internet.com

**WILLIAM McALISTER, JR.** mcalisterb@cox-internet.com

**RANDY McALISTER** rmcaster@cox-internet.com

March 30, 2017

Mr. David Elfert  
Department of Natural Resources  
Office of Conservation  
P. O. Box 94275  
Baton Rouge, Louisiana 70804-9275

RE: Waiver of Production Test  
Tuscaloosa Zone, UDS  
**GREEN LAKE FIELD**  
West Baton Rouge Parish, Louisiana

Dear Mr. Elfert:

On behalf of Petrolex Operating Ventures, LLC ("Petrolex"), I hereby request a production test waiver for the Tuscaloosa Zone in Green Lake Field, in accordance with the Office of Conservation Policy Memorandum dated March 16, 1998.

The Tuscaloosa Zone produced from, among numerous other wells, the BP America Production Co.- W.C. Parlange Jr. No. 11 Well (SN 223325) in Judge Digby Field and the BP America Production Co.- Belleo, et al No. 1 Well (SN 228892) in the False River Field, located approximately fifteen (15) and seven (7) miles north-northwest, respectively, of Green Lake Field. In support of this request enclosed is a regional map depicting a) the proposed Ultra Deep Structure (UDS) unit Petrolex intends to apply for in the near future and b) a line of Section A-A' which corresponds to the correlation section, also enclosed, from Judge Digby Field to slightly north of Green Lake Field. Note that within, and immediately surrounding Green Lake Field there are no wells that have been drilled below 11,000'. Because the anticipated top of the first Tuscaloosa objective is below 22,000' TVD, no logs from Green Lake Field are included on the correlation section.

Pursuant to Act 362 of the 2015 Regular Session, enclosed is a check in the amount of \$504.00. If you require any additional information please do not hesitate to contact the undersigned.

Sincerely,

LEON E. COMEAUX & ASSOCIATES

  
David Comeaux

DC/af  
Enclosures  
cc: Mr. Michael Kenney  
Mr. James Bullen

Waiver Request Granted

4<sup>th</sup> Day of April, 2017

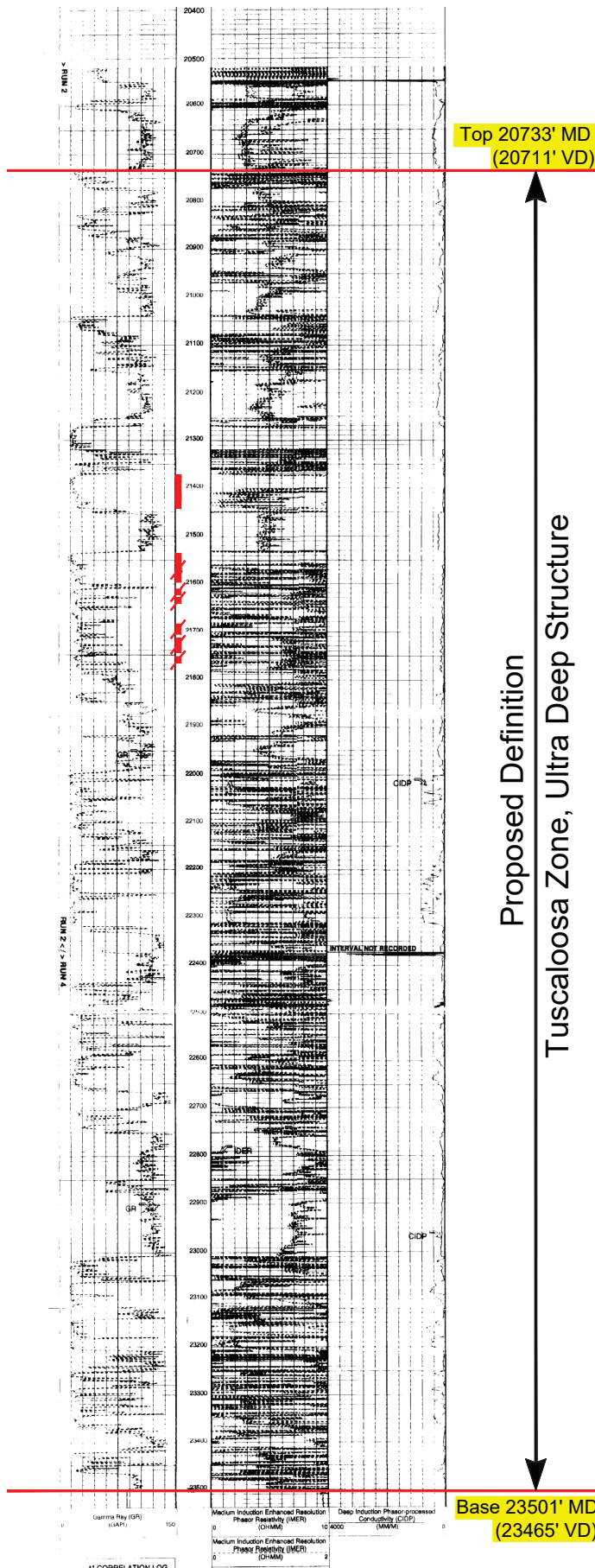
By:  Director - Coal Oil & Gas  
LOUISIANA OFFICE OF CONSERVATION



**PETROLEX**  
OPERATING VENTURES, LLC

DOCKET NO. 17-400  
EXHIBIT NO. 2C  
Date: 8-8-17  
Witness: David Comeaux

BP America Prod. Co.  
W.C. Parlange No. 11 Alt.  
Sec. 49, T5S-R9E  
(SN: 223325)



SN 223325  
Spudded: 8-18-99  
Completed: 5-21-00  
Perfs:  
21684'-21704',  
21716'-21744',  
21752'-21766'  
IP: 21,669 MCF

Add Perfs: 7-6-00  
21536'-21596',  
21612'-21626',  
21632'-21640'  
IP: 30,896 MCF + 15 BC

3-18-02  
Spot cement plug from  
21233'-21941'


3-19-02  
Mill out cmt. to PBD of  
21486'

Perfs: 4-18-02  
21371'-21408',  
21412'-21442'  
IP: 15,426 MCF + 5 BC

P&A'd 4-21-08

Cum for all completions  
23.68 BCF + 27,045 BC

DOCKET NO. 17-400 EXHIBIT NO. 3

 <b>PETROLEX</b> OPERATING VENTURES, LLC	
<b>GREEN LAKE FIELD</b> WEST BATON ROUGE PARISH, LOUISIANA	
<b>TYPE LOG</b> BP America Prod. Co. - W.C. Parlange No. 11 Alt. Sec. 49, T5S-R9E (SN: 223325)	
<b>TUSCALOOSA ZONE</b>	
DATE: 8-8-17	Witness: David Comeaux
<small>LEON E. COMEAUX &amp; ASSOCIATES  LAFAYETTE, LOUISIANA 337-233-9839</small>	

# **TUSC GL UDS SUA PLAN OF DEVELOPMENT**

- **The first unit well, A. Wilberts Sons, LLC No. 1, is planned to be spudded in May 2018. Initial gas sales are anticipated to be in February 2020.**
- **Unit well two is planned to be spudded within two (2) years of the initial gas sales of unit well one. Initial gas sales for unit well two are anticipated to be in August 2023.**
- **Unit well three is planned to be spudded within two (2) years of the initial gas sales of unit well two.**
- **The anticipated total depth for each well is approximately 25,000'.**
- **The reserve estimate for each well is 121.5BCFe.**
- **Location costs will total approximately \$1.5MM per well.**
- **Each well will cost approximately \$47MM to drill and \$36MM to complete.**



**PETROLEX**  
OPERATING VENTURES, LLC

DOCKET NO. 17-400  
EXHIBIT NO. 4  
Date: 8-8-17  
Witness: David Comeaux



# GREEN LAKE FIELD TUSC GL UDS SUA

## Proposed Unit Operation Economic Feasibility Summary

MINIMUM CASE	ESTIMATED RECOVERABLE RESERVES	ESTIMATED CAPITAL INVESTMENT	RATE OF RETURN	PAYOUT (YEARS)	PRODUCTIVE LIFE (YEARS)	ESTIMATED TAX TO STATE OF LOUISIANA
	364.5 BCF	\$310,000,000	31%	7.3	13.3	\$33,500,000

### Assumptions used in Economic Feasibility Analysis:

- Three wells are included in this analysis.
- Minimum gas reserves of 121.5 BCFe are developed by each well.
- 75 MMCFD initial rate for each well held flat for approximately half the reserve volume, then declining exponentially to an abandonment rate of 2.5 MMCFD {See BP America (Amoco) - R.O. Martin Lbr. Co. No. 1 well in Judge Digby Field, WSN 225269, tested 10/19/01 from TUSC. perforations 20,334'-20,400'; 79,490 MCFD: 553 BCD; 17 BWD; FTP 5525 psig on a 1" choke}.
- Average cost to drill and evaluate each well is approximately \$47MM.
- Average cost to complete each well is approximately \$36MM.
- Production facility costs of approximately \$14.6MM/ well (75MMCFD capacity for one well).
- Timing based on nine months to drill each well, with each subsequent well to be spud two years following the initial gas sales of the previous well. All drilling and completion work anticipated to be done with 2 rigs.
- Operating costs of approximately \$95,000 per month.
- Annual gas price starting at \$2.75/mmbtu (One Million British Thermal Units) in 2019 and increasing to \$3.37/mmbtu in 2032, based upon Nymex strip pricing.
- Annual condensate price starting at \$50.50/bbl in 2019 and increasing to \$63.63/bbl in 2032, based upon Nymex strip pricing.
- One hundred percent (100 %) working interest.
- Severance tax exempted pursuant to Act 2 of the 1994 Regular Session after initial production of each well, then \$0.098 per thousand cubic feet, in accordance with State of Louisiana Revenue Information Bulletin 16-031 and 12.5% of the value for condensate.



**PETROLEX**  
OPERATING VENTURES, LLC

DOCKET NO. 17-400  
EXHIBIT NO. 5  
Date: 8-8-17  
Witness: David Comeaux

# Reserves and Economics Summary

## Green Lake Field

### TUSC GL UDS SUA

Year	Gross Oil Production (MBBL)	Price Oil (\$/BBL)	Gross Oil Revenue (M\$)	Gross Gas Production (MMCF)	Price Gas (\$/MCF)	Gross Gas Revenue (M\$)	Gross Revenue (M\$)	Royalty, Ad Valorem, Severance Tax, LOE and Aban (M\$)	Total Investment (M\$)	Net Cash Flow (M\$)	Cumulative NCF (M\$)	Cumulative Disc NCF@15% (M\$)
2017	0	0	0	0	0	0	0	0	20,000.00	-20,000.00	-20,000.00	-18,759.02
2018	0	0	0	0	0	0	0	0	70,000.00	-70,000.00	-90,000.00	-78,721.17
2019 (7)	19.3	50.50	972.63	14,846.25	2.75	40,827.19	41,799.82	12,659.10	15,800.00	13,340.71	-76,659.29	-69,986.45
2020	32.9	50.70	1,670.06	25,391.25	2.72	69,064.20	70,734.26	21,431.03	0	49,303.23	-2,735.06	-3,756.78
2021	38.2	51.33	1,960.54	29,441.88	2.74	80,670.76	82,631.30	26,269.79	203,740.71	-14,737.20	-17,473.26	-12,183.31
2022	90.7	52.20	4,736.31	69,940.78	2.76	193,036.56	197,772.87	62,037.80		135,735.07	-39,000.19	-54,348.99
2023	82.4	53.24	4,388.53	63,539.10	2.80	177,909.48	182,298.01	57,590.55		124,707.46	85,707.27	-434.51
2024	71.3	54.31	3,874.15	54,986.60	2.84	156,161.94	160,036.09	54,793.06		105,243.03	190,950.30	39,130.24
2025	48.4	55.40	2,682.14	37,319.14	2.92	108,971.89	111,654.03	39,775.27		71,878.77	262,829.06	62,627.53
2026	32.4	56.50	1,827.94	24,938.73	2.98	74,317.40	76,145.34	28,789.86		47,355.48	310,184.55	76,088.92
2027	21.6	57.63	1,245.96	16,665.44	3.04	50,662.95	51,908.91	21,298.65		30,610.26	340,794.81	83,655.31
2028	14.5	58.79	851.27	11,161.54	3.10	34,600.76	35,452.03	16,218.35		19,233.68	360,028.49	87,789.46
2029	9.6	59.96	578.26	7,434.00	3.17	23,565.78	24,144.04	12,732.16		11,411.88	371,440.37	89,922.42
2030	5.7	61.16	350.40	4,416.25	3.23	14,264.50	14,614.89	10,612.43		4,002.47	375,442.83	90,572.93
2031	3.6	62.38	227.24	2,808.07	3.30	9,266.63	9,493.87	6,507.44		2,986.43	378,429.27	90,995.00
2032 (9)	1.9	63.63	121.22	1,468.47	3.37	4,948.74	5,069.96	8,659.67		-3,589.71	374,839.56	90,553.84
<b>13.33 Yr</b>	<b>472.7</b>	<b>53.92</b>	<b>25,486.65</b>	<b>364,357.50</b>	<b>2.85</b>	<b>1,038,268.77</b>	<b>1,063,755.42</b>	<b>379,375.16</b>	<b>309,540.71</b>	<b>374,839.56</b>	<b>374,839.56</b>	<b>90,553.84</b>

Gross Wells	3
Gross Gas Resources, MMCF	364,500.00
Initial Price, \$/MCF	2.75
Gross Oil Resources, MBBL	472.8
Initial Price, \$/BBL	50.50

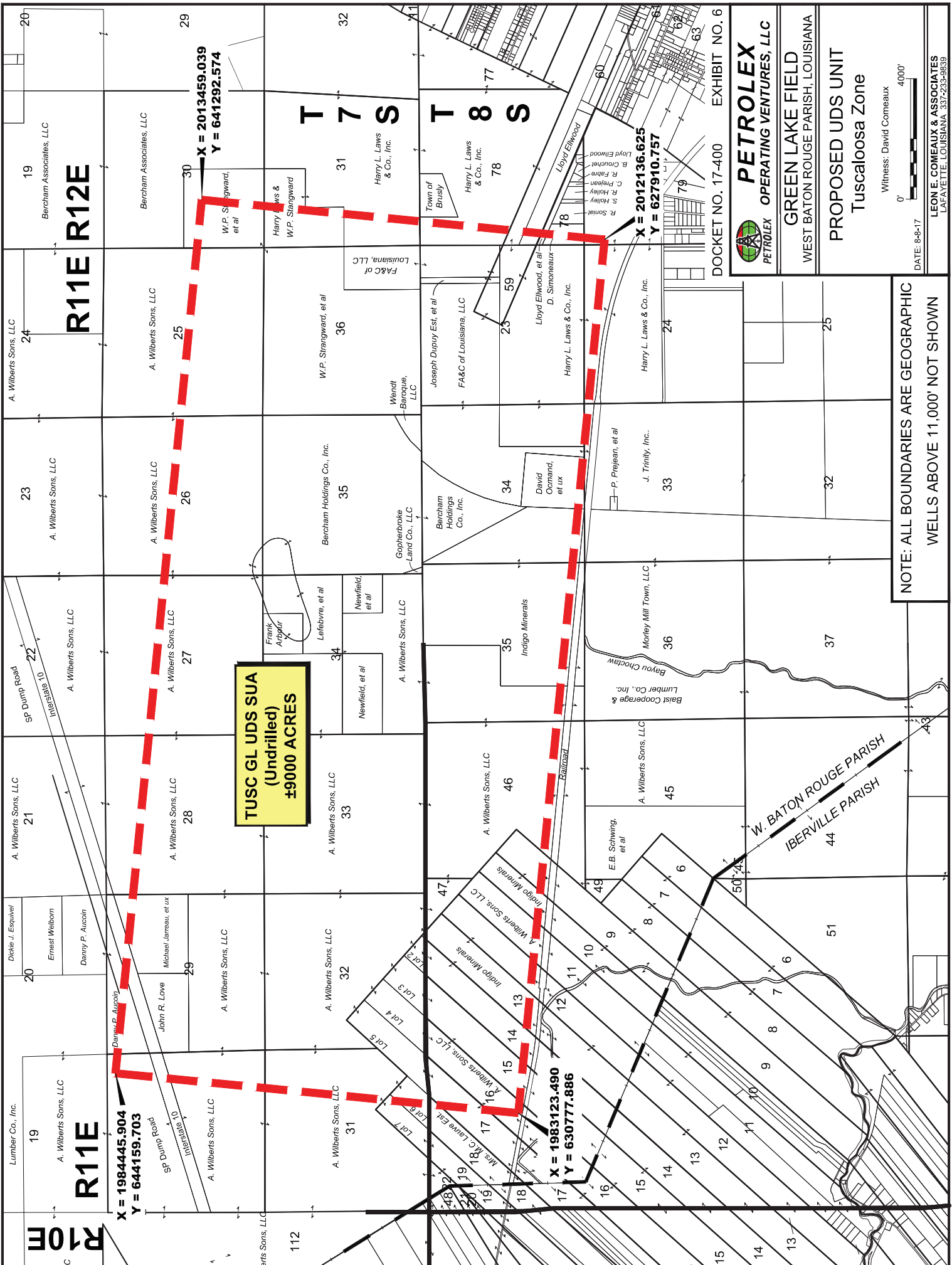
Life (in years)	13.33
Discount %	15.00
Undiscounted Payout, Yrs	7.30
Discount Payout, Yrs	8.01
Rate of Return, %	30.9
Initial WI, %	100.00

Present Worth	Present Worth
Percentage	(M\$)
0.00	374,800.00
10.00	149,800.00
15.00	90,600.00



**PETROLEX**  
OPERATING VENTURES, LLC

DOCKET NO. 17-400  
EXHIBIT NO. 5A  
Date: 8-8-17  
Witness: David Comeaux



**TUSC GL UDS SUA  
(Undrilled)  
±9000 ACRES**

**X = 1984445.904  
Y = 644159.703**

**X = 1983123.490  
Y = 630777.886**

**X = 2012136.625  
Y = 627910.757**

**X = 2013459.039  
Y = 641292.574**

**R11E R12E**

**T 7 S  
T 8 S**

DOCKET NO. 17-400 EXHIBIT NO. 6

**PETROLEX OPERATING VENTURES, LLC**  
**GREEN LAKE FIELD**  
 WEST BATON ROUGE PARISH, LOUISIANA  
**PROPOSED UDS UNIT**  
 Tuscaloosa Zone  
 Witness: David Comeaux  
 DATE: 8-8-17  
 SCALE: 0' 4000'

**NOTE: ALL BOUNDARIES ARE GEOGRAPHIC  
WELLS ABOVE 11,000' NOT SHOWN**

W. BATON ROUGE PARISH  
IBERVILLE PARISH