

EXHIBIT(s)
FOR
ORDER NO(s).

252 - 6

-

-

-

-



01303683

RECEIVED

SEP 15 2009

COGCC

252-6

BAYHORSE PETROLEUM, LLC

Cause No. 252, Docket No. 0909-SP-22

Land Testimony

Left Hand Field
Kiowa County, CO
Cause No. 252
Docket No. 0909-SP-22
Bayhorse Petroleum, LLC
(10) 80-Acre Drilling & Spacing Units Application
Township 18 South, Range 47 West, 6th P.M.
Section 27: N/2 SW/4; S/2 SW/4
Section 28: N/2 NW/4; S/2 NW/4;
W/2 NE/4; E/2 NE/4;
N/2 SE/4; S/2 SE/4
Section 34: N/2 NW/4; S/2 NW/4
Marmaton Formation

September, 2009 Colorado Oil and Gas Conservation Commission Hearing

My name is Larry F. Manikowski, and I am currently the Vice President & CFO for Bayhorse Petroleum, LLC. I have a Bachelor's degree in both Finance and Accounting from Northern Illinois University that I received in 1979. I have handled the majority of land work for Bayhorse for the past 3 ½ years, and have worked on the properties that are the subject of this application for the last 4 months. My resume is attached.

In support of our application today, I have prepared three (3) exhibits. The exhibits are attached to my sworn testimony and form the basis for our application to obtain an order to allow for (10) drilling and spacing units of the Marmaton Formation on the subject properties.

Exhibit A. – Location Map.

Exhibit A is a Location Map depicting the affected lands and the outlined (10) 80-acre proposed locations within the Left Hand Field, the distance between the proposed well and other wells, and producing formations with dates and volumes in other nearby wells.

Exhibit B. – Land Map.

Exhibit B is a Land Map depicting the affected lands and the outlined (10) 80-acre proposed locations within the Left Hand Field, showing the mineral, leasehold and surface ownership groupings, and the proposed location with distance to the lease line and offsetting spacing units.

Exhibit C. – Mineral & Surface Ownership by Groupings.

Exhibit C shows the mineral and surface ownership within each of the three (3) groupings as depicted on the Land Map.

As of this date, we have not received any notice of objection or protest to this Application.

I, Larry F. Manikowski, affirm the foregoing testimony and exhibits attached hereto, and further state that the same are true and correct to the best of my knowledge and belief and were prepared by me or under my control.

Dated this 6th day of September, 2009.

Larry F. Manikowski
Larry F. Manikowski
Vice President & CFO



BAYHORSE PETROLEUM, LLC

Resume

Larry F. Manikowski – Vice President & CFO

Mr. Manikowski's executive management and experience in finance and accounting in the cable, broadcast, high-tech engineering and manufacturing industries covers more than 30 years. He has experience in startups, company turnaround situations, cash flow management, restructuring and consolidation, budgeting, forecasting, management and controls, computer systems design and implementation, divisional controllership management and manufacturing systems. Mr. Manikowski holds a Bachelor of Science degree in Accounting & Finance from Northern Illinois University. He has also handled the majority of land work for Bayhorse for the past 3 ½ years.

LOCATION MAP

T18S-R47W

KIOWA COUNTY, COLORADO

19

20

22

23

24

Keys Init. Prod: 12-83, IP 953 MCFPD

Marmaton Init. Prod: 9-81
IP 60 BOPD, 41 BWPD, 60 MCFPD

FOX 'A' 1

CARRERA 34-23 1

Left Hand Field (Abandoned)
Keys & Marmaton Production

Prop. Loc.

W.S. MERRICK 1

26

25

30

29

Keys Init. Prod: 10-72, IP 2680 MCFPD

TEAL 1

Affected Lands

KEMPH 1-26

Keys Init. Prod: 2-72, 24 hr Prod Gage 1,828 MCFPD

MERRICK 'E' 1

WILCOX 1

31

32

33

35

36

STATE FERGUS 1

LEGG 1

MERRICK 2

STANLEY ET AL 14-35X

6

5

4

NEESE 1

3

2

1

SCALE 1 : 46,692



EXHIBIT A

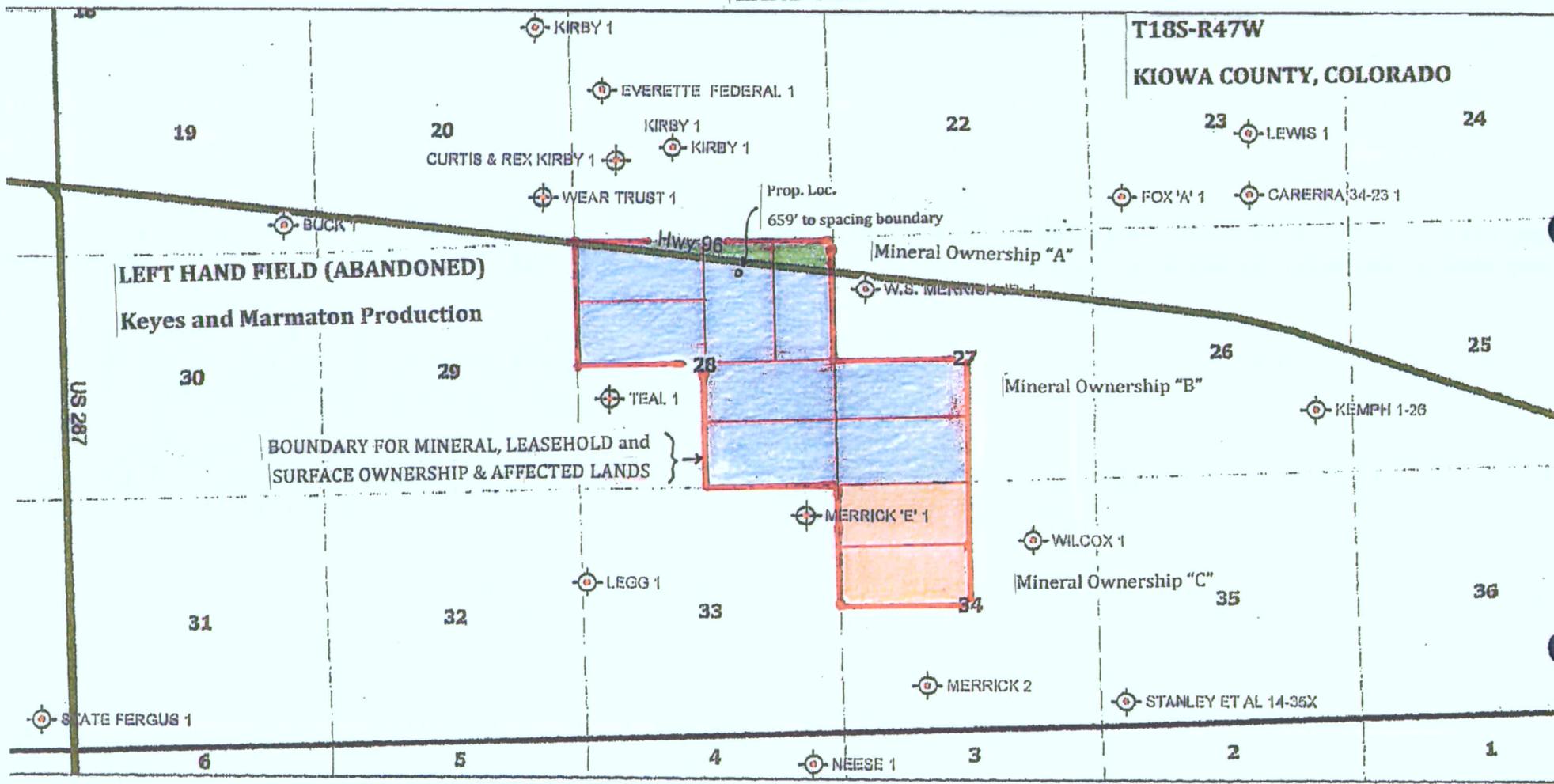
US 287

Hwy 96

LAND MAP

T18S-R47W

KIOWA COUNTY, COLORADO



SCALE 1 : 46,692

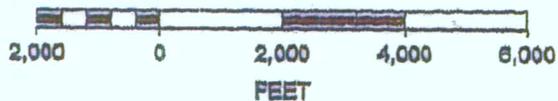


EXHIBIT B

Land Testimony
Exhibit C.
Mineral & Surface Ownership by Groupings

Left Hand Field
Kiowa County, CO
Cause No. 252
Docket No. 0909-UP-21
Bayhorse Petroleum, LLC
Compulsory Pooling Application
Township 18 South, Range 47 West, 6th P.M.
Section 28: W/2 NE/4
Marmaton Formation

Group A:

Surface Owner:

Marty L. & Betsy A. Barnett
PO Box 216
1104 Luther
Eads, CO 81036-0216

Mineral Owners:

Marty L. & Betsy A. Barnett
PO Box 216
1104 Luther
Eads, CO 81036-0216

Leonard M. Davis
1505 Flynn Lane
Dillon, MT 59725

Troy L. & Barbara Davis
% Rafter T Ranch LLC
26351 N Hwy 281
Stephenville, TX 76401

Sandy S. & Ronald W. Selph
10407 N. 47th Drive
Glendale, AZ 85302

Randy T. Wright
Aka Randy T. Andrews
4 Harbor Road
Dayton, NV 89403

Group B:

Surface Owner:

T. T. Teal & Mina Loy Teal, trustees of the
T. T. Teal and Mina Loy Teal Living Trust
PO Box 1015
Clarksville, AR 72830

Mineral Owners:

T. T. Teal & Mina Loy Teal, trustees of the
T. T. Teal and Mina Loy Teal Living Trust
PO Box 1015
Clarksville, AR 72830

Helen M. Koch
3039 B ½ Road
Grand Junction, CO 81503

Stephen C. & Emily D. Hudkins
105 Legend Hills Blvd.
Llano, TX 78643

Glenn Lee & Phyllis G. Hunter
7730 Sea Crest Way N.
Noblesville, IN 46062-9098

Brett D. Nigh
Trustee of the Nigh Revocable Trust
701 Countrywood Ct.
Noblesville, IN 46060

J. Ewing Walker Investment Company, L.L.C.
J. Ewing Walker, Jr., Manager
3916 Woodhead Street
Houston, TX 77098-2816

Merco of Oklahoma, Inc.
Ross M. Coe, Vice President
PO Box 18607
Oklahoma City, OK 73154

Vicki McCurry Cameron
1671 FM 3288 E.
Jacksonville, TX 75766

Patti McCurry Stepp (Patricia Louise)
PO Box 755
362 County Rd #3792
Cleveland, TX 77328

Julia McCurry
205 Turner Ave. #B105
Shelton, WA 98584

Janna Elizabeth McCurry & Clell Wayne Bailey
8457 Graystone Loop NW
Silverdale, WA 98383

Laura D. Sanders & Gary F. Moore
119 Kani Lane
Bastrop, TX 78602

Charles Earl & Linda Sweatt
1512 Cimarron Avenue
Odessa, TX 79761

Eloise Kathleen McRee Buck
900 Westway St.
Denton, TX 76201

Mary Sweatt Degan
2799 Scarlet Road
Germantown, TN 38139

FOG, LLC
PO Box 18188
3024 Middlesex Dr.
Oklahoma City, OK 73154

Philip C. & Joanna B. Neilson
500 Hardy Drive
Edmond, OK 73013-5103

Mark & Julia McCurry
PO Box 111
503 NW H Street
Stigler, OK 74462

Walker B. Comegys, Jr. Family LLC
1401 Holliday Street, Suite 316
Wichita Falls, TX 76301-7145

Randy T. Wright
Aka Randy T. Andrews
4 Harbor Road
Dayton, NV 89403

Gary Mac & Loretta K. Dryden
1600 Elver Road
Canyon, TX 79015

Van Edward Dryden
2116 S Polk St
Amarillo, TX 79109-2652

Michael Victor & Dorothy R. McRee
263 NW Colquitt Way
Lake City, FL 32055-4853

Frank W. Bunnell Trust
% Shannon Eckols, Trust Asset Manager
Wells Fargo Trust OGM Regional Office
750 E. Mulberry, Suite 402
San Antonio, TX 78212

Brockton M. Bunnell Trust
% Shannon Eckols, Trust Asset Manager
Wells Fargo Trust OGM Regional Office
750 E. Mulberry, Suite 402
San Antonio, TX 78212

Shelly D. Bunnell Trust
% Shannon Eckols, Trust Asset Manager
Wells Fargo Trust OGM Regional Office
750 E. Mulberry, Suite 402
San Antonio, TX 78212

Mildred D. Richard Estate
% Nancy Richard Greer, Executor
5813 N. Barnes Ave.
Oklahoma City, OK 73112-7320

Jones-Daube Mineral Company
% Pattie Wilcox
PO Box 1169
Duncan, OK 73534-1169

Group C:

Surface Owner:

William F. Wilcox
12550 County Road 46
Eads, CO 81036-9669

Mineral Owners:

William F. Wilcox
12550 County Road 46
Eads, CO 81036-9669

Dollie & Elaine Kingery
% Neson, Inc.
PO Box 1945
Ardmore, OK 73402

Jerry Jim Kingery & Judith Ann Little
% Neson, Inc.
PO Box 1945
Ardmore, OK 73402

Kathryn L. Rittgers
401 County Road W #10
Eads, CO 81036-9650

Elizabeth & John B. Young
PO Box 281
Wiley, CO 81092

Linda Appel
2204 W. 30th Street South
Wichita, KS 67217-2010

L. Darlene Jones
19710 Nottingham Drive
Downs, IL 61736

Madonna Hawks
% Yvonneda M. Martin
1790 Diamond Hitch Drive
Jackson, WY 83001

Yvonneda M. Martin
1790 Diamond Hitch Drive
Jackson, WY 83001

Merco of Oklahoma, Inc.
Ross M. Coe, Vice President
PO Box 18607
Oklahoma City, OK 73154

Jones-Daube Mineral Company
% Pattie Wilcox
PO Box 1169
Duncan, OK 73534-1169

Geologic Testimony

Left Hand Field
Docket No. 0909.SP-22

Cause No. 252

Bayhorse Petroleum LLC
80 Acre Spacing Unit Application
Twp 18S - Rge 47W
Sections 28, 27, 34
Marmaton Formation

September Colorado Oil and Gas Conservation Commission Hearing

My name is Rod Vaughn and I am a geologist currently working as President/CEO of Bayhorse Petroleum. I started working in SE Colorado in 1981. I have 36 years experience in the oil business and have worked from the Gulf Coast to the northern Rocky Mountains basins. Much of my career has involved exploration in Utah, Montana and Colorado. I have a BS degree in geology from Fort Hays State University in Kansas and an MS degree in geology from the University of Utah, Salt Lake City.

In support of our application today, I have prepared five (5) exhibits. The exhibits are attached to my sworn testimony and form the basis for our application to obtain an order to allow for 80 acre spacing on the subject properties.

1. Exhibit No. 1, SW-NE Cross Section

This cross section is oriented perpendicular to the depositional trend and structure of the Marmaton reservoir and shows a maximum porosity thickness of 18-20 feet with DST results.

2. Exhibit No. 2. NW-SE Cross Section

This cross section is oriented parallel to the depositional trend and structure of the Marmaton reservoir and shows DST results.

3. Exhibit No. 3. Marmaton (Pawnee Member) Structure Map

This shows the vertical relief and structural trend of the Pawnee Member that contains the pay zone.

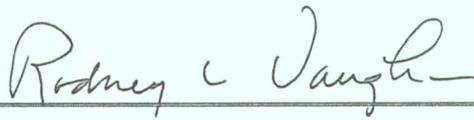
4. Exhibit No. 4. Marmaton (Pawnee Member) Porosity Isopach Map

This shows the porosity thickness and distribution of the reservoir.

5. Exhibit No. 5. Keyes Structure Map with Keyes Sandstone Distribution and Thickness

This shows the relationship of the Keyes structure to the sandstone reservoir.

I, Rodney L Vaughn, affirm the foregoing testimony and exhibits attached hereto, and further state that the same are true and correct to the best of my knowledge and belief and were prepared by me or under my control.



Rodney I. Vaughn

President/CEO



BAYHORSE PETROLEUM, LLC

RESUMES

Rodney L. Vaughn – President & CEO

Mr. Vaughn has 36 years experience in all phases of the oil and gas business that includes work with both major and small independent companies. Most of his career has involved exploration in the Rocky Mountain basins, but he has also worked in the Mid-Continent and Gulf Coast. He has a Bachelor of Science degree from Fort Hays State University (Hays, Kansas) and a Master of Science degree from the University of Utah (Salt Lake City). Mr. Vaughn has hands-on experience in subsurface and seismic methods as well as drilling operations. He has published two geology papers in the American Association of Petroleum Geologists (AAPG) Bulletin and has presented a verbal paper at a Sectional AAPG Convention.

Larry F. Manikowski -- Vice President & CFO

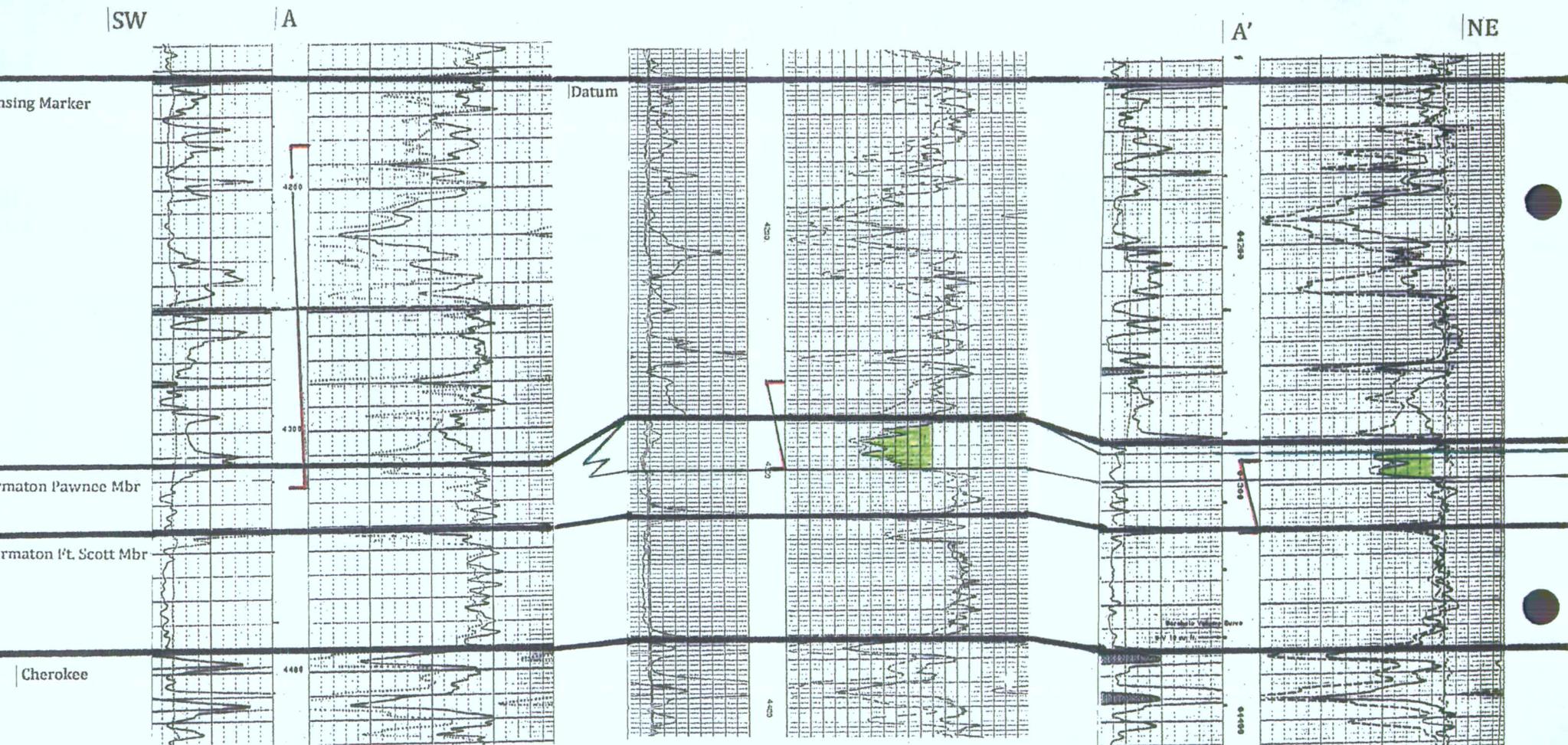
Mr. Manikowski's executive management and experience in finance and accounting in the cable, broadcast, high-tech engineering and manufacturing industries covers more than 30 years. He has experience in startups, company turnaround situations, cash flow management, restructuring and consolidation, budgeting, forecasting, management and controls, computer systems design and implementation, divisional controllership management and manufacturing systems. Mr. Manikowski holds a Bachelor of Science degree in Accounting & Finance from Northern Illinois University. He has also handled the majority of the land work for Bayhorse for the past 3 1/2 years.

Stratigraphic Cross Section A - A'

Murfin Drlg, Wear Trust 1, 4-82
 SE SE 20-T18-R47W
 KB 4164 Den-Neu
 Abnd Keyes Producer

Odegard Res, Curtis & Rex Kirby 1, 7-81
 NW SW 21-T18S-R47W
 KB 4158 Den-Neu
 Abnd Marmaton Producer

TXO Kirby 1, 4-84
 NE SW 21-18S-47W
 KB 4151 Den-Neu
 D&A



DST: 4181-4324
 rec. 5' mud
 FP 14-28, 14-28
 SIP 313-142
 HP 1958-1958

EXHIBIT 1

DST: 4262-4300
 GTS 30" @ 21 MCFPD
 GTS 60" @ 15 MCFPD
 rec. 2670' gassy oil, 630' SW
 FP 247-708, 771-1110
 SIP 1189-1210
 HP 1995-1995
 IP60 BOPD, Cum 43,756 BO
 Cum 54,504 MCF & 15,029 RW

DST: 4290-4320
 rec. 5' oil, 130' OCMW, 480' WTR, 2000 cc WTR
 FP 95-246, 269-372
 SIP 895-906
 HP 2120-2230

Stratigraphic Cross Section B - B'

B

B'

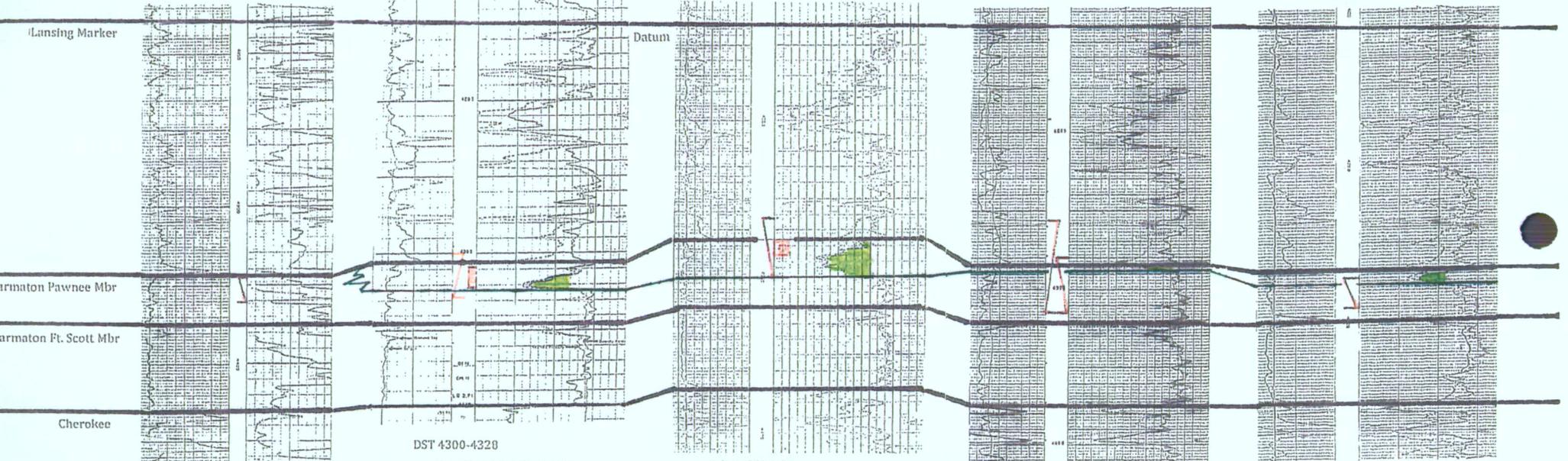
Sam Gary, Kirby 1, 6-57
NE NE 20-T18S-R47W
KB 4102 GR - Laterolog
D&A

Odegard Res., Everette Fed. 1, 12-93
S/2 SW NW 21-T18S-R47W
KB 4159 Den-Neu
D&A

Odegard Res., Curtis & Rex Kirby 1, 7-81
NW SW 21-T18S-R47W
KB 4158 Den-Neu
Abnd Marmaton Producer

Odegard, Merrick 1, 12-81
NW NW 27-T18S-R47W
KB 4135 Den-Neu
D&A

Arapahoe Petrol., Merrick 2
SE SW 34-T18S-R47W
KB 4104 Den-Neu
D&A



DST: 4345-4361
rec. 1460' gas, 60' OC & WCM
180' W & sli OCM, 1160' GC sul wtr
FP 120-610, SIP 1140
HP 2300

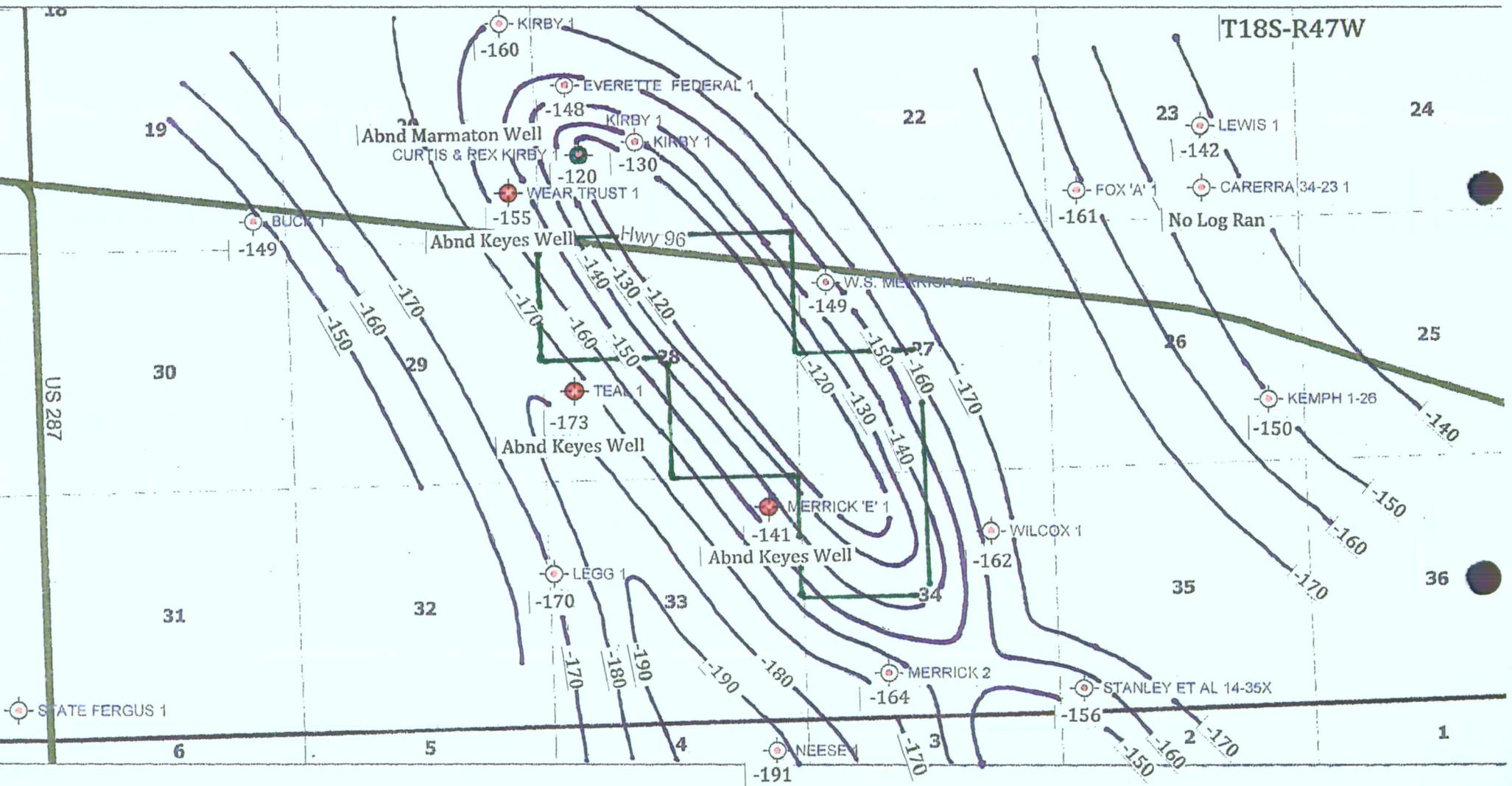
DST 4300-4320
rec. 30' sli OCM & 163' HOCM
Perf 4309-4321 gross
Swbd 1-2 bbl/run @ 20% oil

DST: 4262-4300
GTS 30" @ 21 MCFPD
GTS 60" @ 15 MCFPD
rec. 2670' gassy oil, 630' SW
FP 247-708, 771-1110
SIP 1189-1210
HP 1995-1995
IP60 BOPD, Cum 43,756 BO
Cum 54,504 MCF & 15,029 BW

DST: 4280-4315, mlstrun
DST: 4256-4315
108' VSO&GCM, 2200 cc mud w/ SO
FP 54-67, 67-80
SIP 294-534, HP 1999-1999

DST: 4272-4290
rec. 217' gas, 2055' HGC sul wtr
FP 27-105, SIP 1188-1189
HP 2030-2420

MARMATON (PAWNEE MBR) STRUCTURE MAP



SCALE 1 : 46,692

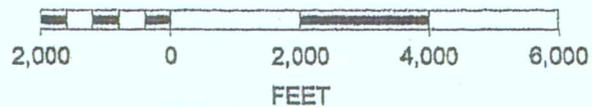
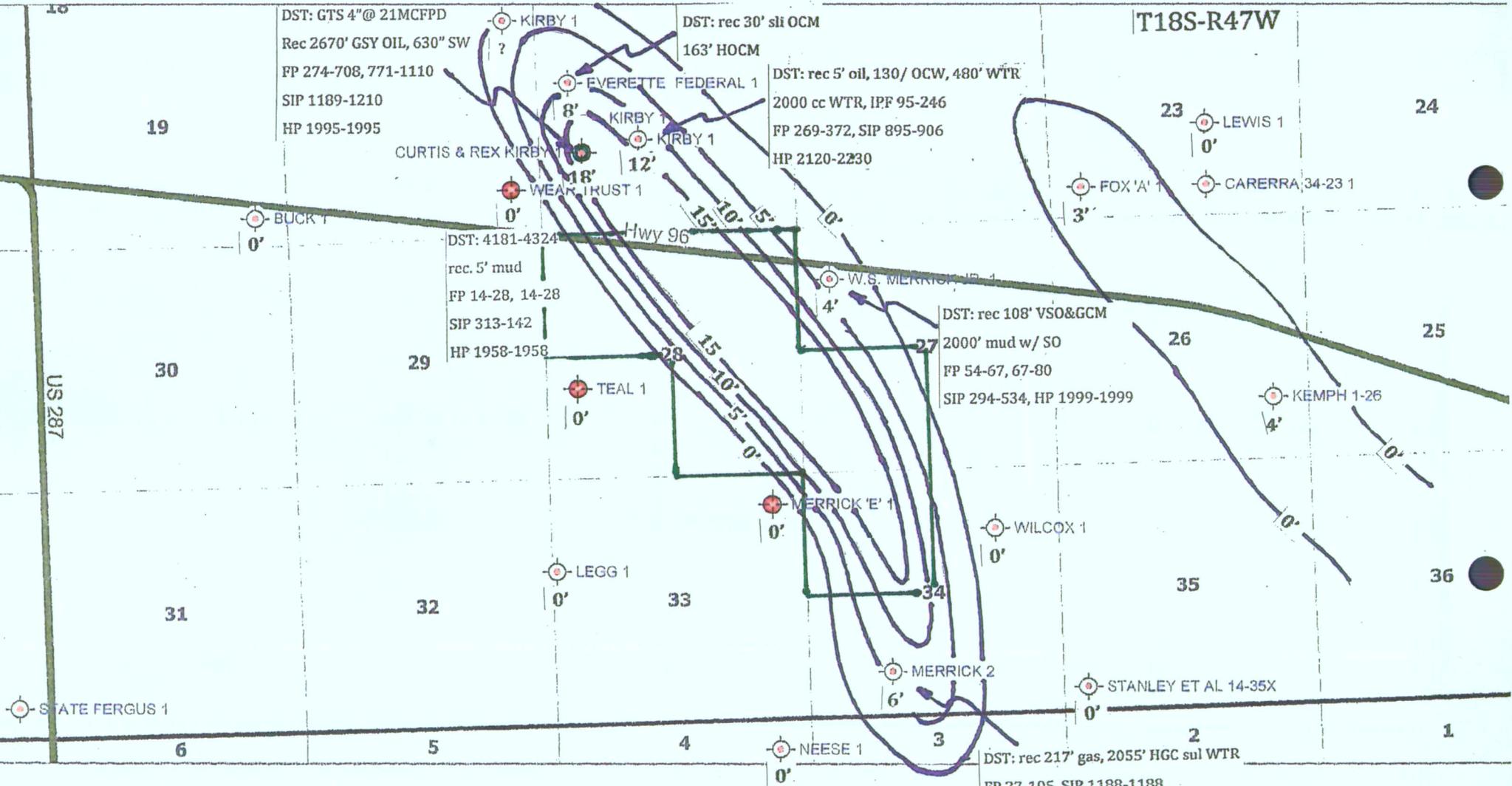


EXHIBIT 3

MARMATON (PAWNEE MBR) POROSITY ISOPACH MAP

T18S-R47W



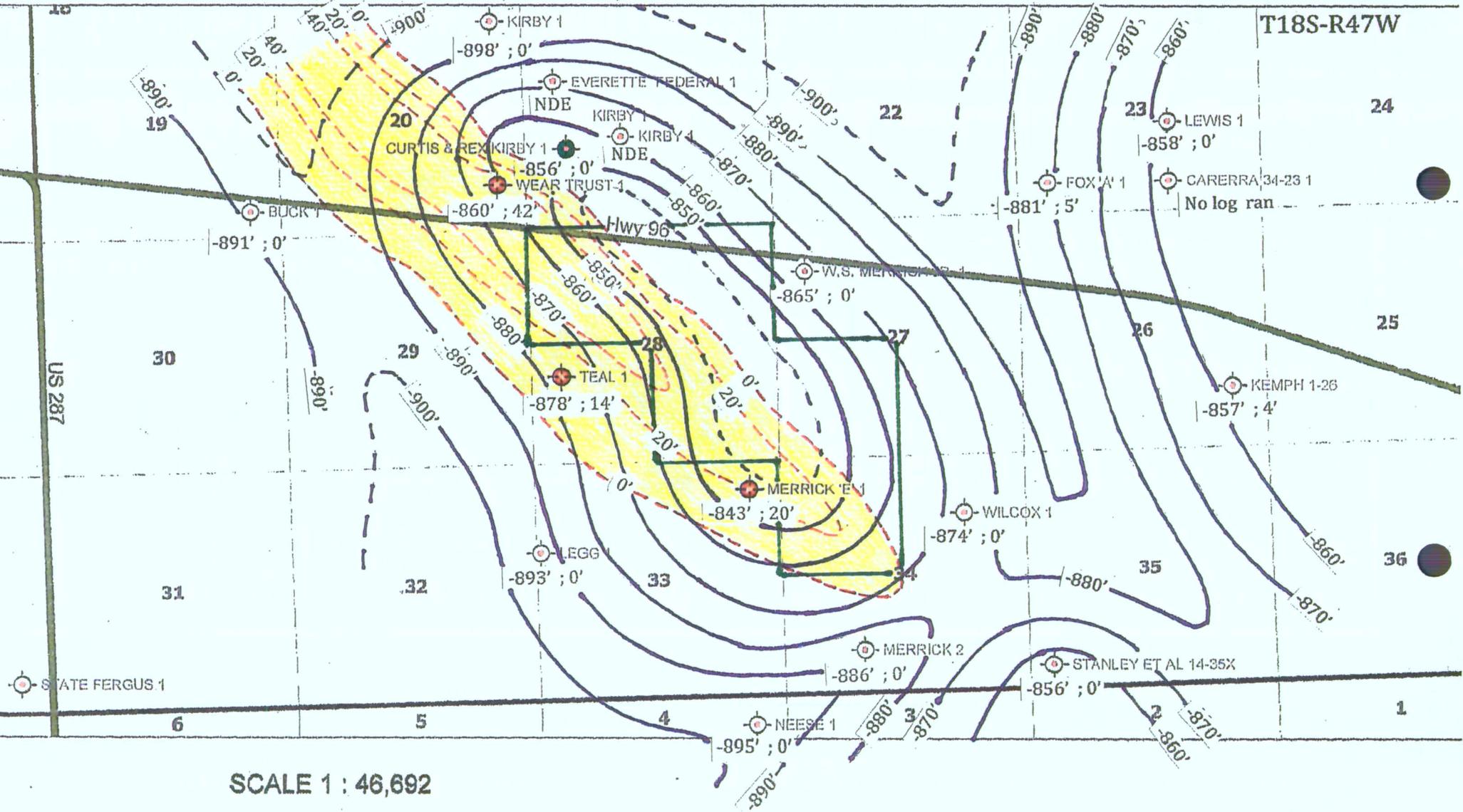
SCALE 1 : 46,692



EXHIBIT 4

KEYES STRUCTURE MAP WITH KEYES SANDSTONE DISTRIBUTION AND THICKNESS

T18S-R47W



SCALE 1 : 46,692



EXHIBIT 5

COLORADO OIL AND GAS CONSERVATION COMMISSION

APPLICATION OF BAYHORSE PETROLEUM, LLC

**FOR THE ESTABLISHMENT OF SPACING AND WELL LOCATION RULES FOR
CERTAIN LANDS IN THE LEFT HAND FIELD, KIOWA COUNTY, COLORADO**

ENGINEERING ANALYSIS

CAUSE NO. 252 DOCKET 0909-SP-22 SEPTEMBER 24, 2009
By Jack McCartney, McCartney Engineering, LLC

Discussion of Engineering Analysis

I am Jack A. McCartney, Manager of McCartney Engineering, LLC, with offices at 4251 Kipling Street, Suite 575, Wheat Ridge, CO. My curriculum vita is attached. I have testified before the Colorado Oil and Gas Conservation Commission (COGCC) numerous times during the past 30 years. I am familiar with the reservoir and production characteristics of the Marmaton formation in Kiowa County, Colorado and with the application by Bayhorse Petroleum, LLC requesting an order establishing ten 80-acre spacing units for the production of oil and gas from the Marmaton formation in the following described lands in Kiowa County, Colorado:

Township 18 South, Range 47 West, 6th P.M.

Section 27: SW/4

Section 28: E/2, NW/4

Section 34: NW/4

In October 1981 I presented engineering testimony on behalf of Odegard Resources, Inc. in their application for 80-acre drilling and spacing units for an area of approximately 2320 acres in the Left Hand field area. The Odegard application area included the Odegard Resources, Inc. Curtis & Rex Kirby #1 (herein referred to as the Kirby #1) well tract as well as tracts primarily to the north and west of the Kirby #1 well. This application was denied by the COGCC stating "*Evidence presented at the hearing was insufficient to indicate that establishing 80-acre drilling and spacing units was necessary to prevent waste, avoid the drilling of unnecessary wells, or to protect correlative rights; therefore, the application should be denied.*"

The testimony entered at the October 1981 hearing was based, in part, on the initial seven days oil production from the Kirby #1 well in September 1981. I assume that the lack of production information and limited geologic control influenced the Commission in their decision. Subsequent drilling and production information has resulted in significantly more information regarding the reservoir configuration and the production potential as demonstrated by the Kirby #1 well. It is necessary to space the area requested in this application in order to pool minor unleased mineral interests and proceed with an orderly development of the application area.

I have prepared three exhibits regarding this application.

Exhibit E-1: Well Performance Estimate

Exhibit #1 is the performance graph of the Kirby #1 well drilled and completed in the Marmaton formation in 1981. This well produced 43,756 bbls oil before being plugged in 1985. The Kirby #1 well is the only Marmaton formation producing well in the township. Three additional wells produced from the Keys and Morrow formation in the immediate vicinity of the application area.

The performance trend exhibited by the Kirby #1 well was extrapolated to estimate the ultimate reserves that might be recovered under current economic conditions. This extrapolation results in ultimate reserves of approximately 63,000 bbls.

Exhibit E-2: Volumetric and Recovery Estimate

Exhibit #2 shows the log analysis of the Marmaton formation in the Kirby #1 well. This analysis shows the estimated original oil-in-place (OOIP) for 80 acres to be 764,197 bbls. This volumetric estimate is based on a matrix density of 2.71 gm/cc, temperature of 125° F, 38° oil gravity, and an initial GOR of 500 scf/bbl. This volumetric estimate of OOIP is somewhat less than my estimate of 796,000 bbls in 1981. The major differences in these two calculations is

that I have a better estimate of the water resistivity resulting in slightly higher calculated water saturations, a higher formation volume factor (1.25 vs. 1.20) based on an apparent higher initial gas-oil ratio, and 2' additional pay (18' vs. 16') based on a higher gamma ray cutoff.

Based on the reservoir thickness of 18 feet, an anticipated primary recovery factor of 15% OOIP and the estimated ultimate recovery of 63,000 bbls, the drainage area calculates to be 44 acres. However, the average reservoir thickness over the potential drainage area is most likely less than 18 feet which would result in a drainage area in excess of 44 acres. Therefore, it is my opinion that the requested 80-acre spacing units are not smaller than the maximum area that can be efficiently and economically drained by one well.

Exhibit E-3: Economic Analysis

With respect to economics, I have estimated the potential recoverable oil based on the performance of the Kirby #1 well. The economic analysis shows the planned development to be economic. Exhibit E-3 shows some of the basics of the economic analysis including the estimated drilling and completion cost of \$480,000 and estimated monthly operating expense of \$1,500 per well per month. Payout is expected to occur in less than one year with a return on investment greater than 3 to 1 and a rate of return in excess of 30%. This analysis shows that the planned development of these 80-acre spacing units is expected to be economic.

Summary and Conclusions:

This application is a request for an order to allow 80-acre spacing for ten tracts. These tracts are located in the Left Hand field in Kiowa County, Colorado.

Historic performance of the Kirby #1 well indicates potential recovery of 63,000 bbls based on current economic conditions.

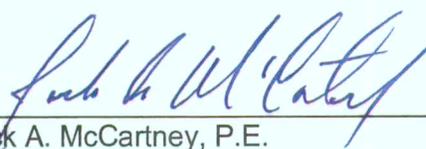
Drilling and spacing units of 80 acres will result in a reasonable and economically efficient development of the application lands, assist in preventing waste, avoid the drilling of unnecessary wells, and protect correlative rights. The requested 80-acre spacing units are not smaller than the maximum area that can be efficiently and economically drained by one well.

I respectfully request that the Bayhorse Petroleum, LLC application for the establishment of ten 80-acre spacing units be approved.

I, Jack A. McCartney, affirm the foregoing testimony and exhibits attached hereto, and further state that the same are true and correct to the best of my knowledge and belief and were prepared by me or under my control.

RESPECTFULLY SUBMITTED this 7th day of September, 2009.





Jack A. McCartney, P.E.

McCartney Engineering, LLC
(303) 830-7208

EXHIBIT E-1
BAYHORSE PETROLEUM, LLC
WELL PERFORMANCE ESTIMATE
LEFT HAND FIELD, KIOWA COUNTY, COLORADO
 Cause No. 252 Docket 0909-SP-22 September 24, 2009
 Jack McCartney, McCartney Engineering, LLC

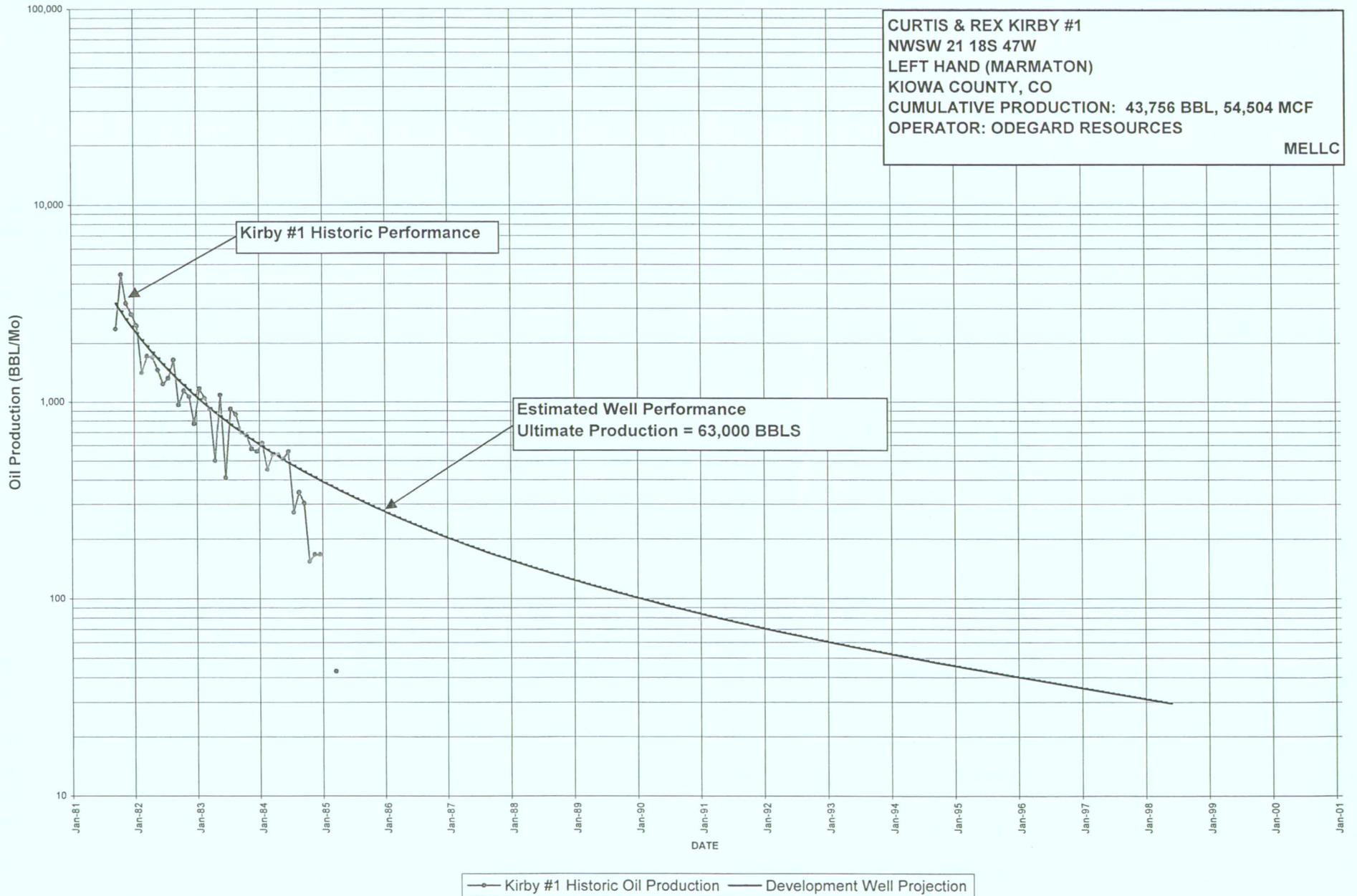


EXHIBIT E-2

BAYHORSE PETROLEUM, LLC
 VOLUMETRIC AND RECOVERY ESTIMATE

Cause No. 252 Docket 0909-SP-22 September 24, 2009
 Jack McCartney, McCartney Engineering, LLC

Curtis & Rex Kirby #1 Volumetric Analysis

| Depth (Feet) | Height (Feet) | Bulk Density (gm/cc) | Formation Porosity | Formation Resistivity | Water Resistivity | Estimated Water Saturation | Oil Formation Volume Factor | Estimated OOIP (80 ac) |
|-----------------|------------------|-------------------------|-----------------------|--------------------------|----------------------|-------------------------------|--------------------------------|---------------------------|
| 4282 - 4284 | 2 | 2.480 | 0.135 | 60 | 0.145 | 0.365 | 1.25 | 84,748 |
| 4284 - 4286 | 2 | 2.500 | 0.123 | 87 | 0.145 | 0.332 | 1.25 | 81,410 |
| 4286 - 4288 | 2 | 2.420 | 0.170 | 38 | 0.145 | 0.364 | 1.25 | 107,066 |
| 4288 - 4290 | 2 | 2.470 | 0.140 | 40 | 0.145 | 0.429 | 1.25 | 79,584 |
| 4290 - 4292 | 2 | 2.475 | 0.137 | 45 | 0.145 | 0.413 | 1.25 | 80,100 |
| 4292 - 4294 | 2 | 2.425 | 0.167 | 53 | 0.145 | 0.314 | 1.25 | 113,564 |
| 4294 - 4296 | 2 | 2.495 | 0.126 | 80 | 0.145 | 0.339 | 1.25 | 82,577 |
| 4296 - 4298 | 2 | 2.525 | 0.108 | 90 | 0.145 | 0.371 | 1.25 | 67,574 |
| 4298 - 4300 | 2 | 2.525 | 0.108 | 90 | 0.145 | 0.371 | 1.25 | 67,574 |
| Total/Average | 18 | 2.479 | 0.135 | 65 | 0.145 | 0.367 | 1.25 | 764,197 |

Estimated Drainage Area based on 63,000 BBL Reserves and 15% Recovery Factor: 44 Acres

Volumetrics based on 2.71 gm/cc matrix density, 125 deg. F, 38 API gravity oil, and an initial GOR of 500 scf/bbl.

EXHIBIT E-3

**BAYHORSE PETROLEUM, LLC
ECONOMIC ANALYSIS
LEFT HAND FIELD, KIOWA COUNTY, COLORADO
Cause No. 252 Docket 0909-SP-22 September 24, 2009
Jack McCartney, McCartney Engineering, LLC**

| | |
|--|--------------------|
| DRILLING AND COMPLETION COSTS | \$ 480,000 |
| MONTHLY OPERATING EXPENSE | \$ 1,500 |
| AVERAGE NET REVENUE | 87.5% |
| PRODUCTION TAXES (INCL. AD VALOREM) | 10% |
| ESTIMATED ULTIMATE RECOVERY | 63,000 BBLS |
| OIL PRICE | \$65.00/BBL |
| TIME TO PAYOUT | < 1 YEAR |
| RETURN ON INVESTMENT | >3 TO 1 |
| RATE OF RETURN | > 30% |

JACK A. McCARTNEY

Manager, McCartney Engineering, LLC
4251 Kipling Street, Suite 575
Wheat Ridge, CO 80033
(303) 830-7208

EDUCATION

Graduated from the Colorado School of Mines in 1965 with the degree of Petroleum Engineer and in 1971 with the degree of Master of Engineering (Petroleum Engineer).

Industry short course, University of Oklahoma.
Various continuing education courses.

REGISTRATION

Registered Professional Engineer: Colorado #14618

EXPERIENCE

From 1965 to 1968, he was employed by Kerr McGee Corporation as a production engineer. His responsibilities included well completions, workovers, and recommendations of infill drilling locations, primarily offshore Louisiana. After a brief period with Kerr McGee in Calgary, Canada, he joined National Cooperative Refinery Association as a reservoir engineer. During his three years with NCRA, his duties included property evaluation, secondary recovery, and unitization. He also attended night school at this time and received his Masters Degree with emphasis on reservoir engineering and enhanced recovery methods. From 1971 to 1972 he was employed by Scientific Software Corporation in Denver, and later in Houston, where he performed reservoir simulation studies. He then joined Davis Oil Company in Denver as their reservoir engineer. He was responsible for secondary recovery projects, unitization, and evaluation of the Company's oil and gas properties for loan negotiations.

In September of 1973, he formed McCartney & Associates, later to become McCartney Engineering, LLC, for the purpose of providing consulting services in the areas of property management, secondary and enhanced recovery, reservoir engineering, property evaluation, and expert testimony.

During the past thirty-six years he has continued to be actively involved in reservoir studies, reserve and revenue forecasting, oil and gas property appraisals, secondary recovery feasibility studies, property management, and petroleum software development. He also has served on numerous occasions as an expert witness before the Oil and Gas Regulatory Commissions in Colorado, Wyoming, Montana, Nebraska,

and North Dakota regarding matters ranging from well spacing applications to field unitization. He has also given expert testimony in civil litigations with respect to oil and gas related matters.

Mr. McCartney managed field operations in the Denver Basin for Macey Mershon Oil & Gas, Inc. during the late 1970's. McCartney Engineering, LLC owns interests in oil and gas properties and operates wells in Colorado and Wyoming.

REFERENCES

Commercial banks familiar with our work include American National Bank, Bank of the West, Wells Fargo Bank, US Bank in Denver, Colorado, and Casper First Bank in Casper, Wyoming.

Accounting firms include Arthur Andersen & Company and Hein & Associates LLP.

Clients include St. Anselm Exploration, Inc., Anchor Bay Corporation, Anderson Management Company, Mountain Petroleum Corporation, Apollo Energy, LLC, Petrox Resources, Inc. and many other oil and gas companies.

Mr. McCartney has provided expert testimony for major law firms including Welborn, Sullivan, Meck & Tooley; Astrella & Rice, Holme Roberts & Owen, Welborn, Dufford, Brown & Tooley; Poulson, Odell & Peterson; Shaw, Spangler & Roth; Faegre & Benson, Bjork, Lindley, & Little; and Robinson, Waters & O'Dorisio, all of Denver, Colorado, and Burford & Ryburn of Dallas, Texas, and Pearce & Durick of Bismarck, North Dakota.

SELECT COMMITTEES

Mr. McCartney was selected by the Colorado Oil and Gas Conservation Commission to serve on the Advisory Committee on Horizontal Drilling.

PROFESSIONAL ORGANIZATIONS

Society of Petroleum Engineers.

PUBLICATIONS

"Polymers Reduce Risk In Waterflooding", Petroleum Engineer, Dec. 1972.

"Reservoir Engineering Aspects of Coalbed Methane", A.A.P.G. Hydrocarbons from Coal, Chapter 16, 1993