

EXHIBIT(s)
FOR
ORDER NO(s).

191 - 83

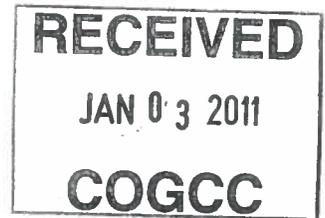
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ENCANA OIL & GAS (USA) INC.

ORIGINAL



Cause No. 191, Docket No. 1101-SP-01

**Danielle Scott – Land Testimony
Mamm Creek Field
Garfield County, Colorado
Cause No. 191, Docket No. 1101-SP-01
Encana Oil & Gas (USA) Inc.
Reduced Setbacks Application**

January 2011 Colorado Oil and Gas Conservation Commission Hearing

My name is Danielle Scott, and I am currently employed as a Land Negotiator for Encana Oil & Gas (USA) Inc. I graduated from Texas Tech University with a Bachelor of Science in Petroleum Land Management Degree in Business Administration. I have over four years experience in the oil and gas industry with four years experience in land and contract work with a specific emphasis on drilling activities.

Encana is seeking a reduction in the unit boundary setbacks to 100', but only where the Hunter Mesa Federal Unit and Middleton Creek Federal Unit share a boundary. Encana is not requesting that the Commission change or modify the current spacing or density of the Application Lands or the 600' unit boundary setback for the remaining portions of the Hunter Mesa Federal Unit and Middleton Creek Federal Unit boundaries.

In support of the above-referenced application, I am submitting five (5) exhibits. The exhibits are attached to my sworn testimony and form the basis for our application to gain approval for reduced setbacks between the Hunter Mesa Federal Unit and Middleton Creek Federal Unit to the Williams Fork and Iles Formations of the lands referenced below ("Application Lands").

Township 7 South, Range 93, West 6th P.M.

Section 9: S $\frac{1}{2}$ SW $\frac{1}{4}$, SW $\frac{1}{4}$ SE $\frac{1}{4}$
Section 14: S $\frac{1}{2}$ SW $\frac{1}{4}$
Section 15: S $\frac{1}{2}$ NW $\frac{1}{4}$, S $\frac{1}{2}$
Section 16: NE $\frac{1}{4}$, N $\frac{1}{2}$ NW $\frac{1}{4}$, SE $\frac{1}{4}$ NW $\frac{1}{4}$, N $\frac{1}{2}$ SE $\frac{1}{4}$
Section 22: N $\frac{1}{2}$ NE $\frac{1}{4}$
Section 23: NW $\frac{1}{4}$ NE $\frac{1}{4}$, S $\frac{1}{2}$ NE $\frac{1}{4}$, NW $\frac{1}{4}$, NE $\frac{1}{4}$ SW $\frac{1}{4}$, SE $\frac{1}{4}$
Section 24: NW $\frac{1}{4}$ SW $\frac{1}{4}$, S $\frac{1}{2}$ SW $\frac{1}{4}$
Section 25: W $\frac{1}{2}$
Section 26: NE $\frac{1}{4}$ NE $\frac{1}{4}$
Section 36: Lots 1-3, W $\frac{1}{2}$ of Tract 68 (f/d/a NE $\frac{1}{4}$ NW $\frac{1}{4}$)
Garfield County, Colorado

Township 8 South, Range 93, West 6th P.M.

Section 1: Lots 7-9, 17, 19-21, Tracts 37, 38 (f/d/a LOT 2), 45, & 70, SW $\frac{1}{4}$ NW $\frac{1}{4}$
Section 11: Tracts 48 & 50
Section 12: Tracts 37 & 50
Section 13: Tract 50
Section 14: A portion of Lots 2-4, Tracts 48 & 50
Garfield County, Colorado

Township 8 South, Range 93, West 6th P.M.

Section 14: A portion of Lots 2-4, N $\frac{1}{2}$ SE $\frac{1}{4}$, SE $\frac{1}{4}$ SE $\frac{1}{4}$
Mesa County, Colorado

Exhibit L-1: Application Lands.

Exhibit L-1 shows the location of existing and planned wells and the Application Lands. Several of the existing and planned wells are located within the current 600' setback as a result of Encana

receiving approval for an exception location for the respective wells. Exhibit L-1 also reflects the proposed 100' setback for both the Hunter Mesa Federal Unit and Middleton Creek Federal Unit.

Exhibit L-2: Encana Leasehold.

Exhibit L-2 shows the leasehold interest held by Encana on the Application Lands. Encana holds a 100% leasehold interest in the Application Lands. Encana is also the operator of both the Hunter Mesa Federal Unit and the Middleton Creek Federal Unit.

Exhibit L-3: Minerals.

Exhibit L-3 shows the mineral ownership of the Application Lands. A Participating Area exists for all of the Application Lands located in the Hunter Mesa Federal Unit. Only one Participating Area exists in the Middleton Creek Federal Unit which is located in Section 26: NW $\frac{1}{4}$ NE $\frac{1}{4}$, S $\frac{1}{2}$ NE $\frac{1}{4}$, SE $\frac{1}{4}$ NW $\frac{1}{4}$, E $\frac{1}{2}$ SW $\frac{1}{4}$, SE $\frac{1}{4}$ and Section 35: Lots 3 & 4, E $\frac{1}{2}$ N $\frac{1}{2}$ N $\frac{1}{2}$, NE $\frac{1}{4}$ NW $\frac{1}{4}$ of Township 7 South, Range 93 West.

Exhibit No. L-4: Surface Ownership.

Exhibit L-4 shows the surface ownership of the Application Lands. In the Middleton Creek Federal Unit, a substantial amount of surface ownership for the Application Lands is owned by the federal government. In the Hunter Mesa Federal Unit, a substantial amount of surface ownership for the Application Lands is owned in fee. There is no State of Colorado surface ownership for the Application Lands.

Exhibit No. L-5: Topographic Map.

Exhibit L-5 shows the topography of the Application Lands.

Based upon our examination of relevant documents, and under my direction and control, all of the parties listed on Exhibit A requiring notice pursuant to COGCC rules received notice of this Application. As of the date of this filing, Encana has not received any protests to the above-referenced Application. Encana does have a meeting set with the Bureau of Land Management on January 4, 2011 to discuss the Application.

The matters described herein were all conducted under my direction and control. To the best of my knowledge and belief, all of the matters set forth herein, my testimony and in the exhibits are true, correct and accurate.

Dated this 29th day of December, 2010



Danielle Scott, Land Negotiator
Encana Oil & Gas (USA) Inc.

Exhibit "A"
NOTICE LIST

John Howard Bass
1727 E 47 St Pl
Kearney, NE 68847
Rapid City, SD 57702

Robert P Bass Rev Tr dtd 12/7/06
Robert P Bass & Janice L Bass CoTrustees
4739 Dornoch Ct
Rapid City, SD 57702

Shelli Beaubien
7945 Ferncliff
Colorado Springs, CO 80920

Carol Jo Shideler Bennett
PO Box 1202
American Fork, UT 84003

Mary Ann Bogani
584 Pioneer Rd
Grand Junction, CO 81504
Scottsdale, AZ 85259-5855

Bolton Family Tr dtd 03/28/86
Marian B Bolton-Farris Trtee
9475 N 115 Pl
Scottsdale, AZ 85259-5855

Jacque Couey Burris
5411 County Road 346
Silt, CO 81652

Joanne Lisa Couey
10400 331 Rd
Silt, CO 81652

Kelly Wilbur Couey
6275 County Road 315
Silt, CO 81652

Marvelle P Couey
7238 Country Rd 315
Silt, CO 81652

Freeman Investments A Partnership
3415 S Clayton Blvd
Englewood, CO 80013-7611

Joe D Davis
PO Box 94
Redvale, CO 81431

Raymond Davis
PO Box 442
Nucla, CO 81424

Twyla N Davis
PO Box 881
Nucla, CO 81424

Flynn Family Trust dtd 6/01/05
5085 W 136 Ave Apt 338
Broomfield, CO 80023
Boulder, CO 80304

Grass Mesa Ranch A Colorado JV
c/o Carol Rudolph
3169 8 St
Boulder, CO 80304

John Howard Jewell
30 Ridge View Pl
Parachute, CO 81635

Myron Duane Jewell
0001 Alpine Ct
Parachute, CO 81635

Exhibit "A"
NOTICE LIST

Debbie Kay Laudick
686 Mesa Ct
Rifle, CO 81650
Debeque, CO 81630

Lula Cameron Family LLC
A Colorado Ltd Liability Co
PO Box 277
Debeque, CO 81630

Magic M & R LLC
1720 S Bellaire St Ste 1209
Denver, CO 80222

Janis R McBee
773 25 3/4 Rd
Grand Junction, CO 81505

Minerals Mgmt Service Royalty
Management Program FAO MMS S Piceance
PO Box 5810
Denver, CO 80217

Vickie L Osburn
405 30 Rd
Grand Junction, CO 81504

James C Parker
22764 Hwy 550 S
Montrose, CO 81401

Barbara A Pitman, JT
7800 Co Rd 319
Rifle, CO 81650

Nancy S Pitman, JT
7800 319 Rd
Rifle, CO 81650

ROEC Inc
528 S Corona St
Denver, CO 80209

Lori Kim Rooks
1336 Sequerra St
Broomfield, CO 80020

Margaret L Sciarrino
501 Mirasol Cir Ste 317
Celebration, FL 34747

Shideler Energy Company, L.L.C.
4128 County Road 315
Silt, CO 81652

Barry Craig & Marilyn J. Shideler
1411 County Road 316
Silt, CO 81652

The Charles D Sours Trust dated
04-Nov-1996
2551 Santa Fe Dr
Grand Junction, CO 81501

Jack C. Sours, Sr.
PO Box 389
Rifle, CO 81650

Betty J Stephens
PO Box 368
Nucla, CO 81424

Michael Ukele
7415 Maple Branch Dr
Clifton, VA 20124

Exhibit "A"
NOTICE LIST

Kathleen M Van Wart
321 Forest Grove Dr
Richardson, TX 75080

Brian Scott Wear
405 30 Rd
Grand Junction, CO 81504

Walter C Wieben
625 Lariat Rd
Silt, CO 81652

Barrett D. Baker
1499 Blake Street, Suite 1700
Denver, CO 80202

MAP2003-NET an Oklahoma General
Partnership c/o MAP Royalty, Inc
PO Box 268947
Oklahoma City, OK 73126

Kristine M Peterson
5951 Middlefield Rd Ste 250
Littleton, CO 80123-7917

Dejour Energy (USA) Corp.
1401 17th Street, Suite 300
Denver, CO 80202

Colorado Division of Wildlife
6060 Broadway
Denver, CO 80216

Brownstone Ventures (US) Inc.
130 King Street West, Suite 2810
Toronto ON M5X 1A9

Bureau of Land Management
Colorado River Valley Field Office
2300 River Frontage Road
Silt, CO 81652

Garfield County Board of County
Commissioners
108 8 St Ste 213
Glenwood Springs, CO 81601-3355

United State Department of Interior
Bureau of Land Management
2850 Youngfield Street
Lakewood, CO 80215

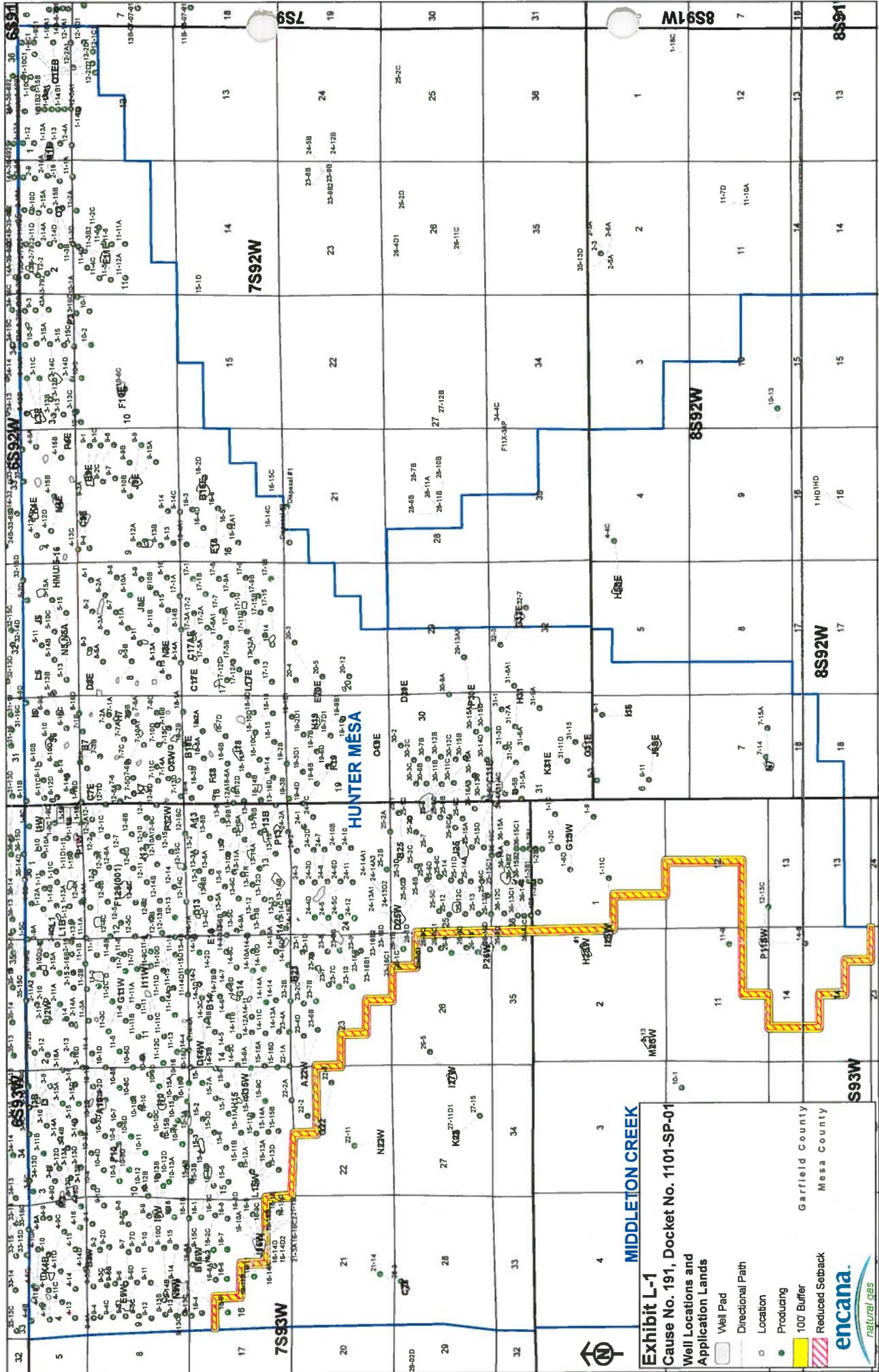


Exhibit L-1
Cause No. 191, Docket No. 1101-SP-01

Well Locations and Application Lands

- Well Pad
- Directional Path
- Location
- Producing
- 100' Buffer
- Reduced Setback

Garfield County
Mesa County



MIDDLETON CREEK

HUNTER MESA

7S92W

8S92W

8S91W

S93W

110 FIVE

FIX-3P

1HDHD

10-1001

10-1002

10-1003

10-1004

10-1005

10-1006

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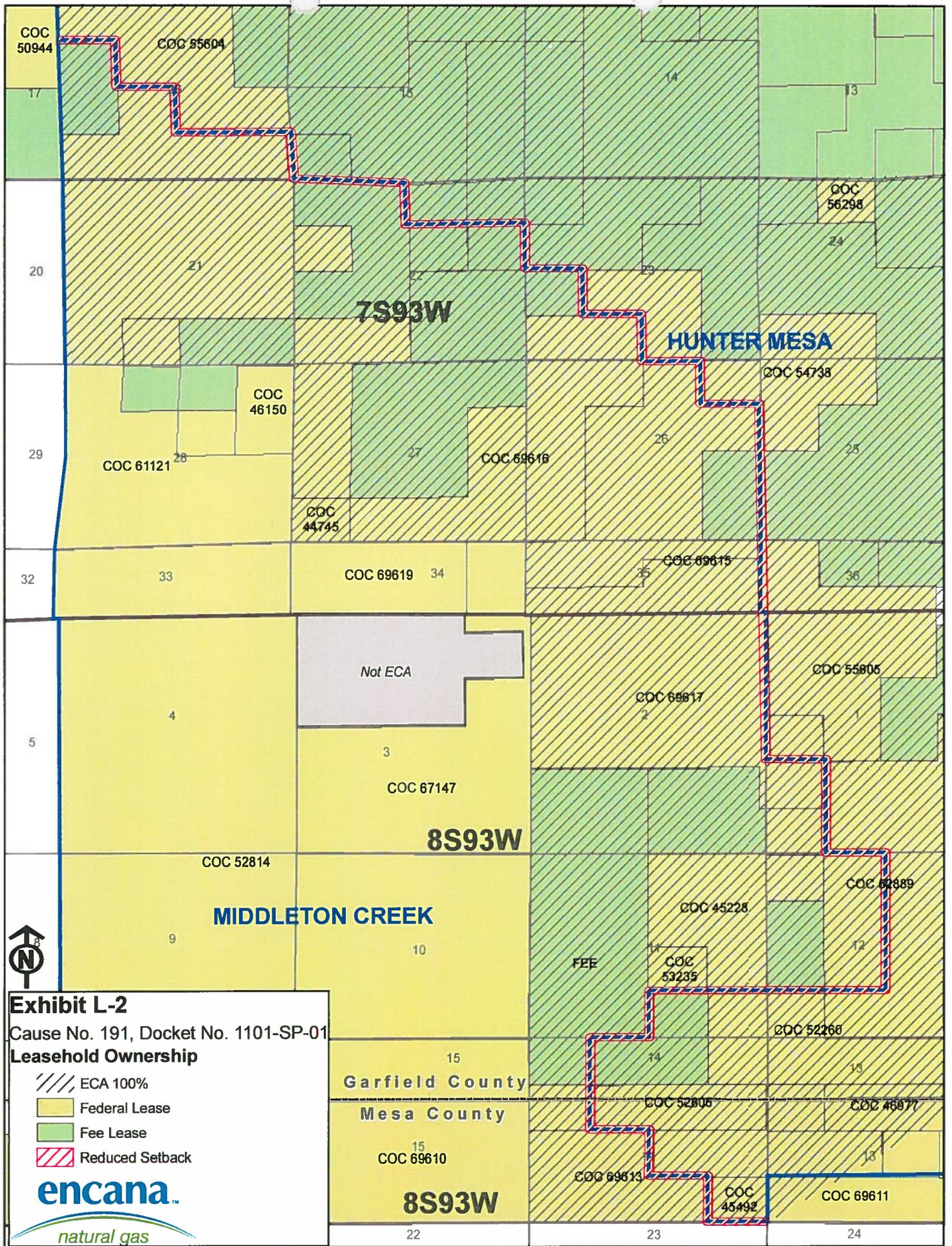


Exhibit L-2

Cause No. 191, Docket No. 1101-SP-01

Leasehold Ownership

-  ECA 100%
-  Federal Lease
-  Fee Lease
-  Reduced Setback

encana™

natural gas

Garfield County

Mesa County

8S93W

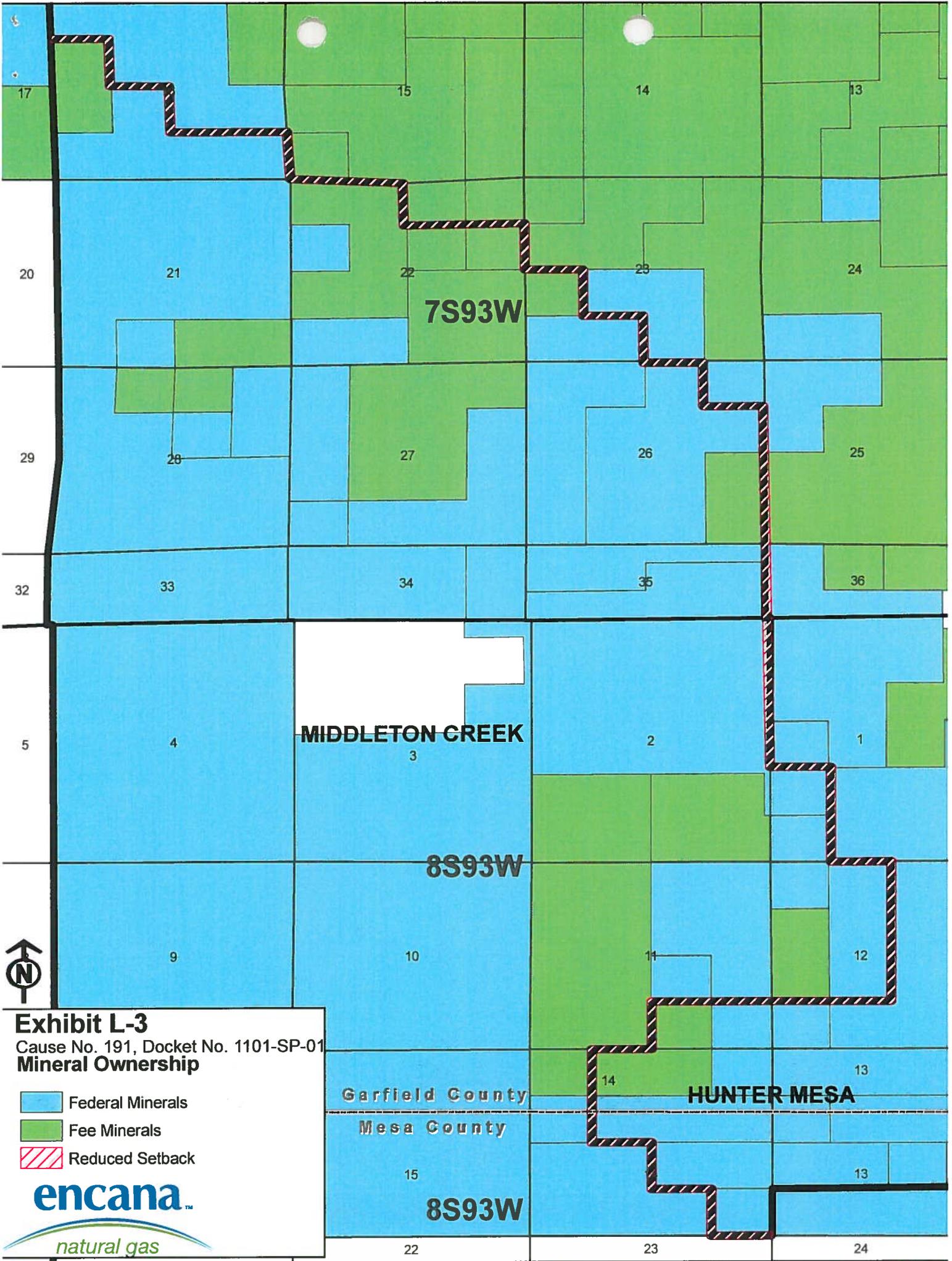


Exhibit L-3
Cause No. 191, Docket No. 1101-SP-01
Mineral Ownership

- Federal Minerals
- Fee Minerals
- Reduced Setback



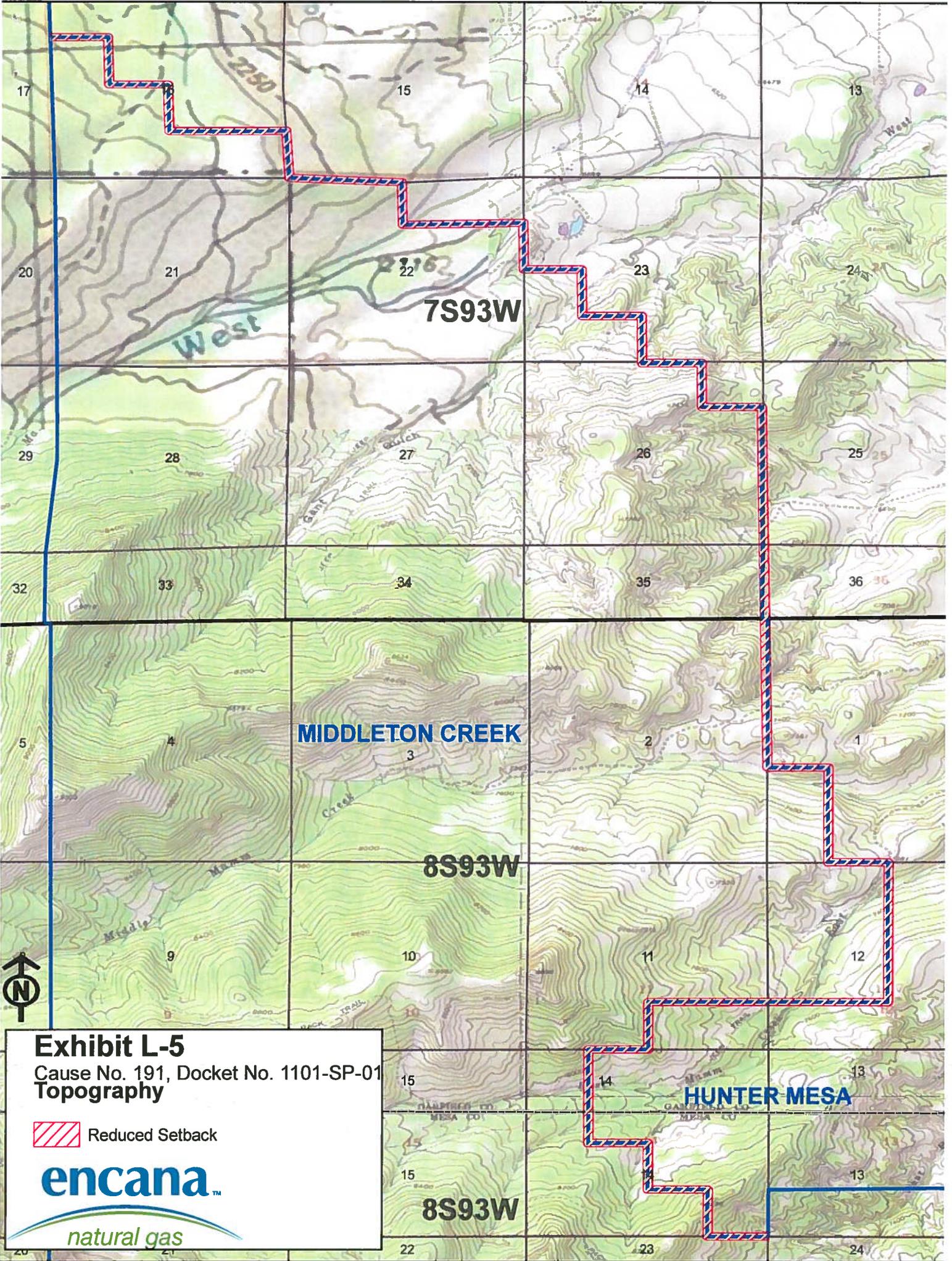


Exhibit L-5

Cause No. 191, Docket No. 1101-SP-01

Topography

 Reduced Setback

encanaTM

natural gas

DANIELLE SCOTT
LAND NEGOTIATOR, ENCAN A OIL & GAS (USA) INC.
370 17TH STREET, SUITE 1700
DENVER, COLORADO 80202
OFFICE: 720-876-5490

EXPERIENCE

ENCANA OIL & GAS (USA) INC., Denver, Colorado

LAND NEGOTIATOR-SOUTH ROCKIES BUSINESS UNIT

January 2010 - Present

- Responsible for contacting Surface and Mineral owners to prepare surface damage agreements, road right of ways, pipeline right of ways, oil and gas leases, and any other agreements that require monetary payments
- Familiar with COGCC new rules and regulations
- In constant communication with the field office and regulatory personnel and the S. Piceance Team to prepare well and pad data

LAND NEGOTIATOR-NORTH ROCKIES BUSINESS UNIT

January 2006 – January 2010

- Experience in obtaining Fee, State, and Federal leases and extensions if necessary
- Preparation and review of Federal, State, and Fee leases and governing provisions
- Contributed to a successful divestiture project and closing for EnCana's Green River Basin Moxa Arch assets by January, 2010
- Prepare and reviewed land related, Unit and Unit Operating Agreements, Pooling Agreements, Joint Operating Agreements, Exploration Agreements, Farmouts, Letter of Intent, and Purchase and Sale Agreements
- Initiated the Jonah Land Team's Spacing Cleanup and Increased Density applications, these were submitted to the WOGCC with a successful outcome of receiving administrative approval
- Prepare AFEs and workbooks to be distributed throughout the team for management approval
- Intimately worked to clear title on Federal, State, and Fee ROWs; maintaining a good working relationship with all surface owners and governmental agencies
- Spent valuable time in the field with our Facility and Pipeline Coordinator to gain experience and understand permitting and regulatory process
- Proficient in Excalibur, Wellcore-Webcore, JDE, Premier Data, and LR2000, Open Invoice
- Order drilling title opinions from Title Attorney; cure necessary title requirements
- Correspond regularly with brokers and consultants, coordinating a variety of requests for surface use agreements, lease extensions, etc. in order to meet team deadlines
- Wind River (Reservation & Non-Reservation)/Green River/Jonah Team Experience – Wyoming Prospects
- Completed EnCana's New Hire Land Negotiator Program in January, 2008

DEVELOPMENT/LEADERSHIP SKILLS

- 2009/2010 Co-Chair of Denver Association of Petroleum Landmen's Education Committee
- Mentored and coached three summer interns
- Created the Toastmaster's Newsletter
- Implemented team discussions or meetings when our goals or current events are unclear
- Co-authored North Rockies Payout Guidelines
- Chairman of Team Building activities for North Rockies Land Department
- Developed strong work ethics and knowledge sharing techniques to develop good team communication

MULLINS & WHITE EXPLORATION, Southlake, Texas

May 2005 – August 2005

LANDMAN INTERN-E. TEXAS/LOUISIANA

- Analyzed and researched landowners' surface and mineral interest in Cotton Valley/South Louisiana Plays
 - Utilized Microsoft Excel and Word to organize all oil and gas lease data
 - Used Tobin, GeoMap, and DrillingInfo exclusively for prospect research
-

- Assisted with lease acquisitions and lease purchase reports

AWARDS

Certificate of EnCana Oil & Gas (USA) Inc. New Hire Graduation awarded in January, 2008
 National Association of Lease Title Analyst Scholarship awarded in the fall of 2005
 American Association of Professional Landmen Scholarship awarded in the fall of 2005

CONTINUOUS EDUCATION

Colorado Conservation, Pooling & Unitization Seminar	February, 2010
DAPL Spring Land Workshops	2007-2010
DAPL Fall Land Institutes	2007-2009
Rocky Mountain Mineral Law Foundation – Joint Operating Agreements	May, 2007
Karrass Negotiating Seminar	August, 2007
Rocky Mountain Mineral Law Foundation – Federal Unitization	November, 2006

EDUCATION

RAWLS COLLEGE OF BUSINESS AT TEXAS TECH UNIVERSITY, Lubbock, Texas

*Bachelor of Business Administration **Petroleum Land Management***

*Bachelor of Business Administration **Marketing***

December, 2005

Graduate

COLLEGIATE AND PROFESSIONAL ACTIVITIES AND AFFILIATIONS

Denver Association of Petroleum Landmen	Active
Rocky Mountain Mineral Law Foundation	Active
American Association of Professional Landmen (AAPL)	Active
Independent Petroleum Association of America (IPAA)	Active
North American Prospect Expo (NAPE), Exhibitor	2005 & 2008
Louisiana Independent Oil & Gas Expo (LIOGA), Exhibitor	2005

COMMUNITY INVOLVEMENT

Attended Fremont County, Wyoming Energy Education Expo, 2007
 Participated in Native American Business Expo in Riverton, Wyoming
 Junior Achievement Volunteer
 American Lung Association Contributor

Geologic Testimony
Mamm Creek Field, Garfield County, Colorado
Cause No. 191, Docket No. 1101-SP-01
Encana Oil & Gas (USA) Inc.
Reduced Setbacks Application

My name is Thomas Wiles and I am currently employed as a Geologist at Encana Corporation. I graduated from The University of Texas with a Masters of Science in Geological Sciences in December 2007. I have three years experience as a petroleum geologist and an additional five years of relevant geologic experience. A copy of my resume is included with this testimony.

The current 600' unit boundary setbacks between the Hunter Mesa Federal Unit and the Middleton Creek Federal Unit will result in stranded potential well locations and undrained reservoir. Encana is seeking a reduction in the unit boundary setbacks to 100', but only where the Hunter Mesa Federal Unit and Middleton Creek Federal Unit share a boundary. Please see Land Exhibit 1 for a depiction of the requested 100' setback area. Encana is not requesting that the Commission to change or modify the current spacing or density of the Application Lands or the 600' unit boundary setback for the remaining portions of the Hunter Mesa Federal Unit and Middleton Creek Federal Unit boundaries.

Exhibit G-1 Structure Map – Mamm Creek

Exhibit G-1 is a structure map of the Rollins Sandstone in subsea true vertical depth. The location of the type well in Exhibit G-2 and cross section in Exhibit G-3 from A to A' are indicated on Exhibit G-1 as well as structural contours for the top of the Rollins Sandstone. The contour interval of Exhibit G-1 is 500 feet. The shared boundary subject to this application is indicated in red.

Exhibit G-2 Williams Fork Type Log

Exhibit G-2 is a type log for the application area which reflects the depositional environment of the Williams Fork Formation in the Mamm Creek Area. Formation Gamma Ray is indicated in the yellow and brown column on the left. Sandstones are shaded yellow and mudstones are shaded brown. Resistivity is indicated on the right increasing from left to right. Gas saturated sands will tend to have higher resistivity. This well is indicated on the Structure Map Exhibit G-1 and Cross Section Exhibit G-3 as the 26-1C.

Exhibit G-3 Cross Section of Application Area

Exhibit G-3 is a stratigraphic cross section of the application area which reflects the depositional environment of the Williams Fork Formation in the Mamm Creek Area. The discontinuous fluvial sands of the Williams Fork Formation poorly correlate from well to well and are expected to be poorly connected. Gamma Ray is indicated by the left curve and Resistivity by the right.

Exhibit G-4 Williams Fork - Original Gas in Place

Exhibit G-4 is a depiction of the original gas in place for the Williams Fork Formation. The contour interval on this map is 25 BCF per section. This exhibit reflects that the OGIP for the Application area is between 100 and 125 BCF per section for the Williams Fork Formation. This demonstrates that the formation can be efficiently drained by 10-acre wells.

Exhibit G-5 Productive Interval - Isopach

Subsea
Depth(ft)
2000 -

1600 -

1200 -

800 -

400 -

0 -

-400 -

-800 -

-1200 -

-1600 -

Mesa Verde

Williams Fork

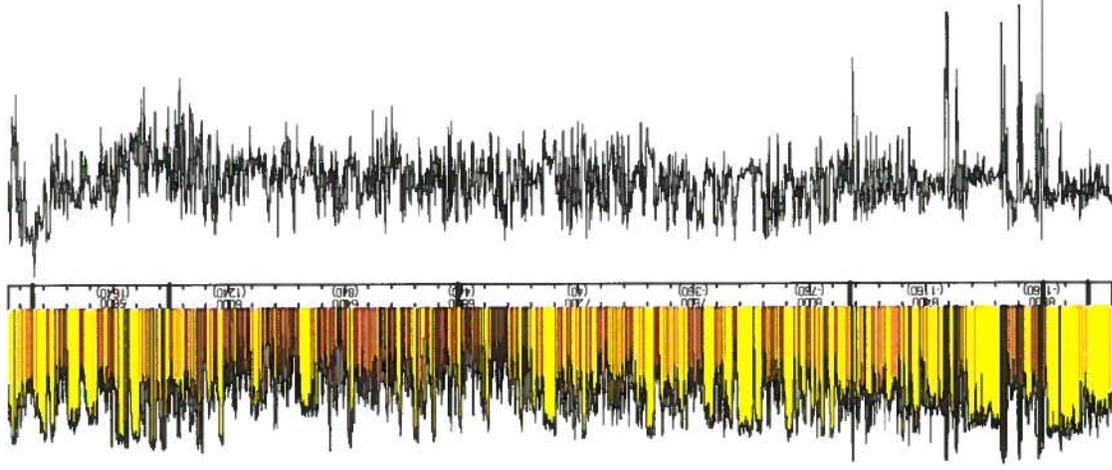
Top of Gas

Coal Ridge

Base Cameo Coals

Rollins Sandstone

26-1C



Subsea
Depth(ft)
- 2000

- 1600

- 1200

- 800

- 400

- 0

- -400

- -800

- -1200



Exhibit G - 2

Type Log

Garfield County, CO

Case No. 191Docket No. 1101-SP-01

Reduced Seibacks Application

By: Thomas Wiles

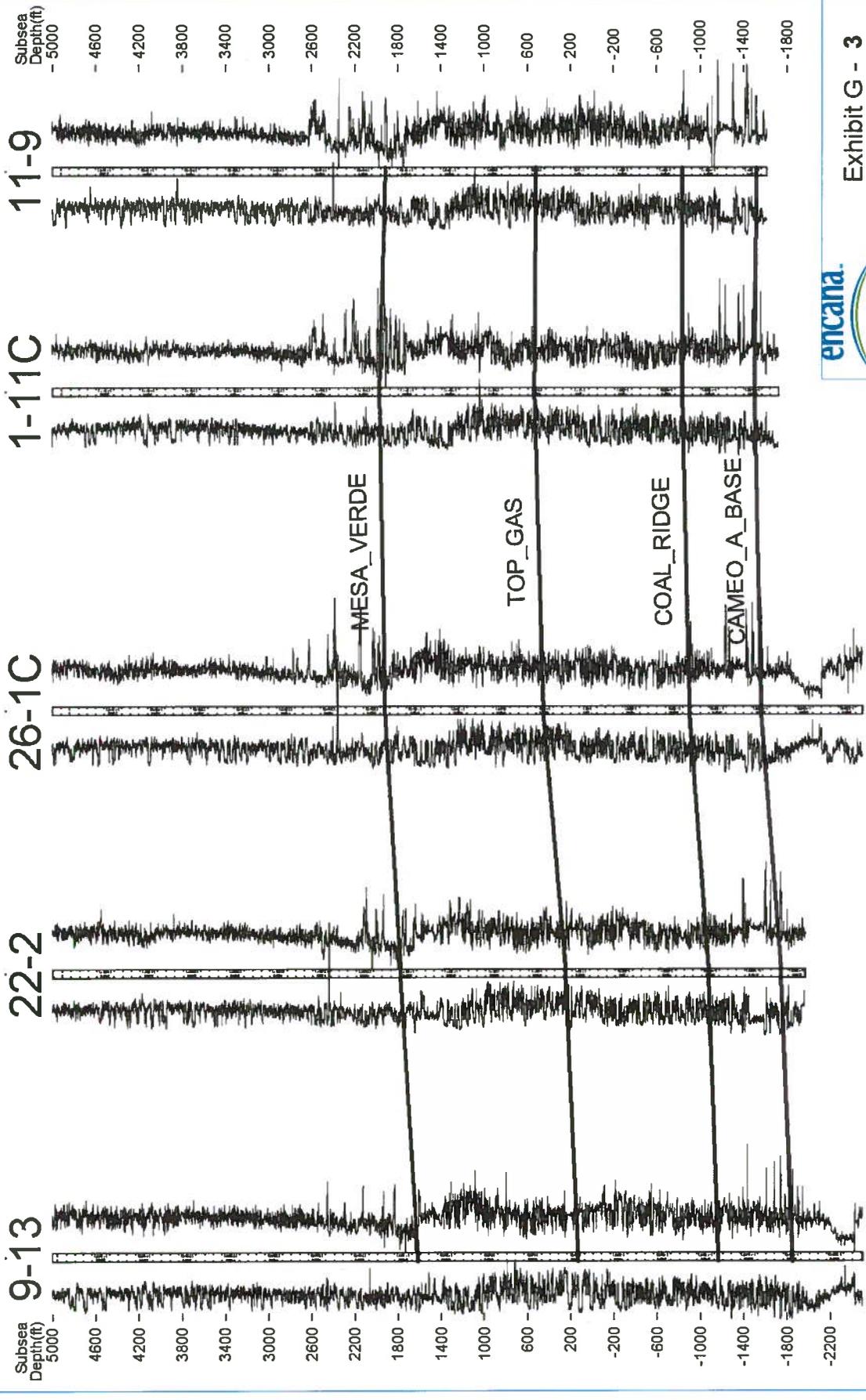


Exhibit G - 3

Cross Section of Application Area

Garfield County, CO

Case No:191 Docket No. 1101-SP-01

Reduced Setbacks Application

By: Thomas Willes

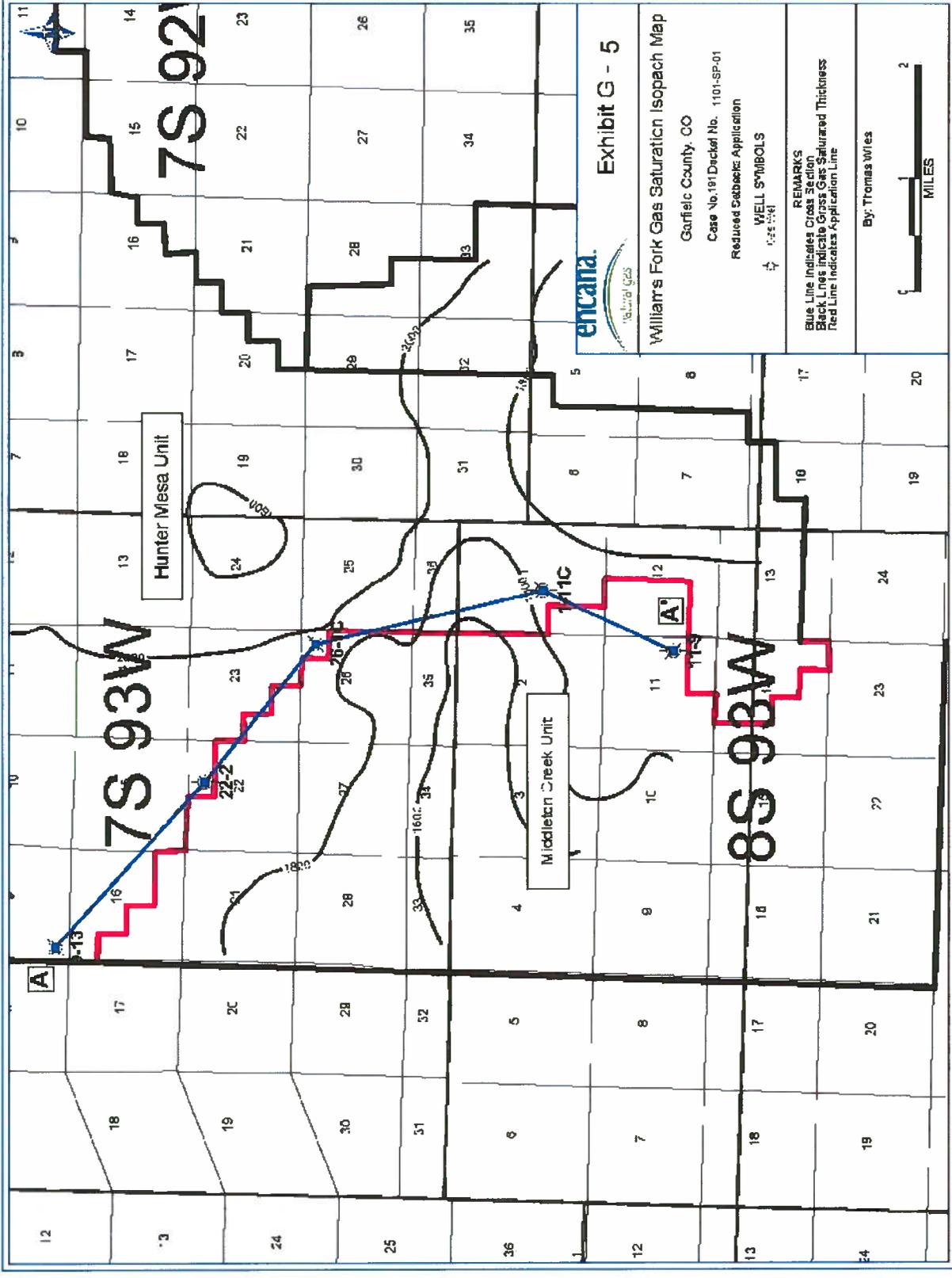


Exhibit G - 5

Williams Fork Gas Saturation Isopach Map

Garfield County, CO

Case No. 191 Declared No. 1101-SP-01

Reduced Satbacks Application

WELL SYMBOLS

REMARKS
 Blue Line indicates Cross Section
 Black Lines indicate Gross Gas Saturated Thickness
 Red Line indicates Application Line

By: Thomas Wolfe



11/13/10 11:11 AM

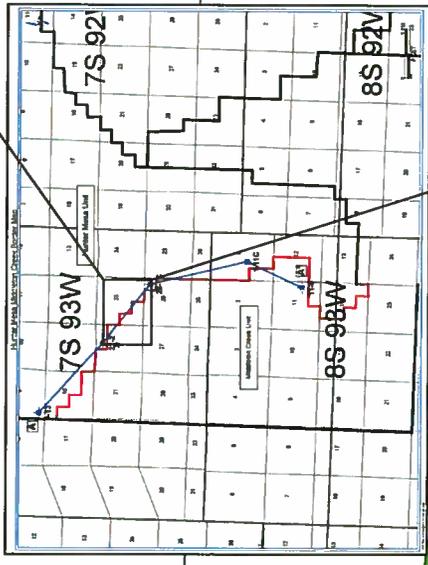


Exhibit G - 6

Well Spacing Map

Garfield County, CO

Case No. Docket No.

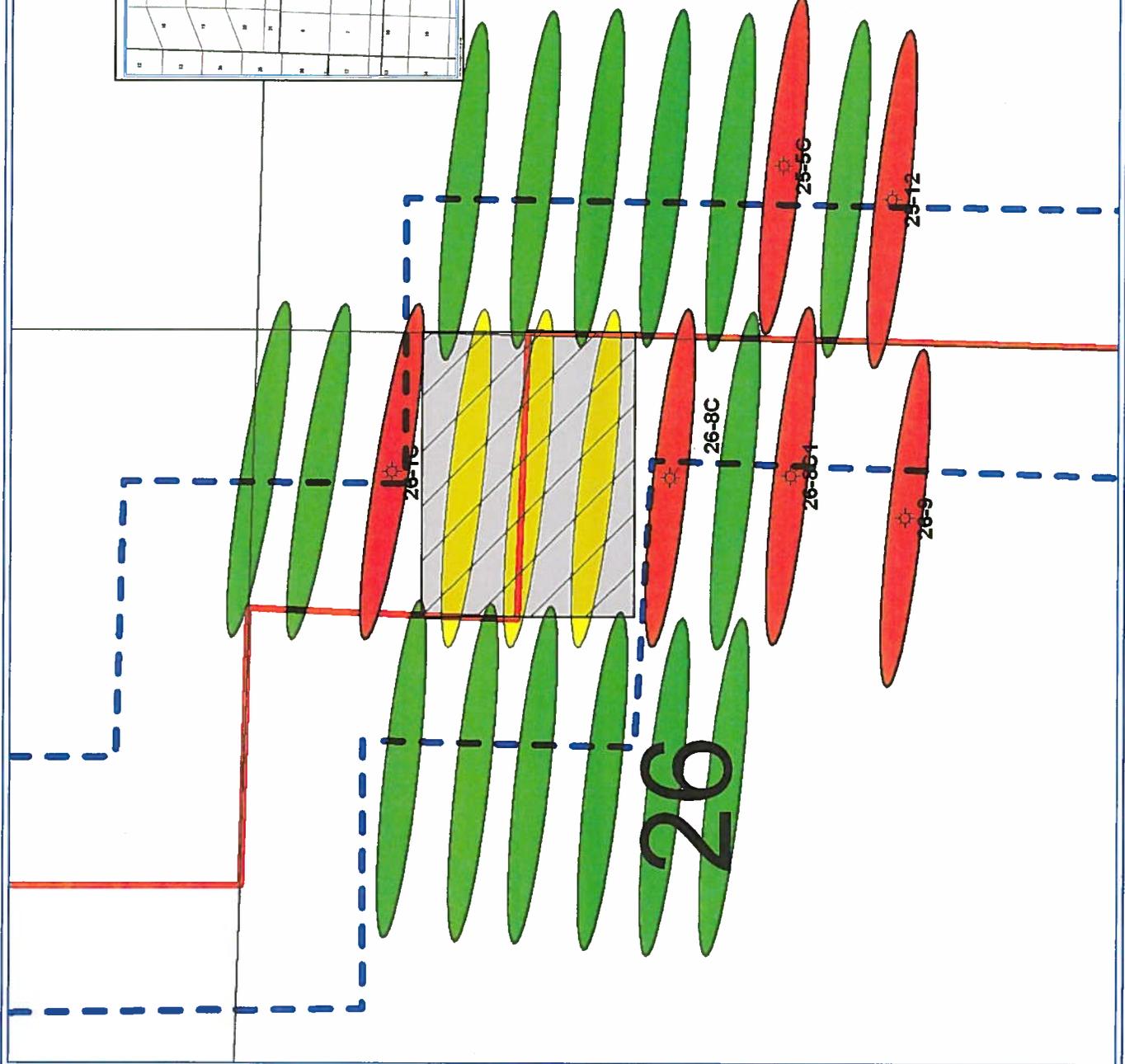
Reduced Setbacks Application

WELL SYMBOLS
☼ Gas Well

REMARKS

- Blue Line - 600' Set Back
- Red Line - Application Line
- Red Ellipse - Estimated Existing Well Drainage
- Green Ellipse - Estimated Proposed Well Drainage
- Yellow Ellipse/Shaded Box - Undrained Reservoir

By: Thomas Willes



THOMAS J. WILES

370 17th Street, Suite 1700
Denver, CO 80202

Phone: (720) 876-3132
eMail: thomas.wiles@encana.com

EXPERIENCE

Encana Corporation, Denver, CO

01/08 – present

Geoscientist. I am the operations geologist for the Mamm Creek and Rulison fields in the South Piceance Basin. I am responsible for the planning and geologic supervision of new wells in these fields as well as supporting the production of the existing wells. Previous responsibilities have included play assessments of the Dakota/Cedar Mt. and Frontier/Mowery Formations.

U.S. Geological Survey, Austin, Texas

01/07 – 10/07

Hydrologist (GS-7). My responsibilities included the conversion and maintenance of geophysical well logs, using Well CAD; analysis of historic watershed data to predict flow in ungauged watersheds; and the design, installation, maintenance, and analysis of spring flow monitors in the Edwards Aquifer. I was presented a Cash Award for initiative on the Spring Flow Project.

The University of Texas at Austin, Jackson School of Geological Sciences, Austin, Texas

05/05 – 07/07

Teaching Assistant (TA). I served as TA for Hydrology Field Methods (Summer 2006 and 2007), Geology Field Camp (Summer 2006), Geologic Field Methods (Spring 2006 and 2007), and Sedimentary Rocks and Gem Minerals (Fall 2005). My responsibilities included aiding students in their understanding of geologic processes and methods, ensuring their safety and well-being when in the field, and grading their performance on lab and field exercises.

The University of Texas at Austin, Department of Geological Sciences, Austin, Texas

09/03 – 05/05

Research Assistant (RA). I helped develop *Sandstone Petrology: A Tutorial Petrographic Image Atlas*, an interactive video atlas and the *Petrography of Carbonates* tutorial. My responsibilities included cataloging petrographic images, mapping the images to allow selection of individual grains and features, and writing a description of each selected feature. On my own initiative, I developed a method for scanning thin sections layered with polarizing film to allow comparison of plane-polarized images with cross-polarized ones. (Note: The sandstone tutorial includes several images from my Undergraduate Honors Thesis, *The textural characteristics of polycrystalline quartz grains observed by scanned-cathodoluminescence*.)

BNC Environmental Services, Inc., Houston, Texas

07/96 – 02/02

Environmental Project / Field Manager. I provided project-level management and field supervision for remediation of petroleum-contaminated sites; developed and implemented remedial action plans for petroleum-impacted soils and basic sediments associated with pipeline activities; provided emergency response oversight for pipeline releases; conducted environmental site assessments; designed, permitted, constructed, and operated high-volume treatment systems for petroleum-contaminated groundwater and hydrostatic test water; drafted and implemented site-specific safety and health plans in compliance with federal regulations; prepared assessment and compliance reports for regulatory agencies; and interpreted and implemented environmental regulations for natural gas pipeline construction and hydrotesting.

EDUCATION

The Jackson School of Geological Science, The University of Texas at Austin, Austin, TX

I earned an M.S. in Geological Sciences with a 4.0/4.0 GPA. My research, supervised by Jack Sharp, sought to quantify the secondary permeability of pavement due to fractures and joints.

The University of Texas at Austin, Austin, TX

I entered the university as an undergraduate student in the Spring 2003 semester to take prerequisites for graduate school. After completing the undergraduate sequence of geology, math, physics, chemistry, and biology required for a B.S. in Geology (81 hours) with a cumulative undergraduate GPA of 3.92/4.0, I was accepted into the graduate program in Spring 2005.

Sam Houston State University, Huntsville, TX

I earned a B.A. in History (military emphasis) in December 1993.

MILITARY SERVICE

U.S. Marine Corps Reserves

06/88 – 06/96 Honorable Discharge

Staff Sergeant / E-6. I was a section leader in an amphibious assault vehicle platoon and served active duty for overseas deployment during Operation Desert Shield / Desert Storm.

AWARDS AND SCHOLARSHIPS

- 2007 Best Speaker Award - Jackson School of Geosciences Technical Sessions
- 2009 JSG Best Graduate Student Paper Award for my paper (with Jack Sharp) entitled The Secondary Permeability of Impervious Cover, which appeared in Environmental and Engineering Geoscience.
- 2009 Environmental and Engineering Geoscience Best Paper. For my paper entitled The Secondary Permeability of Impervious Cover.
- University Honors at The University of Texas at Austin (every semester I attended as an undergraduate)
- Thomas R. Banks Memorial Scholarship
- Geology Foundation Scholarship (awarded twice)

PROFESSIONAL AFFILIATIONS

- Geological Society of America
- International Association of Hydrogeologists
- American Association of Petroleum Geologists

ADDITIONAL SKILLS AND CERTIFICATIONS

- Proficient in Petra, MS Excel, and WellCore.
- Experience with Aries, Petrel, Interactive Petrophysics, Well CAD, Unix, ESRI Arc GIS, MODFLOW, Phreeq C, and R
- Open Water Scuba Certification
- OSHA 40-Hour Hazardous Materials Training, January 1995
- OSHA 8-Hour Hazardous Materials Refresher Training, last refresher July 2001

**Engineering Testimony
Mamm Creek Field
Garfield County, Colorado
Cause No. 191, Docket No. 1101-SP-01
Encana Oil & Gas (USA) Inc.
Reduced Setbacks Application**

My name is Lafell T. Loveland and I am currently employed as a Reservoir Engineer for Encana Oil & Gas (USA) Inc. I graduated from Montana Tech of the University of Montana with a Bachelor of Science in Petroleum Engineering in December 1996. I have thirteen years experience as a petroleum engineer including production operations, completions, and reservoir engineering. I have worked specifically as a reservoir engineer for the last nine years. A copy of my resume is included with this testimony.

The current 600' setbacks between the Hunter Mesa Federal Unit and the Middleton Creek Federal Unit will result in an estimated 42 stranded potential well locations and 24.6 Bcf in undeveloped resource. As such, Encana is seeking a reduction in the unit boundary setbacks to 100', but only where the Hunter Mesa Federal Unit and Middleton Creek Federal Unit share a boundary. Please see Land Exhibit 1 for a depiction of the requested 100' setback area. Encana is not requesting that the Commission change or modify the current spacing or density of the Application Lands or the 600' unit boundary setback for the remaining portions of the Hunter Mesa Federal Unit and Middleton Creek Federal Unit boundaries.

Exhibit E-1 Original Gas-In-Place (OGIP) and Recoverable Gas-In-Place (RGIP) Calculations

Exhibit E-1 shows the OGIP and RGIP calculations for the Application area, as well as some of the assumptions that went into the calculations. RGIP was calculated using an assumed recovery factor of 80%, which is in agreement with recovery factor calculations using area data, as well as industry experience with simple gas expansion reservoirs.

Exhibit E-2 Pressure-Volume-Temperature (PVT) Calculations

Exhibit E-2 presents the assumptions behind, and calculation of, the Gas Formation Volume Factor at initial reservoir conditions, β_{gi} , and at assumed abandonment conditions, β_{ga} . These factors are required for the OGIP calculation in Exhibit E-1.

Exhibit E-3 Gas Analysis Wells in Application Area

Exhibit E-3 is a map of the Hunter Mesa Unit, showing the locations of the wells with gas analyses used in the PVT calculations of Exhibit E-2. All of the gas analysis wells are less than 1 mile from the western Hunter Mesa Unit - Middleton Creek Unit boundary.

Exhibit E-4 Gas Characteristics and Averaging in Application Area

Exhibit E-4 is a table showing the calculation of average gas characteristics from the gas analyses of the 12 wells shown in Exhibit E-3. Only the characteristics needed for the PVT calculations of Exhibit E-2 are included in the table.

Exhibits E-5, E-6, and E-7 Recovery Factor Estimates with Increasing Well Density

Exhibit E-5 is a table showing the estimated total recovery from existing and future wells in 14 sections along the western Hunter Mesa Unit – Middleton Creek Unit boundary. 40-acre ultimate spacing was assumed in sections that did not already contain 16 or more wells. EUR estimates for existing wells are from Encana's Independent Qualified Reserve Evaluator, Netherland, Sewell and Associates, Inc (NSAI).

OGIP and RGIP Calculations

Exhibit E-1

Cause No. 191, Docket No. 1101-SP-01
Encana Oil & Gas (USA) Inc.
Reduced Setbacks Application

- Calculated OGIP using...

- Information provided by Tom Wiles for the Williams Fork in this area
 - Average pay thickness
 - Average porosity
 - Average water saturation
- PVT calculations (Exhibit E-2)

$$OGIP = \frac{(43,560 \text{ ft}^2/\text{acre}) * A * h * \phi * (1-S_w)}{\beta_{gi}}$$

$$\Rightarrow OGIP = \frac{(43,560 \text{ ft}^2/\text{acre}) * (1 \text{ acre}) * (710 \text{ ft}) * (0.06) * (1-0.5)}{0.00520494 \text{ ft}^3/\text{scf}}$$

$$\Rightarrow OGIP = 178,259,115 \text{ scf/acre} = 114.1 \text{ BoF/section}$$

$$\text{Gas Expansion Factor } (E_g) = \frac{1}{\text{Gas Formation Volume Factor } (\beta_g)}$$

$$\text{Recovery Factor} = \frac{E_{gi} - E_{g,abandon}}{E_{gi}} \Rightarrow RF = \frac{(1)}{(\beta_{gi})} - \left(\frac{1}{\beta_{g,abandon}} \right)$$

$$\Rightarrow RF = \frac{(0.00520494 \text{ ft}^3/\text{scf})}{(0.00520494 \text{ ft}^3/\text{scf})} - \left(\frac{0.02497111 \text{ ft}^3/\text{scf}}{0.00520494 \text{ ft}^3/\text{scf}} \right)$$

$$\Rightarrow RF = \frac{192.1 \text{ scf/ft}^3 - 40.0 \text{ scf/ft}^3}{192.1 \text{ scf/ft}^3} = 79.2\% \text{ will assume } 80\%$$

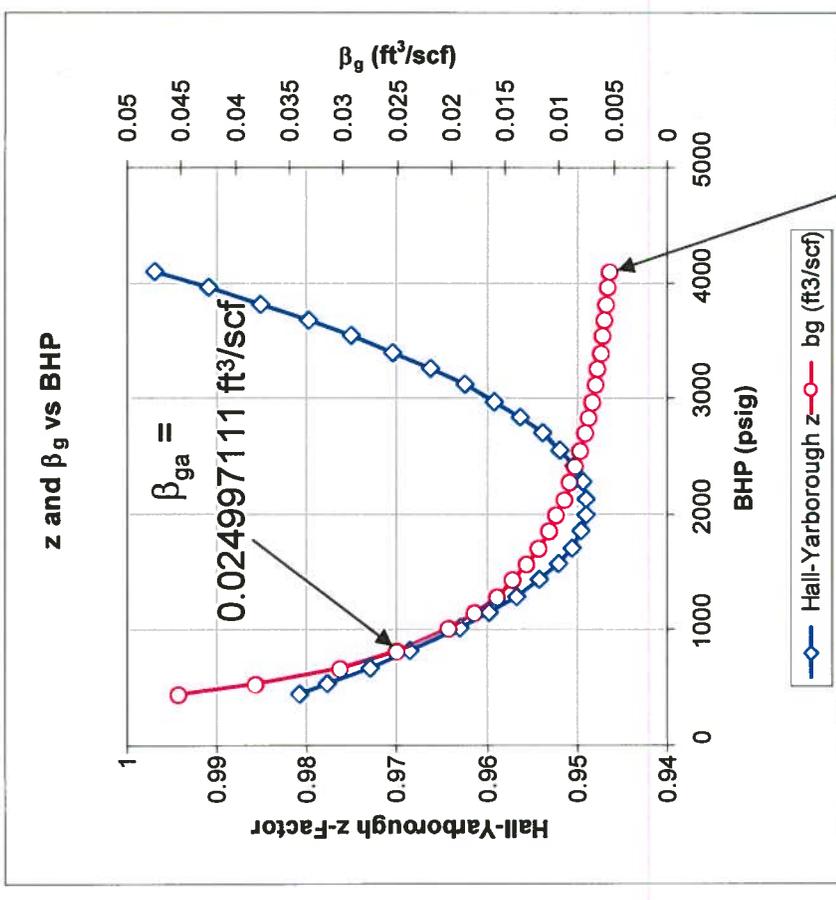
$$RGIP = OGIP * RF \Rightarrow RGIP = 114.1 \text{ BoF/section} * 0.8 = 91.3 \text{ BoF/section}$$

- Calculated RGIP using OGIP and a recovery factor of 80%

- Reciprocal of the ratio of the difference between E_{gi} and $E_{g,abandon}$, and E_{gi} is 79.2%
 - Abandonment pressure assumed to be 820 psig
 - 100 psi per every 1000' of depth from "Applied Petroleum Reservoir Engineering" by Craft and Hawkins, page 34
- 80-90% is reasonable per both Craft and Hawkins (page 34), and "Gas Reservoir Engineering" by Lee and Wattenbarger, page 231

PVT Calculations

- Calculated β_{gi} and β_{ga} using...
 - Information provided by Tom Wiles for the Williams Fork in this area
 - Average TVD to mid-perf
 - Average initial pressure gradient
 - Average temperature gradient
 - Information from 16 area gas analyses
 - Specific gravity
 - Mole fraction CO₂
 - Mole fraction N₂
 - Mole fraction H₂S
 - Mole fraction H₂O vapor
 - Sutton's correlation for estimating pseudocritical properties
 - Wichert and Aziz correction for H₂S and CO₂
 - Semiempirical corrections for N₂ and H₂O vapor
 - Hall-Yarborough method for calculating z factor

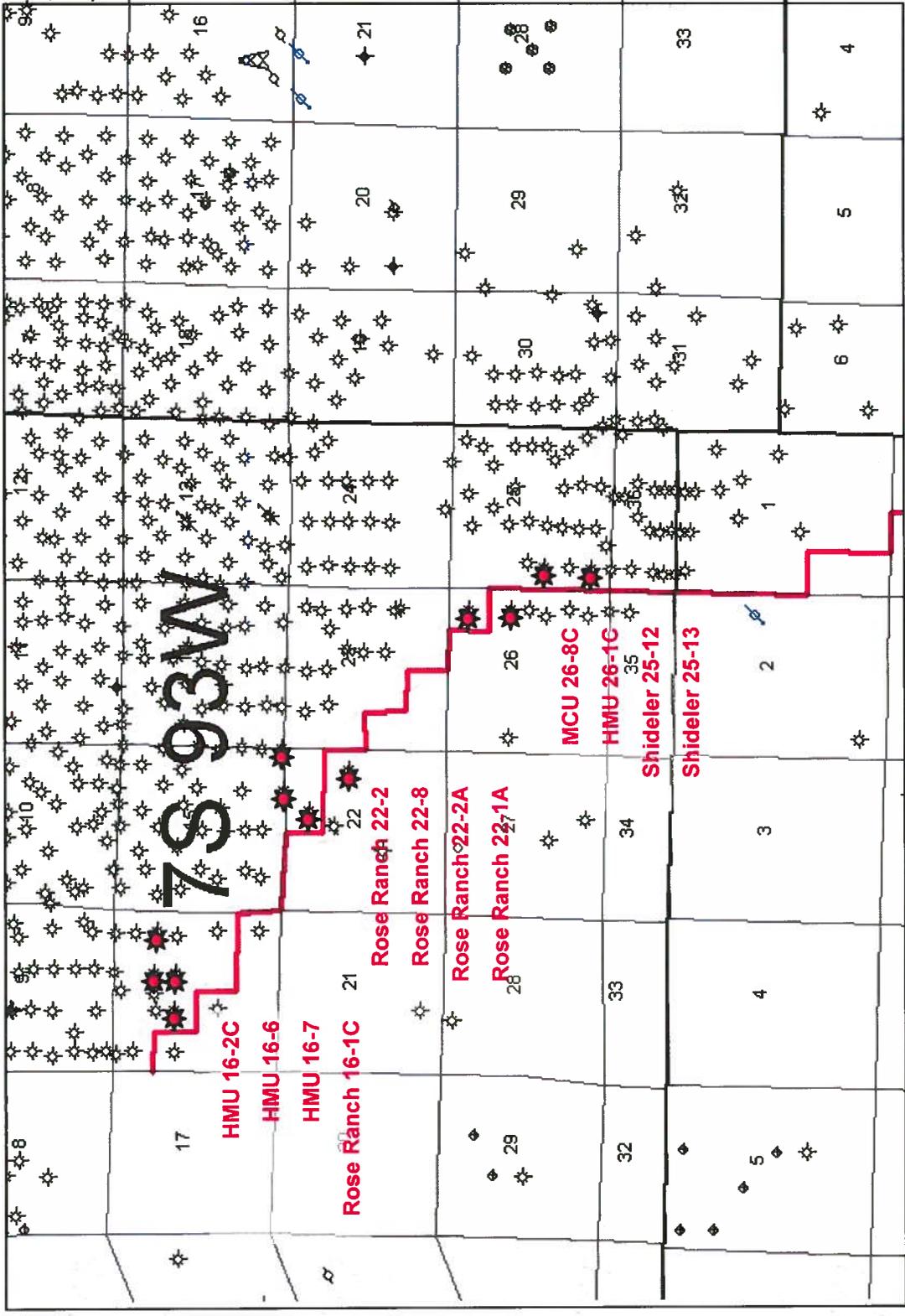


%	0.6622005	
CO ₂	0.022344	mole fraction
N ₂	0.000805	mole fraction
BHT Gradient	29	(°F/1000')
Depth	8200	ft
Pi	4100	psig
P _{wf}	453.59889	psig
H ₂ S	0	mole fraction
H ₂ O Vapor	0	mole fraction

Exhibit E-3

Cause No. 191, Docket No. 1101-SP-01
Encana Oil & Gas (USA) Inc.
Reduced Setbacks Application

Gas Analysis Wells



Average Gas Characteristics

Well	Specific Gravity	Mole % CO ₂	Mole % N ₂	Mole % H ₂ S	Mole % H ₂ O Vapor
HMU 16-2C	0.680770	2.7641	0.1273	0.000211	0
HMU 16-6	0.661547	1.3128	0.0922	0.000211	0
HMU 16-7	0.664975	1.6726	0.0931	0.000198	0
Rose Ranch 16-1C	0.667140	2.5351	0.0788	0.000237	0
Rose Ranch 22-2	0.647473	3.0356	0.0672	0	0
Rose Ranch 22-8	0.654074	0.7731	0.1022	0	0
Rose Ranch 22-2A	0.664829	3.1127	0.0668	0.000103	0
Rose Ranch 22-1A	0.646077	2.4602	0.0784	0.000206	0
MCU 26-8C	0.662636	1.8793	0.0667	0.000262	0
HMU 26-1C	0.683452	2.0395	0.0568	0.000262	0
Shideler 25-12	0.647330	1.1322	0.0827	0	0
Shideler 25-13	0.666103	4.0959	0.0538	0.000230	0
Averages	0.6622005	2.2344	0.0805	0.000160	0

Exhibit E-5

Cause No. 191, Docket No. 1101-SP-01
 Encana Oil & Gas (USA) Inc.
 Reduced Setbacks Application

Recovery Factor Estimates (40-Acre Density)

- Area OGIP is 114 Bcf/section – RGIP is 91 Bcf/section, assuming an 80% recovery factor

Section	Existing Wells	Average Existing Well EUR (Bcf)*	Future Wells	Future Well Average EUR (Bcf)**	Estimated Total Section Recovery (Bcf)	Ultimate Recovery Factor	Average Well Drainage Area (Acres)
15 7S93W	28	0.862	0	0.969	24.1	21%	4.8
16 7S93W	15	1.516	1	1.011	23.7	21%	8.3
21 7S93W	1	0.373	15	0.420	6.7	6%	2.3
22 7S93W	6	0.562	10	0.677	10.1	9%	3.6
23 7S93W	15	0.810	1	0.945	13.1	11%	4.6
25 7S93W	27	0.873	0	0.759	23.6	21%	4.9
26 7S93W	8	0.816	8	0.848	13.3	12%	4.7
35 7S93W	1	1.185	5	1.331	7.8	17%	7.3
36 7S93W	13	1.236	0	1.605	16.1	37%	6.9
1 8S93W	11	0.945	5	0.702	13.9	12%	4.9
2 8S93W	1	0.190	15	0.740	11.3	10%	4.0
11 8S93W	1	0.090	15	0.164	2.5	2%	0.9
12 8S93W	1	0.085	15	0.084	1.3	1%	0.5
14 8S93W	1	0.163	15	0.183	2.9	3%	1.0
Tot/Avg	129	0.938	105	0.472	170.6	12%	4.1

*EURs from Independent Qualified Reserve Evaluator, Netherland, Sewell and Associates, Inc. (NSAI).

**ECA type curve EURs.

Exhibit E-6

Cause No. 191, Docket No. 1101-SP-01
 Encana Oil & Gas (USA) Inc.
 Reduced Setbacks Application

Recovery Factor Estimates (20-Acre Density)

- Area OGIP is 114 Bcf/section – RGIP is 91 Bcf/section, assuming an 80% recovery factor

Section	Existing Wells	Average Existing Well EUR (Bcf)*	Future Wells	Future Well Average EUR (Bcf)**	Estimated Total Section Recovery (Bcf)	Ultimate Recovery Factor	Average Well Drainage Area (Acres)
15 7S93W	28	0.862	4	0.969	28.0	25%	4.9
16 7S93W	15	1.516	17	1.011	39.9	35%	7.0
21 7S93W	1	0.373	31	0.420	13.4	12%	2.3
22 7S93W	6	0.562	26	0.677	21.0	18%	3.7
23 7S93W	15	0.810	17	0.945	28.2	25%	4.9
25 7S93W	27	0.873	5	0.759	27.4	24%	4.8
26 7S93W	8	0.816	24	0.848	26.9	24%	4.7
35 7S93W	1	1.185	11	1.331	15.8	34%	7.4
36 7S93W	13	1.236	0	1.605	16.1	37%	6.9
1 8S93W	11	0.945	21	0.702	25.1	22%	4.4
2 8S93W	1	0.190	31	0.740	23.1	20%	4.1
11 8S93W	1	0.090	31	0.164	5.2	5%	0.9
12 8S93W	1	0.085	31	0.084	2.7	2%	0.5
14 8S93W	1	0.163	31	0.183	5.8	5%	1.0
Tot/Avg	129	0.938	280	0.563	278.6	19%	3.8

*EURs from Independent Qualified Reserve Evaluator, Netherland, Sewell and Associates, Inc. (NSAI).

**ECA type curve EURs.

Exhibit E-7

Cause No. 191, Docket No. 1101-SP-01
 Encana Oil & Gas (USA) Inc.
 Reduced Setbacks Application

**Recovery Factor Estimates
 (10-Acre Density)**

- Area OGIP is 114 Bcf/section – RGIP is 91 Bcf/section, assuming an 80% recovery factor

Section	Existing Wells	Average Existing Well EUR (Bcf)*	Future Wells	Future Well Average EUR (Bcf)**	Estimated Total Section Recovery (Bcf)	Ultimate Recovery Factor	Average Well Drainage Area (Acres)
15 7S93W	28	0.862	36	0.969	59.0	52%	5.2
16 7S93W	15	1.516	49	1.011	72.3	63%	6.3
21 7S93W	1	0.373	63	0.420	26.8	24%	2.4
22 7S93W	6	0.562	58	0.677	42.6	37%	3.7
23 7S93W	15	0.810	49	0.945	58.5	51%	5.1
25 7S93W	27	0.873	37	0.759	51.7	45%	4.5
26 7S93W	8	0.816	56	0.848	54.0	47%	4.7
35 7S93W	1	1.185	23	1.331	31.8	69%	7.4
36 7S93W	13	1.236	11	1.605	33.7	77%	7.9
1 8S93W	11	0.945	53	0.702	47.6	42%	4.2
2 8S93W	1	0.190	63	0.740	46.8	41%	4.1
11 8S93W	1	0.090	63	0.164	10.4	9%	0.9
12 8S93W	1	0.085	63	0.084	5.4	5%	0.5
14 8S93W	1	0.163	63	0.183	11.7	10%	1.0
Tot/Avg	129	0.938	687	0.628	552.3	38%	3.8

*EURs from Independent Qualified Reserve Evaluator, Netherland, Sewell and Associates, Inc. (NSAI).

**ECA type curve EURs.

Drainage Area Calculation

- Calculated drainage area using...
 - Information provided by Tom Wiles for the Williams Fork in this area
 - Average pay thickness
 - Average porosity
 - Average water saturation
 - ECA type curve EURs
 - PVT calculations (Exhibit E-2)

$$OGIP = \frac{(43,560 \text{ ft}^2 / \text{acre}) * A * h * \phi * (1-S_w)}{\beta_{gi}}$$

$$\Rightarrow EUR = \frac{(43,560 \text{ ft}^2 / \text{acre}) * A * h * \phi * (1-S_w)}{\beta_{gi}}$$

$$\Rightarrow A = \frac{EUR * \beta_{gi}}{(43,560 \text{ ft}^2 / \text{acre}) * h * \phi * (1-S_w)}$$

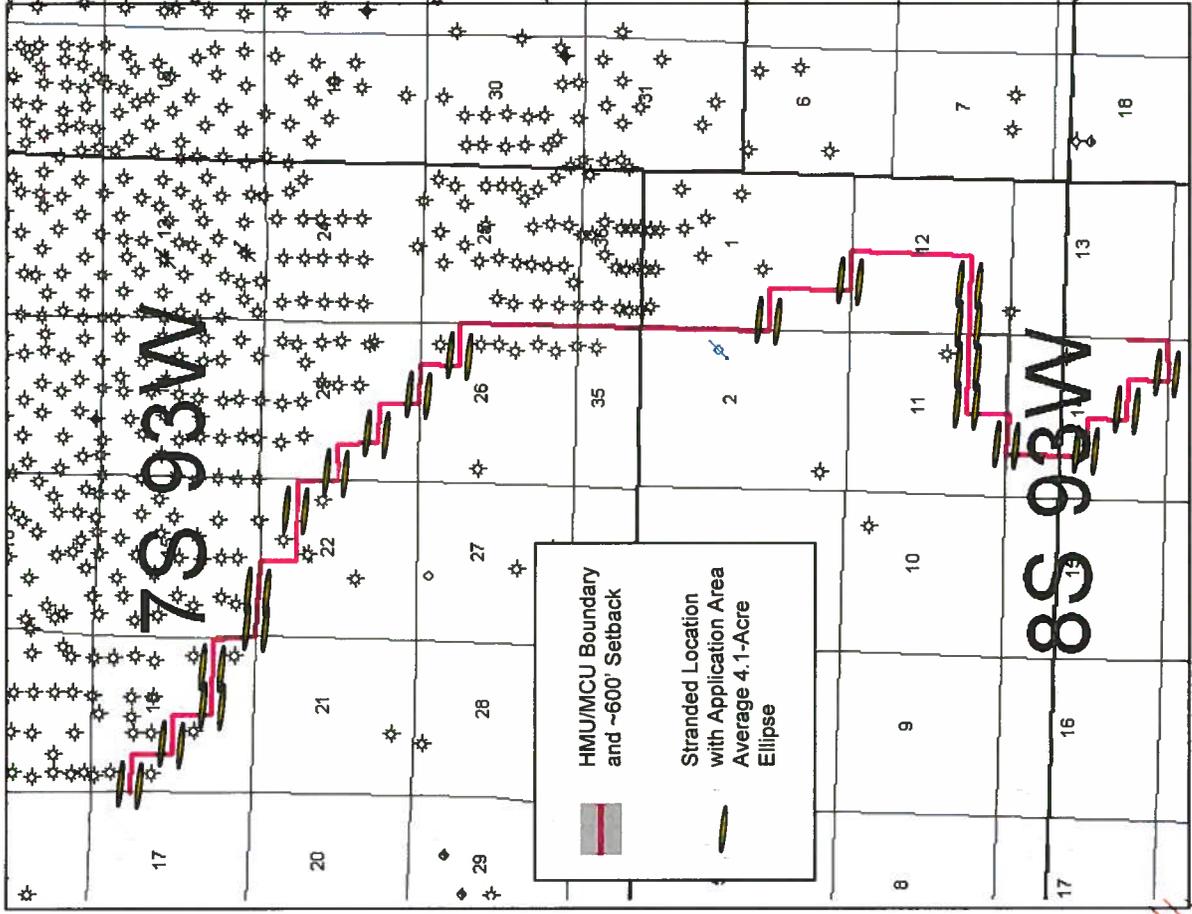
Therefore, for future wells in section 16, T893W...

$$A = \frac{(1.011 \text{ Bcf}) \left(\frac{1000 \text{ MMcf}}{1 \text{ Bcf}} \right) \left(\frac{1000 \text{ SEC}}{1 \text{ MMcf}} \right) (0.00520494 \text{ ft}^3/\text{ft})}{(43,560 \text{ ft}^2 / \text{acre}) (710 \text{ ft}) (0.06) (1-0.5)}$$

A = 5.67 acres

Current Setback and Unrecoverable Resource

- 42 wells and 24.6 Bcf



Section	"Stranded" Locations	Future Well Average EUR (Bcf)	"Stranded" Resource (Bcf)	Future Well Drainage (Acres)
15 7S93W	2	0.969	1.9	5.4
16 7S93W	8	1.011	8.1	5.7
21 7S93W	0	0.420	0	2.4
22 7S93W	4	0.677	2.7	3.8
23 7S93W	5	0.945	4.7	5.3
25 7S93W	0	0.759	0	4.3
26 7S93W	3	0.848	2.5	4.8
35 7S93W	0	1.331	0	7.5
36 7S93W	0	1.605	0	9.0
1 8S93W	3	0.702	2.1	3.9
2 8S93W	0	0.740	0	4.2
11 8S93W	5	0.164	0.8	0.9
12 8S93W	5	0.084	0.4	0.5
14 8S93W	7	0.183	1.3	1.0
Tot/Avg	42	0.586	24.6	3.3

Exhibit E-9

Cause No. 191, Docket No. 1101-SP-01
 Encana Oil & Gas (USA) Inc.
 Reduced Setbacks Application

Reservoir / Program Management / Completions / Production Operations
San Juan Basin / Fort Worth Basin / East Texas / Piceance Basin
Exploitation and Resource Assessment Experience in Tight Gas Sand and Shale

Highly motivated petroleum engineer with a history of success in a variety of job functions. Lead engineer on several high-visibility projects and teams with Management experience. Strong project management skills including: basin-wide resource assessment, coordination of capital-intensive drilling programs, coordination of multi-discipline team efforts, cost management, and acquisition and divestiture evaluation. Proven ability to manipulate and utilize extreme amounts of information to find innovative solutions to problems. Confident presenter in both formal and informal settings. Willingness to learn and improve is surpassed only by work ethic and integrity.

PROFESSIONAL EXPERIENCE

5/10 to present: **ENCANA OIL AND GAS USA** (Denver, Colorado), South Piceance Development Reservoir Engineer

- Resource assessment and inventory development for the Williams Fork, Cameo Coal, and Iles members of the Mesaverde formation
- Coordinating the well planning and permitting efforts for the Mesaverde in the Mamm Creek field
- Key player in developing a new system to track and report all of Encana's well planning and permitting activity in the Piceance Basin

9/07 to 5/10: **ENCANA OIL AND GAS USA** (Dallas, Texas)

- 8/08 to 5/10: North Texas (Fort Worth Basin) Growth Reservoir Engineer
 - Modified VAMP (Value Assessment Mapping Process) to use Aries as the economic engine rather than using an in-house Excel economic model (EIB).
 - Created more than 900 unique VAMP-Aries cases that replaced the pre-existing NTX Aries inventory.
 - Used VAMP-Aries in several high-profile NTX A&D projects throughout 2009. Not only was it used to evaluate value to the company through a large number of economic sensitivities, it was used in data room and presentation preparation.
 - Used VAMP-Aries decline data to help convince Degolyer and MacNaughton (D&M) to increase their reserve estimates. This, combined with efforts by the NTX Development team, led to the addition of 98 Bcfe in proved reserves in 2009.
 - Shared VAMP variability in FWB decline parameters with members of the Haynesville and Horn River teams to use in discussions with their IQREs.
 - Presented VAMP-Aries use a number of times to staff, Group Leads, and Team Leads in the Dallas, Denver, and Calgary offices, as well as to D&M and several potential JV partners.
 - VAMP-Aries parameters are being used to generate the 2010 NTX Long-Range Plan (LRP).
 - Anticipate being asked to assist in the generation of VAMP-Aries and VAMP-Peep inventories for a number of EnCana asset teams.
 - Coordinated the Commercialization arm of the Shale Technology Exchange Partnership (STEP), a team composed of 11 professionals from the Dallas, Denver, and Calgary offices charged with working to establish standards for commerciality in project and play assessment, risk and uncertainty assessment, and metric reporting.
 - Led the preparation of the Economic Metrics Guide, a 71-page guide to understanding the calculation and use of many of the primary economic metrics EnCana employs. This guide was adopted as an official EnCana document by Strategic Planning and Portfolio Management (SPPM).
 - Set the content of the Commercialization web pages and largely devised the pages' layout.
 - Presented Commercialization activities in a number of venues including presentations to the STEP Steering Committee, the Reservoir Engineering Community of Practice, and at a 2009 SPPM workshop in Calgary.
 - Mentored 3 new professional engineers.
- 2/08 to 8/08: North Texas Growth Group Lead – Supervised a multi-disciplinary team of 7 personnel, including 3 engineers, 2 geologists, a petrophysicist, and a geo-tech. Helped set team member goals to align with those of the SBU and BU.
 - Led team efforts to evaluate 21 potential acquisitions (4 formal datarooms) and a number of divestiture packages despite having only one member with prior A&D experience. Acquired ~900 net acres in NE Hood County for \$4.5 MM and divested of ~7,700 net acres in Cooke County for \$5.4 MM.
 - Worked closely with team engineer to create VAMP using EIB. This early version of VAMP was a tremendous help in determining which potential A&D deals could be quickly dismissed, as well as in a number of other projects:
 - Team conducted a study jointly with NTX Completions and Development on the infill potential in our Mercer Ranch acreage. VAMP-EIB used to define the economics at the extremes (100% unique

reserves and 100% accelerated reserves) across the basin. Determined that even 100% accelerated reserves would yield an incremental PIR of greater than 0.30 \$/\$.

- VAMP-EIB parameters were used in the yearly reserve review with D&M.
- VAMP-EIB parameters were used to generate the 2009 NTX LRP.
- 1/07 to 2/08: North Louisiana Haynesville and Bossier Project Engineer and Sabine Cotton Valley Sand Reservoir Engineer
 - Project Engineer for our North Louisiana Haynesville and Bossier Shale JV (10 wells, \$104 MM). Essentially acted as a Group Lead and liaison between the team and the Team Lead, helping to drive activity by tracking progress/obstacles through the drilling schedule, and conducting a weekly meeting to convey this information to team members in Denver and Dallas, as well as our JV partner.
 - Served as one of the primary players in the technical evaluation and data room preparation of several Cotton Valley Sand divestiture/JV packages in the Sabine, Boggy Creek, and Cotton areas. Prepared more than 60 area and zone-specific type curves, examined the theoretical effect on individual zone production by commingling, supplied the production profiles to create more than 826 capital inventory Aries cases, and presented engineering work to Jefferies, Randall & Dewey personnel as well as EnCana management. EnCana closed a deal shortly after my departure to the NTX team.
 - Reorganized and improved our data room presentation for some southern Maverick Basin properties in an effort to assist the Team Lead in optimizing deal value. Resulting JV had an approximate fair market value of \$110.6 MM and allowed EnCana to continue to test the Pearsall Shale with other people's money, improve its anticipated ROR from 17% to over 100%, and maintain the leases in 131,000 net acres through the end of 2009. Prepared the PAR documents for this and an earlier Maverick JV.
 - Served as "Accountability Partner" for one of the team's Group Leads, soliciting feedback on behaviors from staff, other Group Leads, and Team Leads, then working with Group Lead to change behaviors. Group Lead was promoted to Team Lead over MCBU Mid-Stream shortly thereafter.
- 9/07 to 1/07: West Texas Reservoir Engineer
 - Prepared the WTX 2007 budget submittal and coordinated the WTX reserve review with D&M.
 - Prepared the 2007 WTX Exploitation PAR and the PAR for a \$166 MM Delaware Basin JV.
 - Mentored 1 new professional engineer.

11/97 to 8/07: **CONOCOPHILLIPS** (formerly Burlington Resources - Farmington, New Mexico)

- 9/03 to 8/07: Mesaverde, Lewis Shale, and Chacra Reservoir Engineer
 - Documented the potential for 27,818 additional economic Mesaverde and Dakota wells through infilling beyond 80-acre spacing in parts of the San Juan Basin by conducting a high-level analysis of the remaining undeveloped resource using directional well cost assumptions. Coordinated the preliminary efforts to get NMOCD approval for a 20-acre infill pilot for both the Mesaverde and Dakota formations. That approval has since been obtained.
 - Identified 3,750 new wells with an estimated reserve potential of more than 1.5 Tcfe. Worked with Geologist to assess the Mesaverde reserve and inventory potential of all acreage where Burlington held an interest in the San Juan Basin (1,173 Sections). Created new drill economic cases for the capital inventory and budget. Presented the project workflow and results to divisional management, corporate reserve engineers, reserve auditors, and at our 2005 Reservoir Characterization mini-conference.
 - Mapped variation in Mesaverde permeability anisotropy throughout the basin using first-year production from 1,221 80-acre Mesaverde wells and a creative technique in OFM. The results compared favorably with FMI data and would influence the placement of future wells.
 - Developed the methodology to create a basin-wide remaining reservoir pressure map using an innovative overlapping-area material balance approach. Other formation teams quickly followed the method to develop their own maps.
 - Discovered and eliminated approximately 14% overbooking through a review of the proved-developed-producing (PDP) reserves for 626 Mesaverde wells. Confirmed the validity of our division's automated screening process by conducting a basin-wide examination of the Mesaverde PDP reserves in 2,525 wells that had not been identified as possible problems.
 - Testified before the NMOCD to get exception to produce 8 Mesaverde wells in violation of density rules. Conducted no-flow boundary analysis to show where production was or was not encroaching on areas of different ownership. Were granted approval to continue producing all wells.
 - Mentored a summer engineer in a project analyzing the results of various Lewis Shale completion methods to a satisfactory conclusion. The summer engineer was offered full-time employment with Burlington Resources at the end of the internship.
 - Served as co-host for the 2005 Colorado School of Mines recruiting effort.
 - Received **2 special stock awards** in 2005 for exemplary performance.
- 1/02 to 9/03: Implementation Program Coordinator
 - Helped realize a profit-to-investment ratio of 0.29\$/\$ in the division's 122 project, \$11.7MM, Lewis Shale/Chacra payadd/recompletion program. Managed all aspects of the program, from choosing the projects through performing post-look economic evaluations.
 - Identified 180 additional payadd/recompletions projects through a basin-wide assessment of rate and reserve potential in the Lewis Shale/Chacra.

- Monitored the division's Pictured Cliffs and Mesaverde new drill, restimulation, and recompletion programs for management with regard to project approvals and capital expenditures (more than 400 projects and \$55MM).
 - Created a program management and tracking database that integrated project information from 8 different systems into one spreadsheet that team members could easily access. System later became basis for divisional program management and tracking database.
 - Co-led the Asset Optimization Implementation Task Team, an integrated team of 20 employees that designed 3 of the division's 7 Key Work Processes (KWP's - functional teams) prior to a division-wide reorganization in 9/03.
 - Held a leadership role in negotiating contracts with division's cased-hole vendors. 2002 charges were approximately 8% less than they had been in 2001, and we successfully negotiated a 2-year contract in 2003 that lowered bids an additional 2%.
 - Received a **special stock option award** in 2003 for exemplary performance.
- 2/01 to 1/02: Lewis Shale and Chacra Program Coordinator
 - Played a key role in realizing a profit-to-investment ratio of 0.20\$/\\$ in the division's 66 project 2001 Lewis Shale payadd program. Proactively assumed program management/team lead responsibilities in addition to production/completion engineer responsibilities when the team's reservoir engineer was given another assignment. Prepared 26 payadd packages, wrote 29 payadd procedures, monitored daily rig operations, conducted post-workover economic evaluations, and mentored assistant in writing and understanding procedures.
 - Participated in contract negotiations with stimulation and cased-hole vendors, efforts that resulted in gross savings of \$678M over initial vendor bids.
- 1/00 to 2/01: Lewis Shale and Chacra Completions Engineer
 - Prepared Lewis Shale payadd and Chacra recompletion procedures, Lewis Shale Data Well pre and post-frac testing procedures, and monitored daily rig operations. Discussed post-workover well performance monthly with lease operators.
 - Helped conduct several Shale Data Well tests (slug and stress tests) in the field.
 - Mentored a summer engineer in his preparation and analysis of an after-frac tracer log database. Based largely on his summer performance, the intern was offered full-time employment with Burlington Resources later that year.
- 11/97 to 1/00: Production Operations Engineer
 - Actively reviewed existing wells with lease operators for tubing repair, casing repair, and downhole commingle candidates.
 - Wrote workover procedures and monitored rig work, discussing problems and opportunities with rig supervisors and Drilling Management. Conducted post-workover economic evaluations.
 - Studied possible surface equipment configurations that would allow multiple wells to be drilled from the same locations (in anticipation of the pending Mesaverde 80-acre infill approval and future surface disturbance restrictions). Recommendations continue to be referenced in pad-drilling discussions.
- 2/97 to 9/97: **ANADARKO PETROLEUM CORPORATION** (Midland, Texas)
- Ketchum Mountain (Clearfork) Production Engineer
 - Completed 22 primary oil wells, increasing field production from 2,000 to 3,000 BOPD.
 - Conducted and analyzed 4 pressure buildup tests for Reservoir Engineers in the Houston office.

EDUCATION/TRAINING

- **Montana Tech of the University of Montana** – BSc Petroleum Engineering 12/96; 4.0/4.0 GPA; Valedictorian; President Xi Chapter of Pi Epsilon Tau; 2nd Place 1996 Regional SPE Student Paper Contest, Undergraduate Division
- Risk Analysis for Development Applications – Rose & Associates, 2007
- Advanced Decline Analysis – Mr. David Reese, ConocoPhillips, 2006
- Naturally Fractured Reservoirs – Dr. Roberto Aguilera, Servipetrol, Ltd., 2005
- Gas Reservoir Management – Stan Kleinsteiber, OGCI, 2003
- Hydraulic Fracturing: Treatment Design & Analysis – Dr. Ralph Veatch, OGCI, 2000
- Drilling Technology for the Man on the Rig – William Murchison, Murchison Drilling Schools, Inc., 1997
- Principles of Rod Pumping – S. Gibbs, NABLA Corporation, 1997

References available upon request