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09-02-14

511 DOCUMENTS

BEFORE THE OIL AND GAS CONSERVATION COMMISSION
OF THE STATE OF COLORADO

IN THE MATTER OF THE APPLICATION OF)	CAUSE NO. 535
CONOCOPHILLIPS COMPANY FOR AN)	
ORDER TO ESTABLISH AN EXPLORATORY)	DOCKET NO. 1409-SP-2113
1280-ACRE DRILLING AND SPACING UNIT)	
AND ESTABLISHING WELL LOCATION RULES)	
FOR THE NIOBRARA FORMATION IN)	
SECTIONS 31 AND 32, TOWNSHIP 3 SOUTH,)	
RANGE 63 WEST, 6TH P.M., AN UNNAMED)	
FIELD, ADAMS COUNTY, COLORADO)	

REQUEST FOR RECOMMENDATION OF
APPROVAL OF APPLICATION WITHOUT A HEARING

ConocoPhillips Company ("Applicant"), by and through its undersigned attorneys, hereby requests pursuant to Rule 511.a. of the Rules of Regulations of the Colorado Oil and Gas Conservation Commission for the Director to recommend approval of its July 17, 2014, verified application ("Application") and the supporting exhibits without a hearing.

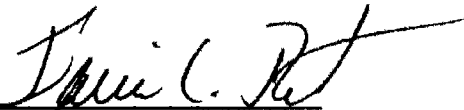
Applicant requests that the above-captioned matter be approved based upon: (i) the merits of the Application, and (ii) Applicant's sworn written testimony verifying sufficient facts along with exhibits the adequately support the relief requested in the Application. To Applicant's information and belief, no protests were timely filed in this matter.

WHEREFORE, Applicant requests that its request for a recommendation for approval of its Application without a hearing be granted.

DATED this 21 day of September, 2014.

Respectfully submitted,

CONOCOPHILLIPS COMPANY

By: 
Jamie L. Jost
James P. Parrot
Jost & Shelton Energy Group, P.C.
Attorneys for Applicant
1675 Larimer Street, Suite 420
Denver, CO 80202
(720) 379-1812

ConocoPhillips Company

**Cause No. 535
Docket No. 1409-SP-2113**

ConocoPhillips Company
Kelsey L. Swinford - Land Testimony
Cause 535; Docket No. 1409-SP-2113
Drilling and Spacing Unit Application – Niobrara Formation
Unnamed Field, Adams County, Colorado

September 2014 Colorado Oil and Gas Conservation Commission Hearing

My name is Kelsey L. Swinford, and I am currently employed as a Staff Landman for ConocoPhillips Company ("Applicant"). I graduated from the University of Oklahoma in 2004 with a degree in Business Administration and Energy Management. I have over 10 years of experience in oil and gas land work and I am familiar with the lands subject to, and matters set forth in, the verified application ("Application").

In support of Applicant's Application and my sworn testimony herein, I am submitting six (6) exhibits. This testimony and exhibits provide the supporting basis for approval of the Applicant's request for an order to establish an approximate 1280-acre exploratory drilling and spacing unit and to authorize up to two (2) horizontal wells in order to efficiently and economically recover the oil, gas and associated hydrocarbons from the Niobrara Formation underlying the following lands ("Application Lands"):

Township 3 South, Range 63 West, 6th P.M.

Section 31: All

Section 32: All

1,280 acres, more or less, Adams County, Colorado

Exhibit A-1: Leasehold Ownership Map:

Exhibit A-1 is a map showing the location of the Application Lands and the leasehold ownership. The Application Lands consist of 100% FEE mineral interest. The following parties own leasehold or unleased mineral interests in the Application Lands:

<u>INTEREST OWNER(S)</u>	<u>UNIT WI</u>
ConocoPhillips Company	50.452496%
Burlington Resources Oil & Gas Company LP	49.547504%
TOTAL:	<u>100.000000%</u>

ConocoPhillips and Burlington Resources Oil & Gas Company are operating in partnership with regard to the Application Lands, and for purposes of the Application are considered a single entity.

Exhibit A-2: Mineral Ownership Map:

Exhibit A-4 is a map showing the mineral ownership of the Application Lands, which is owned in fee.

Exhibit A-3: Property Location Plat:

Attached as Exhibit A-3 is a Property Location Plat. The Applicant will conform to its statement that the treated perforation of the well(s) within the Niobrara Formation will not be closer than 460 feet from the boundaries of the 1280 acre drilling and spacing unit and not less than 960 feet from the treated interval of another well within the unit.

Exhibit A-4: Surface Ownership Map:

Exhibit A-4 is a map showing the surface ownership of the Application Lands, which is owned in FEE.

Exhibit A-5: Topographic Map:

Exhibit A-5 is a map showing the topography of the Application Lands. Approval of the Application for a drilling and spacing unit would allow for a less impactful surface development plan.

Exhibit A-6: Interested Parties:

Attached as Exhibit A-6 are interested parties within the Application Lands. Based upon our examination of relevant documents all of the interested parties received proper notice. As of the date of this testimony, the Applicant is not aware of any unresolved protests or objections to the Application.

Affirmation

The matters described herein were all conducted under my direction and control. I hereby swear that to the best of my knowledge and belief, all of the matters set forth herein and in the exhibits are true, correct, and accurate.



Kelsey L. Swinford
Staff Landman – Rockies Business Unit, Niobrara Land
ConocoPhillips Company

STATE OF TEXAS)
) ss.
COUNTY OF HARRIS)

The foregoing instrument was subscribed and sworn to before me this 26th day of August, 2014, by Kelsey L. Swinford, Staff Landman, Rockies Business Unit, Niobrara Land, for ConocoPhillips Company.



Witness my hand and official seal.

My commission expires: March 28, 2017

Sharon K Horton
Notary Public

Lost Sand 3-63 31-32

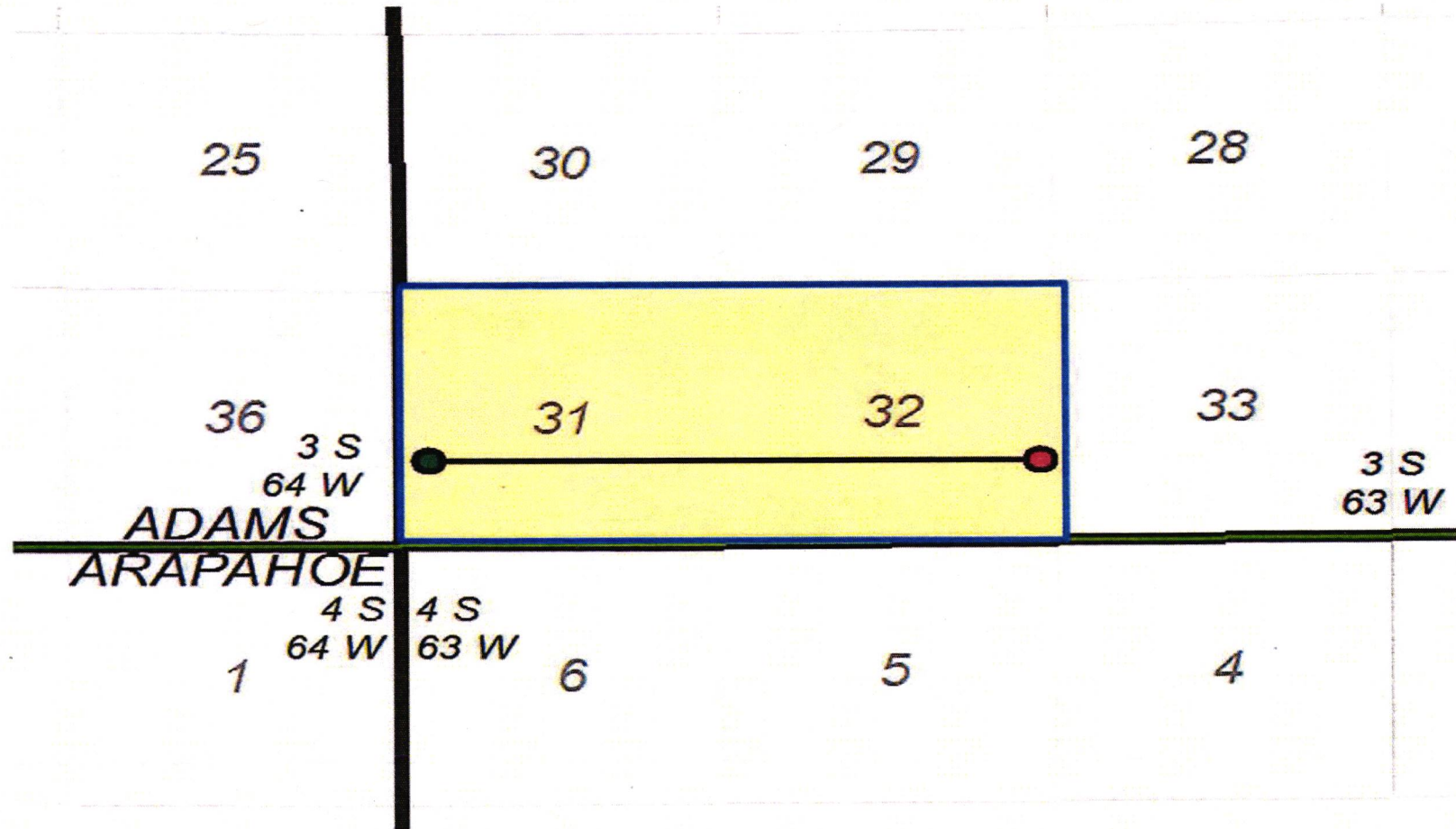
Exhibit : A-1

Docket:1409-SP-2113 Cause: 535

Leasehold Ownership Map

Lost Sand 3-63 31-32

Location: Section: 31-32 Township: 3S Range: 63W



Leasehold Ownership



Majority Ownership

Prepared by Kelsey
Swinford

Lost Sand 3-63 31-32

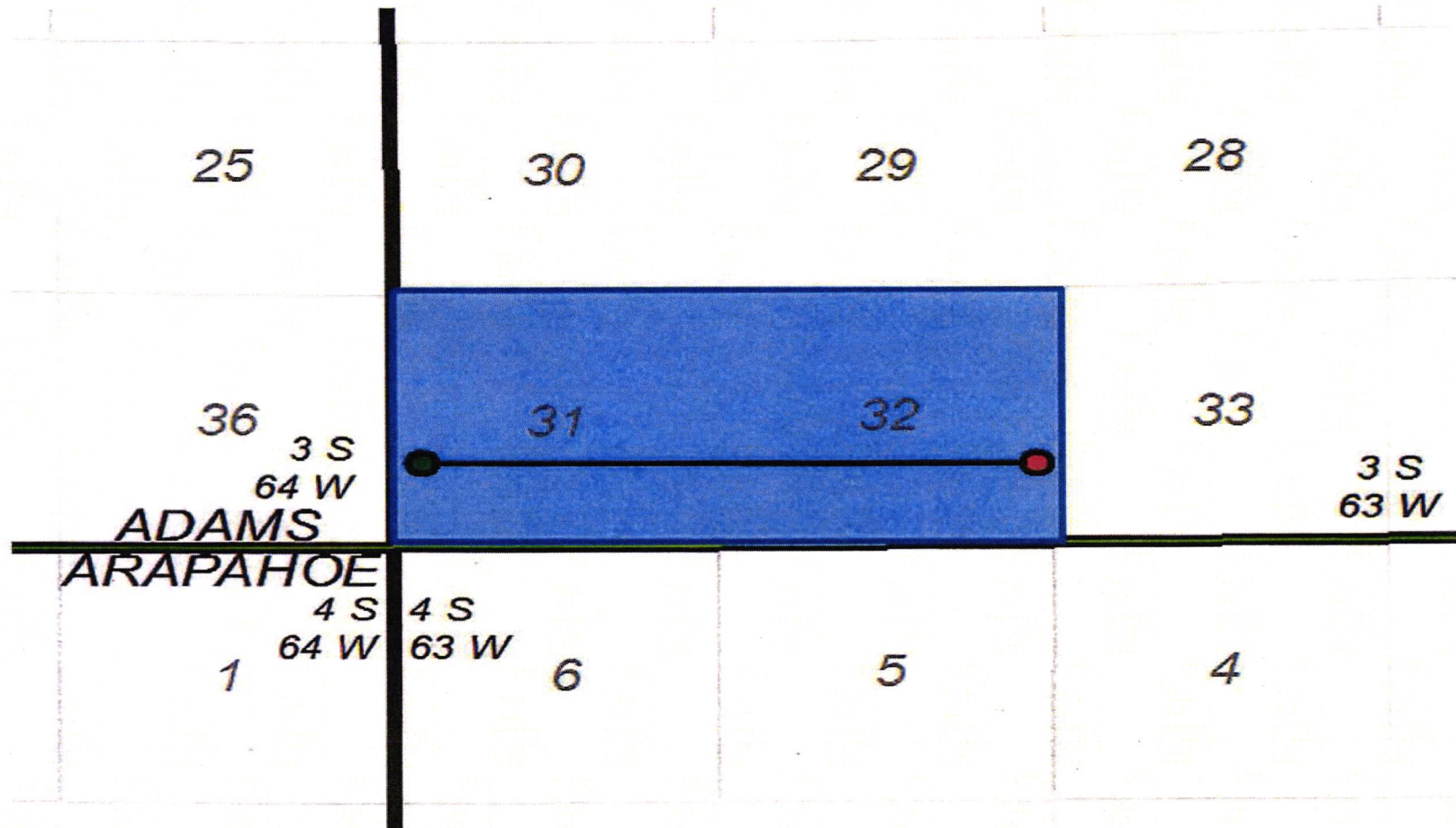
Exhibit : A-2

Docket:1409-SP-2113 Cause: 535


Mineral Ownership Map

Lost Sand 3-63 31-32

Location: Section: 31-32 Township: 3S Range: 63W

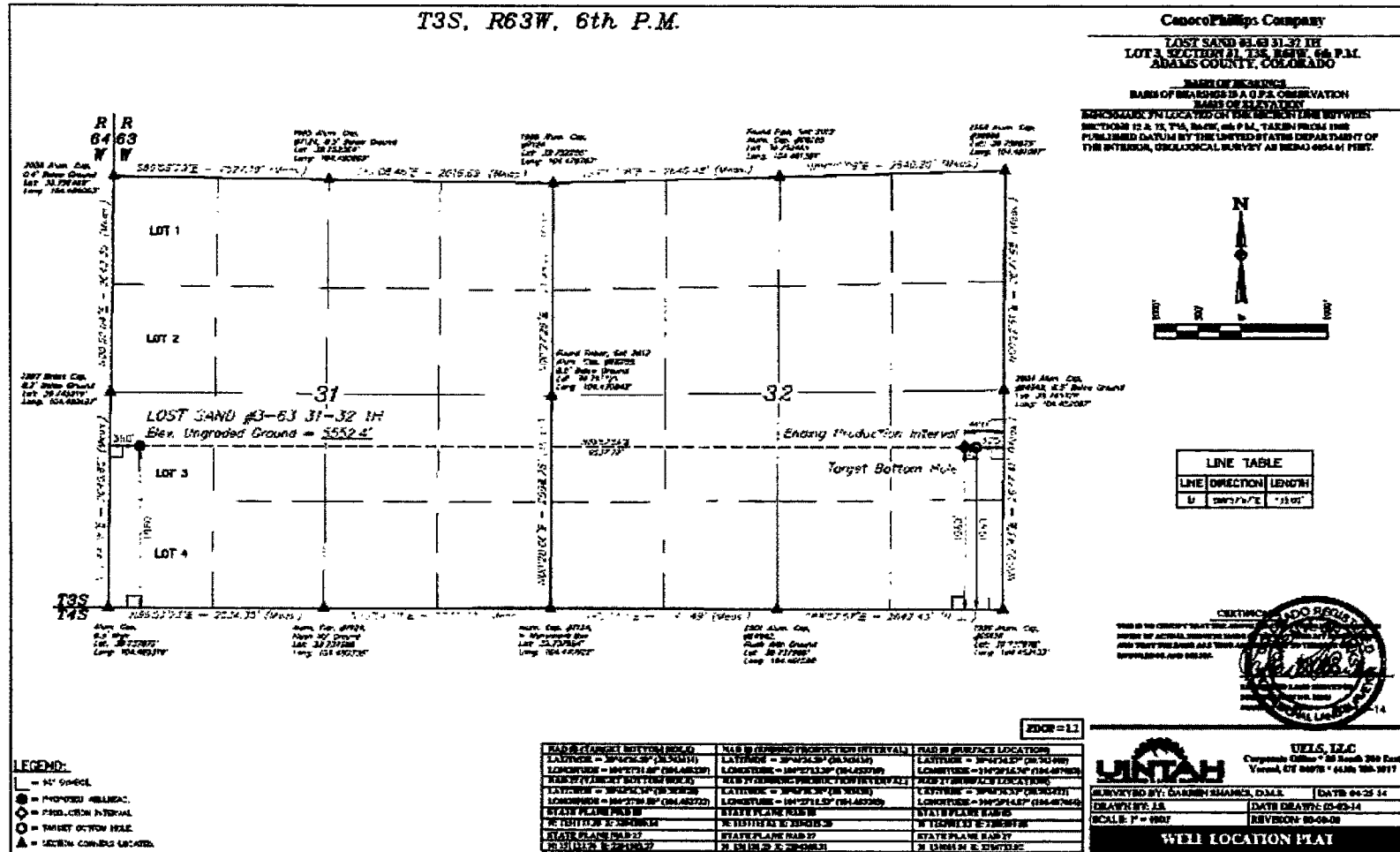


Mineral Ownership

 Fee Mineral Ownership

Prepared by Kelsey
Swinford

Location: Section: 31-32 Township: 3S Range: 63W



Prepared by Kelsey Swinford

Lost Sand 3-63 31-32

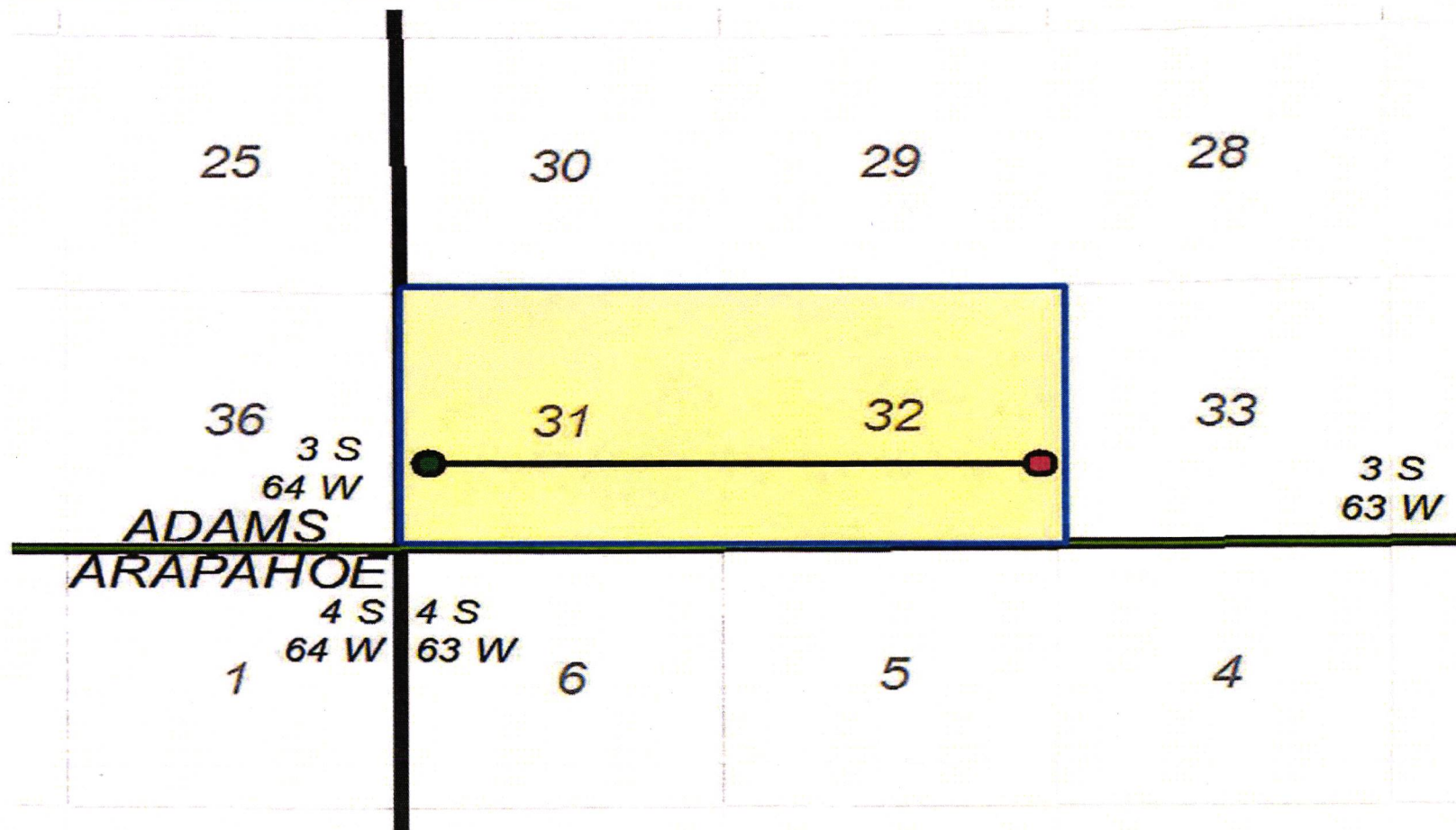
Exhibit : A-4

Docket:1409-SP-2113 Cause: 535


Surface Ownership Map

Lost Sand 3-63 31-32

Location: Section: 31-32 Township: 3S Range: 63W



Surface Ownership

 Fee Surface Ownership

Prepared by Kelsey
Swinford

Lost Sand 3-63 31-32

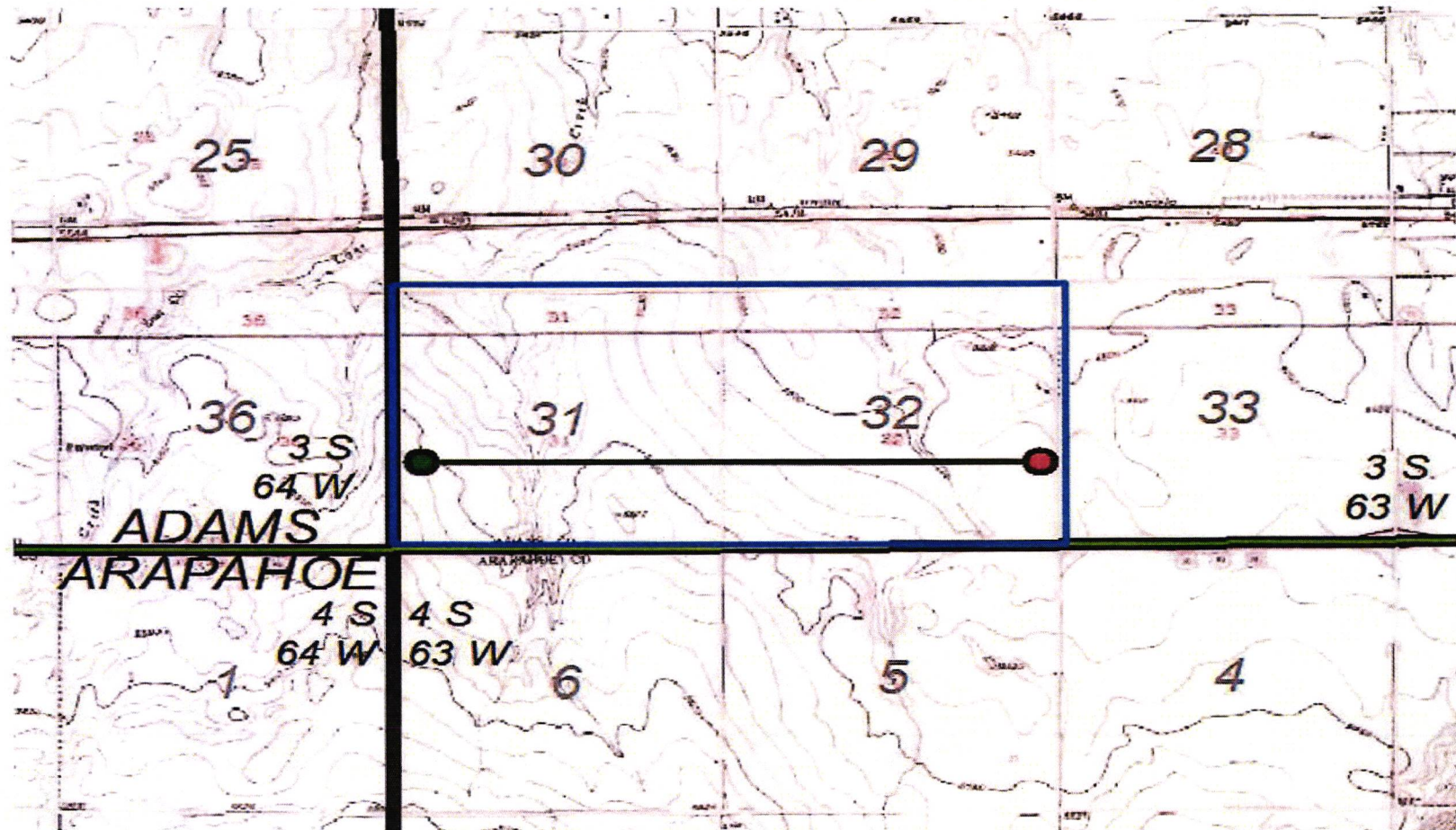
Exhibit : A-5

Docket:1409-SP-2113 Cause: 535

Topographic Map

Lost Sand 3-63 31-32

Location: Section: 31-32 Township: 3S Range: 63W



Prepared by Kelsey
Swinford

EXHIBIT A-6

**Interested Parties List
Lost Sand 3-63 31-32**

Anadarko Land Corp.
1099 18th Street, Suite 1800
Denver, CO 80202

Burlington Resources
Oil & Gas Company, LP
ATTN: Julia Browning
600 North Dairy Ashford Road
Houston, TX 77079

ConocoPhillips Company
ATTN: Julia Browning
600 North Dairy Ashford Road
Houston, TX 77079

Contex Energy Company
621 17th Street, Suite 1020
Denver, CO 80293

Alva Earl Hahn Living Trust
dated August 11, 1998
325 Washington Ave., Box 237
Bennett, CO 80102

Muegge Farms, LLC
672 Tyner Way
Incline Village, Nevada 89451

James E. Whitehead
15737 County Rd. 186
Bennett, CO 80102

Barbara J. Whitehead
15737 County Rd. 186
Bennett, CO 80102

Dorothy Jean Hahn, Trustee of the
Dorothy Jean Hahn Living Trust
dated August 11, 1998
1756 Wildfire Circle
Castle Rock, CO 80104

The heirs or devisees
of Herbert Wagner, deceased
P.O. Box 22
Keenesburg, CO 80634

Barbara Jean Ruby
1863 Fox Haven Dr.
Castle Rock, CO 80104

Edward A. Hahn and
Marsha A. Hahn,
Trustees of the Edward A. Hahn
Living Trust dated October 8, 2001
1756 Wildfire Circle
Castle Rock, CO 80104

Nadine Louise Thwing
22735 E. Belleview Pl.
Aurora, CO 80015

Albert G. Gablehouse
1000 E. Pitkin St.
Fort Collins, CO 80524

Randall L. Gablehouse
121 Olde Field Dr.
Lititz, PA 17543

Darrel G. Gablehouse and
Janet L. Gablehouse,
Trustees under the Darrel G. and
Janet L. Gablehouse Living Trust
dated February 14, 2011
7233 W. Canberra St.
Greely, CO 80634

Colorado Department of
Transportation
c/o David Fox –
Real Estate Specialist
15285 S. Golden Rd. Building 47

Golden, CO 80401

Jack L. Gallegos
4645 S. Raleigh St.
Denver, CO 80236

Nick Gallegos, Jr.
5667 Glen Iris Dr.
Clarence Center, NY 14032

Robert E. Gallegos
12924 West 64th Dr., Unit B
Arvada, CO 80004

Blas Gomez, Jr.
322 North 44th Ave
Greeley, CO 80634

Lucille M. Barenberg
a/k/a Lucille Barenberg
1150 Pitkin Street
Aurora, CO 80011

Charlene Hogarth
44100 East County Road 6
Bennett, CO 80102

Harlan and Carolyn Hatfield Trust,
U/A dated February 11, 1992
6900 Weddigen Way
North Highlands, CA 95660

Flora Ann Poage Mitchell
1417 29th Street
Loveland, CO 80538

Sharon M. Harbert
760 Martin Street
Longmont, CO 80501

Sherri R. Mitchell
1801 Balsam Street
Lakewood, CO 80214

ELP, a General Partnership
3001 E. Alameda Ave.

Denver, CO 80209-3406

John D. Krupa
3031 East Clairton Drive
Highlands Ranch, CO 80126-0179

Steven M. Krupa
19914 East Progress Place
Centennial, CO 80015

Adam Adugalski
P.O. Box 6179
Denver, CO 80206-0179

AJS Management Co. L.L.C.
P.O. Box 6179
Denver, CO 80206-0179

Anadarko/Kerr-McGee
ATTN: Shea Kauffman
1099 18th St. #1800
Denver, CO 80202

Tom Schreiner
Energy Liaison
Colorado Parks and Wildlife
Northeast Regional Office
6060 Broadway
Denver, CO 80216

Kent Kuster
Colorado Department of Public
Health & Environment
4300 Cherry Creek Drive South
Denver, CO 80246-1530

Gordon Stevens
Adams County Public Works,
Construction Manager
4430 South Adams County Pkwy.
Brighton, CO 80601-8218

ConocoPhillips Company

Geoscience Testimony

Spacing Application

Niobrara Formation

Colorado Oil and Gas Conservation Commission Hearing

Cause No. 535

Docket No. 1409-SP-2116

Township 03 South, Range 63 West, Sections 31-32

Adams County

My name is Zachary S. Mester, and I am currently employed as a Senior Geologist for ConocoPhillips Company. I received a Bachelor's degree in Geology from Florida Atlantic University (2007) and a Master's Degree in Geology from Florida Atlantic University (2011). I have 4 years of experience in the oil and gas industry.

I have worked directly with the properties and lands that are subject of this matter.

In support of Applicant's application and my sworn testimony herein, I am submitting six (6) exhibits. The exhibits are attached to my sworn testimony and form the basis for the Applicant's request to gain approval for establishing an approximate 1280 acre drilling and spacing unit for the production of oil, gas and associated hydrocarbons from the Niobrara formation underlying the following lands ("Application Lands")

Township 3 South, Range 63 West, 6th P.M.

Section 31: All

Section 32: All

Adams County, Colorado

The Niobrara Formation is a Cretaceous sequence of chinks, marls, limestones, and shales that were deposited in the Western Interior Seaway. This formation is regionally extensive and found throughout most of the Rocky Mountain Region and is in the subsurface throughout the Denver-Julesburg Basin. It is my conclusion that the Niobrara Formation underlies the Application Lands to be spaced.

The six geologic exhibits herein were prepared and presented as follows:

Exhibit No. G-1 Niobrara Type Log

Exhibit No. G-1 is the Type Log used for this area. The log is from Andrau Enterprises' #13 Owl Creek, located in Section 29, Township 29 North, Range 64 West. This log was originally published by Longman et al. (1998) and is widely used throughout literature and industry as an established type log for this part of the Denver-Julesburg Basin. Displayed on this log are typical Gamma Ray and Resistivity curves associated with modern open-hole logging of the Niobrara in this area. Scales of each are posted at the bottom of the log. The targeted interval is the Smoky Hill Shale Member of the Niobrara formation, which is regionally defined as the upper member of the Niobrara formation, above the Ft Hayes Limestone. The Niobrara top is identified as the upper red line on the log. The base of the Niobrara is defined as the top of the Ft Hayes Limestone Sandstone (green line). The log exhibits a gamma ray and resistivity signature similar to logs derived from the Niobrara producers in nearby Adams County. An increased resistivity measurement is commonly used as a proxy for hydrocarbon presence in the reservoir.

Exhibit No. G-2

Spacing Locator and Cross Section Line Indicator Map

Exhibit No. G-2 displays the drilling and spacing units ConocoPhillips is requesting consideration for approval from the Oil and Gas Conservation Commission to establish a 1280 acre drilling and spacing unit for the Niobrara formation in order to drill horizontal wells in this section. The area is sections 31 and 32, township 63 south, range 3 west, in Adams County, Colorado. This area is represented on the map as a red filled rectangle. The location of the cross sections displayed in Exhibits G-3 and G-4 are identified as blue and green lines, respectively, on the map.

Exhibit No. G-3

Cross Section A-A'

Exhibit No. G-3 is a cross section of wells in the area which comprises the drilling and spacing unit, showing the Niobrara section. The cross section extends generally from west (A) to east (A') and is hung on the top of the Niobrara. The formation annotation on this cross section is consistent with that of the type log shown in Exhibit No. G-1. All the logs display gamma ray and resistivity curves. Resistivity measurements above 25 ohms are shaded red and are shown as an indication for the likely presence of hydrocarbons in the reservoir. Logs on the cross section exhibit resistivity measurements comparable to productive Niobrara wells located in Adams County.

Exhibit No. G-4

Cross Section B-B'

Exhibit No. G-4 is a cross section of wells in the area which comprises the drilling and spacing unit, showing the Niobrara section. The cross section extends generally from north (B) to south (B') and is hung on the top of the Niobrara. The formation annotation on this cross section is consistent with that of the type log shown in Exhibit No. G-1. All the logs display gamma ray and resistivity curves. Resistivity measurements above 25 ohms are shaded red and are shown as an indication for the likely presence of hydrocarbons in the reservoir. Logs on the cross section exhibit resistivity measurements comparable to productive Niobrara wells located in Adams County.

Exhibit No. G-5

Niobrara Top SubSea Structure

Exhibit No. G-5 shows the top subsea structure of the top Niobrara contoured in 20' intervals. This map reflects the regional monoclonal dip to the west existing in this area.

Exhibit No. G-6

Niobrara Gross Thickness Isopach

Exhibit No. G-6 shows the gross thickness from the top of the Niobrara to the top of the Ft Hayes Limestone, contoured in 10' increments. Thickness values are posted on each contour line. In the spacing area, total Niobrara thickness averages around 340'. Local depositional variations in thickness are minimal and rarely exceed 10' to 15'. The Niobrara Formation is shown to thicken gradually to the north in this area.

All six (6) Exhibits are intended to help illustrate:

- The Niobrara is productive in the area

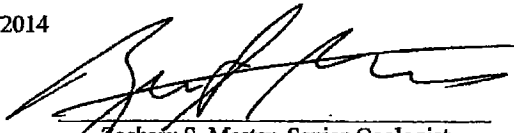
~~The Niobrara is fairly uniform in thickness and is continuous throughout the area.~~

The geologic attributes described above, in conjunction with the engineering testimony submitted for this hearing, demonstrate the viability of establishing a 1280 acre drilling and spacing program for sections 31 and 32 in this area.

Affirmation

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

Dated this 26 day of August 2014



Zachary S. Mester, Senior Geologist
ConocoPhillips Company

STATE OF TEXAS

)

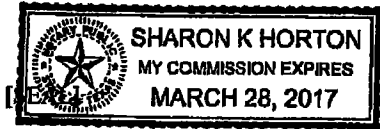
)ss.

COUNTY OF HARRIS

)

August The foregoing instrument was subscribed and sworn to before me this 26th day of August, 2014 by Zachary S. Mester, a geologist for ConocoPhillips Company.

Witness my hand and official seal.



My commission expires: March 28, 2017

Sharon K Horton

Notary Public

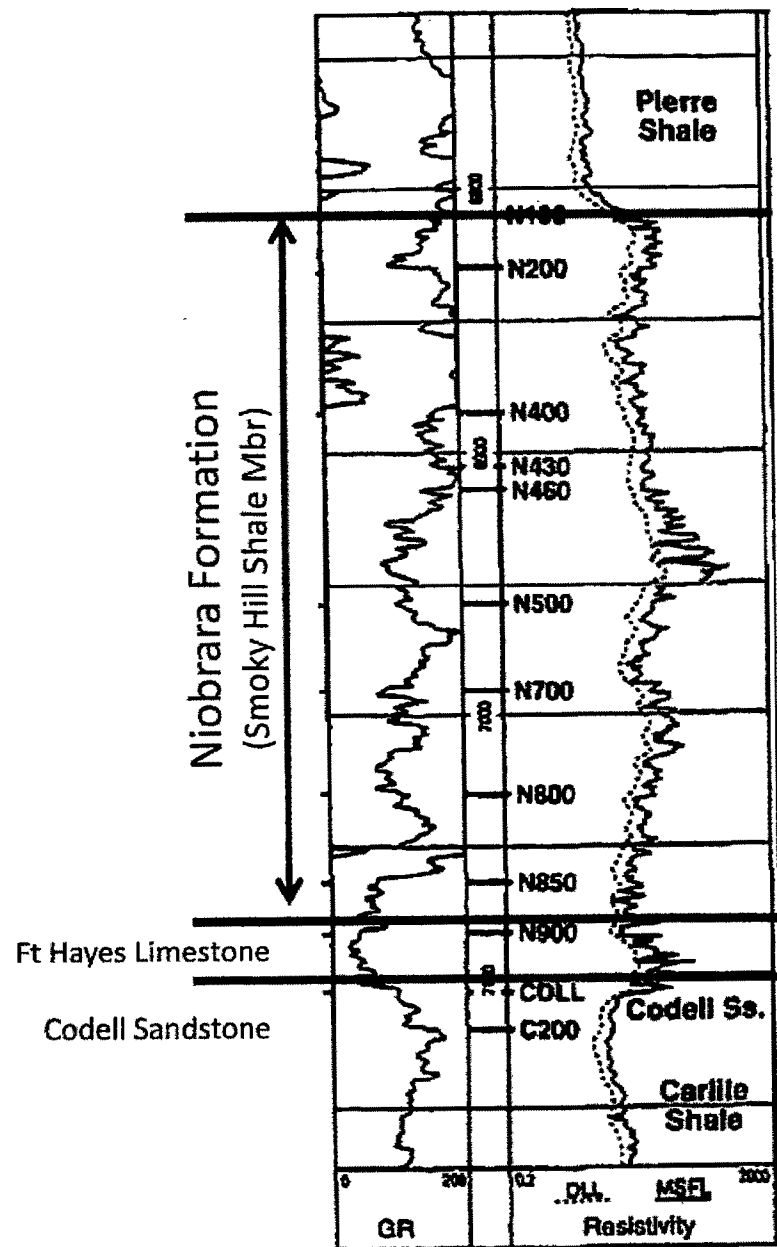
Mester, Zachary S.

Experience

- | | | |
|-------------------|---|-------------|
| 02.2014 – Present | ConocoPhillips Company | Houston, TX |
| | <ul style="list-style-type: none">• 2014-Present: Senior Geologist, Niobrara Implementation Team, Rockies Business Unit | |
| 09.2012 - 02.2014 | StatOil Oil and Gas, LLP | Austin, TX |
| | <ul style="list-style-type: none">• 2012-2014 – Geologist, Geo-Operations Team, Bakken Business Unit | |
| 04-2011 – 09.2012 | Border To Border Exploration, LLC | Austin, TX |
| | <ul style="list-style-type: none">• 2011-2012 – Geologist, Exploration Team | |

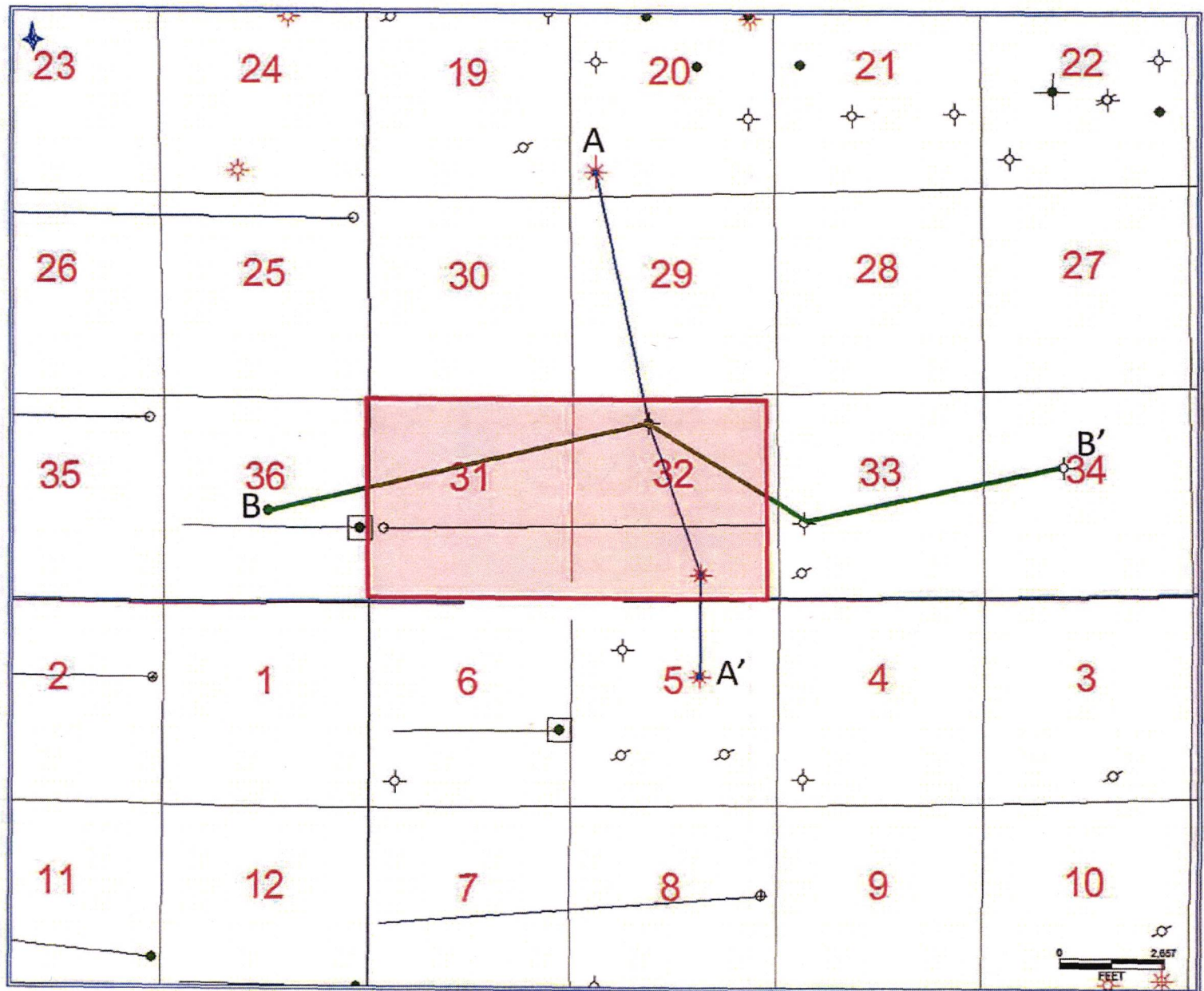
Education

- | | | |
|----------------------------------|-----------------------------|----------------|
| 2008-2011
Masters - Geology | Florida Atlantic University | Boca Raton, FL |
| 2004-2007
Bachelors - Geology | Florida Atlantic University | Boca Raton, FL |
-



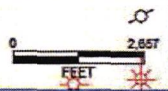
Type Log
Andrau Enterprises
#13 Owl Creek
NW NW Sec. 29 T7N R64W
Weld County, CO
 (Modified from Longman et al., 1998)

Exhibit: G-1
 Cause No. 535
 Docket No. 1409-SP-2116



1280 Application
Lands

Exhibit: G-2
Cause No. 535
Docket No. 1409-SP-2116



Denver Basin Project 25S 39W to 33N 75W

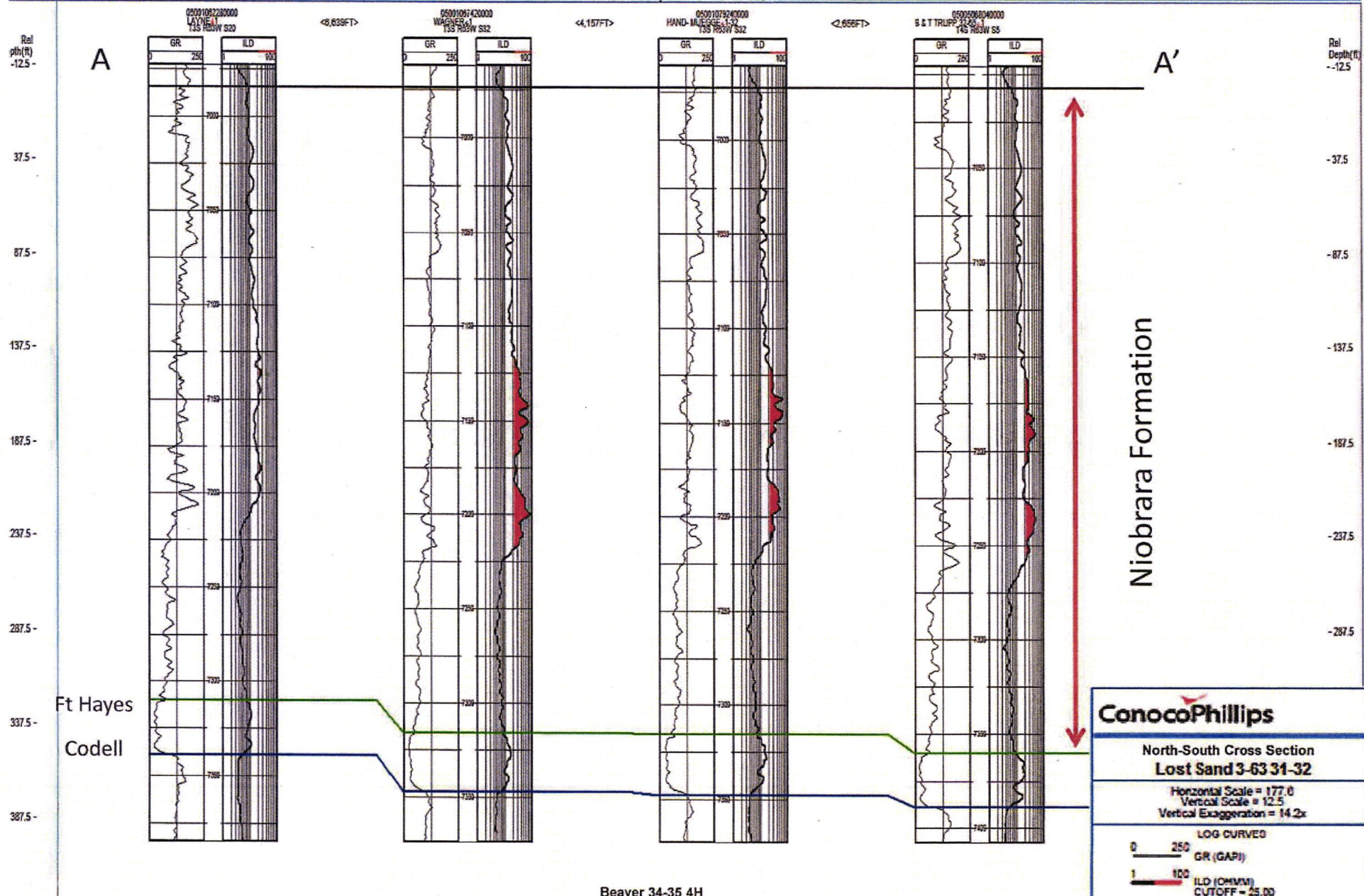
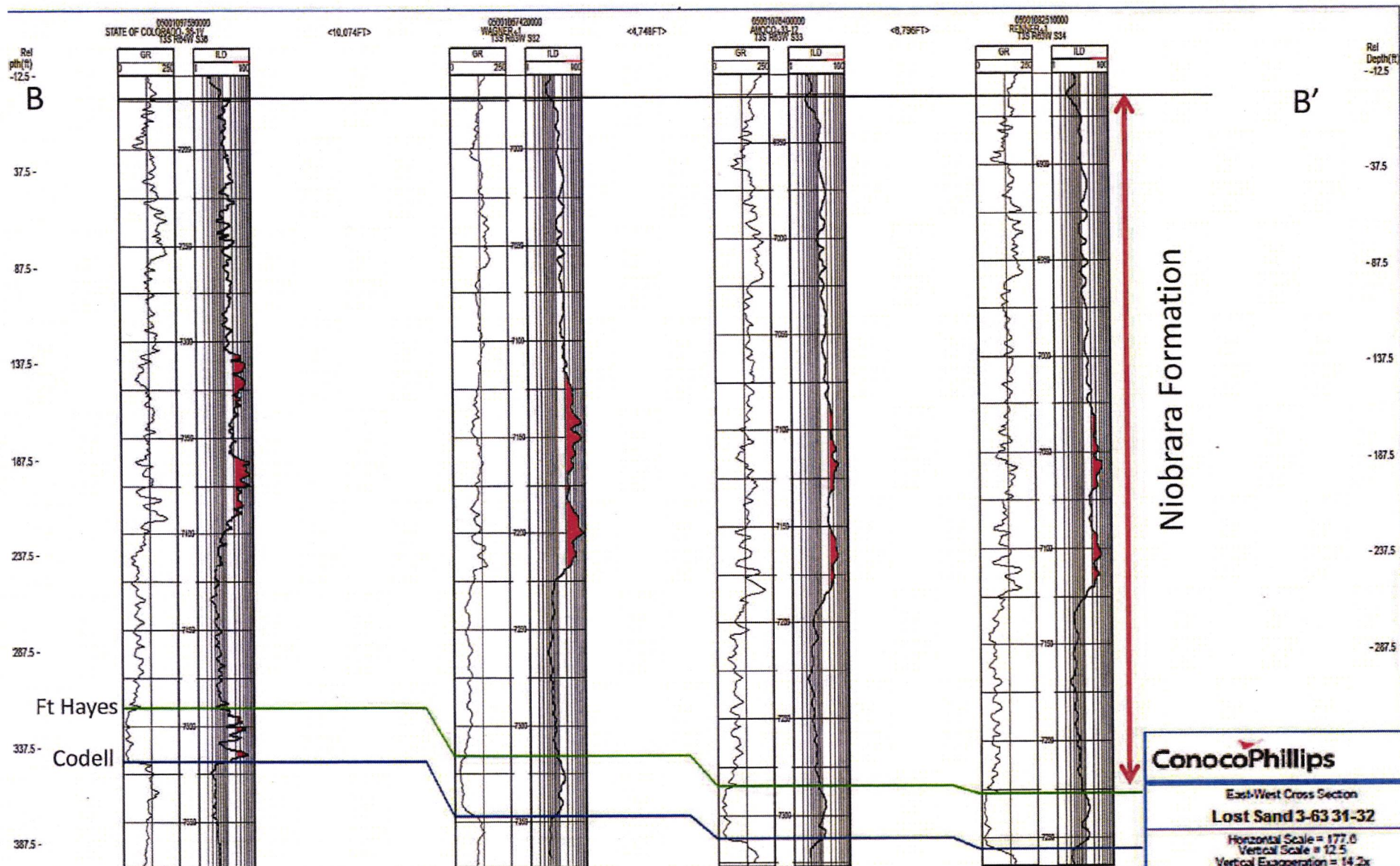


Exhibit: G-3
Cause No. 535
Docket No. 1409-SP-2116



ConocoPhillips

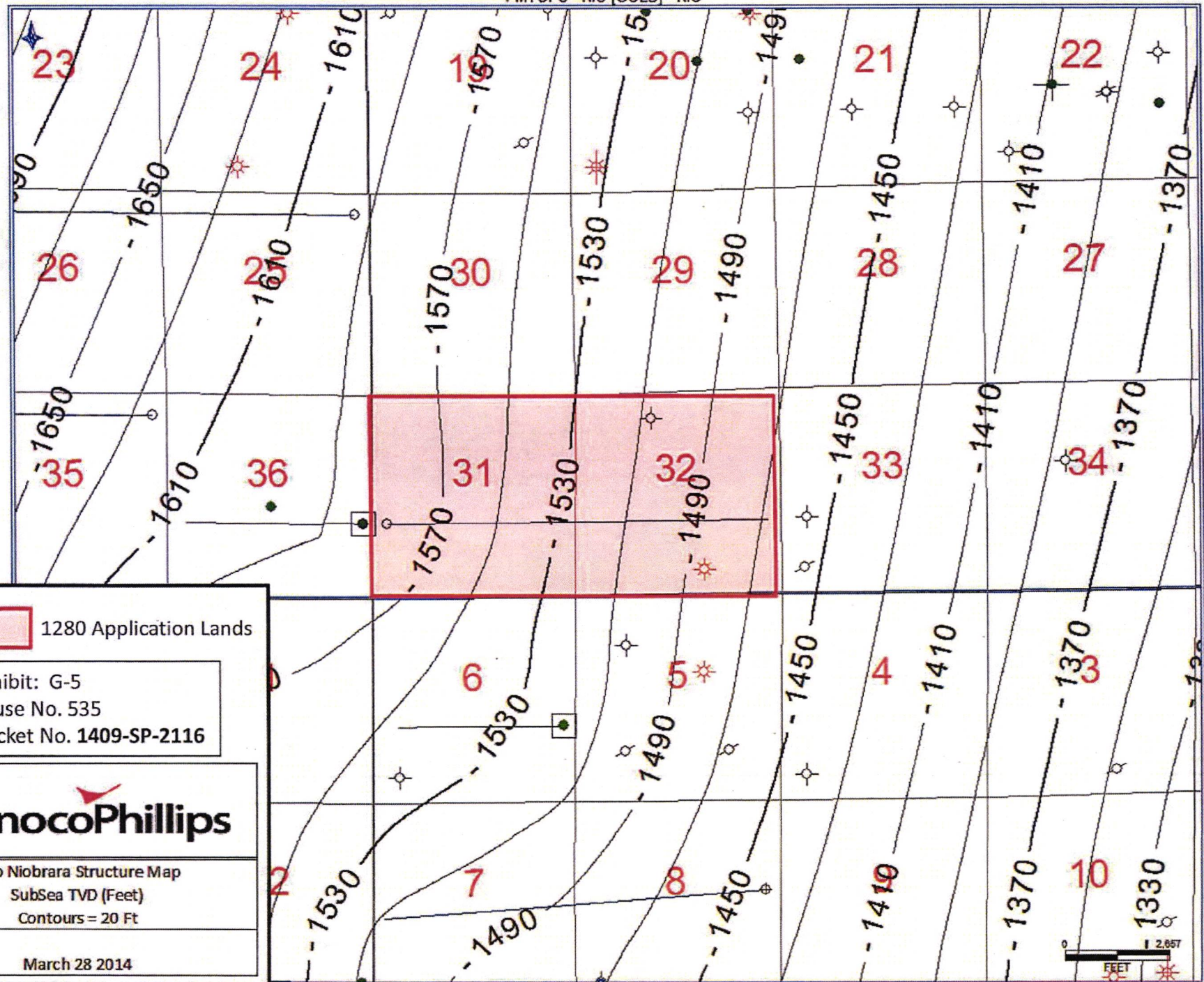
East-West Cross Section
Lost Sand 3-63 31-32

Horizontal Scale = 177.0
Vertical Scale = 12.5
Vertical Exaggeration = 14.2x

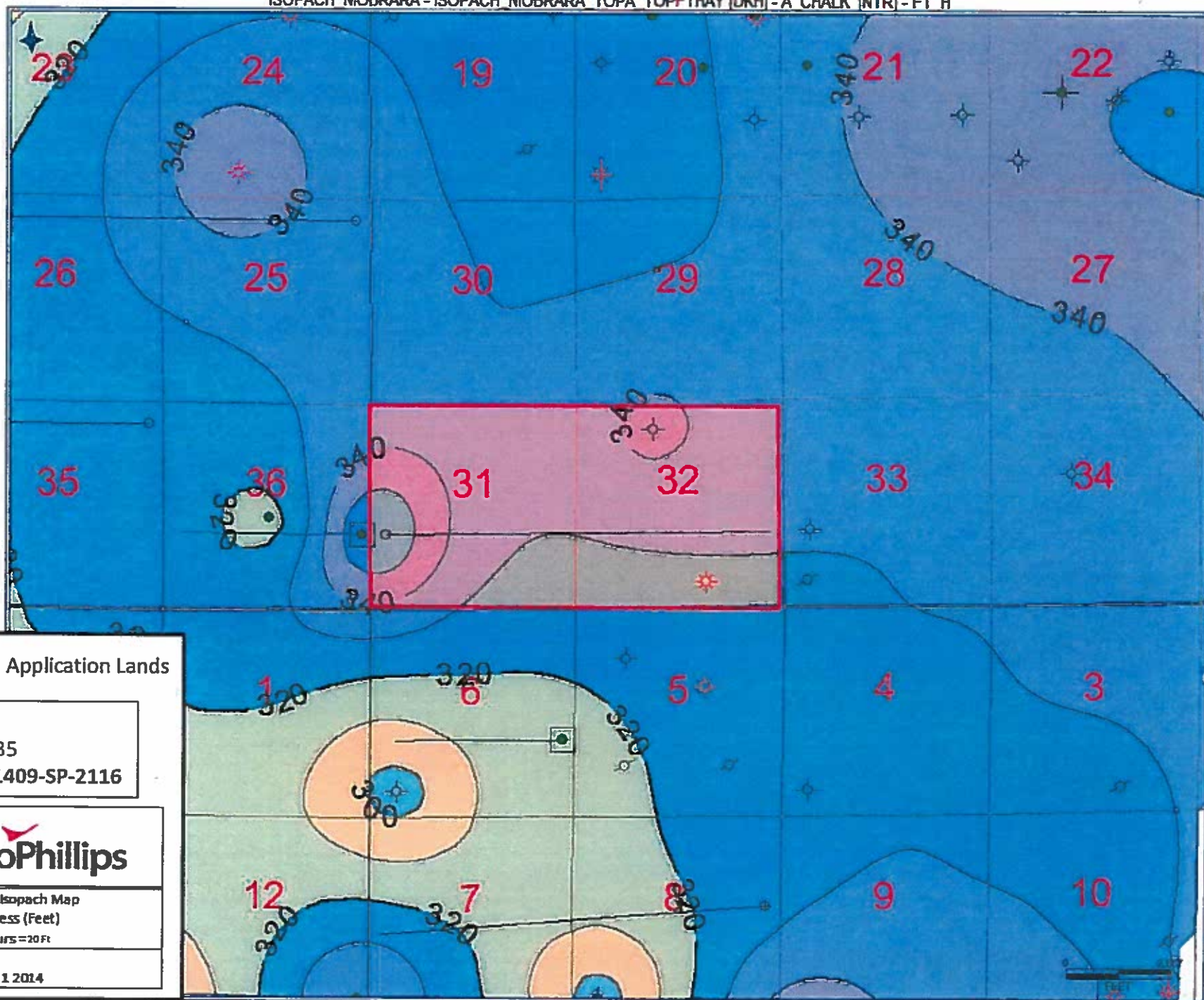
LOG CURVES
0 250 GR (GAPI)
1 100 ILD (OHMM)
CUTOFF = 25.00

Well Name ● Well Number
Direction

Exhibit: G-4
Cause No. 535
Docket No. 1409-SP-2116



ISOPACH NIOBRARA - ISOPACH NIOBRARA TOPA TOP THAY [DKH] - A CHALK [NTR] - FT H



1280 Application Lands

Exhibit: G-6

Cause No. 535

Docket No. 1409-SP-2116

ConocoPhillips

Niobrara Isopach Map
Thickness (Feet)
Contours = 20 Ft

July 1 2014

Supplemental Engineering Testimony – Clint Hutchinson

Cause No. 535; Docket No. 1409-SP-2113

1280 Acres Spacing Application – Niobrara Formation

Adams County

September 2014 Colorado Oil and Gas Conservation Commission Hearing

In support of the Verified Application of ConocoPhillips in Cause No. 535, Docket 1409-SP-2113 (the Application), Clint Hutchinson, Lead Reservoir Engineer, upon oath, disposes and states as follows:

- a. I am currently employed as a Reservoir Engineer at ConocoPhillips. I have knowledge of the Reservoir Engineering characteristics of the Niobrara formation underlying the Application Lands. I have over 15 years of experience in the oil and gas industry. A true and correct copy of my resume is included as Exhibit E-1. To the best of my knowledge and belief, each of these Exhibits is correct and accurate as of the date of this Verified Statement.
- b. Exhibit E-2 is a base map of the application lands.
- c. Exhibit E-3 demonstrates the additional drainage area available with a long lateral. Allowing for setbacks, the total length of two short laterals is 8,720 feet as compared to the long lateral length of 9,640 feet. The long lateral exposes an additional 920 feet of reservoir. The drilling of a long lateral would permit the recovery with horizontal wells of the resource within the 920-foot area between the two sections which would otherwise not be recovered with 640-acre spacing and 460-foot setbacks on each side of the section line. Drilling a long lateral prevents waste by recovering additional oil and gas resources.
- d. Exhibit E-4 is the type curve developed from my study of offset wells in the Wattenberg Field. This type curve represents the oil profile developed from 27 horizontal wells completed in the Niobrara formation with laterals greater than 6,000 feet in length. Estimated Ultimate Recovery (EUR) for the oil type curve is 208,163 barrels of oil.
- e. Exhibit E-5 shows the estimated drainage area for a horizontal Niobrara well on the Application Lands assuming my estimated Wattenberg oil type curve EUR of 208,163 barrels. ConocoPhillips rock and fluid parameters used in this estimate include a net pay of 40 feet, a porosity of 7.0%, a water saturation of 20%, a formation volume factor of 1.7 reservoir barrels per stock tank barrel, and a recovery factor of 5%.

The effective porosity was derived from a combination of conventional core analysis and interpretation of the bulk density from wireline logging. Bulk density was utilized as an input to a regression tied to the conventional core porosity analysis. The statistical average porosity across our targeted zone in the Niobrara is approximately 7%. The net thickness was derived by utilizing porosity and water saturation cut-offs. The porosity was derived as stated above and the water saturation was an interpretation of our target formation in the Niobrara based on Archie's equation. The statistical average water saturation and net thickness across our targeted zone is approximately 20% and 40 feet, respectively. The petrophysical parameters were statistical averages derived from our type log, the Tebo 29 1H. However, these values are somewhat consistent across acreage we have assessed. The formation volume factor was calculated from company PVT analysis.

The estimated drainage area is not greater than 407.3 acres per individual well. If a second optional well is drilled, total drainage area from both wells is estimated to be not greater than 814.5 acres. Thus, the proposed 1280 acre drilling and spacing units are not smaller than the maximum area that can be economically and efficiently drained by a horizontal well in the Niobrara formation within each such unit, and a second optional horizontal well in each such unit would promote efficient drainage and not result in waste.

- f. Economics were run using completed well costs of \$14,450,389 for the Lost Sand 3-63 31-32, the type curve presented in this exhibit, and ConocoPhillips operating cost assumptions. The single well economics meet the Company's requirements for exploration wells.
- g. Exhibit E-6 is a summary of my conclusions relevant to this Application.
 - 1. The drainage area of a horizontal well in the Niobrara formation of the Application Lands having a wellbore lateral of greater than 6,000 feet in length is estimated to be no greater than 407.3 acres.
 - 2. A horizontal well with a greater than 6,000 foot lateral producing from the Niobrara formation meets ConocoPhillips' economic requirements for explorations wells.
 - 3. The proposed 1280 acre drilling and spacing unit, with the requested setbacks, for a horizontal well in the Niobrara formation in the Application Lands, and authorization for an optional second such well in each unit, will promote efficient drainage, protect correlative rights, and prevent waste. The drilling of a long lateral will recover resource within the 920 foot area between the two sections which would otherwise not be recovered with 640-acre spacing and 460-foot setbacks.

I reserve the right to modify or supplement this testimony and the attached exhibits prior to the September 2014 COGCC hearing.

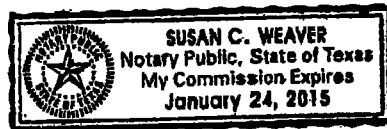
Clint Hutchinson
Clint Hutchinson

Subscribed to and sworn to before me this 28 day of August, 2014, by Clint Hutchinson, Lead Reservoir Engineer.

Notary Public Susan C. Weaver

My Commission Expires: 1-24-15

Address: 887 Glenchester, Houston, TX 77079



*****Exhibits E-1 through E-6 Follow on the Next Pages*****

Resume

CLINT HUTCHINSON
ConocoPhillips Company
P.O. Box 2197 Houston, TX 77252
Clint.L.Hutchinson@ConocoPhillips.com
281-647-1813

2013: Lead Reservoir Engineer – Niobrara Implementation - ConocoPhillips Houston, TX

Responsible for providing guidance and mentorship to reservoir engineering staff. Coordinate production performance analysis and reservoir studies.

2009-2013: Staff Reservoir Engineer – Eagle Ford Development - ConocoPhillips Houston, TX

Responsible for ensuring the implementation of a multi-rig drilling program. Identified and prepared prospects for drilling. Prepared field development plans. Developed type curves. Performed production performance analysis. Coordinated completion studies. Performed reservoir studies. Evaluated acreage for acquisition.

2003-2009: Staff Reservoir Engineer – South Texas Development- ConocoPhillips Houston, TX

Responsible for ensuring the implementation of a multi-rig drilling program. Identified and prepared prospects for drilling. Performed production performance analysis. Evaluated acreage for acquisition.

2001-2003: Reservoir Engineer – Gulf Coast Development - ConocoPhillips Houston, TX

Evaluated drilling prospects. Prepared acreage for disposition.

1999-1997: Reservoir Engineer – San Juan Development – Phillips Petroleum Farmington, NM

Identified and prepared prospects for drilling. Performed performance analysis. Maintained reserve forecasts.

1996-1999: Reservoir Engineer – Gulf Coast Development – Phillips Petroleum Houston, TX

Evaluated drilling and recompletion prospects. Maintained reserve forecasts. Prepared acreage for disposition.

Education

1992-1996: Colorado School of Mines
B.S. Petroleum Engineering

Golden, CO

Exhibit E – 1
Cause #535
Docket #1409-SP-2113

Application Lands – Base Map

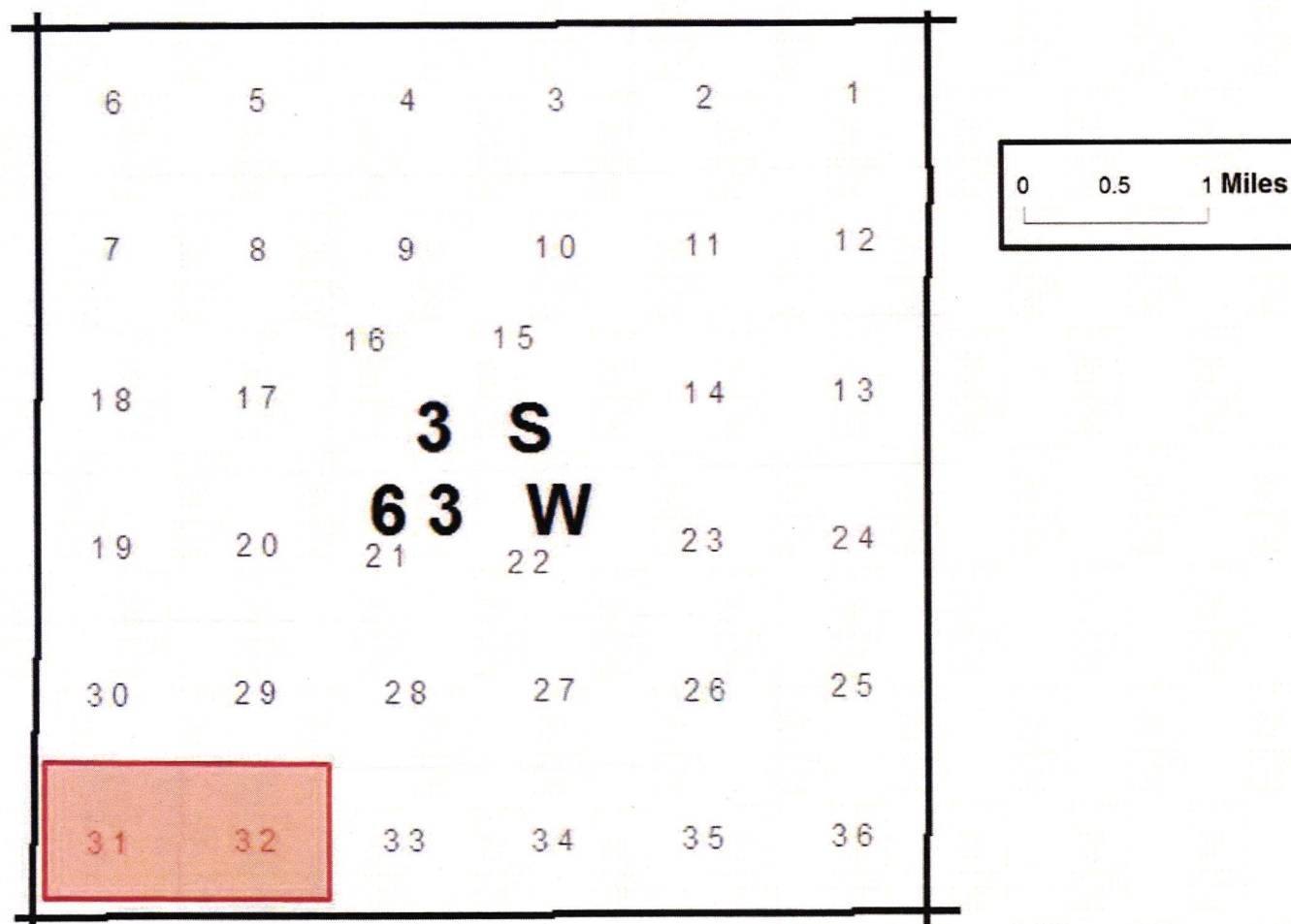
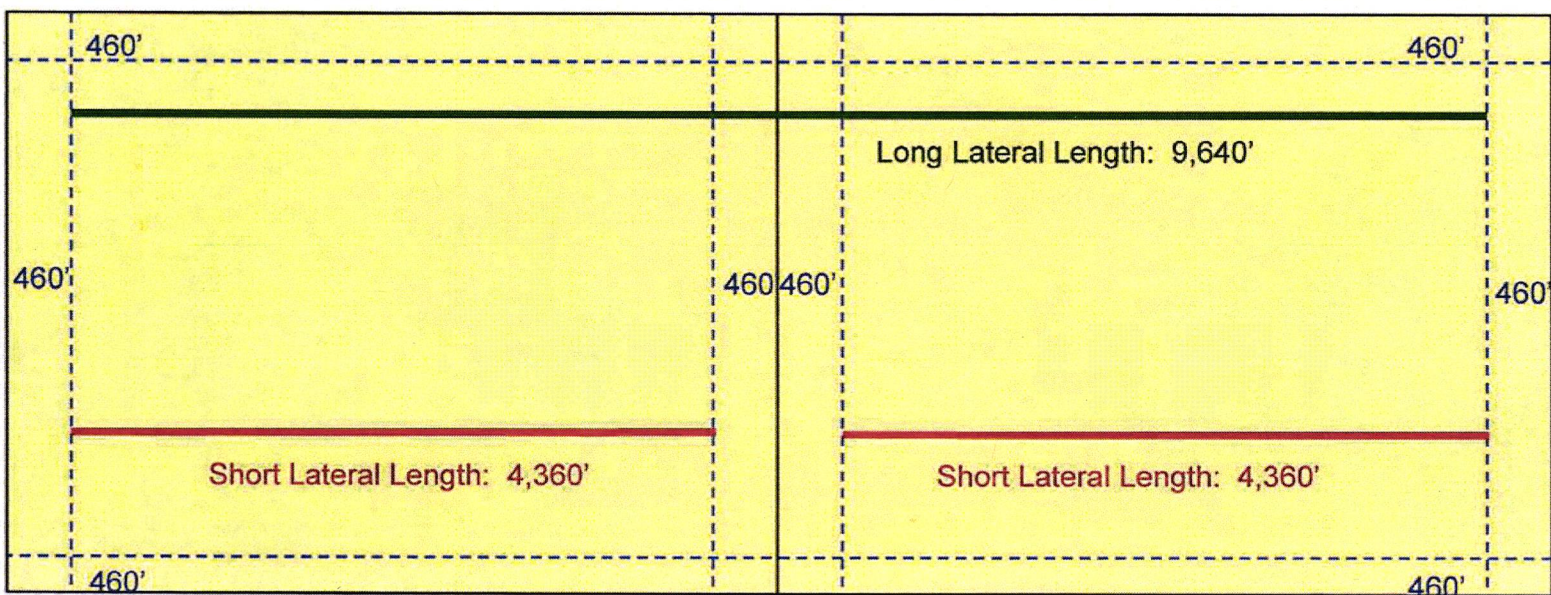


Exhibit E – 2
Cause #535
Docket #1409-SP-2113

 1280 Acre Application Lands

Long Laterals Contact More Reservoir Than Short Laterals



Ref: Wickstrom 18-2H Hearing
Cause # 535
Docket # 1305-SP-62 & 1305-UP-75

Lateral Type	Two-Section Lateral Length, ft
1 Long	9,640
2 Short	8,720
Additional length	920

Exhibit E – 3
Cause #535
Docket #1409-SP-2113

Niobrara Long Lateral Type Curve

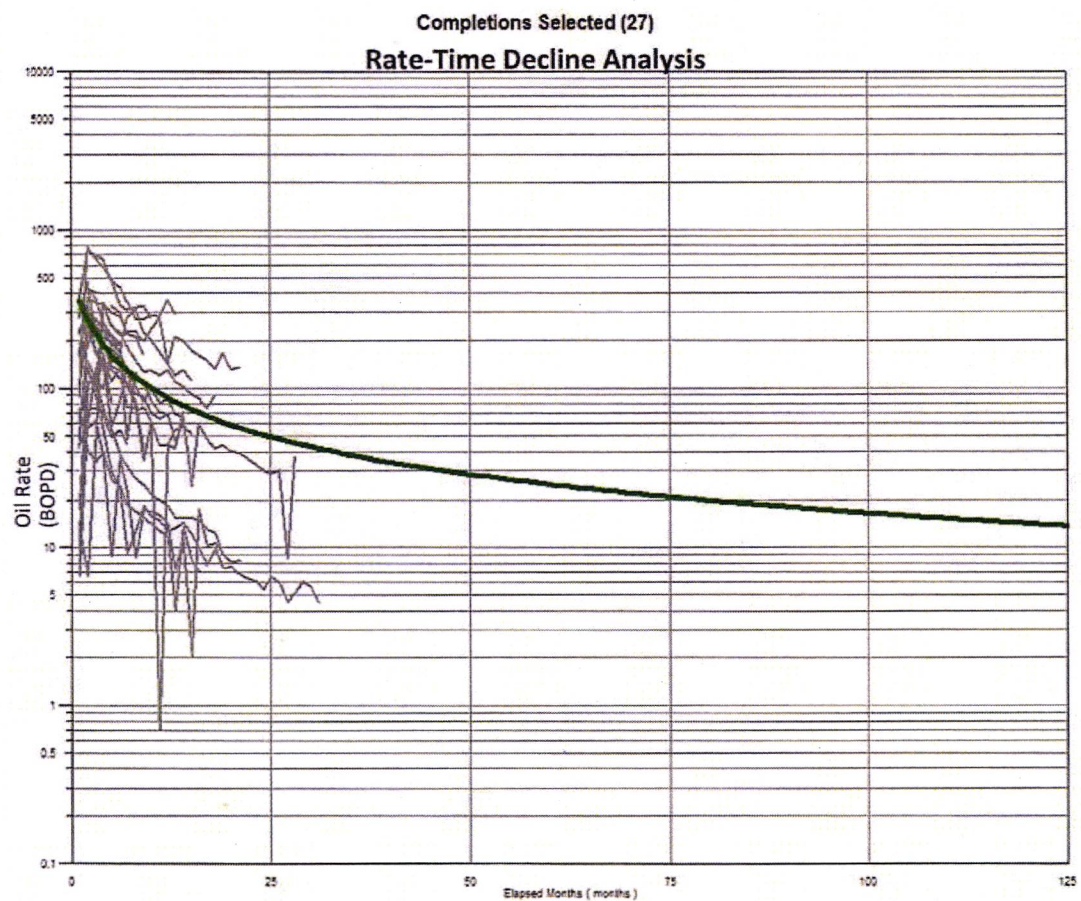


Exhibit E – 4
Cause #535
Docket #1409-SP-2113

Niobrara Long Lateral Drainage Area Calculation

COP PARAMETERS - LONG LATERAL

EUR Oil, bbls	208,163.00	estimated ultimate oil recovery
h, ft	40	net thickness
Por, fraction	0.07	porosity
Sw, fraction	0.2	water saturation
Boi, rb/stb	1.7	formation volume factor
RF, fraction	0.05	recovery factor
OOIP, stb	4,163,260	EUR/RF

$$\text{Drainage area, acres} = \text{OOIP} * \text{Boi} / [7758 * h * \text{Por} * (1 - \text{Sw})]$$

Drainage area	407.3	acres per well
	814.5	acres per two wells

Exhibit E – 5
Cause #535
Docket #1409-SP-2113

Engineering Summary

- The drainage area of a horizontal well in the Niobrara formation of the Application Lands having a wellbore lateral of greater than 6,000 feet in length is estimated to be no greater than 407.3 acres.
- A horizontal well with a greater than 6,000 foot lateral producing from the Niobrara formation meets ConocoPhillips' economic requirements for exploration wells.
- The proposed 1280 acre drilling and spacing unit, with the requested setbacks, for a horizontal well in the Niobrara formation in the Application Lands, and authorization for an optional second such well in each unit, will promote efficient drainage, protect correlative rights, and prevent waste. The drilling of a long lateral will recover resource within the 920 foot area between the two sections which would otherwise not be recovered with 640-acre spacing and 460-foot setbacks.

Exhibit E – 6
Cause #535
Docket #1409-SP-2113