



SUNDRY NOTICES AND REPORTS ON WELLS - FORM 4

INDUSTRIAL COMMISSION OF NORTH DAKOTA
OIL AND GAS DIVISION
600 EAST BOULEVARD DEPT 405
BISMARCK, ND 58505-0840
SFN 5749 (09-2006)

PLEASE READ INSTRUCTIONS BEFORE FILLING OUT FORM.

PLEASE SUBMIT THE ORIGINAL AND ONE COPY.

<input type="checkbox"/> Notice of Intent	Approximate Start Date
<input checked="" type="checkbox"/> Report of Work Done	Date Work Completed February 4, 2015
<input type="checkbox"/> Notice of Intent to Begin a Workover Project that may Qualify for a Tax Exemption Pursuant to NDCC Section 57-51.1-03.	Approximate Start Date

<input type="checkbox"/> Drilling Prognosis	<input type="checkbox"/> Spill Report
<input type="checkbox"/> Redrilling or Repair	<input type="checkbox"/> Shooting
<input type="checkbox"/> Casing or Liner	<input type="checkbox"/> Acidizing
<input type="checkbox"/> Plug Well	<input type="checkbox"/> Fracture Treatment
<input type="checkbox"/> Supplemental History	<input type="checkbox"/> Change Production Method
<input type="checkbox"/> Temporarily Abandon	<input type="checkbox"/> Reclamation
<input checked="" type="checkbox"/> Other	Well on pump

Well Name and Number

Chalmers 5301 44-24 2TR

Footages 959 F S L	Qtr-Qtr 245 F E L	Section SESE	Township 24	Range 153 N 101 W
Field Baker	Pool Bakken	County McKenzie		

24-HOUR PRODUCTION RATE

Before	After	Oil	Bbls	Oil	Bbls
Water	Bbls	Water	Bbls		
Gas	MCF	Gas	MCF		

Name of Contractor(s)

Address	City	State	Zip Code
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DETAILS OF WORK

Effective 2/4/2015 the above referenced well is on pump.

End of Tubing: 2-7/8" L-80 tubing @ 9933'

Pump: 2-1/2" x 2.0" x 24' insert pump @ 9691'

Company Oasis Petroleum North America LLC	Telephone Number 281 404-9652	
Address 1001 Fannin, Suite 1500		
City Houston	State TX	Zip Code 77002
Signature 	Printed Name Victoria Siemieniewski	
Title Regulatory Specialist	Date March 19, 2015	
Email Address vsiemieniewski@oasispetroleum.com		

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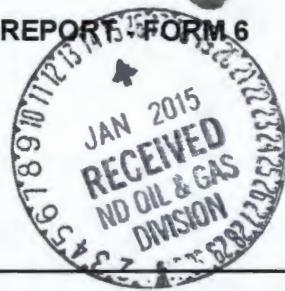
<input checked="" type="checkbox"/> Received	<input type="checkbox"/> Approved
Date 4-1-2015	
By 	
Title JARED THUNE	
Engineering Technician	



WELL COMPLETION OR RECOMPLETION REPORT FORM 6

INDUSTRIAL COMMISSION OF NORTH DAKOTA
OIL AND GAS DIVISION
600 EAST BOULEVARD DEPT 405
BISMARCK, ND 58505-0840
SFN 2468 (04-2010)

Well File No.
28342



PLEASE READ INSTRUCTIONS BEFORE FILLING OUT FORM.

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Designate Type of Completion

- | | | | | | |
|----------------------------------------------|-----------------------------------|--------------------------------------------|----------------------------------------|-----------------------------------------------|--------------------------------------------------|
| <input checked="" type="checkbox"/> Oil Well | <input type="checkbox"/> EOR Well | <input type="checkbox"/> Recompletion | <input type="checkbox"/> Deepened Well | <input type="checkbox"/> Added Horizontal Leg | <input type="checkbox"/> Extended Horizontal Leg |
| <input type="checkbox"/> Gas Well | <input type="checkbox"/> SWD Well | <input type="checkbox"/> Water Supply Well | <input type="checkbox"/> Other: | | |

Well Name and Number

Chalmers 5301 44-24 2TR

Spacing Unit Description

Sec. 19/20 T153N R101W

Operator

Oasis Petroleum North America

Telephone Number

(281) 404-9591

Field

Baker

Address

1001 Fannin, Suite 1500

Pool

Bakken

City

Houston

State

TX

Zip Code

77002

Permit Type

Wildcat

Development

Extension

LOCATION OF WELL

At Surface	959 F S L	245 F E L	Qtr-Qtr SESE	Section 24	Township 153 N	Range 101 W	County McKenzie
Spud Date	May 14, 2014	Date TD Reached	June 12, 2014	Drilling Contractor and Rig Number	Nabors B25	KB Elevation (Ft)	Graded Elevation (Ft)

Type of Electric and Other Logs Run (See Instructions)

MWD/GR run from KOP to TD; CBL from intermediate to surface

1997

1942

CASING & TUBULARS RECORD (Report all strings set in well)

Well Bore	Type	String Size (Inch)	Top Set (MD Ft)	Depth Set (MD Ft)	Hole Size (Inch)	Weight (Lbs/Ft)	Anchor Set (MD Ft)	Packer Set (MD Ft)	Sacks Cement	Top of Cement
Surface Hole	Surface	13 5/8	0	2058	17 1/2	36			592	0
Vertical Hole	Intermediate	9 5/8	0	5993	12 1/4	40			974	3620
Vertical Hole	Production	7	0	11043	8 3/4	29/32			794	3600
Lateral1	Liner	4 1/2"	10250	20883	6	13.5			580	

PERFORATION & OPEN HOLE INTERVALS

Well Bore	Well Bore TD Drillers Depth (MD Ft)	Completion Type	Open Hole/Perforated Interval (MD,Ft)		Kick-off Point (MD Ft)	Top of Casing Window (MD Ft)	Date Perfd or Drilled	Date Isolated	Isolation Method	Sacks Cement
			Top	Bottom						
Lateral1	20883	Perforations	11214	20883	10150		10/31/2014			
	11374			11374						
ST 1	12987		11512	12987						
ST 2	20904		12704	20904						

PRODUCTION

Current Producing Open Hole or Perforated Interval(s), This Completion, Top and Bottom, (MD Ft)				Name of Zone (If Different from Pool Name)			
Lateral 1- 11043' to 20883							

Date Well Completed (SEE INSTRUCTIONS)		Producing Method		Pumping-Size & Type of Pump			Well Status (Producing or Shut-In)	
December 18, 2014		Flowing					Producing	
Date of Test 12/29/2014	Hours Tested 24	Choke Size 40 /64	Production for Test	Oil (Bbls) 951	Gas (MCF) 640	Water (Bbls) 2231	Oil Gravity-API (Corr.) °	Disposition of Gas Sold
Flowing Tubing Pressure (PSI)	Flowing Casing Pressure (PSI)	Calculated 24-Hour Rate	Oil (Bbls)	951	Gas (MCF)	640	Water (Bbls)	Gas-Oil Ratio 672

GEOLOGICAL MARKERS

PLUG BACK INFORMATION

CORES CUT

Scores Cut					
Top (Ft)	Bottom (Ft)	Formation	Top (Ft)	Bottom (Ft)	Formation

Drill Stem Test

Well Specific Stimulation

Date Stimulated 10/31/2014	Stimulated Formation Three Forks		Top (Ft) 11043	Bottom (Ft) 20883	Stimulation Stages 36	Volume 207943	Volume Units Barrels
Type Treatment Sand Frac	Acid %	Lbs Proppant 3775876	Maximum Treatment Pressure (PSI) 9936		Maximum Treatment Rate (BBLS/Min) 73.0		
Details 40/70 Ceramic: 1461677 30/50 Ceramic: 2271618 40/70 White: 42581							
Date Stimulated	Stimulated Formation		Top (Ft)	Bottom (Ft)	Stimulation Stages	Volume	Volume Units
Type Treatment	Acid %	Lbs Proppant	Maximum Treatment Pressure (PSI)		Maximum Treatment Rate (BBLS/Min)		
Details							
Date Stimulated	Stimulated Formation		Top (Ft)	Bottom (Ft)	Stimulation Stages	Volume	Volume Units
Type Treatment	Acid %	Lbs Proppant	Maximum Treatment Pressure (PSI)		Maximum Treatment Rate (BBLS/Min)		
Details							
Date Stimulated	Stimulated Formation		Top (Ft)	Bottom (Ft)	Stimulation Stages	Volume	Volume Units
Type Treatment	Acid %	Lbs Proppant	Maximum Treatment Pressure (PSI)		Maximum Treatment Rate (BBLS/Min)		
Details							
Date Stimulated	Stimulated Formation		Top (Ft)	Bottom (Ft)	Stimulation Stages	Volume	Volume Units
Type Treatment	Acid %	Lbs Proppant	Maximum Treatment Pressure (PSI)		Maximum Treatment Rate (BBLS/Min)		
Details							

ADDITIONAL INFORMATION AND/OR LIST OF ATTACHMENTS

I hereby swear or affirm that the information provided is true, complete and correct as determined from all available records.	Email Address jswenson@oasispetroleum.com	Date 01/14/2015
Signature 	Printed Name Jennifer Swenson	Title Regulatory Assistant

Industrial Commission of North Dakota
Oil and Gas Division

Verbal Approval To Purchase and Transport Oil

Well or Facility No
28342

Tight Hole **No**

OPERATOR

Operator
OASIS PETROLEUM NORTH AMERICA LL

Representative
Kelly Johnson

Rep Phone
(701) 580-0524

WELL INFORMATION

Well Name

CHALMERS 5301 44-24 2TR

Inspector

Richard Dunn

Well Location QQ Sec Twp Rng
SESE 24 153 N 101 W

County
MCKENZIE

Footages 959 Feet From the S Line
245 Feet From the E Line

Field
BAKER
Pool
BAKKEN

Date of First Production Through Permanent Wellhead **12/18/2014** This Is Not The First Sales

PURCHASER / TRANSPORTER

Purchaser
OASIS PETROLEUM MARKETING LLC

Transporter
HILAND CRUDE, LLC

TANK BATTERY

Central Tank Battery Number :

SALES INFORMATION This Is Not The First Sales

ESTIMATED BARRELS TO BE SOLD		ACTUAL BARRELS SOLD		DATE
5000	BBLS	191	BBLS	12/18/2014
	BBLS		BBLS	

DETAILS

Start Date **12/18/2014**
Date Approved **12/18/2014**
Approved By **Jessica Gilkey**



AUTHORIZATION TO PURCHASE AND TRANSPORT OIL FROM LEASE - Form 8

INDUSTRIAL COMMISSION OF NORTH DAKOTA
OIL AND GAS DIVISION
600 EAST BOULEVARD DEPT 405
BISMARCK, ND 58505-0840
SFN 5698 (03-2000)



Well File No.

28342

NDIC CTB No.

220407

PLEASE READ INSTRUCTIONS BEFORE FILLING OUT FORM.

PLEASE SUBMIT THE ORIGINAL AND FOUR COPIES.

Well Name and Number CHALMERS 5301 44-24 2TR	Qtr-Qtr SESE	Section 24	Township 153	Range 101	County McKenzie
--------------------------------------------------------	-----------------	---------------	-----------------	--------------	--------------------

Operator Oasis Petroleum North America LLC	Telephone Number (281) 404-9573	Field BAKER
------------------------------------------------------	-------------------------------------------	-----------------------

Address 1001 Fannin, Suite 1500	City Houston	State TX	Zip Code 77002
-------------------------------------------	------------------------	--------------------	--------------------------

Name of First Purchaser Oasis Petroleum Marketing LLC	Telephone Number (281) 404-9627	% Purchased 100%	Date Effective December 18, 2014
Principal Place of Business 1001 Fannin, Suite 1500	City Houston	State TX	Zip Code 77002
Field Address	City	State	Zip Code
Transporter Hiland Crude, LLC	Telephone Number (580) 616-2058	% Transported 75%	Date Effective December 18, 2014
Address P.O. Box 3886	City Enid	State OK	Zip Code 73702

The above named producer authorizes the above named purchaser to purchase the percentage of oil stated above which is produced from the lease designated above until further notice. The oil will be transported by the above named transporter.

Other First Purchasers Purchasing From This Lease	% Purchased	Date Effective
Other First Purchasers Purchasing From This Lease	% Purchased	Date Effective
Other Transporters Transporting From This Lease	% Transported	Date Effective
Prairie Field Services, LLC	25%	December 18, 2014
Other Transporters Transporting From This Lease	% Transported	Date Effective
		December 18, 2014

Comments

I hereby swear or affirm that the information provided is true, complete and correct as determined from all available records.	Date December 22, 2014
Signature 	Printed Name Brianna Salinas Title Marketing Assistant

Above Signature Witnessed By:

Signature 	Printed Name Dina Barron Title Mktg. Contracts Administrator
---------------	-------------------------------------------------------------------------------------

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Date Approved JAN 23 2015
By
Title Oil & Gas Production Analyst



SUNDRY NOTICES AND REPORTS ON WELLS - FORM

INDUSTRIAL COMMISSION OF NORTH DAKOTA
OIL AND GAS DIVISION
600 EAST BOULEVARD DEPT 405
BISMARCK, ND 58505-0840
SFN 5749 (09-2006)



Well File No.
28342

PLEASE READ INSTRUCTIONS BEFORE FILLING OUT FORM.

PLEASE SUBMIT THE ORIGINAL AND ONE COPY.

<input checked="" type="checkbox"/> Notice of Intent	Approximate Start Date October 31, 2014	<input type="checkbox"/> Drilling Prognosis	<input type="checkbox"/> Spill Report
<input type="checkbox"/> Report of Work Done	Date Work Completed	<input type="checkbox"/> Redrilling or Repair	<input type="checkbox"/> Shooting
<input type="checkbox"/> Notice of Intent to Begin a Workover Project that may Qualify for a Tax Exemption Pursuant to NDCC Section 57-51.1-03.		<input type="checkbox"/> Casing or Liner	<input type="checkbox"/> Acidizing
Approximate Start Date		<input type="checkbox"/> Plug Well	<input type="checkbox"/> Fracture Treatment
		<input type="checkbox"/> Supplemental History	<input type="checkbox"/> Change Production Method
		<input type="checkbox"/> Temporarily Abandon	<input type="checkbox"/> Reclamation
		<input type="checkbox"/> Other	Waiver from tubing/packer requirement

Well Name and Number

Chalmers 5301 44-24 2TR

Footages 959 F S L	Qtr-Qtr 245 F E L	Section SESE	Township 24	Range 153 N 101 W
Field Baker	Pool Bakken	County McKenzie		

24-HOUR PRODUCTION RATE

Before	After	Oil	Bbls
Oil	Bbls	Oil	Bbls
Water	Bbls	Water	Bbls

Name of Contractor(s)

Address	City	State	Zip Code
---------	------	-------	----------

DETAILS OF WORK

Oasis Petroleum North America LLC requests a variance to NDAC 43-02-03-21 for the tubing/packer requirement: Casing, tubing, and cementing requirements during the completion period immediately following the upcoming fracture stimulation.

The following assurances apply:

1. the well is equipped with new 29# and 32# casing at surface with an API burst rating of 11,220 psi;
2. The Frac design will use a safety factor of 0.85 API burst rating to determine the maximum pressure;
3. Damage to the casing during the frac would be detected immediately by monitoring equipment;
4. The casing is exposed to significantly lower rates and pressures during flowback than during the frac job;
5. The frac fluid and formation fluids have very low corrosion and erosion rates;
6. Production equipment will be installed as soon as possible after the well ceases flowing;
7. A 300# gauge will be installed on the surface casing during the flowback period

Company Oasis Petroleum North America LLC	Telephone Number 281-404-9436	
Address 1001 Fannin, Suite 1500		
City Houston	State TX	Zip Code 77002
Signature 	Printed Name Jennifer Swenson	
Title Regulatory Assistant	Date October 31, 2014	
Email Address jswenson@oasispetroleum.com		

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<input type="checkbox"/> Received	<input checked="" type="checkbox"/> Approved
Date <i>November 5, 2014</i>	
By 	
Title PETROLEUM ENGINEER	



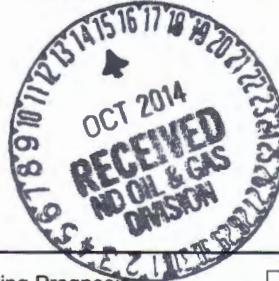
SUNDRY NOTICES AND REPORTS ON WELLS - FORM 4

INDUSTRIAL COMMISSION OF NORTH DAKOTA
OIL AND GAS DIVISION
600 EAST BOULEVARD DEPT 405
BISMARCK, ND 58505-0840
SFN 5749 (09-2006)

CTB

Well File No.

220407-01



PLEASE READ INSTRUCTIONS BEFORE FILLING OUT FORM.

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<input checked="" type="checkbox"/> Notice of Intent	Approximate Start Date October 15, 2014	<input type="checkbox"/> Drilling Prognosis	<input type="checkbox"/> Spill Report
<input type="checkbox"/> Report of Work Done	Date Work Completed	<input type="checkbox"/> Redrilling or Repair	<input type="checkbox"/> Shooting
<input type="checkbox"/> Notice of Intent to Begin a Workover Project that may Qualify for a Tax Exemption Pursuant to NDCC Section 57-51.1-03.	Approximate Start Date	<input type="checkbox"/> Casing or Liner	<input type="checkbox"/> Acidizing
		<input type="checkbox"/> Plug Well	<input type="checkbox"/> Fracture Treatment
		<input type="checkbox"/> Supplemental History	<input type="checkbox"/> Change Production Method
		<input type="checkbox"/> Temporarily Abandon	<input type="checkbox"/> Reclamation
<input checked="" type="checkbox"/> Other	Central production facility-commingle prod		

Well Name and Number
(see details)

Footages	F	L	F	L	Qtr-Qtr	Section	20	Township	153 N	Range	100 W
Field					Pool			County			

Bakken McKenzie

24-HOUR PRODUCTION RATE

Before		After	
Oil	Bbls	Oil	Bbls
Water	Bbls	Water	Bbls
Gas	MCF	Gas	MCF

Name of Contractor(s)

Address	City	State	Zip Code
---------	------	-------	----------

DETAILS OF WORK

Oasis Petroleum North America LLC requests approval to commingle oil and gas in a central production facility known as: 5300 19-20 CTB 2 with common ownership for the following wells:

Well File #28342 Chalmes 5301 44-24 2TR SESE Sec 24-153N-R101W API 3305305924

Well File #20407 Chalmers 5301 31-19H LOT3 Sec 19-153N-101W API 33005303472

Well File #28599 Chalmers 5301 44-24 3BR SESE Sec 24 153N-101W API 3305306010

Well File #28600 Chalmers 5301 44-24 4T2R SESE Sec 21 153N-101W API 3305306011

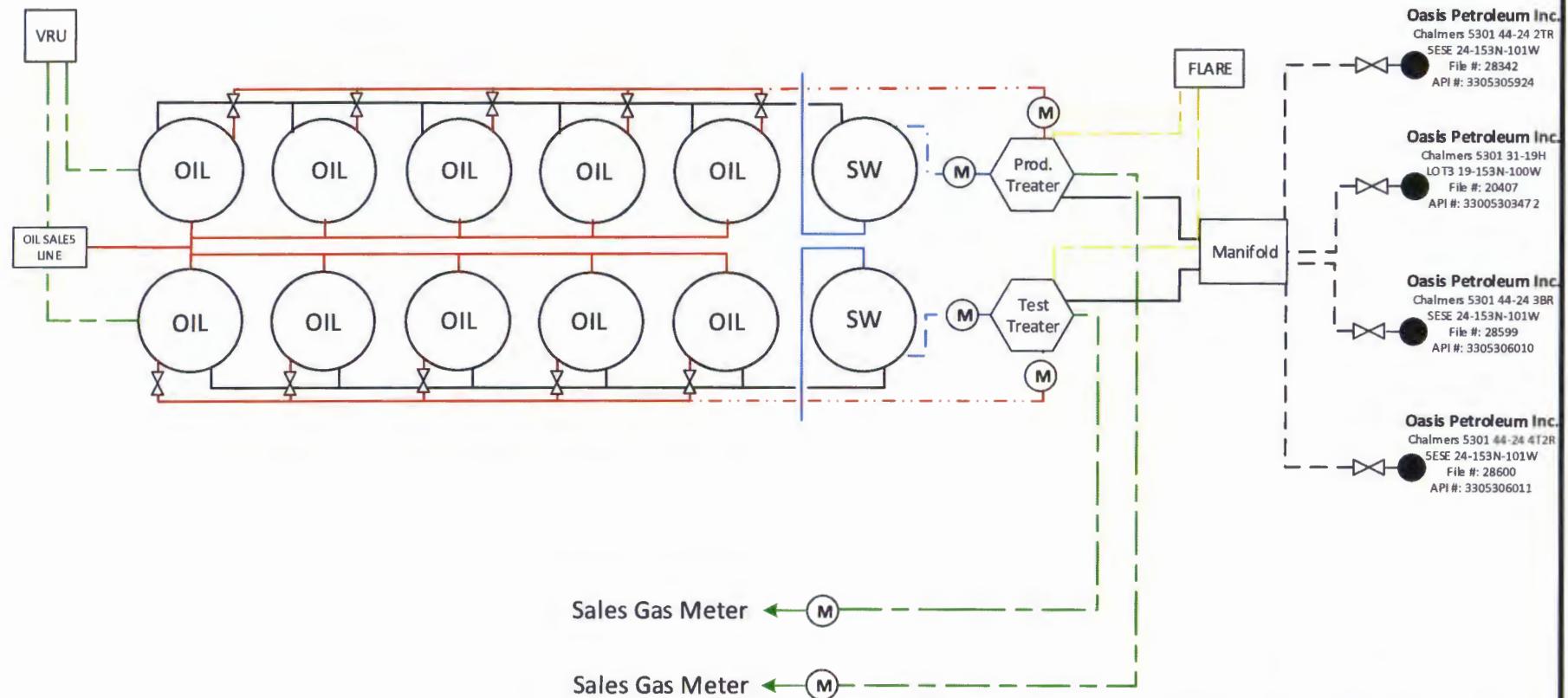
Please find the following attachments:

1. A schematic drawing of the facility which diagrams the testing, treating, routing, and transferring of production. 2. A plat showing the location of the central facility 3. Affidavit of title indicating common ownership. Oasis will allocate production measured at the central production facility to the various wells on the basis of isolated production tests utilizing oil, gas and water meters on a test separator at the central production facility. Oasis will measure the production from each well separately each month for a minimum of three days. Oasis believes that such allocation will result in an accurate determination of production from each well. Tank vapor gas is being recovered and burned by a 98% DPF enclosed combustor

Company Oasis Petroleum North America LLC	Telephone Number 281-404-9591	
Address 1001 Fannin, Suite 1500		
City Houston	State TX	Zip Code 77002
Signature 	Printed Name Chelsea Covington	
Title Regulatory Assistant	Date October 13, 2014	
Email Address ccovington@oasispetroleum.com		

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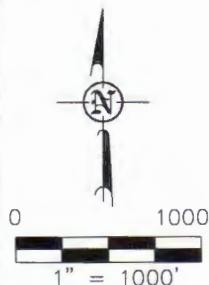
<input type="checkbox"/> Received	<input checked="" type="checkbox"/> Approved
Date 10-17-2014	
By 	
Title PETROLEUM ENGINEER	



OASIS PETROLEUM				
CHALMERS 5300 19-20 CENTRAL TANK BATTERY 2				
DATE SEPTEMBER 23, 2014	REV. 0	BY LEE	APPR.	SCALE NA
LOCATION NORTH DAKOTA	FIELD BAKER			

BATTERY LOCATION PLAT
 OASIS PETROLEUM NORTH AMERICA, LLC
 1001 FANNIN, SUITE 1500, HOUSTON, TX 77002
 "5300 19-20 CTB(A)"
 SECTION 24, T153N, R101W, 5TH P.M., MCKENZIE COUNTY, NORTH DAKOTA

THIS DOCUMENT WAS ORIGINALLY ISSUED AND SEALED BY DARYL D. KASEMAN, PLS, REGISTRATION NUMBER 3880 LS ON 10/7/14 AND THE ORIGINAL DOCUMENTS ARE STORED AT THE OFFICES OF INTERSTATE ENGINEERING, INC.



(24)

5300 19-20 CTB(A)

CHALMERS 5301 44-24 2TR
 CHALMERS 5301 44-24 3BR
 CHALMERS 5301 44-24 4T2R

FOUND STONE
 W/ AC
 AZ 90°44'54"
 5267.09' FOUND STONE & REBAR

AZ 90°03'03"

FOUND REBAR
 W/ 2" AC
 LS 2352

2630.15'

LOT 1

LOT 2

LOT 3

LOT 4

LOT 6

LOT 7

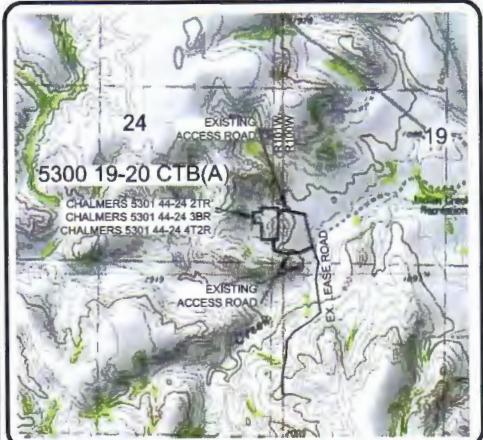
FOUND STONE
 & REBAR

2651.37'

MONUMENT - RECOVERED

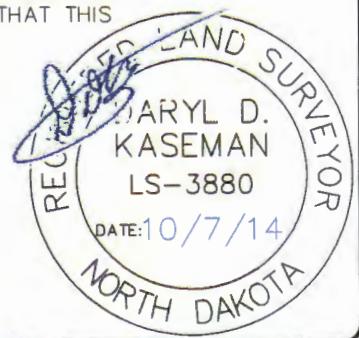
MONUMENT - NOT RECOVERED

VICINITY MAP



STAKED ON 9/3/2013
 VERTICAL CONTROL DATUM WAS BASED UPON
 GPS CONTROL POINT 16 WITH AN ELEVATION OF 2014.2'

THIS SURVEY AND PLAT IS BEING PROVIDED AT THE REQUEST
 OF ERIC BAYES OF OASIS PETROLEUM. I CERTIFY THAT THIS
 PLAT CORRECTLY REPRESENTS
 WORK PERFORMED BY ME OR UNDER MY
 SUPERVISION AND IS TRUE AND CORRECT TO
 THE BEST OF MY KNOWLEDGE AND BELIEF.



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 P.O. Box 648
 425 East Main Street
 Sidney, Montana 59270
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 Fax (406) 433-5618
www.interstateeng.com
 Other offices in Minnesota, North Dakota and South Dakota

OASIS PETROLEUM NORTH AMERICA, LLC
 BATTERY LOCATION PLAT
 SECTION 24, T153N, R101W
 MCKENZIE COUNTY, NORTH DAKOTA

Drawn By:	J.D.M.	Project No.:	S14-09-241
Checked By:	D.D.K.	Date:	OCT. 2014

Revision No.	Date	By	Description

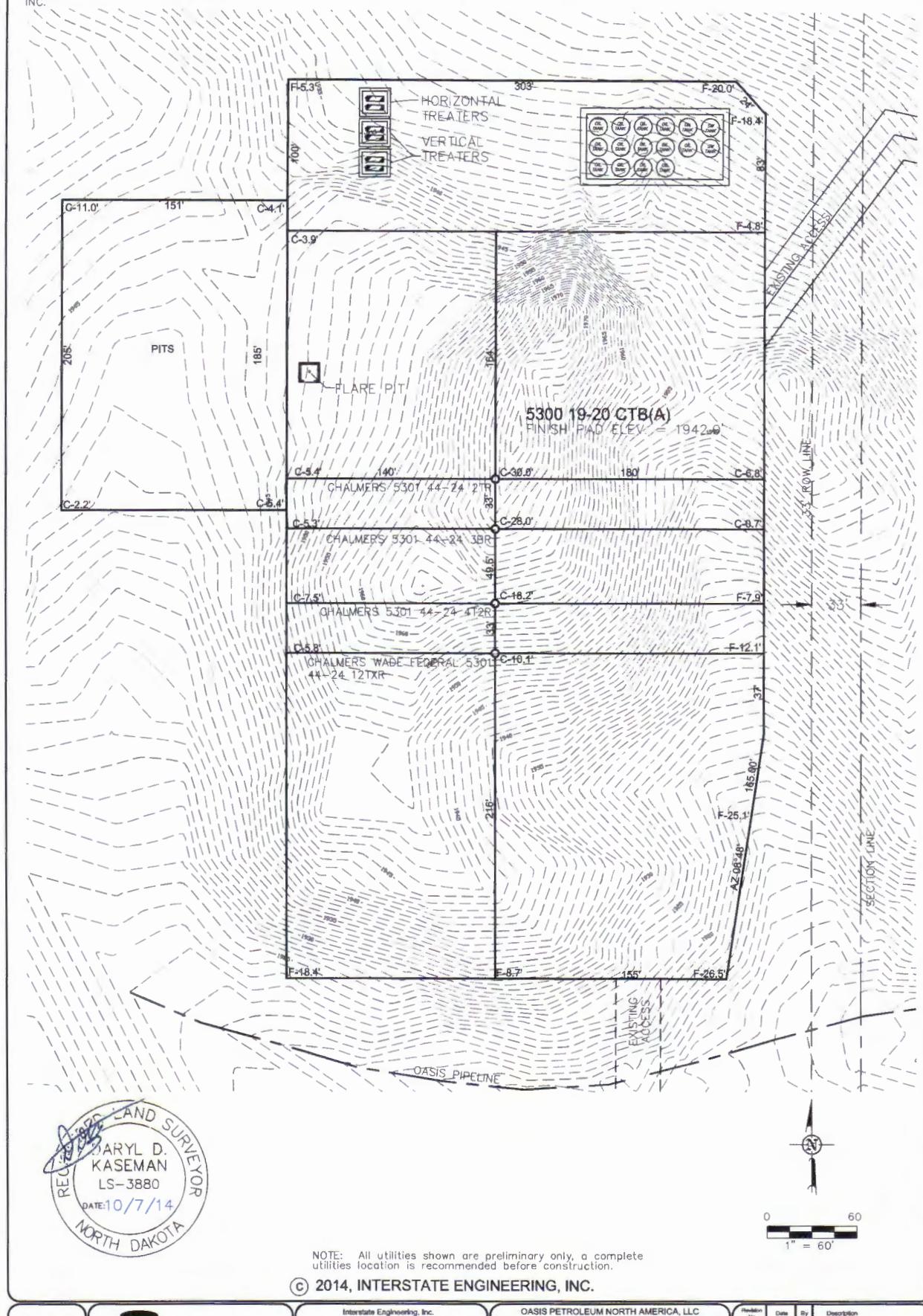
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PLS, REGISTRATION NUMBER 3880 ON
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INC.

PAD LAYOUT
OASIS PETROLEUM NORTH AMERICA, LLC
1001 FANNIN, SUITE 1500, HOUSTON, TX 77002
"5300 19-20 CTB(A)"
SECTION 24, T153N, R101W, 5th P.M., MCKENZIE COUNTY, NORTH DAKOTA



2/5



SHEET NO.

Interstate Engineering, Inc.
425 East Main Street
Sidney, Montana 59270
Ph (406) 433-5617
Fax (406) 433-5618
www.interstateeng.com
Other offices in Minnesota, North Dakota and South Dakota

OASIS PETROLEUM NORTH AMERICA, LLC
PAD LAYOUT
SECTION 24, T153N, R101W
MCKENZIE COUNTY, NORTH DAKOTA

Drawn By: J.D.M. Project No.: 314-06-261
Checked By: D.D.K. Date: OCT 2014

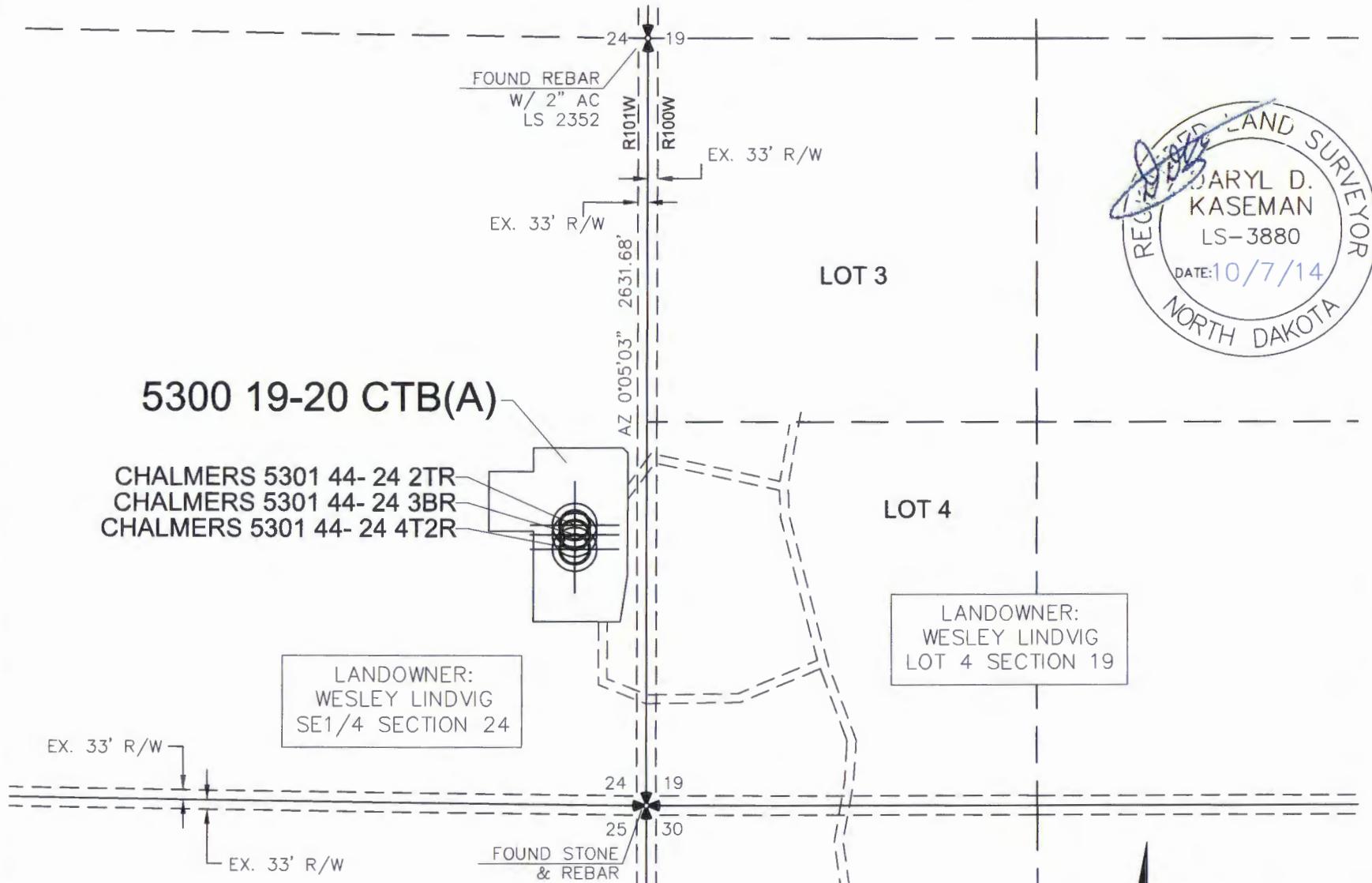
Revision No.	Date	By	Description

Q:\J\J\14\10\14-1501\State\North Dakota\5300 19-20 CTB(A)\5300 19-20 CTB(A).dwg - 10/7/2014 4:46 PM prior major

ACCESS APPROACH

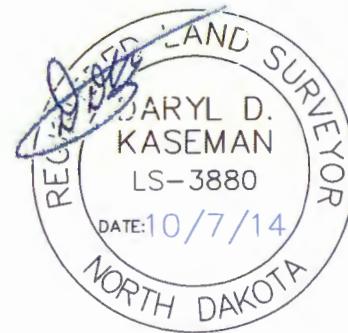
OASIS PETROLEUM NORTH AMERICA, LLC
1001 FANNIN, SUITE 1500, HOUSTON, TX 77002
"5300 19-20 CTB(A)"

SECTION 24, T153N, R101W, 5th P.M., MCKENZIE COUNTY, NORTH DAKOTA



THIS DOCUMENT WAS ORIGINALLY ISSUED AND
SEALED BY DARYL D. KASEMAN, PLS,
REGISTRATION NUMBER 3880 ON 10/7/14
AND THE ORIGINAL DOCUMENTS ARE STORED AT
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NOTE: All utilities shown are preliminary only, a complete
utilities location is recommended before construction.



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3/5

Interstate Engineering, Inc.
P.O. Box 648
425 East Main Street
Sidney, Montana 59270
Ph. (406) 433-5617
Fax. (406) 433-5618
www.interstateeng.com
Other offices in Montana, North Dakota and South Dakota

OASIS PETROLEUM NORTH AMERICA, LLC
ACCESS APPROACH
SECTION 24, T153N, R101W
MCKENZIE COUNTY, NORTH DAKOTA
Drawn By: _____ J.D.M.
Checked By: _____ D.L.K.
Project No.: _____ S14-09-241
Date: _____ OCT 2014



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Professionals you need, people you trust

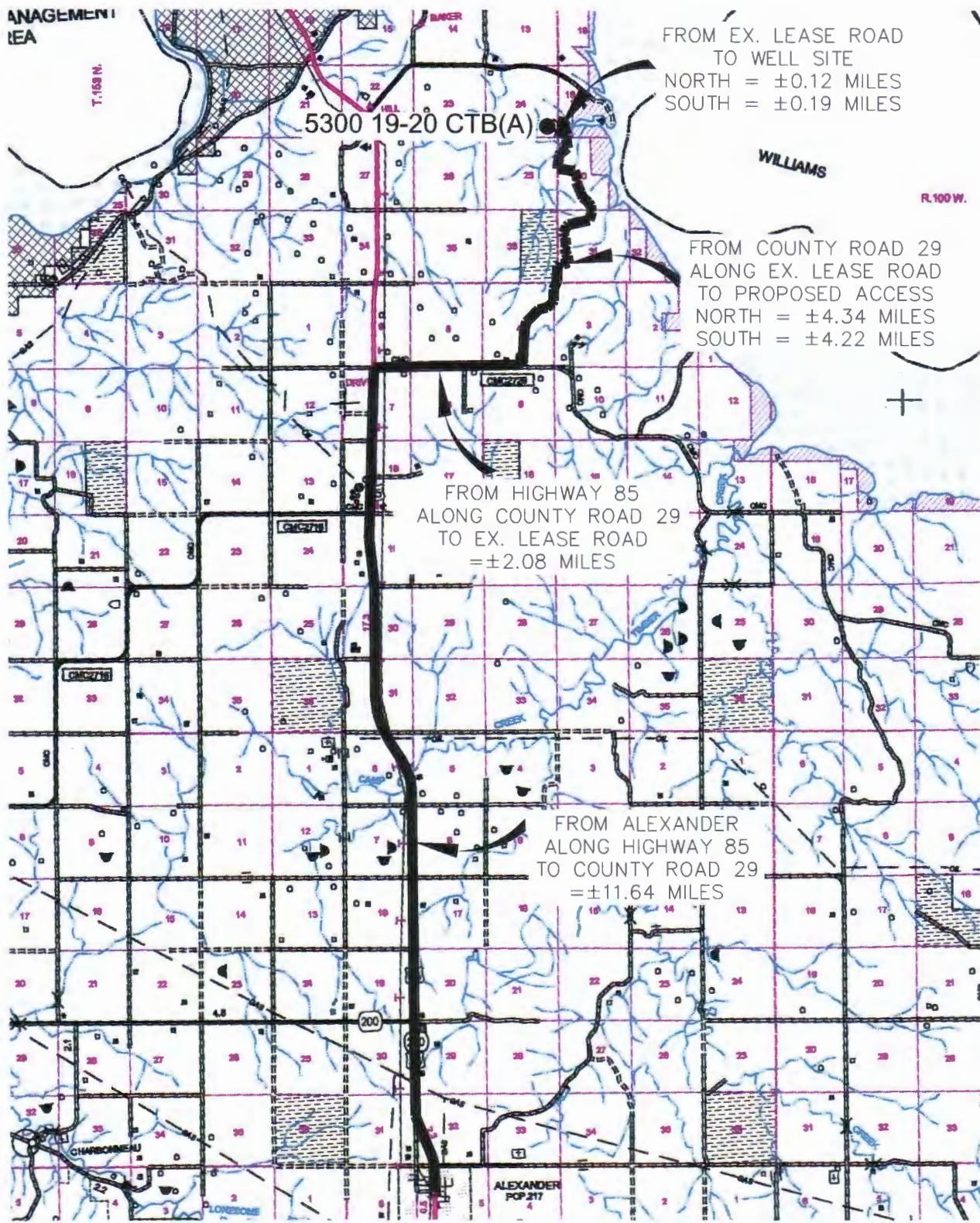
Interstate Engineering, Inc.
P.O. Box 648
425 East Main Street
Sidney, Montana 59270
Ph. (406) 433-5617
Fax. (406) 433-5618
www.interstateeng.com
Other offices in Minnesota, North Dakota and South Dakota

OASIS PETROLEUM NORTH AMERICA, LLC
QUAD LOCATION MAP
SECTION 24, T153N, R101W
MCKENZIE COUNTY, NORTH DAKOTA

Drawn By: J.D.M. Project No.: S14-09-251
Checked By: D.D.K. Date: OCT 2014

Revision No.	Date	By	Description

COUNTY ROAD MAP
 OASIS PETROLEUM NORTH AMERICA, LLC
 1001 FANNIN, SUITE 1500, HOUSTON, TX 77002
 "5300 19-20 CTB(A)"
 SECTION 24, T153N, R101W, 5th P.M., MCKENZIE COUNTY, NORTH DAKOTA



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SHEET NO.

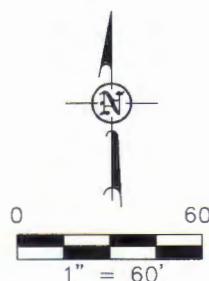
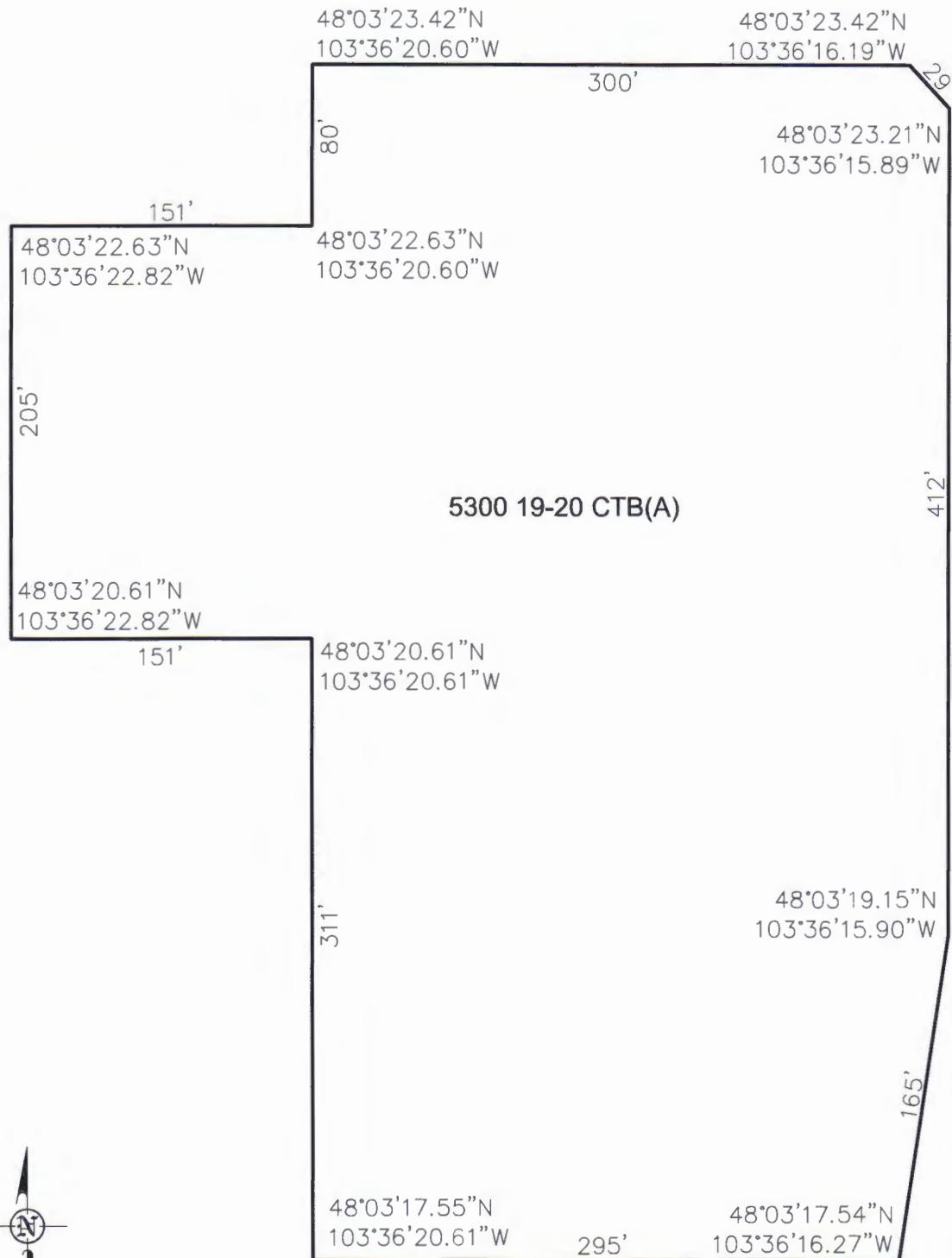
Interstate Engineering, Inc.
 P.O. Box 648
 425 East Main Street
 Sidney, Montana 59270
 Ph. (406) 433-5617
 Fax (406) 433-5618
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 Other offices in Minnesota, North Dakota and South Dakota

OASIS PETROLEUM NORTH AMERICA, LLC
 COUNTY ROAD MAP
 SECTION 24, T153N, R101W
 MCKENZIE COUNTY, NORTH DAKOTA

Revision No.	Date	By	Description

Drawn By: J.D.M. Project No.: S14-09-241
 Checked By: D.D.K. Date: OCT 2014

LAT/LONG PAD CORNERS



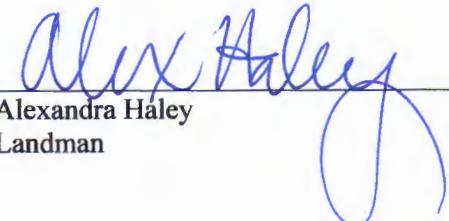
COMMINGLING AFFIDAVIT

STATE OF NORTH DAKOTA)
) ss.
COUNTY OF WILLIAMS)

The under signed, Alexandra Haley, of lawful age, being first duly sworn on her oath states that she is a duly authorized agent of Oasis Petroleum North America LLC, and that she has personal knowledge of the facts hereinafter set forth to make this Affidavit.

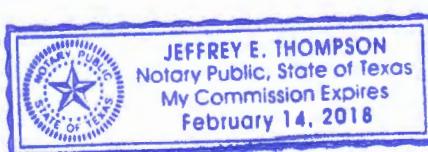
1. Sections 19 & 20, Township 153 North, Range 100 West, Williams County North Dakota constitute a spacing unit in accordance with the applicable orders for the Bakken pool.
2. Three wells have been drilled in the spacing unit, which are known as the Chalmers 5300 44-24 2TR, Chalmers 5300 44-24 3BR, and Chalmers 5300 44-24 4T2R.
3. By NDIC Order 19005 dated May 11, 2012 and recorded in Williams County as Document No. 737164, all oil and gas interest within the aforementioned spacing unit were pooled.
4. All Working Interests, Royalty Interests and Overriding Royalty Interests in the Chalmers 5300 44-24 2TR, Chalmers 5300 44-24 3BR, and Chalmers 5300 44-24 4T2R will be in common.

Dated this 15th day of September, 2014


Alexandra Haley
Landman

STATE OF TEXAS)
) ss.
COUNTY OF HARRIS)

Subscribed to and sworn before me this 15th day of September, 2014




Jeffrey E. Thompson
Notary Public
State of Texas
My Commission Expires: 2-14-18



Oasis Petroleum North America, LLC

Chalmers 5301 44-24 2TR

959 FSL & 245 FEL

SE SE Section 24, T153N, R101W

Baker Field / Three Forks

McKenzie County, North Dakota

BOTTOM HOLE LOCATION:

**68' north & 10,436' east of surface location or approx.
1,027' FSL & 323' FEL, SE SE Section 20, T153N, R100W**

Prepared for:

Clay Hargett
Oasis Petroleum North America, LLC
1001 Fannin, Suite 1500
Houston, TX 77002

Prepared by:

Hannah Thatcher, Daniel Haynes
PO Box 80507; Billings, MT 59108
(406) 259-4124
geology@sunburstconsulting.com
www.sunburstconsulting.com

WELL EVALUATION

Chalmers 5301 44-24 2TR



**Figure 1: Nabors B25 drilling the Oasis Petroleum North America Chalmers 5301 44-24 2TR during May and June 2014, south of Williston in McKenzie County, North Dakota.
(Photos by Hannah Thatcher, wellsite geologist)**

INTRODUCTION

The Oasis Petroleum North America, LLC Chalmers 5301 44-24 2TR [SE SE Section 24, T153N, R101W] is located approximately 30 miles south of Williston, North Dakota. The horizontal well was spud on May 09, 2014 and represents a continuation of Oasis Petroleum's development of the Three Forks Formation within Baker Field. The Chalmers 5301 44-24 2TR was planned to drill an approximately 9,985' lateral along a proposed azimuth of 89.61°. The well bore will be enhanced for production by multistage fracture stimulation.

OFFSET CONTROL INFORMATION

The Oasis Chalmers 5300 31-19H [NW SW Sec. 19, T153N, R100W] is located approximately 0.16 miles northeast of the subject well. The Chalmers 5300 31-19H was spud on the first of September 2011. The Missouri Basin Well Lynn 1 was spud on the 27th of April 2004 and is located 1.83 miles northwest [SW NW Sec. 23, T153N, R101W]. The Oasis Petroleum Kline Federal 5300 11-18H [NW NW Sec. 18, T153N, R100W] was spud on the 7th of May 2011 and is located approximately 1.63 miles north of the Chalmers 5301 44-24 2TR.

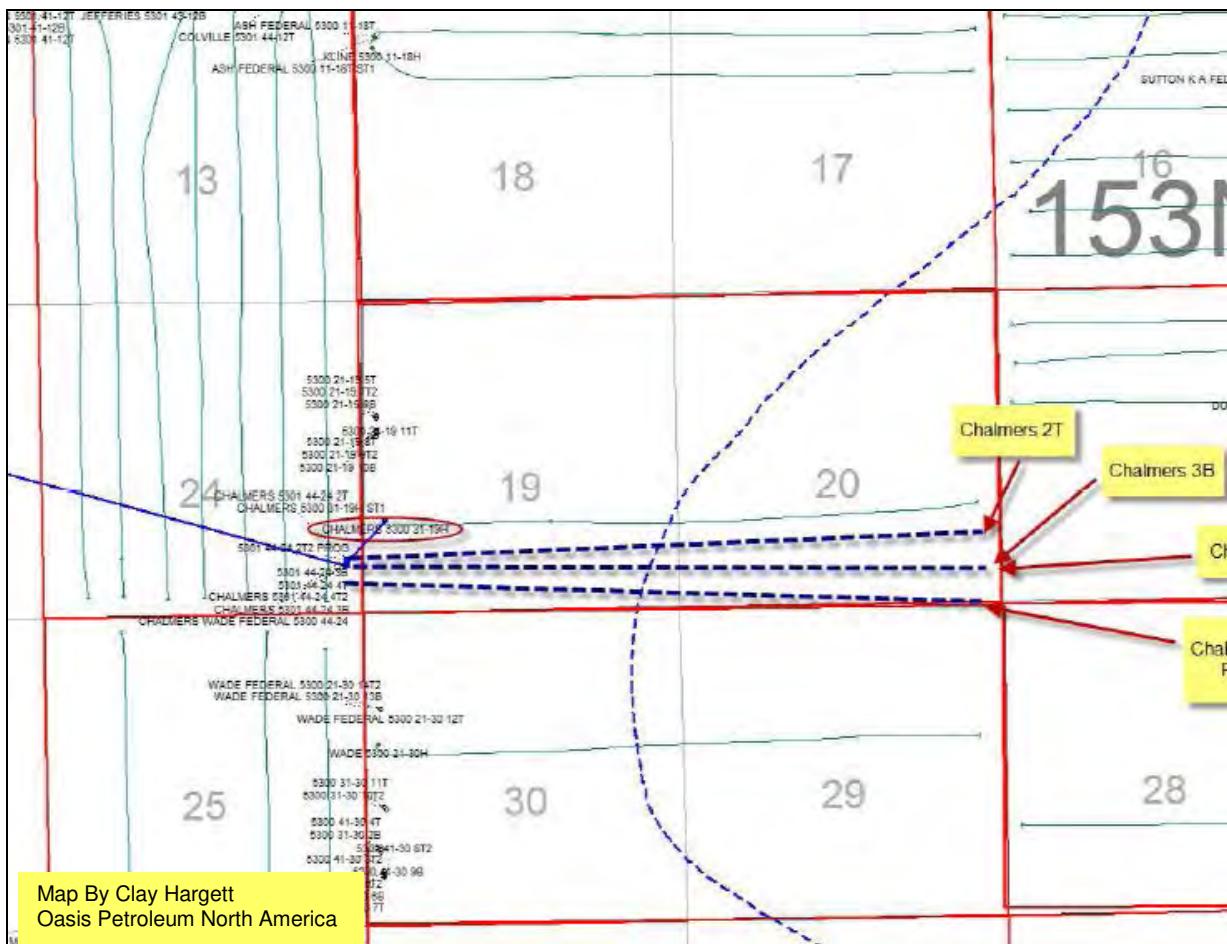


Figure 2: Offsetting control wells in relation to the Chalmers 5301 44-24 2TR well (Oasis Petroleum).

GEOLOGIC EVALUATION

Methods:

Geologic supervision of the Chalmers 5301 44-24 2TR was provided by Sunburst Consulting, Inc. with two well site geologists. A digital gas detector and chromatograph were interfaced with a Pason electronic data recorder system. The unit of measure for gas on this well was units (u), which was defined as 100 units equaling 1% methane equivalent in air. The EDR provided drill rate, on-off bottom and pump strokes to the gas detection computer and received total gas information from Sunburst for viewing around location. Lagged samples were caught by the rig crew in 30' intervals from 4,930' MD to 5,993' MD, 30' intervals from 8,170' MD to 10,870' MD, 10' intervals from 10,870' MD to 11,043' MD, and 30' intervals from 11,043' MD to 20,904' TD. Wet and dry cuttings were examined under a tri-ocular microscope and complete lithologic descriptions and sampling intervals are provided in the lithology document within this evaluation. The set of dry cuttings collected during the duration of the well were sent to the State of North Dakota. Evidence of light hydrocarbons present in the drilling fluid was reported by the gas chromatography equipment and documented on the mud log presented with this report.

Zones of Interest:

The Mission Canyon Formation (Mississippian; Madison Group) was drilled at 9,286' TVD (-7,318') and is comprised largely of light gray lime mudstone followed by gray to tan earthy textured argillaceous lime mudstone. Shows within the Mission Canyon ranged from 40 to 87 units against 10.0 ppg mud.



Figure 3 & 4: Wet cutting of the Lodgepole Formation (left) and False Bakken sub-interval (right) at 10X.

The top of the Lodgepole Formation was logged at 9,845' TVD (-7,877'). In general the Lodgepole can be described as a medium to dark gray brown argillaceous lime mudstone with a crystalline texture and trace amounts of disseminated pyrite (Figure 3). The False Bakken (Carrington Shale), drilled at 10,577' TVD (-8,609'), is comprised of very dark brown to black, slightly pyritic shale with an earthy texture, and was found to be soft to firm (Figure 4). Strong hydrocarbon shows in the lower 100' of the Lodgepole were as high as 168 total gas units; suggest that some of the oil and gas from the Upper Bakken Shale may be exploiting fractures thought to exist in the Lower Lodgepole.

The Bakken Formation (Devonian – Mississippian) has four formal members, an upper and lower black, fissile, organic-rich pyritic shale, separated by an arenaceous limestone, siltstone and silty sandstone middle member. These three members overlay a silty shale or siltstone of the Pronghorn Member toward the basin depositional center. The Upper Bakken Shale was drilled at 10,585' TVD (-8,617') with sample returns typically described as black, carbonaceous, petroliferous shale with trace amounts of disseminated pyrite (Figure 5). The Middle Bakken, penetrated at 10,602' TVD (-8,634'), consists of a varying thickness and sequence of interbedded siltstone, limestone and silty sandstone. Trace spotty light brown oil staining was present along with gas shows as high as 1325 TGU. This light brown spotty oil staining was common. Penetrated at 10,644' TVD (-8,676'), the Lower Bakken Shale was described as a black to dark brown carbonaceous shale with trace amounts of disseminated pyrite (Figure 6). Gas shows encountered in the Lower Bakken read as high as 550u (C1-C4). The Pronghorn was penetrated at 10,655 TVD (-8,687') and is commonly described as a dark to medium gray siltstone with calcite cement.



Figure 5 & 6: Wet cuttings of the Upper Bakken Shale (left), Lower Bakken Shale (right) at 10X.

The Three Forks Formation (Devonian; Kaskaskia Sequence) represents a regressive sequence deposited in a supratidal sabkha environment. The top of the Three Forks was drilled at 10,674' TVD (-8,706') and is comprised of a light to medium gray, cream to off white sucrosic dolomite with trace to occasional amounts of disseminated pyrite and light green shale also with trace amounts of disseminated pyrite (Figure 7 & 8). Shows within the Three Forks Formation ranged from 50 to 500 units in a drilling mud of 9.6-9.9 ppg.



Figure 7 & 8: Wet cuttings of the Three Forks dolomite and shale (left) and Three Forks dolomite and shale (right) at 10X.

Geo-steering:

Kick-off point for the curve was established from the isopach of the “base last salt” marker to the Three Forks “target” in the offset wells. The Chalmers 5300 31-19H was used as the primary offset through the vertical and curve sections. While drilling the curve, measured gamma ray signatures were compared to those of the three offsets and aided in the landing of the curve. The landing target was confirmed by the depth of the False Bakken, which was consistent with the offset wells. The curve was successfully landed within the Three Forks Formation at a depth of 11,043' MD (10,695' TVD) placing the well bore approximately 21' below the top of the Three Forks Formation. Directional tools were then pulled out of the hole and a string of 7" casing was set (11,043' MD) and then cemented by Schlumberger.

Samples from the target zone varied in porosity, oil staining, color, cementation, and pyrite content. Stratigraphic location in the target zone was based on these sample observations along with gas shows, drill rates and gamma ray values. Severe doglegs were to be avoided so as to obtain the desired vertical section and aid in a successful completion liner run at TD.

The Oasis Petroleum North America, LLC prospect geologist defined the an initial target zone as an 13' zone that began 8' below the top of the Three Forks Formation and ended four feet above the claystone member 21' below the Three Forks Formation. The target zone consisted of an upper dolomite and shale interval reading 100-140 count gamma (A marker). The center of the target interval was comprised of a warmer dolomite with greater amounts of shale reading 120-160 count gamma (B marker). The base of the target zone was characterized by a clean dolomite with trace amounts of shale with gamma readings of 50-100 (C marker). The A-C gamma markers were used for determining depth within the target interval and plotted on the Chalmers 5301 44-24 2TR dip profile (Figure 10).

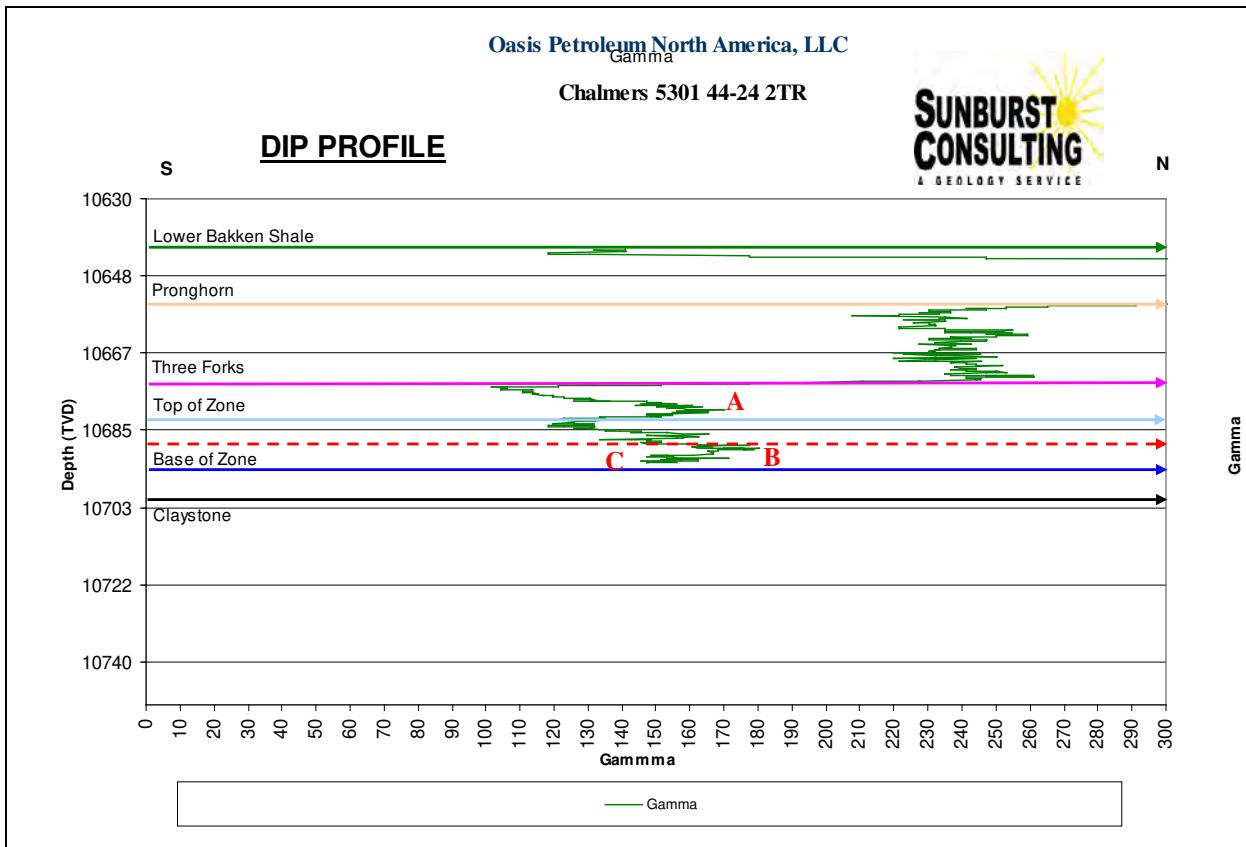


Figure 9: Offset gamma ray profile of the upper Three Forks (0-300 api. scale) *See dip profile (Figure 10) for marker presentation*

Using the aforementioned information gathered during drilling, offset log information and the structural data provided from Oasis Petroleum North America, LLC., well site geologists were able to anticipate, and interpret the local apparent dip during the drilling of the Chalmers 5301 44-24 2TR well. Upon drilling out of casing a misaligned MWD lead to a Pronghorn strike. After a successful sidetrack, the BHA only drill about 1,600' before

striking the Pronghorn again, due to a steep inclination caused by a deflection off a hard streak. After a second successful sidetrack a total depth of 20,904' MD was reached on June 11, 2014 at 10:30 CDT. The resulting structure of the Three Forks was a fall in TVD of 87' over 9,998' MD; resulting in an overall down dip of 0.50° as portrayed on the Chalmers 5301 44-24 2TR dip profile (Figure 10).

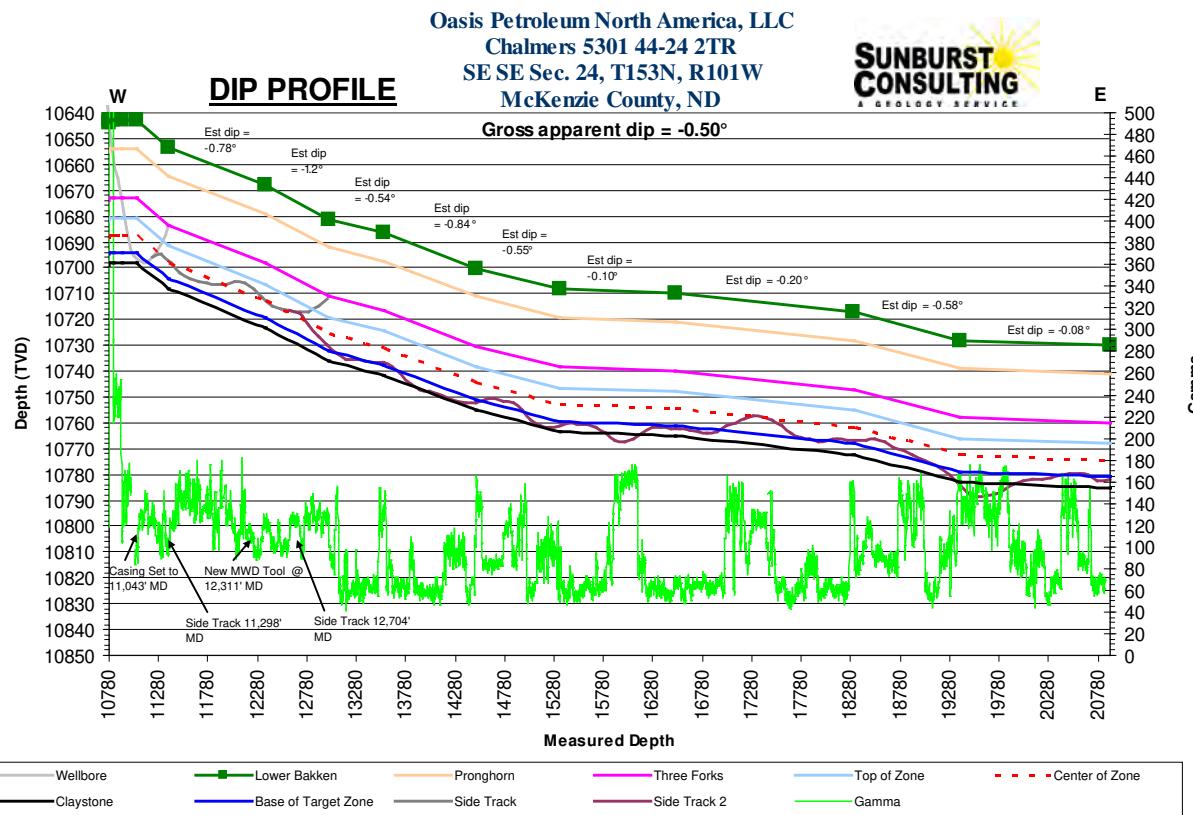


Figure 10: Well profile representing estimated dip value & gamma ray for the Chalmers 5301 44-24 2TR lateral.

Hydrocarbons:

Gas monitoring and fluid gains were monitored to evaluate the viability of this reservoir during the drilling of the Chalmers 5301 44-24 2TR well. In the invert mud system, hydrostatic conditions were maintained near balance. This allowed for gas and fluid gains from the well to be monitored. Gas shows were encountered in vertical, curve and lateral drilling of the well.

Background gas observed during the drilling of the lateral ranged from 50 to 200 units. Invert drilling fluid was used throughout the drilling of the vertical and curve weighing 10.0-11.6 ppg. The lateral was drilled with saline drilling fluid with a mud weight of 9.6-9.9 ppg. Gas shows ranged up to 852 units and connection gases were observed up to 508 units. C1-C4 gas components were observed throughout the course of the lateral. Trip gases were observed as high as 2,048 units. Oil shows were very light throughout the lateral ranging from 0-3% in sample. When present it was a *light brown spotty oil stain that yielded a slow to moderate streaming to diffuse light green cut fluorescence*.

SUMMARY

The Nabors B25 drilling rig successfully drilled a two-section horizontal well bore within the Three Forks Formation at the Chalmers 5301 44-24 2TR. A net of 9,998' was drilled within the Three Forks. A mud program consisting of diesel invert (10.0–11.6 ppg), during the vertical and curve build sections, and saline based mud (9.6-9.90 ppg), during the lateral maintained stable hole conditions and permitted adequate analysis of gas concentrations.

Projections of dip were successfully used to maintain the well bore in the Three Forks Formation target for 76% of the lateral. Samples from the target consisted of a light to medium gray, cream to off white dolomite with trace to occasional amounts of disseminated pyrite and light green shale also with trace amounts of disseminated pyrite. Intercrystalline porosity was generally seen throughout the entire lateral. Hydrocarbon shows in the target zone were high throughout the lateral. Samples from the ideal zone contained a spotty light brown oil stain.

The Chalmers 5301 44-24 2TR will be fitted with a 4 ½" production liner and swell packers in preparation for a fracture stimulation that will determine the true commercial value of the well. The well currently awaits fracture stimulation.

Respectfully submitted,

Hannah Thatcher
Sunburst Consulting, Inc.
June 11, 2014

WELL DATA SUMMARY

OPERATOR: Oasis Petroleum North America, LLC

ADDRESS: 1001 Fannin, Suite 1500
Houston, TX 77002

WELL NAME: Chalmers 5301 44-24 2TR

API #: 33-053-05924-00-00

WELL FILE #: 28342

SURFACE LOCATION: 959 FSL & 245 FEL
SE SE Section 24, T153N, R101W

FIELD/ PROSPECT: Baker Field / Three Forks

COUNTY, STATE McKenzie County, North Dakota

BASIN: Williston

WELL TYPE: Three Forks Horizontal

ELEVATION: GL: 1,943'
KB: 1,968'

SPUD/ RE-ENTRY DATE: May 9, 2014

BOTTOM HOLE LOCATION: 68' north & 10,436' east of surface location or approx.
1,027' FSL & 323' FEL, SE SE Section 20, T153N, R100W

CLOSURE COORDINATES: Closure Azimuth: 89.63°
Closure Distance: 10,436.14'

TOTAL DEPTH / DATE: 20,904' on June 11, 2014
100% within Three Forks

TOTAL DRILLING DAYS: 35 days

CONTRACTOR: Nabors B25

<u>PUMPS:</u>	H &H Triplex (stroke length - 12")
<u>TOOLPUSHERS:</u>	Casey Pippenger, Bruce Walter
<u>FIELD SUPERVISORS:</u>	Bob Brown, Mike Crow
<u>CHEMICAL COMPANY:</u>	Fluid Control
<u>MUD ENGINEER:</u>	Keith McCarty, Warren Carlson
<u>MUD TYPE:</u>	Fresh water in surface hole Diesel invert in curve; Salt water in lateral
<u>MUD LOSSES:</u>	Invert Mud: 1078 bbls, Salt Water: not recorded
<u>PROSPECT GEOLOGIST:</u>	Clay Hargett
<u>WELLSITE GEOLOGISTS:</u>	Hannah Thatcher, Daniel Haynes
<u>GEOSTEERING SYSTEM:</u>	Sunburst Digital Wellsite Geological System
<u>ROCK SAMPLING:</u>	30' from 4,930' - 10,870' 10' from 10,870' -11,043' 30' from 11,043' - 20,904' (TD)
<u>SAMPLE EXAMINATION:</u>	Trinocular microscope
<u>SAMPLE CUTS:</u>	Trichloroethylene
<u>GAS DETECTION:</u>	MSI (Mudlogging Systems, Inc.) TGC - total gas with chromatograph Serial Number(s): ML-440
<u>DIRECTIONAL DRILLERS:</u>	LEAM Drilling Systems / Oasis / RPM Bob Brown, Mike Crow, Bob Johnson, Tyler LeClaire
<u>MWD:</u>	Ryan Directional Service Inc. Henry Unger, Erik Matteson
<u>CASING:</u>	Surface: 13 3/4" 55# J-55 set to 2,153' Intermediate Surface: 9 5/8" 40# HCL-80 set to 5,980' Intermediate: 7" 32# HCL-80 set to 11,043'

KEY OFFSET WELLS:

Oasis Petroleum North America

Chalmers 5300 31-19H

NW SW Sec.19, T153N, R100W

McKenzie Co., ND

Missouri Basin Well

Lynn 1

SW NW Sec. 23, T153N, R101W

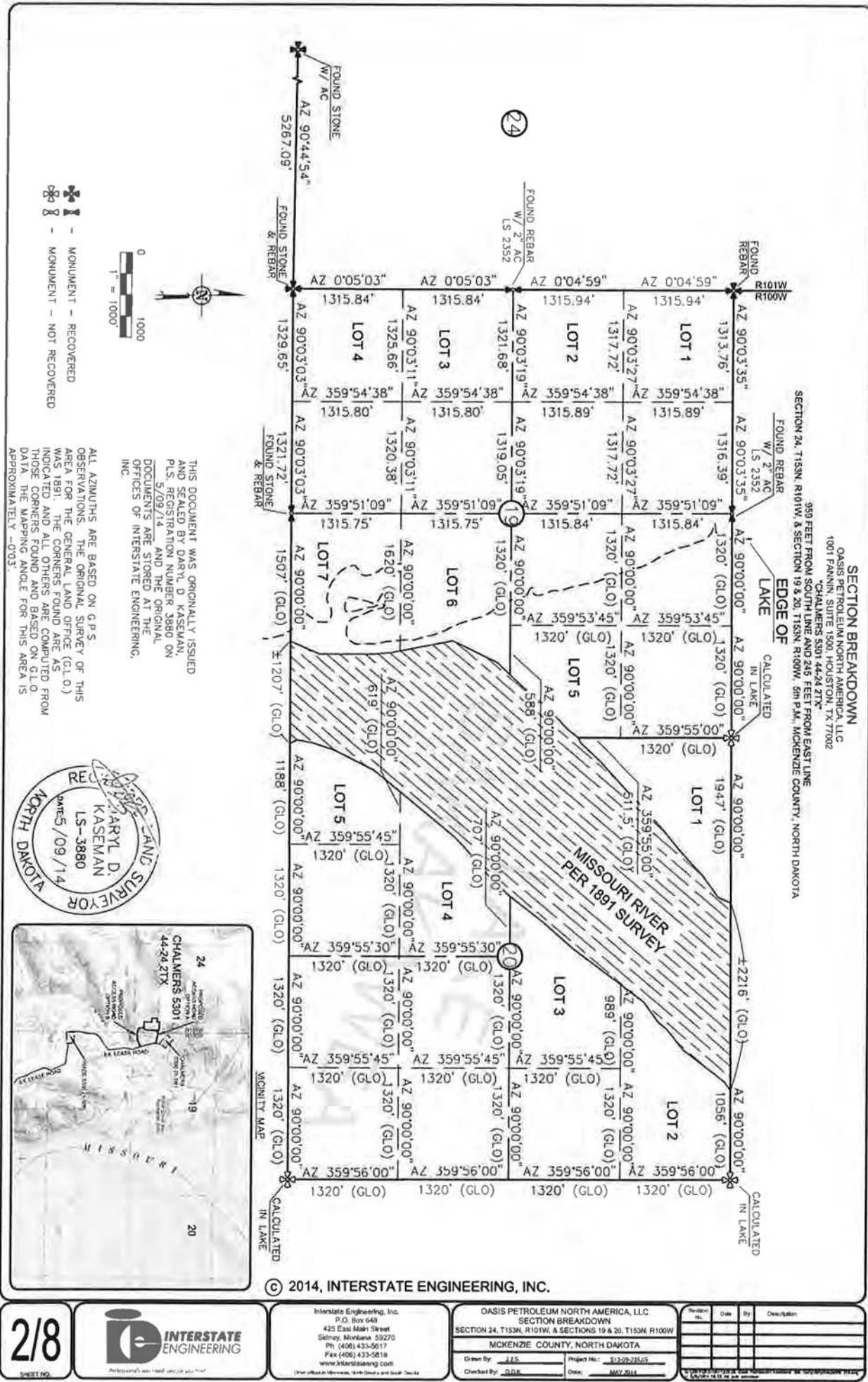
McKenzie Co., ND

Oasis Petroleum North America

Kline Federal 5300 11-18H

NW NW Section 18, T153N, R100W

McKenzie Co., ND



ALL AZIMUTHS ARE BASED ON G.P.S. OBSERVATIONS. THE ORIGINAL SURVEY OF THIS AREA FOR THE GENERAL LAND OFFICE (G.L.O.) WAS 1891. THE CORNERS FOUND ARE AS INDICATED AND ALL OTHERS ARE COMPUTED FROM THOSE CORNERS FOUND AND BASED ON G.L.O. THE MAPPING ANGLE FOR THIS AREA IS APPROXIMATELY 10°.

A circular metal survey marker with the following text engraved:

RECD.
KARYL D.
KASEMAN
LS-3880
MAY 5 / 09 / 14
NORTH DAKOTA SURVEYOR



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OASIS PETROLEUM NORTH AMERICA, LLC
SECTION BREAKDOWN
SECTION 24, T153N, R101W, & SECTIONS 19 & 20, T153N, R100W
MCKENZIE COUNTY, NORTH DAKOTA

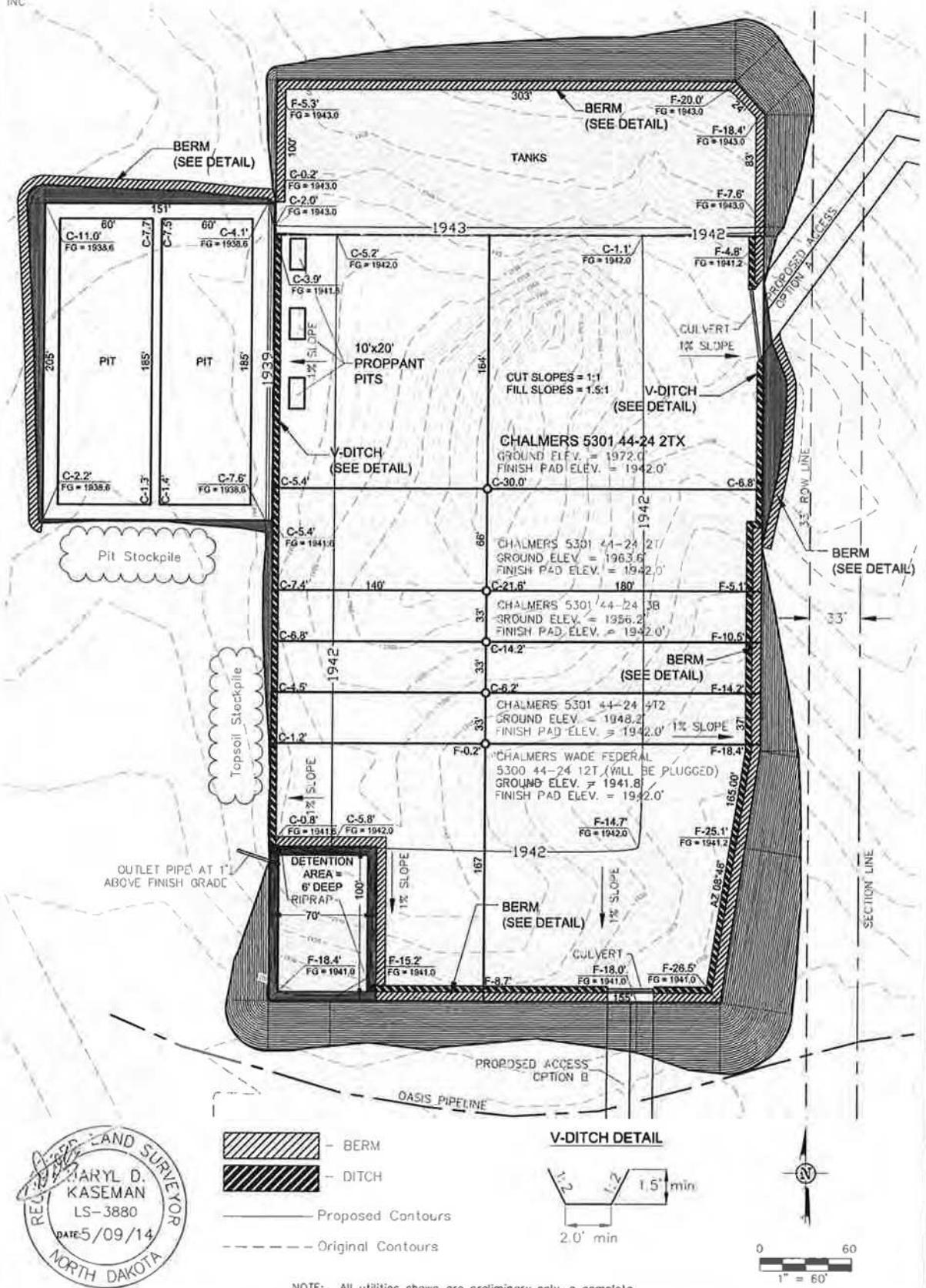
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PAD LAYOUT

OASIS PETROLEUM NORTH AMERICA, LLC
1001 FANNIN, SUITE 1500, HOUSTON, TX 77002

"CHALMERS 5301 44-24 2TX"

959 FEET FROM SOUTH LINE AND 245 FEET FROM EAST LINE
SECTION 24, T153N, R101W, 5th P.M., MCKENZIE COUNTY, NORTH DAKOTA



NOTE: All utilities shown are preliminary only, a complete utilities location is recommended before construction.

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OASIS PETROLEUM NORTH AMERICA, LLC
PAD LAYOUT
SECTION 24, T153N, R101W
MCKENZIE COUNTY, NORTH DAKOTA

Date	If y	Description

ACCESS APPROACH

OASIS PETROLEUM NORTH AMERICA, LLC
1001 FANNIN, SUITE 1500, HOUSTON, TX 77002

959 FEET FROM SOUTH LINE AND 245 FEET FROM EAST LINE
SECTION 24, T153N R101W 5th P.M., MCKENZIE COUNTY, NORTH DAKOTA



CHALMERS 5301 44-24 2TX

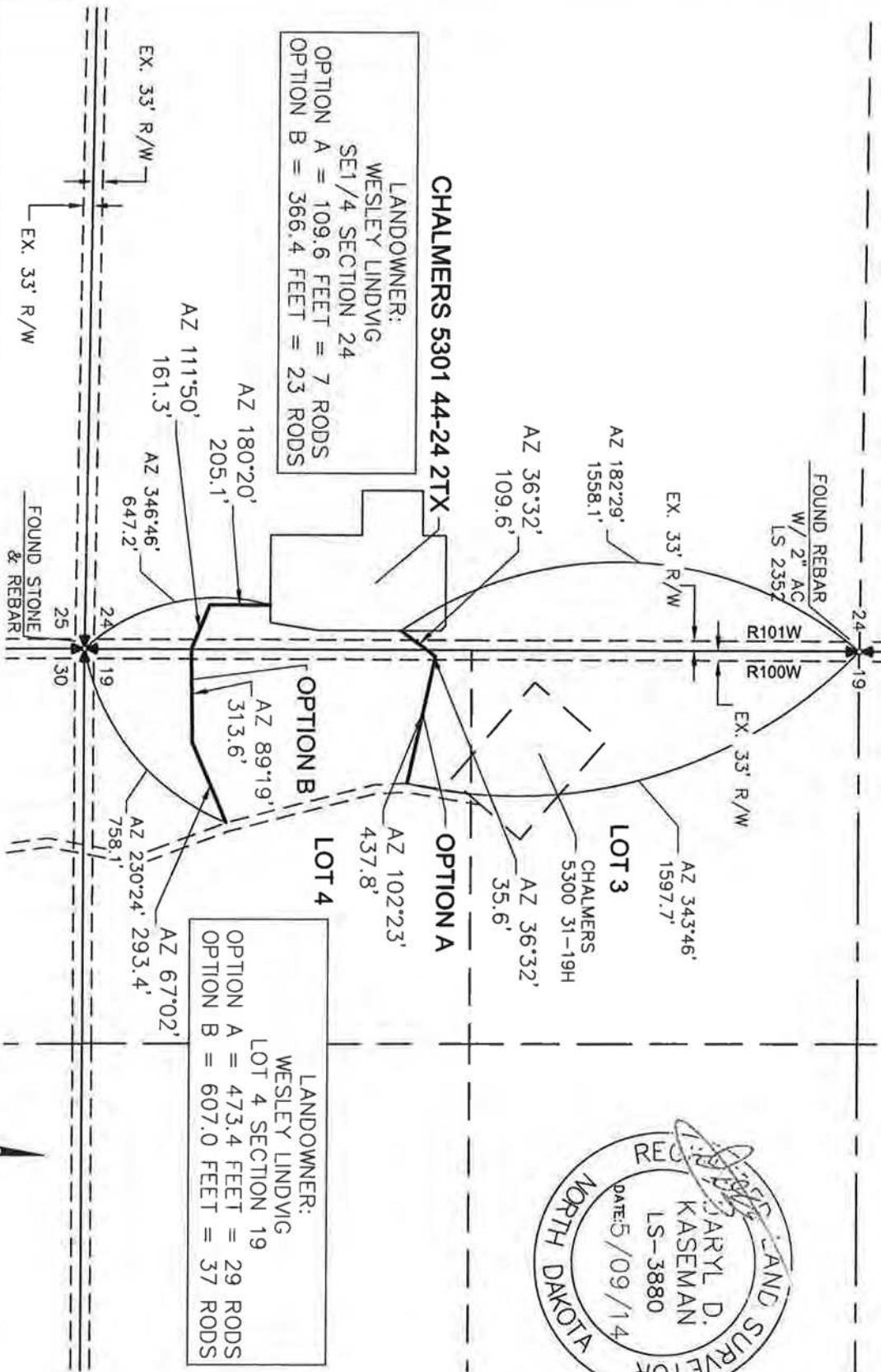
LANDOWNER:
WESLEY LINDVIG
SE1/4 SECTION 24
OPTION A = 109.6 FEET = 7 RODS
OPTION B = 366.4 FEET = 23 RODS

AZ 180°
20
AZ 111°50'—
161.3' A

EX. 33' R/W

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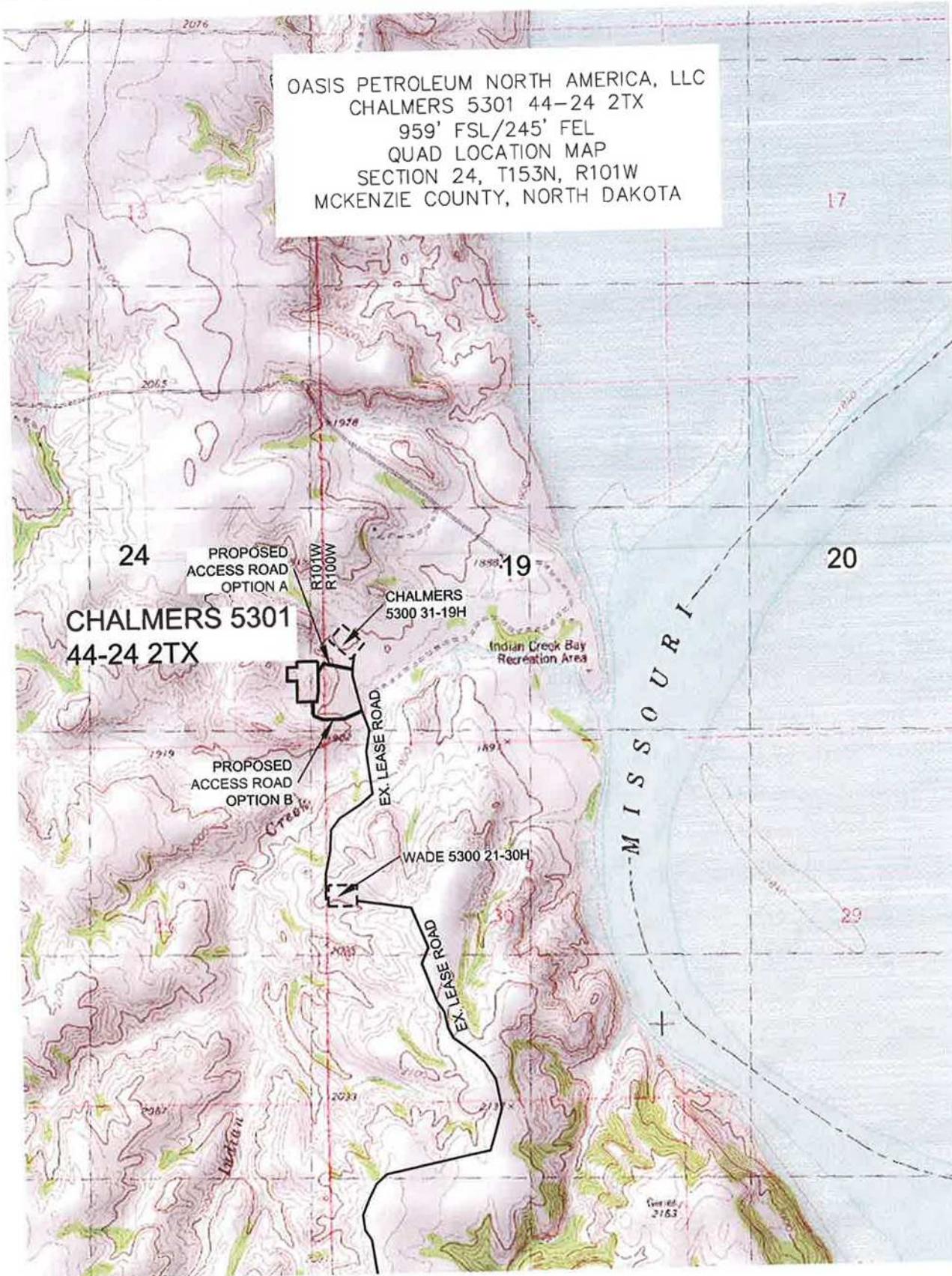


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ACCESS APPROACH
SECTION 24, T153N, R101W
MCKENZIE COUNTY, NORTH DAKOTA

Revision No.	Date	By	Description



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Other offices in Minnesota, North Dakota and South Dakota

OASIS PETROLEUM NORTH AMERICA, LLC
QUAD LOCATION MAP
SECTION 24, T153N, R101W
MCKENZIE COUNTY, NORTH DAKOTA
Drawn By: J.J.S. Project No.: S13-09-235.05
Checked By: D.D.K. Date: MAY 2014

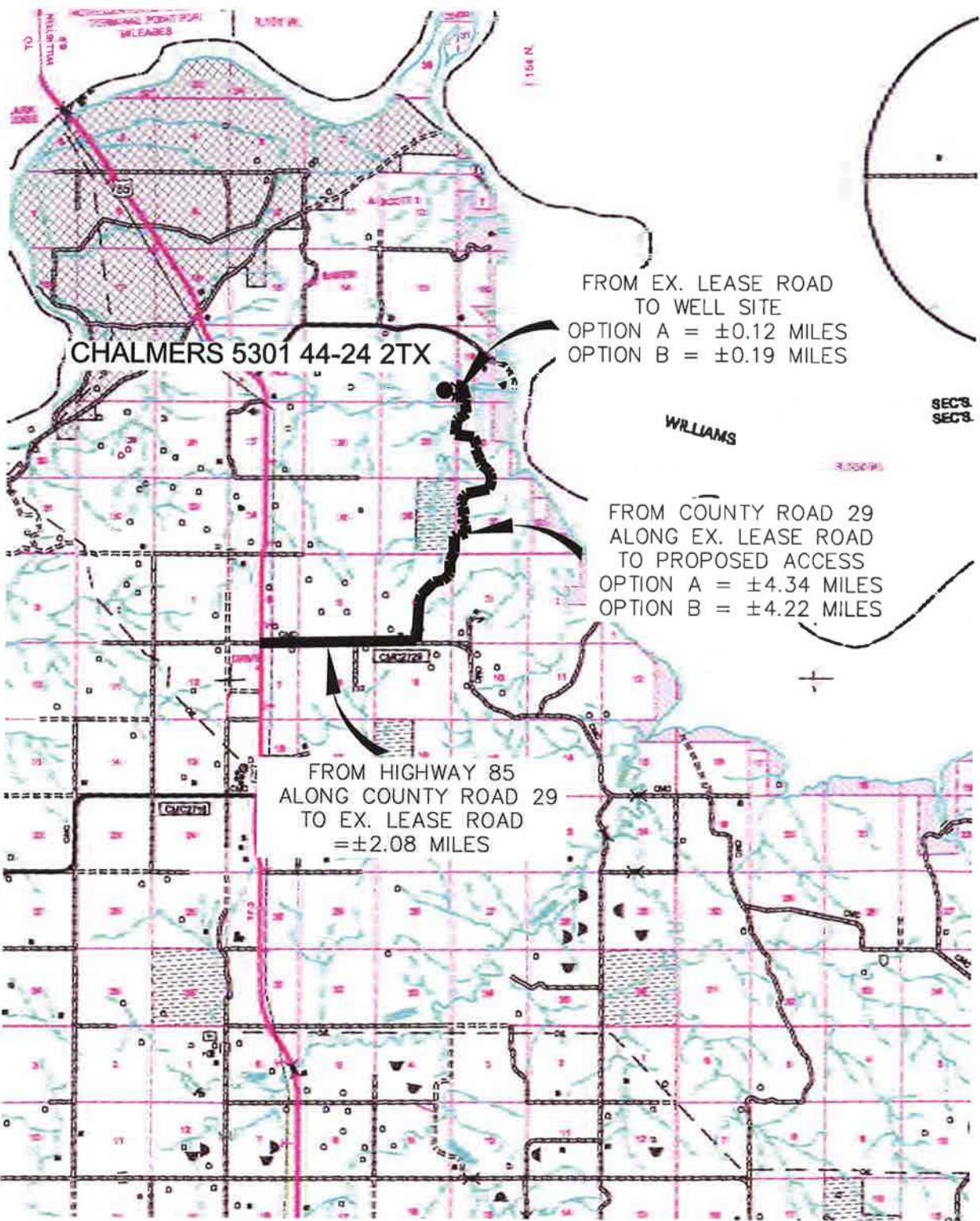
Revision No.	Date	By	Description

COUNTY ROAD MAP

OASIS PETROLEUM NORTH AMERICA, LLC
1001 FANNIN, SUITE 1500, HOUSTON, TX 77002

"CHALMERS 5301 44-24 2TX"

959 FEET FROM SOUTH LINE AND 245 FEET FROM EAST LINE
SECTION 24, T153N, R101W, 5th P.M., MCKENZIE COUNTY, NORTH DAKOTA



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SCALE: 1" = 2 MILE

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COUNTY ROAD MAP
SECTION 24, T153N, R101W
MCKENZIE COUNTY, NORTH DAKOTA

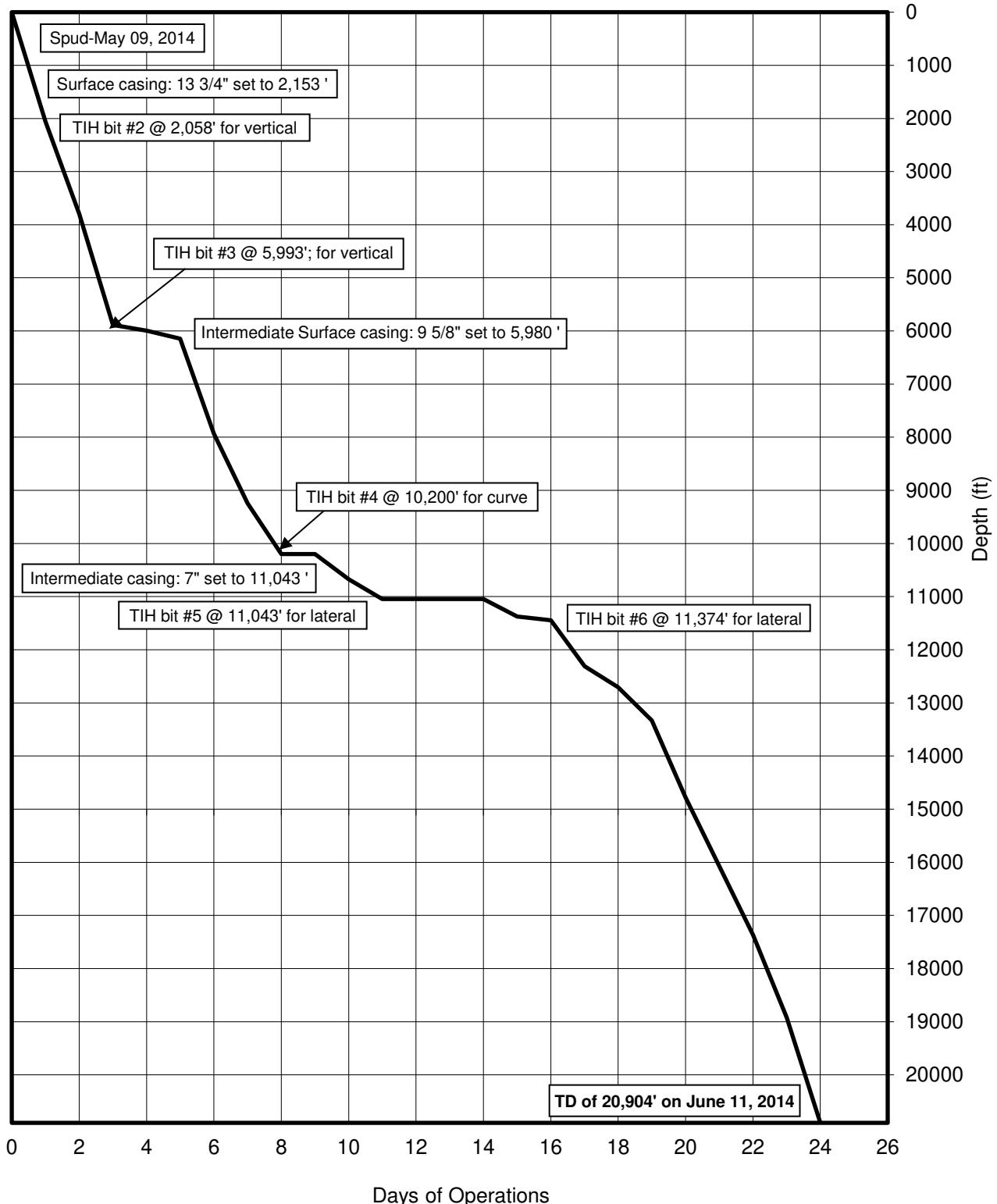
Drawn By: J.J.S. Project No.: S13-09-235.05
Checked By: D.D.K. Date: MAY 2014

Revision No.	Date	By	Description

TIME VS DEPTH

Oasis Petroleum North America, LLC

Chalmers 5301 44-24 2TR



DAILY DRILLING SUMMARY

Day	Date 2014	Depth (0600 Hrs)	24 Hr Footage	Bit #	WOB (Klbs) RT	WOB (MM)	RPM (RT)	RPM (MM)	PP	SPM 1	SPM 2	GPM	24 Hr Activity		Formation
0	5/18	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1	5/19	2,058'	-	-	-	-	-	-	-	-	-	-	Nipple up BOPs (New stack configuration), Test BOPs/pressure test	-	-
2	5/20	3,795'	1,737	2	20	-	40	135	3365	80	80	551	Test BOPs/pressure test, Install/remove wear bushing/installed, Nipple up BOPs fill up line installed, Pick up BHA, TH, Change rotating head/rubber/intalled rotating head, TH/tagged cement @ 2001, Drilling cement/float at 2015/shoe at 2058, Rotary drilling 2058-2140, Service top drive, Rotary drilling 2140-3795	-	-
3	5/21	5,887'	2,092	2	25	10	55	135	3365	80	80	551	Rotary drilling 3819-5404, Service rig/fix boomer on upper box, Rotary drilling 5404-5887	Swift	Swift
4	5/22	5,993'	106	3	20	15	40	135	3365	80	80	551	Rotary drilling 5404-5993, Circulate and condition, Short trip /7 stands out and back in, Circulate and condition /mix & send pill, TOOH, Service rig /TM80 repairs, Downtime-powered wrench TM80 repair/support brackets, Change rotating head/rubber remove rotating head and install trip nipple, TOOH, Lay down BHA, Install/remove wear bushing, Rig up/down to run casing, Pre job safety/running casing, Run casing	Swift	Swift
5	5/23	6,145'	152	3	30	15	40	135	3365	80	80	551	Waiting on 3rd party personnel/cementers, Pre job safety rig up/cementing, Primary cementing, Rig up/down to run casing rig down cementers, working as directed by operator laying down landing joint and setting pack off tool, Install/remove wear bushing/install pack off, pick up BHA, TH, Install/remove wear bushing, TH, Change rotating head/rubber/install, TH/tag cement at 5922, Circulate and condition/lighten mud, Drilling cement/float @ 5951, shoe at 5993, Rotary drilling 5993-6145	Rierdon	Rierdon
6	5/24	7,930'	1,785	3	25	15	40	135	3365	80	80	551	Rotary drilling 6242-7330, Service rig greased crown blocks blackjack low, Slide drilling and rotary drilling 7330-7930	Otter	Otter
7	5/25	9,246'	1,316	3	25	15	40	135	3365	80	80	551	Rotary drilling 7966-7982, Service top drive, Drilling 7982-9246	Ratcliffe	Ratcliffe
8	5/26	10,200'	954	3	20	12	35	135	3360	80	80	551	Rotary drilling 9271-10200	Lodgepole	Lodgepole
9	5/27	10,200'	0	4	20	12	35	135	3360	80	80	551	Back reaming 10200-8032, Circulate and condition building dry job, TOOH F/8032 T/5654, Change rotating head/rubber pull ROT head install trip nipple, TOOH F/5654 T/3229, Service rig, TOOH T/BHA, Lay down drill pipe racking back collars, Lay down BHA, Cased hole logs, Rig up loggers, Open hole logs, Rig down loggers, Rig up make up BHA, TH	Lodgepole	Lodgepole
10	5/28	10,676'	476	4	15	30	40	135	3365	80	80	551	TH F/6000 T/8404, Reaming/washing F/8404 T/9352, TH F/9352 T/10200, Slide drilling F/10200 T/10676	False Bakken	False Bakken

DAILY DRILLING SUMMARY

Day	Date 2014	Depth (0600 Hrs)	24 Hr Footage	Bit #	WOB (Klbs) RT	WOB (MM)	RPM (RT)	RPM (MM)	PP	SPM 1	SPM 2	GPM	24 Hr Activity	Formation
11	5/29	11,043'	367	4	18	30	45	132	2516	74	-	255	Slide drilling F/10685 T/11043, TOOH 10 stands trip back in 10 stands pump 10 BLL slug trip out 5 stands and back in, Circulate and condition bottoms up, Lay down drill pipe, Service rig R&R catwalk, Downtime-powered catwalk, Lay down drill pipe	Three Forks
12	5/30	11,043'	0	4	18	30	45	132	2516	74	-	255	Lay down drill pipe, Lay down BHA, Install/remove wear bushing remove wear bushing, Rig up/down to run casing rig up casing crew, Pre job safety held safety meeting with casing crew and nabor for running casing, TIH with casing F/shoe T/5898	Three Forks
13	5/31	11,043'	0	4	18	30	45	132	2516	74	-	255	Working pipe/tight spot pipe stuck, free up, landed hanger @ 10989, 66, Waiting on 3rd party personnel waiting on wire line truck, Rig up wire line and hold safety meeting, Multi-shot surveys, Lay down 3rd party tools rig down wire line truck, Circulate and condition, Primary cementing rig up cementers to cement held safety meeting, Primary cementing, Waiting on cement and laying 5" slips elevators lifting subs etc. picking up 4" slips elevators ect. changing rams	Three Forks
14	6/1	11,043'	0	4	18	30	45	132	2516	74	-	255	Lay down 3rd party tools RD cement head, casing elevator, bale ext 5 in quill change out 5 in back up wrench to 4in put 4in quill on top drive, Pick up 3rd party tools pick up pack off and single joint of 4in dp set pack off, Pick up 3rd party tools test plug for testing, Test BOPs, done with obm @ 1400 on 5-31-14, Test BOPs/pressure test, Install/remove wear bushing, Pick up BHA, Pick up drill pipe, Rig up/down to run casing rigged up power tongs for running dp, Pick up drill pipe.	Three Forks
15	6/2	11,374'	331	6	15	30	45	135	3365	80	-	276	Pick up drill pipe, Change rotating head/rubber pull trip nipple install ROT head, changed gasket on ROT head, rig down power tongs, Drilling cement and shoe track, Formation integrity test fit) 2425 PSI hold 15 min., Rotary drilling F/11024 T/11374, Reaming/washing, TOOH, Change rotating head/rubber /install trip nipple, TOOH, Lay down BHA, Pick up BHA, TIH	Three Forks
16	6/3	11,445'	71	6	12	30	45	135	1650	-	80	276	TIH, Change rotating head/rubber/pull trip nipple/install rotating head, TIH, Direction work/shoot surveys/prepare to side track, Directional work/through 11261-11298, Slide drilling 11298-11303, Drills-BOP erct time 4.75 Min.,	Three Forks
17	6/4	12,311'	866	6	10	35	45	135	2250	-	80	276	Slide drilling 11303-11315, Rotaty drilling 11315-12311, TOOH, Change rotating head/rubber/remove rotating head/install trip nipple, TOOH, Lay down BHA, Service rig/function HCR/greased blocks and crown, Waiting on 3rd party tools/motor, Pick up BHA, TIH	Three Forks

DAILY DRILLING SUMMARY

Day	Date 2014	Depth (0600 Hrs)	24 Hr Footage	Bit #	WOB (Klbs) RT	WOB (Klbs) MM	RPM (RT)	RPM (MM)	PP	SPM 1	SPM 2	GPM	24 Hr Activity	Formation
18	6/5	12,704'	393	6	16	35	45	135	2800	80	-	276	TIH, Change rotating head/rubber/remove trip nipple/install rotating head, TIH, Directional work/relog gamma, Rotary drilling 12311-12689, Service top drive/function super choke/electrician checked drawworks motors and brake HPU, Rotary drilling 12689-12987, Directional work/pull 3 stands/acquire normal pump pressure, Directional work orientate tool for trough/start troughing, Slide drilling/side track @ 12704, Stand 134	Three Forks
19	6/6	13,332'	628	6	19	40	45	135	2850	80	-	276	Slide drilling/time drill for sidestrack 12704-12728, Rotary drilling 12728-12861, Service top drive/function annular, Rotary drilling 12861-13331	Three Forks
20	6/7	14,777'	1,445	6	21	40	45	135	2850	-	80	276	Rotary drilling 13402-14777	Three Forks
21	6/8	16,071'	1,294	6	25	35	45	135	2650	-	80	276	Rotary drilling 14785-16071	Three Forks
22	6/9	17,365'	1,294	6	25	40	55	135	2850	80	-	276	Rotary drilling 16098-17365	Three Forks
23	6/10	18,923'	1,558	6	28	40	45	135	2850	80	-	276	Rotary drilling 17411-18923	Three Forks
24	6/11	20,904'	1,981	6	26	39	55	132	3250	-	78	269	Rotary drilling 18397-19780	Three Forks

DAILY MUD SUMMARY

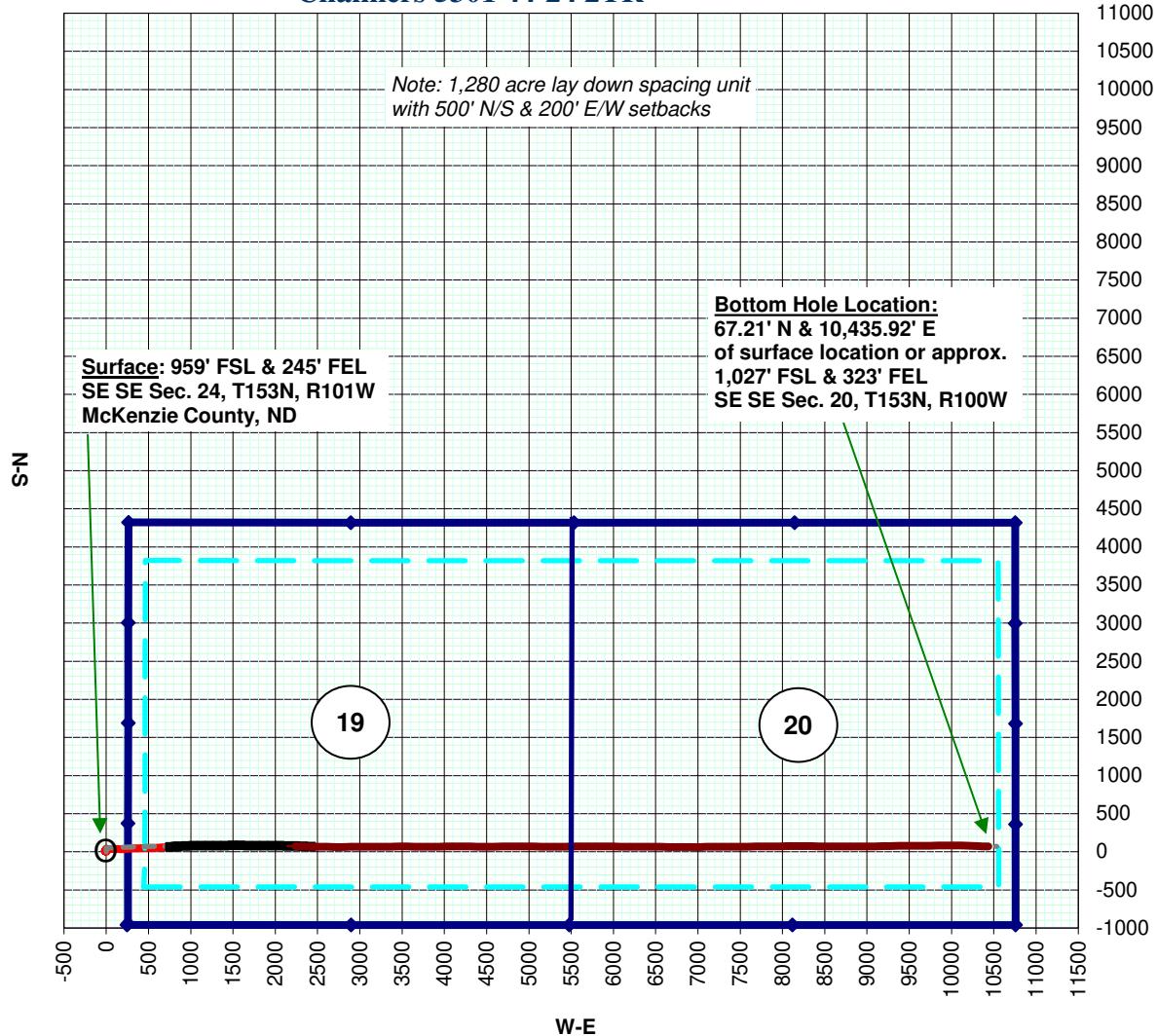
	Day	Date	Mud Depth	Mud WT (ppg)	Vis (sec/qt)	PV (cP)	YP (lbs/100 ft ²)	Gels (lbs/100 ft ²)	600/300 (ratio)	NAP/H ₂ O (ratio)	NAP/H ₂ O (%) by vol)	Cake API/HTHP	Cor. Solids (%)	Oil/H ₂ O (%)	Alk	pH	Excess Lime (lb/bbl)	Cl ⁻ (mg/L)	LGS/HGS (%)	Salinity (ppm)	ES	Gain/Loss (bbls)
	Day	Date	Mud Depth	Mud WT (ppg)	Vis (sec/qt)	PV (cP)	YP (lbs/100 ft ²)	Gels (lbs/100 ft ²)	600/300 (ratio)	NAP/H ₂ O (ratio)	NAP/H ₂ O (%) by vol)	Cake API/HTHP	Cor. Solids (%)	Oil/H ₂ O (%)	Alk	pH	Excess Lime (lb/bbl)	Cl ⁻ (mg/L)	LGS/HGS (%)	Salinity (ppm)	ES	Gain/Loss (bbls)
0	05/18	80'	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-/-	
1	05/19	2,058'	11.1	61	21	11	10/15/-	53/32	81/19	-	2	14.8	68/16	2.4	-	3.1	20k	11.6/3.2	170,813	550	/-	
2	05/20	3,950'	11.4	50	20	11	10/15/-	51/31	81.7/18.3	-	2	16.8	67/15	1.9	-	2.5	20k	13/3.8	180,149	571	/-323	
3	05/21	5,963'	11.6	46	23	11	9/12/-	57/34	81.5/18.5	-	2	17.8	66/15	2	-	2.6	19k	13.3/4.6	172,697	549	/-106	
4	05/22	5,993'	11.4	52	22	9	9/13/-	53/31	81.5/18.5	-	2	17.7	66/15	1.8	-	2.3	22k	12/5.7	194,657	525	/-115	
5	05/23	6,479'	10	47	21	8	8/12/-	50/29	77.1/22.9	-	3	11.3	67.5/20	1.3	-	1.7	20k	7.2/4	180,149	426	/-50	
6	05/24	8,188'	10	49	21	8	8/11/-	50/29	78.7/21.3	-	3	11.7	68.5/18.5	2.1	-	2.7	22k	6.9/4.8	153,461	456	/-208	
7	05/25	9,450'	10	42	19	8	7/11/-	46/27	81.4/18.6	-	2	11.8	70.2/16	2	-	2.6	32k	6.2/5.6	247,894	0	/-/	
8	05/26	10,200'	10.2	45	21	9	9/13/-	51/30	82.4/17.6	-	2	13	70/15	2.2	-	2.8	33k	6.4/6.6	253,676	746	/-51	
9	05/27	10,200'	10.38	67	22	14	12/18/-	58/36	82.2/17.8	-	2	13.5	69.5/15	2.8	-	3.6	33k	7.1/6.4	264,320	765	/-11	
10	05/28	10,777'	10.05	48	21	13	12/15/-	55/34	80.3/19.7	-	2	11.2	69.5/17	2.4	-	3.1	44k	6.9/4.4	264,320	613	/-214	
11	05/29																					
Change mud from diesel invert to salt water																						
12	05/30	11,043'	8.8	26	1	1	-	3/2	-	-97	-	-	-97	-	-	11	-	53k	0.4/-	-	-/-	
13	05/31	11,043'	8.8	26	1	1	-	3/2	-	-97	-	-	-97	-	-	11	-	53k	0.4/-	-	-/-	
14	06/01	11,043'	8.8	26	1	1	-	3/2	-	-97	-	-	-97	-	-	11	-	53k	0.4/-	-	-/-	
15	06/02	11,374'	9.9	27	1	1	-	3/2	-	-89.5	-	-	-89.5	-	-	8	-	177k	-0.2	-	-/-	
16	06/03	11,500'	9.9	27	1	1	-	3/2	-	-89.5	-	-	-89.5	-	-	8	-	177k	-0.2	-	-/-	
17	06/04	12,311'	9.8	28	1	1	-	3/2	-	-90	-	-	-90	-	-	7.5	-	163k	-0.1	-	-/-	
18	06/05	12,744'	9.8	28	1	1	-	3/2	-	-90	-	-	-90	-	-	7.5	-	163k	-0.1	-	-/-	
19	06/06	13,322'	9.7	27	1	1	-	3/2	-	-90	-	-	-90	-	-	8.5	-	170k	0.1/0.1	-	-/-	
20	06/07	15,044'	9.7	27	1	1	-	3/2	-	-90	-	-	-90	-	-	8.5	-	170k	0.1/0.1	-	-/-	
21	06/08	16,071'	9.7	27	1	1	-	3/2	-	-90	-	-	-90	-	-	8.5	-	168k	0.1/0.1	-	-/-	
22	06/09	17,660'	9.7	27	1	1	-	3/2	-	-90	-	-	-90	-	-	8.5	-	168k	0.1/0.1	-	-/-	
23	06/10	18,923'	9.6	26	1	1	-	3/2	-	-90	-	-	-90	-	-	8	-	168k	0.1/0.1	-	-/-	
24	06/11	20,220'	9.6	26	1	1	-	3/2	-	-90	-	-	-90	-	-	8	-	168k	0.1/0.1	-	-/-	

BOTTOM HOLE ASSEMBLY RECORD

BHA Run	Depth In	Depth Out	Footage	Hours	Accum. Hours	Vert. Dev.	Bit Data					Motor Data							
							Bit #	Size (in.)	Type	Make	Model	Serial #	Jets	Hours	Motor #	Make	Bend	Hours	Rev/Gal
2	2,058'	5,993'	3,935'	35.5	35.50	Vertical	2	12 1/4	PDC	Stickman	-	200635	9x14	35.5	2	Baker	1.50°	35.5	0.49
3	5,993'	10,200'	4,207'	61.5	97.00	Vertical	3	8 3/4	PDC	Haliburton	MM55D	12394664	5x14	61.5	3	Baker	1.50°	61.5	0.49
4	10,200'	11,043'	843'	23.5	120.50	Curve	4	8 3/4	PDC	Haliburton	MMD55M	12260862	5x14	23.5	4	Baker	1.86°	23.5	0.49
5	11,043'	11,374'	331'	5	125.50	Lateral	5	6	PDC	-	-	JH5916	3x18	5	5	Baker	1.50°	5	0.29
6	11,298'	20,904'	9,606'	142.5	268.00	Lateral	6	6	PDC	Baker Hughes	T307	7151043	5x14	142.5	6	Baker	1.50°	142.5	0.29

PLAN VIEW

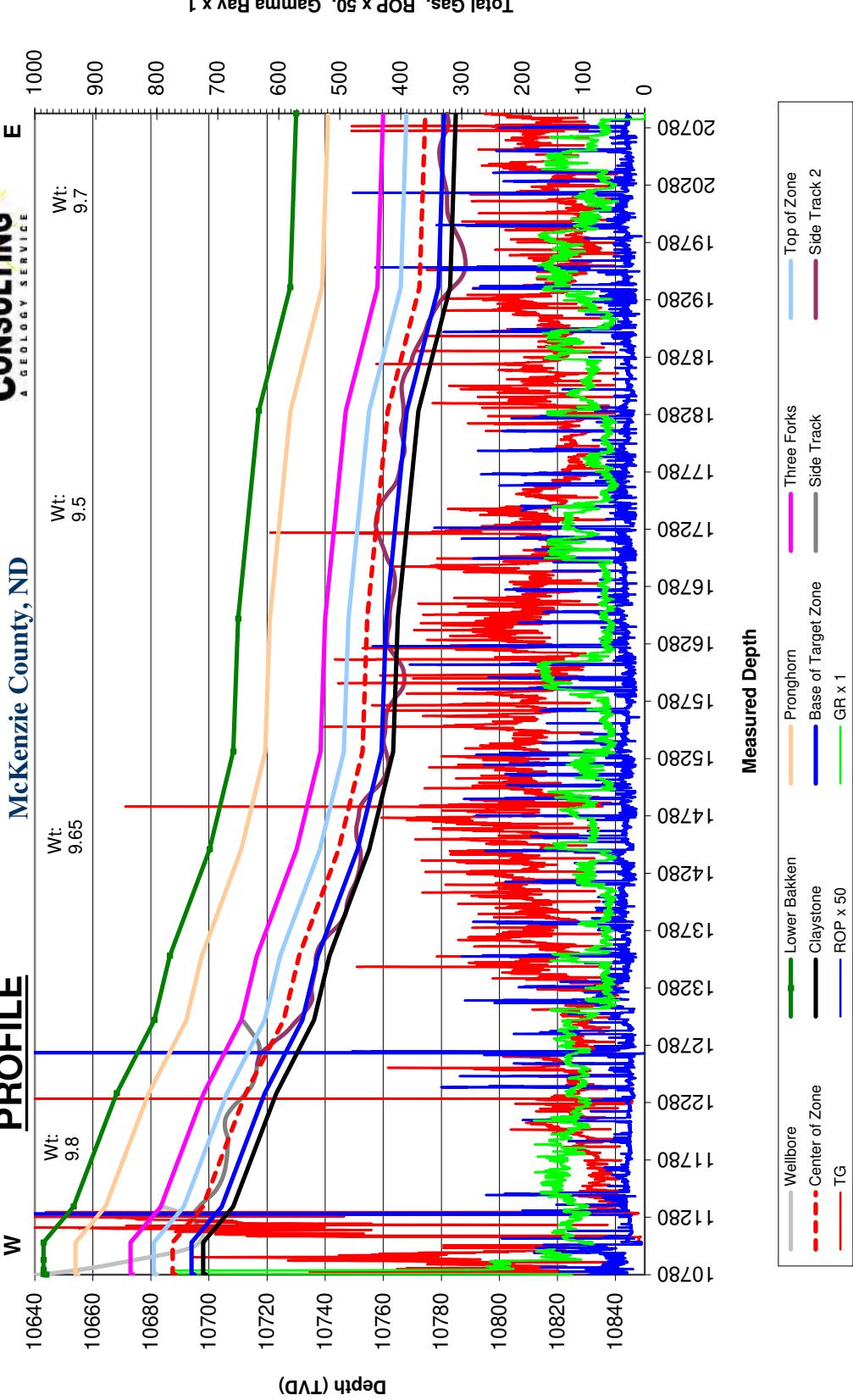
Oasis Petroleum North America, LLC
Chalmers 5301 44-24 2TR



Oasis Petroleum North America, LLC
 Chalmers 5301 44-24 2TR
 SE SE Sec. 24, T153N, R101W
 McKenzie County, ND



PROFILE



FORMATION MARKERS & DIP ESTIMATES

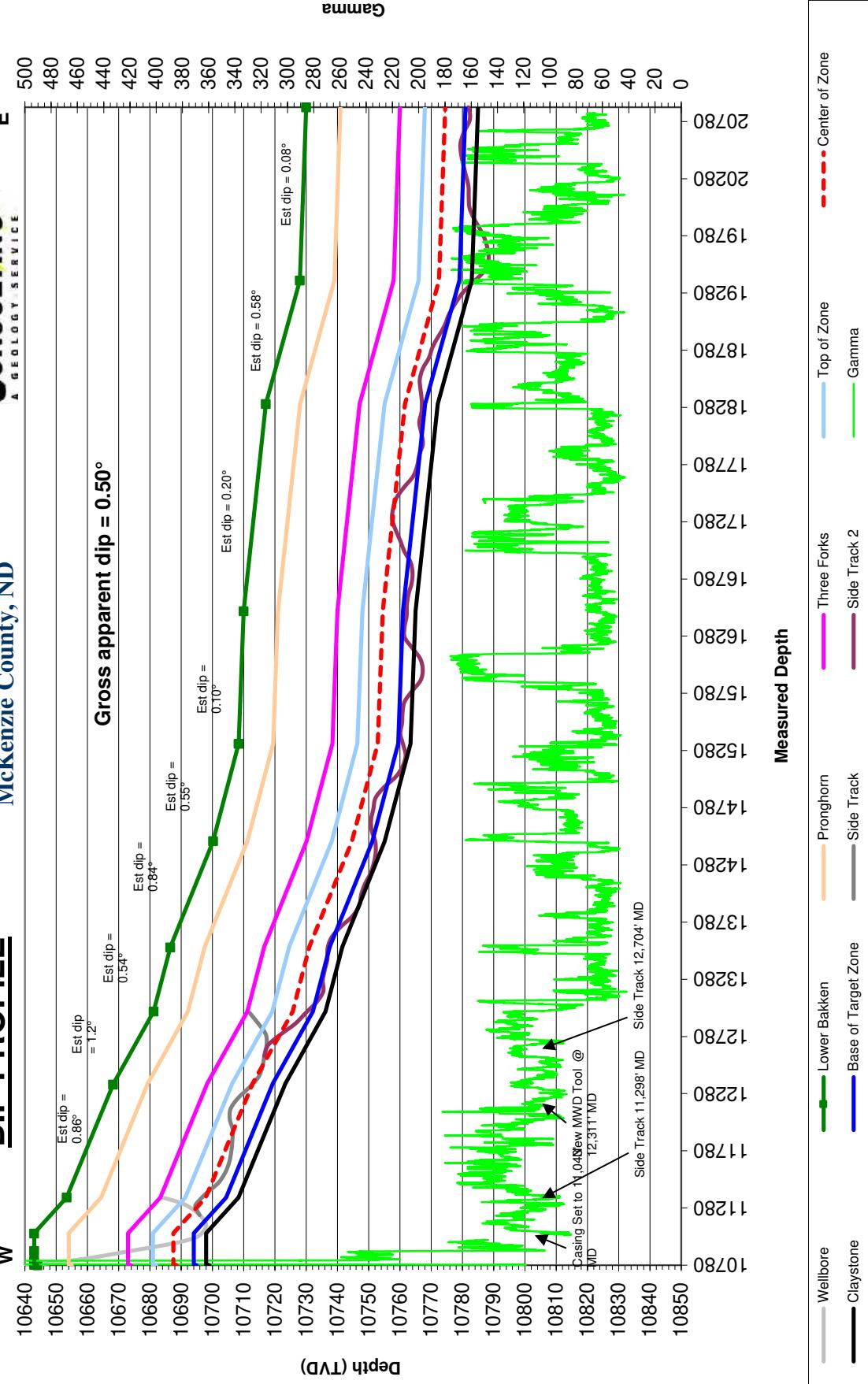
Oasis Petroleum North America, LLC - Chalmers 5301 44-24 2TR

Dip Change Points	MD	TVD	TVD diff.	MD diff.	Dip	Dipping up/down	Type of Marker
Marker							
Base of Target	10,906'	10,643.00					
Center of Target	11,059'	10,643.00	0.00	153.00	0.00	Flat	Gamma
Center of Target	11,374'	10,653.40	10.40	315.00	-1.89	Down	Gamma
Center of Target	12,361'	10,668.20	14.80	987.00	-0.86	Down	Gamma
Side Track 1	13,000'	10,681.20	13.00	639.00	-1.17	Down	Gamma
Base of Target	13,560'	10,686.50	5.30	560.00	-0.54	Down	Gamma
Cool Gamma Marker	14,490'	10,700.20	13.70	930.00	-0.84	Down	Gamma
Cool Gamma Marker	15,340'	10,708.40	8.20	850.00	-0.55	Down	Gamma
Cool Gamma Marker	16,500'	10,710.00	1.60	1160.00	-0.08	Down	Gamma
Warm Gamma Marker	18,310'	10,717.10	7.10	1810.00	-0.22	Down	Gamma
Claystone	19,390'	10,728.00	10.90	1080.00	-0.58	Down	Gamma
	20,904'	10,730.00	2.00	1514.00	-0.08	Down	Gamma
Gross Dip							
Initial Target Contact	10,906'	10,643.00					
Projected Final Target Contact	20,904'	10,730.00	87.00	9998.00	-0.50	Down	Projection

Oasis Petroleum North America, LLC
 Chalmers 5301 44-24 2TR
 SE SE Sec. 24, T153N, R101W
 McKenzie County, ND



DIP PROFILE



SUNBURST CONSULTING, INC.

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Operator:	Oasis Petroleum North America, LLC	
Well :	Chalmers 5301 44-24 2TR	
County:	McKenzie	State: ND
QQ:	SE SE	Section: 24
Township:	153	N/S: N
Range:	101	E/W: W
Footages:	959	FN/SL: S
	245	FE/WL: E

Kick-off:	5/28/2014
Finish:	6/1/2014
Directional Supervision:	RPM

Date: 6/13/2014
 Time: 16:59
F9 to re-calculate

Proposed dir: 89.61

Minimum Curvature Method (SPE-3362)

[North and East are positive and South and West are negative, relative to surface location]

No.	MD	INC	TRUE				SECT	DLS/ 100
			AZM	TVD	N-S	E-W		
Tie	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	118.00	0.10	79.80	118.00	0.02	0.10	0.10	0.08
2	149.00	0.30	58.90	149.00	0.06	0.20	0.20	0.68
3	242.00	0.30	105.30	242.00	0.13	0.64	0.64	0.25
4	335.00	0.40	85.40	335.00	0.09	1.20	1.20	0.17
5	429.00	0.40	115.20	428.99	-0.03	1.82	1.82	0.22
6	522.00	0.40	140.40	521.99	-0.41	2.32	2.32	0.19
7	614.00	0.40	79.20	613.99	-0.60	2.84	2.84	0.44
8	706.00	0.40	30.60	705.99	-0.26	3.32	3.32	0.36
9	798.00	0.40	16.90	797.99	0.32	3.58	3.58	0.10
10	890.00	0.40	25.50	889.98	0.92	3.81	3.82	0.07
11	982.00	0.10	168.80	981.98	1.13	3.97	3.97	0.53
12	1075.00	0.40	201.90	1074.98	0.75	3.86	3.86	0.35
13	1167.00	0.60	185.90	1166.98	-0.03	3.69	3.69	0.26
14	1259.00	0.80	236.90	1258.97	-0.86	3.10	3.10	0.68
15	1351.00	0.90	271.20	1350.96	-1.20	1.84	1.83	0.55
16	1443.00	1.10	282.40	1442.95	-0.99	0.26	0.25	0.30
17	1537.00	1.20	287.20	1536.93	-0.51	-1.56	-1.57	0.15
18	1630.00	0.70	306.20	1629.92	0.12	-2.95	-2.95	0.63
19	1723.00	0.40	354.40	1722.91	0.78	-3.44	-3.44	0.57
20	1817.00	0.60	349.40	1816.91	1.59	-3.57	-3.55	0.22
21	1910.00	0.70	344.00	1909.90	2.61	-3.81	-3.79	0.13
22	1991.00	0.70	345.60	1990.90	3.57	-4.07	-4.05	0.02
23	2084.00	1.10	345.60	2083.89	4.98	-4.43	-4.40	0.43
24	2178.00	1.10	345.50	2177.87	6.73	-4.88	-4.84	0.00
25	2271.00	1.10	2.90	2270.85	8.48	-5.06	-5.00	0.36
26	2364.00	1.10	11.00	2363.84	10.25	-4.85	-4.78	0.17
27	2457.00	1.00	41.60	2456.82	11.74	-4.14	-4.06	0.60
28	2551.00	1.10	64.70	2550.80	12.73	-2.78	-2.69	0.46
29	2644.00	1.10	69.70	2643.79	13.43	-1.13	-1.04	0.10
30	2737.00	1.30	82.90	2736.77	13.87	0.75	0.85	0.37
31	2830.00	1.20	90.70	2829.75	13.98	2.77	2.87	0.21
32	2924.00	1.20	119.00	2923.73	13.49	4.62	4.71	0.62
33	3017.00	0.70	154.10	3016.71	12.51	5.72	5.80	0.80
34	3110.00	0.40	158.90	3109.71	11.70	6.08	6.16	0.33

SUNBURST CONSULTING, INC.

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Operator:	Oasis Petroleum North America, LLC	
Well :	Chalmers 5301 44-24 2TR	
County:	McKenzie	State: ND
QQ:	SE SE	Section: 24
Township:	153	N/S: N
Range:	101	E/W: W
Footages:	959	FN/SL: S
	245	FE/WL: E

Kick-off:	5/28/2014
Finish:	6/1/2014
Directional Supervision:	RPM
Date:	6/13/2014

Date: 6/13/2014
 Time: 16:59
F9 to re-calculate

Proposed dir: 89.61

Minimum Curvature Method (SPE-3362)

[North and East are positive and South and West are negative, relative to surface location]

No.	MD	INC	TRUE				SECT	DLS/ 100
			AZM	TVD	N-S	E-W		
35	3203.00	0.50	351.80	3202.71	11.80	6.14	6.22	0.96
36	3297.00	0.70	357.20	3296.70	12.78	6.05	6.14	0.22
37	3390.00	1.00	10.40	3389.69	14.14	6.17	6.27	0.38
38	3483.00	1.30	12.90	3482.67	15.97	6.55	6.66	0.33
39	3577.00	1.70	28.80	3576.64	18.23	7.46	7.59	0.61
40	3670.00	1.80	23.00	3669.60	20.78	8.70	8.84	0.22
41	3763.00	1.80	21.70	3762.55	23.48	9.81	9.97	0.04
42	3856.00	1.80	29.70	3855.51	26.11	11.07	11.25	0.27
43	3950.00	2.40	40.10	3949.44	28.90	13.07	13.27	0.75
44	4043.00	0.80	54.80	4042.40	30.76	14.86	15.07	1.76
45	4136.00	0.80	110.80	4135.40	30.91	16.00	16.21	0.81
46	4229.00	0.80	232.60	4228.39	30.28	16.09	16.29	1.50
47	4323.00	1.10	239.80	4322.38	29.43	14.79	14.99	0.34
48	4416.00	1.40	258.60	4415.36	28.75	12.90	13.10	0.54
49	4509.00	1.10	220.20	4508.34	27.85	11.21	11.40	0.94
50	4603.00	1.50	218.50	4602.31	26.20	9.86	10.04	0.43
51	4696.00	1.00	249.00	4695.29	24.95	8.35	8.52	0.88
52	4789.00	1.10	253.00	4788.28	24.40	6.74	6.90	0.13
53	4882.00	1.50	257.60	4881.25	23.88	4.69	4.86	0.44
54	4976.00	1.20	263.50	4975.23	23.50	2.51	2.67	0.35
55	5069.00	0.40	250.60	5068.22	23.28	1.24	1.40	0.88
56	5162.00	0.10	137.40	5161.21	23.12	0.99	1.15	0.48
57	5255.00	1.30	143.50	5254.21	22.21	1.67	1.82	1.29
58	5348.00	1.50	155.00	5347.18	20.26	2.81	2.95	0.37
59	5441.00	1.30	184.50	5440.15	18.10	3.24	3.37	0.79
60	5534.00	1.20	214.70	5533.13	16.25	2.61	2.72	0.71
61	5627.00	1.60	233.70	5626.10	14.68	1.01	1.11	0.65
62	5721.00	1.70	229.70	5720.06	13.00	-1.11	-1.03	0.16
63	5814.00	1.70	231.10	5813.02	11.24	-3.24	-3.16	0.04
64	5907.00	1.50	233.80	5905.99	9.66	-5.30	-5.23	0.23
65	5937.00	1.60	236.10	5935.98	9.19	-5.96	-5.90	0.39
66	6062.00	2.10	237.20	6060.91	6.98	-9.33	-9.29	0.40
67	6093.00	1.80	238.40	6091.89	6.42	-10.23	-10.18	0.98
68	6186.00	1.30	297.20	6184.86	6.13	-12.41	-12.37	1.70
69	6279.00	1.60	294.20	6277.83	7.15	-14.53	-14.48	0.33

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SUNBURST CONSULTING, INC.

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Operator:	Oasis Petroleum North America, LLC	
Well :	Chalmers 5301 44-24 2TR	
County:	McKenzie	State: ND
QQ:	SE SE	Section: 24
Township:	153	N/S: N
Range:	101	E/W: W
Footages:	959	FN/SL: S
	245	FE/WL: E

Kick-off:	5/28/2014
Finish:	6/1/2014
Directional Supervision:	
RPM	

Date: 6/13/2014
 Time: 16:59
F9 to re-calculate

Proposed dir: 89.61

Minimum Curvature Method (SPE-3362)

[North and East are positive and South and West are negative, relative to surface location]

No.	MD	INC	TRUE				SECT	DLS/ 100
			AZM	TVD	N-S	E-W		
70	6372.00	0.80	315.60	6370.81	8.14	-16.17	-16.11	0.97
71	6465.00	0.60	309.80	6463.81	8.92	-17.00	-16.94	0.23
72	6559.00	1.50	32.70	6557.79	10.27	-16.71	-16.64	1.64
73	6652.00	1.50	25.70	6650.76	12.39	-15.53	-15.44	0.20
74	6745.00	1.70	32.90	6743.72	14.65	-14.25	-14.15	0.30
75	6838.00	1.50	24.70	6836.69	16.91	-12.99	-12.88	0.33
76	6932.00	1.40	35.60	6930.66	18.96	-11.81	-11.68	0.31
77	7025.00	1.30	33.80	7023.63	20.76	-10.56	-10.42	0.12
78	7118.00	1.00	40.00	7116.61	22.26	-9.45	-9.30	0.35
79	7211.00	0.80	60.00	7209.60	23.21	-8.37	-8.21	0.40
80	7305.00	0.80	59.50	7303.59	23.87	-7.23	-7.07	0.01
81	7398.00	0.90	46.70	7396.58	24.70	-6.14	-5.97	0.23
82	7491.00	0.60	67.10	7489.58	25.39	-5.16	-4.99	0.43
83	7584.00	0.50	81.40	7582.57	25.64	-4.31	-4.14	0.18
84	7677.00	0.70	5.80	7675.57	26.27	-3.85	-3.68	0.81
85	7771.00	0.60	357.70	7769.56	27.33	-3.82	-3.63	0.14
86	7864.00	0.70	21.80	7862.56	28.34	-3.62	-3.43	0.31
87	8050.00	0.70	15.70	8048.54	30.49	-2.90	-2.69	0.04
88	8143.00	1.00	26.80	8141.53	31.76	-2.38	-2.16	0.37
89	8237.00	1.00	22.60	8235.52	33.25	-1.69	-1.46	0.08
90	8330.00	0.80	31.30	8328.51	34.56	-1.04	-0.81	0.26
91	8423.00	0.70	23.30	8421.50	35.63	-0.48	-0.24	0.16
92	8516.00	0.70	44.20	8514.49	36.56	0.14	0.39	0.27
93	8609.00	1.00	40.90	8607.48	37.58	1.07	1.32	0.33
94	8702.00	0.90	54.10	8700.47	38.62	2.19	2.45	0.26
95	8796.00	0.60	43.40	8794.46	39.41	3.13	3.40	0.35
96	8889.00	0.70	60.60	8887.45	40.05	3.96	4.23	0.23
97	8982.00	0.50	63.90	8980.45	40.50	4.82	5.09	0.22
98	9075.00	0.50	75.50	9073.45	40.78	5.57	5.85	0.11
99	9169.00	0.20	78.40	9167.44	40.92	6.13	6.41	0.32
100	9262.00	0.20	121.70	9260.44	40.87	6.43	6.71	0.16
101	9355.00	0.30	91.10	9353.44	40.78	6.81	7.09	0.18
102	9448.00	0.30	87.10	9446.44	40.78	7.30	7.57	0.02
103	9542.00	0.10	7.30	9540.44	40.88	7.55	7.83	0.32
104	9635.00	0.20	233.00	9633.44	40.86	7.43	7.71	0.30

SUNBURST CONSULTING, INC.

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Operator:	Oasis Petroleum North America, LLC	
Well :	Chalmers 5301 44-24 2TR	
County:	McKenzie	State: ND
QQ:	SE SE	Section: 24
Township:	153	N/S: N
Range:	101	E/W: W
Footages:	959	FN/SL: S
	245	FE/WL: E

Kick-off:	5/28/2014
Finish:	6/1/2014
Directional Supervision:	RPM

Date: 6/13/2014
 Time: 16:59
F9 to re-calculate

Proposed dir: 89.61

Minimum Curvature Method (SPE-3362)

[North and East are positive and South and West are negative, relative to surface location]

No.	MD	INC	TRUE				SECT	DLS/ 100
			AZM	TVD	N-S	E-W		
105	9728.00	0.40	230.20	9726.44	40.56	7.05	7.33	0.22
106	9821.00	0.60	204.20	9819.44	39.90	6.61	6.88	0.32
107	9915.00	0.60	230.70	9913.43	39.14	6.02	6.29	0.29
108	10008.00	1.00	244.10	10006.42	38.48	4.92	5.18	0.47
109	10101.00	1.40	243.10	10099.40	37.61	3.17	3.43	0.43
110	10144.00	1.40	242.70	10142.39	37.13	2.24	2.49	0.02
111	10209.00	1.50	134.40	10207.38	36.17	2.14	2.39	3.62
112	10240.00	6.30	104.70	10238.30	35.46	4.08	4.32	16.30
113	10271.00	10.90	98.60	10268.94	34.59	8.62	8.86	15.11
114	10302.00	15.50	93.60	10299.11	33.89	15.66	15.89	15.28
115	10333.00	19.20	91.10	10328.70	33.53	24.89	25.12	12.17
116	10364.00	22.20	87.20	10357.70	33.72	35.84	36.07	10.65
117	10396.00	25.10	83.90	10387.01	34.74	48.63	48.87	9.96
118	10427.00	28.20	85.00	10414.71	36.07	62.47	62.71	10.13
119	10458.00	32.20	86.40	10441.50	37.23	78.02	78.27	13.10
120	10489.00	35.30	91.20	10467.27	37.56	95.22	95.47	13.18
121	10520.00	38.20	92.60	10492.11	36.94	113.76	114.00	9.74
122	10551.00	42.00	92.30	10515.82	36.09	133.70	133.94	12.27
123	10582.00	46.90	91.90	10537.94	35.30	155.39	155.63	15.83
124	10613.00	51.40	90.50	10558.21	34.81	178.83	179.06	14.91
125	10644.00	54.90	87.90	10576.81	35.17	203.62	203.86	13.13
126	10675.00	57.10	84.60	10594.14	36.86	229.26	229.51	11.32
127	10707.00	60.80	84.10	10610.64	39.56	256.54	256.80	11.64
128	10738.00	63.80	85.00	10625.05	42.17	283.86	284.14	10.01
129	10769.00	67.50	86.20	10637.83	44.33	312.01	312.31	12.45
130	10800.00	71.30	87.90	10648.74	45.82	340.98	341.29	13.29
131	10831.00	75.00	88.50	10657.72	46.75	370.63	370.94	12.08
132	10862.00	78.00	89.00	10664.96	47.40	400.77	401.08	9.80
133	10893.00	78.10	89.00	10671.38	47.93	431.09	431.41	0.32
134	10924.00	77.80	89.10	10677.85	48.44	461.40	461.72	1.02
135	10955.00	77.60	89.30	10684.45	48.86	491.69	492.01	0.90
136	10986.00	81.50	90.10	10690.08	49.02	522.17	522.49	12.83
137	11034.00	85.70	85.80	10695.43	50.73	569.81	570.15	12.48
138	11126.00	91.10	86.60	10698.00	56.82	661.54	661.91	5.93
139	11219.00	91.50	85.40	10695.89	63.31	754.29	754.70	1.36

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SUNBURST CONSULTING, INC.

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Operator:	Oasis Petroleum North America, LLC	
Well :	Chalmers 5301 44-24 2TR	
County:	McKenzie	State: ND
QQ:	SE SE	Section: 24
Township:	153	N/S: N
Range:	101	E/W: W
Footages:	959	FN/SL: S
	245	FE/WL: E

Kick-off:	5/28/2014
Finish:	6/1/2014
Directional Supervision:	
RPM	

Date: 6/13/2014
 Time: 16:59
F9 to re-calculate

Proposed dir: 89.61

Minimum Curvature Method (SPE-3362)

[North and East are positive and South and West are negative, relative to surface location]

No.	MD	INC	TRUE			N-S	E-W	SECT	DLS/ 100
			AZM	TVD					
140	11312.00	94.50	87.20	10691.02		69.30	846.95	847.41	3.76
141	11374.00	98.90	87.20	10683.79		72.31	908.44	908.91	7.10

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SUNBURST CONSULTING, INC.

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Operator:	Oasis Petroleum North America, LLC			Kick-off:	6/2/2014
Well :	Chalmers 5301 44-24 2TR Sidetrack #1			Finish:	6/4/2014
County:	McKenzie			Directional Supervision:	
QQ:	SE SE			RPM	
Township:	153			Date:	6/13/2014
Range:	101			Time:	16:59
Footages:	959 245			F9 to re-calculate	
				Proposed dir:	89.61

Minimum Curvature Method (SPE-3362)

[North and East are positive and South and West are negative, relative to surface location]

No.	MD	INC	TRUE				SECT	DLS/ 100
			AZM	TVD	N-S	E-W		
Tie	11219.00	91.50	85.40	10695.89	63.30	754.30	754.71	1.36
1	11281.00	90.80	86.10	10694.64	67.89	816.12	816.56	1.60
2	11312.00	89.00	86.10	10694.69	70.00	847.04	847.50	5.81
3	11405.00	87.10	87.90	10697.86	74.87	939.85	940.34	2.81
4	11498.00	88.00	89.30	10701.84	77.14	1032.74	1033.24	1.79
5	11591.00	89.20	89.70	10704.11	77.95	1125.70	1126.21	1.36
6	11683.00	89.20	89.50	10705.39	78.59	1217.69	1218.20	0.22
7	11776.00	90.00	89.70	10706.04	79.24	1310.69	1311.20	0.89
8	11869.00	89.60	89.40	10706.37	79.97	1403.68	1404.20	0.54
9	11962.00	90.20	89.80	10706.53	80.62	1496.68	1497.20	0.78
10	12054.00	91.00	89.70	10705.56	81.02	1588.67	1589.19	0.88
11	12147.00	88.70	91.10	10705.81	80.37	1681.66	1682.17	2.90
12	12240.00	88.40	91.30	10708.16	78.42	1774.61	1775.11	0.39
13	12333.00	87.20	89.80	10711.73	77.53	1867.54	1868.02	2.06
14	12426.00	89.10	90.20	10714.73	77.53	1960.48	1960.97	2.09
15	12519.00	89.30	90.80	10716.03	76.72	2053.47	2053.94	0.68
16	12611.00	90.00	91.00	10716.59	75.27	2145.46	2145.92	0.79
17	12704.00	89.10	91.50	10717.32	73.25	2238.43	2238.88	1.11
18	12798.00	91.20	92.30	10717.08	70.13	2332.37	2332.80	2.39
19	12892.00	91.70	91.90	10714.70	66.69	2426.28	2426.68	0.68
20	12987.00	91.70	91.90	10711.88	63.54	2521.18	2521.56	0.00

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SUNBURST CONSULTING, INC.

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Operator:	Oasis Petroleum North America, LLC			Kick-off:	6/5/2014
Well :	Chalmers 5301 44-24 2TR Sidetrack #2			Finish:	6/11/2014
County:	McKenzie			Directional Supervision:	
QQ:	SE SE			RPM	
Township:	153			Date:	6/13/2014
Range:	101			Time:	16:59
Footages:	959 245			F9 to re-calculate	
				Proposed dir:	89.61

Minimum Curvature Method (SPE-3362)

[North and East are positive and South and West are negative, relative to surface location]

No.	MD	INC	TRUE				SECT	DLS/ 100
			AZM	TVD	N-S	E-W		
Tie	12611.00	90.00	91.00	10716.59	75.28	2145.46	2145.92	0.00
1	12704.00	88.50	91.80	10717.81	73.01	2238.42	2238.87	1.83
2	12798.00	86.60	93.00	10721.83	69.08	2332.25	2332.66	2.39
3	12892.00	87.70	90.90	10726.50	65.88	2426.07	2426.46	2.52
4	12987.00	88.20	90.40	10729.90	64.81	2521.00	2521.38	0.74
5	13081.00	87.60	90.40	10733.34	64.15	2614.94	2615.31	0.64
6	13174.00	89.80	90.10	10735.45	63.74	2707.91	2708.28	2.39
7	13268.00	90.40	89.80	10735.29	63.83	2801.90	2802.27	0.71
8	13362.00	88.80	89.30	10735.94	64.56	2895.90	2896.27	1.78
9	13456.00	90.20	89.60	10736.76	65.47	2989.89	2990.26	1.52
10	13550.00	89.70	89.70	10736.85	66.04	3083.88	3084.26	0.54
11	13644.00	88.80	89.40	10738.08	66.78	3177.87	3178.25	1.01
12	13738.00	87.60	89.40	10741.03	67.76	3271.82	3272.20	1.28
13	13832.00	87.80	90.10	10744.80	68.17	3365.74	3366.13	0.77
14	13926.00	89.50	89.60	10747.02	68.42	3459.71	3460.10	1.89
15	14021.00	89.80	90.40	10747.60	68.42	3554.71	3555.09	0.90
16	14114.00	88.70	91.10	10748.81	67.20	3647.69	3648.06	1.40
17	14208.00	89.10	90.00	10750.62	66.30	3741.67	3742.03	1.24
18	14301.00	89.60	89.00	10751.67	67.11	3834.66	3835.02	1.20
19	14394.00	89.70	88.70	10752.24	68.98	3927.64	3928.01	0.34
20	14488.00	90.50	90.00	10752.08	70.04	4021.63	4022.01	1.62
21	14582.00	90.90	90.40	10750.93	69.72	4115.62	4116.00	0.60
22	14676.00	89.30	90.20	10750.77	69.22	4209.61	4209.99	1.72
23	14770.00	89.80	90.80	10751.50	68.40	4303.61	4303.97	0.83
24	14864.00	89.40	90.60	10752.16	67.26	4397.60	4397.95	0.48
25	14958.00	87.30	89.40	10754.87	67.25	4491.55	4491.90	2.57
26	15052.00	88.00	89.60	10758.72	68.07	4585.47	4585.83	0.77
27	15146.00	89.30	89.20	10760.94	69.06	4679.43	4679.80	1.45
28	15239.00	89.60	89.40	10761.83	70.19	4772.42	4772.79	0.39
29	15333.00	91.40	90.10	10761.01	70.60	4866.41	4866.78	2.05
30	15427.00	89.70	90.70	10760.11	69.95	4960.40	4960.76	1.92
31	15520.00	89.60	90.70	10760.67	68.81	5053.39	5053.75	0.11
32	15614.00	90.20	91.40	10760.84	67.09	5147.38	5147.72	0.98
33	15708.00	89.00	89.40	10761.49	66.43	5241.37	5241.70	2.48
34	15801.00	88.00	89.50	10763.93	67.33	5334.33	5334.66	1.08

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SUNBURST CONSULTING, INC.

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Operator:	Oasis Petroleum North America, LLC		
Well :	Chalmers 5301 44-24 2TR Sidetrack #2		
County:	McKenzie	State:	ND
QQ:	SE SE	Section:	24
Township:	153	N/S:	N
Range:	101	E/W:	W
Footages:	959	FN/SL:	S
	245	FE/WL:	E

Kick-off:	6/5/2014
Finish:	6/11/2014
Directional Supervision:	RPM
Date:	6/13/2014
Time:	16:59
F9 to re-calculate	
Proposed dir:	89.61

Minimum Curvature Method (SPE-3362)

[North and East are positive and South and West are negative, relative to surface location]

No.	MD	INC	TRUE				SECT	DLS/ 100
			AZM	TVD	N-S	E-W		
35	15895.00	88.70	89.30	10766.64	68.31	5428.28	5428.62	0.77
36	15989.00	90.50	89.80	10767.29	69.05	5522.28	5522.62	1.99
37	16083.00	90.50	89.10	10766.47	69.95	5616.27	5616.61	0.74
38	16177.00	92.60	89.40	10763.93	71.18	5710.22	5710.57	2.26
39	16270.00	90.40	90.00	10761.49	71.67	5803.18	5803.53	2.45
38	16364.00	89.60	91.00	10761.49	70.85	5897.17	5897.52	1.36
40	16458.00	89.60	91.90	10762.15	68.47	5991.14	5991.47	0.96
41	16552.00	90.30	90.90	10762.23	66.17	6085.11	6085.42	1.30
42	16646.00	89.10	90.30	10762.72	65.19	6179.10	6179.40	1.43
43	16739.00	89.70	90.00	10763.70	64.94	6272.10	6272.39	0.72
44	16833.00	89.90	89.90	10764.03	65.03	6366.10	6366.39	0.24
45	16927.00	90.90	90.10	10763.37	65.03	6460.09	6460.39	1.08
46	17020.00	91.50	90.50	10761.42	64.54	6553.07	6553.36	0.78
47	17114.00	90.10	90.80	10760.11	63.47	6647.05	6647.33	1.52
48	17208.00	91.70	90.20	10758.63	62.65	6741.03	6741.30	1.82
49	17302.00	89.70	89.40	10757.49	62.98	6835.02	6835.29	2.29
50	17395.00	89.90	89.70	10757.81	63.71	6928.02	6928.29	0.39
51	17488.00	88.80	89.80	10758.87	64.12	7021.01	7021.28	1.19
52	17582.00	88.20	90.00	10761.33	64.28	7114.98	7115.25	0.67
53	17676.00	88.30	89.40	10764.20	64.77	7208.93	7209.20	0.65
54	17771.00	90.10	89.90	10765.52	65.35	7303.92	7304.19	1.97
55	17865.00	89.10	89.60	10766.18	65.76	7397.91	7398.19	1.11
56	17960.00	89.50	89.70	10767.34	66.34	7492.90	7493.18	0.43
57	18054.00	91.10	88.70	10766.85	67.66	7586.89	7587.17	2.01
58	18149.00	89.70	89.60	10766.18	69.06	7681.87	7682.16	1.75
59	18243.00	89.40	89.60	10766.92	69.72	7775.87	7776.16	0.32
60	18338.00	90.50	88.70	10767.01	71.13	7870.85	7871.15	1.50
61	18432.00	90.00	89.60	10766.60	72.52	7964.84	7965.15	1.10
62	18526.00	90.30	89.30	10766.35	73.43	8058.84	8059.15	0.45
63	18621.00	88.50	89.90	10767.34	74.09	8153.82	8154.14	2.00
64	18715.00	89.10	90.50	10769.31	73.76	8247.80	8248.11	0.90
65	18809.00	89.50	90.90	10770.46	72.61	8341.79	8342.09	0.60
66	18903.00	88.20	91.20	10772.35	70.89	8435.75	8436.04	1.42
67	18997.00	89.40	91.00	10774.32	69.09	8529.71	8529.98	1.29
68	19090.00	89.00	89.10	10775.61	69.01	8622.70	8622.97	2.09

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SUNBURST CONSULTING, INC.

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Operator:	Oasis Petroleum North America, LLC		
Well :	Chalmers 5301 44-24 2TR Sidetrack #2		
County:	McKenzie	State:	ND
QQ:	SE SE	Section:	24
Township:	153	N/S:	N
Range:	101	E/W:	W
Footages:	959	FN/SL:	S
	245	FE/WL:	E

Kick-off:	6/5/2014
Finish:	6/11/2014
Directional Supervision:	RPM
Date:	6/13/2014
Time:	16:59
F9 to re-calculate	
Proposed dir:	89.61

Minimum Curvature Method (SPE-3362)

[North and East are positive and South and West are negative, relative to surface location]

No.	MD	INC	TRUE				SECT	DLS/ 100
			AZM	TVD	N-S	E-W		
69	19184.00	88.60	90.20	10777.58	69.58	8716.67	8716.94	1.24
70	19278.00	88.50	90.80	10779.96	68.76	8810.64	8810.90	0.65
71	19372.00	87.40	90.40	10783.32	67.78	8904.57	8904.83	1.25
72	19465.00	88.40	88.00	10786.73	69.07	8997.49	8997.75	2.79
73	19559.00	89.70	89.00	10788.29	71.54	9091.44	9091.72	1.74
74	19653.00	90.50	88.60	10788.13	73.50	9185.42	9185.71	0.95
75	19746.00	90.60	88.70	10787.23	75.69	9278.39	9278.69	0.15
76	19840.00	91.40	88.70	10785.59	77.83	9372.35	9372.67	0.85
77	19934.00	91.00	89.40	10783.63	79.38	9466.32	9466.64	0.86
78	20027.00	90.70	90.10	10782.25	79.79	9559.31	9559.63	0.82
79	20121.00	89.60	89.80	10782.00	79.87	9653.30	9653.62	1.21
80	20215.00	90.50	89.00	10781.92	80.86	9747.30	9747.62	1.28
81	20309.00	90.50	89.30	10781.10	82.25	9841.28	9841.62	0.32
82	20403.00	90.50	89.90	10780.28	82.91	9935.28	9935.61	0.64
83	20497.00	90.40	90.50	10779.54	82.58	10029.27	10029.60	0.65
84	20590.00	89.80	91.40	10779.38	81.04	10122.26	10122.58	1.16
85	20684.00	88.90	93.00	10780.44	77.43	10216.18	10216.47	1.95
86	20778.00	89.00	92.90	10782.17	72.59	10310.04	10310.29	0.15
87	20841.00	90.50	92.30	10782.44	69.74	10372.97	10373.21	2.56
88	20904.00	90.50	92.30	10781.89	67.21	10435.92	10436.13	0.00

FORMATION TOPS & STRUCTURAL RELATIONSHIPS

Formation/ Zone	Subject Well:										Offset Wells:	
	Prog. Top	Datum (MSL)	Depth Top (MD)	Driller's Depth Top (TVD)	Datum	Interval	Thickness to Target	Dip To Prog.	Dip To Chalmers 5300 31-19H	Dip To Lynn 1	Dip To Kline Federal 5300 11-18H	
Mowry	4,914'	-2,946'	4,907'	4,906'	-2,938'	437'	5,791'	8'	15'	-85'	-	
Dakota	5,341'	-3,373'	5,344'	5,343'	-3,375'	500'	5,354'	-2'	7'	-92'	-	
Swift	5,853'	-3,885'	5,844'	5,843'	-3,875'	495'	4,854'	10'	19'	-127'	-	
Kibbey Lime	8,269'	-6,301'	8,265'	8,264'	-6,296'	165'	2,433'	5'	15'	-43'	-3'	
Charles	8,433'	-6,465'	8,430'	8,429'	-6,461'	553'	2,268'	4'	14'	-44'	-30'	
UB	9,010'	-7,042'	8,983'	8,982'	-7,014'	80'	1,715'	28'	35'	-23'	-9'	
Base Last Salt	9,091'	-7,123'	9,064'	9,062'	-7,094'	47'	1,635'	29'	36'	-22'	43'	
Ratcliffe	9,141'	-7,173'	9,111'	9,109'	-7,141'	177'	1,588'	32'	38'	-19'	46'	
Mission Canyon	9,311'	-7,343'	9,288'	9,286'	-7,318'	559'	1,411'	25'	31'	-22'	45'	
Lodgepole	9,876'	-7,908'	9,847'	9,845'	-7,877'	108'	852'	31'	38'	-31'	40'	
Lodgepole A	9,953'	-7,985'	9,955'	9,953'	-7,985'	98'	744'	0'	9'	-61'	68'	
Lodgepole B	10,109'	-8,141'	10,053'	10,051'	-8,083'	40'	646'	58'	65'	-68'	14'	
Lodgepole C	10,180'	-8,212'	10,093'	10,091'	-8,123'	184'	606'	89'	96'	-27'	50'	
Lodgepole D	10,283'	-8,315'	10,279'	10,275'	-8,307'	146'	422'	8'	15'	-83'	-28'	
Lodgepole E	10,429'	-8,461'	10,434'	10,421'	-8,453'	71'	276'	8'	15'	-49'	-97'	
Lodgepole F	10,502'	-8,534'	10,520'	10,492'	-8,524'	85'	205'	10'	16'	-39'	-86'	
False Bakken	10,588'	-8,620'	10,641'	10,577'	-8,609'	8'	120'	11'	18'	-47'	9'	
Upper Bakken	10,599'	-8,631'	10,658'	10,585'	-8,617'	17'	112'	14'	19'	-45'	11'	
Middle Bakken	10,616'	-8,648'	10,689'	10,602'	-8,634'	42'	95'	14'	20'	-47'	10'	
Lower Bakken	10,648'	-8,680'	10,785'	10,644'	-8,676'	11'	53'	4'	9'	-54'	-18'	
Pronghorn	10,659'	-8,691'	10,821'	10,655'	-8,687'	19'	42'	4'	8'	-47'	-15'	
Threeforks	10,676'	-8,708'	10,906'	10,674'	-8,706'	8'	23'	2'	5'	-55'	-8'	
Target Top	10,692'	-8,724'	10,944'	10,682'	-8,714'	13'	15'	10'	16'	-48'	1'	
Landing Target	10,697'	-8,729'	11,043'	10,695'	-8,727'	-	-	2'	8'	-51'	-5'	

CONTROL DATA

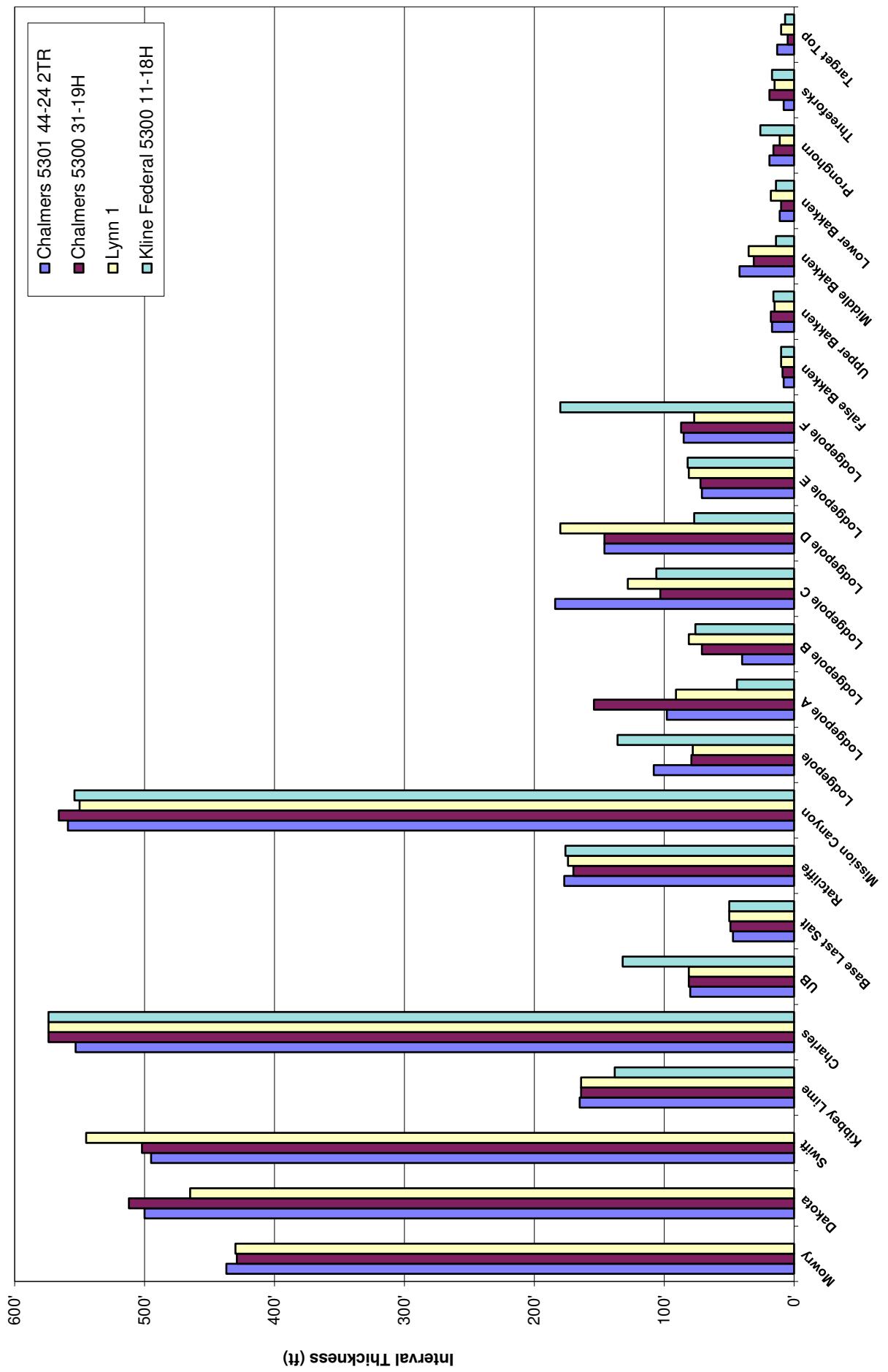
Operator:	Oasis Petroleum North America				Missouri Basin Well				Oasis Petroleum North America
Well Name:	Chalmers 5300 31-19H				Lynn 1				Kline Federal 5300 11-18H
Location:	NW SW Sec. 19, T153N, R100W McKenzie Co., ND				SW NW Sec. 23, T153N, R101W McKenzie Co., ND				NW NW Section 18, T153N, R100W McKenzie Co., ND
Elevation:	0.16 miles northeast of Chalmers 5301 44-24 2TR KB: 1,929'				1.83 miles northwest of Chalmers 5301 44-24 2TR KB: 2,142'				1.63 miles north of Chalmers 5301 44-24 2TR KB: 2,079'
Formation/ Zone	E-Log Top	Datum (MSL)	Interval Thickness	Thickness to Target	E-Log Top	Datum (MSL)	Interval Thickness	Thickness to Target	E-Log Top
Mowry	4,882'	-2,953'	429'	5,782'	4,995'	-2,853'	430'	5,823'	-
Dakota	5,311'	-3,382'	512'	5,353'	5,425'	-3,283'	465'	5,393'	-
Swift	5,823'	-3,894'	502'	4,841'	5,890'	-3,748'	545'	4,928'	-
Kibbey Lime	8,240'	-6,311'	164'	2,424'	8,395'	-6,253'	164'	2,423'	8,372'
Charles	8,404'	-6,475'	574'	2,260'	8,559'	-6,417'	574'	2,259'	8,510'
JB	8,978'	-7,049'	81'	1,686'	9,133'	-6,991'	81'	1,685'	9,084'
Base Last Salt	9,059'	-7,130'	49'	1,605'	9,214'	-7,072'	50'	1,604'	9,216'
Ratcliffe	9,108'	-7,179'	170'	1,556'	9,264'	-7,122'	174'	1,554'	9,266'
Mission Canyon	9,278'	-7,349'	566'	1,386'	9,438'	-7,296'	550'	1,380'	9,442'
Lodgepole	9,844'	-7,915'	79'	820'	9,988'	-7,846'	78'	830'	9,996'
Lodgepole A	9,923'	-7,994'	154'	741'	10,066'	-7,924'	91'	752'	10,132'
Lodgepole B	10,077'	-8,148'	71'	587'	10,157'	-8,015'	81'	661'	10,176'
Lodgepole C	10,148'	-8,219'	103'	516'	10,238'	-8,096'	128'	580'	10,252'
Lodgepole D	10,251'	-8,322'	146'	413'	10,366'	-8,224'	180'	452'	10,358'
Lodgepole E	10,397'	-8,468'	72'	267'	10,546'	-8,404'	81'	272'	10,435'
Lodgepole F	10,469'	-8,540'	87'	195'	10,627'	-8,485'	77'	191'	10,517'
False Bakken	10,556'	-8,627'	9'	108'	10,704'	-8,562'	10'	114'	10,697'
Upper Bakken	10,565'	-8,636'	18'	99'	10,714'	-8,572'	15'	104'	10,707'
Middle Bakken	10,583'	-8,654'	31'	81'	10,729'	-8,587'	35'	89'	10,723'
Lower Bakken	10,614'	-8,685'	10'	50'	10,764'	-8,622'	18'	54'	10,737'
Pronghorn	10,624'	-8,695'	16'	40'	10,782'	-8,640'	11'	36'	10,751'
Threeforks	10,640'	-8,711'	19'	24'	10,793'	-8,651'	15'	25'	10,777'
Target Top	10,659'	-8,730'	5'	5'	10,808'	-8,666'	10'	10'	10,794'
Landing Target	10,664'	-8,735'	3'	0'	10,818'	-8,676'	9'	0'	10,801'
Target Base	10,667'	-8,738'	1'	-	10,827'	-8,685'	1'	-	10,808'
Claystone	10,668'	-8,739'	-	-	10,828'	-8,686'	-	-	10,809'

LANDING PROJECTION

Formation/Zone:			Proposed Top of Target From:	
	Chalmers 5300 31-19H	Lynn 1	Kline Federal 5300 11-18H	Average of Offset Wells
Kibbey Lime	10,688'	10,687'	10,693'	10,689'
Charles	10,689'	10,688'	10,720'	10,699'
UB	10,668'	10,667'	10,699'	10,678'
Base Last Salt	10,667'	10,666'	10,647'	10,660'
Ratcliffe	10,665'	10,663'	10,644'	10,657'
Mission Canyon	10,672'	10,666'	10,645'	10,661'
Lodgepole	10,665'	10,675'	10,650'	10,663'
Lodgepole A	10,694'	10,705'	10,622'	10,674'
Lodgepole B	10,638'	10,712'	10,676'	10,675'
Lodgepole C	10,607'	10,671'	10,640'	10,639'
Lodgepole D	10,688'	10,727'	10,718'	10,711'
Lodgepole E	10,688'	10,693'	10,787'	10,723'
Lodgepole F	10,687'	10,683'	10,776'	10,715'
False Bakken	10,685'	10,691'	10,681'	10,686'
Upper Bakken	10,684'	10,689'	10,679'	10,684'
Middle Bakken	10,683'	10,691'	10,680'	10,685'
Lower Bakken	10,694'	10,698'	10,708'	10,700'
Pronghorn	10,695'	10,691'	10,705'	10,697'
Threeforks	10,698'	10,699'	10,698'	10,698'
Target Top	10,687'	10,692'	10,689'	10,689'
Landing Target	10,695'	10,695'	10,695'	10,695'

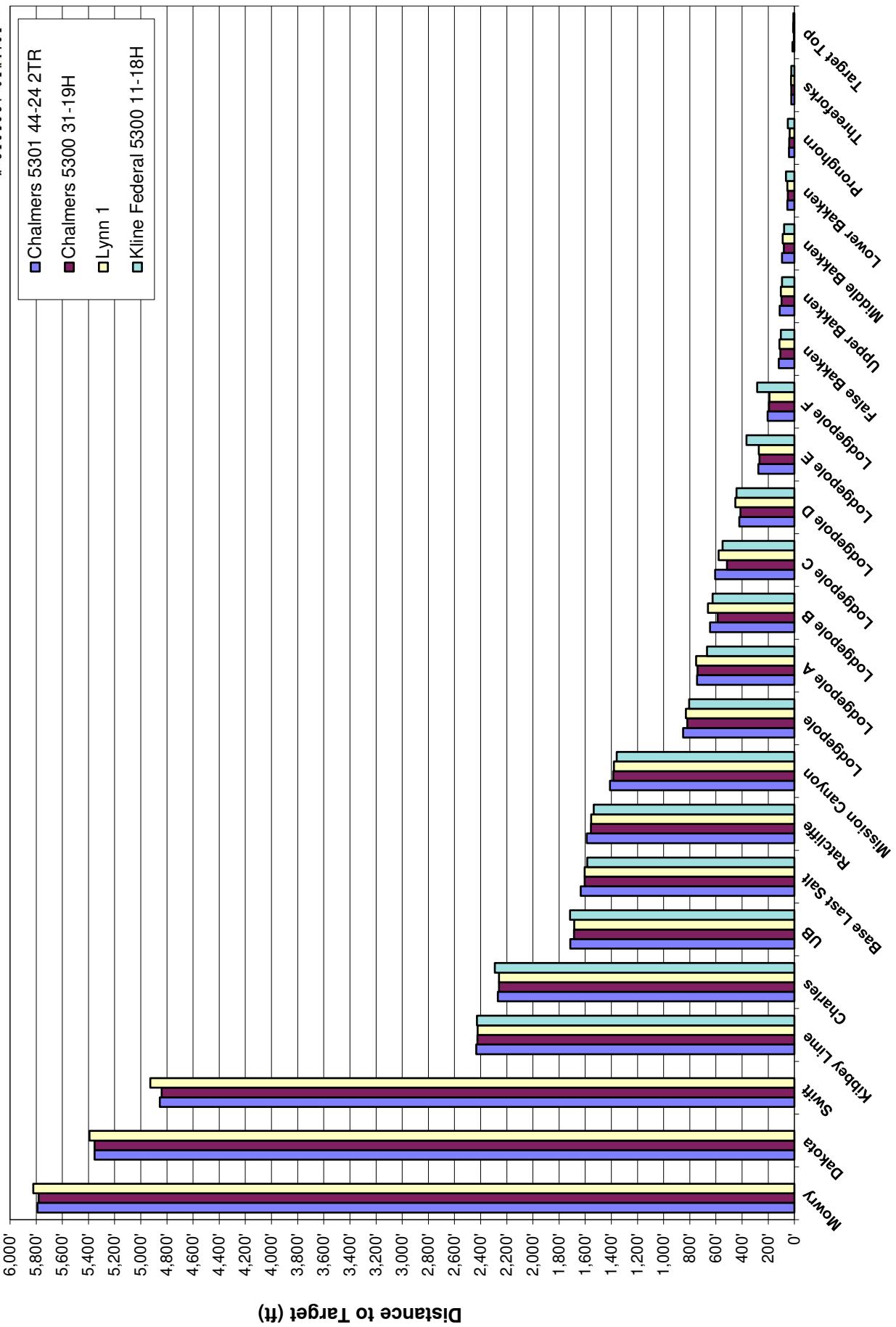
INTERVAL THICKNESS

Oasis Petroleum North America, LLC - Chalmers 5301 44-24 2TR



ISOPACH TO TARGET

Oasis Petroleum North America, LLC - Chalmers 5301 44-24 2TR



LITHOLOGY

Rig crews caught lagged samples in 30' intervals under the supervision of Sunburst geologists. A detailed list of sampling intervals is included in the well data summary page. Sample or gamma ray marker tops have been inserted in the sample descriptions below for reference. Samples were examined wet and dry under a trinocular microscope. The drilling fluid was diesel-based invert from surface casing to intermediate casing, while salt water drilling fluid was used throughout the lateral. Sample collection began at 4,960' MD.

Mowry [4,907' MD, 4,906' TVD (-2,938')]

4930-4960 SHALE: dark to medium gray, firm, sub blocky, earthy, calcareous, trace disseminated pyrite, no visible porosity, no visible oil stain

4960-4990 SHALE: dark to medium gray, firm, sub blocky, earthy, calcareous, trace disseminated pyrite, no visible porosity, no visible oil stain

4990-5020 SHALE: dark to medium gray, firm, sub blocky, earthy, calcareous, trace disseminated pyrite, no visible porosity, no visible oil stain

5020-5050 SHALE: dark to medium gray, firm, sub blocky, earthy, calcareous, trace disseminated pyrite, no visible porosity, no visible oil stain

5050-5080 SHALE: dark to medium gray, firm, sub blocky, earthy, calcareous, trace disseminated pyrite, no visible porosity, no visible oil stain

5080-5110 SHALE: dark to medium gray, firm, sub blocky, earthy, calcareous, trace disseminated pyrite, no visible porosity, no visible oil stain

5110-5140 SHALE: dark to medium gray, firm, sub blocky, earthy, calcareous, trace disseminated pyrite, no visible porosity, no visible oil stain

5140-5170 SHALE: dark to medium gray, firm, sub blocky, earthy, calcareous, trace disseminated pyrite, no visible porosity, no visible oil stain; trace SILTSTONE: light gray to brown, friable to firm, sub rounded, moderately cemented, possible intergranular porosity, no visible oil stain

5170-5200 SHALE: dark to medium gray, firm, sub blocky, earthy, calcareous, trace disseminated pyrite, no visible porosity, no visible oil stain; trace SILTSTONE: light gray to brown, friable to firm, sub rounded, moderately cemented, possible intergranular porosity, no visible oil stain

5200-5230 SHALE: dark to medium gray, firm, sub blocky, earthy, calcareous, trace disseminated pyrite, no visible porosity, no visible oil stain; trace SILTSTONE: light gray to brown, friable to firm, sub rounded, moderately cemented, possible intergranular porosity, no visible oil stain

5230-5260 SHALE: dark to medium gray, firm, sub blocky, earthy, calcareous, trace disseminated pyrite, no visible porosity, no visible oil stain

5260-5290 SHALE: dark to medium gray, firm, sub blocky, earthy, calcareous, trace disseminated pyrite, no visible porosity, no visible oil stain

5290-5320 SHALE: dark to medium gray, firm, sub blocky, earthy, calcareous, trace disseminated pyrite, no visible porosity, no visible oil stain

Dakota [5,344' MD, 5,343' TVD (-3,375')]

5320-5350 SHALE: dark to medium gray, firm, sub blocky, earthy, calcareous, trace disseminated pyrite, no visible porosity, no visible oil stain

5350-5380 SHALE: dark to medium gray, firm, sub blocky, earthy, calcareous, trace disseminated pyrite, no visible porosity, no visible oil stain

5380-5410 SHALE: dark to medium gray, firm, sub blocky, earthy, calcareous, trace disseminated pyrite, no visible porosity, no visible oil stain

5410-5440 SHALE: dark to medium gray, firm, sub blocky, earthy, calcareous, trace disseminated pyrite, no visible porosity, no visible oil stain

5440-5470 SHALE: dark to medium gray, firm, sub blocky, earthy, calcareous, trace disseminated pyrite, no visible porosity, no visible oil stain

5470-5500 SHALE: dark to medium gray, firm, sub blocky, earthy, calcareous, trace disseminated pyrite, no visible porosity, no visible oil stain

5500-5530 SHALE: dark to medium gray, firm, sub blocky, earthy, calcareous, trace disseminated pyrite, trace SILTY SANDSTONE: light gray to medium brown, very fine good, friable to firm, sub round, well sorted, moderately cemented, no visible porosity, no visible oil stain

5530-5560 SHALE: dark to medium gray, firm, sub blocky, earthy, calcareous, trace disseminated pyrite, no visible porosity, no visible oil stain

5560-5590 SHALE: dark to medium gray, firm, sub blocky, earthy, calcareous, trace disseminated pyrite, no visible porosity, no visible oil stain

5590-5620 SHALE: dark to medium gray, firm, sub blocky, earthy, calcareous, trace disseminated pyrite, no visible porosity, no visible oil stain

5620-5650 SHALE: dark to medium gray, firm, sub blocky, earthy, calcareous, trace disseminated pyrite, no visible porosity, no visible oil stain

5650-5680 SHALE: dark to medium gray, firm, sub blocky, earthy, calcareous, trace disseminated pyrite, no visible porosity, no visible oil stain

5680-5710 SHALE: dark to medium gray, firm, sub blocky, earthy, calcareous, trace disseminated pyrite, no visible porosity, no visible oil stain

5710-5740 SHALE: dark to medium gray, firm, sub blocky, earthy, calcareous, trace disseminated pyrite, no visible porosity, no visible oil stain

5740-5770 SILTY SANDSTONE: light gray to medium brown, very fine good, friable to firm, sub rounded, well sorted, moderately cemented, calcareous, no visible porosity; trace SHALE: orange, firm, blocky, earthy, calcareous, no visible porosity, no visible oil stain

5770-5800 SILTY SANDSTONE: light gray to medium brown, very fine good, friable to firm, sub rounded, well sorted, moderately cemented, calcareous, no visible porosity; trace SHALE: orange, firm, blocky, earthy, calcareous, no visible porosity, no visible oil stain

5800-5830 SILTY SANDSTONE: light to medium gray to brown, very fine good, friable to firm, sub rounded, well sorted, moderately cemented, calcareous, trace SHALE: dark gray brown, firm, blocky, earthy, calcareous, trace spry calcite, no visible porosity, no visible oil stain

Swift [5,844' MD, 5,843' TVD (-3,875')]

5830-5860 SILTY SANDSTONE: light to medium gray to brown, very fine good, friable to firm, sub rounded, well sorted, moderately cemented, calcareous, trace SHALE: dark gray brown, firm, blocky, earthy, calcareous, trace spry calcite, no visible porosity, no visible oil stain

5860-5890 SHALE: dark to medium gray brown, firm, sub blocky, earthy, calcareous, trace disseminated pyrite, no visible porosity, no visible oil stain

5890-5920 SHALE: dark to medium gray brown, firm, sub blocky, earthy, calcareous, trace disseminated pyrite, no visible porosity, no visible oil stain

5920-5950 SHALE: light blue gray, firm, earthy, calcareous, fissile, no visible porosity, no visible oil stain

5950-5980 SHALE: light blue gray, firm, earthy, calcareous, fissile, no visible porosity, no visible oil stain

5980-5993 SHALE: medium gray to brown, firm, sub blocky, calcareous, trace disseminated pyrite, no visible porosity, no visible oil stain

Kibbey

8170-8200 SILTSTONE: dark orange to light brown, tan, pink, soft, sub blocky, calcite cement, poorly cemented; rare ANHYDRITE: off white, soft, amorphous texture; trace SILTY SANDSTONE: tan to off white, very fine grained, sub rounded, moderately sorted, calcite cement, poorly cemented

8200-8230 SILTSTONE: dark orange to light brown, tan, pink, soft, sub blocky, calcite cement, poorly cemented; rare ANHYDRITE: off white, soft, amorphous texture; trace SILTY SANDSTONE: tan to off white, very fine grained, sub rounded, moderately sorted, calcite cement, poorly cemented

8230-8260 SILTSTONE: dark orange to light brown, tan, pink, soft, sub blocky, calcite cement, poorly cemented; rare ANHYDRITE: off white, soft, amorphous texture; trace SILTY SANDSTONE: tan to off white, very fine grained, sub rounded, moderately sorted, calcite cement, poorly cemented

Kibbey "Lime" [8,265' MD, 8,264' TVD (-6,296')]

8260-8290 SILTSTONE: dark orange to light brown, tan, pink, soft, sub blocky, calcite cement, poorly cemented; rare ANHYDRITE: off white, soft, amorphous texture; trace SILTY SANDSTONE: tan to off white, very fine grained, sub rounded, moderately sorted, calcite cement, poorly cemented

8290-8320 SILTSTONE: dark orange to light brown, tan, pink, soft, sub blocky, calcite cement, poorly cemented; occasional ANHYDRITE: off white, soft, amorphous texture; trace SILTY SANDSTONE: as above

8320-8350 SILTSTONE: dark orange to light brown, tan, pink, soft, sub blocky, calcite cement, poorly cemented; occasional ANHYDRITE: off white, soft, amorphous texture; trace SILTY SANDSTONE: as above

8350-8380 SILTSTONE: dark orange to light brown, tan, pink, soft, sub blocky, calcite cement, poorly cemented; occasional ANHYDRITE: off white, soft, amorphous texture; trace SILTY SANDSTONE: as above

8380-8410 SILTSTONE: dark orange to light brown, tan, pink, soft, sub blocky, calcite cement, poorly cemented; occasional ANHYDRITE: off white, soft, amorphous texture; trace SILTY SANDSTONE: as above

The First Charles Salt [8,430' MD, 8,429' TVD (-6,461')]

8410-8440 SILTSTONE: dark orange to light brown, tan, pink, soft, sub blocky, calcite cement, poorly cemented; occasional ANHYDRITE: off white, soft, amorphous texture; trace SILTY SANDSTONE: as above

8440-8470 SILTSTONE: dark orange to light brown, tan, pink, soft, sub blocky, calcite cement, poorly cemented; occasional ANHYDRITE: off white, soft, amorphous texture; trace SILTY SANDSTONE: as above

8470-8500 SALT: translucent, microcrystalline, anhedral, crystalline texture, hard, frosted; occasional LIMESTONE: mudstone, light to medium gray to gray brown, microcrystalline, firm to hard, argillaceous in part, dense, chalky texture, no visible porosity

8500-8530 SALT: translucent, microcrystalline, anhedral, crystalline texture, hard, frosted; occasional LIMESTONE: mudstone, light to medium gray to gray brown, microcrystalline, firm to hard, argillaceous in part, dense, chalky texture, no visible porosity

8530-8560 SALT: translucent, microcrystalline, anhedral, crystalline texture, hard, frosted; occasional LIMESTONE: mudstone, light to medium gray to gray brown, microcrystalline, firm to hard, argillaceous in part, dense, chalky texture, no visible porosity

8560-8590 SALT: translucent, microcrystalline, anhedral, crystalline texture, hard, frosted; occasional LIMESTONE: mudstone, light to medium gray to gray brown, microcrystalline, firm to hard, argillaceous in part, dense, chalky texture, no visible porosity

8590-8620 SALT: translucent, microcrystalline, anhedral, crystalline texture, hard, frosted; occasional LIMESTONE: mudstone, light to medium gray to gray brown, microcrystalline, firm to hard, argillaceous in part, dense, chalky texture, no visible porosity

8620-8650 ANHYDRITE: off white, soft, amorphous; common SALT: clear to milky, off white, crystalline, hard, euhedral; trace LIMESTONE: as above

8650-8680 ANHYDRITE: off white, soft, amorphous; common SALT: clear to milky, off white, crystalline, hard, euhedral; trace LIMESTONE: as above

8680-8710 SALT: translucent, microcrystalline, anhedral, crystalline texture, hard, frosted; occasional LIMESTONE: mudstone, light to medium gray to gray brown, microcrystalline, firm to hard, argillaceous in part, dense, chalky texture; rare ANHYDRITE: off white, soft, amorphous, no visible porosity

8710-8740 SALT: translucent, microcrystalline, anhedral, crystalline texture, hard, frosted; occasional LIMESTONE: mudstone, light to medium gray to gray brown, microcrystalline, firm to hard, argillaceous in part, dense, chalky texture, no visible porosity

8740-8770 SALT: translucent, microcrystalline, anhedral, crystalline texture, hard, frosted; occasional LIMESTONE: mudstone, light to medium gray to gray brown, microcrystalline, firm to hard, argillaceous in part, dense, chalky texture, no visible porosity

8770-8800 SALT: translucent, microcrystalline, anhedral, crystalline texture, hard, frosted; occasional LIMESTONE: mudstone, light to medium gray to gray brown, microcrystalline, firm to hard, argillaceous in part, dense, chalky texture, no visible porosity

8800-8830 SALT: translucent, microcrystalline, anhedral, crystalline texture, hard, frosted; occasional LIMESTONE: mudstone, light to medium gray to gray brown, microcrystalline, firm to hard, argillaceous in part, dense, chalky texture, no visible porosity

8830-8860 ARGILLACEOUS LIMESTONE: mudstone, cream, tan, light gray, microcrystalline, firm, dense to banded, earthy texture, no visible porosity, occasional SALT: clear to milky, off white, crystalline, hard, euhedral; trace ANHYDRITE: off white, soft, amorphous, no visible porosity

8860-8890 ARGILLACEOUS LIMESTONE: mudstone, cream, tan, light gray, microcrystalline, firm, dense to banded, earthy texture, no visible porosity, occasional SALT: clear to milky, off white, crystalline, hard, euhedral; trace ANHYDRITE: as above

8890-8920 ARGILLACEOUS LIMESTONE: mudstone, cream, tan, light gray, microcrystalline, firm, dense to banded, earthy texture, no visible porosity, occasional SALT: clear to milky, off white, crystalline, hard, euhedral; trace ANHYDRITE: as above

8920-8950 ARGILLACEOUS LIMESTONE: mudstone, cream, tan, light gray, microcrystalline, firm, dense to banded, earthy texture, no visible porosity, occasional SALT: clear to milky, off white, crystalline, hard, euhedral; trace ANHYDRITE: as above

8950-8980 ARGILLACEOUS LIMESTONE: mudstone, cream, tan, light gray, microcrystalline, firm, dense to banded, earthy texture, no visible porosity, occasional SALT: clear to milky, off white, crystalline, hard, euhedral; trace ANHYDRITE: as above

UB [8,983' MD, 8,982' TVD (-7,014')]

8980-9010 ARGILLACEOUS LIMESTONE: mudstone, cream, tan, light gray, microcrystalline, firm, dense to banded, earthy texture, no visible porosity, occasional SALT: clear to milky, off white, crystalline, hard, euhedral; trace ANHYDRITE: as above

9010-9040 ARGILLACEOUS LIMESTONE: mudstone, cream, tan, light gray, microcrystalline, firm, dense to banded, earthy texture, no visible porosity, occasional SALT: clear to milky, off white, crystalline, hard, euhedral; trace ANHYDRITE: as above

Base Last Salt [9,064' MD, 9,062' TVD (-7,094')]

9040-9070 ARGILLACEOUS LIMESTONE: mudstone, cream, tan, light gray, microcrystalline, firm, dense to banded, earthy texture, no visible porosity, occasional SALT: clear to milky, off white, crystalline, hard, euhedral; trace ANHYDRITE: as above

9070-9100 ARGILLACEOUS LIMESTONE: mudstone, cream, tan, light gray, microcrystalline, firm, dense to banded, earthy texture, no visible porosity, occasional SALT: clear to milky, off white, crystalline, hard, euhedral; trace ANHYDRITE: as above

Ratcliffe [9,111' MD, 9,109' TVD (-7,141')]

9100-9130 ARGILLACEOUS LIMESTONE: mudstone, cream, tan, light gray, microcrystalline, firm, dense to banded, earthy texture, no visible porosity, occasional SALT: clear to milky, off white, crystalline, hard, euhedral; trace ANHYDRITE: as above

9130-9160 ARGILLACEOUS LIMESTONE: mudstone, cream, tan, light gray, microcrystalline, firm, dense to banded, earthy texture, no visible porosity, occasional SALT: clear to milky, off white, crystalline, hard, euhedral; trace ANHYDRITE: as above

9160-9190 ARGILLACEOUS LIMESTONE: mudstone, cream, tan, light gray, microcrystalline, firm, dense to banded, earthy texture, no visible porosity, occasional SALT: clear to milky, off white, crystalline, hard, euhedral; trace ANHYDRITE: as above

9190-9220 ARGILLACEOUS LIMESTONE: mudstone, cream, tan, light gray, microcrystalline, firm, dense to banded, earthy texture, no visible porosity, occasional SALT: clear to milky, off white, crystalline, hard, euhedral; trace ANHYDRITE: as above

9220-9250 ARGILLACEOUS LIMESTONE: mudstone, cream, tan, light gray, microcrystalline, firm, dense to banded, earthy texture, no visible porosity, occasional SALT: clear to milky, off white, crystalline, hard, euhedral; trace ANHYDRITE: as above

9250-9280 ARGILLACEOUS LIMESTONE: mudstone, cream, tan, light gray, microcrystalline, firm, dense to banded, earthy texture, no visible porosity, occasional SALT: clear to milky, off white, crystalline, hard, euhedral; trace ANHYDRITE: as above

Mission Canyon [9,288' MD, 9,286' TVD (-7,318')]

9280-9310 ARGILLACEOUS LIMESTONE: mudstone, cream, tan, light gray, microcrystalline, firm, dense to banded, earthy texture, no visible porosity, occasional SALT: clear to milky, off white, crystalline, hard, euhedral; trace ANHYDRITE: as above

9310-9340 ARGILLACEOUS LIMESTONE: mudstone, cream, tan, light gray, microcrystalline, firm, dense to banded, earthy texture, no visible porosity, trace SALT: clear to milky, off white, crystalline, hard, euhedral; trace ANHYDRITE: as above

9340-9370 ARGILLACEOUS LIMESTONE: mudstone, cream, tan, light gray, microcrystalline, firm, dense to banded, earthy texture, no visible porosity, trace SALT: clear to milky, off white, crystalline, hard, euhedral; trace ANHYDRITE: as above

9370-9400 ARGILLACEOUS LIMESTONE: mudstone, cream, tan, light gray, microcrystalline, firm, dense to banded, earthy texture, no visible porosity, trace SALT: clear to milky, off white, crystalline, hard, euhedral; trace ANHYDRITE: as above

9400-9430 ARGILLACEOUS LIMESTONE: mudstone, light to medium gray brown, tan, microcrystalline, firm to friable, rare algal material; rare ANHYDRITE: off white, massive, soft, amorphous

9430-9460 ARGILLACEOUS LIMESTONE: mudstone, light to medium gray brown, tan, microcrystalline, firm to friable, rare algal material; rare ANHYDRITE: off white, massive, soft, amorphous

9460-9490 ARGILLACEOUS LIMESTONE: mudstone, light to medium gray brown, tan, microcrystalline, firm to friable, rare algal material; rare ANHYDRITE: off white, massive, soft, amorphous

9490-9520 ARGILLACEOUS LIMESTONE: mudstone, light to medium gray brown, tan, microcrystalline, firm to friable, rare algal material; rare ANHYDRITE: off white, massive, soft, amorphous

9520-9550 ARGILLACEOUS LIMESTONE: mudstone, light to medium gray brown, tan, microcrystalline, firm to friable, rare algal material; rare ANHYDRITE: off white, massive, soft, amorphous

9550-9580 ARGILLACEOUS LIMESTONE: mudstone, light to medium gray brown, tan, microcrystalline, firm to friable, rare algal material; rare ANHYDRITE: off white, massive, soft, amorphous

9580-9610 ARGILLACEOUS LIMESTONE: mudstone, light to medium gray brown, tan, microcrystalline, firm to friable, rare algal material; rare ANHYDRITE: off white, massive, soft, amorphous

9610-9640 ARGILLACEOUS LIMESTONE: mudstone, light to medium gray brown, tan, microcrystalline, firm to friable, rare algal material; rare ANHYDRITE: off white, massive, soft, amorphous

9640-9670 ARGILLACEOUS LIMESTONE: mudstone, light to medium gray brown, tan, microcrystalline, firm to friable, rare algal material; rare ANHYDRITE: off white, massive, soft, amorphous

9670-9700 ARGILLACEOUS LIMESTONE: mudstone, light to medium gray brown, tan, microcrystalline, firm to friable, rare algal material; rare ANHYDRITE: off white, massive, soft, amorphous

9700-9730 ARGILLACEOUS LIMESTONE: mudstone, light to medium gray brown, tan, microcrystalline, firm to friable, rare algal material; rare ANHYDRITE: off white, massive, soft, amorphous

9730-9760 ARGILLACEOUS LIMESTONE: mudstone, light to medium gray brown, tan, microcrystalline, firm to friable, rare algal material; rare ANHYDRITE: off white, massive, soft, amorphous

9760-9790 ARGILLACEOUS LIMESTONE: mudstone, light to medium gray brown, tan, microcrystalline, firm to friable, rare algal material; rare ANHYDRITE: off white, massive, soft, amorphous

9790-9820 ARGILLACEOUS LIMESTONE: mudstone, light to medium gray brown, tan, microcrystalline, firm to friable, rare algal material; rare ANHYDRITE: off white, massive, soft, amorphous

9820-9850 ARGILLACEOUS LIMESTONE: mudstone, light to medium gray brown, tan, microcrystalline, firm to friable, rare algal material; rare ANHYDRITE: off white, massive, soft, amorphous

Lodgepole [9,847' MD, 9,845' TVD (-7,877')]

9850-9880 ARGILLACEOUS LIMESTONE: mudstone, light to medium gray brown, tan, microcrystalline, firm to friable, rare algal material; rare ANHYDRITE: off white, massive, soft, amorphous

9880-9910 ARGILLACEOUS LIMESTONE: mudstone, light to medium gray brown, tan, microcrystalline, firm to friable, rare algal material; rare ANHYDRITE: off white, massive, soft, amorphous

9910-9940 ARGILLACEOUS LIMESTONE: mudstone, light to medium gray brown, tan, microcrystalline, firm to friable, rare algal material; rare ANHYDRITE: off white, massive, soft, amorphous

10540-10570 ARGILLACEOUS LIMESTONE: mudstone, light to medium gray brown, tan, microcrystalline, firm to friable, rare algal material; rare ANHYDRITE: off white, massive, soft, amorphous

10570-10600 ARGILLACEOUS LIMESTONE: mudstone, light to medium gray brown, tan, microcrystalline, firm to friable, rare algal material; rare ANHYDRITE: off white, massive, soft, amorphous

10600-10630 ARGILLACEOUS LIMESTONE: mudstone, light to medium gray brown, tan, microcrystalline, firm to friable, rare algal material; rare ANHYDRITE: off white, massive, soft, amorphous

False Bakken [10,641' MD, 10,577' TVD (-8,609')]

Upper Bakken [10,658' MD, 10,585' TVD (-8,617')]

10630-10660 ARGILLACEOUS LIMESTONE: mudstone, light to medium gray brown, tan, microcrystalline, firm to friable, rare algal material; rare ANHYDRITE: off white, massive, soft, amorphous

10660-10690 ARGILLACEOUS LIMESTONE: mudstone, light to medium gray brown, tan, microcrystalline, firm to friable, rare algal material; rare ANHYDRITE: off white, massive, soft, amorphous

Middle Bakken [10,689' MD, 10,602' TVD (-8,634')]

10690-10720 SHALE: black to dark brown, firm, blocky, earthy, disseminated pyrite, petroliferous, carbonaceous, no visible porosity, abundant brown even oil stain

10720-10750 SILTSTONE: light gray to light gray brown, sub blocky, calcite cemented, trace disseminated pyrite, possible intergranular porosity; occasional SILTY SANDSTONE: medium to light gray, fine grained, sub round, firm, moderately sorted, calcite cement, moderately cemented, trace disseminated pyrite, possible intergranular porosity; trace SHALE: as above, trace spotty light brown oil stain

10750-10780 SILTSTONE: light gray to light gray brown, sub blocky, calcite cemented, trace disseminated pyrite, possible intergranular porosity; occasional SILTY SANDSTONE: as above; trace SHALE: as above, trace spotty light brown oil stain

Lower Bakken [10,785' MD, 10,644' TVD (-8,676')]

10780-10810 SILTSTONE: light gray to light gray brown, sub blocky, calcite cemented, trace disseminated pyrite, possible intergranular porosity; occasional SILTY SANDSTONE: as above; trace SHALE: as above, trace spotty light brown oil stain

10810-10840 SHALE: black to dark brown, firm to hard, blocky, earthy texture, carbonaceous, abundant disseminated pyrite

Pronghorn [10,821' MD, 10,655' TVD (-8,687')]

10840-10870 SHALE: black to dark brown, firm to hard, blocky, earthy texture, carbonaceous, abundant disseminated pyrite

10870-10880 SILTSTONE: dark to medium brown gray, sub blocky to sub round, soft, well sorted, calcite cement, moderately cemented, visible intergranular porosity, trace spotty light brown oil stain; occasional SHALE: black to dark brown, firm to hard, blocky, earthy texture, carbonaceous, rare disseminated pyrite

10880-10890 SILTSTONE: dark to medium brown gray, sub blocky to sub round, soft, well sorted, calcite cement, moderately cemented, visible intergranular porosity, trace spotty light brown oil stain; occasional SHALE: as above

10890-10900 SILTSTONE: dark to medium brown gray, sub blocky to sub round, soft, well sorted, calcite cement, moderately cemented, visible intergranular porosity, trace spotty light brown oil stain; occasional SHALE: as above

Three Forks [10,906' MD, 10,674' TVD (-8,706')]

10900-10910 SILTSTONE: dark to medium brown gray, sub blocky to sub round, soft, well sorted, calcite cement, moderately cemented, visible intergranular porosity, trace spotty light brown oil stain

10910-10920 SILTSTONE: dark to medium brown gray, sub blocky to sub round, soft, well sorted, calcite cement, moderately cemented, visible intergranular porosity, trace spotty light brown oil stain

10920-10930 SILTSTONE: as above; ARGILLACEOUS DOLOMITE: mudstone, medium gray to gray brown, pale grain, cream to tan, fine crystalline, sucrosic texture, firm to friable, rare disseminated pyrite, silty in part, sandy in part, possible intercrystalline porosity, trace spotty light brown oil stain

10930-10940 SILTSTONE: as above; ARGILLACEOUS DOLOMITE: mudstone, medium gray to gray brown, pale grain, cream to tan, fine crystalline, sucrosic texture, firm to friable, rare disseminated pyrite, silty in part, sandy in part, possible intercrystalline porosity, trace spotty light brown oil stain

10940-10950 ARGILLACEOUS DOLOMITE: mudstone, medium gray to gray brown, pale grain, cream to tan, fine crystalline, sucrosic texture, firm to friable, rare disseminated pyrite, silty in part, sandy in part, possible intercrystalline porosity, trace spotty light brown oil stain; common SHALE: light green, trace gray, friable, earthy texture, trace disseminated pyrite, no visible porosity, trace spotty light brown oil stain

10950-10960 ARGILLACEOUS DOLOMITE: mudstone, medium gray to gray brown, pale grain, cream to tan, fine crystalline, sucrosic texture, firm to friable, rare disseminated pyrite, silty in part, sandy in part, possible intercrystalline porosity, trace spotty light brown oil stain; common SHALE: as above, no visible porosity, trace spotty light brown oil stain

10960-10970 ARGILLACEOUS DOLOMITE: as above; common SHALE: light green, trace gray, friable, earthy texture, trace disseminated pyrite, no visible porosity, trace spotty light brown oil stain

10970-10980 ARGILLACEOUS DOLOMITE: as above; common SHALE: light green, trace gray, friable, earthy texture, trace disseminated pyrite, no visible porosity, trace spotty light brown oil stain

10980-10990 ARGILLACEOUS DOLOMITE: as above; common SHALE: light green, trace gray, friable, earthy texture, trace disseminated pyrite, no visible porosity, trace spotty light brown oil stain

10990-11000 ARGILLACEOUS DOLOMITE: as above; common SHALE: light green, trace gray, friable, earthy texture, trace disseminated pyrite, no visible porosity, trace spotty light brown oil stain

11000-11010 DOLOMITE: mudstone, tan, pink, friable, earthy texture, trace disseminated pyrite, possible intercrystalline porosity, trace spotty light brown oil stain; common SHALE: as above, trace spotty light brown oil stain; rare ARGILLACEOUS DOLOMITE: as above

11010-11020 DOLOMITE: mudstone, tan, pink, friable, earthy texture, trace disseminated pyrite, possible intercrystalline porosity, trace spotty light brown oil stain; common SHALE: as above, trace spotty light brown oil stain; rare ARGILLACEOUS DOLOMITE: as above

11020-11030 DOLOMITE: mudstone, tan, pink, friable, earthy texture, trace disseminated pyrite, possible intercrystalline porosity, trace spotty light brown oil stain; common SHALE: as above, trace spotty light brown oil stain; rare ARGILLACEOUS DOLOMITE: as above

11030-11043 DOLOMITE: mudstone, tan, pink, friable, earthy texture, trace disseminated pyrite, possible intercrystalline porosity, trace spotty light brown oil stain; common SHALE: as above, trace spotty light brown oil stain; trace ARGILLACEOUS DOLOMITE: as above

11043-11080 DOLOMITE: mudstone, tan, pink, friable, earthy texture, trace disseminated pyrite, possible intercrystalline porosity, trace spotty light brown oil stain; common SHALE: as above, trace spotty light brown oil stain; trace ARGILLACEOUS DOLOMITE: as above

11080-11110 DOLOMITE: mudstone, tan, pink, friable, earthy texture, trace disseminated pyrite, possible intercrystalline porosity, trace spotty light brown oil stain; common SHALE: as above, trace spotty light brown oil stain, fast weak cloudy pale green cut fluorescence

20800-20830 DOLOMITE: mudstone, orange, tan, pink, friable, earthy texture, trace disseminated pyrite, possible intercrystalline porosity, trace spotty light brown oil stain; rare SHALE: as above, trace spotty light brown oil stain, heavily contaminated with lube

20830-20860 DOLOMITE: mudstone, orange, tan, pink, friable, earthy texture, trace disseminated pyrite, possible intercrystalline porosity, trace spotty light brown oil stain; rare SHALE: as above, trace spotty light brown oil stain, heavily contaminated with lube

20860-20904 DOLOMITE: mudstone, orange, tan, pink, friable, earthy texture, trace disseminated pyrite, possible intercrystalline porosity, trace spotty light brown oil stain; rare SHALE: as above, trace spotty light brown oil stain, heavily contaminated with lube



SUNDRY NOTICES AND REPORTS ON WELLS - FORM 4

INDUSTRIAL COMMISSION OF NORTH DAKOTA
OIL AND GAS DIVISION
600 EAST BOULEVARD DEPT 405
BISMARCK, ND 58505-0840
SFN 5749 (09-2006)

Well File No.

28342



PLEASE READ INSTRUCTIONS BEFORE FILLING OUT FORM.

PLEASE SUBMIT THE ORIGINAL AND ONE COPY.

 Notice of Intent

Approximate Start Date

July 7, 2014

 Report of Work Done

Date Work Completed

 Notice of Intent to Begin a Workover Project that may Qualify for a Tax Exemption Pursuant to NDCC Section 57-51.1-03.

Approximate Start Date

 Drilling Prognosis Spill Report Redrilling or Repair Shooting Casing or Liner Acidizing Plug Well Fracture Treatment Supplemental History Change Production Method Temporarily Abandon Reclamation Other Change well status to CONFIDENTIAL

Well Name and Number

Chalmers 5301 44-24 2TR

Footages	959 F S L	Qtr-Qtr	245 F E L	SESE	Section	24	Township	153 N	Range	101 W
Field	Baker			Pool	Bakken		County	McKenzie		

24-HOUR PRODUCTION RATE

Before		After	
Oil	Bbls	Oil	Bbls
Water	Bbls	Water	Bbls
Gas	MCF	Gas	MCF

Name of Contractor(s)

Address	City	State	Zip Code
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DETAILS OF WORK

Effective immediately, we request CONFIDENTIAL STATUS for the above referenced well.

OFF CONFIDENTIAL 1/08/15

Company Oasis Petroleum North America LLC	Telephone Number 281-404-9591	
Address 1001 Fannin, Suite 1500		
City Houston	State TX	Zip Code 77002
Signature <i>Chelsea Covington</i>	Printed Name Chelsea Covington	
Title Regulatory Assistant	Date July 7, 2014	
Email Address ccovington@oasispetroleum.com		

FOR STATE USE ONLY

<input type="checkbox"/> Received	<input checked="" type="checkbox"/> Approved
Date 7/30/14	
By <i>Alice D. Walker</i>	
Title Engineering Technician	



SUNDRY NOTICES AND REPORTS ON WELLS - FORM 4

INDUSTRIAL COMMISSION OF NORTH DAKOTA
OIL AND GAS DIVISION
600 EAST BOULEVARD DEPT 405
BISMARCK, ND 58505-0840
SFN 5749 (09-2006)

Well File No.
28342

PLEASE READ INSTRUCTIONS BEFORE FILLING OUT FORM.
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<input checked="" type="checkbox"/> Notice of Intent	Approximate Start Date May 15, 2014	<input type="checkbox"/> Drilling Prognosis	<input type="checkbox"/> Spill Report
<input type="checkbox"/> Report of Work Done	Date Work Completed	<input type="checkbox"/> Redrilling or Repair	<input type="checkbox"/> Shooting
<input type="checkbox"/> Notice of Intent to Begin a Workover Project that may Qualify for a Tax Exemption Pursuant to NDCC Section 57-51.1-03.	Approximate Start Date	<input type="checkbox"/> Casing or Liner	<input type="checkbox"/> Acidizing
		<input type="checkbox"/> Plug Well	<input type="checkbox"/> Fracture Treatment
		<input type="checkbox"/> Supplemental History	<input type="checkbox"/> Change Production Method
		<input type="checkbox"/> Temporarily Abandon	<input type="checkbox"/> Reclamation
		<input checked="" type="checkbox"/> Other	Waiver to rule Rule 43-02-03-31

Well Name and Number Chalmers 5301 44-24 2TR				
Footages 959 F S L	Qtr-Qtr 245 F E L	Section SESE	Township 24	Range 153 N 101 W
Field	Pool Bakken	County McKenzie		

24-HOUR PRODUCTION RATE

Before	After	Oil	Bbls	Oil	Bbls
Water	Bbls	Water	Bbls	Gas	MCF

Name of Contractor(s)			
Address	City	State	Zip Code

DETAILS OF WORK

Oasis Petroleum respectfully requests a waiver to Rule 43-02-03-31 in regards to running open hole logs for the above referenced well. Justification for this request is as follows:

Oasis Petroleum/ Chalmers 5300 31-19H (NDIC 20407) located within one mile of the subject well

If this exception is approved, Oasis Petroleum will run a CBL on the intermediate string, and we will also run GR to surface. Oasis Petroleum will also submit two digital copies of each cased hole log and a copy of the mud log containing MWD GR.

Company Oasis Petroleum North America LLC	Telephone Number 281-404-9491	
Address 1001 Fannin, Suite 1500		
City Houston	State TX	Zip Code 77002
Signature 	Printed Name Brandi Terry	
Title Regulatory Specialist	Date May 15, 2014	
Email Address btberry@oasispetroleum.com		

FOR STATE USE ONLY

<input type="checkbox"/> Received	<input checked="" type="checkbox"/> Approved
Date 7-8-2014	
By 	
Title Stephen Fried Geologist	



SUNDRY NOTICES AND REPORTS ON WELLS - FORM 4

INDUSTRIAL COMMISSION OF NORTH DAKOTA
OIL AND GAS DIVISION
600 EAST BOULEVARD DEPT 405
BISMARCK, ND 58505-0840
SFN 5749 (09-2006)

Well File No.
28342



PLEASE READ INSTRUCTIONS BEFORE FILLING OUT FORM.
PLEASE SUBMIT THE ORIGINAL AND ONE COPY.

Notice of Intent

Approximate Start Date
May 30, 2014

Report of Work Done

Date Work Completed

Notice of Intent to Begin a Workover Project that may Qualify
for a Tax Exemption Pursuant to NDCC Section 57-51.1-03.

Approximate Start Date

- Drilling Prognosis
- Redrilling or Repair
- Casing or Liner
- Plug Well
- Supplemental History
- Temporarily Abandon
- Other

Spill Report

Shooting

Acidizing

Fracture Treatment

Change Production Method

Reclamation

Well Name and Number
Chalmers 5301 44-24 2TR

Footages	959 F S L	245 F E L	Qtr-Qtr SESE	Section 24	Township 153 N	Range 101 W
Field	Baker	Pool	Bakken	County	McKenzie	

24-HOUR PRODUCTION RATE

Before		After	
Oil	Bbls	Oil	Bbls
Water	Bbls	Water	Bbls
Gas	MCF	Gas	MCF

Name of Contractor(s)

Address

City

State

Zip Code

DETAILS OF WORK

Oasis Petroleum respectfully requests permission to revise the APD issued for the Chalmers 5301 44-24 2TR to include the following change:

Cement entire 4.5" liner from TD to liner top at KOP.

Reasoning for the change is as follows: 7" casing string was successfully landed across the 200' setback in Section 19. Shoe is estimated at 11,014' (~550' E of SHL or 105' past hardline). Pumps were brought on in order to establish circulation and the hole packed off around the 7" casing string, making circulation impossible. The casing string was slowly worked in order to attempt to clear up obstruction and circulation was never achieved. Called Rick Dunn at NDIC and notified him of intention to perforate casing behind hardline, in Middle Bakken, and cement through perforation holes. Perfed at est 10,725' MD (272' E of SHL or 173' short of hardline). Cemented through perfs.

Oasis Petroleum will verify isolation across the hardline from cemented liner with a CBL, prior to completing the well.

Company
Oasis Petroleum North America LLC

Telephone Number
(281) 404-9634

Address
1001 Fannin, Suite 1500

City
Houston State
TX Zip Code
77002

Signature

Printed Name
Mike Brown

Title
Drilling Engineer

Date
June 2, 2014

Email Address
mbrown@oasispetroleum.com

FOR STATE USE ONLY

Received Approved

Date

6/2/14

By

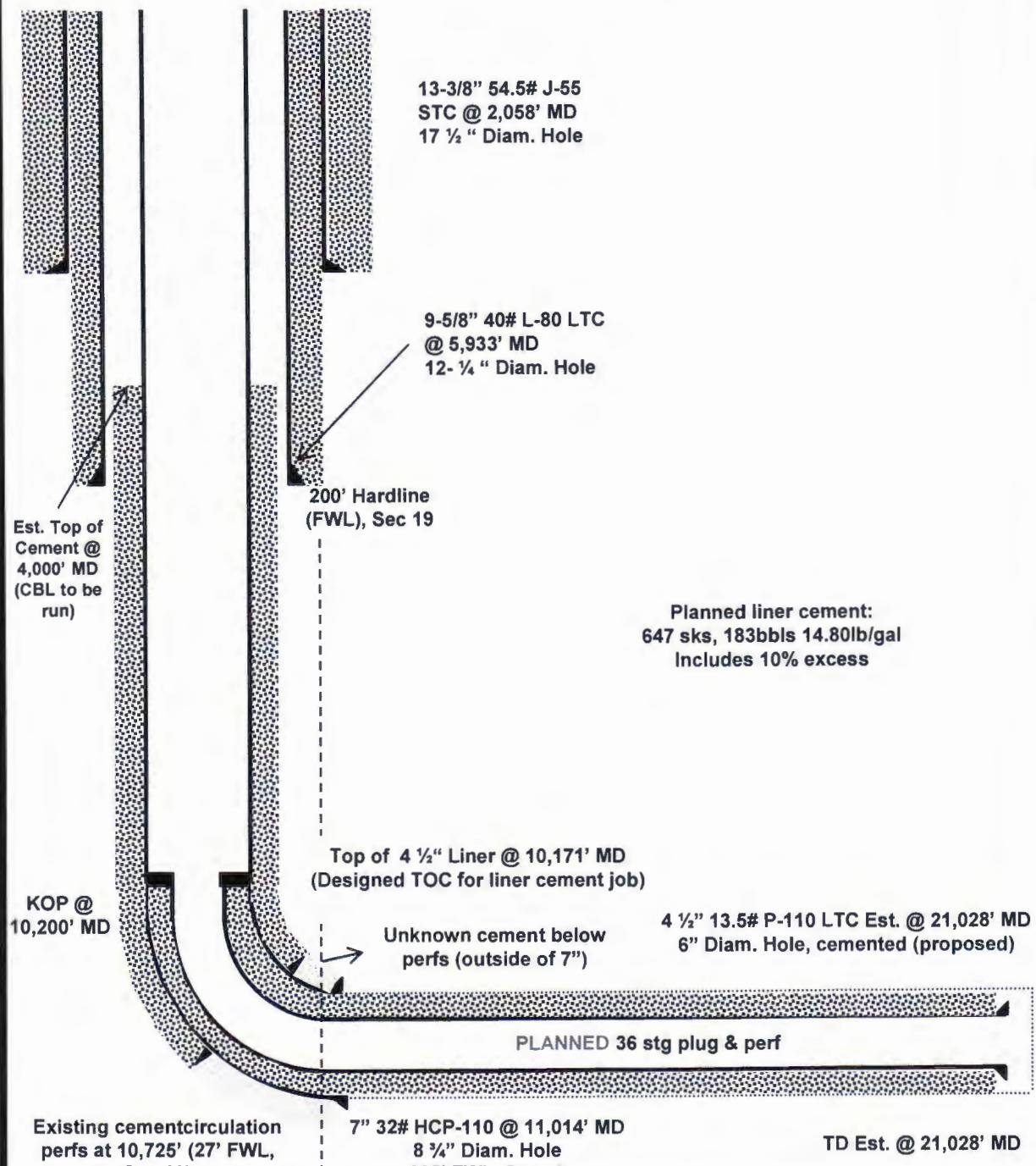
Nathan Eubel

Title
Petroleum Resource Specialist

RIG: Nabors B25
NDIC#: 28342

Chalmers 5301 44-24 2TR WELLBORE SCHEMATIC

API #: 33-053-05924
FORMATION: Three Forks
FIELD: Baker



OASIS PETROLEUM NA LLC

Chalmers 5301 44-24 2TR
T153N-R101W Sec. 24 (SHL) – Drilling Sec. 19 & 20
959' FSL & 245' FEL Sec. 24

Status: Drilling
McKenzie County, North Dakota
Updated: 6/2/2014 MGB

Oasis Petroleum
Well Summary
Chalmers 5301 44-24 2TR
Sec. 24 T153N R101W
McKenzie County, North Dakota

PRODUCTION LINER

Size	Interval	Weight	Grade	Coupling	I.D.	Drift	Torque
4-1/2"	10,171' – 21,028'	13.5	P-110	BTC	3.92"	3.795"	4,500

Interval	Length	Description	Collapse (psi) a	Burst (psi) b	Tension (1000 lbs) c
10,171' – 21,028'	10,086'	4-1/2", 13.5 lb, P-110, BTC, 8rd	10670 / 2.00	12410 / 1.28	443 / 1.99

API Rating & Safety Factor

- a) Based on full casing evacuation with 9.5 ppg fluid on backside @ 10,769' TVD.
- b) Burst pressure based on 9000 psi treating pressure with 10.2 ppg internal fluid gradient and 9 ppg external fluid gradient @ 10,769' TVD.
- c) Based on string weight in 9.5 ppg fluid (Buoyed weight: 122k lbs.) plus 100k lbs overpull.

Cemented Liner – Based on 4.5" liner from TD to liner top, 10% excess

Pre-flush (Spacer): **30 bbls** MudPush

Lead Slurry: **647 sks** (183 bbls) 14.80 lb/gal Conventional cement with 61.1 lb/sk D907 Cement, 23.45lb/sk D035-BCA Cementing Additive, 0.2% D065 Dispersant, 0.2% D046 Anti Foam, 0.4% D167 Fluid Loss, 35% Silica, 0.4% D198 Retarder

Oasis Petroleum does not use Diesel Fuel, as defined by the US EPA in the list below, in our hydraulic fracture operations.

68334-30-5 (Primary Name: Fuels, diesel)
68476-34-6 (Primary Name: Fuels, diesel, No. 2)
68476-30-2 (Primary Name: Fuel oil No. 2)
68476-31-3 (Primary Name: Fuel oil, No. 4)
8008-20-6 (Primary Name: Kerosene)



SUNDRY NOTICES AND REPORTS ON WELLS - FORM 4

INDUSTRIAL COMMISSION OF NORTH DAKOTA
OIL AND GAS DIVISION
600 EAST BOULEVARD DEPT 405
BISMARCK, ND 58505-0840
SFN 5749 (09-2006)

Well File No.
28342



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Notice of Intent

Approximate Start Date
May 14, 2014

Report of Work Done

Date Work Completed

Notice of Intent to Begin a Workover Project that may Qualify
for a Tax Exemption Pursuant to NDCC Section 57-51.1-03.

Approximate Start Date

Drilling Prognostic

Spill Report

Redrilling or Repair

Shooting

Casing or Liner

Acidizing

Plug Well

Fracture Treatment

Supplemental History

Change Production Method

Temporarily Abandon

Reclamation

Other

Well Name and Number

Chalmers 5301 44-24 2TX

Footages

959

F

S

L

245

F

E

L

Qtr-Qtr

SESE

Section

24

Township

153 N

Range 101 W

Field

McKenzie

Pool

Bakken

County

McKenzie

24-HOUR PRODUCTION RATE

	Before		After
Oil	Bbls	Oil	Bbls
Water	Bbls	Water	Bbls
Gas	MCF	Gas	MCF

Name of Contractor(s)

Address

City

State

Zip Code

DETAILS OF WORK

Oasis Petroleum respectfully requests to revise the well name for the subject well.

Well name will change to: Chalmers 5301 44-24 2TR

SHL and BHL will remain the same.

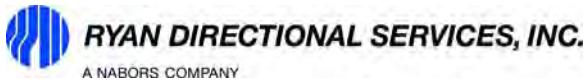
inv 41554 25- 80 5/27/14

CC 25.00

Company Oasis Petroleum North America LLC	Telephone Number 281-404-9491	
Address 1001 Fannin, Suite 1500		
City Houston	State TX	Zip Code 77002
Signature <i>Brandi Terry</i>	Printed Name Brandi Terry	
Title Regulatory Specialist	Date May 14, 2014	
Email Address bterry@oasispetroleum.com		

FOR STATE USE ONLY

<input type="checkbox"/> Received	<input checked="" type="checkbox"/> Approved
Date <i>5-23-2014</i>	
By <i>David Burns</i>	
Title David Burns	Engineering Tech



19510 Oil Center Blvd
Houston, TX 77073
Bus 281.443.1414
Fax 281.443.1676

Wednesday, June 18, 2014

State of North Dakota

ND

Subject: **Surveys**

Re: **Oasis**
Chalmers 5301 44-24 2TR
McKenzie, ND

Enclosed, please find the original and one copy of the survey performed on the above-referenced well by Ryan Directional Services, Inc.. Other information required by your office is as follows:

Surveyor Name	Surveyor Title	Borehole Number	Start Depth	End Depth	Start Date	End Date	Type of	TD Straight Line Projection
Unger, Henry	MWD Operator	O.H.	0'	11312'	05/15/14	06/02/14	MWD	11374'
Unger, Henry	MWD Operator	ST 1	11219'	12892'	06/02/14	06/04/14	MWD	12985'
Unger, Henry	MWD Operator	ST 2	12611'	20841'	06/04/14	06/11/14	MWD	20904'

A certified plat on which the bottom hole location is oriented both to the surface location and to the lease lines (or unit lines in case of pooling) is attached to the survey report. If any other information is required please contact the undersigned at the letterhead address or phone number.

A handwritten signature in black ink that reads "Douglas Hudson".

Hudson, Douglas
Well Planner



Ryan Directional Services, Inc.
19510 Oil Center Blvd.
Houston, Texas 77073
Bus: 281.443.1414
Fax: 281.443.1676

Wednesday, December 11, 2013

State of North Dakota
County of McKenzie Co.

Subject: **Survey Certification Letter**

Survey Company: **Ryan Directional Services, Inc.**

Job Number: **7579**

Survey Job Type: **Ryan MWD**

Customer: **Oasis Petroleum North America LLC**

Well Name: **Chalmers 5301 44-24 2TR**

Rig Name: **Nabors B25**

Surface: **S24, 153N, 101W**

A.P.I. No: **33-053-05924**

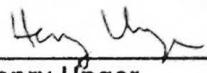
Location: **McKenzie Co., ND**

RKB Height: **1989'**

Distance to Bit: **63'**

Surveyor Name	Surveyor Title	Borehole Number	TD Straight					
			Start Depth	End Depth	Start Date	End Date	Type of	Line Projection
Henry Unger	MWD Supervisor	OH	118'	11374'	05/15/14	06/02/14	MWD	11376'
Henry Unger	MWD Supervisor	ST1	11300'	12892'	06/02/14	06/04/14	MWD	12987'
Henry Unger	MWD Supervisor	ST2	12704'	20841'	06/04/14	06/11/14	MWD	20904'

The data and calculations for this survey have been checked by me and conform to the calibration standards and operational procedures set forth by Ryan Directional Services, Inc. I am authorized and qualified to review the data, calculations and these reports; the reports represents true and correct Directional Surveys of this well based on the original data, the minimum curvature method, corrected to True North and obtained at the well site.


Henry Unger
MWD Supervisor
Ryan Directional Services, Inc.



SURVEY REPORT

Customer: **Oasis Petroleum North America LLC**
 Well Name: **Chalmers 5301 44-24 2TR**
 Rig #: **Nabors B25**
 API #: **33-053-05924**
 Calculation Method: **Minimum Curvature Calculation**

MWD Operator: **Henry Unger**
 Directional Drillers: **RPM**
 Survey Corrected To: **True North**
 Vertical Section Direction: **89.61**
 Total Correction: **8.14**
 Temperature Forecasting Model (Chart Only): **Logarithmic**

Survey #	MD	Inc	Azm	Temp	TVD	VS	N/S	E/W	DLS
Tie in to Gyro Surveys									
Tie In	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	118	0.10	79.80	40.00	118.00	0.10	0.02	0.10	0.08
2	149	0.30	58.90	44.00	149.00	0.20	0.06	0.20	0.68
3	242	0.30	105.30	48.00	242.00	0.64	0.13	0.64	0.25
4	335	0.40	85.40	53.00	335.00	1.20	0.09	1.20	0.17
5	429	0.40	115.20	48.00	428.99	1.82	-0.03	1.82	0.22
6	522	0.40	140.40	60.00	521.99	2.32	-0.41	2.32	0.19
7	614	0.40	79.20	64.00	613.99	2.84	-0.60	2.84	0.44
8	706	0.40	30.60	68.00	705.99	3.32	-0.26	3.32	0.36
9	798	0.40	16.90	71.00	797.99	3.58	0.32	3.58	0.10
10	890	0.40	25.50	73.00	889.98	3.82	0.92	3.81	0.07
11	982	0.10	168.80	77.00	981.98	3.97	1.13	3.97	0.53
12	1075	0.40	201.90	80.00	1074.98	3.86	0.75	3.86	0.35
13	1167	0.60	185.90	78.00	1166.98	3.69	-0.03	3.69	0.26
14	1259	0.80	236.90	82.00	1258.97	3.10	-0.86	3.10	0.68
15	1351	0.90	271.20	86.00	1350.96	1.83	-1.20	1.84	0.55
16	1443	1.10	282.40	87.00	1442.95	0.25	-0.99	0.26	0.30
17	1537	1.20	287.20	91.00	1536.93	-1.57	-0.51	-1.56	0.15
18	1630	0.70	306.20	95.00	1629.92	-2.95	0.12	-2.95	0.63
19	1723	0.40	354.40	96.00	1722.91	-3.44	0.78	-3.44	0.57
20	1817	0.60	349.40	100.00	1816.91	-3.55	1.59	-3.57	0.22
21	1910	0.70	344.00	102.00	1909.90	-3.79	2.61	-3.81	0.13
22	1991	0.70	345.60	86.00	1990.90	-4.05	3.57	-4.07	0.02
23	2084	1.10	345.60	86.00	2083.89	-4.40	4.98	-4.43	0.43
24	2178	1.10	345.50	86.00	2177.87	-4.84	6.73	-4.88	0.00
25	2271	1.10	2.90	91.00	2270.85	-5.00	8.48	-5.06	0.36
26	2364	1.10	11.00	100.40	2363.84	-4.78	10.25	-4.85	0.17
27	2457	1.00	41.60	104.00	2456.82	-4.06	11.74	-4.14	0.60
28	2551	1.10	64.70	107.00	2550.80	-2.69	12.73	-2.78	0.46
29	2644	1.10	69.70	111.00	2643.79	-1.04	13.43	-1.13	0.10
30	2737	1.30	82.90	113.00	2736.77	0.85	13.87	0.75	0.37
31	2830	1.20	90.70	114.00	2829.75	2.87	13.98	2.77	0.21
32	2924	1.20	119.00	118.00	2923.73	4.71	13.49	4.62	0.62
33	3017	0.70	154.10	120.00	3016.71	5.80	12.51	5.72	0.80
34	3110	0.40	158.90	123.00	3109.71	6.16	11.70	6.08	0.33
35	3203	0.50	351.80	127.00	3202.71	6.22	11.80	6.14	0.96
36	3297	0.70	357.20	129.00	3296.70	6.14	12.78	6.05	0.22
37	3390	1.00	10.40	131.00	3389.69	6.27	14.14	6.17	0.38
38	3483	1.30	12.90	132.00	3482.67	6.66	15.97	6.55	0.33
39	3577	1.70	28.80	132.00	3576.64	7.59	18.23	7.46	0.61
40	3670	1.80	23.00	134.00	3669.60	8.84	20.78	8.70	0.22
41	3763	1.80	21.70	136.00	3762.55	9.97	23.48	9.81	0.04
42	3856	1.80	29.70	138.00	3855.51	11.25	26.11	11.07	0.27
43	3950	2.40	40.10	140.00	3949.44	13.27	28.90	13.07	0.75
44	4043	0.80	54.80	140.00	4042.40	15.07	30.76	14.86	1.76
45	4136	0.80	110.80	141.00	4135.40	16.21	30.91	16.00	0.81
46	4229	0.80	232.60	143.00	4228.39	16.29	30.28	16.09	1.50
47	4323	1.10	239.80	145.00	4322.38	14.99	29.43	14.79	0.34
48	4416	1.40	258.60	147.00	4415.36	13.10	28.75	12.90	0.54
49	4509	1.10	220.20	149.00	4508.34	11.40	27.85	11.21	0.94
50	4603	1.50	218.50	149.00	4602.31	10.04	26.20	9.86	0.43
51	4696	1.00	249.00	151.00	4695.29	8.52	24.95	8.35	0.88
52	4789	1.10	253.00	150.00	4788.28	6.90	24.40	6.74	0.13
53	4882	1.50	257.60	154.00	4881.25	4.86	23.88	4.69	0.44
54	4976	1.20	263.50	152.00	4975.23	2.67	23.50	2.51	0.35
55	5069	0.40	250.60	152.00	5068.22	1.40	23.28	1.24	0.88
56	5162	0.10	137.40	156.00	5161.21	1.15	23.12	0.99	0.48
57	5255	1.30	143.50	154.00	5254.21	1.82	22.21	1.67	1.29
58	5348	1.50	155.00	152.00	5347.18	2.95	20.26	2.81	0.37
59	5441	1.30	184.50	152.00	5440.15	3.37	18.10	3.24	0.79
60	5534	1.20	214.70	152.00	5533.13	2.72	16.25	2.61	0.71



SURVEY REPORT

Customer: Oasis Petroleum North America LLC
 Well Name: Chalmers 5301 44-24 2TR
 Rig #: Nabors B25
 API #: 33-053-05924
 Calculation Method: Minimum Curvature Calculation

MWD Operator: Henry Unger
 Directional Drillers: RPM
 Survey Corrected To: True North
 Vertical Section Direction: 89.61
 Total Correction: 8.14
 Temperature Forecasting Model (Chart Only): Logarithmic

Survey #	MD	Inc	Azm	Temp	TVD	VS	N/S	E/W	DLS
61	5627	1.60	233.70	158.00	5626.10	1.11	14.68	1.01	0.65
62	5721	1.70	229.70	156.00	5720.06	-1.03	13.00	-1.11	0.16
63	5814	1.70	231.10	159.00	5813.02	-3.16	11.24	-3.24	0.04
64	5907	1.50	233.80	158.00	5905.99	-5.23	9.66	-5.30	0.23
65	5937	1.60	236.10	159.00	5935.98	-5.90	9.19	-5.96	0.39
66	6062	2.10	237.20	147.00	6060.91	-9.29	6.98	-9.33	0.40
67	6093	1.80	238.40	149.00	6091.89	-10.18	6.42	-10.23	0.98
68	6186	1.30	297.20	154.00	6184.86	-12.37	6.13	-12.41	1.70
69	6279	1.60	294.20	156.00	6277.83	-14.48	7.15	-14.53	0.33
70	6372	0.80	315.60	158.00	6370.81	-16.11	8.14	-16.17	0.97
71	6465	0.60	309.80	159.00	6463.81	-16.94	8.92	-17.00	0.23
72	6559	1.50	32.70	163.00	6557.79	-16.64	10.27	-16.71	1.64
73	6652	1.50	25.70	168.00	6650.76	-15.44	12.39	-15.53	0.20
74	6745	1.70	32.90	171.00	6743.72	-14.15	14.65	-14.25	0.30
75	6838	1.50	24.70	172.00	6836.69	-12.88	16.91	-12.99	0.33
76	6932	1.40	35.60	174.00	6930.66	-11.68	18.96	-11.81	0.31
77	7025	1.30	33.80	177.00	7023.63	-10.42	20.76	-10.56	0.12
78	7118	1.00	40.00	179.00	7116.61	-9.30	22.26	-9.45	0.35
79	7211	0.80	60.00	181.00	7209.60	-8.21	23.21	-8.37	0.40
80	7305	0.80	59.50	183.00	7303.59	-7.07	23.87	-7.23	0.01
81	7398	0.90	46.70	185.00	7396.58	-5.97	24.70	-6.14	0.23
82	7491	0.60	67.10	188.00	7489.58	-4.99	25.39	-5.16	0.43
83	7584	0.50	81.40	188.00	7582.57	-4.14	25.64	-4.31	0.18
84	7677	0.70	5.80	188.00	7675.57	-3.68	26.27	-3.85	0.81
85	7771	0.60	357.70	190.00	7769.56	-3.63	27.33	-3.82	0.14
86	7864	0.70	21.80	190.00	7862.56	-3.43	28.34	-3.62	0.31
87	7957	0.70	19.80	192.00	7955.55	-3.02	29.40	-3.22	0.03
88	8050	0.70	15.70	194.00	8048.54	-2.67	30.49	-2.88	0.05
89	8143	1.00	26.80	195.00	8141.53	-2.14	31.76	-2.36	0.37
90	8237	1.00	22.60	195.00	8235.52	-1.44	33.25	-1.67	0.08
91	8330	0.80	31.10	197.00	8328.51	-0.79	34.55	-1.02	0.26
92	8423	0.70	23.30	199.00	8421.50	-0.22	35.63	-0.46	0.15
93	8516	0.70	44.20	201.00	8514.49	0.41	36.56	0.16	0.27
94	8609	1.00	40.90	203.00	8607.48	1.34	37.58	1.08	0.33
95	8702	0.90	54.10	204.00	8700.47	2.47	38.62	2.21	0.26
96	8796	0.60	43.40	204.00	8794.46	3.41	39.41	3.14	0.35
97	8889	0.70	60.60	206.00	8887.45	4.25	40.04	3.97	0.23
98	8982	0.50	63.90	208.00	8980.45	5.11	40.50	4.83	0.22
99	9075	0.50	75.50	208.00	9073.45	5.87	40.78	5.59	0.11
100	9169	0.20	78.40	208.00	9167.44	6.43	40.92	6.15	0.32
101	9262	0.20	121.70	210.00	9260.44	6.72	40.86	6.45	0.16
102	9355	0.30	91.10	212.00	9353.44	7.10	40.77	6.83	0.18
103	9448	0.30	87.10	212.00	9446.44	7.59	40.78	7.31	0.02
104	9542	0.10	7.30	215.00	9540.44	7.85	40.88	7.57	0.32
105	9635	0.20	233.00	215.00	9633.44	7.73	40.86	7.45	0.30
106	9728	0.40	230.20	215.00	9726.44	7.35	40.55	7.07	0.22
107	9821	0.60	204.20	217.00	9819.44	6.89	39.90	6.62	0.32
108	9915	0.60	230.70	217.00	9913.43	6.31	39.14	6.04	0.29
109	10008	1.00	244.10	215.00	10006.42	5.19	38.48	4.93	0.47
110	10101	1.40	243.10	217.00	10099.40	3.45	37.61	3.19	0.43
111	10144	1.40	242.70	213.00	10142.39	2.51	37.13	2.25	0.02
112	10209	1.50	134.40	186.00	10207.38	2.40	36.17	2.16	3.62
113	10240	6.30	104.70	188.00	10238.30	4.33	35.45	4.09	16.30
114	10271	10.90	98.60	192.00	10268.94	8.87	34.58	8.64	15.11
115	10302	15.50	93.60	194.00	10299.11	15.90	33.89	15.67	15.28
116	10333	19.20	91.10	195.00	10328.70	25.14	33.53	24.91	12.17
117	10364	22.20	87.20	197.00	10357.70	36.09	33.72	35.86	10.65
118	10396	25.10	83.90	199.00	10387.01	48.88	34.73	48.65	9.96
119	10427	28.20	85.00	199.00	10414.71	62.73	36.07	62.49	10.13
120	10458	32.20	86.40	201.00	10441.50	78.28	37.23	78.03	13.10

Report #: 1
Date: 1-Jun-14



RYAN DIRECTIONAL SERVICES, INC.
A NABORS COMPANY

Ryan Job # 7579

SURVEY REPORT

Customer: **Oasis Petroleum North America LLC**
Well Name: **Chalmers 5301 44-24 2TR**
Rig #: **Nabors B25**
API #: **33-053-05924**
Calculation Method: **Minimum Curvature Calculation**

MWD Operator: **Henry Unger**
Directional Drillers: **RPM**
Survey Corrected To: **True North**
Vertical Section Direction: **89.61**
Total Correction: **8.14**
Temperature Forecasting Model (Chart Only): **Logarithmic**

Survey #	MD	Inc	Azm	Temp	TVD	VS	N/S	E/W	DLS
121	10489	35.30	91.20	201.00	10467.27	95.49	37.56	95.24	13.18
122	10520	38.20	92.60	203.00	10492.11	114.02	36.94	113.77	9.74
123	10551	42.00	92.30	203.00	10515.82	133.96	36.08	133.72	12.27
124	10582	46.90	91.90	201.00	10537.94	155.64	35.29	155.41	15.83
125	10613	51.40	90.50	203.00	10558.21	179.08	34.81	178.84	14.91
126	10644	54.90	87.90	204.00	10576.81	203.87	35.17	203.64	13.13
127	10675	57.10	84.60	204.00	10594.14	229.52	36.86	229.28	11.32
128	10707	60.80	84.10	206.00	10610.64	256.82	39.56	256.55	11.64
129	10738	63.80	85.00	206.00	10625.05	284.15	42.17	283.87	10.01
130	10769	67.50	86.20	208.00	10637.83	312.32	44.33	312.03	12.45
131	10800	71.30	87.90	206.00	10648.74	341.30	45.81	341.00	13.29
132	10831	75.00	88.50	208.00	10657.72	370.96	46.75	370.65	12.08
133	10862	78.00	89.00	208.00	10664.96	401.10	47.40	400.78	9.80
134	10893	78.10	89.00	210.00	10671.38	431.42	47.93	431.11	0.32
135	10924	77.80	89.10	208.00	10677.85	461.74	48.43	461.42	1.02
136	10955	77.60	89.30	208.00	10684.45	492.02	48.86	491.70	0.90
137	10986	81.50	90.10	208.00	10690.08	522.50	49.01	522.18	12.83
138	11034	85.70	85.80	224.00	10695.43	570.16	50.73	569.83	12.48
139	11126	91.10	86.60	222.00	10698.00	661.93	56.82	661.56	5.93
140	11219	91.50	85.40	224.00	10695.89	754.72	63.30	754.31	1.36
141	11312	94.50	87.20	228.00	10691.02	847.42	69.30	846.97	3.76
Projection	11374	94.50	87.20		10686.15	909.18	72.32	908.71	0.00



SURVEY REPORT

Customer: Oasis Petroleum North America LLC
 Well Name: Chalmers 5301 44-24 2TR
 Rig #: Nabors B25
 API #: 33-053-05924
 Calculation Method: Minimum Curvature Calculation

MWD Operator: H. Unger / D. Ogden
 Directional Drillers: RPM
 Survey Corrected To: True North
 Vertical Section Direction: 89.61
 Total Correction: 8.14
 Temperature Forecasting Model (Chart Only): Logarithmic

Survey #	MD	Inc	Azm	Temp	TVD	VS	N/S	E/W	DLS
Tie in to Gyro Surveys									
Tie In	11219	91.50	85.40	224.00	10695.89	754.72	63.30	754.31	1.36
1	11281	90.80	86.10	208.00	10694.64	816.57	67.90	816.12	1.60
2	11312	89.00	86.10	208.00	10694.69	847.51	70.01	847.05	5.81
3	11405	87.10	87.90	212.00	10697.86	940.35	74.87	939.86	2.81
4	11498	88.00	89.30	210.00	10701.84	1033.24	77.14	1032.74	1.79
5	11591	89.20	89.70	212.00	10704.11	1126.21	77.95	1125.71	1.36
6	11683	89.20	89.50	215.00	10705.39	1218.21	78.59	1217.70	0.22
7	11776	90.00	89.70	217.00	10706.04	1311.20	79.24	1310.69	0.89
8	11869	89.60	89.40	219.00	10706.37	1404.20	79.97	1403.69	0.54
9	11962	90.20	89.80	221.00	10706.53	1497.20	80.62	1496.69	0.78
10	12054	91.00	89.70	222.00	10705.56	1589.20	81.03	1588.68	0.88
11	12147	88.70	91.10	221.00	10705.81	1682.18	80.38	1681.67	2.90
12	12240	88.40	91.30	224.00	10708.16	1775.11	78.43	1774.62	0.39
13	12333	87.20	89.80	231.00	10711.73	1868.03	77.54	1867.54	2.06
14	12426	89.10	90.20	226.00	10714.73	1960.97	77.54	1960.49	2.09
15	12519	89.30	90.80	226.00	10716.03	2053.95	76.72	2053.48	0.68
16	12611	90.00	91.00	226.00	10716.59	2145.92	75.28	2145.46	0.79
17	12704	89.10	91.50	228.00	10717.32	2238.88	73.25	2238.44	1.11
18	12798	91.20	92.30	230.00	10717.08	2332.80	70.13	2332.38	2.39
19	12892	91.70	91.90	226.00	10714.70	2426.68	66.69	2426.28	0.68
Projection	12985	91.70	91.90		10711.94	2519.57	63.61	2519.19	0.00



SURVEY REPORT

Customer: **Oasis Petroleum North America LLC**
 Well Name: **Chalmers 5301 44-24 2TR**
 Rig #: **Nabors B25**
 API #: **33-053-05924**
 Calculation Method: **Minimum Curvature Calculation**

MWD Operator: **Henry Unger / Daniel Ogden**
 Directional Drillers: **RPM**
 Survey Corrected To: **True North**
 Vertical Section Direction: **89.61**
 Total Correction: **8.14**
 Temperature Forecasting Model (Chart Only): **Logarithmic**

Survey #	MD	Inc	Azm	Temp	TVD	VS	N/S	E/W	DLS
Tie in to Gyro Surveys									
Tie In	12611	90.00	91.00	226.00	10716.59	2145.92	75.28	2145.46	0.79
1	12704	88.50	91.80	221.00	10717.81	2238.87	73.01	2238.42	1.83
2	12798	86.60	93.00	224.00	10721.83	2332.66	69.08	2332.25	2.39
3	12892	87.70	90.90	226.00	10726.50	2426.46	65.88	2426.07	2.52
4	12987	88.20	90.40	228.00	10729.90	2521.39	64.81	2521.00	0.74
5	13081	87.60	91.40	228.00	10733.35	2615.30	63.33	2614.93	1.24
6	13174	89.80	90.10	228.00	10735.46	2708.25	62.11	2707.89	2.75
7	13268	90.40	89.80	230.00	10735.29	2802.25	62.20	2801.89	0.71
8	13362	88.80	89.30	231.00	10735.95	2896.24	62.93	2895.88	1.78
9	13456	90.20	89.60	233.00	10736.77	2990.23	63.84	2989.87	1.52
10	13550	89.70	89.70	231.00	10736.85	3084.23	64.41	3083.87	0.54
11	13644	88.80	89.40	235.00	10738.08	3178.22	65.15	3177.85	1.01
12	13738	87.60	89.40	235.00	10741.03	3272.18	66.13	3271.80	1.28
13	13832	87.80	90.10	233.00	10744.81	3366.10	66.54	3365.72	0.77
14	13926	89.50	89.60	237.00	10747.02	3460.07	66.79	3459.69	1.89
15	14021	89.80	90.40	237.00	10747.60	3555.06	66.79	3554.69	0.90
16	14114	88.70	91.10	239.00	10748.82	3648.03	65.57	3647.67	1.40
17	14208	89.10	90.00	239.00	10750.62	3742.00	64.67	3741.65	1.24
18	14301	89.60	89.00	240.00	10751.68	3835.00	65.48	3834.64	1.20
19	14394	89.70	88.70	240.00	10752.25	3927.99	67.35	3927.62	0.34
20	14488	90.50	90.00	240.00	10752.08	4021.98	68.41	4021.61	1.62
21	14582	90.90	90.40	239.00	10750.93	4115.97	68.09	4115.60	0.60
22	14676	89.30	90.20	240.00	10750.77	4209.96	67.59	4209.60	1.72
23	14770	89.80	90.80	240.00	10751.51	4303.94	66.77	4303.59	0.83
24	14864	89.40	90.60	242.00	10752.16	4397.92	65.62	4397.58	0.48
25	14958	87.30	89.40	242.00	10754.87	4491.88	65.62	4491.53	2.57
26	15052	88.00	89.40	242.00	10758.73	4585.80	66.61	4585.45	0.74
27	15146	89.30	88.60	242.00	10760.94	4679.76	68.25	4679.41	1.62
28	15239	89.60	89.40	244.00	10761.83	4772.75	69.87	4772.39	0.92
29	15333	91.40	90.10	244.00	10761.01	4866.74	70.28	4866.38	2.05
30	15427	89.70	90.70	246.00	10760.11	4960.73	69.63	4960.37	1.92
31	15520	89.60	90.70	246.00	10760.68	5053.71	68.49	5053.36	0.11
32	15614	90.20	91.40	246.00	10760.84	5147.68	66.77	5147.34	0.98
33	15708	89.00	89.40	246.00	10761.50	5241.66	66.11	5241.33	2.48
34	15801	88.00	89.50	248.00	10763.93	5334.63	67.00	5334.29	1.08
35	15895	88.70	89.30	248.00	10766.64	5428.59	67.99	5428.25	0.77
36	15989	90.50	89.80	248.00	10767.30	5522.58	68.72	5522.24	1.99
37	16083	90.50	89.10	248.00	10766.48	5616.57	69.63	5616.23	0.74
38	16177	92.60	89.40	248.00	10763.93	5710.53	70.86	5710.18	2.26
39	16270	90.40	90.00	249.00	10761.50	5803.49	71.34	5803.14	2.45
40	16364	89.60	91.00	249.00	10761.50	5897.48	70.52	5897.14	1.36
41	16458	89.60	91.90	249.00	10762.16	5991.43	68.14	5991.10	0.96
42	16552	90.30	90.90	249.00	10762.24	6085.38	65.85	6085.07	1.30
43	16646	89.10	90.30	249.00	10762.73	6179.36	64.86	6179.07	1.43
44	16739	89.70	90.00	249.00	10763.70	6272.35	64.62	6272.06	0.72
45	16833	89.90	89.90	251.00	10764.03	6366.35	64.70	6366.06	0.24
46	16927	90.90	90.10	251.00	10763.38	6460.35	64.70	6460.06	1.08
47	17020	91.50	90.50	251.00	10761.43	6553.32	64.22	6553.03	0.78
48	17114	90.10	90.80	253.00	10760.12	6647.29	63.15	6647.02	1.52
49	17208	91.70	90.20	251.00	10758.64	6741.27	62.33	6741.00	1.82
50	17302	89.70	89.40	253.00	10757.49	6835.25	62.66	6834.98	2.29
51	17395	89.90	89.70	253.00	10757.82	6928.25	63.39	6927.98	0.39
52	17488	88.80	89.80	253.00	10758.87	7021.24	63.79	7020.97	1.19
53	17582	88.20	90.00	255.00	10761.33	7115.21	63.96	7114.94	0.67
54	17676	88.30	89.40	253.00	10764.20	7209.17	64.45	7208.89	0.65
55	17771	90.10	89.90	255.00	10765.53	7304.15	65.03	7303.88	1.97
56	17865	89.10	89.60	257.00	10766.18	7398.15	65.44	7397.87	1.11
57	17960	89.50	89.70	255.00	10767.34	7493.14	66.02	7492.87	0.43
58	18054	91.10	88.70	257.00	10766.85	7587.13	67.33	7586.85	2.01
59	18149	89.70	89.60	257.00	10766.19	7682.12	68.74	7681.83	1.75
60	18243	89.40	89.60	255.00	10766.93	7776.12	69.40	7775.83	0.32



SURVEY REPORT

Customer: Oasis Petroleum North America LLC
 Well Name: Chalmers 5301 44-24 2TR
 Rig #: Nabors B25
 API #: 33-053-05924
 Calculation Method: Minimum Curvature Calculation

MWD Operator: Henry Unger / Daniel Ogden
 Directional Drillers: RPM
 Survey Corrected To: True North
 Vertical Section Direction: 89.61
 Total Correction: 8.14
 Temperature Forecasting Model (Chart Only): Logarithmic

Survey #	MD	Inc	Azm	Temp	TVD	VS	N/S	E/W	DLS
61	18338	90.50	88.70	257.00	10767.01	7871.12	70.81	7870.82	1.50
62	18432	90.00	89.60	258.00	10766.60	7965.11	72.20	7964.80	1.10
63	18526	90.30	89.30	258.00	10766.35	8059.11	73.10	8058.80	0.45
64	18621	88.50	89.90	258.00	10767.35	8154.10	73.77	8153.79	2.00
65	18715	89.10	90.50	258.00	10769.32	8248.07	73.44	8247.76	0.90
66	18809	89.50	90.90	260.00	10770.47	8342.05	72.29	8341.75	0.60
67	18903	88.20	91.20	260.00	10772.35	8436.00	70.57	8435.71	1.42
68	18997	89.40	91.00	258.00	10774.32	8529.94	68.76	8529.67	1.29
69	19090	89.00	89.10	260.00	10775.62	8622.93	68.68	8622.66	2.09
70	19184	88.60	90.20	262.00	10777.59	8716.91	69.26	8716.64	1.24
71	19278	88.50	90.80	262.00	10779.97	8810.86	68.44	8810.60	0.65
72	19372	87.40	90.40	258.00	10783.33	8904.79	67.45	8904.54	1.25
73	19465	88.40	88.00	260.00	10786.74	8997.72	68.75	8997.46	2.79
74	19559	89.70	89.00	258.00	10788.30	9091.68	71.21	9091.41	1.74
75	19653	90.50	88.60	260.00	10788.13	9185.67	73.18	9185.39	0.95
76	19746	90.60	88.70	262.00	10787.24	9278.65	75.37	9278.36	0.15
77	19840	91.40	88.70	262.00	10785.60	9372.63	77.50	9372.32	0.85
78	19934	91.00	89.40	260.00	10783.63	9466.60	79.06	9466.28	0.86
79	20027	90.70	90.10	262.00	10782.25	9559.59	79.47	9559.27	0.82
80	20121	89.60	89.80	262.00	10782.00	9653.59	79.55	9653.27	1.21
81	20215	90.50	89.00	260.00	10781.92	9747.58	80.53	9747.26	1.28
82	20309	90.50	89.30	262.00	10781.10	9841.58	81.93	9841.25	0.32
83	20403	90.50	89.90	262.00	10780.28	9935.57	82.58	9935.24	0.64
84	20497	90.40	90.50	262.00	10779.54	10029.56	82.26	10029.24	0.65
85	20590	89.80	91.40	262.00	10779.38	10122.54	80.71	10122.22	1.16
86	20684	88.90	93.00	262.00	10780.45	10216.43	77.11	10216.14	1.95
87	20778	89.00	92.90	262.00	10782.17	10310.26	72.27	10310.00	0.15
88	20841	90.50	92.30	262.00	10782.45	10373.17	69.41	10372.94	2.56
Projection	20904	90.50	92.30	262.00	10781.90	10436.10	66.88	10435.88	0.00

TH

Industrial Commission of North Dakota
Oil and Gas Division Verbal Approval Procedures
Other

Well or Facility No
28342

Tight Hole **No**

OPERATOR

Operator OASIS PETROLEUM NORTH AMERICA LL	Representative Mike Brown	Rep Phone (281) 404-9634
-----------------------------------------------------	-------------------------------------	------------------------------------

WELL INFORMATION

Well Name CHALMERS 5301 44-24 2TR	Inspector Richard Dunn
Well Location QQ Sec Twp Rng SESE 24 153 N 101 W	County MCKENZIE
Footages 959 Feet From the S Line	Field BAKER
245 Feet From the E Line	Pool BAKKEN

OTHER INFORMATION

Contractor
Rig Operator NABORS DRILLING U.S.A., INC.
Surface Owner
Pit Water Disposal

DETAILS OF PROCEDURE

This well is the replacement well for the Chalmers Wade Federal 5301 44-24 12T which was PA due to a water flow from the Dakota Formation. All four initial wells on this pad had received a log waiver due to another Oasis well located several hundred feet away having run a full suite of logs. A waiver has been requested and submitted but has not been processed yet. Rig will finish curve sometime in the next 24 hours and will run casing. Permission for a log waiver is granted.

Start Date	5/29/2014
Date Approved	5/29/2014
Approved By	Richard Dunn



Oil and Gas Division

Lynn D. Helms - Director

Bruce E. Hicks - Assistant Director

Department of Mineral Resources

Lynn D. Helms - Director

North Dakota Industrial Commission

www.dmr.nd.gov/oilgas

28342

BRANDI TERRY
OASIS PETROLEUM NORTH AMERICA LLC
1001 FANNIN STE 1500
HOUSTON, TX 77002 USA

Date: 5/12/2014

RE: CORES AND SAMPLES

Well Name: **CHALMERS 5301 44-24 2TX** Well File No.: **28342**
Location: **SESE 24-153-101** County: **MCKENZIE**
Permit Type: **Development - HORIZONTAL**
Field: **BAKER** Target Horizon: **THREE FORKS B1**

Dear BRANDI TERRY:

North Dakota Century Code Section 38-08-04 provides for the preservation of cores and samples and their shipment to the State Geologist when requested. The following is required on the above referenced well:

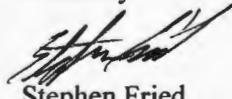
- 1) All cores, core chips and samples must be submitted to the State Geologist as provided for under North Dakota Century Code: Section 38-08-04 and North Dakota Administrative Code: Section 43-02-03-38.1.
- 2) Samples: The Operator is to begin collecting sample drill cuttings no lower than the:
Base of the Last Charles Salt
 - Sample cuttings shall be collected at:
 - o 30' maximum intervals through all vertical and build sections.
 - o 100' maximum intervals through any horizontal sections.
 - Samples must be washed, dried, placed in standard sample envelopes (3" x 4.5"), packed in the correct order into standard sample boxes (3.5" x 5.25" x 15.25").
 - Samples boxes are to be carefully identified with a label that indicates the operator, well name, well file number, American Petroleum Institute (API) number, location and depth of samples; and forwarded in to the state core and sample library within 30 days of the completion of drilling operations.
- 3) Cores: Any cores cut shall be preserved in correct order, boxed in standard core boxes (4.5", 4.5", 35.75"), and the entire core forwarded to the state core and samples library within 180 days of completion of drilling operations.
Any extension of time must have approval on a Form 4 Sundry Notice.

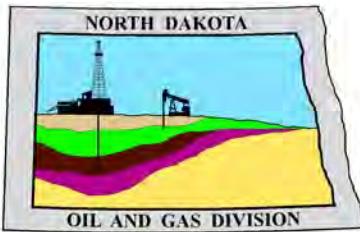
All cores, core chips, and samples must be shipped, prepaid, to the state core and samples library at the following address:

**ND Geological Survey Core Library
2835 Campus Road, Stop 8156
Grand Forks, ND 58202**

North Dakota Century Code Section 38-08-16 allows for a civil penalty for any violation of Chapter 38 08 not to exceed \$12,500 for each offense, and each day's violation is a separate offense.

Sincerely


Stephen Fried
Geologist



Oil and Gas Division

Lynn D. Helms - Director Bruce E. Hicks - Assistant Director

Department of Mineral Resources

Lynn D. Helms - Director

North Dakota Industrial Commission

www.oilgas.nd.gov

May 9, 2014

Mike Brown
Drilling Engineer II
OASIS PETROLEUM NORTH AMERICA LLC
1001 Fannin Suite 1500
Houston, TX 77002

**RE: HORIZONTAL WELL
CHALMERS 5301 44-24 2TX
SESE Section 24-153N-101W
McKenzie County
Well File # 28342**

Dear Mike :

Pursuant to Commission Order No. 23752, approval to drill the above captioned well is hereby given. The approval is granted on the condition that all portions of the well bore not isolated by cement, be no closer than the **500' setback** from the north & south boundaries and **200' setback** from the east & west boundaries within the 1280 acre spacing unit consisting of Section 19 & 20 T153N R100W.

PERMIT STIPULATIONS: DUE TO STREAM ADJACENT TO THE WELL SITE, A DIKE IS REQUIRED SURROUNDING THE ENTIRE LOCATION. OASIS PETRO NO AMER must contact NDIC Field Inspector Richard Dunn at 701-770-3554 prior to SETTING CONDUCTOR.

Drilling pit

NDAC 43-02-03-19.4 states that "a pit may be utilized to bury drill cuttings and solids generated during well drilling and completion operations, providing the pit can be constructed, used and reclaimed in a manner that will prevent pollution of the land surface and freshwaters. Reserve and circulation of mud system through earthen pits are prohibited. All pits shall be inspected by an authorized representative of the director prior to lining and use. Drill cuttings and solids must be stabilized in a manner approved by the director prior to placement in a cuttings pit."

Form 1 Changes & Hard Lines

Any changes, shortening of casing point or lengthening at Total Depth must have prior approval by the NDIC. The proposed directional plan is at a legal location. The minimum legal coordinate from the well head at casing point is: 445E. Also, based on the azimuth of the proposed lateral the maximum legal coordinate from the well head is: 459S & 10534E.

Location Construction Commencement (Three Day Waiting Period)

Operators shall not commence operations on a drill site until the 3rd business day following publication of the approved drilling permit on the NDIC - OGD Daily Activity Report. If circumstances require operations to commence before the 3rd business day following publication on the Daily Activity Report, the waiting period may be waived by the Director. Application for a waiver must be by sworn affidavit providing the information necessary to evaluate the extenuating circumstances, the factors of NDAC 43-02-03-16.2 (1), (a)-(f), and any other information that would allow the Director to conclude that in the event another owner seeks revocation of the drilling permit, the applicant should retain the permit.

Permit Fee & Notification

Payment was received in the amount of \$100 via credit card .The permit fee has been received. It is requested that notification be given immediately upon the spudding of the well. This information should be relayed to the Oil & Gas Division, Bismarck, via telephone. The following information must be included: Well name, legal location, permit number, drilling contractor, company representative, date and time of spudding. Office hours are 8:00 a.m. to 12:00 p.m. and 1:00 p.m. to 5:00 p.m. Central Time. Our telephone number is (701) 328-8020, leave a message if after hours or on the weekend.

Survey Requirements for Horizontal, Horizontal Re-entry, and Directional Wells

NDAC Section 43-02-03-25 (Deviation Tests and Directional Surveys) states in part (that) the survey contractor shall file a certified copy of all surveys with the director free of charge within thirty days of completion. Surveys must be submitted as one electronic copy, or in a form approved by the director. However, the director may require the directional survey to be filed immediately after completion if the survey is needed to conduct the operation of the director's office in a timely manner. Certified surveys must be submitted via email in one adobe document, with a certification cover page to certsurvey@nd.gov.

Survey points shall be of such frequency to accurately determine the entire location of the well bore.

Specifically, the Horizontal and Directional well survey frequency is 100 feet in the vertical, 30 feet in the curve (or when sliding) and 90 feet in the lateral.

Surface casing cement

Tail cement utilized on surface casing must have a minimum compressive strength of 500 psi within 12 hours, and tail cement utilized on production casing must have a minimum compressive strength of 500 psi before drilling the plug or initiating tests.

Logs

NDAC Section 43-02-03-31 requires the running of (1) a suite of open hole logs from which formation tops and porosity zones can be determined, (2) a Gamma Ray Log run from total depth to ground level elevation of the well bore, and (3) a log from which the presence and quality of cement can be determined (Standard CBL or Ultrasonic cement evaluation log) in every well in which production or intermediate casing has been set, this log must be run prior to completing the well. All logs run must be submitted free of charge, as one digital TIFF (tagged image file format) copy and one digital LAS (log ASCII) formatted copy. Digital logs may be submitted on a standard CD, DVD, or attached to an email sent to digitallogs@nd.gov

Thank you for your cooperation.

Sincerely,

Todd L. Holweger
Mineral Resources Permit Manager



APPLICATION FOR PERMIT TO DRILL HORIZONTAL WELL - FORM 1H

INDUSTRIAL COMMISSION OF NORTH DAKOTA
OIL AND GAS DIVISION
600 EAST BOULEVARD DEPT 405
BISMARCK, ND 58505-0840
SFN 54269 (08-2005)

PLEASE READ INSTRUCTIONS BEFORE FILLING OUT FORM.

PLEASE SUBMIT THE ORIGINAL AND ONE COPY.

Type of Work New Location	Type of Well Oil & Gas	Approximate Date Work Will Start 5 / 10 / 2014	Confidential Status No
Operator OASIS PETROLEUM NORTH AMERICA LLC		Telephone Number 281-404-9634	
Address 1001 Fannin Suite 1500		City Houston	State TX Zip Code 77002

Notice has been provided to the owner of any permanently occupied dwelling within 1,320 feet.

This well is not located within five hundred feet of an occupied dwelling.

WELL INFORMATION (If more than one lateral proposed, enter data for additional laterals on page 2)

Well Name CHALMERS				Well Number 5301 44-24 2TX			
Surface Footages 959 F S L		Qtr-Qtr SESE	Section 24	Township 153 N	Range 101 W	County McKenzie	
Longstring Casing Point Footages 1028 F S L		Qtr-Qtr LOT4	Section 19	Township 153 N	Range 100 W	County McKenzie	
Longstring Casing Point Coordinates From Well Head 69 N From WH 500 E From WH		Azimuth 87.77 °	Longstring Total Depth 10944 Feet MD 10699 Feet TVD				
Bottom Hole Footages From Nearest Section Line 1030 F S L		Qtr-Qtr SESE	Section 20	Township 153 N	Range 100 W	County Williams	
Bottom Hole Coordinates From Well Head 71 N From WH 10534 E From WH		KOP Lateral 1 10258 Feet MD	Azimuth Lateral 1 90 °	Estimated Total Depth Lateral 1 21029 Feet MD 10769 Feet TVD			
Latitude of Well Head 48 ° 03 ' 20.82 "	Longitude of Well Head -103 ° 36 ' 18.55 "	NAD Reference NAD83		Description of Spacing Unit: Section 19 & 20 T153N R100W (Subject to NDIC Approval)			
Ground Elevation 1972 Feet Above S.L.	Acres in Spacing/Drilling Unit 1280	Spacing/Drilling Unit Setback Requirement 500 Feet N/S 200 Feet E/W		Industrial Commission Order 23752			
North Line of Spacing/Drilling Unit 10489 Feet	South Line of Spacing/Drilling Unit 10513 Feet	East Line of Spacing/Drilling Unit 5280 Feet		West Line of Spacing/Drilling Unit 5263 Feet			
Objective Horizons Three Forks B1						Pierre Shale Top 1918	
Proposed Surface Casing	Size 13 - 3/8 "	Weight 54 Lb./Ft.	Depth 2018 Feet	Cement Volume 955 Sacks	NOTE: Surface hole must be drilled with fresh water and surface casing must be cemented back to surface.		
Proposed Longstring Casing	Size 7 - "	Weight(s) 29/32 Lb./Ft.	Longstring Total Depth 10944 Feet MD 10699 Feet TVD		Cement Volume 799 Sacks	Cement Top 3841 Feet	Top Dakota Sand 5341 Feet
Base Last Charles Salt (If Applicable) 9091 Feet		NOTE: Intermediate or longstring casing string must be cemented above the top Dakota Group Sand.					
Proposed Logs Triple Combo: KOP-KibbyGR/Res to BSC GR-To Surf CND thru Dakota							
Drilling Mud Type (Vertical Hole - Below Surface Casing) Invert				Drilling Mud Type (Lateral) Salt Water Gel			
Survey Type in Vertical Portion of Well MWD Every 100 Feet		Survey Frequency: Build Section 30 Feet		Survey Frequency: Lateral 90 Feet		Survey Contractor Ryan	

NOTE: A Gamma Ray log must be run to ground surface and a CBL must be run on intermediate or longstring casing string if set.

Surveys are required at least every 30 feet in the build section and every 90 feet in the lateral section of a horizontal well. Measurement inaccuracies are not considered when determining compliance with the spacing/drilling unit boundary setback requirement except in the following scenarios: 1) When the angle between the well bore and the respective boundary is 10 degrees or less; or 2) If Industry standard methods and equipment are not utilized. Consult the applicable field order for exceptions.

If measurement inaccuracies are required to be considered, a 2° MWD measurement inaccuracy will be applied to the horizontal portion of the well bore. This measurement inaccuracy is applied to the well bore from KOP to TD.

REQUIRED ATTACHMENTS: Certified surveyor's plat, horizontal section plat, estimated geological tops, proposed mud/cementing plan, directional plot/plan, \$100 fee.

See Page 2 for Comments section and signature block.

COMMENTS, ADDITIONAL INFORMATION, AND/OR LIST OF ATTACHMENTS

Note that 9-5/8" Intermediate string will be set across Dakota. See supplemental wellbore diagram. Water flow from Dakota is a known issue in the area.

Lateral 2

KOP Lateral 2 Feet MD	Azimuth Lateral 2 °	Estimated Total Depth Lateral 2 Feet MD		KOP Coordinates From Well Head From WH		From WH
Formation Entry Point Coordinates From Well Head From WH		Bottom Hole Coordinates From Well Head From WH				
KOP Footages From Nearest Section Line F L		Qtr-Qtr	Section	Township N	Range W	County
Bottom Hole Footages From Nearest Section Line F L		Qtr-Qtr	Section	Township N	Range W	County

Lateral 3

KOP Lateral 3 Feet MD	Azimuth Lateral 3 °	Estimated Total Depth Lateral 3 Feet MD		KOP Coordinates From Well Head From WH		From WH
Formation Entry Point Coordinates From Well Head From WH		Bottom Hole Coordinates From Well Head From WH				
KOP Footages From Nearest Section Line F L		Qtr-Qtr	Section	Township N	Range W	County
Bottom Hole Footages From Nearest Section Line F L		Qtr-Qtr	Section	Township N	Range W	County

Lateral 4

KOP Lateral 4 Feet MD	Azimuth Lateral 4 °	Estimated Total Depth Lateral 4 Feet MD		KOP Coordinates From Well Head From WH		From WH
Formation Entry Point Coordinates From Well Head From WH		Bottom Hole Coordinates From Well Head From WH				
KOP Footages From Nearest Section Line F L		Qtr-Qtr	Section	Township N	Range W	County
Bottom Hole Footages From Nearest Section Line F L		Qtr-Qtr	Section	Township N	Range W	County

Lateral 5

KOP Lateral 5 Feet MD	Azimuth Lateral 5 °	Estimated Total Depth Lateral 5 Feet MD		KOP Coordinates From Well Head From WH		From WH
Formation Entry Point Coordinates From Well Head From WH		Bottom Hole Coordinates From Well Head From WH				
KOP Footages From Nearest Section Line F L		Qtr-Qtr	Section	Township N	Range W	County
Bottom Hole Footages From Nearest Section Line F L		Qtr-Qtr	Section	Township N	Range W	County

I hereby swear or affirm the information provided is true, complete and correct as determined from all available records.

Date

5 / 9 / 2014

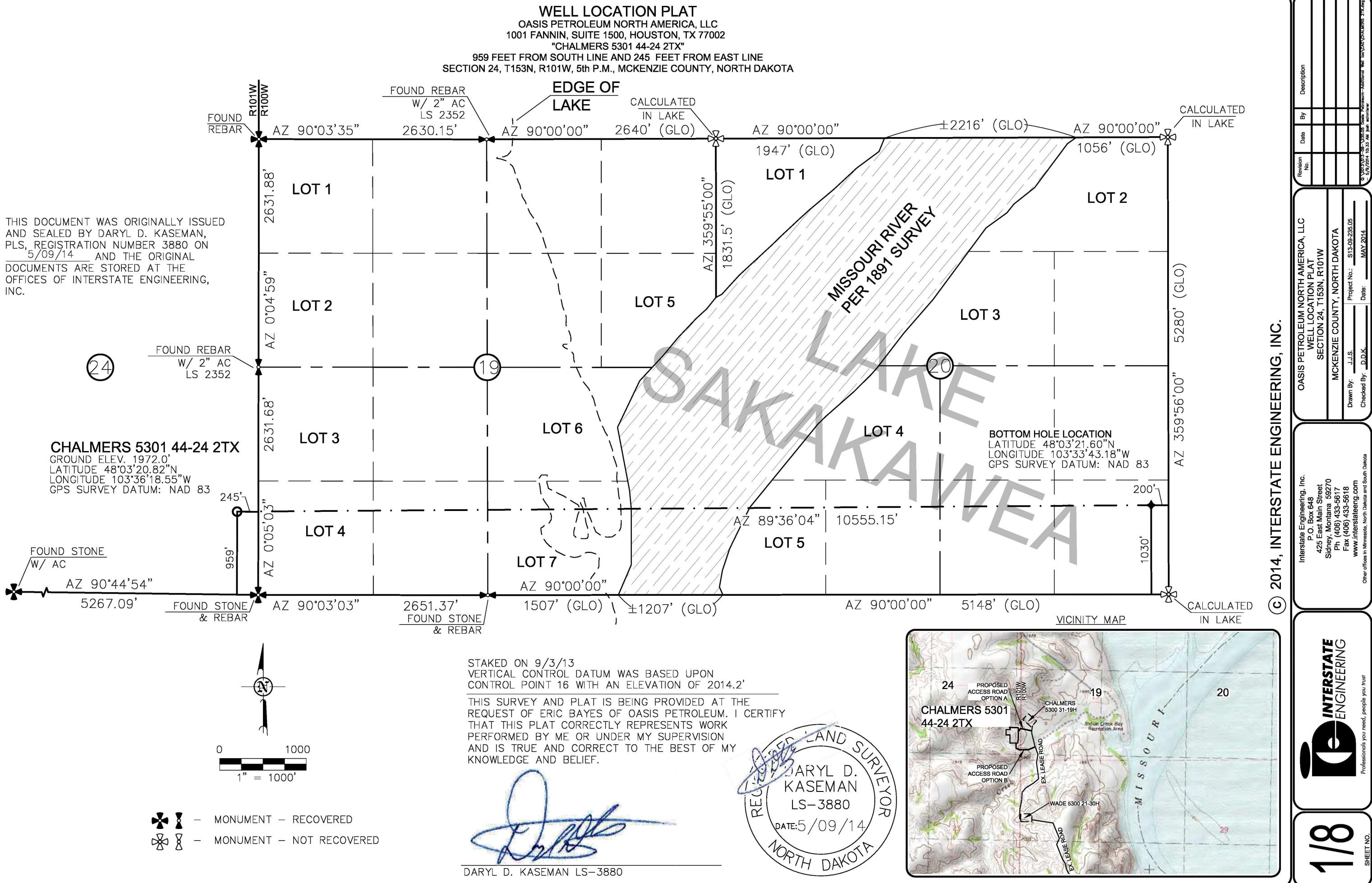
ePermit

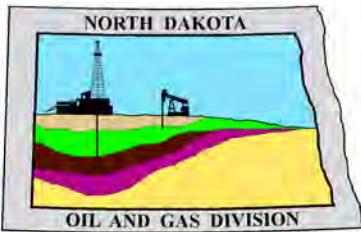
Printed Name
Mike BrownTitle
Drilling Engineer II**FOR STATE USE ONLY**

Permit and File Number 28342	API Number 33 - 053 - 05924
Field BAKER	
Pool BAKKEN	Permit Type DEVELOPMENT

FOR STATE USE ONLY

Date Approved 5 / 9 / 2014
By Todd L. Holweger
Title Mineral Resources Permit Manager





Oil and Gas Division

Lynn D. Helms - Director

Bruce E. Hicks - Assistant Director

Department of Mineral Resources

Lynn D. Helms - Director

North Dakota Industrial Commission

www.oilgas.nd.gov

April 9, 2014

**RE: Filter Socks and Other Filter Media
Leakproof Container Required
Oil and Gas Wells**

Dear Operator,

North Dakota Administrative Code Section 43-02-03-19.2 states in part that all waste material associated with exploration or production of oil and gas must be properly disposed of in an authorized facility in accord with all applicable local, state, and federal laws and regulations.

Filtration systems are commonly used during oil and gas operations in North Dakota. The Commission is very concerned about the proper disposal of used filters (including filter socks) used by the oil and gas industry.

Effective June 1, 2014, a container must be maintained on each well drilled in North Dakota beginning when the well is spud and must remain on-site during clean-out, completion, and flow-back whenever filtration operations are conducted. The on-site container must be used to store filters until they can be properly disposed of in an authorized facility. Such containers must be:

- leakproof to prevent any fluids from escaping the container
- covered to prevent precipitation from entering the container
- placard to indicate only filters are to be placed in the container

If the operator will not utilize a filtration system, a waiver to the container requirement will be considered, but only upon the operator submitting a Sundry Notice (Form 4) justifying their request.

As previously stated in our March 13, 2014 letter, North Dakota Administrative Code Section 33-20-02.1-01 states in part that every person who transports solid waste (which includes oil and gas exploration and production wastes) is required to have a valid permit issued by the North Dakota Department of Health, Division of Waste Management. Please contact the Division of Waste Management at (701) 328-5166 with any questions on the solid waste program. Note oil and gas exploration and production wastes include produced water, drilling mud, invert mud, tank bottom sediment, pipe scale, filters, and fly ash.

Thank you for your cooperation.

Sincerely,

Bruce E. Hicks

Assistant Director

North Dakota Oil and Gas Division
5/9/2014

To whom it may concern:

Oasis Petroleum (with Nabors B25) had a water influx of around 600bbls on the Chalmers Wade Federal 5301 44-24 12T, early morning of 5/8/14. Permission was granted to plug the well on the morning of 5/9/14.

Pending full approval from the North Dakota Industrial Commission, Oasis Petroleum is proposing to drill a new well according to this APD request.

Due to our experience with the Gramma Federal well (~2 miles to the south) about 1.5 years ago, where we ended up having to abandon the well after getting stuck with 7" casing, we respectfully propose the course of action below:

1. Plug the Chalmers Wade Federal 5301 44-24 12T per NDIC requirements. Approval granted 5/9-14
2. Move to north end of pad and drill the Chalmers 5301 44-24 2TX. Set 13-3/8" surface casing, followed by 9-5/8" intermediate casing across the Dakota, sealing off likely flow.
3. Drill down into Mission Canyon and attempt to seal up Mission Canyon, so that it is able to hold ~11.4 ppg mud and drill ahead. If unsuccessful, reduce mud weight and proceed ahead.
4. Drill curve, set 7" casing, and lateral through Bakken pool. Run 4.5" liner

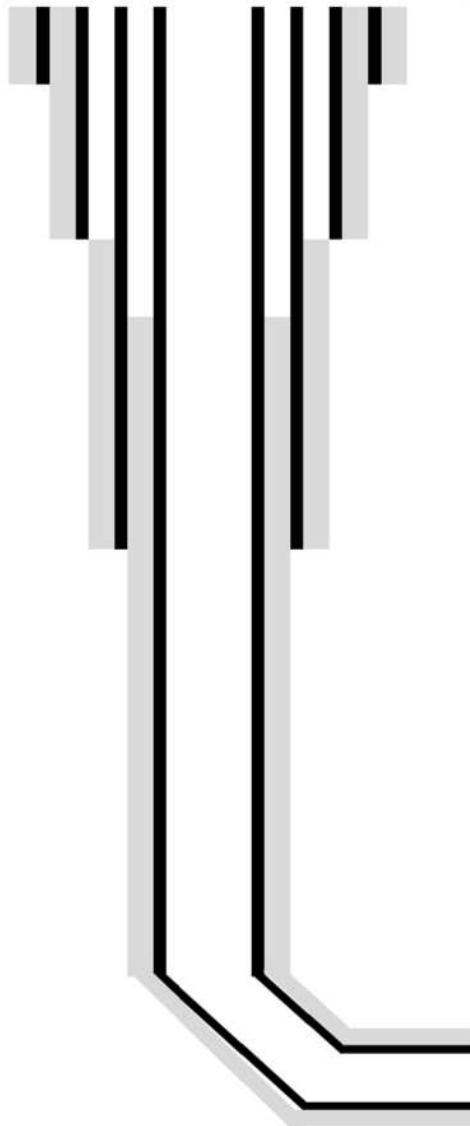
With the above plan, we hope to test whether or not the Mission Canyon can be sealed up enough to hold back the approximately 11.4 ppg mud that would be required to prevent flow from the Dakota. If this test is successful, we would plan to make use of the existing 3 surface holes on the pad.

If we are unable to seal the Mission Canyon, we would proceed to drop mud weight and continue on to drill the curve and lateral as outlined above. We would then seek permission to plug the 3 existing surface holes per NDIC guidelines and set 3 more 13-3/8" surface casing strings, with previously described 9-5/8" across the Dakota and then 7" casing through the curve.

Regards,

Mike Brown
Drilling Engineer II
Oasis Petroleum

Chalmers Infill 9-5/8" Dakota String Design



Hole Section	Hole Size	Casing Size	Weight	Drift	TD	TOC
Conductor	24	20	52.8	19.5	70	SFC
Surface	17.5	13.375	54.5	12.459	2018	SFC
INT - Dakota	12.25	9.625	40	8.75	6400	SFC Shoe
Prod Casing	8.75	7	29/32	6.0	Varied	3841

DRILLING PLAN							
OPERATOR	Oasis Petroleum	COUNTY/STATE	McKenzie Co., ND				
WELL NAME	Chalmers 5301 44-24 2TX	RIG	Nabors B25				
WELL TYPE	Horizontal Three Forks						
LOCATION	SESE 24-153N-101W	Surface Location (survey plat):	959' FSL	245' FEL			
EST. T.D.	21,028'						
TOTAL LATERAL:	10,034' (est)	GROUND ELEV:	1943	Finished Pad Elev.	Sub Height:	25	
PROGNOSIS:	Based on 1,968' KB(est)	KB ELEV:	1968				
MARKER	DEPTH (Surf Loc)	DATUM (Surf Loc)	LOGS:	Type			
Pierre	NDIC MAP	1,918	50'	OH Logs: Triple Combo KOP to Kirby (or min run of 1800' whichever is greater); GR/Res to BSC; GR to surf; CND through the Dakota			
Greenhorn		4,510	-2,542'	CBL/GR: Above top of cement/GR to base of casing			
Mowry		4,914	-2,946'	MWD GR: KOP to lateral TD			
Dakota		5,341	-3,373'	Logging Waiver Oasis Chalmers 5301 31-19H 894' to NE sec 19 153N 100W			
Rierdon		6,356	-4,388'	DEVIAITON:			
Dunham Salt		6,683	-4,715'	Surf: 3 deg. max., 1 deg / 100'; svry every 500'			
Dunham Salt Base		6,800	-4,832'	Prod: 5 deg. max., 1 deg / 100'; svry every 100'			
Spearfish		6,887	-4,919'				
Pine Salt		7,135	-5,167'				
Pine Salt Base		7,168	-5,200'				
Opeche Salt		7,235	-5,267'				
Opeche Salt Base		7,269	-5,301'	DST'S:			
Broom Creek (Top of Minnelusa Gp.)		7,469	-5,501'	None planned			
Amsden		7,553	-5,585'				
Tyler		7,720	-5,752'				
Otter (Base of Minnelusa Gp.)		7,920	-5,952'				
Kibbey		8,269	-6,301'				
Charles Salt		8,433	-6,465'	CORES:			
UB		9,010	-7,042'	None planned			
Base Last Salt		9,091	-7,123'				
Ratcliffe		9,141	-7,173'				
Mission Canyon		9,311	-7,343'	MUDLOGGING:			
Lodgepole		9,876	-7,908'	Two-Man: 8,233'			
Lodgepole Fracture Zone		10,109	-8,141'	~200' above the Charles (Kibbey) to Casing point; Casing point to TD			
False Bakken		10,588	-8,620'	30' samples at direction of wellsite geologist; 10' through target @ curve land			
Upper Bakken		10,599	-8,631'				
Middle Bakken		10,616	-8,648'				
Lower Bakken		10,648	-8,680'				
Pronghorn		10,659	-8,691'				
Three Forks		10,676	-8,708'	BOP:			
Three Forks Target Top		10,692	-8,724'	11" 5000 psi blind, pipe & annular			
Three Forks Target Base		10,699	-8,731'				
Claystone		10,702	-8,734'				
Dip Rate:	overall -0.4° or .7' /100' down						
Max. Anticipated BHP:	4633			Surface Formation: Glacial till			
MUD:	Interval	Type	WT	Vis	WL	Remarks	
Surface:	0' -	2,018' FW/Gel - Lime Sweeps	8.4-9.0	28-32	NC	Circ Mud Tanks	
Intermediate:	2,018' -	10,994' Invert	9.5-10.4	40-50	30+HHP	Circ Mud Tanks	
Lateral:	10,994' -	21,028' Salt Water	9.8-10.2	28-32	NC	Circ Mud Tanks	
CASING:	Size	Wt ppf	Hole	Depth	Cement	WOC	Remarks
Surface:	13-3/8"	54 1/2	17-1/2"	2,018'	To Surface	12	100' into Pierre
Intermediate (Dakota):	9-5/8"	40#	12-1/4"	6,400'	2018	24	Set Casing across Dakota
Intermediate:	7"	29/32#	8-3/4"	10,994'	3,841'	24	1500' above Dakota
Production Liner:	4.5"	13.5#	6"	21,028'	TOL @ 10,171'		50' above KOP
PROBABLE PLUGS, IF REQ'D:							
OTHER:	MD	TVD	FNL/FSL	FEL/FWL	S-T-R	AZI	
Surface:	2,018	2,018	959' FSL	245' FEL	Sec. 24 153N 101W	Survey Company:	
KOP:	10,221'	10,221'	1009' FSL	245' FEL	Sec. 24 153N 101W	Build Rate: 12 deg /100'	
EOC:	10,968'	10,699'	1027' FSL	228' FWL	Sec. 19 153N 100W	Turn Rate: 3 deg /100'	
Casing Point:	10,994'	10,699'	1028' FSL	255' FWL	Sec. 19 153N 100W	87.8	
Middle Bakken Lateral TD:	21,028'	10,769'	1030' FSL	200' FEL	Sec. 20 153N 100W	90.0	
Comments:							
36 pkrs 36 slvs							
**Note Hardlines							
No frac string planned							
OASIS PETROLEUM							
Geology: 1/0/1900	Engineering: M. Brown 5-8-14						

Holweger, Todd L.

From: Mike Brown <mbrown@oasispetroleum.com>
Sent: Friday, May 09, 2014 3:16 PM
To: Holweger, Todd L.
Cc: Brandi Terry
Subject: RE: Chalmers 5301 44-24 2TX APD Request

Todd,

I just confirmed with Brandi that we have requested a legal street address. I do not have the affidavit though, as the regulatory group is out of the office today. We can get it to you on Monday if needed.

Thanks,
Mike

From: Holweger, Todd L. [<mailto:tholweger@nd.gov>]
Sent: Friday, May 09, 2014 2:52 PM
To: Mike Brown
Subject: RE: Chalmers 5301 44-24 2TX APD Request

Ok. Got it.

Also, I need a confirmation that a legal street address was requested (for this pad). Give me a call if you have questions.

Thanks,
Todd

The information contained in this electronic mail transmission is confidential and intended to be sent only to the intended recipient of the transmission. If you are not the intended recipient or the intended recipient's agent, you are hereby notified that any review, use, dissemination, distribution or copying of this communication is strictly prohibited. You are also asked to notify the sender immediately by telephone and to delete this transmission with any attachments and destroy all copies in any form. Thank you in advance for your cooperation.



Azimuths to True North
Magnetic North: 8.14°

Magnetic Field
Strength: 56466.5snT
Dip Angle: 72.95°
Date: 5/8/2014
Model: IGRF200510

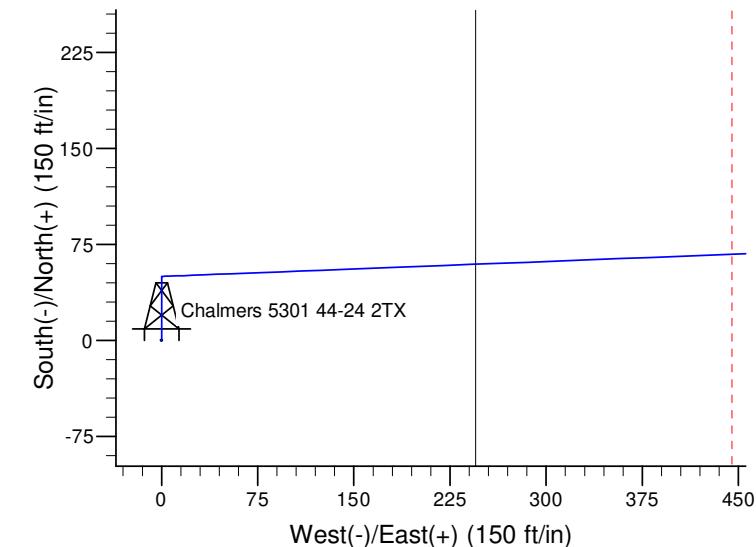
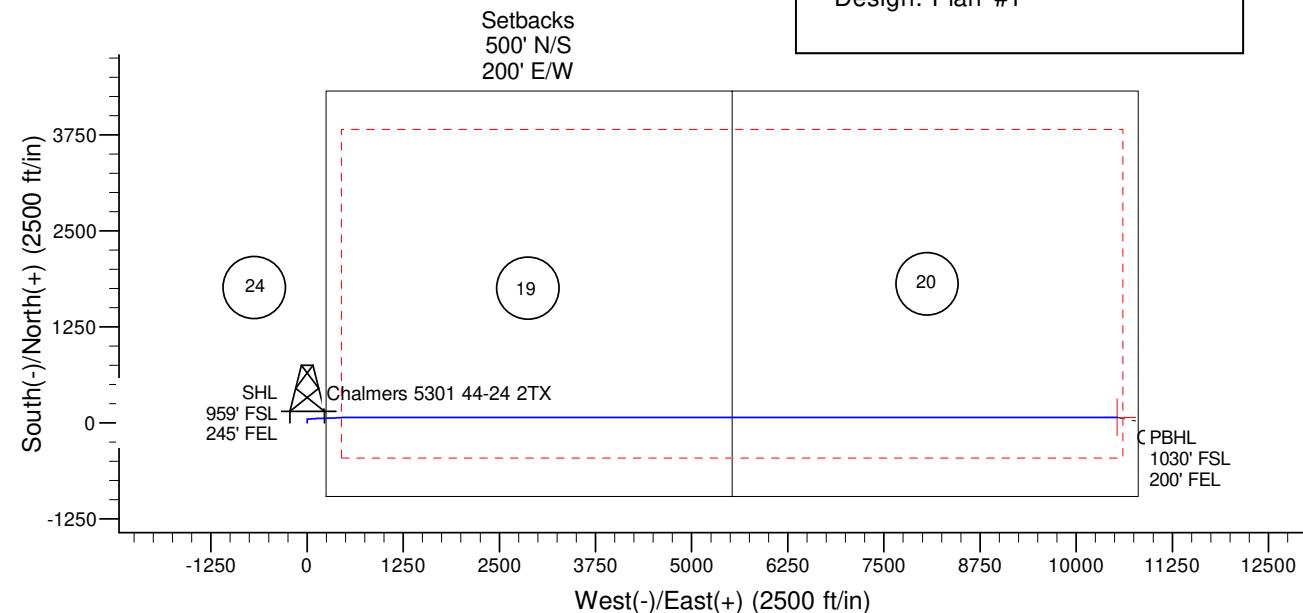


Project: Indian Hills
Site: 153N-100W-19/20_Altered
Well: Chalmers 5301 44-24 2TX
Wellbore: Chalmers #2T
Design: Plan #1

SITE DETAILS: 153N-100W-19/20_Altered

Site Centre Latitude: 48° 3' 20.170 N
Longitude: 103° 36' 18.550 W

Positional Uncertainty: 0.0
Convergence: -2.31
Local North: True

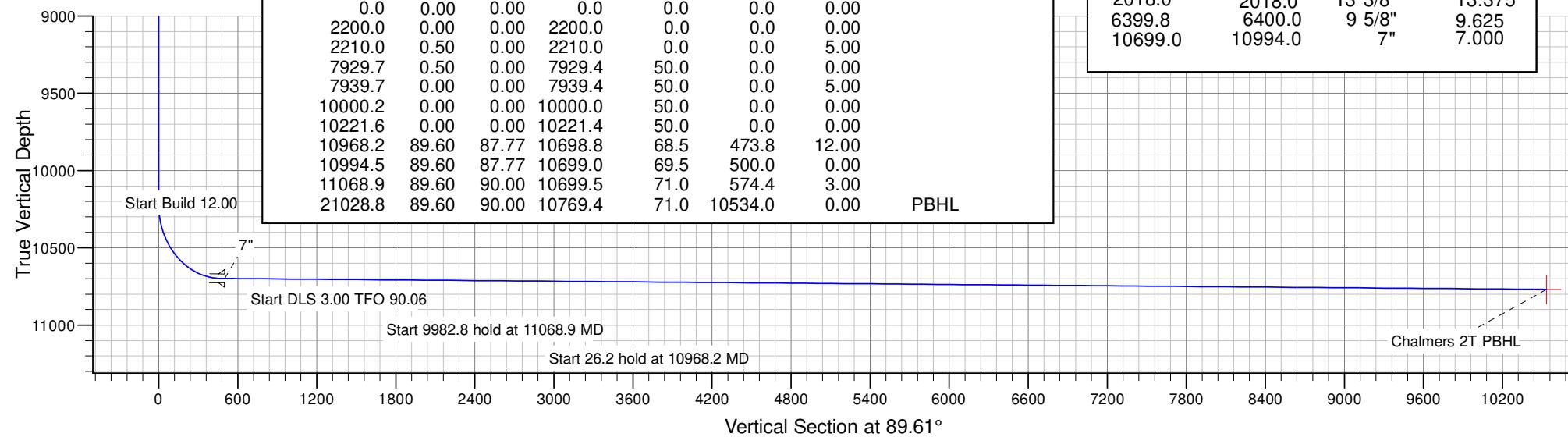


SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	
2200.0	0.00	0.00	2200.0	0.0	0.0	0.00	
2210.0	0.50	0.00	2210.0	0.0	0.0	5.00	
7929.7	0.50	0.00	7929.4	50.0	0.0	0.00	
7939.7	0.00	0.00	7939.4	50.0	0.0	5.00	
10000.2	0.00	0.00	10000.0	50.0	0.0	0.00	
10221.6	0.00	0.00	10221.4	50.0	0.0	0.00	
10968.2	89.60	87.77	10698.8	68.5	473.8	12.00	
10994.5	89.60	87.77	10699.0	69.5	500.0	0.00	
11068.9	89.60	90.00	10699.5	71.0	574.4	3.00	
21028.8	89.60	90.00	10769.4	71.0	10534.0	0.00	PBHL

CASING DETAILS

TVD	MD	Name	Size
2018.0	2018.0	13 3/8"	13.375
6399.8	6400.0	9 5/8"	9.625
10699.0	10994.0	7"	7.000



Oasis

Indian Hills

153N-100W-19/20_Altered

Chalmers 5301 44-24 2TX

Chalmers #2T

Plan: Plan #1

Standard Planning Report

09 May, 2014

Oasis Petroleum

Planning Report

Database:	OpenWellsCompass - EDM Prod	Local Co-ordinate Reference:	Well Chalmers 5301 44-24 2TX
Company:	Oasis	TVD Reference:	WELL @ 1967.0ft (Original Well Elev)
Project:	Indian Hills	MD Reference:	WELL @ 1967.0ft (Original Well Elev)
Site:	153N-100W-19/20_Altered	North Reference:	True
Well:	Chalmers 5301 44-24 2TX	Survey Calculation Method:	Minimum Curvature
Wellbore:	Chalmers #2T		
Design:	Plan #1		

Project	Indian Hills		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	North Dakota Northern Zone		

Site	153N-100W-19/20_Altered				
Site Position:		Northing:	400,359.23 ft	Latitude:	48° 3' 20.170 N
From:	Lat/Long	Easting:	1,209,331.30 ft	Longitude:	103° 36' 18.550 W
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	-2.31 °

Well	Chalmers 5301 44-24 2TX				
Well Position	+N/-S +E/-W	66.0 ft	Northing: Easting:	400,425.17 ft 1,209,333.96 ft	Latitude: Longitude:
Position Uncertainty	0.0 ft		Wellhead Elevation:	0.0 ft	Ground Level:
					1,942.0 ft

Wellbore	Chalmers #2T				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	5/8/2014	8.14	72.95	56,466

Design	Plan #1				
Audit Notes:					
Version:		Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:		Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
		0.0	0.0	0.0	89.61

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00
2,210.0	0.50	0.00	2,210.0	0.0	0.0	5.00	5.00	0.00	0.00	0.00
7,929.7	0.50	0.00	7,929.4	50.0	0.0	0.00	0.00	0.00	0.00	0.00
7,939.7	0.00	0.00	7,939.4	50.0	0.0	5.00	-5.00	0.00	0.00	180.00
10,000.2	0.00	0.00	10,000.0	50.0	0.0	0.00	0.00	0.00	0.00	0.00
10,221.6	0.00	0.00	10,221.4	50.0	0.0	0.00	0.00	0.00	0.00	0.00
10,968.2	89.60	87.77	10,698.8	68.5	473.8	12.00	12.00	0.00	0.00	87.77
10,994.5	89.60	87.77	10,699.0	69.5	500.0	0.00	0.00	0.00	0.00	0.00
11,068.9	89.60	90.00	10,699.5	71.0	574.4	3.00	0.00	3.00	0.06	90.06
21,028.8	89.60	90.00	10,769.4	71.0	10,534.0	0.00	0.00	0.00	0.00	Chalmers 2TX PBHL

Oasis Petroleum

Planning Report

Database:	OpenWellsCompass - EDM Prod	Local Co-ordinate Reference:	Well Chalmers 5301 44-24 2TX
Company:	Oasis	TVD Reference:	WELL @ 1967.0ft (Original Well Elev)
Project:	Indian Hills	MD Reference:	WELL @ 1967.0ft (Original Well Elev)
Site:	153N-100W-19/20_Altered	North Reference:	True
Well:	Chalmers 5301 44-24 2TX	Survey Calculation Method:	Minimum Curvature
Wellbore:	Chalmers #2T		
Design:	Plan #1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/S (ft)	+E/W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,918.0	0.00	0.00	1,918.0	0.0	0.0	0.0	0.00	0.00	0.00
Pierre									
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,018.0	0.00	0.00	2,018.0	0.0	0.0	0.0	0.00	0.00	0.00
13 3/8"									
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
Start Build 5.00									
2,210.0	0.50	0.00	2,210.0	0.0	0.0	0.0	5.00	5.00	0.00
Start 5719.7 hold at 2210.0 MD									
2,300.0	0.50	0.00	2,300.0	0.8	0.0	0.0	0.00	0.00	0.00
2,400.0	0.50	0.00	2,400.0	1.7	0.0	0.0	0.00	0.00	0.00
2,500.0	0.50	0.00	2,500.0	2.6	0.0	0.0	0.00	0.00	0.00
2,600.0	0.50	0.00	2,600.0	3.4	0.0	0.0	0.00	0.00	0.00
2,700.0	0.50	0.00	2,700.0	4.3	0.0	0.0	0.00	0.00	0.00
2,800.0	0.50	0.00	2,800.0	5.2	0.0	0.0	0.00	0.00	0.00
2,900.0	0.50	0.00	2,900.0	6.1	0.0	0.0	0.00	0.00	0.00
3,000.0	0.50	0.00	3,000.0	6.9	0.0	0.0	0.00	0.00	0.00
3,100.0	0.50	0.00	3,100.0	7.8	0.0	0.1	0.00	0.00	0.00
3,200.0	0.50	0.00	3,200.0	8.7	0.0	0.1	0.00	0.00	0.00
3,300.0	0.50	0.00	3,300.0	9.6	0.0	0.1	0.00	0.00	0.00
3,400.0	0.50	0.00	3,400.0	10.4	0.0	0.1	0.00	0.00	0.00
3,500.0	0.50	0.00	3,500.0	11.3	0.0	0.1	0.00	0.00	0.00
3,600.0	0.50	0.00	3,599.9	12.2	0.0	0.1	0.00	0.00	0.00
3,700.0	0.50	0.00	3,699.9	13.0	0.0	0.1	0.00	0.00	0.00
3,800.0	0.50	0.00	3,799.9	13.9	0.0	0.1	0.00	0.00	0.00
3,900.0	0.50	0.00	3,899.9	14.8	0.0	0.1	0.00	0.00	0.00
4,000.0	0.50	0.00	3,999.9	15.7	0.0	0.1	0.00	0.00	0.00
4,100.0	0.50	0.00	4,099.9	16.5	0.0	0.1	0.00	0.00	0.00
4,200.0	0.50	0.00	4,199.9	17.4	0.0	0.1	0.00	0.00	0.00
4,300.0	0.50	0.00	4,299.9	18.3	0.0	0.1	0.00	0.00	0.00
4,400.0	0.50	0.00	4,399.9	19.2	0.0	0.1	0.00	0.00	0.00
4,500.0	0.50	0.00	4,499.9	20.0	0.0	0.1	0.00	0.00	0.00
4,510.1	0.50	0.00	4,510.0	20.1	0.0	0.1	0.00	0.00	0.00
Greenhorn									

Oasis Petroleum

Planning Report

Database:	OpenWellsCompass - EDM Prod	Local Co-ordinate Reference:	Well Chalmers 5301 44-24 2TX
Company:	Oasis	TVD Reference:	WELL @ 1967.0ft (Original Well Elev)
Project:	Indian Hills	MD Reference:	WELL @ 1967.0ft (Original Well Elev)
Site:	153N-100W-19/20_Altered	North Reference:	True
Well:	Chalmers 5301 44-24 2TX	Survey Calculation Method:	Minimum Curvature
Wellbore:	Chalmers #2T		
Design:	Plan #1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/S (ft)	+E/W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,600.0	0.50	0.00	4,599.9	20.9	0.0	0.1	0.00	0.00	0.00
4,700.0	0.50	0.00	4,699.9	21.8	0.0	0.1	0.00	0.00	0.00
4,800.0	0.50	0.00	4,799.9	22.6	0.0	0.2	0.00	0.00	0.00
4,900.0	0.50	0.00	4,899.9	23.5	0.0	0.2	0.00	0.00	0.00
4,914.1	0.50	0.00	4,914.0	23.6	0.0	0.2	0.00	0.00	0.00
Mowry									
5,000.0	0.50	0.00	4,999.9	24.4	0.0	0.2	0.00	0.00	0.00
5,100.0	0.50	0.00	5,099.9	25.3	0.0	0.2	0.00	0.00	0.00
5,200.0	0.50	0.00	5,199.9	26.1	0.0	0.2	0.00	0.00	0.00
5,300.0	0.50	0.00	5,299.9	27.0	0.0	0.2	0.00	0.00	0.00
5,341.1	0.50	0.00	5,341.0	27.4	0.0	0.2	0.00	0.00	0.00
Dakota									
5,400.0	0.50	0.00	5,399.9	27.9	0.0	0.2	0.00	0.00	0.00
5,500.0	0.50	0.00	5,499.9	28.8	0.0	0.2	0.00	0.00	0.00
5,600.0	0.50	0.00	5,599.9	29.6	0.0	0.2	0.00	0.00	0.00
5,700.0	0.50	0.00	5,699.9	30.5	0.0	0.2	0.00	0.00	0.00
5,800.0	0.50	0.00	5,799.9	31.4	0.0	0.2	0.00	0.00	0.00
5,900.0	0.50	0.00	5,899.9	32.2	0.0	0.2	0.00	0.00	0.00
6,000.0	0.50	0.00	5,999.9	33.1	0.0	0.2	0.00	0.00	0.00
6,100.0	0.50	0.00	6,099.9	34.0	0.0	0.2	0.00	0.00	0.00
6,200.0	0.50	0.00	6,199.8	34.9	0.0	0.2	0.00	0.00	0.00
6,300.0	0.50	0.00	6,299.8	35.7	0.0	0.2	0.00	0.00	0.00
6,356.2	0.50	0.00	6,356.0	36.2	0.0	0.2	0.00	0.00	0.00
Rierdon									
6,400.0	0.50	0.00	6,399.8	36.6	0.0	0.2	0.00	0.00	0.00
9 5/8"									
6,500.0	0.50	0.00	6,499.8	37.5	0.0	0.3	0.00	0.00	0.00
6,600.0	0.50	0.00	6,599.8	38.4	0.0	0.3	0.00	0.00	0.00
6,683.2	0.50	0.00	6,683.0	39.1	0.0	0.3	0.00	0.00	0.00
Dunham Salt									
6,700.0	0.50	0.00	6,699.8	39.2	0.0	0.3	0.00	0.00	0.00
6,800.0	0.50	0.00	6,799.8	40.1	0.0	0.3	0.00	0.00	0.00
6,800.2	0.50	0.00	6,800.0	40.1	0.0	0.3	0.00	0.00	0.00
Dunham Salt Base									
6,887.2	0.50	0.00	6,887.0	40.9	0.0	0.3	0.00	0.00	0.00
Spearfish									
6,900.0	0.50	0.00	6,899.8	41.0	0.0	0.3	0.00	0.00	0.00
7,000.0	0.50	0.00	6,999.8	41.8	0.0	0.3	0.00	0.00	0.00
7,100.0	0.50	0.00	7,099.8	42.7	0.0	0.3	0.00	0.00	0.00
7,135.2	0.50	0.00	7,135.0	43.0	0.0	0.3	0.00	0.00	0.00
Pine Salt									
7,168.2	0.50	0.00	7,168.0	43.3	0.0	0.3	0.00	0.00	0.00
Pine Salt Base									
7,200.0	0.50	0.00	7,199.8	43.6	0.0	0.3	0.00	0.00	0.00
7,235.2	0.50	0.00	7,235.0	43.9	0.0	0.3	0.00	0.00	0.00
Opeche Salt									
7,269.2	0.50	0.00	7,269.0	44.2	0.0	0.3	0.00	0.00	0.00
Opeche Salt Base									
7,300.0	0.50	0.00	7,299.8	44.5	0.0	0.3	0.00	0.00	0.00
7,400.0	0.50	0.00	7,399.8	45.3	0.0	0.3	0.00	0.00	0.00
7,469.2	0.50	0.00	7,469.0	45.9	0.0	0.3	0.00	0.00	0.00
Broom Creek (Top of Minnelusa Gp.)									
7,500.0	0.50	0.00	7,499.8	46.2	0.0	0.3	0.00	0.00	0.00

Oasis Petroleum

Planning Report

Database:	OpenWellsCompass - EDM Prod	Local Co-ordinate Reference:	Well Chalmers 5301 44-24 2TX
Company:	Oasis	TVD Reference:	WELL @ 1967.0ft (Original Well Elev)
Project:	Indian Hills	MD Reference:	WELL @ 1967.0ft (Original Well Elev)
Site:	153N-100W-19/20_Altered	North Reference:	True
Well:	Chalmers 5301 44-24 2TX	Survey Calculation Method:	Minimum Curvature
Wellbore:	Chalmers #2T		
Design:	Plan #1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/S (ft)	+E/W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
7,553.2	0.50	0.00	7,553.0	46.7	0.0	0.3	0.00	0.00	0.00
Amsden									
7,600.0	0.50	0.00	7,599.8	47.1	0.0	0.3	0.00	0.00	0.00
7,700.0	0.50	0.00	7,699.8	48.0	0.0	0.3	0.00	0.00	0.00
7,720.2	0.50	0.00	7,720.0	48.1	0.0	0.3	0.00	0.00	0.00
Tyler									
7,800.0	0.50	0.00	7,799.8	48.8	0.0	0.3	0.00	0.00	0.00
7,900.0	0.50	0.00	7,899.8	49.7	0.0	0.3	0.00	0.00	0.00
7,920.2	0.50	0.00	7,920.0	49.9	0.0	0.3	0.00	0.00	0.00
Otter (Base of Minnelusa Gp.)									
7,929.7	0.50	0.00	7,929.4	50.0	0.0	0.3	0.00	0.00	0.00
Start Drop -5.00									
7,939.7	0.00	0.00	7,939.4	50.0	0.0	0.3	5.00	-5.00	0.00
Start 2060.6 hold at 7939.7 MD									
8,000.0	0.00	0.00	7,999.8	50.0	0.0	0.3	0.00	0.00	0.00
8,100.0	0.00	0.00	8,099.8	50.0	0.0	0.3	0.00	0.00	0.00
8,200.0	0.00	0.00	8,199.8	50.0	0.0	0.3	0.00	0.00	0.00
8,269.2	0.00	0.00	8,269.0	50.0	0.0	0.3	0.00	0.00	0.00
Kibbey									
8,300.0	0.00	0.00	8,299.8	50.0	0.0	0.3	0.00	0.00	0.00
8,400.0	0.00	0.00	8,399.8	50.0	0.0	0.3	0.00	0.00	0.00
8,433.2	0.00	0.00	8,433.0	50.0	0.0	0.3	0.00	0.00	0.00
Charles Salt									
8,500.0	0.00	0.00	8,499.8	50.0	0.0	0.3	0.00	0.00	0.00
8,600.0	0.00	0.00	8,599.8	50.0	0.0	0.3	0.00	0.00	0.00
8,700.0	0.00	0.00	8,699.8	50.0	0.0	0.3	0.00	0.00	0.00
8,800.0	0.00	0.00	8,799.8	50.0	0.0	0.3	0.00	0.00	0.00
8,900.0	0.00	0.00	8,899.8	50.0	0.0	0.3	0.00	0.00	0.00
9,000.0	0.00	0.00	8,999.8	50.0	0.0	0.3	0.00	0.00	0.00
9,010.2	0.00	0.00	9,010.0	50.0	0.0	0.3	0.00	0.00	0.00
UB									
9,091.2	0.00	0.00	9,091.0	50.0	0.0	0.3	0.00	0.00	0.00
Base Last Salt									
9,100.0	0.00	0.00	9,099.8	50.0	0.0	0.3	0.00	0.00	0.00
9,141.2	0.00	0.00	9,141.0	50.0	0.0	0.3	0.00	0.00	0.00
Ratcliffe									
9,200.0	0.00	0.00	9,199.8	50.0	0.0	0.3	0.00	0.00	0.00
9,300.0	0.00	0.00	9,299.8	50.0	0.0	0.3	0.00	0.00	0.00
9,311.2	0.00	0.00	9,311.0	50.0	0.0	0.3	0.00	0.00	0.00
Mission Canyon									
9,400.0	0.00	0.00	9,399.8	50.0	0.0	0.3	0.00	0.00	0.00
9,500.0	0.00	0.00	9,499.8	50.0	0.0	0.3	0.00	0.00	0.00
9,600.0	0.00	0.00	9,599.8	50.0	0.0	0.3	0.00	0.00	0.00
9,700.0	0.00	0.00	9,699.8	50.0	0.0	0.3	0.00	0.00	0.00
9,800.0	0.00	0.00	9,799.8	50.0	0.0	0.3	0.00	0.00	0.00
9,876.2	0.00	0.00	9,876.0	50.0	0.0	0.3	0.00	0.00	0.00
Lodgepole									
9,900.0	0.00	0.00	9,899.8	50.0	0.0	0.3	0.00	0.00	0.00
10,000.2	0.00	0.00	10,000.0	50.0	0.0	0.3	0.00	0.00	0.00
Start 221.4 hold at 10000.2 MD									
10,100.0	0.00	0.00	10,099.8	50.0	0.0	0.3	0.00	0.00	0.00
10,109.2	0.00	0.00	10,109.0	50.0	0.0	0.3	0.00	0.00	0.00
Lodgepole Fracture Zone									

Oasis Petroleum

Planning Report

Database:	OpenWellsCompass - EDM Prod	Local Co-ordinate Reference:	Well Chalmers 5301 44-24 2TX
Company:	Oasis	TVD Reference:	WELL @ 1967.0ft (Original Well Elev)
Project:	Indian Hills	MD Reference:	WELL @ 1967.0ft (Original Well Elev)
Site:	153N-100W-19/20_Altered	North Reference:	True
Well:	Chalmers 5301 44-24 2TX	Survey Calculation Method:	Minimum Curvature
Wellbore:	Chalmers #2T		
Design:	Plan #1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/S (ft)	+E/W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
10,200.0	0.00	0.00	10,199.8	50.0	0.0	0.3	0.00	0.00	0.00
10,221.6	0.00	0.00	10,221.4	50.0	0.0	0.3	0.00	0.00	0.00
Start Build 12.00									
10,225.0	0.41	87.77	10,224.8	50.0	0.0	0.3	12.00	12.00	0.00
10,250.0	3.41	87.77	10,249.8	50.0	0.8	1.2	12.00	12.00	0.00
10,275.0	6.41	87.77	10,274.7	50.1	3.0	3.3	12.00	12.00	0.00
10,300.0	9.41	87.77	10,299.4	50.3	6.4	6.8	12.00	12.00	0.00
10,325.0	12.41	87.77	10,324.0	50.4	11.1	11.5	12.00	12.00	0.00
10,350.0	15.41	87.77	10,348.2	50.7	17.2	17.5	12.00	12.00	0.00
10,375.0	18.41	87.77	10,372.2	51.0	24.4	24.8	12.00	12.00	0.00
10,400.0	21.41	87.77	10,395.7	51.3	32.9	33.3	12.00	12.00	0.00
10,425.0	24.41	87.77	10,418.7	51.7	42.6	43.0	12.00	12.00	0.00
10,450.0	27.41	87.77	10,441.2	52.1	53.6	53.9	12.00	12.00	0.00
10,475.0	30.41	87.77	10,463.1	52.6	65.6	66.0	12.00	12.00	0.00
10,500.0	33.41	87.77	10,484.3	53.1	78.8	79.2	12.00	12.00	0.00
10,525.0	36.41	87.77	10,504.8	53.6	93.1	93.5	12.00	12.00	0.00
10,550.0	39.41	87.77	10,524.5	54.2	108.5	108.8	12.00	12.00	0.00
10,575.0	42.41	87.77	10,543.4	54.9	124.8	125.2	12.00	12.00	0.00
10,600.0	45.41	87.77	10,561.4	55.5	142.2	142.5	12.00	12.00	0.00
10,625.0	48.41	87.77	10,578.5	56.3	160.4	160.8	12.00	12.00	0.00
10,639.6	50.16	87.77	10,588.0	56.7	171.5	171.9	12.00	12.00	0.00
False Bakken									
10,650.0	51.41	87.77	10,594.6	57.0	179.5	179.9	12.00	12.00	0.00
10,657.2	52.27	87.77	10,599.0	57.2	185.2	185.5	12.00	12.00	0.00
Upper Bakken									
10,675.0	54.41	87.77	10,609.6	57.8	199.4	199.8	12.00	12.00	0.00
10,686.1	55.74	87.77	10,616.0	58.1	208.5	208.9	12.00	12.00	0.00
Middle Bakken									
10,700.0	57.41	87.77	10,623.7	58.6	220.1	220.5	12.00	12.00	0.00
10,725.0	60.41	87.77	10,636.6	59.4	241.5	241.9	12.00	12.00	0.00
10,749.3	63.32	87.77	10,648.0	60.3	262.9	263.3	12.00	12.00	0.00
Lower Bakken									
10,750.0	63.41	87.77	10,648.3	60.3	263.6	264.0	12.00	12.00	0.00
10,775.0	66.41	87.77	10,658.9	61.2	286.2	286.6	12.00	12.00	0.00
10,775.2	66.41	87.77	10,659.0	61.2	286.3	286.7	0.00	0.00	0.00
Pronghorn									
10,800.0	69.41	87.77	10,668.3	62.1	309.3	309.7	12.09	12.09	0.00
10,823.3	72.21	87.77	10,676.0	62.9	331.3	331.8	12.00	12.00	0.00
Three Forks									
10,825.0	72.41	87.77	10,676.5	63.0	332.9	333.3	12.00	12.00	0.00
10,850.0	75.41	87.77	10,683.4	63.9	356.9	357.3	12.00	12.00	0.00
10,875.0	78.41	87.77	10,689.1	64.9	381.3	381.7	12.00	12.00	0.00
10,890.7	80.30	87.77	10,692.0	65.5	396.7	397.1	12.00	12.00	0.00
Three Forks Target Top									
10,900.0	81.41	87.77	10,693.5	65.8	405.8	406.3	12.00	12.00	0.00
10,925.0	84.41	87.77	10,696.6	66.8	430.6	431.1	12.00	12.00	0.00
10,950.0	87.41	87.77	10,698.3	67.8	455.5	456.0	12.00	12.00	0.00
10,968.2	89.60	87.77	10,698.8	68.5	473.8	474.2	12.00	12.00	0.00
Start 26.2 hold at 10968.2 MD									
10,994.0	89.60	87.77	10,699.0	69.5	499.5	500.0	0.00	0.00	0.00
7"									
10,994.5	89.60	87.77	10,699.0	69.5	500.0	500.5	0.00	0.00	0.00
Start DLS 3.00 TFO 90.06									
11,000.0	89.60	87.93	10,699.0	69.7	505.5	506.0	3.00	0.00	3.00

Oasis Petroleum

Planning Report

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Company:	Oasis	TVD Reference:	WELL @ 1967.0ft (Original Well Elev)
Project:	Indian Hills	MD Reference:	WELL @ 1967.0ft (Original Well Elev)
Site:	153N-100W-19/20_Altered	North Reference:	True
Well:	Chalmers 5301 44-24 2TX	Survey Calculation Method:	Minimum Curvature
Wellbore:	Chalmers #2T		
Design:	Plan #1		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/S (ft)	+E/W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
11,068.9	89.60	90.00	10,699.5	71.0	574.4	574.9	3.00	0.00	3.00	
Start 9982.8 hold at 11068.9 MD										
11,100.0	89.60	90.00	10,699.7	71.0	605.5	605.9	0.00	0.00	0.00	
11,200.0	89.60	90.00	10,700.4	71.0	705.5	705.9	0.00	0.00	0.00	
11,300.0	89.60	90.00	10,701.1	71.0	805.5	805.9	0.00	0.00	0.00	
11,400.0	89.60	90.00	10,701.8	71.0	905.5	905.9	0.00	0.00	0.00	
11,500.0	89.60	90.00	10,702.5	71.0	1,005.5	1,005.9	0.00	0.00	0.00	
11,600.0	89.60	90.00	10,703.2	71.0	1,105.5	1,105.9	0.00	0.00	0.00	
11,700.0	89.60	90.00	10,703.9	71.0	1,205.5	1,205.9	0.00	0.00	0.00	
11,800.0	89.60	90.00	10,704.7	71.0	1,305.5	1,305.9	0.00	0.00	0.00	
11,900.0	89.60	90.00	10,705.4	71.0	1,405.5	1,405.9	0.00	0.00	0.00	
12,000.0	89.60	90.00	10,706.1	71.0	1,505.5	1,505.9	0.00	0.00	0.00	
12,100.0	89.60	90.00	10,706.8	71.0	1,605.5	1,605.9	0.00	0.00	0.00	
12,200.0	89.60	90.00	10,707.5	71.0	1,705.5	1,705.9	0.00	0.00	0.00	
12,300.0	89.60	90.00	10,708.2	71.0	1,805.5	1,805.9	0.00	0.00	0.00	
12,400.0	89.60	90.00	10,708.9	71.0	1,905.4	1,905.9	0.00	0.00	0.00	
12,500.0	89.60	90.00	10,709.6	71.0	2,005.4	2,005.9	0.00	0.00	0.00	
12,600.0	89.60	90.00	10,710.3	71.0	2,105.4	2,105.9	0.00	0.00	0.00	
12,700.0	89.60	90.00	10,711.0	71.0	2,205.4	2,205.9	0.00	0.00	0.00	
12,800.0	89.60	90.00	10,711.7	71.0	2,305.4	2,305.9	0.00	0.00	0.00	
12,900.0	89.60	90.00	10,712.4	71.0	2,405.4	2,405.9	0.00	0.00	0.00	
13,000.0	89.60	90.00	10,713.1	71.0	2,505.4	2,505.9	0.00	0.00	0.00	
13,100.0	89.60	90.00	10,713.8	71.0	2,605.4	2,605.9	0.00	0.00	0.00	
13,200.0	89.60	90.00	10,714.5	71.0	2,705.4	2,705.8	0.00	0.00	0.00	
13,300.0	89.60	90.00	10,715.2	71.0	2,805.4	2,805.8	0.00	0.00	0.00	
13,400.0	89.60	90.00	10,715.9	71.0	2,905.4	2,905.8	0.00	0.00	0.00	
13,500.0	89.60	90.00	10,716.6	71.0	3,005.4	3,005.8	0.00	0.00	0.00	
13,600.0	89.60	90.00	10,717.3	71.0	3,105.4	3,105.8	0.00	0.00	0.00	
13,700.0	89.60	90.00	10,718.0	71.0	3,205.4	3,205.8	0.00	0.00	0.00	
13,800.0	89.60	90.00	10,718.7	71.0	3,305.4	3,305.8	0.00	0.00	0.00	
13,900.0	89.60	90.00	10,719.4	71.0	3,405.4	3,405.8	0.00	0.00	0.00	
14,000.0	89.60	90.00	10,720.1	71.0	3,505.4	3,505.8	0.00	0.00	0.00	
14,100.0	89.60	90.00	10,720.8	71.0	3,605.4	3,605.8	0.00	0.00	0.00	
14,200.0	89.60	90.00	10,721.5	71.0	3,705.4	3,705.8	0.00	0.00	0.00	
14,300.0	89.60	90.00	10,722.2	71.0	3,805.4	3,805.8	0.00	0.00	0.00	
14,400.0	89.60	90.00	10,722.9	71.0	3,905.4	3,905.8	0.00	0.00	0.00	
14,500.0	89.60	90.00	10,723.6	71.0	4,005.4	4,005.8	0.00	0.00	0.00	
14,600.0	89.60	90.00	10,724.3	71.0	4,105.4	4,105.8	0.00	0.00	0.00	
14,700.0	89.60	90.00	10,725.0	71.0	4,205.4	4,205.8	0.00	0.00	0.00	
14,800.0	89.60	90.00	10,725.7	71.0	4,305.4	4,305.8	0.00	0.00	0.00	
14,900.0	89.60	90.00	10,726.4	71.0	4,405.4	4,405.8	0.00	0.00	0.00	
15,000.0	89.60	90.00	10,727.1	71.0	4,505.4	4,505.8	0.00	0.00	0.00	
15,100.0	89.60	90.00	10,727.8	71.0	4,605.4	4,605.8	0.00	0.00	0.00	
15,200.0	89.60	90.00	10,728.5	71.0	4,705.4	4,705.8	0.00	0.00	0.00	
15,300.0	89.60	90.00	10,729.2	71.0	4,805.4	4,805.7	0.00	0.00	0.00	
15,400.0	89.60	90.00	10,729.9	71.0	4,905.4	4,905.7	0.00	0.00	0.00	
15,500.0	89.60	90.00	10,730.6	71.0	5,005.4	5,005.7	0.00	0.00	0.00	
15,600.0	89.60	90.00	10,731.3	71.0	5,105.4	5,105.7	0.00	0.00	0.00	
15,700.0	89.60	90.00	10,732.0	71.0	5,205.4	5,205.7	0.00	0.00	0.00	
15,800.0	89.60	90.00	10,732.7	71.0	5,305.4	5,305.7	0.00	0.00	0.00	
15,900.0	89.60	90.00	10,733.4	71.0	5,405.4	5,405.7	0.00	0.00	0.00	
16,000.0	89.60	90.00	10,734.1	71.0	5,505.4	5,505.7	0.00	0.00	0.00	
16,100.0	89.60	90.00	10,734.8	71.0	5,605.4	5,605.7	0.00	0.00	0.00	
16,200.0	89.60	90.00	10,735.5	71.0	5,705.4	5,705.7	0.00	0.00	0.00	
16,300.0	89.60	90.00	10,736.2	71.0	5,805.4	5,805.7	0.00	0.00	0.00	

Oasis Petroleum

Planning Report

Database:	OpenWellsCompass - EDM Prod	Local Co-ordinate Reference:	Well Chalmers 5301 44-24 2TX
Company:	Oasis	TVD Reference:	WELL @ 1967.0ft (Original Well Elev)
Project:	Indian Hills	MD Reference:	WELL @ 1967.0ft (Original Well Elev)
Site:	153N-100W-19/20_Altered	North Reference:	True
Well:	Chalmers 5301 44-24 2TX	Survey Calculation Method:	Minimum Curvature
Wellbore:	Chalmers #2T		
Design:	Plan #1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/S (ft)	+E/W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
16,400.0	89.60	90.00	10,736.9	71.0	5,905.4	5,905.7	0.00	0.00	0.00
16,500.0	89.60	90.00	10,737.6	71.0	6,005.3	6,005.7	0.00	0.00	0.00
16,600.0	89.60	90.00	10,738.3	71.0	6,105.3	6,105.7	0.00	0.00	0.00
16,700.0	89.60	90.00	10,739.0	71.0	6,205.3	6,205.7	0.00	0.00	0.00
16,800.0	89.60	90.00	10,739.7	71.0	6,305.3	6,305.7	0.00	0.00	0.00
16,900.0	89.60	90.00	10,740.4	71.0	6,405.3	6,405.7	0.00	0.00	0.00
17,000.0	89.60	90.00	10,741.1	71.0	6,505.3	6,505.7	0.00	0.00	0.00
17,100.0	89.60	90.00	10,741.8	71.0	6,605.3	6,605.7	0.00	0.00	0.00
17,200.0	89.60	90.00	10,742.5	71.0	6,705.3	6,705.7	0.00	0.00	0.00
17,300.0	89.60	90.00	10,743.2	71.0	6,805.3	6,805.7	0.00	0.00	0.00
17,400.0	89.60	90.00	10,743.9	71.0	6,905.3	6,905.6	0.00	0.00	0.00
17,500.0	89.60	90.00	10,744.6	71.0	7,005.3	7,005.6	0.00	0.00	0.00
17,600.0	89.60	90.00	10,745.3	71.0	7,105.3	7,105.6	0.00	0.00	0.00
17,700.0	89.60	90.00	10,746.0	71.0	7,205.3	7,205.6	0.00	0.00	0.00
17,800.0	89.60	90.00	10,746.8	71.0	7,305.3	7,305.6	0.00	0.00	0.00
17,900.0	89.60	90.00	10,747.5	71.0	7,405.3	7,405.6	0.00	0.00	0.00
18,000.0	89.60	90.00	10,748.2	71.0	7,505.3	7,505.6	0.00	0.00	0.00
18,100.0	89.60	90.00	10,748.9	71.0	7,605.3	7,605.6	0.00	0.00	0.00
18,200.0	89.60	90.00	10,749.6	71.0	7,705.3	7,705.6	0.00	0.00	0.00
18,300.0	89.60	90.00	10,750.3	71.0	7,805.3	7,805.6	0.00	0.00	0.00
18,400.0	89.60	90.00	10,751.0	71.0	7,905.3	7,905.6	0.00	0.00	0.00
18,500.0	89.60	90.00	10,751.7	71.0	8,005.3	8,005.6	0.00	0.00	0.00
18,600.0	89.60	90.00	10,752.4	71.0	8,105.3	8,105.6	0.00	0.00	0.00
18,700.0	89.60	90.00	10,753.1	71.0	8,205.3	8,205.6	0.00	0.00	0.00
18,800.0	89.60	90.00	10,753.8	71.0	8,305.3	8,305.6	0.00	0.00	0.00
18,900.0	89.60	90.00	10,754.5	71.0	8,405.3	8,405.6	0.00	0.00	0.00
19,000.0	89.60	90.00	10,755.2	71.0	8,505.3	8,505.6	0.00	0.00	0.00
19,100.0	89.60	90.00	10,755.9	71.0	8,605.3	8,605.6	0.00	0.00	0.00
19,200.0	89.60	90.00	10,756.6	71.0	8,705.3	8,705.6	0.00	0.00	0.00
19,300.0	89.60	90.00	10,757.3	71.0	8,805.3	8,805.6	0.00	0.00	0.00
19,400.0	89.60	90.00	10,758.0	71.0	8,905.3	8,905.6	0.00	0.00	0.00
19,500.0	89.60	90.00	10,758.7	71.0	9,005.3	9,005.5	0.00	0.00	0.00
19,600.0	89.60	90.00	10,759.4	71.0	9,105.3	9,105.5	0.00	0.00	0.00
19,700.0	89.60	90.00	10,760.1	71.0	9,205.3	9,205.5	0.00	0.00	0.00
19,800.0	89.60	90.00	10,760.8	71.0	9,305.3	9,305.5	0.00	0.00	0.00
19,900.0	89.60	90.00	10,761.5	71.0	9,405.3	9,405.5	0.00	0.00	0.00
20,000.0	89.60	90.00	10,762.2	71.0	9,505.3	9,505.5	0.00	0.00	0.00
20,100.0	89.60	90.00	10,762.9	71.0	9,605.3	9,605.5	0.00	0.00	0.00
20,200.0	89.60	90.00	10,763.6	71.0	9,705.3	9,705.5	0.00	0.00	0.00
20,300.0	89.60	90.00	10,764.3	71.0	9,805.3	9,805.5	0.00	0.00	0.00
20,400.0	89.60	90.00	10,765.0	71.0	9,905.3	9,905.5	0.00	0.00	0.00
20,500.0	89.60	90.00	10,765.7	71.0	10,005.2	10,005.5	0.00	0.00	0.00
20,600.0	89.60	90.00	10,766.4	71.0	10,105.2	10,105.5	0.00	0.00	0.00
20,700.0	89.60	90.00	10,767.1	71.0	10,205.2	10,205.5	0.00	0.00	0.00
20,800.0	89.60	90.00	10,767.8	71.0	10,305.2	10,305.5	0.00	0.00	0.00
20,900.0	89.60	90.00	10,768.5	71.0	10,405.2	10,405.5	0.00	0.00	0.00
21,000.0	89.60	90.00	10,769.2	71.0	10,505.2	10,505.5	0.00	0.00	0.00
21,028.8	89.60	90.00	10,769.4	71.0	10,534.0	10,534.2	0.00	0.00	0.00

TD at 21051.8 - Chalmers 2TX PBHL

Oasis Petroleum

Planning Report

Database:	OpenWellsCompass - EDM Prod	Local Co-ordinate Reference:	Well Chalmers 5301 44-24 2TX
Company:	Oasis	TVD Reference:	WELL @ 1967.0ft (Original Well Elev)
Project:	Indian Hills	MD Reference:	WELL @ 1967.0ft (Original Well Elev)
Site:	153N-100W-19/20_Altered	North Reference:	True
Well:	Chalmers 5301 44-24 2TX	Survey Calculation Method:	Minimum Curvature
Wellbore:	Chalmers #2T		
Design:	Plan #1		

Design Targets									
Target Name									
- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
Chalmers 2TX PBHL	0.00	0.00	10,769.4	71.0	10,534.0	400,071.41	1,219,862.27	48° 3' 21.493 N	103° 33' 43.482 W
- plan hits target center									
- Point									

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)	
2,018.0	2,018.0 13 3/8"		13.375	17.500	
6,400.0	6,399.8 9 5/8"		9.625	12.250	
10,994.0	10,699.0 7"		7.000	8.750	

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,918.0	1,918.0	Pierre			
4,510.1	4,510.0	Greenhorn			
4,914.1	4,914.0	Mowry			
5,341.1	5,341.0	Dakota			
6,356.2	6,356.0	Rierdon			
6,683.2	6,683.0	Dunham Salt			
6,800.2	6,800.0	Dunham Salt Base			
6,887.2	6,887.0	Spearfish			
7,135.2	7,135.0	Pine Salt			
7,168.2	7,168.0	Pine Salt Base			
7,235.2	7,235.0	Opeche Salt			
7,269.2	7,269.0	Opeche Salt Base			
7,469.2	7,469.0	Broom Creek (Top of Minnelusa Gp.)			
7,553.2	7,553.0	Amsden			
7,720.2	7,720.0	Tyler			
7,920.2	7,920.0	Otter (Base of Minnelusa Gp.)			
8,269.2	8,269.0	Kibbey			
8,433.2	8,433.0	Charles Salt			
9,010.2	9,010.0	UB			
9,091.2	9,091.0	Base Last Salt			
9,141.2	9,141.0	Ratcliffe			
9,311.2	9,311.0	Mission Canyon			
9,876.2	9,876.0	Lodgepole			
10,109.2	10,109.0	Lodgepole Fracture Zone			
10,639.6	10,588.0	False Bakken			
10,657.2	10,599.0	Upper Bakken			
10,686.1	10,616.0	Middle Bakken			
10,749.3	10,648.0	Lower Bakken			
10,775.2	10,659.0	Pronghorn			
10,823.3	10,676.0	Three Forks			
10,890.7	10,692.0	Three Forks Target Top			

Oasis Petroleum

Planning Report

Database:	OpenWellsCompass - EDM Prod	Local Co-ordinate Reference:	Well Chalmers 5301 44-24 2TX
Company:	Oasis	TVD Reference:	WELL @ 1967.0ft (Original Well Elev)
Project:	Indian Hills	MD Reference:	WELL @ 1967.0ft (Original Well Elev)
Site:	153N-100W-19/20_Altered	North Reference:	True
Well:	Chalmers 5301 44-24 2TX	Survey Calculation Method:	Minimum Curvature
Wellbore:	Chalmers #2T		
Design:	Plan #1		

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			Comment
		+N/S (ft)	+E/W (ft)		
2,200.0	2,200.0	0.0	0.0		Start Build 5.00
2,210.0	2,210.0	0.0	0.0		Start 5719.7 hold at 2210.0 MD
7,929.7	7,929.4	50.0	0.0		Start Drop -5.00
7,939.7	7,939.4	50.0	0.0		Start 2060.6 hold at 7939.7 MD
10,000.2	10,000.0	50.0	0.0		Start 221.4 hold at 10000.2 MD
10,221.6	10,221.4	50.0	0.0		Start Build 12.00
10,968.2	10,698.8	68.5	473.8		Start 26.2 hold at 10968.2 MD
10,994.5	10,699.0	69.5	500.0		Start DLS 3.00 TFO 90.06
11,068.9	10,699.5	71.0	574.4		Start 9982.8 hold at 11068.9 MD
21,028.8	10,769.4	71.0	10,534.0		TD at 21051.8

Oasis Petroleum
Well Summary
Chalmers 5301 44-24 2TX
Sec. 24 T153N R101W
McKenzie County, North Dakota

SURFACE CASING AND CEMENT DESIGN

Size	Interval	Weight	Grade	Coupling	I.D.	Drift	Make-up Torque (ft-lbs)		
							Minimum	Optimum	Max
13-3/8"	0' to 2,018'	54.5	J-55	STC	12.615"	12.459"	4,100	5,470	6,840

Interval	Description	Collapse (psi) a	Burst (psi) b	Tension (1000 lbs) c	Cost per ft
0' to 2,018'	13-3/8", 54.5#, J-55, STC, 8rd	1130 / 2.13	2730 / 2.89	514 / 2.63	

API Rating & Safety Factor

- a) Based on full casing evacuation with 9 ppg fluid on backside (2018' setting depth).
- b) Burst pressure based on 9 ppg fluid with no fluid on backside (2018' setting depth).
- c) Based on string weight in 9 ppg fluid at 2018' TVD plus 100k# overpull. (Buoyed weight equals 95k lbs.)

Cement volumes are based on 13-3/8" casing set in 17-1/2" hole with 60% excess to circulate cement back to surface.
Mix and pump the following slurry.

Pre-flush (Spacer): 20 bbls fresh water

Lead Slurry: **689 sks** (355 bbls) 2.9 yield conventional system with 94 lb/sk cement, .25 lb/sk D130 Lost Circulation Control Agent, 2% CaCL2, 4% D079 Extender, and 2% D053 Expanding Agent.

Tail Slurry: **266 sks** (55 bbls) 1.16 yield conventional system with 94 lb/sk cement, .25 lb/sk Lost Circulation Control Agent, and .25% CaCL2.

**Oasis Petroleum
Well Summary**
Chalmers 5301 44-24 2TX
Sec. 24 T153N R101W
McKenzie County, North Dakota

INTERMEDIATE CASING AND CEMENT DESIGN

Intermediate Casing Design

Size	Interval	Weight	Grade	Coupling	I.D.	Drift	Make-up Torque (ft-lbs)		
							Minimum	Optimum	Max
9-5/8"	0' - 6400'	40	L-80	LTC	8.835"	8.75***	5,450	7,270	9,090

**Special Drift

Interval	Description	Collapse	Burst	Tension
		(psi) a	(psi) b	(1000 lbs) c
0' - 6400'	9-5/8", 40#, HCP-110, LTC, 8rd	3090 / 3.71*	5750 / 1.24	837 / 3.86

API Rating & Safety Factor

- a) Burst pressure calculated from a gas kick coming from the production zone (Bakken Pool) at 9,000psi and a subsequent breakdown at the 9-5/8" shoe, based on a 13.5#/ft fracture gradient. Backup of 9 ppg fluid.
- b) Collapse pressure based on 11.5ppg fluid on backside and 9ppg fluid inside of casing.
- c) Yield based on string weight in 10 ppg fluid, (217k lbs buoyed weight) plus 100k lbs overpull.

Cement volumes are estimates based on 9-5/8" casing set in an 12-1/4" hole with **30%** excess. TOC at SFC shoe.

Pre-flush (Spacer): **20 bbls** Chem wash

Lead Slurry: **592 sks** (210 bbls) Conventional system with 75 lb/sk cement, 0.5lb/sk lost circulation, 10% expanding agent, 2% extender, 2% CaCl₂, 0.2% anti foam, and 0.4% fluid loss

Tail Slurry: **521 sks** (108 bbls) Conventional system with 94 lb/sk cement, 0.3% anti-settling agent, 0.3% fluid loss agent, 0.3 lb/sk lost circulation control agent, 0.2% anti foam, and 0.1% retarder

**Oasis Petroleum
Well Summary**
Chalmers 5301 44-24 2TX
Sec. 24 T153N R101W
McKenzie County, North Dakota

INTERMEDIATE CASING AND CEMENT DESIGN

Intermediate Casing Design

Size	Interval	Weight	Grade	Coupling	I.D.	Drift	Make-up Torque (ft-lbs)		
							Minimum	Optimum	Max
7"	0' - 6683'	29	P-110	LTC	6.184"	6.059"	5,980	7,970	8,770
7"	6683' - 10221'	32	HCP-110	LTC	6.094"	6.000***	6,730	8,970	9,870
7"	10221' - 10994'	29	P-110	LTC	6.184"	6.059"	5,980	7,970	8,770

**Special Drift

Interval	Length	Description	Collapse	Burst	Tension
			(psi) a	(psi) b	(1000 lbs) c
0' - 6683'	6683'	7", 29#, P-110, LTC, 8rd	8530 / 2.45*	11220 / 1.19	797 / 2.10
6683' - 10221'	3538'	7", 32#, HCP-110, LTC, 8rd	11890 / 2.23*	12450 / 1.29	
6683' - 10221'	3538'	7", 32#, HCP-110, LTC, 8rd	11890 / 1.86**	12450 / 1.29	
10221' - 10994'	773'	7", 29#, P-110, LTC, 8rd	8530 / 1.53*	11220 / 1.16	

API Rating & Safety Factor

- a. *Assume full casing evacuation with 10 ppg fluid on backside. **Assume full casing evacuation with 1.2 psi/ft equivalent fluid gradient across salt intervals.
- b. Burst pressure based on 9000 psig max press for stimulation plus 10.2 ppg fluid in casing and 9 ppg fluid on backside-to 10699' TVD.
- c. Based on string weight in 10 ppg fluid, (298k lbs buoyed weight) plus 100k lbs overpull.

Cement volumes are estimates based on 7" casing set in an 8-3/4" hole with 30% excess.

Pre-flush (Spacer): **50 bbls** Saltwater
40 bbls Weighted MudPush Express

Lead Slurry: **177 sks** (82 bbls) 2.59 yield conventional system with 61 lb/sk cement, 23 lb/sk D035 Extender, .250 lb/sk D130 Lost Circulation Control Agent, 10% NaCl, .15% D208 Viscosifier, .20% D046 Anti Foamer, .8% D112 Fluid Loss Agent, and 6% D154 Extender.

Tail Slurry: **622 sks** (172 bbls) 1.55 yield conventional system with 94 lb/sk cement, .250 lb/sk D130 Lost Circulation Control Agent, 3% KCL, 35% Silica, .2% D167 Fluid Loss Agent, .5% D065 Dispersant, .2%D198 Retarder, .2% D046 Anti Foamer, and .25% D153 Anti-Settling Agent.

Oasis Petroleum
Well Summary
Chalmers 5301 44-24 2TX
Sec. 24 T153N R101W
McKenzie County, North Dakota

PRODUCTION LINER

Size	Interval	Weight	Grade	Coupling	I.D.	Drift	Torque
4-1/2"	10,171' – 21,051'	13.5	P-110	BTC	3.92"	3.795"	4,500

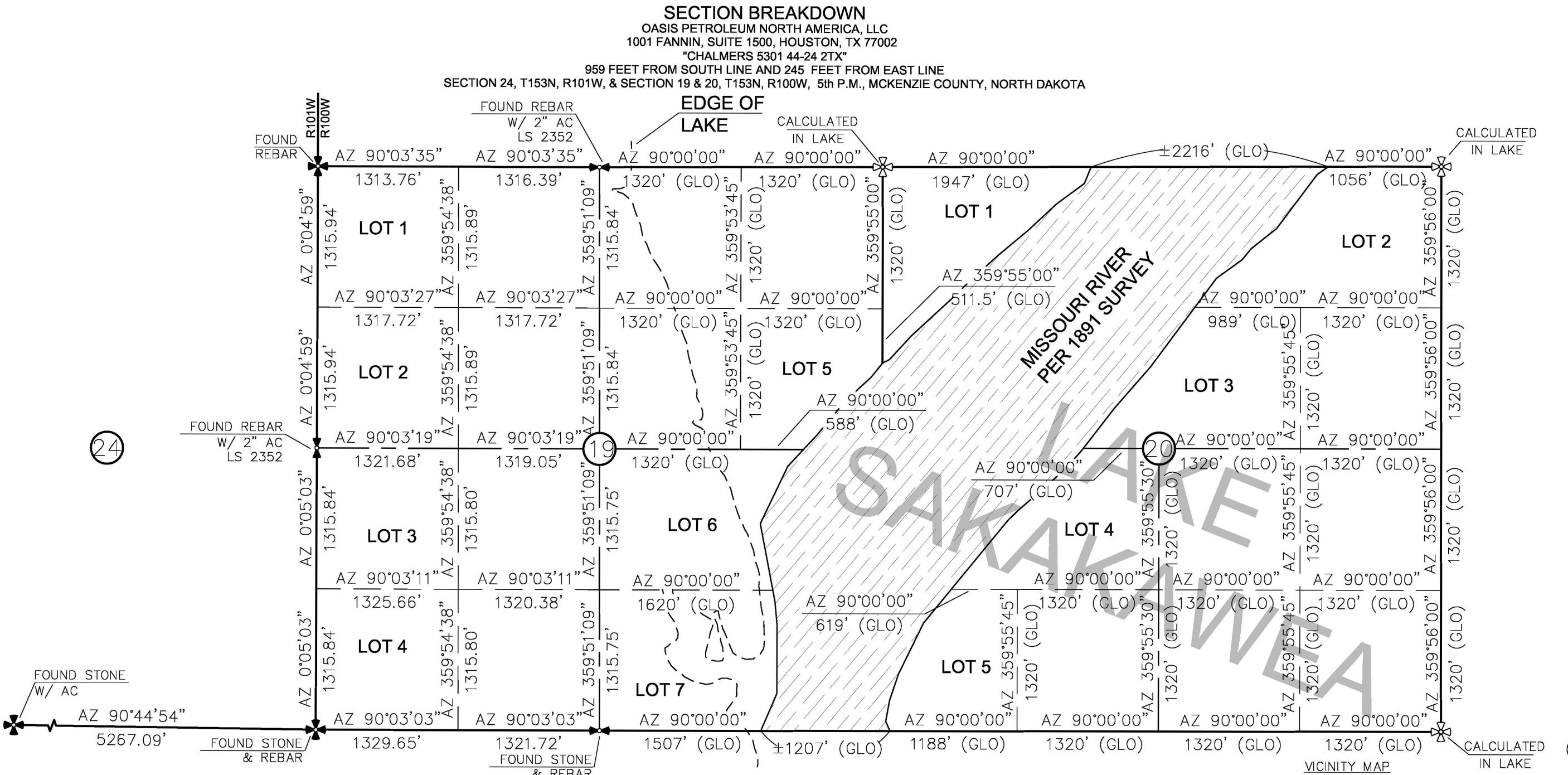
Interval	Length	Description	Collapse (psi) a	Burst (psi) b	Tension (1000 lbs) c	Condition
10,171' – 21,028'	10,857'	4-1/2", 13.5 lb, P-110, BTC, 8rd	10670 / 2.00	12410 / 1.28	443 / 1.96	New

API Rating & Safety Factor

- a) Based on full casing evacuation with 9.5 ppg fluid on backside @ 10769' TVD.
- b) Burst pressure based on 9000 psi treating pressure with 10.2 ppg internal fluid gradient and 9 ppg external fluid gradient @ 10769' TVD.
- c) Based on string weight in 9.5 ppg fluid (Buoyed weight: 125k lbs.) plus 100k lbs overpull.

Oasis Petroleum does not use Diesel Fuel, as defined by the US EPA in the list below, in our hydraulic fracture operations.

68334-30-5 (Primary Name: Fuels, diesel)
68476-34-6 (Primary Name: Fuels, diesel, No. 2)
68476-30-2 (Primary Name: Fuel oil No. 2)
68476-31-3 (Primary Name: Fuel oil, No. 4)
8008-20-6 (Primary Name: Kerosene)



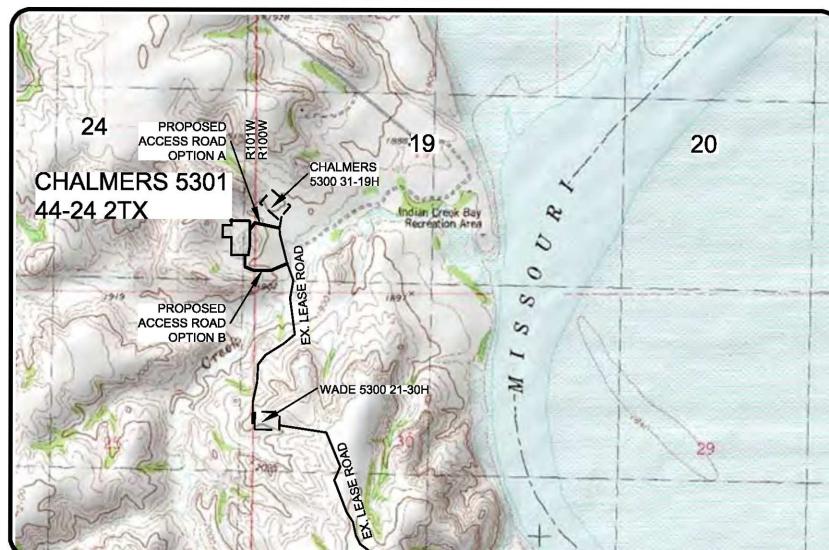
- MONUMENT — RECOVERED
- MONUMENT — NOT RECOVERED

0
1" = 1000'



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ALL AZIMUTHS ARE BASED ON G.P.S.
OBSERVATIONS. THE ORIGINAL SURVEY OF THIS
AREA FOR THE GENERAL LAND OFFICE (G.L.O.)
WAS 1891. THE CORNERS FOUND ARE AS
INDICATED AND ALL OTHERS ARE COMPUTED FROM
THOSE CORNERS FOUND AND BASED ON G.L.O.
DATA. THE MAPPING ANGLE FOR THIS AREA IS
APPROXIMATELY -0°03'.



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OASIS PETROLEUM NORTH AMERICA, LLC	Revision No.	Date	By	Description
SECTION BREAKDOWN				
SECTION 24, T153N, R101W, & SECTIONS 19 & 20, T153N, R100W				
MCKENZIE COUNTY, NORTH DAKOTA				
Drawn By: J.J.S.	Project No.: S13-09-235-05			
Checked By: D.D.K.	Date: MAY 2014			

5/09/2014 10:33 AM Both submitted
24-2014-09-235-05-Additional Work by Contractor

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www.interstateeng.com
Other offices in Minnesota, North Dakota and South Dakota

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SHEET NO.

ACCESS APPROACH

OASIS PETROLEUM NORTH AMERICA, LLC
1001 FANNIN, SUITE 1500, HOUSTON, TX 77002

959 FEET FROM SOUTH LINE AND 245 FEET FROM EAST LINE
"CHALMERS 5301 44-24 2TX"
SECTION 24, T153N, R101W, 5th P.M., MCKENZIE COUNTY, NORTH DAKOTA

RECEIVED
JARYL D.
KASEMAN
LS-3880
DATE: 5/09/14
NORTH DAKOTA SURVEYOR

CHALMERS 5301 44-24 2TX

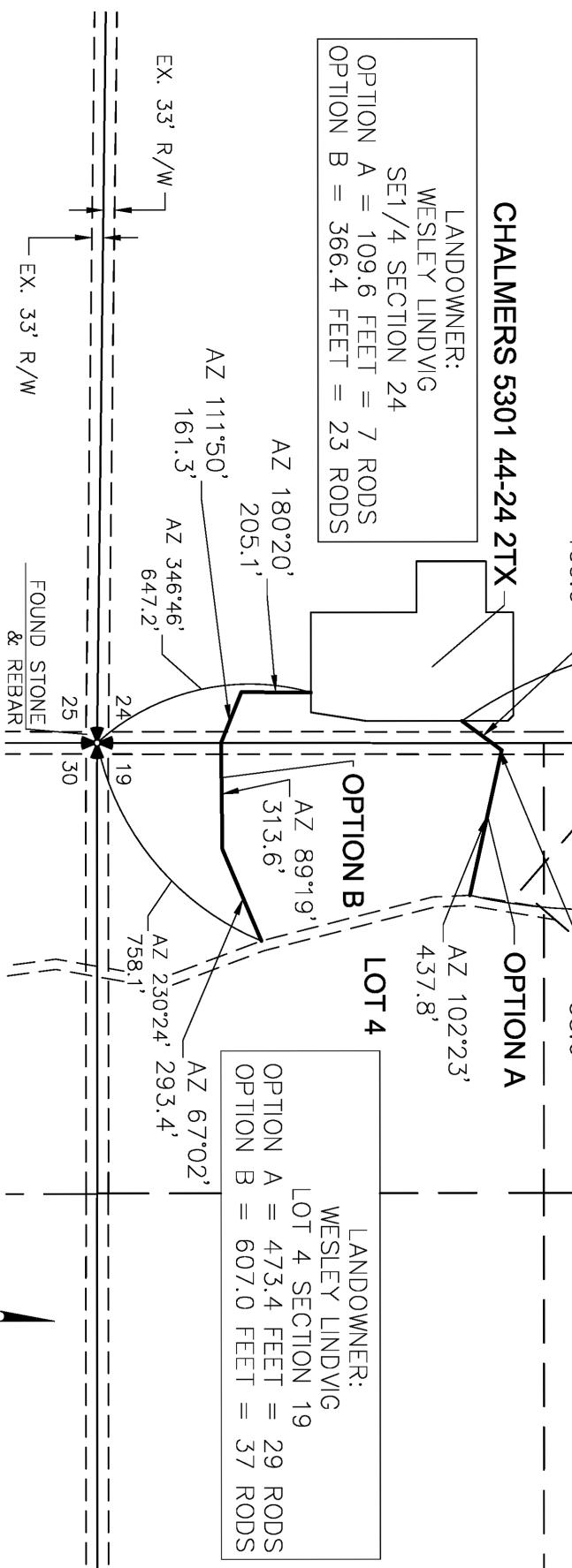
LANDOWNER:
WESLEY LINDVIG
SE1/4 SECTION 24
OPTION A = 109.6 FEET = 7 RODS
OPTION B = 366.4 FEET = 23 RODS

OPTION B

LOT 4

LANDOWNER:
WESLEY LINDVIG

LOT 4 SECTION 19
OPTION A = 473.4 FEET = 29 RODS
OPTION B = 607.0 FEET = 37 RODS



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NOTE: All utilities shown are preliminary only, a complete
utilities location is recommended before construction.

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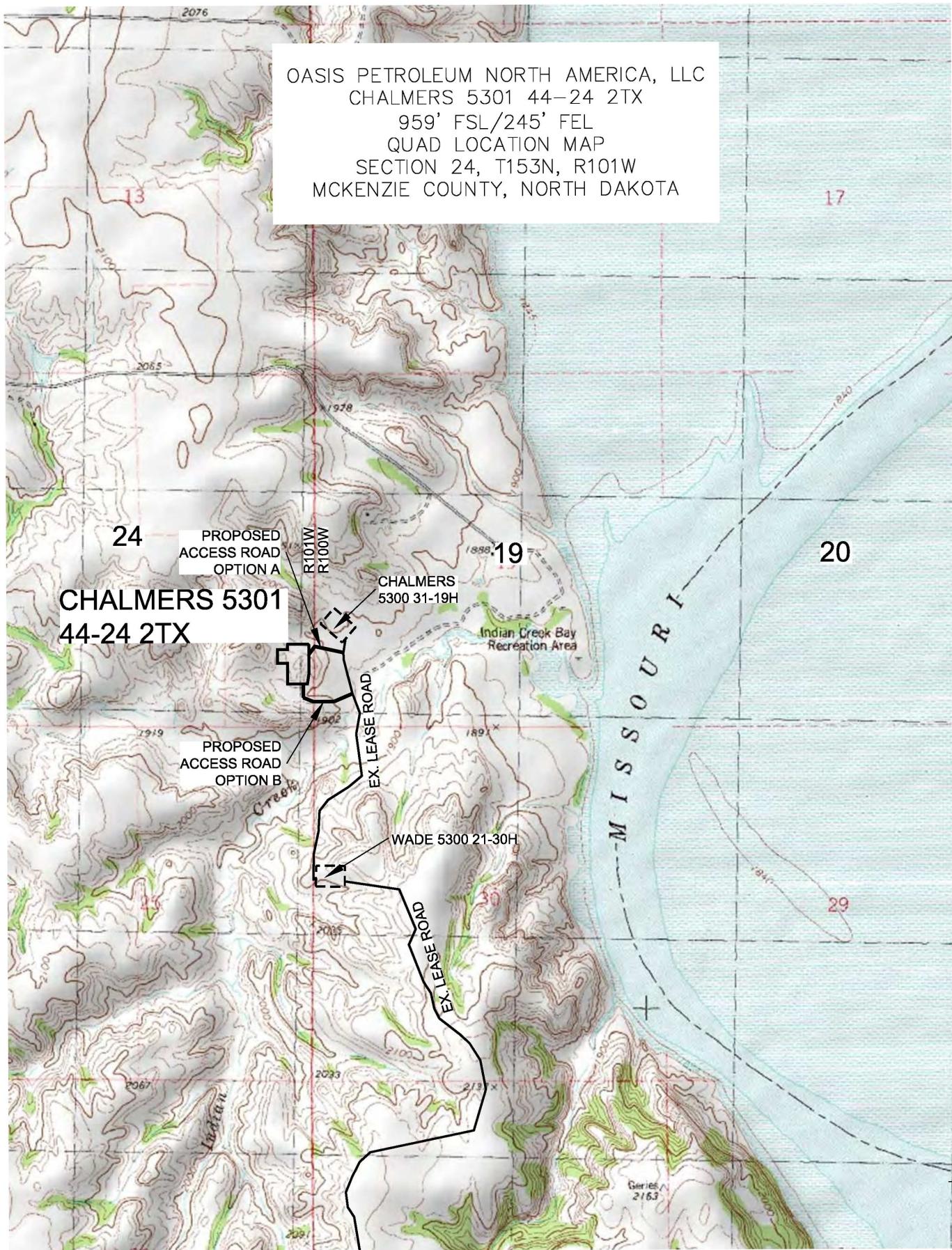


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OASIS PETROLEUM NORTH AMERICA, LLC
ACCESS APPROACH
SECTION 24, T153N, R101W
MCKENZIE COUNTY, NORTH DAKOTA
Drawn By: J.J.S. Project No.: S13-09-235.05
Checked By: D.D.K. Date: MAY 2014

Revision No.	Date	By	Description



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<p>Interstate Engineering, Inc. P.O. Box 648 425 East Main Street Sidney, Montana 59270 Ph (406) 433-5617 Fax (406) 433-5618 www.interstateeng.com</p> <p>Other offices in Minnesota, North Dakota and South Dakota</p>	<p>OASIS PETROLEUM NORTH AMERICA, LLC QUAD LOCATION MAP SECTION 24, T153N, R101W</p> <p>MCKENZIE COUNTY, NORTH DAKOTA</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 2px;">Drawn By:</td> <td style="padding: 2px;">J.J.S.</td> <td style="padding: 2px;">Project No.:</td> <td style="padding: 2px;">S13-09-235.05</td> </tr> <tr> <td style="padding: 2px;">Checked By:</td> <td style="padding: 2px;">D.D.K.</td> <td style="padding: 2px;">Date:</td> <td style="padding: 2px;">MAY 2014</td> </tr> </table>	Drawn By:	J.J.S.	Project No.:	S13-09-235.05	Checked By:	D.D.K.	Date:	MAY 2014
Drawn By:	J.J.S.	Project No.:	S13-09-235.05						
Checked By:	D.D.K.	Date:	MAY 2014						

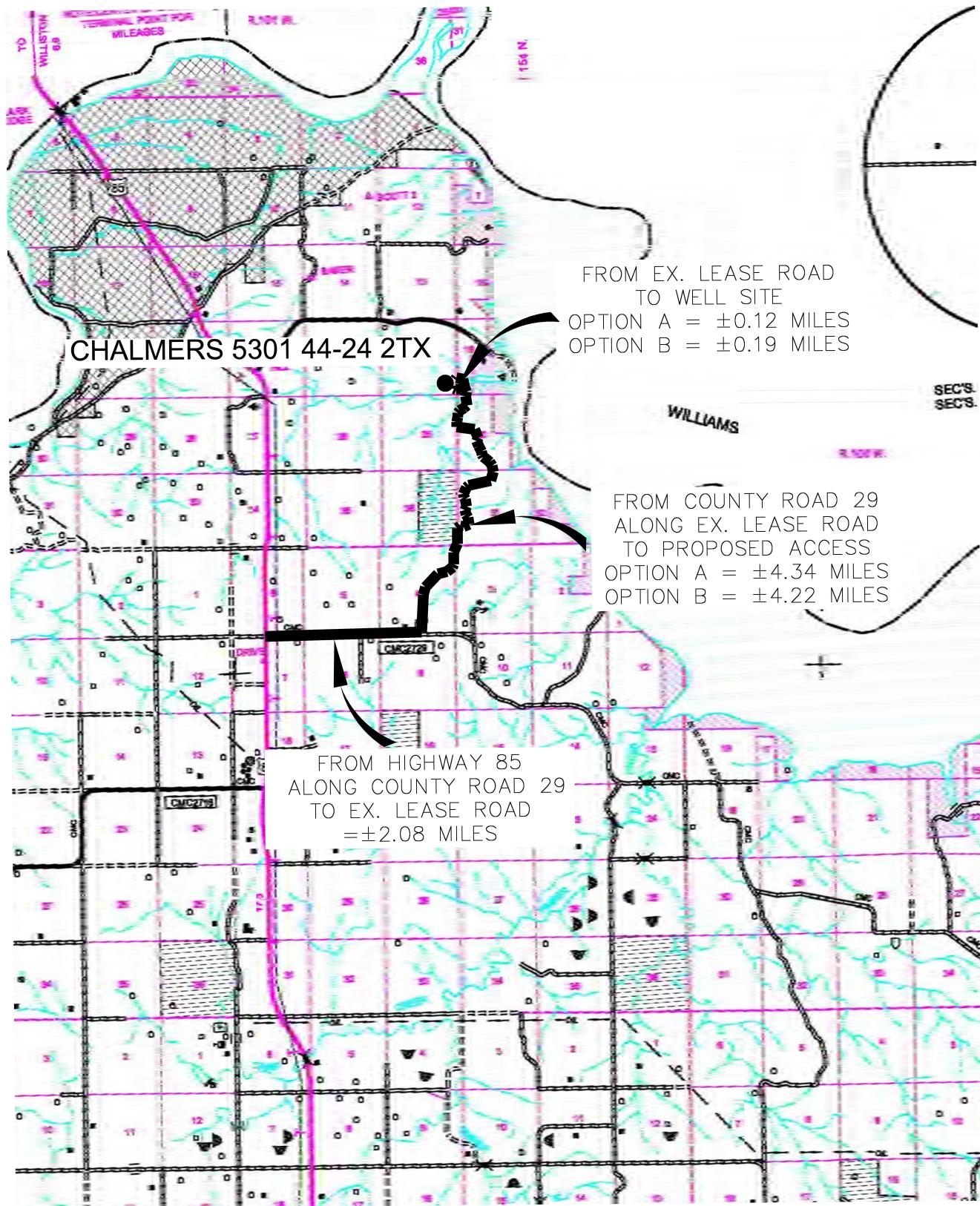
Revision No.	Date	By	Description

COUNTY ROAD MAP

OASIS PETROLEUM NORTH AMERICA, LLC
1001 FANNIN, SUITE 1500, HOUSTON, TX 77002
"CHALMERS 5201 44-24-2T#"

"CHALMERS 5301 44-24 2TX"

959 FEET FROM SOUTH LINE AND 245 FEET FROM EAST LINE
SECTION 24, T153N, R101W, 5th P.M., MCKENZIE COUNTY, NORTH DAKOTA



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SCALE: 1" = 2 MILE

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OASIS PETROLEUM NORTH AMERICA, LLC
COUNTY ROAD MAP
SECTION 24, T153N, R101W

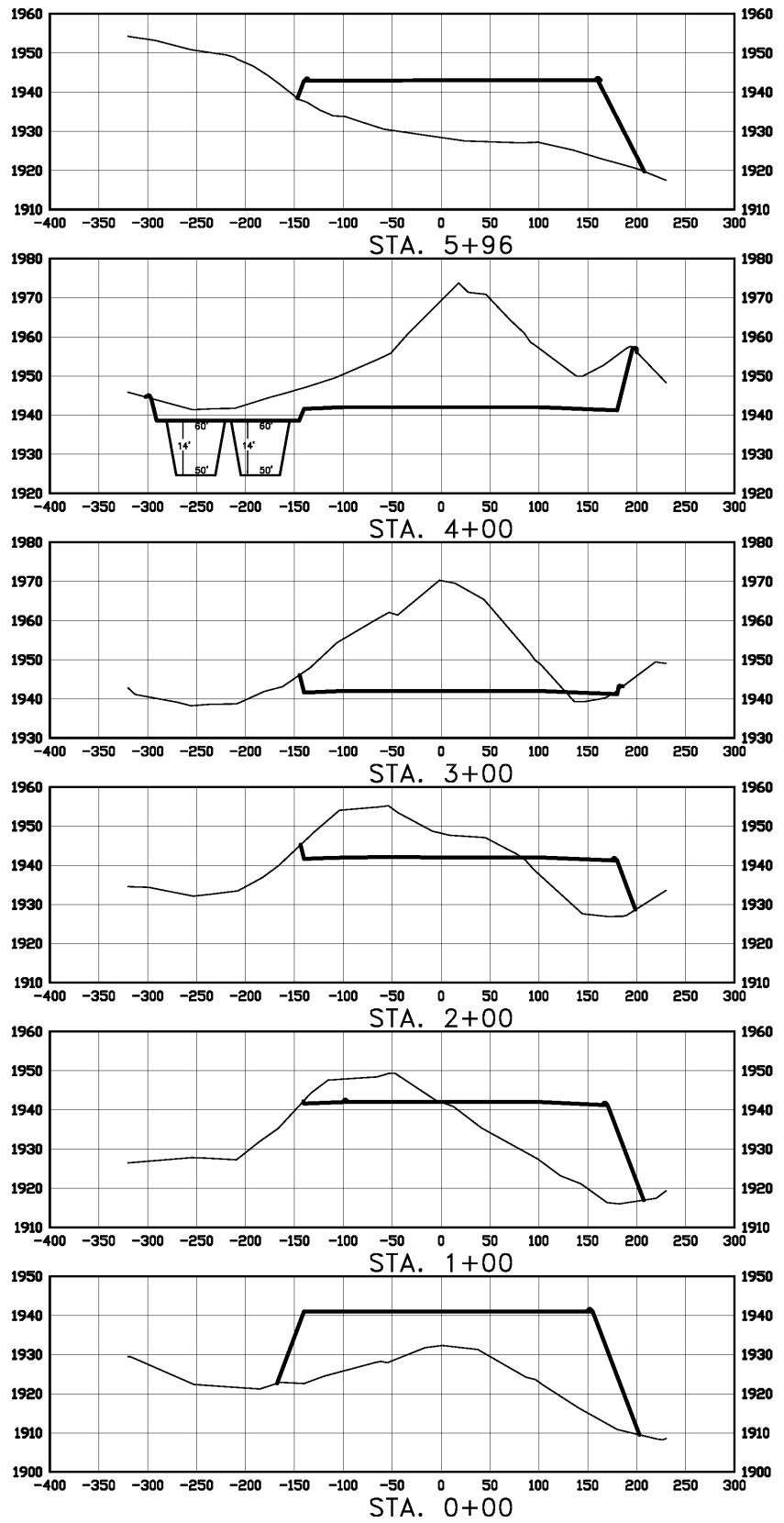
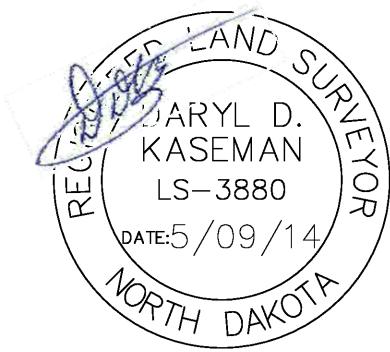
MCKENZIE COUNTY, NORTH DAKOTA

Other offices in Minnesota, North Dakota and South Dakota

Drawn By:	J.J.S.	Project No.:	S13-09-235.05
Checked By:	D.D.K.	Date:	MAY 2014

CROSS SECTIONS
 OASIS PETROLEUM NORTH AMERICA, LLC
 1001 FANNIN, SUITE 1500, HOUSTON, TX 77002
 "CHALMERS 5301 44-24 2TX"
 959 FEET FROM SOUTH LINE AND 245 FEET FROM EAST LINE
 SECTION 24, T153N, R101W, 5th P.M., MCKENZIE COUNTY, NORTH DAKOTA

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SCALE
 HORIZ 1"=180'
 VERT 1"=45'

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OASIS PETROLEUM NORTH AMERICA, LLC
 PAD CROSS SECTIONS
 SECTION 24, T153N, R101W
 MCKENZIE COUNTY, NORTH DAKOTA

Drawn By:	J.J.S.	Project No.:	S13-09-235-05
Checked By:	D.D.K.	Date:	MAY 2014

Revision No.	Date	By	Description

WELL LOCATION SITE QUANTITIES

OASIS PETROLEUM NORTH AMERICA, LLC

1001 FANNIN, SUITE 1500, HOUSTON, TX 77002

"CHALMERS 5301 44-24 2TX"

959 FEET FROM SOUTH LINE AND 245 FEET FROM EAST LINE
SECTION 24, T153N, R101W, 5th P.M., MCKENZIE COUNTY, NORTH DAKOTA

WELL SITE ELEVATION	1972.0
WELL PAD ELEVATION	1942.0
EXCAVATION	55,136
PLUS PIT	<u>9,450</u>
	64,586
EMBANKMENT	37,558
PLUS SHRINKAGE (30%)	<u>11,267</u>
	48,825
STOCKPILE PIT	9,450
STOCKPILE TOP SOIL (6")	4,770
BERMS	1,711 LF = 554 CY
DITCHES	1,029 LF = 157 CY
DETENTION AREA	1,428 CY
STOCKPILE MATERIAL	2,572
DISTURBED AREA FROM PAD	5.91 ACRES

NOTE: ALL QUANTITIES ARE IN CUBIC YARDS (UNLESS NOTED)

CUT END SLOPES AT 1:1

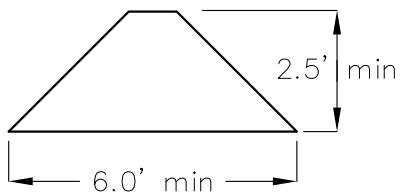
FILL END SLOPES AT 1.5:1

WELL SITE LOCATION

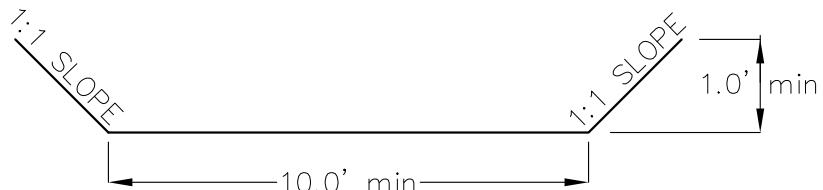
959' FSL

245' FEL

BERM DETAIL



DITCH DETAIL



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OASIS PETROLEUM NORTH AMERICA, LLC

QUANTITIES

SECTION 24, T1153N, R101W
MCKENZIE COUNTY, NORTH DAKOTA

MCKENZIE COUNTY, NORTH DAKOTA

rown By: J.J.S. Project No.: ST13-09-235.05
checked By: R.R.K. Date: MAY 2014