



# 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.  
**222100-01**

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



<input checked="" type="checkbox"/> Notice of Intent	Approximate Start Date <b>October 1, 2013</b>	<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	<b>Central production facility-commingle prod</b>

**Well Name and Number  
(see details)**

Footages		F	L	Qtr-Qtr	Section	Township	Range
F	L				<b>12</b>	<b>153 N</b>	<b>101 W</b>
Field <b>Baker</b>		Pool <b>Bakken</b>		County <b>McKenzie</b>			

**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 permission to add the following wells to CTB # 222100-01.

Well File #22740 Larry 5301 44-12B SESE 12-153-101 API 33-053-04981

Well File #22099 Yukon 5301 41-12T SWSW 12-153-101 API 33-053-03911

Well File #25571 Colville 5301 44-12T SESE 12-153-101 API 33-053-04981

Well File #22221 Innoko 5301 43-12T SWSE 12-153-101 API 33-053-03937

The following wells are currently being commingled in the subject CTB:

Well File #22100 Achilles 5301 41-12B SWSW 12-153-101 API 33-053-03912

Well File #22220 Jefferies 5301 43-12B SWSE 12-153-101 API 33-053-03936

Well File #20864 Bray 5301 43-12H SWSE 12-153-101 API 33-053-03609

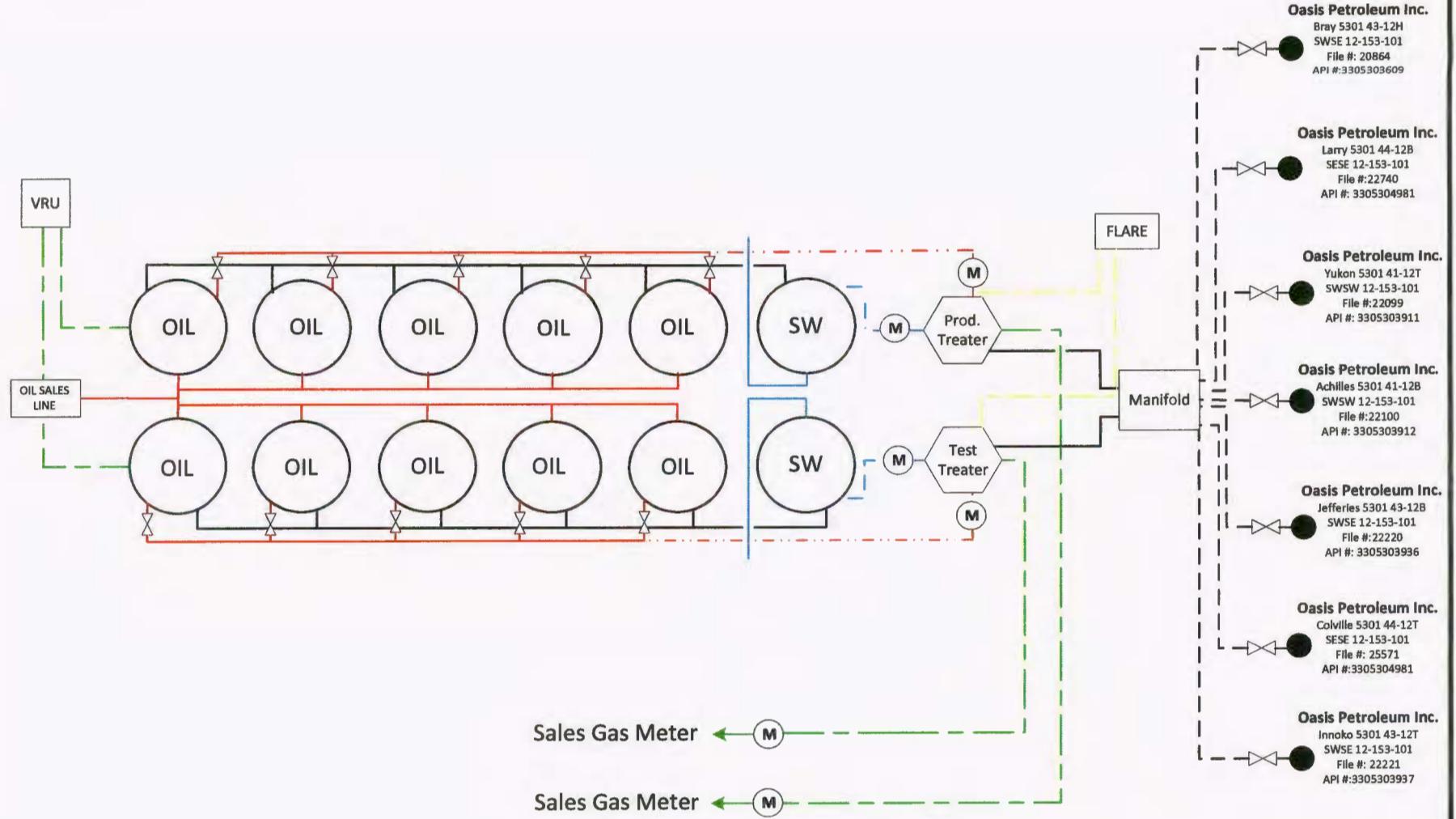
Well File #22740 Larry 5301 44-12B SESE 12-153-101 API 33-053-04071

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.

Company <b>Oasis Petroleum North America LLC</b>	Telephone Number <b>281-404-9491</b>	
Address <b>1001 Fannin, Suite 1500</b>		
City <b>Houston</b>	State <b>TX</b>	Zip Code <b>77002</b>
Signature 	Printed Name <b>Brandi Terry</b>	
Title <b>Regulatory Specialist</b>	Date <b>July 24, 2013</b>	
Email Address <b>bterry@oasispetroleum.com</b>		

**FOR STATE USE ONLY**

<input type="checkbox"/> Received	<input checked="" type="checkbox"/> Approved
Date <b>7-30-13</b>	
By <b>ORIGINAL SIGNED BY</b>	
Title <b>DARYL GRONFUR</b>	
Title <b>METER SPECIALIST</b>	



OASIS PETROLEUM					
DATE	REV.	BY	APPR.	SCALE	
JULY 23, 2013	0	LEE			NA
LOCATION					FIELD
NORTH DAKOTA					BAKER

# COMMINGLING AFFIDAVIT

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

Tom F. Hawkins, being duly sworn, states as follows:

1. I am the Vice President - Land and Contracts employed by Oasis Petroleum North America LLC with responsibilities in the State of North Dakota and I have personal knowledge of the matters set forth in this affidavit.

2. Sections 13 and 24, Township 153 North, Range 101 West, 5<sup>th</sup> P.M., McKenzie County, North Dakota constitute a spacing unit in accordance with the applicable orders of the North Dakota Industrial Commission for the Bakken pool.

3. Four wells have been drilled in the spacing unit, which are the Bray 5301 43-12H, Achilles 5301 41-12B, Jefferies 5301 43-12B, Larry 5301 44-12B; and three wells have been permitted in the spacing unit, which are the Colville 5301 44-12T, Innoko 5301 43-12T and Yukon 5301 41-12T.

4. By Declaration of Pooled Unit dated August 26, 2011, filed in McKenzie County, North Dakota, document number 422312, all oil and gas interests within the aforementioned spacing unit were pooled.

5. All Working Interests, Royalty Interests and Overriding Royalty Interests in the Bray 5301 43-12H, Achilles 5301 41-12B, Jefferies 5301 43-12B, Colville 5301 44-12T, Innoko 5301 43-12T and Yukon 5301 41-12 wells are common.

Dated this 9<sup>th</sup> day of July, 2013.

  
Tom F. Hawkins  
Vice President-Land and Contracts

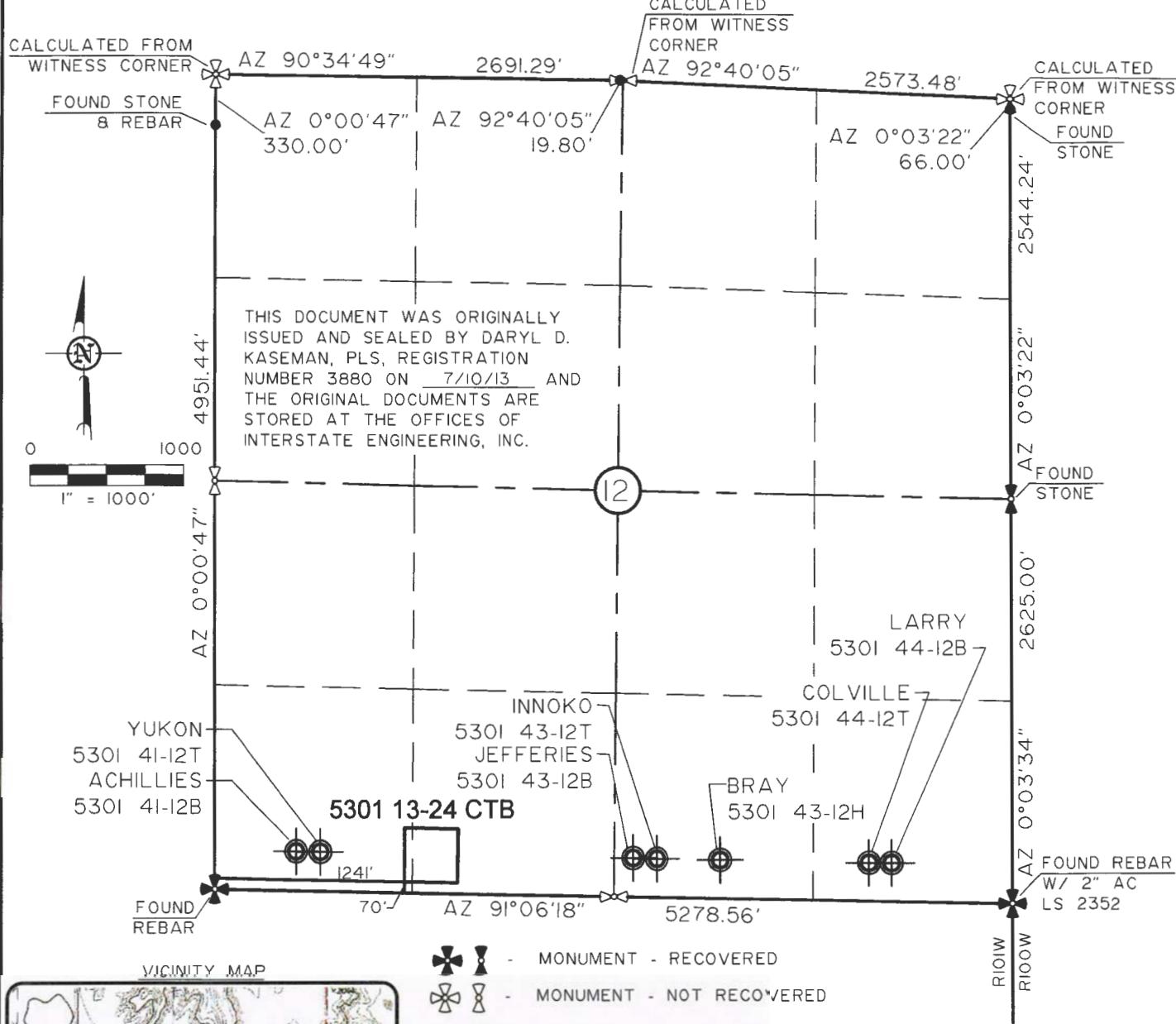
STATE OF TEXAS      )  
                                )  
                                ) ss.  
COUNTY OF HARRIS      )

Subscribed to and sworn before me this 9<sup>th</sup> day of July, 2013.

  
Notary Public  
State of Texas  
My Commission Expires: August 14, 2017



**BATTERY LOCATION PLAT**  
 OASIS PETROLEUM NORTH AMERICA, LLC  
 1001 FANNIN, SUITE 202 HOUSTON, TX 77002  
 "5301 13-24 CTB"  
 SECTION 12, 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  
[www.iengi.com](http://www.iengi.com)

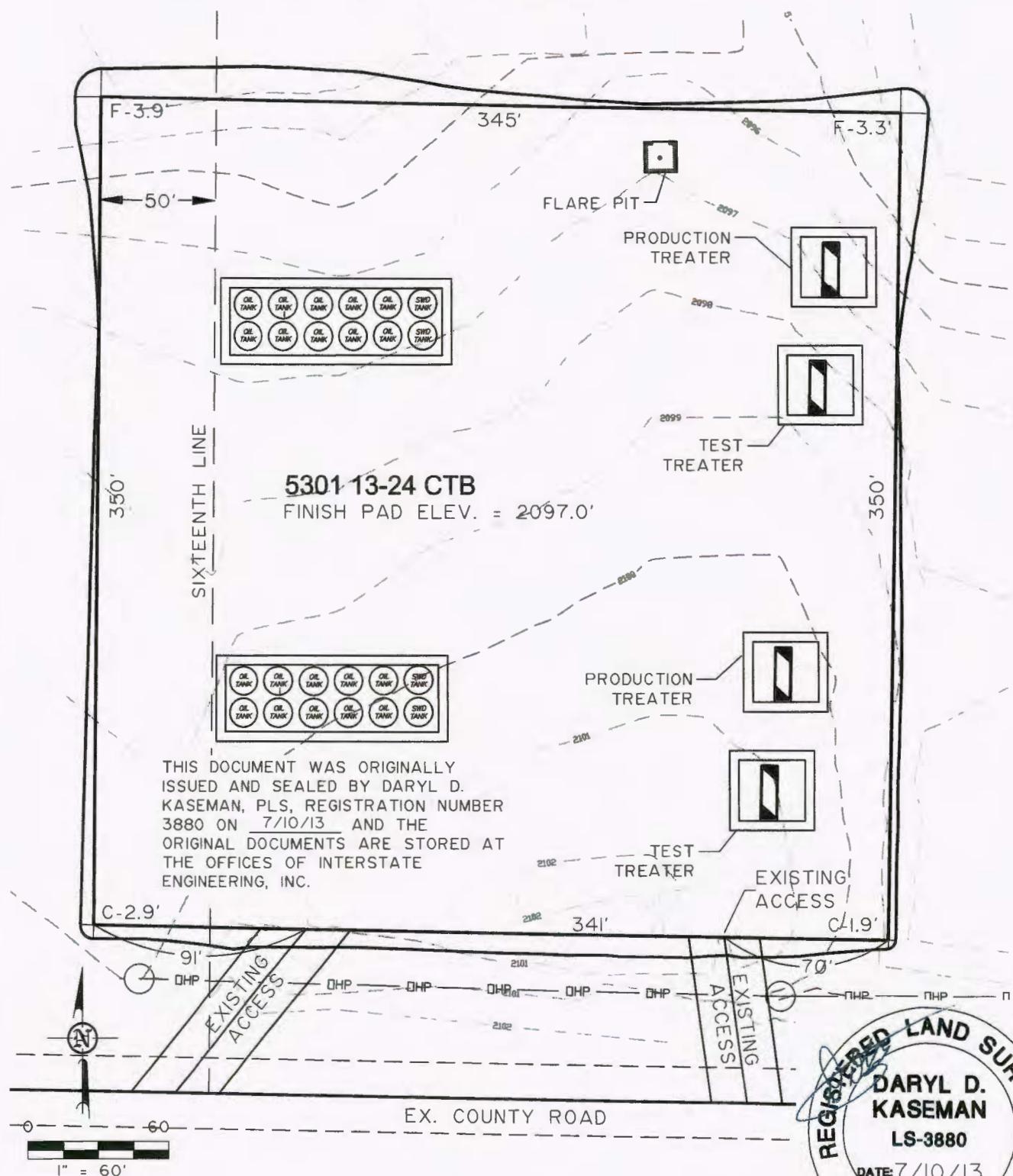
Other offices in Minnesota, North Dakota and South Dakota

OASIS PETROLEUM NORTH AMERICA, LLC  
 WELL LOCATION PLAT  
 SECTION 12, T153N, R101W  
 MCKENZIE COUNTY, NORTH DAKOTA

Drawn By: J.D.M.	Project No.: S12-09-249
Checked By: D.D.K.	Date: SEPT. 2012

Revision No.	Date	By	Description
REV 1	7/10/13	J.D.M.	ADDED WELLS

**PAD LAYOUT**  
 OASIS PETROLEUM NORTH AMERICA, LLC  
 1001 FANNIN, SUITE 202 HOUSTON, TX 77002  
 "5301 13-24 CTB"  
 SECTION 12, 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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 Sidney, Montana 59270  
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Other offices in Minnesota, North Dakota and South Dakota

OASIS PETROLEUM NORTH AMERICA, LLC  
 PAD LAYOUT  
 SECTION 12, T153N, R101W  
 MCKENZIE COUNTY, NORTH DAKOTA

Revision No.	Date	By	Description
REV 1	7/10/13	JDM	ADDED WELLS

Drawn By: J.D.M. Project No.: 512-9-249  
 Checked By: D.D.K. Date: SEPT. 2012

2/5

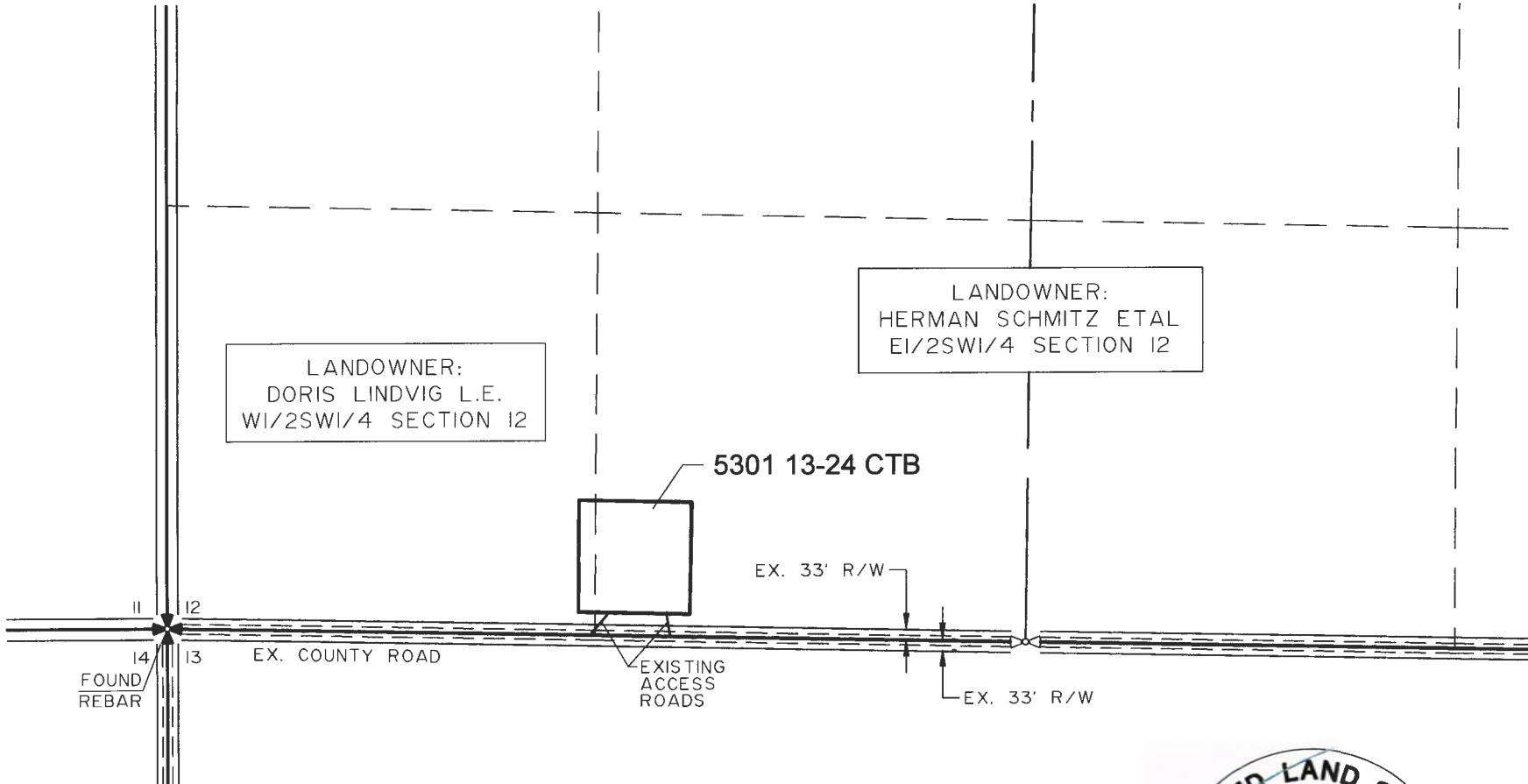
**INTERSTATE**  
 ENGINEERING  
 Professionals you need, people you trust

SHEET NO.

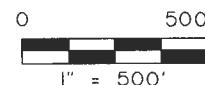
# ACCESS APPROACH

OASIS PETROLEUM NORTH AMERICA, LLC  
1001 FANNIN, SUITE 202 HOUSTON, TX 77002  
"5301 13-24 CTB"

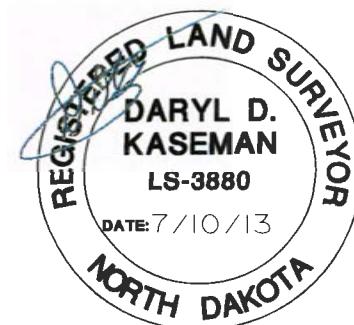
SECTION 12, T153N, R101W, 5TH P.M., MCKENZIE COUNTY, NORTH DAKOTA



THIS DOCUMENT WAS ORIGINALLY  
ISSUED AND SEALED BY DARYL D.  
KASEMAN, PLS, REGISTRATION NUMBER  
3880 ON 7/10/13 AND THE  
ORIGINAL DOCUMENTS ARE STORED AT  
THE OFFICES OF INTERSTATE  
ENGINEERING, INC.



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

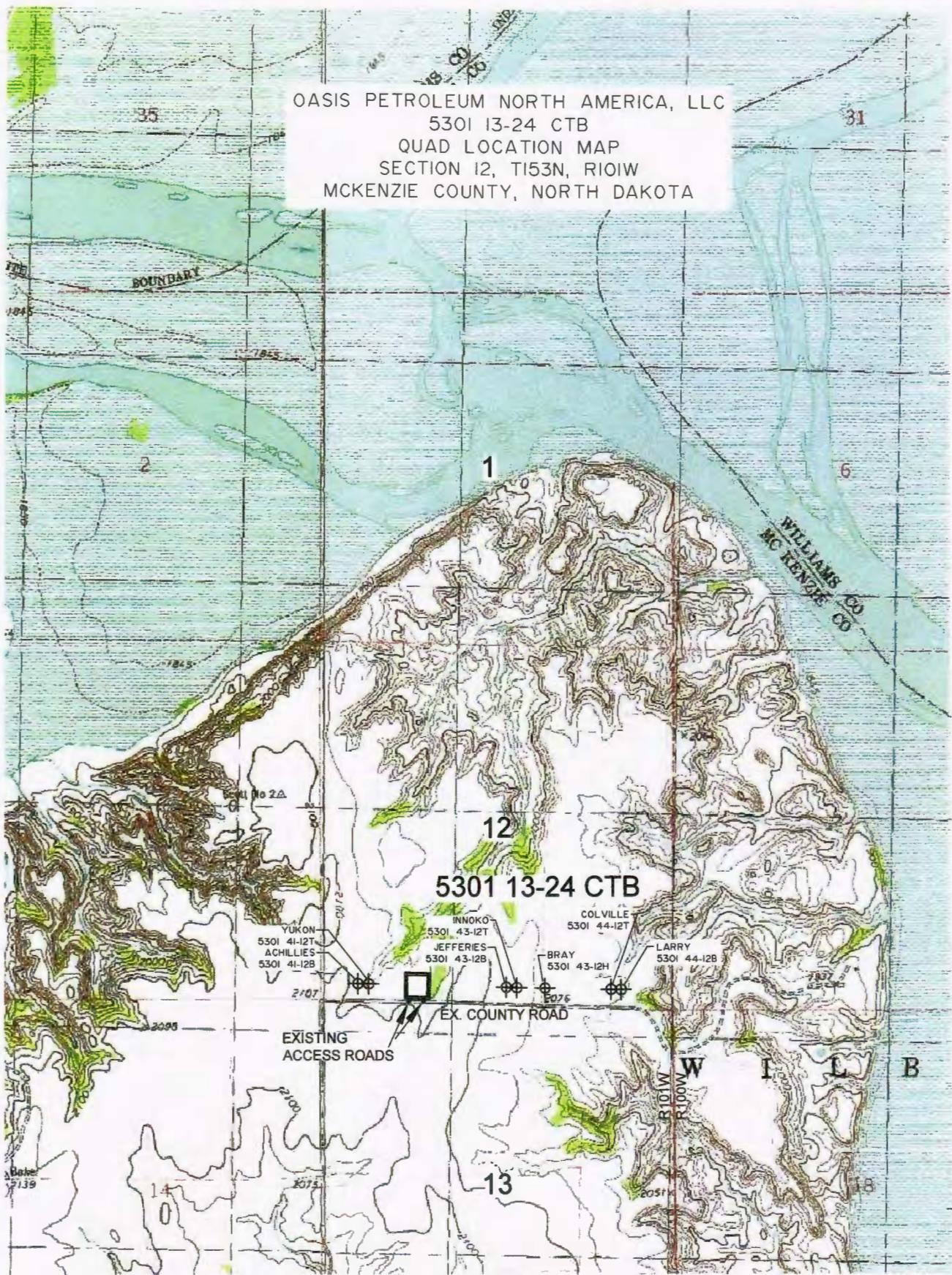


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OASIS PETROLEUM NORTH AMERICA, LLC		Revision No.	Date	By	Description
ACCESS APPROACH		REV 1	7/10/13 4PM		ADDED WELLS
SECTION 12, T153N, R101W					
MCKENZIE COUNTY, NORTH DAKOTA					
		ST209-249	Project No:		
		J.D.M.	Drawn By:		
		D.D.K.	Checked By:		
			SEPT. 2012		



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Sidney, Montana 59270  
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[www.iengi.com](http://www.iengi.com)

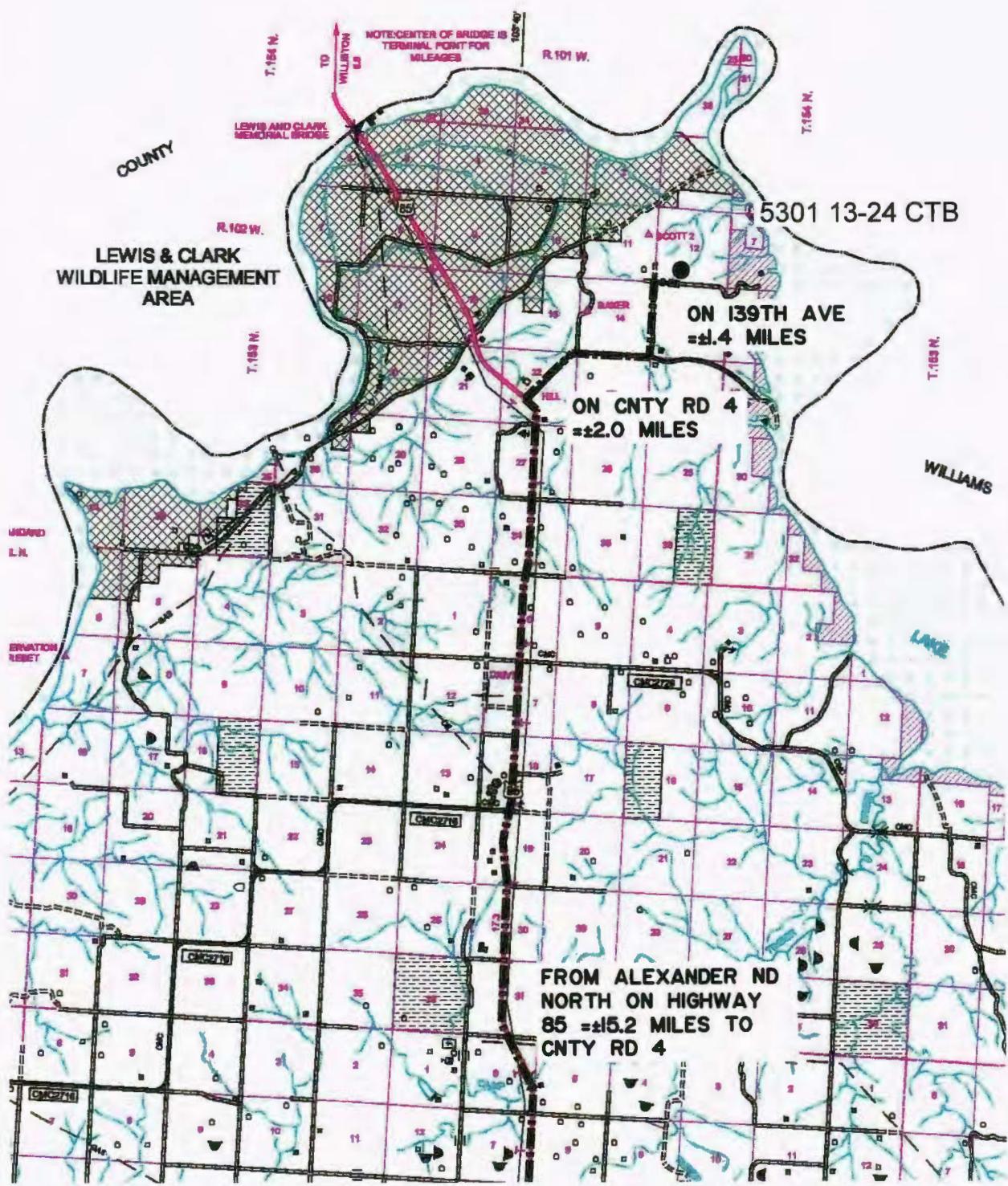
Other offices in Minnesota, North Dakota and South Dakota

OASIS PETROLEUM NORTH AMERICA, LLC  
QUAD LOCATION MAP  
SECTION 12, T153N, R101W  
MCKENZIE COUNTY, NORTH DAKOTA

Drawn By: J.D.M. Project No: S12-09-249  
Checked By: DDK Date: SEPT 2012

Revision No.	Date	By	Description
REV 1	7/10/13	JDM	ADDED WELLS

**COUNTY ROAD MAP**  
 OASIS PETROLEUM NORTH AMERICA, LLC  
 1001 FANNIN, SUITE 202 HOUSTON, TX 77002  
 "5301 13-24 CTB"  
 SECTION 12, T153N, R101W, 5TH P.M., MCKENZIE COUNTY, NORTH DAKOTA



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SCALE: 1" = 2 MILE

**5/5**

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Ph (406) 433-5617  
Fax (406) 433-5618  
[www.iengi.com](http://www.iengi.com)  
Other offices in Minnesota, North Dakota and South Dakota

OASIS PETROLEUM NORTH AMERICA, LLC  
COUNTY ROAD MAP  
SECTION 12, T153N, R101W  
MCKENZIE COUNTY, NORTH DAKOTA

Drawn By:	J.D.M.	Project No.:	S12-09-248
Checked By:	DDK	Date:	SEPT. 2012

Revision No.	Date	By	Description
REV 1	7/10/13	JDM	ADDED WELLS

LAT/LONG PAD CORNERS

345'

48°05'00.01"N  
103°37'13.86"W

48°04'59.95"N  
103°37'08.78"W

5301 13-24 CTB

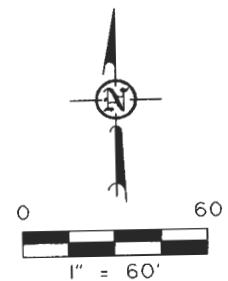
350'

350'

48°04'56.56"N  
103°37'13.89"W

48°04'56.50"N  
103°37'08.87"W

341'





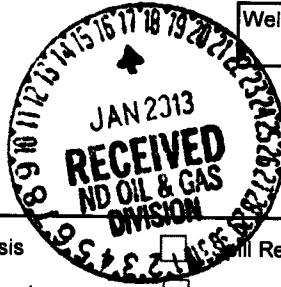
# SUNDRY NOTICES AND REPORTS ON WELLS - FORM 4

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.  
**22220**

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

<input type="checkbox"/> Notice of Intent	Approximate Start Date	<input type="checkbox"/> Drilling Prognosis	<input type="checkbox"/> Drill Report
<input checked="" type="checkbox"/> Report of Work Done	Date Work Completed <b>June 4, 2012</b>	<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 type="checkbox"/> Other	<b>Well is now on pump</b>



Well Name and Number <b>Jefferies 5301 43-12B</b>				
Footages <b>250 F S L      2510 F E L</b>	Qtr-Qtr <b>SWSE</b>	Section <b>12</b>	Township <b>153 N</b>	Range <b>101 W</b>
Field <b>Baker</b>	Pool <b>Bakken</b>	County <b>McKenzie</b>		

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

Effective June 4, 2012 the Jefferies 5301 43-12B is on pump.

Tubing: 2-7/8" L-80 tubing @ 10108

Pump: 2-1/2" x 2.0" x 24' insert pump @ 10086

Company <b>Oasis Petroleum North America LLC</b>		Telephone Number <b>281 404-9491</b>
Address <b>1001 Fannin, Suite 1500</b>		
City <b>Houston</b>		State <b>TX</b>
Signature 		Printed Name <b>Brandi Terry</b>
Title <b>Regulatory Specialist</b>		Date <b>January 16, 2013</b>
Email Address <b>bterry@oasispetroleum.com</b>		

FOR STATE USE ONLY	
<input checked="" type="checkbox"/> Received	<input type="checkbox"/> Approved
Date 	
By 	
Title 	
PETROLEUM ENGINEER	



## 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.
22220
NDIC CTB No.
1-22220 222100

PLEASE READ INSTRUCTIONS BEFORE FILLING OUT FORM

PLEASE SUBMIT THE ORIGINAL AND FOUR COPIES

Well Name and Number <b>JEFFERIES 5301 43-12B</b>	Qtr-Qtr <b>SWSE</b>	Section <b>12</b>	Township <b>153 N</b>	Range <b>101 W</b>	County <b>McKenzie</b>
--	------------------------	----------------------	--------------------------	-----------------------	---------------------------

Operator <b>Oasis Petroleum North America LLC</b>	Telephone Number <b>(281) 404-9435</b>	Field <b>BAKER</b>
--	---	-----------------------

Address <b>1001 Fannin, Suite 1500</b>	City <b>Houston</b>	State <b>TX</b>	Zip Code <b>77002</b>
---	------------------------	--------------------	--------------------------

Name of First Purchaser <b>Oasis Petroleum Marketing LLC</b>	Telephone Number <b>(281)404-9435</b>	% Purchased <b>100%</b>	Date Effective <b>June 5, 2012</b>
Principal Place of Business <b>1001 Fannin, Suite 1500</b>	City <b>Houston</b>	State <b>TX</b>	Zip Code <b>77002</b>
Field Address	City	State	Zip Code

Transporter <b>Hiland Crude, LLC</b>	Telephone Number <b>(580) 616-2058</b>	% Transported <b>75%</b>	Date Effective <b>June 5, 2012</b>
Address <b>P.O. Box 3886</b>	City <b>Enid</b>	State <b>OK</b>	Zip Code <b>73702</b>

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
<b>Blackstone Crude Oil LLC</b>	<b>25%</b>	<b>June 5, 2012</b>
Other Transporters Transporting From This Lease	% Transported	Date Effective
Comments		

I hereby swear or affirm that the information provided is true, complete and correct as determined from all available records.	Date <b>August 22, 2012</b>
Signature <i>Annette Terrell</i>	Printed Name <b>Annette Terrell</b>

Above Signature Witnessed By: Signature <i>Marian Hargis</i>	Printed Name <b>Marian Hargis</b>	Title <b>Marketing Manager</b>
--	--------------------------------------	-----------------------------------



**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.
22220
NDIC CTB No.
X 22220

JH

PLEASE READ INSTRUCTIONS BEFORE FILLING OUT FORM.

PLEASE SUBMIT THE ORIGINAL AND FOUR COPIES.

Well Name and Number	Qtr-Qtr SWSE	Section 12	Township 153 N	Range 101 W	County McKenzie
JEFFERIES 5301 43-12B					

Operator	Telephone Number	Field
Oasis Petroleum North America LLC	(281) 404-9435	BAKER

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

Name of First Purchaser	Telephone Number	% Purchased	Date Effective
Oasis Petroleum Marketing LLC	(281)404-9435	100%	April 1, 2012
Principal Place of Business	City	State	Zip Code
1001 Fannin, Suite 1500	Houston	TX	77002
Field Address	City	State	Zip Code
Transporter	Telephone Number	% Transported	Date Effective
Banner Transportation Company LLC	(580) 616-2058	100%	April 1, 2012
Address	City	State	Zip Code
P.O. Box 3886	Enid	OK	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
Other Transporters Transporting From This Lease	% Transported	Date Effective
Comments		

ORIGINAL

I hereby swear or affirm that the information provided is true, complete and correct as determined from all available records.	Date June 8, 2012
Signature 	Printed Name Annette Terrell Title Marketing Assistant

Above Signature Witnessed By: 	JUN 14 2012	Printed Name Dina Barron Title Mktg. Contracts Administrator
-----------------------------------	-------------	---



## 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  
SBN 2468 (04-2010)

Well File No.  
**22220**



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

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

**Jefferies 5301 43-12B**

Spacing Unit Description

**Sec. 13 & 24 T153N R101W**

Operator

**Oasis Petroleum North America LLC**

Telephone Number

**281-404-9500**

Field

**Tyrone**

Address

**1001 Fannin, Suite 1500**

Pool

**Bakken**

City

**Houston**

State

**TX**

Zip Code

**77002**

Permit Type

 Wildcat Development Extension

## LOCATION OF WELL

At Surface	Qtr-Qtr	Section	Township	Range	County
<b>250 F S L</b>	<b>2510 F E L</b>	<b>LOT2</b>	<b>4</b>	<b>155 N</b>	<b>101 W</b>
Spud Date	Date TD Reached	Drilling Contractor and Rig Number		KB Elevation (Ft)	Graded Elevation (Ft)
<b>12/13/2011</b>	<b>2/22/2012</b>	<b>Nabors 149</b>		<b>2118</b>	<b>2093</b>

Type of Electric and Other Logs Run (See Instructions)

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

Well Bore	String Type	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	9 5/8		2170	13 1/2	36			630	
Vertical Hole	Intermediate	7		11093	8 3/4	29 & 32			755	3296
Lateral1	Liner	4 1/2	10200	21220	6	11.6				

## PERFORATION &amp; OPEN HOLE INTERVALS

Well Bore	Well Bore TD Driller's 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
Lateral1	21220	Perforations	11093	21220	10273	3/15/2012			

## PRODUCTION

Current Producing Open Hole or Perforated Interval(s). This Completion, Top and Bottom. (MD Ft)					Name of Zone (If Different from Pool Name)			
<b>Lateral 1-11093'-21220'</b>								
Date Well Completed (SEE INSTRUCTIONS)		Producing Method		Pumping-Size & Type of Pump			Well Status (Producing or Shut-In)	
3/22/2012		<b>Flowing</b>					<b>Producing</b>	
Date of Test	Hours Tested	Choke Size	Production for Test	Oil (Bbls)	Gas (MCF)	Water (Bbls)	Oil Gravity-API (Corr.)	
<b>4/7/2012</b>	<b>24</b>	<b>52 /64</b>		<b>1962</b>	<b>1798</b>	<b>1793</b>	<b>42.0 °</b>	
Flowing Tubing Pressure (PSI)	Flowing Casing Pressure (PSI)			Calculated 24-Hour Rate	Oil (Bbls)	Gas (MCF)	Water (Bbls)	Gas-Oil Ratio
	<b>813</b>				<b>1962</b>	<b>1798</b>	<b>1793</b>	<b>916</b>

*orig.*

## GEOLOGICAL MARKERS

#### **PLUG BACK INFORMATION**

**CORES CUT**

Top (Ft)	Bottom (Ft)	Formation	Top (Ft)	Bottom (Ft)	Formation

## Drill Stem Test

Drill Pipe Recovery

### Sample Chamber Recovery

Test Date	Formation	Top (F)	Bottom (Ft)	Bit Temp (°F)	Cl ppm	H2S ppm	Shut-in 1 (PSIG)	Shut-in 2 (PSIG)
-----------	-----------	---------	-------------	---------------	--------	---------	------------------	------------------

Drill Pipe Recovery

#### Sample Chamber Recovery

Test Date	Formation	Top (Ft)	Bottom (Ft)	Int Temp (°F)	CL ppm	H2S ppm	Shut-in 1 (PSIG)	Shut-in 2 (PSIG)
-----------	-----------	----------	-------------	---------------	--------	---------	------------------	------------------

## Drill Pipe Recovery

### Sample Chamber Recovery

Test Date	Formation	Top (F)	Bottom (F)	Bit Temp (F)	CL ppm	H2S ppm	Shut-in 1 (PSIG)	Shut-in 2 (PSIG)
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### Drill Pipe Recovery

#### Sample Chamber Recovery

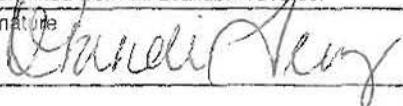
## Drill Pipe Recovery

#### Sample Chamber Recovery

### Well Specific Stimulation

Date Stimulated 3/15/2012	Stimulated Formation Bakken		Top (Ft) 11093	Bottom (Ft) 21220	Stimulation Stages 36	Volume 83063	Volume Units Barrels
Type Treatment Sand Frac	Acid %	Lbs Proppant 4540494			Maximum Treatment Pressure (PSI) 8489	Maximum Treatment Rate (BBLS/Min) 46.0	
Details  20/40 ceramic-2,683,424 40/70 sand- 1,857,070							
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 btberry@oasispetroleum.com	Date 5/18/2012
Signature 	Printed Name Brandi Terry	Title Regulatory Specialist



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

Monday, February 27, 2012

State of North Dakota

Subject: **Surveys**

Re: **Oasis**  
**Jefferies 5301 43-12B**  
**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:

<b>Surveyor Name</b>	<b>Surveyor Title</b>	<b>Borehole Number</b>	<b>Start Depth</b>	<b>End Depth</b>	<b>Start Date</b>	<b>End Date</b>	<b>Type of Survey</b>	<b>TD Straight Line Projection</b>
Pitre, Jace	MWD Operator	O.H.	2170'	21206'	02/03/12	02/21/12	MWD	21250'

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".

---

**Douglas Hudson**  
Well Planner



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

Monday, February 27, 2012

State of North Dakota

Subject: **Survey Certification Letter**

Re: **Oasis**  
**Jefferies 5301 43-12B**  
**McKenzie, ND**

I, Jace Pitre, certify that; I am employed by Ryan Directional Services, Inc.; that I did on the conduct or supervise the taking of the following MWD surveys:

on the day(s) of 2/3/2012 thru 2/21/2012 from a depth of 2170' MD to a depth of 21206' MD and Straight line projection to TD 21250' MD;

that the data is true, correct, complete, and within the limitations of the tool as set forth by Ryan Directional Services, Inc.; that I am authorized and qualified to make this report; that this survey was conducted at the request of Oasis for the Jefferies 5301 43-12B; in McKenzie, ND.

Jace Pitre

---

**Jace Pitre**  
MWD Operator  
Ryan Directional Services, Inc.

### SURVEY REPORT

Customer: **Oasis Petroleum**  
Well Name: **Jefferies 5301 43-12B**  
Block or Section: **24 153N 101W**  
Rig #: **Nabors 149**  
Calculation Method: **Minimun Curvature Calculation**

MWD Operator: **Jace Pitre**  
Directional Drillers: **Jason Standelin**  
Survey Corrected To: **True North**  
Vertical Section Direction: **184.63**  
Survey Correction: **8.56**  
Temperature Forecasting Model (Chart Only): **Logarithmic**

Survey #	MD	Inc	Azm	Temp	TVD	VS	N/S	E/W	DLS
<b>Tie in to Gyro Surveys</b>									
<b>Tie In</b>	<b>2170</b>	<b>0.00</b>	<b>0.00</b>		<b>2170.00</b>				
1	2183	1.40	176.10	50.00	2183.00	0.16	-0.16	0.01	10.77
2	2278	2.20	193.60	51.00	2277.95	3.11	-3.09	-0.34	1.01
3	2371	1.20	206.90	59.00	2370.91	5.77	-5.69	-1.20	1.15
4	2467	1.60	195.00	62.00	2466.88	8.02	-7.88	-2.00	0.51
<b>5</b>	<b>2562</b>	<b>2.10</b>	<b>202.40</b>	<b>66.00</b>	<b>2561.83</b>	<b>10.98</b>	<b>-10.77</b>	<b>-3.01</b>	<b>0.58</b>
6	2658	1.50	231.20	71.00	2657.79	13.52	-13.19	-4.66	1.11
7	2753	1.90	245.00	73.00	2752.74	15.15	-14.63	-7.05	0.60
8	2849	1.90	251.30	75.00	2848.69	16.57	-15.81	-10.00	0.22
9	2944	1.00	224.70	77.00	2943.66	17.83	-16.91	-12.08	1.16
<b>10</b>	<b>3040</b>	<b>1.10</b>	<b>129.20</b>	<b>78.00</b>	<b>3039.65</b>	<b>18.99</b>	<b>-18.09</b>	<b>-11.95</b>	<b>1.62</b>
11	3135	1.00	110.40	82.00	3134.64	19.74	-18.95	-10.47	0.38
12	3230	0.80	102.60	84.00	3229.62	20.05	-19.39	-9.05	0.25
13	3326	0.70	104.00	86.00	3325.62	20.24	-19.67	-7.82	0.11
14	3422	0.60	89.10	89.00	3421.61	20.29	-19.81	-6.75	0.20
<b>15</b>	<b>3516</b>	<b>0.50</b>	<b>108.90</b>	<b>93.00</b>	<b>3515.60</b>	<b>20.34</b>	<b>-19.93</b>	<b>-5.87</b>	<b>0.23</b>
16	3612	0.70	102.20	95.00	3611.60	20.52	-20.19	-4.90	0.22
17	3707	0.80	115.30	96.00	3706.59	20.83	-20.60	-3.73	0.21
18	3803	0.80	113.40	98.00	3802.58	21.28	-21.15	-2.51	0.03
19	3898	0.70	137.90	100.00	3897.57	21.90	-21.85	-1.52	0.35
<b>20</b>	<b>3993</b>	<b>0.60</b>	<b>116.90</b>	<b>104.00</b>	<b>3992.57</b>	<b>22.48</b>	<b>-22.50</b>	<b>-0.68</b>	<b>0.27</b>
21	4089	0.60	131.20	104.00	4088.56	22.97	-23.06	0.14	0.16
22	4184	0.90	255.10	105.00	4183.56	23.52	-23.58	-0.20	1.40
23	4280	1.00	263.50	107.00	4279.55	23.93	-23.87	-1.76	0.18
24	4375	0.90	265.40	109.00	4374.53	24.21	-24.02	-3.33	0.11
<b>25</b>	<b>4469</b>	<b>0.70</b>	<b>258.70</b>	<b>111.00</b>	<b>4468.52</b>	<b>24.49</b>	<b>-24.19</b>	<b>-4.63</b>	<b>0.23</b>
26	4564	0.70	269.90	113.00	4563.52	24.69	-24.31	-5.78	0.14
27	4660	0.30	278.60	113.00	4659.51	24.73	-24.27	-6.61	0.42
28	4755	0.30	293.10	114.00	4754.51	24.63	-24.14	-7.09	0.08
29	4850	0.10	100.50	116.00	4849.51	24.56	-24.05	-7.24	0.42
<b>30</b>	<b>4946</b>	<b>0.30</b>	<b>114.80</b>	<b>116.00</b>	<b>4945.51</b>	<b>24.65</b>	<b>-24.17</b>	<b>-6.93</b>	<b>0.21</b>
31	5041	0.30	230.30	118.00	5040.51	24.91	-24.44	-6.89	0.53
32	5137	0.60	272.00	120.00	5136.51	25.11	-24.58	-7.59	0.44
33	5232	0.80	316.50	122.00	5231.50	24.69	-24.08	-8.54	0.59
34	5328	0.70	265.20	122.00	5327.49	24.34	-23.65	-9.59	0.68
<b>35</b>	<b>5423</b>	<b>0.70</b>	<b>248.70</b>	<b>123.00</b>	<b>5422.49</b>	<b>24.69</b>	<b>-23.90</b>	<b>-10.71</b>	<b>0.21</b>
36	5519	1.10	248.00	125.00	5518.47	25.36	-24.46	-12.11	0.42
37	5614	1.30	239.30	125.00	5613.45	26.39	-25.35	-13.88	0.28
38	5710	1.30	231.80	127.00	5709.43	27.76	-26.58	-15.67	0.18
39	5806	1.50	223.20	131.00	5805.40	29.48	-28.17	-17.39	0.30
<b>40</b>	<b>5901</b>	<b>1.90</b>	<b>219.50</b>	<b>131.00</b>	<b>5900.36</b>	<b>31.75</b>	<b>-30.29</b>	<b>-19.24</b>	<b>0.44</b>
41	5996	1.70	222.10	132.00	5995.31	34.16	-32.56	-21.19	0.23
42	6092	1.70	227.90	132.00	6091.27	36.33	-34.57	-23.20	0.18
43	6187	1.30	274.10	132.00	6186.24	37.36	-35.43	-25.32	1.30
44	6283	2.10	312.00	133.00	6282.20	36.31	-34.18	-27.71	1.39
<b>45</b>	<b>6378</b>	<b>2.60</b>	<b>335.00</b>	<b>136.00</b>	<b>6377.12</b>	<b>33.38</b>	<b>-31.06</b>	<b>-29.92</b>	<b>1.11</b>
46	6474	1.60	346.80	138.00	6473.06	30.21	-27.78	-31.14	1.13
47	6569	1.90	358.10	138.00	6568.01	27.38	-24.92	-31.50	0.48
48	6664	1.60	6.60	140.00	6662.97	24.49	-22.03	-31.40	0.42
49	6760	0.70	348.60	140.00	6758.95	22.59	-20.12	-31.36	1.00
<b>50</b>	<b>6855</b>	<b>1.00</b>	<b>14.40</b>	<b>143.00</b>	<b>6853.94</b>	<b>21.21</b>	<b>-18.75</b>	<b>-31.27</b>	<b>0.50</b>
51	6951	0.50	164.90	143.00	6949.93	20.78	-18.34	-30.95	1.52
52	7045	0.80	180.00	147.00	7043.93	21.82	-19.39	-30.84	0.36
53	7141	0.40	180.00	149.00	7139.92	22.82	-20.40	-30.84	0.42
54	7236	0.80	195.90	150.00	7234.92	23.80	-21.37	-31.02	0.45
<b>55</b>	<b>7331</b>	<b>0.80</b>	<b>187.10</b>	<b>152.00</b>	<b>7329.91</b>	<b>25.12</b>	<b>-22.66</b>	<b>-31.29</b>	<b>0.13</b>
56	7427	0.60	175.00	154.00	7425.90	26.28	-23.83	-31.33	0.26
<b>57</b>	<b>7522</b>	<b>0.60</b>	<b>143.40</b>	<b>156.00</b>	<b>7520.89</b>	<b>27.15</b>	<b>-24.73</b>	<b>-30.99</b>	<b>0.34</b>
58	7617	0.50	119.40	158.00	7615.89	27.69	-25.33	-30.33	0.26
59	7713	0.80	125.40	156.00	7711.88	28.21	-25.92	-29.42	0.32
<b>60</b>	<b>7808</b>	<b>0.80</b>	<b>137.90</b>	<b>159.00</b>	<b>7806.88</b>	<b>29.01</b>	<b>-26.80</b>	<b>-28.43</b>	<b>0.18</b>
61	7903	0.50	99.10	159.00	7901.87	29.49	-27.36	-27.58	0.54
62	7999	0.40	78.30	160.00	7997.87	29.43	-27.35	-26.84	0.20
63	8094	0.30	81.70	160.00	8092.86	29.28	-27.25	-26.27	0.11
64	8189	0.30	70.50	160.00	8187.86	29.13	-27.13	-25.79	0.06
<b>65</b>	<b>8285</b>	<b>0.40</b>	<b>32.30</b>	<b>167.00</b>	<b>8283.86</b>	<b>28.73</b>	<b>-26.77</b>	<b>-25.37</b>	<b>0.26</b>

### SURVEY REPORT

Customer: **Oasis Petroleum**  
Well Name: **Jefferies 5301 43-12B**  
Block or Section: **24 153N 101W**  
Rig #: **Nabors 149**  
Calculation Method: **Minimun Curvature Calculation**

MWD Operator: **Jace Pitre**  
Directional Drillers: **Jason Standelin**  
Survey Corrected To: **True North**  
Vertical Section Direction: **184.63**  
Survey Correction: **8.56**  
Temperature Forecasting Model (Chart Only): **Logarithmic**

Survey #	MD	Inc	Azm	Temp	TVD	VS	N/S	E/W	DLS
66	8380	0.40	51.90	165.00	8378.86	28.21	-26.28	-24.93	0.14
67	8476	0.50	38.40	167.00	8474.86	27.63	-25.75	-24.41	0.15
68	8571	0.60	19.30	168.00	8569.85	26.81	-24.95	-23.99	0.22
69	8666	0.80	16.60	168.00	8664.84	25.68	-23.85	-23.63	0.21
70	<b>8761</b>	<b>0.60</b>	<b>12.90</b>	<b>172.00</b>	<b>8759.84</b>	<b>24.53</b>	<b>-22.73</b>	<b>-23.33</b>	<b>0.22</b>
71	8857	0.60	5.30	172.00	8855.83	23.53	-21.73	-23.17	0.08
72	8952	0.30	60.20	181.00	8950.83	22.90	-21.12	-22.91	0.52
73	9047	0.30	86.90	174.00	9045.83	22.72	-20.98	-22.45	0.15
74	9143	0.40	33.80	176.00	9141.83	22.40	-20.69	-22.01	0.34
75	<b>9238</b>	<b>0.50</b>	<b>31.80</b>	<b>172.00</b>	<b>9236.82</b>	<b>21.74</b>	<b>-20.06</b>	<b>-21.61</b>	<b>0.11</b>
76	9334	0.70	22.10	176.00	9332.82	20.81	-19.16	-21.17	0.23
77	9429	0.80	39.40	176.00	9427.81	19.71	-18.11	-20.53	0.26
78	9524	0.80	15.00	177.00	9522.80	18.51	-16.96	-19.93	0.36
79	9620	0.70	13.70	177.00	9618.79	17.27	-15.74	-19.62	0.11
80	<b>9715</b>	<b>0.80</b>	<b>13.80</b>	<b>179.00</b>	<b>9713.79</b>	<b>16.04</b>	<b>-14.53</b>	<b>-19.33</b>	<b>0.11</b>
81	9811	0.80	9.00	181.00	9809.78	14.71	-13.22	-19.06	0.07
82	9907	0.60	343.90	183.00	9905.77	13.58	-12.07	-19.10	0.38
83	10002	0.90	324.10	185.00	10000.76	12.54	-10.99	-19.67	0.41
84	10097	0.90	311.40	192.00	10095.75	11.53	-9.89	-20.67	0.21
85	<b>10193</b>	<b>1.10</b>	<b>278.30</b>	<b>194.00</b>	<b>10191.74</b>	<b>11.02</b>	<b>-9.26</b>	<b>-22.15</b>	<b>0.63</b>
86	10259	1.50	250.40	167.00	10257.72	11.33	-9.46	-23.59	1.12
87	10290	3.80	223.40	168.00	10288.68	12.30	-10.34	-24.67	8.24
88	10322	7.80	214.30	172.00	10320.52	15.02	-12.91	-26.63	12.79
89	10354	10.80	215.00	172.00	10352.09	19.49	-17.16	-29.57	9.38
90	<b>10386</b>	<b>14.20</b>	<b>211.90</b>	<b>172.00</b>	<b>10383.33</b>	<b>25.57</b>	<b>-22.95</b>	<b>-33.37</b>	<b>10.83</b>
91	10418	16.70	209.30	172.00	10414.17	33.24	-30.29	-37.69	8.10
92	10449	19.40	210.00	172.00	10443.64	41.94	-38.64	-42.45	8.74
93	10481	22.70	211.30	174.00	10473.50	52.26	-48.52	-48.31	10.41
94	10513	26.00	211.50	176.00	10502.65	64.04	-59.78	-55.19	10.32
95	<b>10545</b>	<b>29.30</b>	<b>211.90</b>	<b>161.00</b>	<b>10530.99</b>	<b>77.26</b>	<b>-72.41</b>	<b>-62.99</b>	<b>10.33</b>
96	10577	33.20	212.50	163.00	10558.34	91.97	-86.45	-71.84	12.23
97	10609	37.30	212.70	172.00	10584.47	108.27	-102.01	-81.79	12.82
98	10640	39.90	214.10	172.00	10608.70	125.22	-118.15	-92.44	8.85
99	10672	41.00	216.90	172.00	10633.05	143.03	-135.04	-104.50	6.64
100	<b>10709</b>	<b>44.30</b>	<b>218.10</b>	<b>168.00</b>	<b>10660.26</b>	<b>164.08</b>	<b>-154.92</b>	<b>-119.76</b>	<b>9.19</b>
101	10741	49.90	217.70	168.00	10682.04	183.67	-173.41	-134.15	17.52
102	<b>10772</b>	<b>56.80</b>	<b>216.90</b>	<b>170.00</b>	<b>10700.53</b>	<b>204.60</b>	<b>-193.19</b>	<b>-149.21</b>	<b>22.35</b>
103	10799	64.30	215.80	171.00	10713.79	224.59	-212.12	-163.13	28.00
104	10836	70.90	214.80	171.00	10727.89	254.00	-240.02	-182.88	18.01
105	<b>10868</b>	<b>76.50</b>	<b>213.20</b>	<b>174.00</b>	<b>10736.86</b>	<b>280.76</b>	<b>-265.48</b>	<b>-200.04</b>	<b>18.15</b>
106	10900	81.80	210.70	176.00	10742.89	308.67	-292.14	-216.66	18.25
107	10931	85.30	208.60	179.00	10746.37	336.58	-318.90	-231.89	13.14
108	10963	90.00	207.20	179.00	10747.68	365.94	-347.15	-246.85	15.32
109	10995	92.00	206.20	179.00	10747.12	395.59	-375.73	-261.22	6.99
110	<b>11027</b>	<b>92.60</b>	<b>205.60</b>	<b>179.00</b>	<b>10745.84</b>	<b>425.39</b>	<b>-404.49</b>	<b>-275.19</b>	<b>2.65</b>
111	11059	89.40	205.30	183.00	10745.28	455.29	-433.38	-288.94	10.04
112	11098	87.40	204.70	217.00	10746.37	491.83	-468.71	-305.41	5.35
113	11129	87.50	205.10	217.00	10747.75	520.89	-496.80	-318.45	1.33
114	11161	86.80	204.00	217.00	10749.34	550.93	-525.87	-331.73	4.07
115	<b>11222</b>	<b>86.60</b>	<b>204.10</b>	<b>215.00</b>	<b>10752.85</b>	<b>608.37</b>	<b>-581.48</b>	<b>-356.55</b>	<b>0.37</b>
116	11313	88.30	203.10	217.00	10756.90	694.34	-664.79	-392.94	2.17
117	11405	88.10	203.00	221.00	10759.79	781.58	-749.40	-428.95	0.24
118	11496	90.60	201.90	221.00	10760.82	868.20	-833.49	-463.69	3.00
119	11587	89.80	201.40	224.00	10760.50	955.21	-918.07	-497.26	1.04
120	<b>11679</b>	<b>89.40</b>	<b>200.20</b>	<b>224.00</b>	<b>10761.15</b>	<b>1043.57</b>	<b>-1004.07</b>	<b>-529.93</b>	<b>1.37</b>
121	11771	90.30	198.60	224.00	10761.39	1132.53	-1090.84	-560.49	2.00
122	11863	90.90	198.80	226.00	10760.42	1221.76	-1177.98	-589.98	0.69
123	11955	90.90	198.10	230.00	10758.98	1311.08	-1265.24	-619.10	0.76
124	12046	89.60	197.10	228.00	10758.58	1399.76	-1351.98	-646.61	1.80
125	<b>12137</b>	<b>89.20</b>	<b>196.90</b>	<b>231.00</b>	<b>10759.53</b>	<b>1488.64</b>	<b>-1439.00</b>	<b>-673.22</b>	<b>0.49</b>
126	12229	89.30	197.50	231.00	10760.74	1578.43	-1526.87	-700.42	0.66
127	12321	89.50	197.40	233.00	10761.70	1668.13	-1614.63	-728.00	0.24
128	12413	89.10	197.40	235.00	10762.83	1757.85	-1702.42	-755.51	0.43
129	12504	90.20	197.40	235.00	10763.38	1846.59	-1789.25	-782.73	1.21
130	<b>12595</b>	<b>89.20</b>	<b>196.80</b>	<b>237.00</b>	<b>10763.86</b>	<b>1935.44</b>	<b>-1876.22</b>	<b>-809.48</b>	<b>1.28</b>

### SURVEY REPORT

Customer: **Oasis Petroleum**  
Well Name: **Jefferies 5301 43-12B**  
Block or Section: **24 153N 101W**  
Rig #: **Nabors 149**  
Calculation Method: **Minimun Curvature Calculation**

MWD Operator: **Jace Pitre**  
Directional Drillers: **Jason Standelin**  
Survey Corrected To: **True North**  
Vertical Section Direction: **184.63**  
Survey Correction: **8.56**  
Temperature Forecasting Model (Chart Only): **Logarithmic**

Survey #	MD	Inc	Azm	Temp	TVD	VS	N/S	E/W	DLS
131	12686	90.00	195.30	235.00	10764.49	2024.64	-1963.67	-834.64	1.87
132	12778	90.20	195.00	239.00	10764.33	2115.09	-2052.47	-858.68	0.39
133	12869	91.90	195.40	240.00	10762.67	2204.53	-2140.27	-882.54	1.92
134	12961	90.20	195.10	235.00	10760.98	2294.93	-2229.02	-906.73	1.88
135	<b>13053</b>	<b>89.40</b>	<b>194.30</b>	<b>237.00</b>	<b>10761.30</b>	<b>2385.51</b>	<b>-2318.00</b>	<b>-930.08</b>	<b>1.23</b>
136	13144	88.30	193.50	240.00	10763.13	2475.31	-2406.32	-951.93	1.49
137	13235	88.40	193.40	242.00	10765.75	2565.19	-2494.78	-973.09	0.16
138	13327	88.10	192.60	239.00	10768.56	2656.17	-2584.38	-993.78	0.93
139	13423	86.80	195.90	239.00	10772.83	2750.71	-2677.32	-1017.38	3.69
140	<b>13520</b>	<b>86.90</b>	<b>196.40</b>	<b>239.00</b>	<b>10778.16</b>	<b>2845.61</b>	<b>-2770.35</b>	<b>-1044.32</b>	<b>0.52</b>
141	13615	90.10	190.30	237.00	10780.65	2939.43	-2862.70	-1066.23	7.25
142	13711	93.40	187.50	237.00	10777.72	3035.09	-2957.48	-1081.07	4.51
143	13807	91.60	186.40	239.00	10773.53	3130.92	-3052.68	-1092.68	2.20
144	13902	89.70	184.50	240.00	10772.45	3225.89	-3147.23	-1101.70	2.83
145	<b>13998</b>	<b>89.90</b>	<b>181.60</b>	<b>240.00</b>	<b>10772.79</b>	<b>3321.84</b>	<b>-3243.09</b>	<b>-1106.81</b>	<b>3.03</b>
146	14094	90.90	179.90	242.00	10772.12	3417.62	-3339.07	-1108.06	2.05
147	14190	90.40	179.10	246.00	10771.03	3513.23	-3435.06	-1107.23	0.98
148	14286	88.10	178.60	248.00	10772.28	3608.72	-3531.02	-1105.30	2.45
149	14381	89.80	178.30	244.00	10774.02	3703.15	-3625.97	-1102.73	1.82
150	<b>14477</b>	<b>92.30</b>	<b>178.30</b>	<b>246.00</b>	<b>10772.27</b>	<b>3798.54</b>	<b>-3721.90</b>	<b>-1099.88</b>	<b>2.60</b>
151	14572	92.00	179.10	248.00	10768.70	3892.97	-3816.81	-1097.73	0.90
152	14666	88.30	176.90	246.00	10768.46	3986.32	-3910.73	-1094.45	4.58
153	14760	90.50	177.10	246.00	10769.44	4079.47	-4004.59	-1089.53	2.35
154	14856	91.60	175.90	246.00	10767.68	4174.49	-4100.39	-1083.67	1.70
155	<b>14952</b>	<b>91.20</b>	<b>175.80</b>	<b>249.00</b>	<b>10765.34</b>	<b>4269.34</b>	<b>-4196.11</b>	<b>-1076.73</b>	<b>0.43</b>
156	15048	90.70	175.70	249.00	10763.74	4364.17	-4291.84	-1069.61	0.53
157	15144	90.60	174.90	251.00	10762.65	4458.89	-4387.51	-1061.75	0.84
158	15239	90.50	174.90	251.00	10761.74	4552.52	-4482.13	-1053.30	0.11
159	15334	90.40	174.90	253.00	10761.00	4646.15	-4576.75	-1044.86	0.11
160	<b>15429</b>	<b>88.80</b>	<b>174.80</b>	<b>253.00</b>	<b>10761.66</b>	<b>4739.77</b>	<b>-4671.36</b>	<b>-1036.33</b>	<b>1.69</b>
161	15524	90.60	174.40	251.00	10762.16	4833.31	-4765.93	-1027.39	1.94
162	15620	90.40	174.10	253.00	10761.32	4927.74	-4861.44	-1017.77	0.38
163	15714	89.80	173.90	255.00	10761.16	5020.12	-4954.93	-1007.95	0.67
164	15810	89.20	176.20	251.00	10761.99	5114.77	-5050.56	-999.66	2.48
165	<b>15905</b>	<b>91.60</b>	<b>179.20</b>	<b>251.00</b>	<b>10761.33</b>	<b>5209.06</b>	<b>-5145.46</b>	<b>-995.85</b>	<b>4.04</b>
166	16001	91.50	176.80	255.00	10758.73	5304.37	-5241.36	-992.50	2.50
167	16097	90.90	176.90	255.00	10756.72	5399.47	-5337.20	-987.23	0.63
168	16192	90.20	175.80	257.00	10755.81	5493.47	-5432.00	-981.18	1.37
169	16288	91.30	178.10	255.00	10754.55	5588.60	-5527.85	-976.07	2.66
170	<b>16383</b>	<b>89.80</b>	<b>177.00</b>	<b>257.00</b>	<b>10753.64</b>	<b>5682.86</b>	<b>-5622.75</b>	<b>-972.01</b>	<b>1.96</b>
171	16478	90.00	177.90	257.00	10753.81	5777.12	-5717.65	-967.79	0.97
172	16574	90.70	176.80	257.00	10753.22	5872.34	-5813.55	-963.35	1.36
173	16670	90.40	175.60	258.00	10752.30	5967.30	-5909.33	-956.99	1.29
174	16766	92.50	177.60	257.00	10749.87	6062.31	-6005.12	-951.30	3.02
175	<b>16861</b>	<b>91.70</b>	<b>177.50</b>	<b>257.00</b>	<b>10746.39</b>	<b>6156.53</b>	<b>-6099.97</b>	<b>-947.24</b>	<b>0.85</b>
176	16957	91.70	179.80	257.00	10743.54	6251.95	-6195.89	-944.98	2.39
177	17052	88.40	178.50	260.00	10743.46	6346.51	-6290.87	-943.57	3.73
178	17148	90.80	178.90	257.00	10744.13	6441.98	-6386.83	-941.39	2.53
179	17242	91.80	178.70	258.00	10742.00	6535.47	-6480.79	-939.42	1.08
180	<b>17337</b>	<b>91.40</b>	<b>178.20</b>	<b>260.00</b>	<b>10739.34</b>	<b>6629.88</b>	<b>-6575.72</b>	<b>-936.85</b>	<b>0.67</b>
181	17431	91.40	178.40	260.00	10737.05	6723.28	-6669.65	-934.07	0.21
182	17527	91.00	178.80	262.00	10735.04	6818.73	-6765.60	-931.72	0.59
183	17622	90.90	178.50	262.00	10733.46	6913.20	-6860.56	-929.48	0.33
184	17718	89.00	177.90	262.00	10733.54	7008.59	-6956.50	-926.47	2.08
185	<b>17814</b>	<b>90.60</b>	<b>178.30</b>	<b>260.00</b>	<b>10733.88</b>	<b>7103.96</b>	<b>-7052.45</b>	<b>-923.28</b>	<b>1.72</b>
186	17909	90.30	178.30	262.00	10733.13	7198.38	-7147.40	-920.47	0.32
187	18004	90.60	178.60	260.00	10732.39	7292.82	-7242.37	-917.90	0.45
188	18100	92.50	178.00	260.00	10729.79	7388.20	-7338.28	-915.05	2.08
189	18196	91.40	178.30	262.00	10726.52	7483.53	-7434.18	-911.95	1.19
190	<b>18291</b>	<b>90.20</b>	<b>176.90</b>	<b>264.00</b>	<b>10725.20</b>	<b>7577.80</b>	<b>-7529.08</b>	<b>-907.97</b>	<b>1.94</b>
191	18387	91.20	177.80	262.00	10724.02	7673.02	-7624.97	-903.54	1.40
192	18482	90.30	177.00	264.00	10722.78	7767.25	-7719.86	-899.23	1.27
193	18577	91.40	177.80	260.00	10721.37	7861.49	-7814.75	-894.92	1.43
194	18673	92.20	177.10	264.00	10718.36	7956.68	-7910.61	-890.65	1.11
195	<b>18769</b>	<b>92.10</b>	<b>175.70</b>	<b>264.00</b>	<b>10714.75</b>	<b>8051.63</b>	<b>-8006.35</b>	<b>-884.63</b>	<b>1.46</b>

Report #: 1  
Date: 2-Jan-12



Ryan Job # 5279  
Kit # 44

## SURVEY REPORT

Customer: Oasis Petroleum  
Well Name: Jefferies 5301 43-12B  
Block or Section: 24 153N 101W  
Rig #: Nabors 149  
Calculation Method: Minimun Curvature Calculation

MWD Operator: Jace Pitre  
Directional Drillers: Jason Stadelin  
Survey Corrected To: True North  
Vertical Section Direction: 184.63  
Survey Correction: 8.56  
Temperature Forecasting Model (Chart Only): Logarithmic

Survey #	MD	Inc	Azm	Temp	TVD	VS	N/S	E/W	DLS
196	18864	92.30	179.10	260.00	10711.11	8145.79	-8101.16	-880.32	3.58
197	18960	92.20	177.40	262.00	10707.34	8241.12	-8197.04	-877.39	1.77
198	19056	92.30	179.90	262.00	10703.57	8336.51	-8292.93	-875.13	2.60
199	19152	89.80	179.90	262.00	10701.81	8432.16	-8388.91	-874.96	2.60
<b>200</b>	<b>19247</b>	<b>89.40</b>	<b>179.20</b>	<b>264.00</b>	<b>10702.47</b>	<b>8526.79</b>	<b>-8483.90</b>	<b>-874.22</b>	<b>0.85</b>
201	19342	91.70	180.30	264.00	10701.56	8621.43	-8578.89	-873.80	2.68
202	19437	91.30	178.40	266.00	10699.07	8715.99	-8673.85	-872.73	2.04
203	19532	90.50	177.80	266.00	10697.58	8810.36	-8768.78	-869.58	1.05
204	19625	91.90	178.80	264.00	10695.63	8902.77	-8861.72	-866.82	1.85
<b>205</b>	<b>19721</b>	<b>91.70</b>	<b>177.60</b>	<b>266.00</b>	<b>10692.62</b>	<b>8998.12</b>	<b>-8957.62</b>	<b>-863.80</b>	<b>1.27</b>
206	19817	90.90	177.50	267.00	10690.44	9093.36	-9053.51	-859.70	0.84
207	19914	91.60	178.40	266.00	10688.32	9189.68	-9150.42	-856.23	1.18
208	20010	90.90	177.70	267.00	10686.23	9285.02	-9246.34	-852.97	1.03
209	20110	92.50	178.10	253.00	10683.26	9384.28	-9346.23	-849.30	1.65
<b>210</b>	<b>20206</b>	<b>91.90</b>	<b>178.10</b>	<b>257.00</b>	<b>10679.58</b>	<b>9479.59</b>	<b>-9442.10</b>	<b>-846.12</b>	<b>0.63</b>
211	20301	90.80	178.10	258.00	10677.34	9573.95	-9537.02	-842.97	1.16
212	20397	92.00	177.80	257.00	10674.99	9669.26	-9632.93	-839.54	1.29
213	20492	90.80	178.10	258.00	10672.67	9763.59	-9727.84	-836.14	1.30
214	20587	91.30	179.10	257.00	10670.93	9858.05	-9822.79	-833.82	1.18
<b>215</b>	<b>20683</b>	<b>92.00</b>	<b>179.30</b>	<b>258.00</b>	<b>10668.17</b>	<b>9953.58</b>	<b>-9918.74</b>	<b>-832.48</b>	<b>0.76</b>
216	20779	90.00	179.20	258.00	10666.49	10049.13	-10014.72	-831.23	2.09
217	20875	88.80	179.40	258.00	10667.50	10144.71	-10110.70	-830.05	1.27
218	20970	90.50	179.50	258.00	10668.08	10239.32	-10205.69	-829.14	1.79
219	21066	90.90	180.10	258.00	10666.91	10334.97	-10301.68	-828.81	0.75
<b>220</b>	<b>21162</b>	<b>90.70</b>	<b>180.40</b>	<b>258.00</b>	<b>10665.57</b>	<b>10430.68</b>	<b>-10397.67</b>	<b>-829.23</b>	<b>0.38</b>
221	21206	89.90	179.80	258.00	10665.33	10474.54	-10441.67	-829.30	2.27
Projection	21250	89.90	179.80	258.00	10665.41	10518.38	-10485.67	-829.15	0.00



# 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.  
**22220**



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

<input checked="" type="checkbox"/> Notice of Intent	Approximate Start Date <b>April 3, 2012</b>
<input type="checkbox"/> Report of Work Done	Date Work Completed
<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 type="checkbox"/> Other                | <b>Waiver from tubing/packer requirement</b>      |

Well Name and Number <b>Jeffries 5301 43-12B</b>					
Footages	250 F S L	2510 F E L	Qtr-Qtr SWSE	Section 12	Township 153 N Range 101 W
Field <b>Baker</b>	Pool <b>Bakken</b>			County <b>McKenzie</b>	

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 a waiver from the tubing/pkr requirement included in NDIC 43-02-03-21: 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 & 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 flow back 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 <b>Oasis Petroleum North America LLC</b>	Telephone Number <b>281-404-9491</b>	
Address <b>1001 Fannin, Suite 1500</b>		
City <b>Houston</b>	State <b>TX</b>	Zip Code <b>77002</b>
Signature <i>Brandi Terry</i>	Printed Name <b>Brandi Terry</b>	
Title <b>Regulatory Specialist</b>	Date <b>April 3, 2012</b>	
Email Address <b>bterry@oasispetroleum.com</b>		

FOR STATE USE ONLY	
<input type="checkbox"/> Received	<input checked="" type="checkbox"/> Approved
Date <i>April 5, 2012</i>	
By <i>Daniel J. McElroy</i>	
Title <b>PETROLEUM ENGINEER</b>	



# 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)

22220

Well File No.

CTB # 222100-01



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

<input checked="" type="checkbox"/> Notice of Intent	Approximate Start Date <b>March 19, 2012</b>	<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 checked="" type="checkbox"/> Other	<b>Central production facility-commingle prod</b>

Well Name and Number <b>(see details)</b>						
Footages	F	L	Qtr-Qtr	Section	Township	Range
				<b>12</b>	<b>153 N</b>	<b>101 W</b>
Field	Pool			County		
<b>Baker</b>	<b>Bakken</b>			<b>McKenzie</b>		

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: Oasis 5301 13-24CTB with common ownership for the following wells:

Well File #22100 Achilles 5301 41-12B SW SW 12-153-101 API 33-053-03912

Well File #22220 Jeffries 5301 43-12B SW SE 12-153-101 API 33-053-03936

Well File #20864 Bray 5301 43-12H SW SE 12-153-101 API 33-053-03609

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% DRE enclosed combustor.

Company <b>Oasis Petroleum North America LLC</b>	Telephone Number <b>281-404-9491</b>	
Address <b>1001 Fannin, Suite 1500</b>		
City <b>Houston</b>	State <b>TX</b>	Zip Code <b>77002</b>
Signature 	Printed Name <b>Brandi Terry</b>	
Title <b>Regulatory Specialist</b>	Date <b>March 19, 2012</b>	
Email Address <b>bterry@oasispetroleum.com</b>		

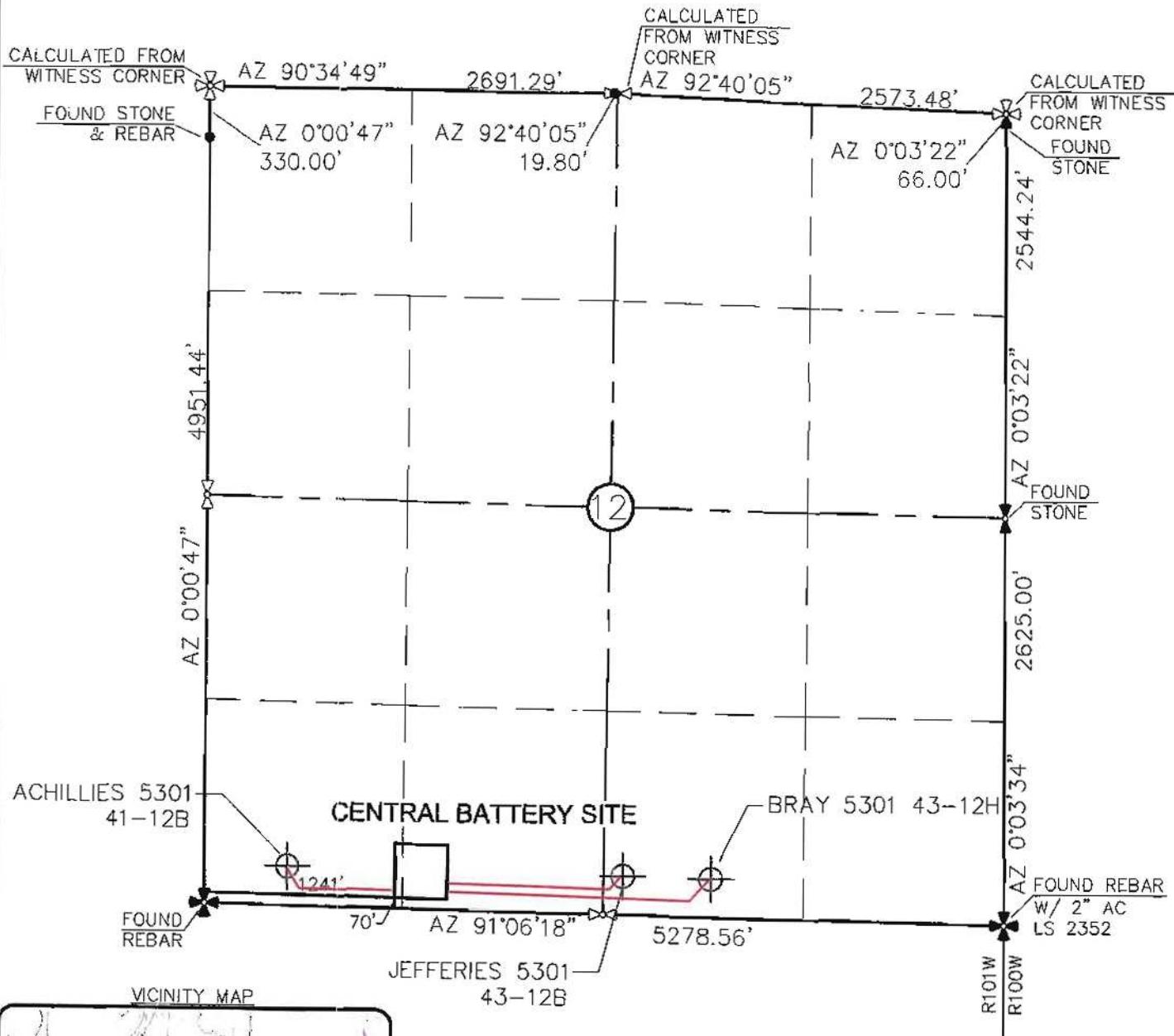
FOR STATE USE ONLY	
<input type="checkbox"/> Received	<input checked="" type="checkbox"/> Approved
Date <b>3-23-12</b>	
By <b>DARYL GRONFUR</b>	
Title <b>METER SPECIALIST</b>	

# ADJACENT WELL LOCATIONS PLAT

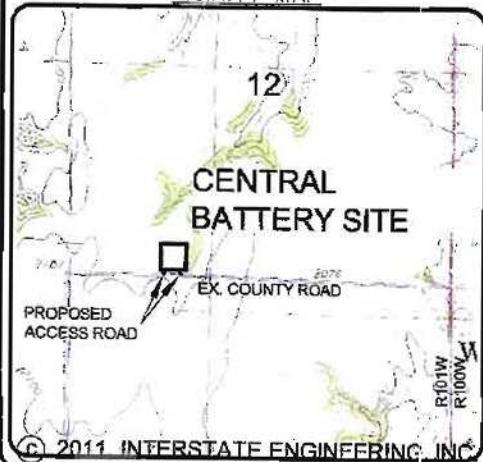
OASIS PETROLEUM NORTH AMERICA, LLC  
1001 FANNIN, SUITE 202 HOUSTON, TX 77002

CENTRAL BATTERY SITE<sup>®</sup>

SECTION 12, T153N, R101W, 5TH P.M., MCKENZIE COUNTY, NORTH DAKOTA



VICINITY MAP



- MONUMENT - RECOVERED
- MONUMENT - NOT RECOVERED

0 1000  
1" = 1000'

1/1

  
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Other offices in Billings, North Dakota and South Dakota

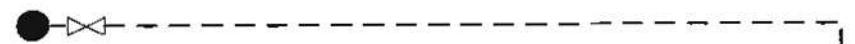
OASIS PETROLEUM NORTH AMERICA, LLC  
ADJACENT WELLS PLAT  
SECTION 12, T153N, R101W  
MCKENZIE COUNTY, NORTH DAKOTA

Revision No.	Date	By	Description
S11-09-137	MARCH 2012	J.J.S.	Project No.

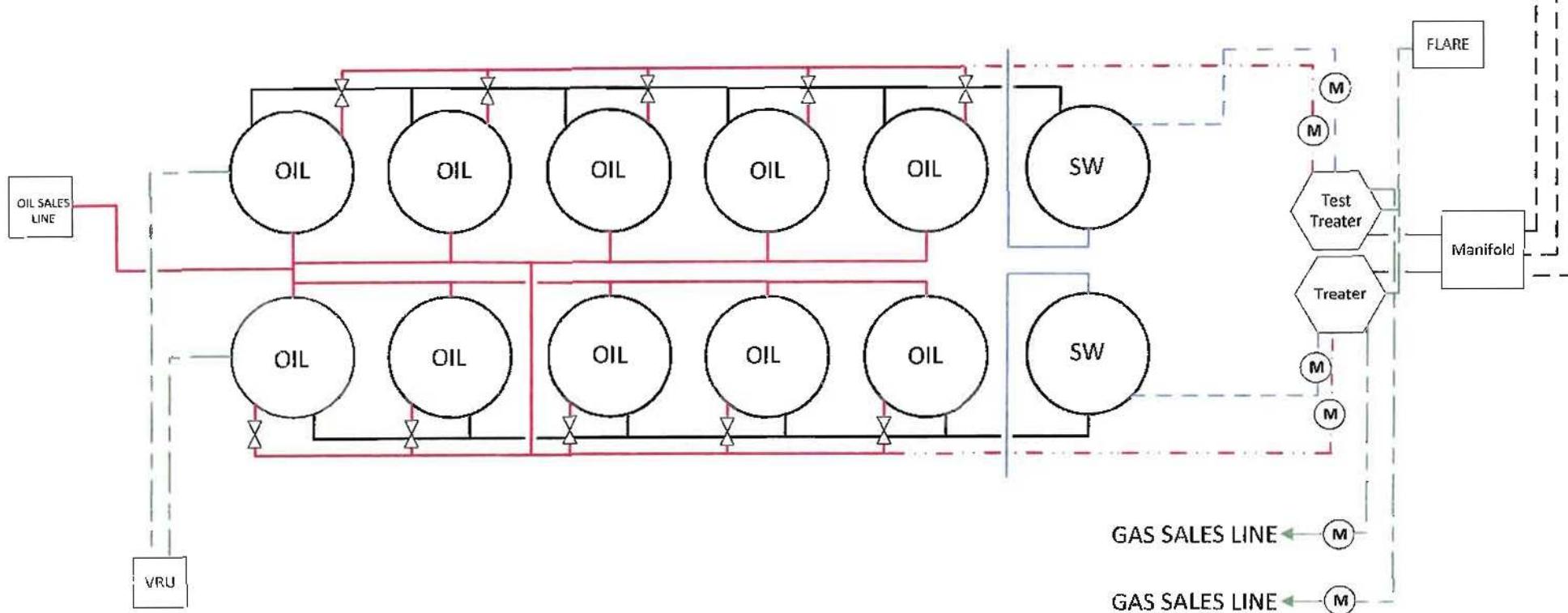
Oasis Petroleum Inc.  
Brays 5301 43-12H  
SWSE 12-153-101  
File #: 20864  
API #: 3305303609



Oasis Petroleum Inc.  
Jefferies 5301 43-12B  
SWSE 12-153-101  
File #: 22220  
API #: 3305303936



Oasis Petroleum Inc.  
Achilles S301 41-12B  
SWSW 12-153-101  
File #: 22100  
API #: 3305303912



OASIS PETROLEUM				
PRODUCTION COMMINGLING DIAGRAM - BRAY 5301 43-12H JEFFERIES 5301 43-12B & ACHILLES 5301 41-12B				
DATE	REV.	BY	APPR.	SCALE
March 14, 2012	0	LTZ		NA
LOCATION	FIELD			
NORTH DAKOTA	INDIAN HILLS - SOUTH			

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

Tom F. Hawkins, being duly sworn, states as follows:

1. I am the Vice President - Land and Contracts employed by Oasis Petroleum North America LLC with responsibilities in the State of North Dakota and I have personal knowledge of the matters set forth in this affidavit.

2. Sections 13 and 24, Township 153 North, Range 101 West, McKenzie County, North Dakota constitute a spacing unit in accordance with the applicable orders for the Bakken pool.

3. Three wells have been drilled in the spacing unit, which are the Bray 5301 43-12H, the Achilles 5301 41-12B and the Jefferies 5301 43-12B .

4. By Declaration of Pooled Unit dated August 26, 2011, filed in McKenzie County, North Dakota, document number 422312, all oil and gas interests within the aforementioned spacing unit were pooled.

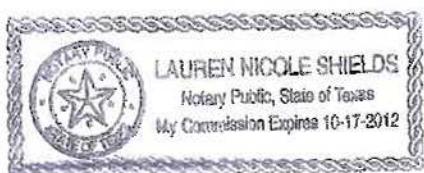
5. All Working Interests, Royalty Interests and Overriding Royalty Interests in the Bray 5301 43-12H, the Achilles 5301 41-12B and the Jefferies 5301 43-12B wells are common.

Dated this 14<sup>th</sup> day of March, 2012

Tom F. Hawkins

STATE OF TEXAS      )  
                                )ss.  
COUNTY OF HARRIS      )

Subscribed to and sworn before me this 14<sup>th</sup> day of March, 2012



Lauren Shields  
Notary Public  
State of Texas  
My Commission Expires: 10-17-2012



# SUNDRY NOTICE 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.

22220

*[Signature]*

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

 Notice of IntentApproximate Start Date  
**March 6, 2012** 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**Reserve pit reclamation**

## Well Name and Number

**Jefferies 5301 43-12B**

Footages

**250****F****S****L****2510****F****E****L**

Qtr-Qtr

SWSE

Section

**12**

Township

**153 N**

Range

**101 W**

Field

**Baker**

Pool

**Bakken**

County

**McKenzie**

## 24-HOUR PRODUCTION RATE

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

## Name of Contractor(s)

**Excel Industries, Inc**

Address

**P.O. Box 159**

City

**Miles City**

State

**MT**

Zip Code

**59301**

## DETAILS OF WORK

Oasis Petroleum North America LLC plans to reclaim the reserve pit for the above referenced wells as follows:  
The NDIC field inspector, Mark Binnes (NDIC) was notified on 2/29/2012. The surface owner was notified on 3/1/2012  
Surface owners: Larry Heen, 14033 45th Street NW, Williston, ND 58801  
Drain all fluid from pit, mix cuttings with flyash and lime to solidify. Cap with clay and slope and contour location to ensure proper drainage.

Company <b>Oasis Petroleum North America LLC</b>	Telephone Number <b>281-404-9491</b>
Address <b>1001 Fannin, Suite 1500</b>	
City <b>Houston</b>	State <b>TX</b>
Signature <i>Brandi Terry</i>	Printed Name <b>Brandi Terry</b>
Title <b>Regulatory Specialist</b>	Date <b>March 1, 2012</b>
Email Address <b>bterry@oasispetroleum.com</b>	

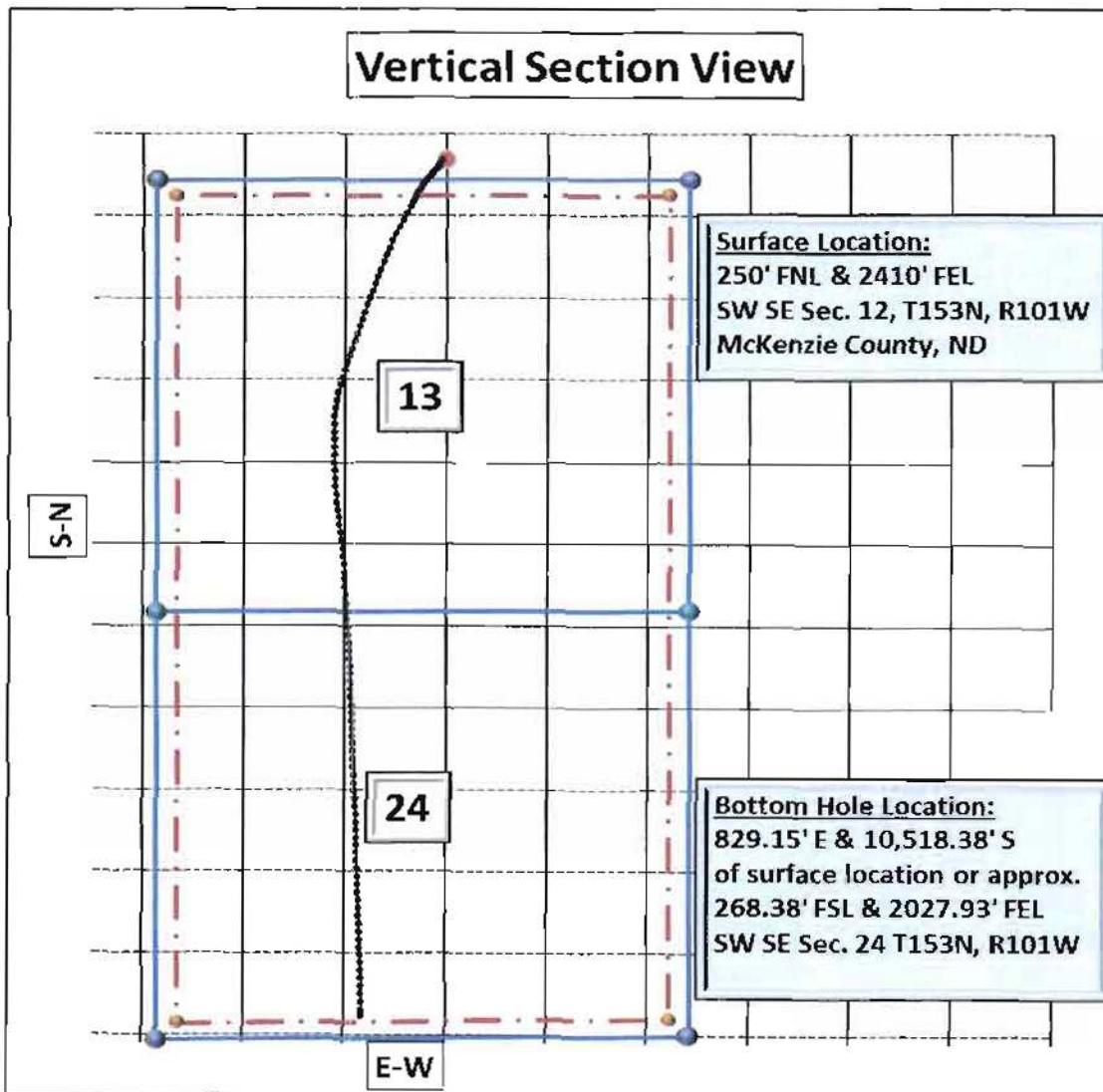
## FOR STATE USE ONLY

<input type="checkbox"/> Received	<input checked="" type="checkbox"/> Approved
Date <i>3-1-12</i>	
By <i>Brandi Terry</i>	
Title <i>Regulatory Specialist</i>	



# Oasis Petroleum North America, LLC

**Jefferies 5301 43-12B**



Services Performed For:

Mike Box

**Oasis Petroleum North America, LLC**

1001 Fannin, Suite 202

Houston, TX 77002

Onsite Geology Performed by:

K. Pearson, T. Bushedorf

**RPM Geologic, Inc**

[geology@rpmconsultinginc.com](mailto:geology@rpmconsultinginc.com)

(303) 595-7625

# Well Information

<u>Operator:</u>	Oasis Petroleum North America, LLC	<u>API #:</u>	33-053-03936-00-00
<u>Address:</u>	1001 Fannin Suite 202 Houston, TX 77002	<u>ND Well File #:</u>	22220
<u>Well Name:</u>	<b>Jefferies 5301 43-12B</b>	<u>Surface Location:</u>	SW SE Sec. 12 T153N R101W
<u>Field/ Prospect:</u>	Camp Field	<u>Footage:</u>	250' FSL & 2,410' FEL
<u>Elevation:</u>	GL: 2,094' KB: 2,118'	<u>County, State:</u>	McKenzie County, North Dakota
<u>Spud Date:</u>	January 31, 2012	<u>Basin:</u>	Williston
		<u>Well Type:</u>	Horizontal Middle Bakken
<u>Contractor:</u>	Nabors #149	<u>Chemical Company</u>	Fluid Control
<u>Toolpushers:</u>	Larry Erie, Dwight Knutson	<u>Mud Engineer</u>	Ryan Buckley, Judd Burman
<u>Field Supervisors:</u>	Eli Puckett, Mark Lawler	<u>H.S MONITORING:</u>	NA
<u>Directional Drilling</u>	RPM Consulting, Inc. Mark Lawler, Eli Puckett, Jason Straindin	<u>MWD</u>	Ryan Energy Jase Pitre, Daniel Ogden
<u>Wellsite Geologist</u>	Krista E. Pearson Travis Bushendorf	<u>Rock Sampling:</u>	30' from 8,360' to 10,800' 10' from 10,800' to 11,140' 30' from 11,140' to 21,250' (TD)
<u>Prospect Geologist</u>	Mike Box	<u>Gas Detector</u>	Bloodhound Gas Detection
<u>Sample Examination:</u>	Binocular microscope & fluoroscope	<u>Sample Cuts:</u>	EnTron Solvent
<u>Horizontal Target</u>	Middle Bakken Porosity		
<b>Key Offset Wells:</b>			
St Mary Land & Exploration	<b>Lindvig 1-11-3C</b>	SESE Sec. 11 T153N R101W	McKenzie County, ND
Oasis Petroleum North America	<b>Achillies 5301 41-12B</b>	SWSW Sec. 12 T153N R101W	McKenzie County, ND
Oasis Petroleum North America	<b>Bray 5301 41-12H</b>	SWSE Sec. 12 T153N R101W	McKenzie County, ND
<u>Pumps:</u>	#1 & #2: National 10P-100 - 5.5" liners Output: 0.0837 bbl/stroke (95% efficiency)		
<u>Mud Type:</u>	Fresh water surface to 2,190' Diesel invert mud 2,190' to 11,110' (curve landing) Salt water from 11,110' to 22,250' (TD)		
<u>Casing:</u>	Surface: 9 5/8" 36# J-55 set to 2,070' Intermediate: 7" casing set to 11,093'		
<u>Hole Size:</u>	13 1/2" from conductor pipe at 105' to 2,090'	8 3/4" to 11,110'	6" to 21,250' (TD)
<u>Total Drilling Days:</u>	22 days		

<u>Horizontal Target:</u>	<i>Middle Bakken "B"</i>	<u>BOTTOM HOLE LOCATION:</u>
<u>Break-Off Point / Date:</u>	<i>10,270' / 7 February 2012</i>	<i>829.15' E &amp; 10,518.38' S</i>
<u>Total Depth/ Date:</u>	<i>21,250' / 21 February 2012</i>	<i>of surface location or approximately 268.38' FSL &amp; 2,027.93' FEL</i>
<u>Ending Vertical Section</u>	<i>10,518.38'</i>	<i>SWSE Section 24, T153N, R101W</i>
<u>Ending Azimuth</u>	<i>179.80°</i>	
<u>Status of Well:</u>	<i>Awaiting Completion</i>	
<u>Exposure to Formation:</u>	<i>100%</i>	

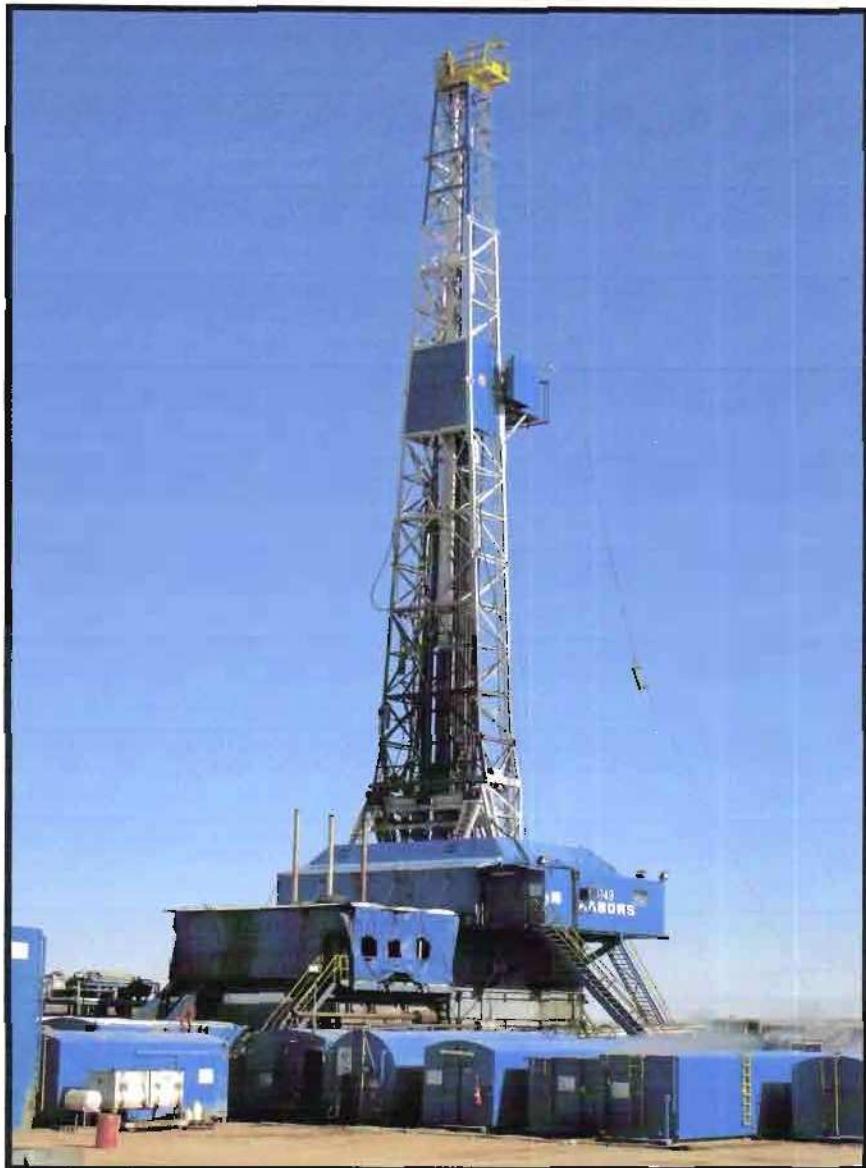
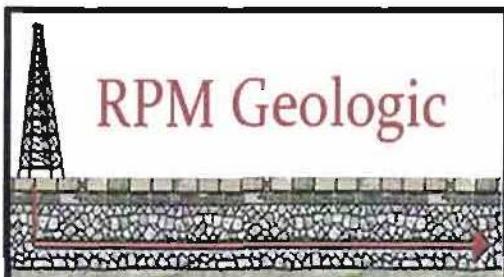
## Summary

- The *Jefferies 5301 43-12B* was spud 31 January 2012 in the Baker Field in McKenzie County, North Dakota.
- Bit #1 was used to drill the vertical section from the conductor pipe at 105' to 2,190'. Surface casing was set at 2,170' and isolated with 9 5/8" 36# J-55 casing pipe. Bit #2 was used to drill the remainder of the vertical hole to a total depth of 10,270'.
- Bit #3 was used to drill the first 449' of the curve and was replaced with a tricone bit due to inadequate build rates. Bit #4 drilled the final 391' of the curve which allowed for the build rates needed to reach the landing target.
- Intermediate casing was set to 11,093' MD / ~ 10,746' TVD and isolated with 7" casing pipe. Bit #5 was used to drill out of intermediate casing and drilled the entire 10,140' lateral.
- The target zone consisted of a 9' thick vertical section of the Middle Member of the Bakken Formation situated 10' to 19' feet below the Upper Shale of the Bakken Formation. The target zone was identified at the top and bottom by low gamma readings.
- Background gas levels ranged from ~2,700 to ~3,400 units while drilling the lateral. Gas was diverted through the gas buster producing an average flare of 2' to 6' throughout the lateral.
- The Middle Member of the Bakken Formation observed in cutting samples consisted of two primary facies observed while drilling in the target zone: 1) light gray silty sandstone with visible oil staining and 2) light gray silty sandstone with trace amounts of patchy oil stain.
- Drilling operations were ceased on 21 February 2012 at 11:33 hours at an approximate bottom hole location of 829.15' E & 10,518.38' S of surface location or approximately 268.38' FSL & 2,027.93' FEL in SWSE Section 24 T153N R101W.

Respectfully submitted,

*Krista E. Pearson*  
RPM Geologic, Inc.

08/2012



# Well Evaluation

## Synopsis

The *Jefferies 5301 43-12B* [SWSE Section 12, T153N, R101W] is a horizontal well located in the Baker Field in McKenzie County, North Dakota approximately 6 miles south of Williston. The prognosis proposed a single lateral leg trending due south to be drilled through sections 13 and 24 from the SWSE corner of Section 12 to the SE SW corner of Section 24. The lateral portion of the *Jefferies 5301 43-12B* targeted the porous silty sandstone of the Middle Member of the Bakken Formation, approximately 10' to 19' below the Upper Shale of the Bakken Formation.

## Geologic Assessment

### Methods

Geologic support of the *Jefferies 5301 43-12B* was provided by experienced RPM Well Site Geologists. Gas and chromatograph levels were measured using iBall Instruments Bloodhound (Bloodhound) real time gas detector and chromatograph system. The Bloodhound gas detection system uses non-dispersive infrared and chemical sensor gas detection to evaluate gases liberated from the formation by the drill bit and carried to the surface by the drilling fluid.

The Bloodhound was interfaced with a RigWatch Drilling Recorder system. RigWatch provided rate of penetration (ROP), on-off bottom and pump strokes to the Bloodhound and received total gas information from the Bloodhound for viewing on location and remotely.

Under the direction of RPM well site geologists, rig crews caught lagged drill cutting samples at 30' intervals from 8,300' through 10,780'. Samples were logged at 10' intervals during the curve from 10,780' to 11,050'. Throughout the lateral section, samples were continuously logged at 30' intervals until total depth 21,250'.

Sampled drill cuttings were examined wet and dry under a binocular microscope using plain (broad spectrum) and transmitted light. Cuttings were evaluated for hydrocarbon "cut" by immersion in *Entron* critical cleaning solvent and inspected under a UV fluoroscope. Alizarin red stain and ten percent hydrochloric acid were used to determine the calcareous and dolomitic content of rocks and cementing.

## Control Wells

Two completed wells were used as control wells for the *Jefferies 5301 43-12B*. During the curve, the gamma-ray data and e-log data from the *Lindvig 11-1HR* and the *Achilles 5301 41-12B* were used to determine the curve landing depth for the *Jefferies 5301 43-12B*.

The *Lindvig 11-1HR* [SESE Section 11, T153N, R101W] is located ~ 0.5 miles east of *Jefferies 5301 43-12B*. The *Lindvig 11-1HR* was spud on 11 December 1982 by Gulf Oil Corporation under the original well name *N. Alexander #1-11-3C*. This well is currently operated by SM Energy Company. The *Lindvig 11-1HR* was drilled to the Red River Formation with a total depth 14,461'. Production was established in both the Madison and Red River intervals. Cumulative production from the Madison Group has been recorded as 203,232 bbls of oil, 242,165 bbls of water and 242,165 MCF gas. The production status for the Red River Formation has been listed as dry.

The *Achilles 5301 41-12B* [SWSW Section 12, T153N, R101W] is located within the same section approximately one half mile west of the *Jefferies 5301 43-12B*. The *Achilles 5301 41-12B* was spud on 3 January 2012 by Oasis Petroleum North America, LLC. The *Achilles 5301 41-12B* is a horizontal well drilled through the Middle Member of the Bakken Formation. Initial production data for the *Achilles 5301 41-12B* had not been disclosed at the time of this report.

To define the initial landing target, Table 1 was constructed to calculate the distance of formation tops and Lodgepole markers to the target depth determined from the both offset wells. The comparison showed distance to the landing target from the Lodgepole Formation averaged 738' between the *Lindvig 11-1HR* and the *Achilles 5301 41-12B*.

The initial kick off point (KOP) was projected at 10,300' (-8,182'). The bottom hole assembly for the curve build was picked up at 10,270' (-8,152') on 7 February 2012. The Lodgepole Formation top was picked from MWD gamma data at 10,010' (-7,892). Utilizing the Upper Bakken Shale isopach map and the distance to target from both control wells, the landing target for the *Jefferies 5301 43-12B* was set at 10,750' (-8,632') total vertical depth (TVD).

During the curve progression, Lodgepole markers A through F were used to help determine the landing target and aid directional drillers to calculate the curve build. The close proximity of the control wells in addition to the marker picks determined the landing target would remain at 10,750' TVD.

## Control Wells

<b>Operator:</b> <b>Well Name:</b> <b>Location:</b> <b>Elevation:</b>	<b>SM Energy Company</b> <i>Lindvig 11-1HR</i> SESE Sec. 11 T153N R101W KB: 2,108'			<b>Oasis Petroleum North America, LLC</b> <i>Achilles 5301 41-12B</i> SWSW Sec. 12 T153N R101W KB: 2,119'		
Formation/Marker	E-Log/GR	MSL Datum	Distance to target	E-Log/GR	MSL Datum	Distance to target
Charles Salt	8.509'	-6.401'	2,226'	8.552'	-6.433'	2,182'
Base of Charles Salt	9.207'	-7.099'	1,528'	9.219'	-7.100'	1,515'
Lodgepole	9.991'	-7.883'	744'	10,002'	-7.883'	732'
LPA	10,411'	-8.303'	324'	10,411'	-8.292'	323'
LPB	10,479'	-8.371'	256'	10,460'	-8.341'	274'
LPC	10,503'	-8.395'	232'	10,497'	-8.378'	237'
LPD	10,561'	-8.453'	174'	10,558'	-8.439'	176'
LPE	10,607'	-8.499'	128'	10,610'	-8.491'	124'
LPF	10,660'	-8.552'	75'	10,657'	-8.538'	77'
False Bakken	10,700'	-8.592'	35'	10,701'	-8.582'	33'
Scallion	10,703'	-8.595'	32'	10,702'	-8.583'	32'
Upper Bakken Shale	10,709'	-8.601'	26'	10,708'	-8.589'	26'
Middle Bakken	10,726'	-8.618'	9'	10,727'	-8.608'	7'
Target	10,735'	-8.627'	-	10,734'	-8.615'	-

Table 1. Comparison of distances from formation tops and Lodgepole Formation markers to landing target from two control wells utilized to determine kick off point and target TVD at curve landing.

## Vertical Operations

### Overview

RPM well site geologists arrived at site on 5 February 2012 and began logging the vertical section at 8,300' shortly before picking the top of the limestone marker of the Kibbey Formation at 8,390' (-6,272').

The *Jefferies 5301 43-12B* was spud on 1 February 2012 using Nabors #149 drilling rig. Nabors #149 was used to drill the surface from the conductor at 105' to 2,190' using fresh water. Surface casing was set to 2,170' and isolated with 9 5/8" 36# J-55 casing pipe.

Bit #1 (13.5" JZ HC605) was used to drill from 105' to 2,190' in 13 hours with an average ROP of 160.4 feet per hour. Bit #2 was used to drill the 8,080' vertical section from surface casing to KOP at 10,270' (-8,152') in 79.5 hours with an average ROP of 101.6 feet per hour.

Diesel invert drilling fluid with a mud weight ranging from 9.5 to 10.3 ppg was used during the vertical hole from surface casing through the curve build and landing at 11,110' MD / ~10,748' TVD.

## Lithology

The top of the limestone marker from the **Kibbey Formation** [Mississippian Big Snowy Group] was logged at 8,390' (-6,272'), 17' low to the *Lindvig 11-1HR*. Samples from this interval were described as (Figure 1):

**LIMESTONE:** wackestone, medium gray, tan, finely crystalline, hard, blocky, earthy to micro crystalline

**SANDSTONE:** white to clear, fine grained, friable, subrounded to rounded, moderately to well sorted, earthy texture, calcareous cement



Figure 1. Fine grained sandstone (left) and limestone (right) as seen in sample while drilling in the Kibbey Formation.

The top of the **Charles Salt** [Mississippian Madison Group] was logged at 8,523' (-6,405'), 4' low to the *Lindvig 11-1HR*. Samples from this interval (Figure 2) were described as:

**SALT:** translucent, milky white, cryptocrystalline, hard, subhedral, crystalline texture

**SANDSTONE:** white to clear, trace gray, fine to medium grained, friable, subrounded to rounded, moderately to well sorted, earthy texture, calcareous cement

**ANHYDRITE:** white to off white, microcrystalline, soft, amorphous texture

**LIMESTONE:** mudstone, light gray, microcrystalline, subblocky, firm, crystalline texture, argillaceous in part, trace intercrystalline porosity

**DOLOMITE:** mudstone, light blue, microcrystalline, subblocky, firm, microsucrosic texture

**DOLOMitic LIMESTONE:** mudstone, light gray to blue, light brown to gray, medium gray, microcrystalline, subblocky, firm, microsucrosic texture



Figure 2. Subhedral grains of salt (left), anhydrite stained with invert drilling mud (center), and light blue dolomite (right) observed in the Charles Formation.

The top of the **Base Last Salt** was drilled at 9,224' (-7,106'), 5' low to the *Lindvig 11-1HR*. Samples from this interval (Figure 3) were described as:

LIMESTONE: mudstone, light gray to brown, trace light yellow, microcrystalline, subblocky, firm to hard, earthy texture, rare calcite, slightly argillaceous

DOLOMITIC LIMESTONE: mudstone to wackestone, light brown to gray, blue, microcrystalline to very fine crystalline, subblocky, firm, earthy to sucrosic texture, trace fossils fragments, trace intergranular porosity

ANHYDRITE: very light gray, gray to blue, microcrystalline, firm, earthy texture



Figure 3. Light to medium gray anhydrite observed below the Base Last Salt.

The top of the **Mission Canyon Formation** of the Madison Group [Mississippian] was penetrated at 9,451' (-7,333'), 10' low to the *Lindvig 11-1HR*. Samples from this interval (Figure 4) were described as:

LIMESTONE: mudstone to wackestone, brown, medium to dark gray, white in part, microcrystalline to very fine crystalline, subblocky to subplatey, firm, earthy texture, trace algal matts, trace calcite

LIMESTONE: mudstone to wackestone, dark gray, dark brown, white in part, microcrystalline to very fine crystalline, subblocky to subplatey, firm to hard, earthy texture, trace calcite, argillaceous in part, trace pyrite



Figure 4. Limestone observed while drilling in the Mission Canyon Formation.

The top of the Lodgepole Formation of the Madison Group (Mississippian) was logged at 10,010' (-7,892), 3' high to the Lindvig 11-1HR. Samples collected from the Lodgepole Formation (Figure 5) were described as:

LIMESTONE: mudstone to wackestone, dark gray, dark brown, white in part, microcrystalline to very fine crystalline, subblocky to blocky, hard, earthy texture, trace calcite, argillaceous in part, trace pyrite

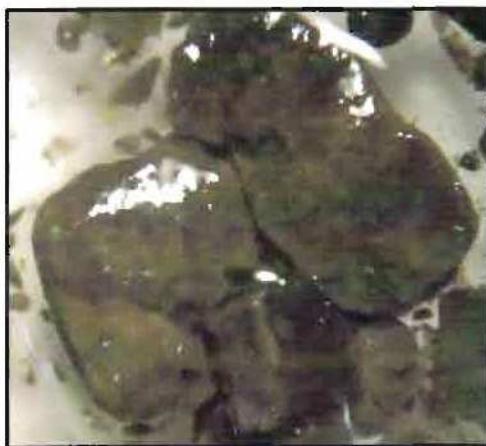


Figure 5. Microcrystalline limestone (left) and limestone with calcite (right) observed while drilling in the Lodgepole Formation.

## Directional Operations

RPM geologists worked closely with onsite MWD and Directional Drilling technicians to formulate steering decisions to maximize exposure of borehole in the pay zone. MWD gamma-ray information and penetration rates were closely observed to aid in steering decisions and dip degree estimations. Ryan Energy provided equipment and personnel for MWD and Directional Drilling services.

### Curve Build Section

#### Overview

During the curve progression, isopach data and gamma signatures from the *Lindvig 11-1HR* and the *Achilles 5301 41-12B* were compared to gamma readings from the MWD tool below the Lodgepole Formation. Six possible Lodgepole markers were identified to determine the target landing point.

<b>Operator:</b> <b>Well Name:</b> <b>Location:</b>	<b>Oasis Petroleum, Inc.</b> <b>Jefferies 5301 43-12B</b> 250' FSL & 2,410' FWL Section 12, T153N, R101W				
<b>Elevation:</b>	GL: 2,093'	Sub: 25'			KB: 2,118'
Formation / Marker	MWD Gamma Pick	MSL Datum	Distance to Target	Distance to Target Lindvig 11-1HR	Distance to Target Achilles 5301 41-12B
Kibbey Limestone	8,390'	-6,272'	2,360'	-	-
Charles Salt	8,523'	-6,405'	2,227'	2,226'	2,182'
Base Last Salt	9,224'	-7,106'	1,526'	1,528'	1,515'
Mission Canyon	9,451'	-7,333'	1,299'	-	-
Lodgepole	10,010'	-7,892'	740'	744'	732'
LPA	10,421'	-8,303'	329'	324'	323'
LPB	10,491'	-8,373'	259'	256'	274'
LPC	10,513'	-8,395'	237'	232'	237'
LPD	10,575'	-8,457'	175'	174'	176'
LPE	10,619'	-8,501'	131'	128'	124'
LPF	10,672'	-8,554'	78'	75'	77'
False Bakken	10,718'	-8,600'	32'	35'	33'
Upper Bakken Shale	10,725'	-8,607'	25'	26'	26'
Middle Bakken	10,740'	-8,622'	10'	9'	7'
Target	10,750'	-8,632'	-	-	-

Table 2. Table utilized by RPM Geologists to calculate, track and determine the final landing target for the *Lindvig 11-1HR* as formation tops and marker picks were made available from gamma ray data provided by Ryan Energy.

The curve was started at the kick off point of 10,300' using a PDC bit. Bit #3 (Halliburin FXD55M) was used from 10,270' to 10,560' for 9 hours. Bit #3 was rerun after a trip out of the hole to adjust the mud motor from 2.3° to 2.45° due to inadequate build rates. At 10,719' the bottom hole assembly was replaced a 2.35° motor and bit #4 which was a more aggressive tricone bit. This bottom hole assembly provided the build rates needed to land on target. The curve was landed at 90°. While drilling 65' of rathole, the inclination increased to 92.00°, followed by 92.60° during the next two surveys. Directional slid down to correct with the next consecutive surveys recorded as 89.40° and 87.40°.

The curve was landed in the Middle Member of the *Bakken Formation* ~ 6' below the base of the Upper Bakken Shale. The curve was completed on 10 November 2012 at 11,110' MD / ~10,748' TVD. Intermediate casing (7") was set to 11,093' MD.

### Lithology

The top of the **False Bakken** marker was logged at 10,810' MD / ~ 10,718' TVD. A weak gas show of 332 units was recorded while drilling through the False Bakken marker.

The Upper Shale of the Bakken Formation [Mississippian – Devonian] was drilled at 10,823' MD / ~ 10,725' TVD. The top of the Upper Shale is 5' low compared to offset well, *Lindvig 11-1HR*. The *Upper Shale* was described as black, carbonaceous and petroliferous shale (Figure 6) characterized by gamma-ray values in excess of 250 API counts. Due to a previously unrecognized gas trap glitch, gas levels were recorded with a peak of 481' units while drilling through the Upper Bakken Shale. Samples were described as:

SHALE: black, firm, subblocky, waxy texture, very carbonaceous, very slightly calcareous, petroliferous, visible oil stain, no visible porosity



Figure 6. Upper Bakken Shale.

The Middle Member of the Bakken Formation was picked at 11,888' MD / ~10,740' TVD, 5' low to *Lindvig 11-1HR*. Samples from Middle Member of the Bakken Formation observed during the curve build section were described as:

SILTY SANDSTONE: light to medium gray, white in part, very fine grained, subrounded to rounded, firm, moderately sorted, occasional calcite fracture fill, trace nodules pyrite, dolomitic cement, visible intergranular porosity

SILTY SANDSTONE: light brown, light gray, white in part, very fine grained, subrounded to rounded, firm, moderately to poorly sorted, trace disseminated pyrite, very sandy, dolomitic cement, visible intergranular porosity, visible light brown oil stain

## Lateral Section

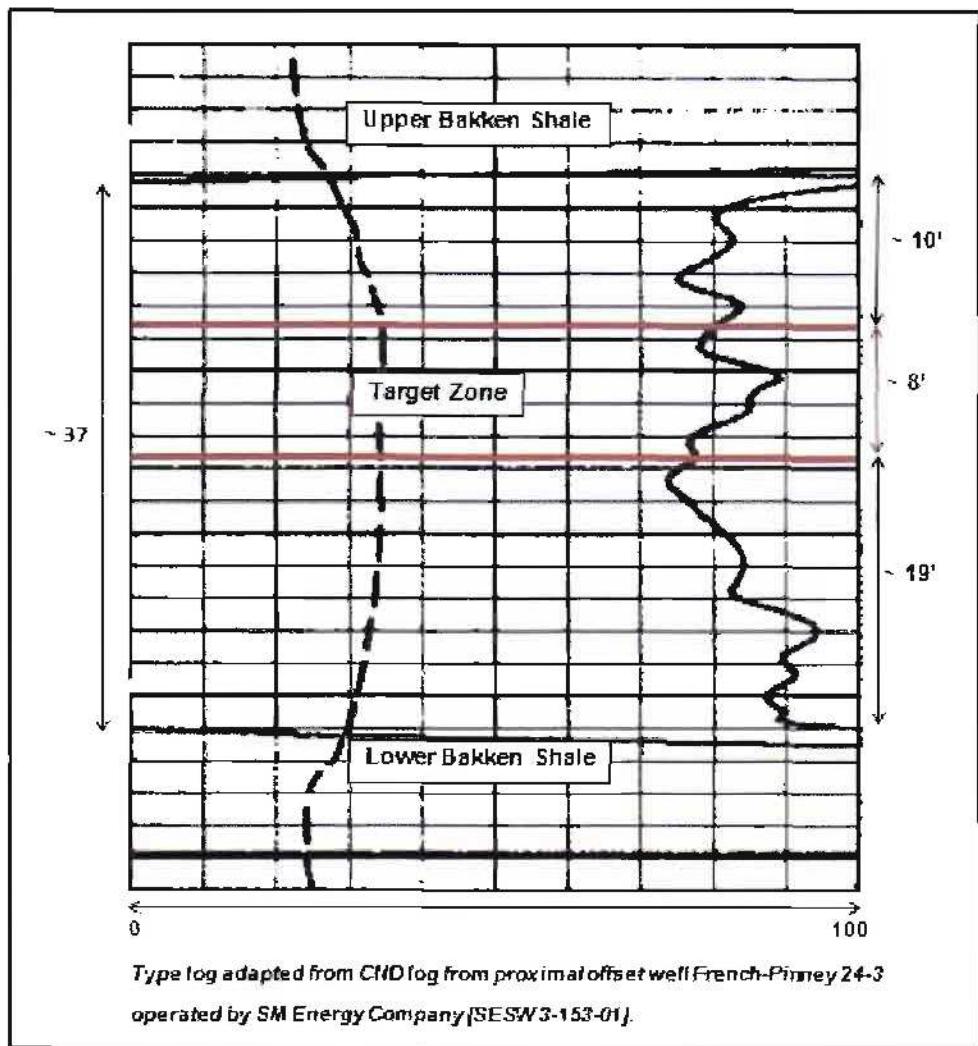
### Overview

Drilling fluid consisting of a salt water program (9.7 to 9.9 ppg) while drilling the lateral section. The drilling mud was successful in preserving stable hole conditions, minimizing washout through the salt intervals and maintaining hydrostatic balance.

One 6" Security DBS PDC bit was used to drill the lateral section. Bit #5 was used to drill out of intermediate casing to 13,534' MD in 35.5 hours averaging 68.3 feet per hour. Bit #5 was run a second time after a trip out of the hole to replace the mud motor. The new motor was adjusted to 1.83°. Bit #5RR1 drilled to 20,085' MD in 88 hours with an average drill rate of 74.4 feet per hour. Bit #5 was run a third time after a trip out of the hole to replace the motor. Bit #5RR2 drill to total depth of 21,250'.

### Target Zone

The target zone was a nine foot vertical section ranging from 10' to 19' below the Upper Bakken Shale. A type log (Figure 7) was adapted from a nearby offset well demonstrating the general gamma character. The target zone was bound by a low gamma marker (~ 50 to ~ 55 API) near the top of the zone. The bottom of the zone was also bound by a low gamma signature (~ 50 to ~ 58 API). The middle of the target zone was characterized by "ratty" gamma which ranged from ~ 50 to ~80 API counts.



*Figure 7. Type log adapted from compensated neutron density log from proximal well exhibiting gamma ray signature for Middle Member of the Bakken Formation. The eight foot target zone is delineated between 10' and 18' below the Upper Bakken Shale.*

### Lithology

The Middle Member of the Bakken Formation observed in cutting samples consisted of two primary facies observed while drilling in the target zone: 1) light gray silty sandstone with visible oil staining and 2) light gray silty sandstone with trace amounts of patchy oil stain. Figures 8 illustrates the primary facies observed while drilling through the Middle Bakken Formation.

SILTY SANDSTONE: light to medium brown, light gray, white in part, very fine grained, subrounded to rounded, firm, moderately to poorly sorted, common disseminated pyrite, sandy, dolomitic cement, visible intergranular porosity, visible light brown oil stain

SILTY SANDSTONE: light to medium gray, white in part, light brown in part, very fine grained, subrounded to rounded, firm, moderately to poorly sorted, trace disseminated pyrite, silty, dolomitic cement, visible intergranular porosity, patchy oil stain

SLTY SANDSTONE: light to medium gray, white in part, light brown in part, very fine grained, subrounded to rounded, firm, moderately to poorly sorted, trace disseminated pyrite, silty, dolomitic cement, visible intergranular porosity

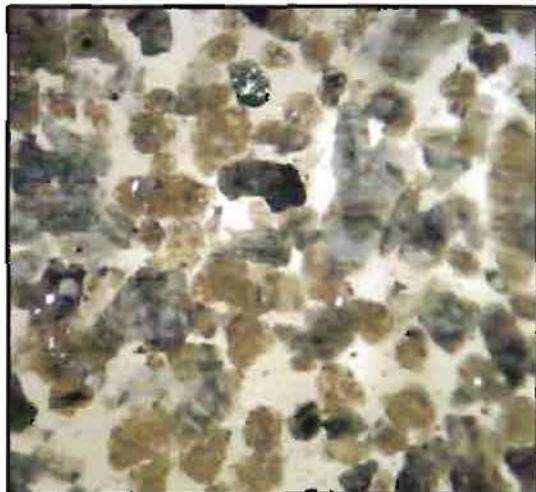


Figure 8: Photograph exhibiting common oil staining observed sample of the Middle Bakken near the top of the target zone (left). The lower part of the target zone demonstrates patchy oil staining (right).

## Geosteering

Geosteering decisions were made by carefully observing MWD gamma ray data and aligning the well bore with calculated TVD projections based on calculated dip of formation. Table 3 demonstrates gamma points picked from repeat gamma signatures used to calculate the dip of formation.

		Jefferies 5301 43-12B      CALCULATED DIP OF FORMATION						
Marker I Gamma API	Marker II Gamma API	Measured Depth I	Measured Depth II	TVD I	TVD II	Δ MD	Δ TVD	Calculated dip of formation
52	52	11.918	11.311	10,759.56	10,756.81	607	2.75	-0.29'
71	71	13,328	12.784	10,768.56	10,764.23	544	4.33	-0.46'
48	46	13.780	13.456	10,774.64	10,775.58	304	-0.94	+0.17'
53	51	14.111	13.843	10,771.96	10,773.12	288	-1.18	+0.26'
51	51	14.721	13.843	10,769.03	10,773.12	878	-4.09	+0.45'
52	50	16.827	15.740	10,747.64	10,761.39	1 087	-13.75	+0.72'
51	58	17.770	16.812	10,733.73	10,748.18	958	-14.45	+0.86'
82	79	19.862	18.471	10,689.46	10,722.92	1 391	-33.46	+1.37'

Table 3: Calculations used to estimated dip of formation using gamma ray data from repeat gamma ray signatures.

## Gas and Hydrocarbon Shows

Gas shows were weak through the Charles Formation. Total gas levels elevated significantly near the Base Last Salt with an average background gas of ~ 270 units with recurring peaks of ~330 to ~450 units. A peak of 528 units was recorded in the lower Mission Canyon Formation.

During the curve, the average background gas was ~200 units. A weak gas show of 481 units was recorded while drilling through the Upper Bakken Shale. Repairs were made to gas trap equipment before drilling resumed in the lateral. The average background gas recorded during the lateral ranged from ~2,800 to ~3,400 units. Gas was diverted and a steady 2' to 6' flare was produced. Trip gas produced significant flares of up to approximately 12'. The Bloodhound gas chromatograph showed components of C1 through C4 throughout the entire lateral (Figure 9).

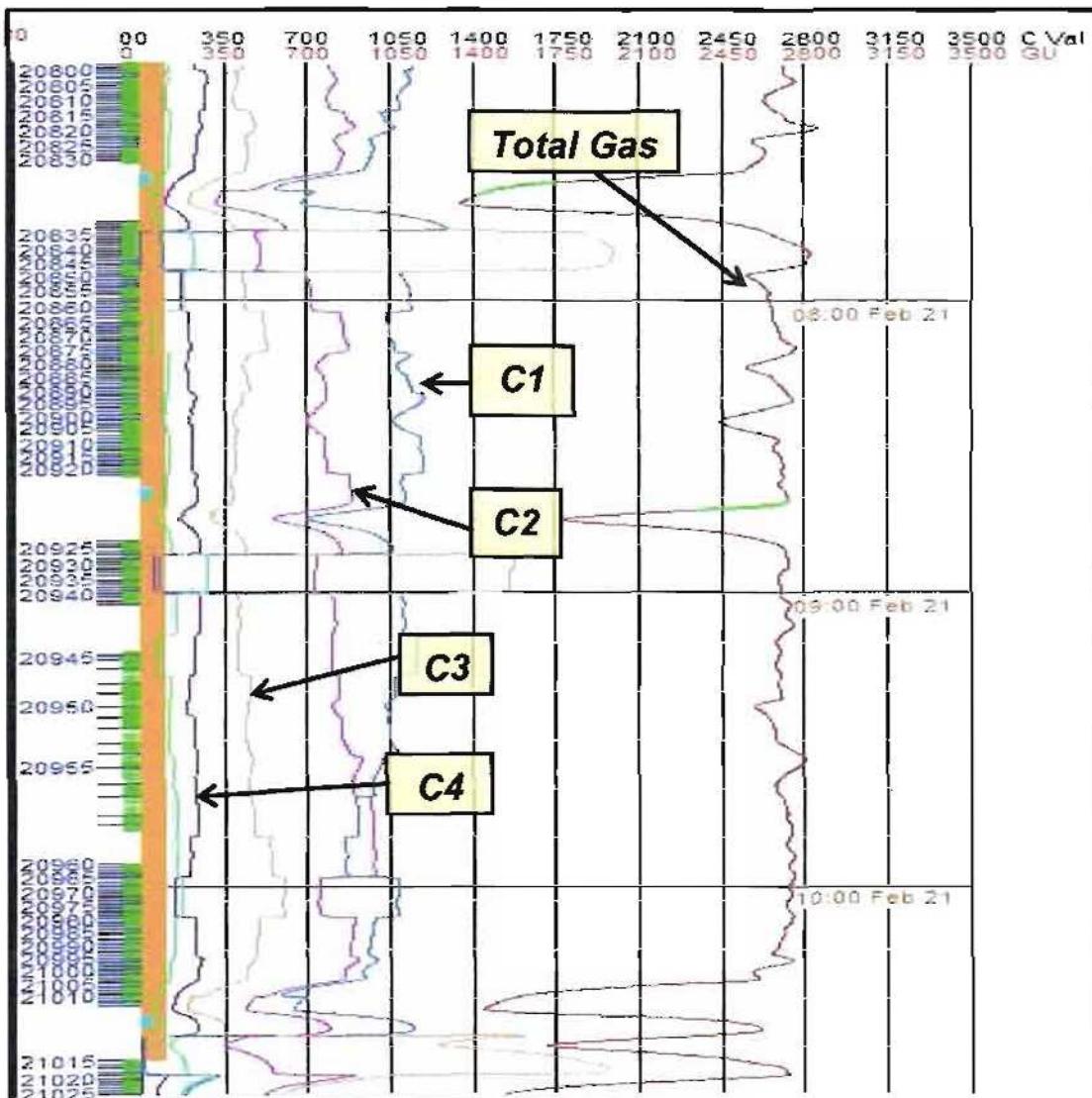


Figure 9. Screen shot of Bloodhound Chromatograph showing formation gas of up to approximately 2,700 units. Total gas units and percentages of gas components are illustrated.



SHL  
2S0' FSL  
2410' FEI

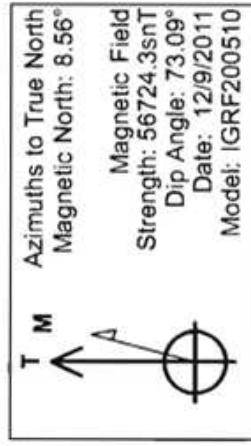
A

Bray 5301 43-12H

Project: Indian Hills  
Site: 153N-101W-13/24  
Well: Jefferies 5301 43-12B  
Wellbore: OH  
Design: Plan #1

Setbacks  
500' E/W  
200' N/S

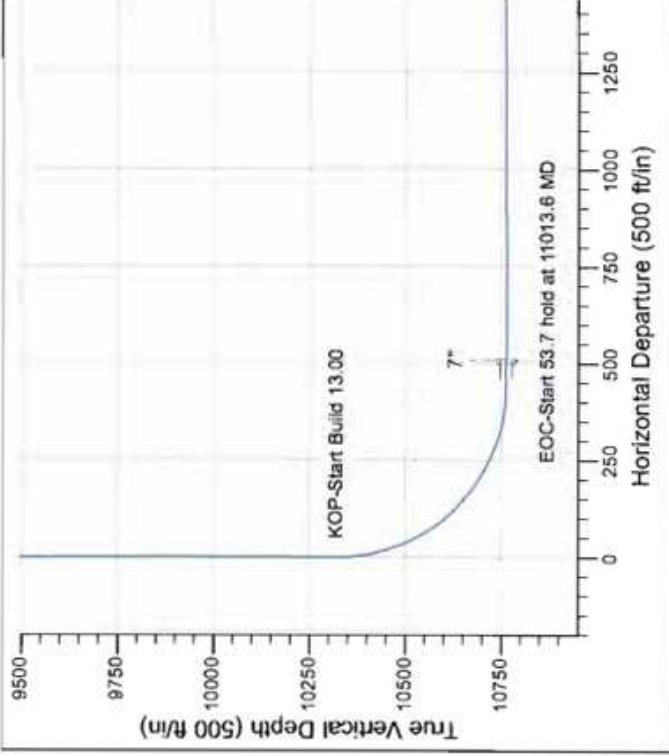
PBHL  
200' FSL  
2000' FWL



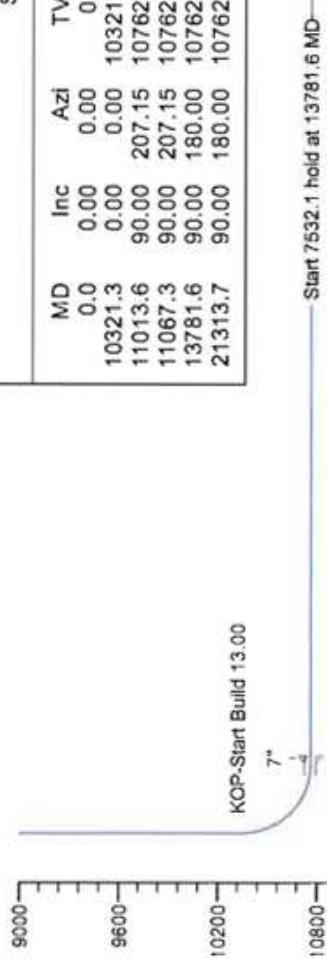
CASING DETAILS			
TVD	MD	Name	Size
2170.0	2170.0	9 5/8"	9.625
10762.0	11085.0	7"	7.000

SITE DETAILS: 153N-101W-13/24  
Site Centre Latitude: 48° 4' 5.360 N  
Longitude: 103° 36' 43.250 W

Positional Uncertainty: 0.0  
Convergence: -2.32  
Local North: True



SECTION DETAILS					
MD	Inc	Azi	TVD	+N/-S	+E/-W
0.0	0.00	0.00	0.0	0.0	0.0
10321.3	0.00	0.00	10321.3	0.0	0.0
11013.6	90.00	207.15	10762.0	-392.2	-201.1
11067.3	90.00	207.15	10762.0	-440.0	-225.6
13781.6	90.00	180.00	10762.0	-3053.9	-856.7
21313.7	90.00	180.00	10762.0	-10586.0	-857.0
					PBHL



EOC-Start 53.7 hold at 11013.6 MD

TD at 21313.7

Start 7532.1 hold at 13781.6 MD

Vertical Section at 184 ft

## Daily Activity

Day	Date 2012	Depth 0600 Hrs	24 Hr Footage	Bit #	WOB (Klbs) Rotate	WOB (Klbs) Slide	RPM (R/T)	Pump Pressure	SPM 1	SPM 2	GPM	24 Hr Activity	Formation
1	31-Jan	105'	613'	1	-	-	-	-	-	-	-	Rig up to spud, pre-spud safety meeting, drill from 105' to 250', repair rig, work on blower for top drive, drill from 250' to 485', wireline survey at 0 degrees, drill from 485' to 718'.	Surface
2	1-Feb	718'	1,472'	1	-	-	-	-	-	-	-	Repair shaker motors, drill from 718' to 935', repair shaker motors, rig service, drill from 935' to 2,190'. Circulate bottoms up, wiper trip, level derrick, wiper trip, circulate bottoms up, wireline survey at 2,190' at 1.24 degrees, TOH to run casing, lay down 8" BHA, safety meeting, rig up casing crew equipment.	Pierre Shale
3	2-Feb	2,190'	0'	-	-	-	-	-	-	-	-	Run surface casing, tag up with casing head 20' off the conductor, land casing at 2,170', cement surface casing, nipple up and pressure test BOP's.	Pierre Shale
4	3-Feb	2,190'	3,533'	-	-	-	-	-	-	-	-	Pressure test BOP's, pick up directional tools, TH to float equipment, displace fresh water out of the hole with invert, drill out cement and float equipment, drill from 2,190' to 5,723'.	Dakota
5	4-Feb	5,723'	2,035'	-	-	-	-	-	-	-	-	Drill from 5,723' to 6,709', rig service, grease crown and blocks, drill from 6,709' to 7,758'.	Minnelusa Group

## Daily Activity

Day	Date 2012	Depth 0600 Hrs	24 Hr Footage	Bit #	WOB (Klbs) Rotate	WOB (Klbs) Slide	RPM (RPM)	Pump Pressure	SPM 1	SPM 2	GPM	24 Hr Activity	Formation
6	5-Feb	7,758'	*430	2	30	-	40	2400	78	78	476	Drill from 7,758' to 8,425', rig service, drill from 8,425' to 9,186'.	Charles
7	6-Feb	9,188'	*182	2	35	-	40	2500	82	82	461	Drill from 9,188' to 9,665', service rig, drill from 9,665' to 10,270', spot drill, pumped dry job, TOOH.	Lodgepole
8	7-Feb	10,270'	210	3	30	40	40	2175	79	79	463	TOOH, lay down BHA, bit and motor, MWD tool, pick up BHA, bit and motor/pick up and scribe MWD tool, -IH and test MWD tool, drill from 10,270' to 10,480'.	Ledgepole
9	8-Feb	10,480'	238	3/3RR1	25	35	45	2650	79	79	463	Drill from 10,480' to 10,560', circulate and sand, -DOH, lay down BHA, pull MWD tool, -IH, drill from 10,592' to 10,718', spot drill/pump and dry job, TOOH.	Lodgepole
10	9-Feb	10,718'	95	4	42	36	40	2800	77	77	446	TOOH, lay down BHA, MWD tool, mud motor and bit, Cut drilling line, service rig, pick up BHA, mud motor and bit, Scribe MWD tool, TIH, drill from 10,718' to 10,814'.	Lodgepole
11	10-Feb	10,814'	298'	4	86	54	20	2750	76	76	457	Drill from 10,814' to 11,110', circulate bottoms up, TOOH 10 stands, -IH 10 stands, circulate bottoms up, rig up/down to run casting, lay down drill pipe.	Middle Bakken

## Daily Activity

Day	Date 2012	Depth 0600 Hrs	24 Hr Footage	Bit #	WOB (Klbs) Rotate	WOB (Klbs) Slide	RPM (RT)	Pump Pressure	SPM 1	SPM 2	GPM	24 Hr Activity	Formation
12	11-Feb	11,110'	0'	-	-	-	-	-	-	-	-	Drill from 10,814' to 11,110', circulate bottoms up, TOOH 10 stands, TIH 10 stands, circulate bottoms up, rig up/down to run casing, cement casing, change out pipe rams.	Middle Bakken
13	12-Feb	11,110'	0'	-	-	-	-	-	-	-	-	Changed out pipe rams and flushed out lines with salt water, test BOP's, disassemble/reassemble rams, test BOP's, pick up BHA, TIH 10 stands, install/remove wear bushing, pre job safety on rigging up laydown truck and picking up drill pipe, pick up drill pipe.	Middle Bakken
14	13-Feb	11,110'	1,475'	5	20	34	40	2250	78	0	229	Change rotating head/rubber, tag cement @ 10,964' / float @ 11,000' shoe @ 11,093', drill from 11,110' to 11,456', service rig, drill from 11,456' to 12,585'.	Middle Bakken
15	14-Feb	12,585'	949'	5	15	42	40	2500	0	82	240	Drill from 12,585' to 13,474', service rig, drill from 13,474' to 13,534', TOOH.	Middle Bakken
16	15-Feb	13,534'	284'	5RR1	35	40	40	2000	0	76	231	Change rotating head, install trip nipple, TOH, lay down BHA, MWD, stabilizers and mud motor, pick up BHA, MWD, mud motor, adjust mud motor, surface test, TIH, circulate kill mud, drill from 13,534' to 13,818'.	Middle Bakken

## Daily Activity

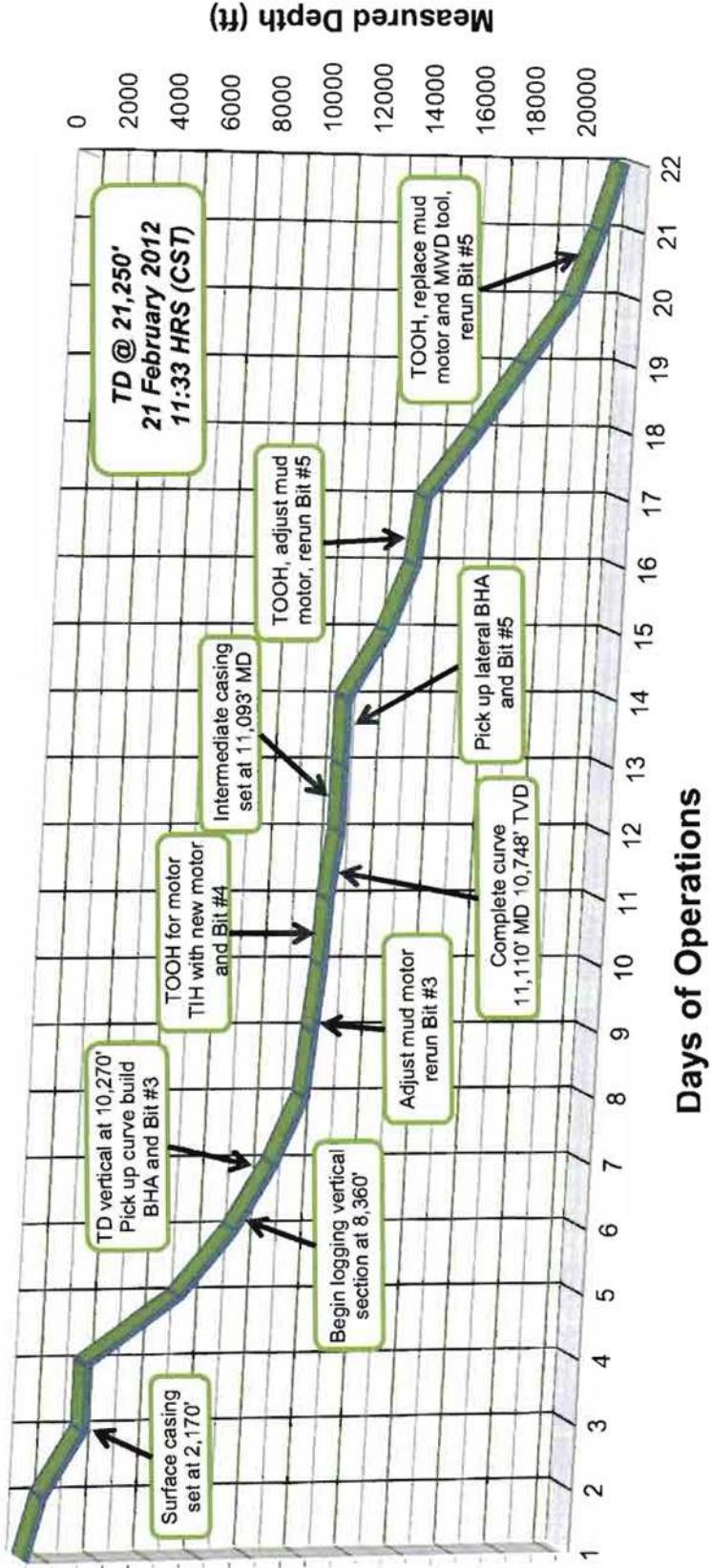
Day	Date 2012	Depth 0600 Hrs	24 Hr Footage	Bit #	WOB (Klbs) Rotate	WOB (Klbs) Slide	RPM (RT)	Pump Pressure	SPM 1	SPM 2	GPM	Formation
17	16-Feb	13,818'	1,891'	SRR1	40	35	40	2000	0	79	231	Drilling from 13,818' to 14,520', service rig, drill from 14,520' to 15,709'.
18	17-Feb	15,709'	1,785'	SRR1	30	40	35	2700	0	79	231	Drill from 15,709' to 16,553', rig service, drill from 16,553' to 17,474'.
19	18-Feb	17,474'	1,721'	5RR1	30	40	35	2700	0	79	231	Drill from 17,474 to 18,334', rig service, friction test floor valves, drill from 18,334' to 19,196'.
20	19-Feb	19,195'	9-7'	5RR1	10	60	33	3000	0	78	228	Drill from 19,195 to 20,112', spot pill, circulate and pump pill, TOH, change rotating head rubber and install flow nipple, conduct flow check, TOH, remove dart valve from string, lay down BHA.
21	20-Feb	20,112'	7-1'	5RR2	10	60	33	3000	0	78	228	Pick up BHA, scribe MWD, TIH, change rotating head, install new rubber, TIH, circulate and condition bottoms up, drill from 20,112 to 20,823'.
22	21-Feb	20,823'	427'	5RR2	15	35	40	2500	0	82	240	Drill from 20,823' to 21,250', circulate, TOH for reamer run.



## Daily Progress

Oasis Petroleum North America, LLC  
Jeffries 5301 43-12B

Spud: 31 January 2012



## Bit Record

<i>Bit #</i>	<i>Size</i>	<i>Make</i>	<i>Model</i>	<i>Serial #</i>	<i>Jets</i>	<i>Depth In</i>	<i>Depth Out</i>	<i>Footage</i>	<i>Hours</i>	<i>Mean ROP (ft/hr)</i>	<i>Accum. Hours</i>
1	13 1/2	JZ	HC605	H25022	4 x 20	105'	2,190'	2,085'	13	160.4	13.0
2	8 3/4	Smith	MDSi616	JF5128	6 x 14	2,190'	10,270'	8,080'	79.5	101.6	92.5
3	8 3/4	Halliburton	FXD55M	11848919	5 x 18	10,270'	10,560'	290'	9	32.2	101.5
3RR1	8 3/4	Halliburton	FXD55M	11848919	5 x 18	10,560'	10,719'	159'	5.5	28.9	107.0
4	8 3/4	Smith	F30T	PT8568	3 x 18	10,719'	11,110'	391'	19	20.6	126.00
5	6	Security	DBS	1875684	6 x 18	11,110'	13,534'	2,424'	35.5	68.3	161.50
5RR1	6	Security	DBS	1875684	6 x 18	13,534'	20,085'	6,551'	88	74.4	249.50
5RR2	6	Security	DBS	1875684	6 x 18	20,085'	21,250'	1,165'	17	68.5	266.50

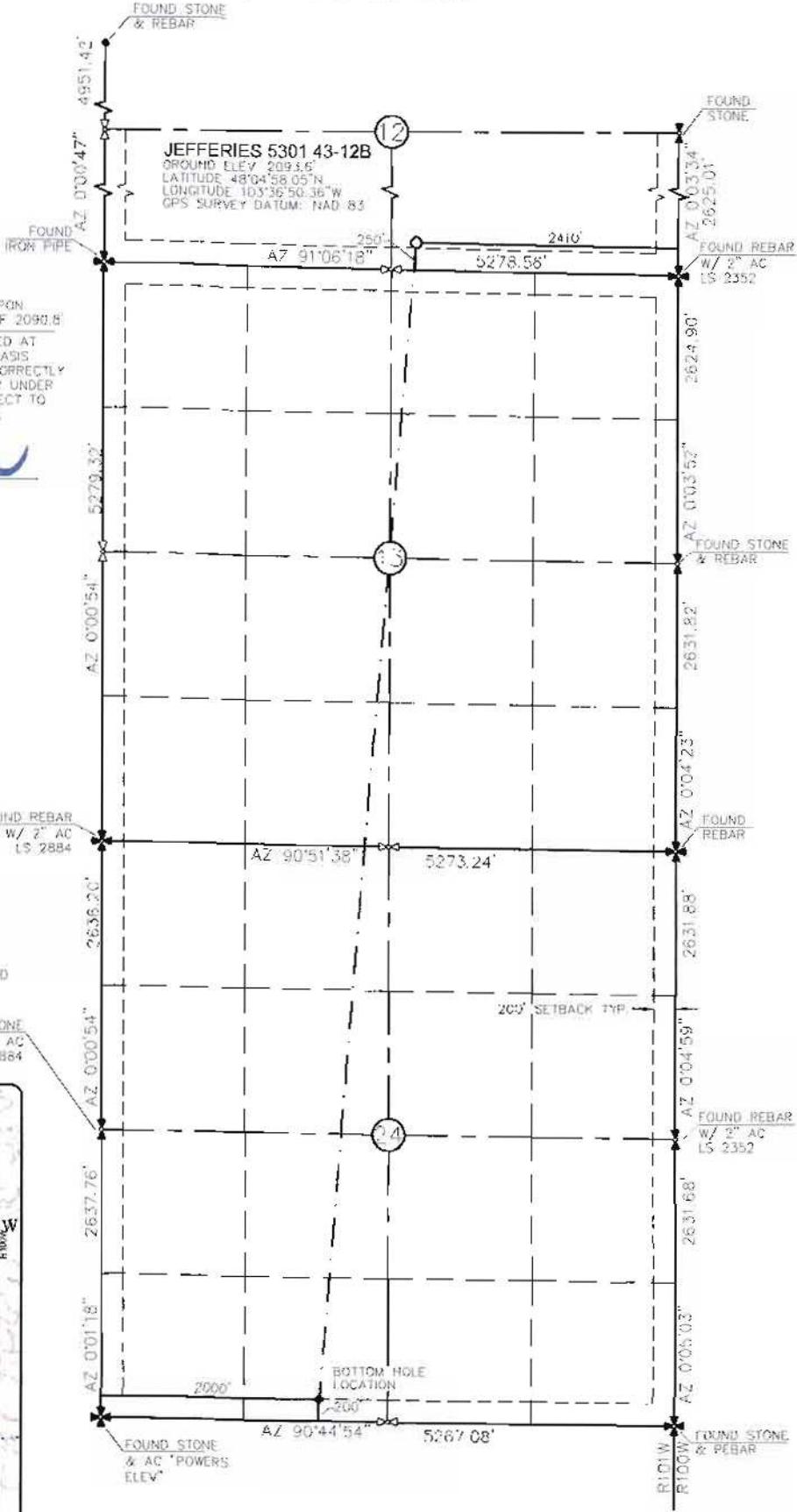
## Daily Mud Data

Day	Date	Depth (sample)	Mud WT (ppg)	Vis (sec)	PV (cp)	YP (lb/s) 100 ft <sup>2</sup>	Gels (lb/s) 1 ton ft <sup>2</sup>	600/300 (cP/20min)	HTHP (psi)	NAP/H <sub>2</sub> O (rate)	Cake (API/HT)	Solids (%)	pH	Alk	Cl- (mg/l)	ES (v)	Daily Loss (bbis)
1	31-Jan	300'	8.3	28	2	1	1/0/0	5/3	-	0/100	-	<1	8	-	4K	-	
2	1-Feb	1,625'	8.8	32	2	1	1/0/0	5/3	-	0/98	-	2	8	-	6K	-	
3	2-Feb																
4	3-Feb																
5	4-Feb																
6	5-Feb	8,254'	9.5	53	20	7	8/13	47/27	4	79.2/20.7	4	13	-	2.8	45K	602	
7	6-Feb	9,398'	10.0	58	24	8	9/17	56/32	3.2	78.8/21.2	4	15	-	2.5	45K	723	
8	7-Feb	10,270'	10.0	58	24	7	8/15	55/31	3.2	81.2/18.8	4	15	-	2.7	51K	784	
9	8-Feb	10,560'	10.1	63	26	8	10/0	60/34	4	81.2/18.8	4	15	-	2.4	50K	925	
10	9-Feb	10,719'	10.3	95	29	7	11/20	65/36	4	81.2/18.8	4.00	15	-	3.1	49K	0	
11	10-Feb	10,966'	10.3	71	28	9	11/21	65/37	3.2	82.4/17.6	4.00	13	-	2.7	49K	1163	
12	11-Feb																
13	12-Feb																
14	13-Feb	11,330'	9.8	29	1	1	0/0/1	3/2	-	-	-	10	8	-	172K	-	
15	14-Feb	12,977'	9.8	28	2	1	0/0/1	5/3	-	-	-	5	8	-	184K	-	
16	15-Feb	13,543'	9.8	28	1	1	0/0/1	3/2	-	-	-	10	7.5	-	192K	-	
17	16-Feb	14,175'	9.7	27	1	1	0/0/1	3/2	-	-	-	9	8.5	-	170K	-	
18	17-Feb	15,948'	9.8	27	2	1	0/0/1	5/3	-	-	-	8	8	-	165K	-	
19	18-Feb	18,022'	9.8	29	2	1	0/0/1	5/3	-	-	-	8	8	-	180K	-	
20	19-Feb	19,687'	9.8	26	2	1	0/0/1	5/3	-	-	-	8	8	-	177K	-	
21	20-Feb	20,111'	9.9	30	2	1	0/0/1	5/3	-	-	-	8	8	-	182K	-	

*Displace freshwater drilling mud with diesel invert at surface casing (9 5/8") set to 2,170'.*

*Displace diesel invert with salt water at intermediate casing (7") set to 11,093'.*

**WELL LOCATION PLAT**  
 OASIS PETROLEUM NORTH AMERICA, LLC  
 1001 FANNIN, SUITE 1500 HOUSTON, TX 77002  
 "JEFFERIES 5301 43-12B"  
 250 FEET FROM SOUTH LINE AND 2410 FEET FROM EAST LINE  
 SECTION 12, T15S, R101W, 51H P.M., MCKENZIE COUNTY, NORTH DAKOTA



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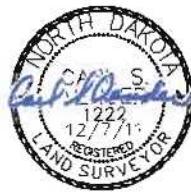
Interstate Engineering, Inc.  
 P.O. Box 646  
 425 East Main Street  
 Sidney, Montana 59270  
 Ph 406/433-5617

OASIS PETROLEUM NORTH AMERICA, LLC  
 WELL LOCATION PLAT  
 SECTION 12, T15S, R101W  
 MCKENZIE COUNTY, NORTH DAKOTA

Problem No.	Loc.	Re.	Description

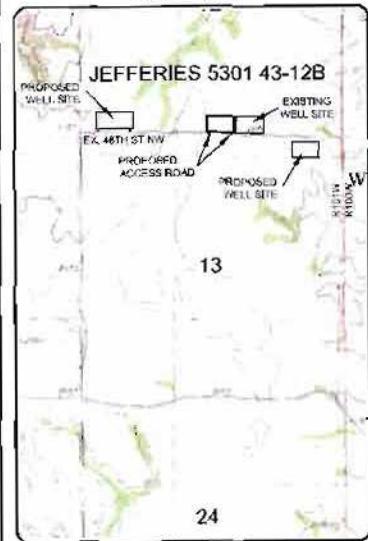
**SECTION BREAKDOWN**  
OASIS PETROLEUM NORTH AMERICA, LLC  
1001 FANNIN, SUITE 1500, HOUSTON, TX 77002  
"JEFFERIES 5391 43-125"  
250 FEET FROM SOUTH LINE AND 2410 FEET FROM EAST LINE  
SECTIONS 12, 13, & 24, T153N, R101W, 5TH P.M., MCKENZIE COUNTY, NORTH DAKOTA

ALL BEARINGS ARE BASED ON G.P.S. DERIVED BEARINGS. THE ORIGINAL SURVEY OF THIS AREA FOR THE GENERAL LAND OFFICE (G.L.O.) WAS 1900. THE CORNERS FOUND ARE AS INDICATED AND ALL OTHERS ARE COMPUTED FROM THOSE CORNERS FOUND AND BASED ON G.L.O. DATA.



-  - MONUMENT - RECOVERED
-  - MONUMENT - NOT RECOVERED

VICINITY MAP



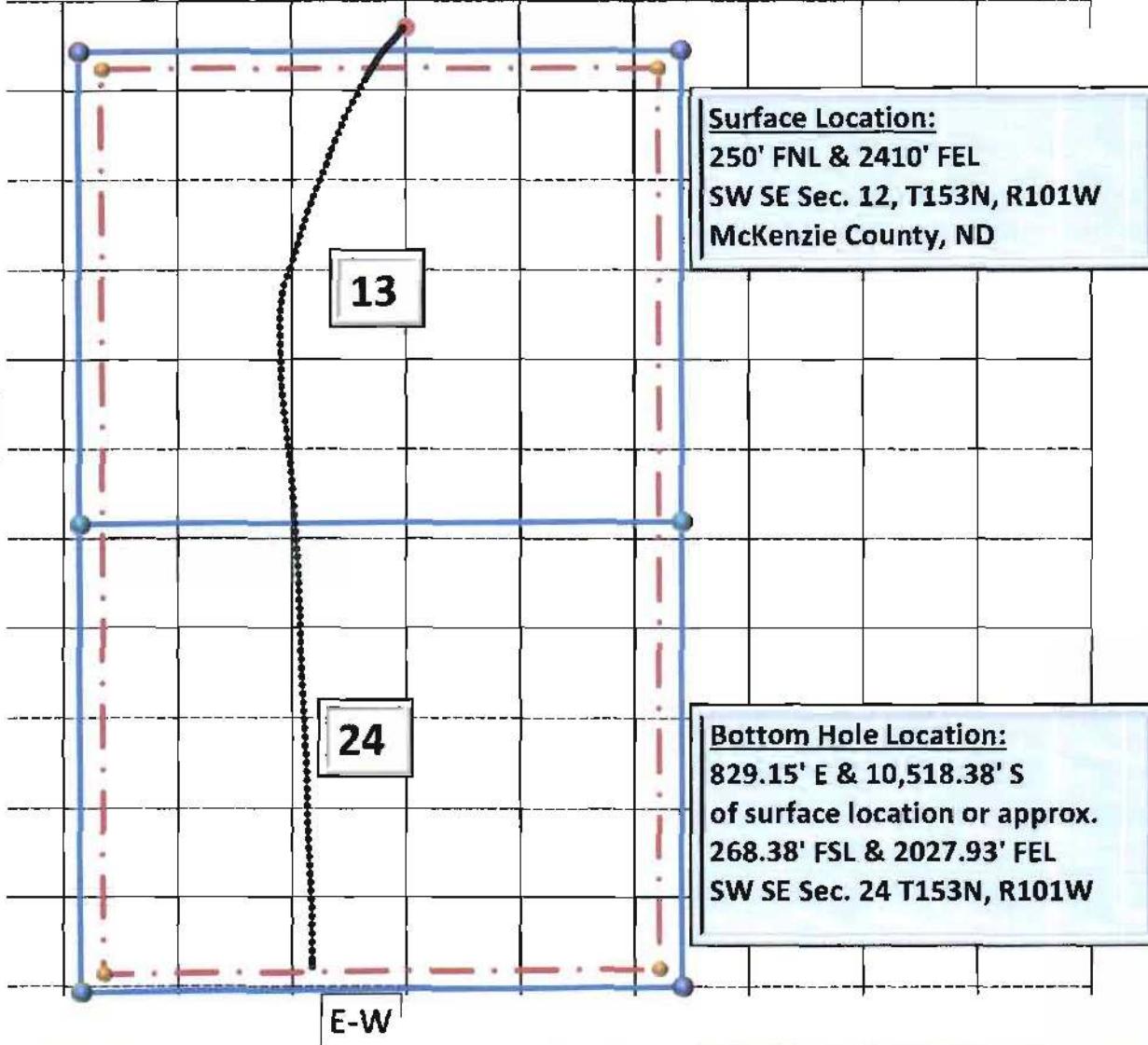
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Interstate Engineering, Inc.  
P.O. Box 649  
425 East Main Street  
Billings, Montana 59120  
Ph. (406) 233-5617

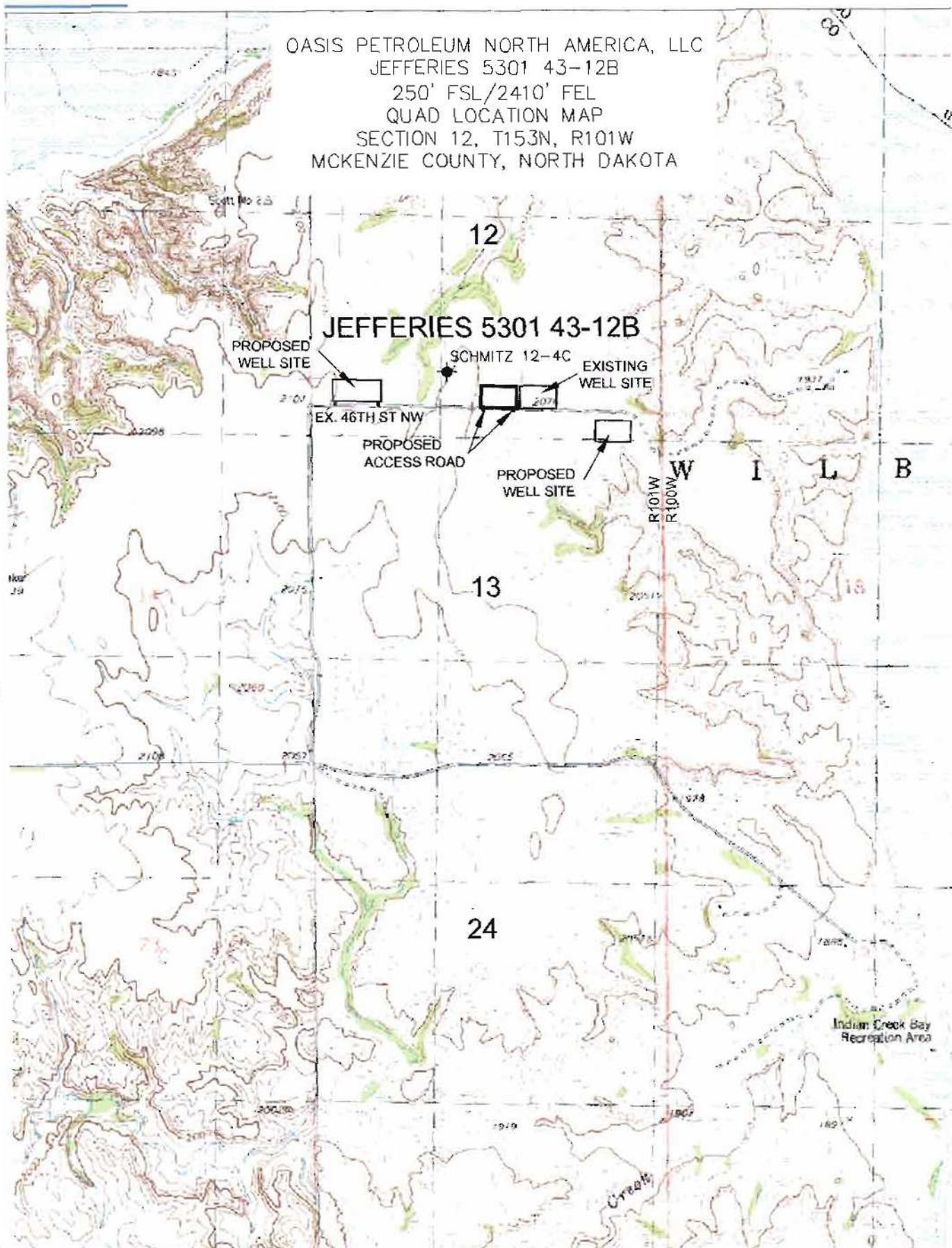
OASIS PETROLEUM NORTH AMERICA, LLC  
SECTION BREAKDOWN  
SECTIONS 12,13, & 24, T103N, R101W  
MCKENZIE COUNTY, NORTH DAKOTA

Author Name	Date	By	Description

## Vertical Section View



OASIS PETROLEUM NORTH AMERICA, LLC  
JEFFERIES 5301 43-12B  
250' FSL/2410' FEL  
QUAD LOCATION MAP  
SECTION 12, T153N, R101W  
MCKENZIE COUNTY, NORTH DAKOTA



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5/8



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ENGINEERING

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425 East Main Street  
Sidney, Montana 59270  
Ph. (406) 433-6617

OASIS PETROLEUM NORTH AMERICA, LLC  
QUAD LOCATION MAP  
SECTION 12, T153N, R101W  
MCKENZIE COUNTY, NORTH DAKOTA

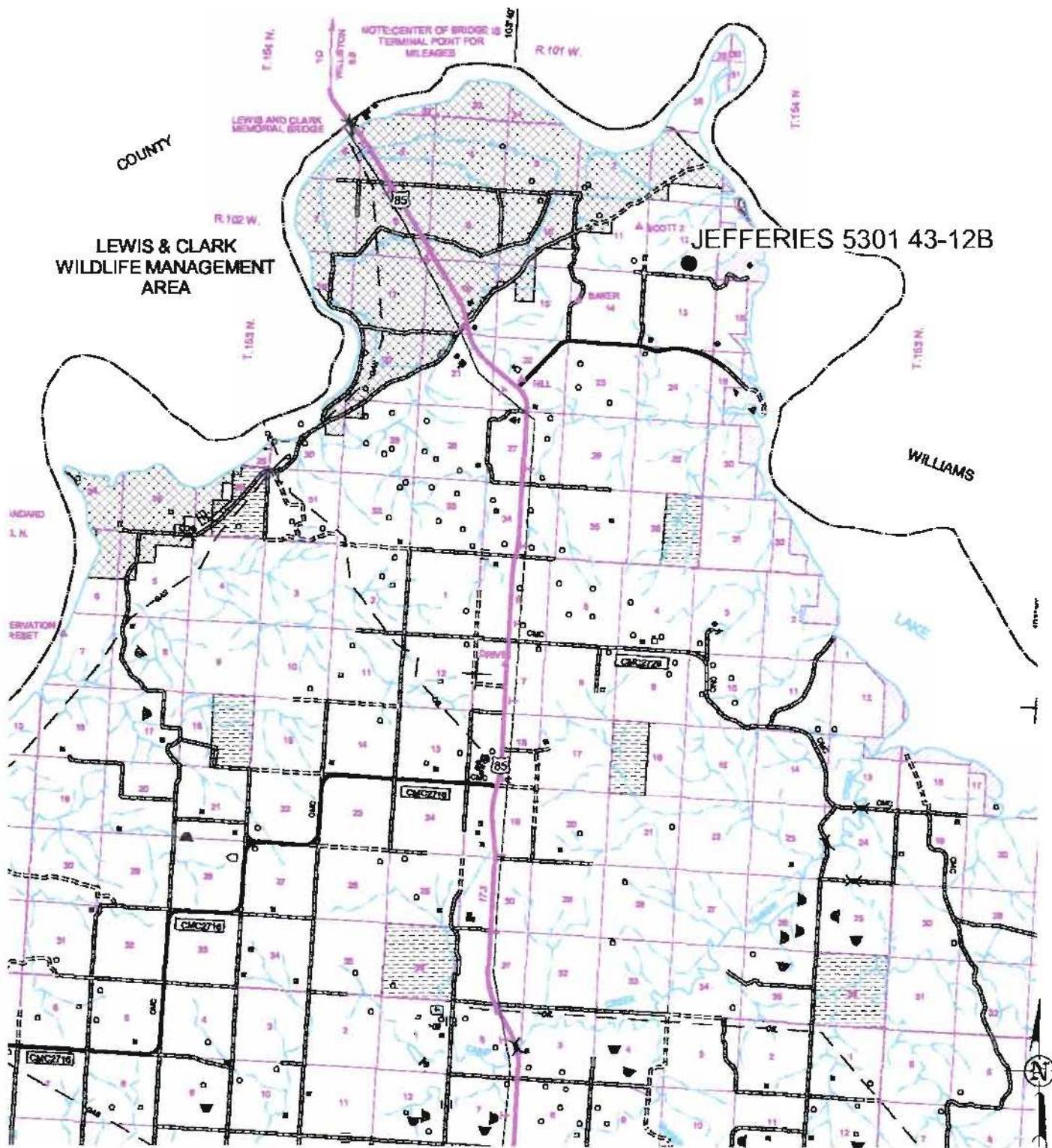
Revision No.	Date	By	Description

COUNTY ROAD MAP

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

"JEFFERIES 5301 43-12B"

250 FEET FROM SOUTH LINE AND 2410 FEET FROM EAST LINE  
SECTION 12, T153N, R101W, 5TH P.M., MCKENZIE COUNTY, NORTH DAKOTA



© 2011, INTERSTATE ENGINEERING, INC.

SCALE: 1" = 2 MILE

**Interstate Engineering, Inc.**  
P.O. Box 648  
425 East Main Street  
Sidney, Montana 59270  
Ph: (406) 433-5617  
Fax: (406) 433-5617

OASIS PETROLEUM NORTH AMERICA, LLC  
COUNTY ROAD MAP  
SECTION 12, T153N, R101W  
MCKENZIE COUNTY, NORTH DAKOTA

Registration No.	Date	By	Description

ACCESS APPROACH

**ACCESS APPROACH**  
OASIS PETROLEUM NORTH AMERICA, LLC  
1301 FANNIN, SUITE 1500 HOUSTON, TX 77002

NNIN, SUITE 1500 HOUSTON, TX 77002  
"JEFFERIES 5301 43-12B"

250 FEET FROM SOUTH LINE AND 2410 FEET FROM EAST LINE  
**SECTION 12 T153N R101W 5TH PM MCKENZIE COUNTY NORTH DAKOTA**

LARRY HEEN

SW1 / 4 SW1 / 4 & SE1 / 4 SE1 / 4 SEC 12  
 140.1 FT = 9 RODS

JEFFERIES 5301 43-12B

AZ 181 06  
69.9'

BRAY 5301 43-12H

EX. 33' R/W AZ 181°06'  
70.2'

2225.2 FOUND REBAR

FOUND REBAR

Interstate Engineering, Inc.  
P.O. Box 648  
425 East Main Street  
Sidney, Montana 59270  
Ph (406) 433-5817

OASIS PETROLEUM NORTH AMERICA, LLC  
ACCESS APPROACH  
SECTION 12, T153N, R101W  
MCKENZIE COUNTY, NORTH DAKOTA

Revision No.	Date	By	Description



2011, INTERSTATE ENGINEERING, INC.

4/8

0  
1" = 500'

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

# PAD LAYOUT

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

"JEFFERIES 5301 43-12B"

250 FEET FROM SOUTH LINE AND 2410 FEET FROM EAST LINE  
SECTION 12, T153N, R101W, 5TH P.M., MCKENZIE COUNTY, NORTH DAKOTA

Pit Stockpile

PIT

QUATERLINE

C-5.8'

C-4.2'

C-2.5'

C-1.5'

C-0.9'

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C-2.9'

DRILLING PLAN							
PROSPECT/FIELD	Indian Hills	Horizontal Middle Bakken	COUNTY/STATE	McKenzie Co., ND			
OPERATOR	2000 Operators		RIG	Naylor 149			
WELL NO.	EMD 43-12B		LEASE	Jefferson			
LOCATION	SWSE 12-T153N-R101W	Surface Location (survey plat): 2440' NPL	LINEAR				
EST. T.D.	21,313'			GROUND ELEV:	2093 Finisher Pad Elev.		
TOTAL LATERAL:	10,220' (est)			KF ELEV:	2118		
PROGNOSIS:	(Based on 2,118' KOPs)		LOGS:	Type	Interval		
MARKER	DEPTH (Surf Loc)	DATUM (Surf Loc)	OH Logs: File to omit				
Pierre	NDIC MAP	1,968	150'	CBL/GR: Above top of cement/GR to base of casing			
Greenhorn		4,634	2,518'	MWD GR: KOP to lateral TD			
Mowry		5,030	2,912'	DEVIAITON:			
Dakota		5,461	3,343'	Surf:	3 deg. max., 1 deg / 100'; svy every 500'		
Riordan		6,377	4,259'	Prod:	5 deg. max., 1 deg / 100'; svy every 100'		
Dunham Salt		6,895	4,778'	DSTS:			
Dunham Salt Base		6,963	4,845'	None planned			
Spearfish		6,968	4,850'	CORES:			
Pine Salt		7,212	5,094'	None planned			
Pine Salt Base		7,337	5,219'	MUDLOGGING:			
Opeche Salt		7,385	5,247'	Two-Man:	8,327		
Opeche Salt Base		7,444	5,325'	~200' above the Charles (Kibbey) to Casing point; Casing point to TD			
Broom Creek (Top of Minnelusa Gp.)		7,625	5,507'	30' samples at direction of wellsite geologist; 10' through target @ curve land			
Amsden		7,688	5,550'	BOP:			
Tyler		7,844	5,725'	11" 5000 psi blind pipe & annular			
Otter (Base of Minnelusa Gp.)		8,031	5,913'				
Kibbey		8,380	6,202'				
Charles Salt		8,527	6,400'				
UB		9,150	7,032'				
Base Last Salt		9,227	7,109'				
Rakcliffe		9,275	7,157'				
Mission Canyon		9,451	7,333'				
Lodgepole		10,025	7,907'				
False Bakken		10,740	8,613'				
Upper Bakken		10,755	8,622'				
Middle Bakken		10,762	8,637'				
Middle Bakken Sand Target		10,762	8,644'				
Base Middle Bakken Sand Target		10,771	8,653'				
Lower Bakken		10,791	8,673'				
Three Forks		10,818	8,700'				
Dip Rate:	± 25° or .62° / 100' DOWN first 4000' Then +0.55° or .93° / 100' UP						
Max. Anticipated BHP:	4075					Surface Formation: Glacial till	
MUD:	Interval	Type	WT	VIS	WL	Remarks	
Surface	0' -	2,170' FW/Gal - Line Sweeps	8.6 - 8.9	28-34	NC	Circ Mud Tanks	
Intermediate	2,170' -	11,085' Invert	9.6-10.4	40-60	30+(H2NH)	Circ Mud Tanks	
Liner	11,085' -	21,313' Salt Water	9.3-10.4	28-34	NC	Circ Mud Tanks	
CASING:	Size	Wt gpf	Hole	Depth	Gauge	WOC	Remarks
Surface:	9-5/8"	364	13-1/2"	2,170'	To Surface	12	100' int Plasma
Intermediate:	7"	29/32#	8-3/4"	11,085'	4,981'	24	500' above Dakota
Production:	4.5"	11,6#	6"	21,313'	TDL @ 10,270'		50' above KOP
Production Liner:							
PROBABLE PLUGS, IF REQ'D:							
OTHER:	MD	TVD	FNL/FSL	FEL/PWL	S-T-R	AZ	
Surface	2,170'	2,170'	250' FSL	2410' FEL	12-T153N-R101W		
KOP:	10,321'	10,321'	250' FSL	2410' FEL	12-T153N-R101W		
EOC	11,013'	10,762'	180' FNL	2635' FEL	13-T153N-R101W		
Casing Point:	11,085'	10,762'	206' FNL	2644' FEL	13-T153N-R101W		
Middle Bakken Lateral TD:	21,313'	10,762'	200' FSL	2000' PWL	24-T153N-R101W		
Comments:							
DRILL TO KOP.							
DRILL CURVE TO 90 DEG AND 7" CASING POINT							
SET 7" CASING. DRILL MIDDLE BAKKEN LATERAL							
MWD Surveys will be taken every 100' in vertical hole, and a minimum of every 30' while building curve and every 90' while drilling lateral.							
MWD GR to be run from KOP to Lateral TD.							
<b>GR must be run to ground surface.</b>							

Geology: MRB 12-9-2011

Prepared by:

Engineering: L. Strong 12/9/2011

## Formation / Marker Depths

<b>Operator:</b>	<b>Oasis Petroleum, Inc.</b>				
<b>Well Name:</b>	<b>Jefferies 5301 43-12B</b>				
<b>Location:</b>	250' FSL & 2,410' FWL Section 12, T153N, R101W				
<b>Elevation:</b>	GL: 2,093'	Sub: 25'		KB: 2,118'	
Formation / Marker	MWD Gamma Pick	MSL Datum	Distance to Target	Dip to Lindvig 11-	Dip to Achilles 5301
Kibbey Limestone	8,390'	-6,272'	2,360'	17' low	10' low
Charles Salt	8,523'	-6,405'	2,227'	4' low	25' low
Base Last Salt	9,224'	-7,106'	1,526'	5' low	8' low
Mission Canyon	9,451'	-7,333'	1,299'	10' low	29' low
Lodgepole	10,010'	-7,892'	740'	9' low	26' low
LPA	10,421'	-8,303'	329'	PARALLEL	11' low
LPB	10,491'	-8,373'	259'	2' low	32' low
LPC	10,513'	-8,395'	237'	PARALLEL	17' low
LPD	10,575'	-8,457'	175'	4' low	18' low
LPE	10,619'	-8,501'	131'	3' low	10' low
LPF	10,672'	-8,554'	78'	2' low	16' low
False Bakken	10,718'	-8,600'	32'	7' low	21' low
Upper Bakken Shale	10,725'	-8,607'	25'	5' low	21' low
Middle Bakken	10,740'	-8,622'	10'	5' low	18' low
Target	10,750'	-8,632'	-	8' low	15' low

## Control Wells

<b>Operator:</b>	<b>SM Energy Company</b>			<b>Oasis Petroleum North America, LLC</b>		
<b>Well Name:</b>	<b>Lindvig 11-1HR</b>			<b>Achilles 5301 41-12B</b>		
<b>Location:</b>	SESE Sec. 11 T153N R101W					
<b>Elevation:</b>	KB: 2,108'					<b>KB: 2,119'</b>
Formation/Marker	E-Log/GR	MSL Datum	Distance to target	E-Log/GR	MSL Datum	Distance to target
Charles Salt	8,509'	-6,401'	2,226'	8,552'	-6,433'	2,182'
Base of Charles Salt	9,207'	-7,099'	1,528'	9,219'	-7,100'	1,515'
Lodgepole	9,991'	-7,883'	744'	10,002'	-7,883'	732'
LPA	10,411'	-8,303'	324'	10,411'	-8,292'	323'
LPB	10,479'	-8,371'	256'	10,460'	-8,341'	274'
LPC	10,503'	-8,395'	232'	10,497'	-8,378'	237'
LPD	10,561'	-8,453'	174'	10,558'	-8,439'	176'
LPE	10,607'	-8,499'	128'	10,610'	-8,491'	124'
LPF	10,660'	-8,552'	75'	10,657'	-8,538'	77'
False Bakken	10,700'	-8,592'	35'	10,701'	-8,582'	33'
Scallion	10,703'	-8,595'	32'	10,702'	-8,583'	32'
Upper Bakken Shale	10,709'	-8,601'	26'	10,708'	-8,589'	26'
Middle Bakken	10,726'	-8,618'	9'	10,727'	-8,608'	7'
Target	10,735'	-8,627'	-	10,734'	-8,615'	-

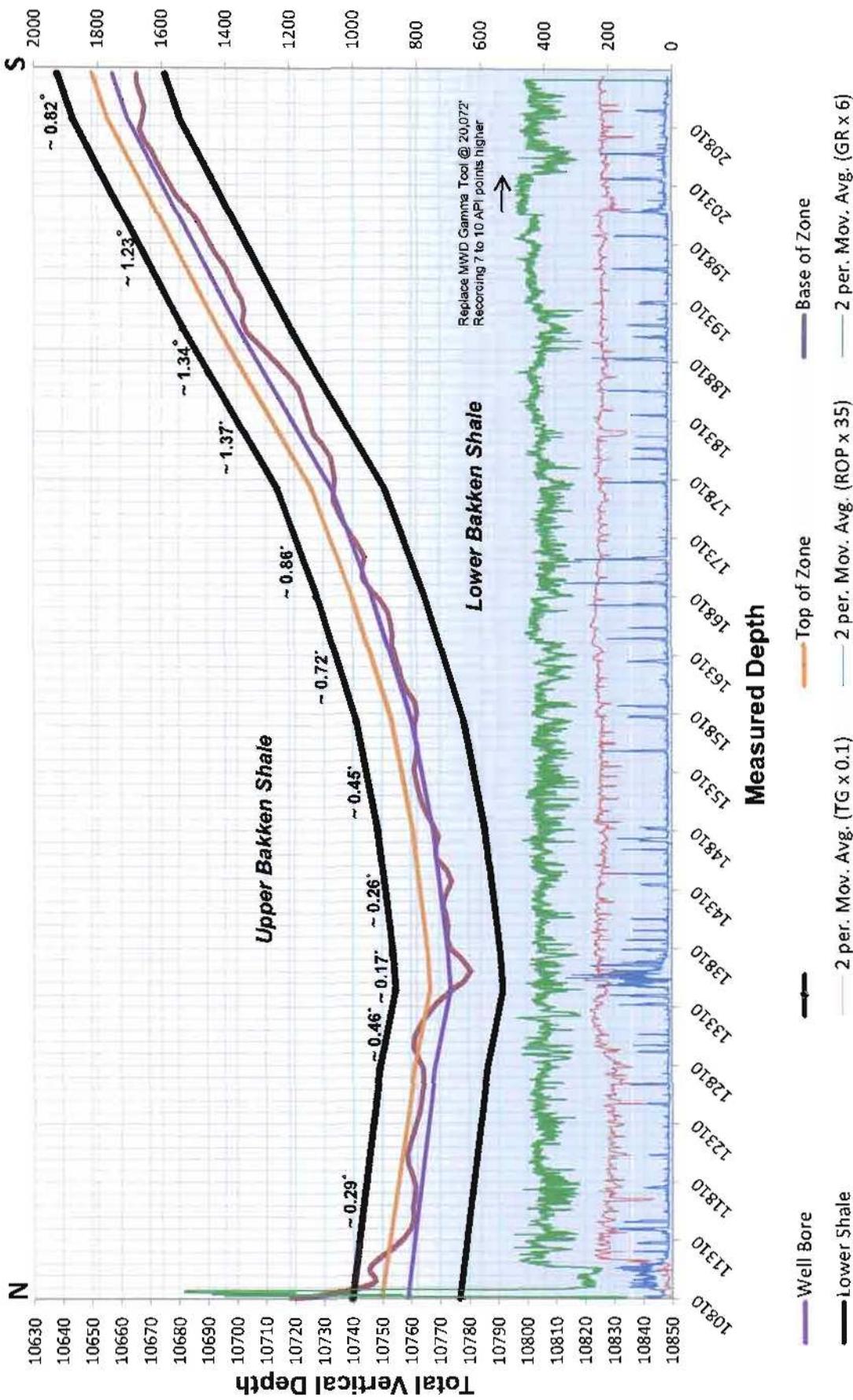


RPM Geologic

Surface: 250' FSL & 2,410' FEL  
NW NW Sec. 12, T163N, R101W  
McKenzie County, ND

**Jefferies**  
**5301 43-12B**  
**Horizontal Cross Section**

**Bottom Hole Location**  
829.15' E & 10,518.38' S  
of surface location or approx.  
268.38' FSL & 2,027.93' FEL  
**SWSE Section 24 T15N R101W**



# RPM Geologic

<b>Operator:</b>	<b>Oasis Petroleum</b>
Well :	Rowley 6093 43-23H
MWD Providers	Weatherford
Directional Supervision:	RPM



Section:	23	QQ:	NE NW	County:	Burke	State:	ND
Township:	160	N/S:	N	Footages:	180	FN/SL:	S
Range:	93	E/W:	W		1350	FE/WL:	E

Vertical Section Plane: 0.00							
------------------------------	--	--	--	--	--	--	--

#	<b>MD</b>	<b>Inc.</b>	<b>Azm.</b>	<b>T.V.D.</b>	<b>Ver. Sect.</b>	<i>Coordinates</i>		
						+N/-S	+E/-W	DLS
<b>Tie</b>	<b>2042.00</b>	<b>0.00</b>	<b>0.00</b>	<b>2042.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
1	2190.00	1.67	257.30	2189.98	-0.47	-0.47	-2.10	1.13
2	2285.00	1.49	264.99	2284.94	-0.89	-0.89	-4.68	0.29
3	2381.00	1.38	269.32	2380.91	-1.01	-1.01	-7.08	0.16
4	2476.00	1.43	271.99	2475.88	-0.98	-0.98	-9.41	0.09
5	2571.00	1.30	271.16	2570.86	-0.92	-0.92	-11.67	0.14
6	2666.00	1.38	275.80	2665.83	-0.78	-0.78	-13.89	0.14
7	2756.00	1.22	284.85	2755.81	-0.43	-0.43	-15.89	0.29
8	2850.00	1.31	300.16	2849.79	0.37	0.37	-17.79	0.37
9	2945.00	1.38	285.47	2944.76	1.22	1.22	-19.83	0.37
10	3040.00	1.36	280.24	3039.73	1.73	1.73	-22.04	0.13
11	3134.00	1.03	274.99	3133.71	2.00	2.00	-23.98	0.37
12	3228.00	1.02	273.77	3227.70	2.13	2.13	-25.66	0.03
13	3323.00	0.97	277.39	3322.68	2.29	2.29	-27.30	0.08
14	3417.00	1.10	289.29	3416.67	2.69	2.69	-28.94	0.27
15	3512.00	1.46	288.22	3511.64	3.37	3.37	-30.95	0.38
16	3607.00	1.53	295.71	3606.61	4.29	4.29	-33.24	0.22
17	3701.00	1.29	288.83	3700.58	5.18	5.18	-35.38	0.31
18	3795.00	0.95	290.89	3794.56	5.80	5.80	-37.11	0.36
19	3890.00	1.17	291.10	3889.55	6.43	6.43	-38.75	0.23
20	3984.00	1.14	291.19	3983.53	7.11	7.11	-40.51	0.03
21	4079.00	0.90	292.55	4078.51	7.74	7.74	-42.08	0.25
22	4173.00	1.05	297.17	4172.50	8.42	8.42	-43.53	0.18
23	4268.00	0.86	300.26	4267.49	9.17	9.17	-44.92	0.21
24	4362.00	0.23	322.39	4361.48	9.68	9.68	-45.65	0.69
25	4457.00	0.29	31.14	4456.48	10.04	10.04	-45.64	0.31
26	4551.00	0.49	74.84	4550.48	10.34	10.34	-45.13	0.37
27	4646.00	0.88	143.65	4645.47	9.86	9.86	-44.30	0.88
28	4740.00	1.01	131.31	4739.46	8.74	8.74	-43.25	0.26
29	4835.00	0.94	111.38	4834.45	7.90	7.90	-41.90	0.36
30	4929.00	1.34	121.32	4928.43	7.05	7.05	-40.24	0.47
31	5023.00	1.17	131.18	5022.41	5.84	5.84	-38.58	0.29

32	5118.00	1.39	153.12	5117.38	4.18	4.18	-37.33	0.56
33	5212.00	0.97	124.39	5211.36	2.71	2.71	-36.16	0.76
34	5307.00	0.88	135.73	5306.35	1.73	1.73	-34.98	0.21
35	5401.00	0.69	127.07	5400.34	0.88	0.88	-34.03	0.24
36	5496.00	0.68	133.08	5495.34	0.15	0.15	-33.16	0.08
37	5590.00	0.16	128.95	5589.33	-0.32	-0.32	-32.65	0.55
38	5685.00	0.13	184.12	5684.33	-0.51	-0.51	-32.56	0.14
39	5779.00	0.25	170.07	5778.33	-0.82	-0.82	-32.53	0.14
40	5874.00	0.31	154.33	5873.33	-1.25	-1.25	-32.38	0.10
41	5968.00	0.36	142.81	5967.33	-1.72	-1.72	-32.09	0.09
42	6063.00	0.24	169.43	6062.33	-2.15	-2.15	-31.88	0.19
43	6157.00	0.13	175.54	6156.33	-2.45	-2.45	-31.83	0.12
44	6252.00	0.44	115.54	6251.33	-2.72	-2.72	-31.49	0.41
45	6346.00	0.69	153.33	6345.32	-3.38	-3.38	-30.91	0.46
46	6440.00	1.05	123.56	6439.31	-4.36	-4.36	-29.94	0.60
47	6535.00	1.39	94.26	6534.29	-4.93	-4.93	-28.07	0.74
48	6629.00	1.98	73.82	6628.25	-4.56	-4.56	-25.37	0.89
49	6724.00	0.33	48.48	6723.23	-3.92	-3.92	-23.59	1.78
50	6818.00	0.08	14.83	6817.23	-3.68	-3.68	-23.37	0.28
51	6912.00	0.47	345.77	6911.23	-3.24	-3.24	-23.45	0.43
52	7007.00	0.86	21.12	7006.22	-2.20	-2.20	-23.29	0.58
53	7101.00	0.98	102.53	7100.21	-1.71	-1.71	-22.25	1.28
54	7196.00	1.26	131.97	7195.19	-2.59	-2.59	-20.68	0.66
55	7290.00	1.16	125.38	7289.17	-3.83	-3.83	-19.14	0.18
56	7385.00	1.22	140.83	7384.15	-5.17	-5.17	-17.71	0.34
57	7479.00	1.13	132.23	7478.13	-6.57	-6.57	-16.39	0.21
58	7573.00	1.14	147.23	7572.12	-7.98	-7.98	-15.20	0.32
59	7668.00	1.04	132.10	7667.10	-9.35	-9.35	-14.05	0.32
60	7762.00	1.02	136.58	7761.08	-10.53	-10.53	-12.84	0.09
61	7856.00	0.91	150.48	7855.07	-11.79	-11.79	-11.90	0.27
62	7951.00	0.66	155.99	7950.06	-12.94	-12.94	-11.30	0.27
63	8045.00	1.10	162.88	8044.05	-14.30	-14.30	-10.82	0.48
64	8139.00	1.02	166.54	8138.03	-15.98	-15.98	-10.36	0.11
65	8234.00	0.87	172.82	8233.02	-17.51	-17.51	-10.07	0.19
66	8329.00	0.64	156.14	8328.01	-18.72	-18.72	-9.77	0.33
67	8386.00	0.76	147.42	8385.01	-19.33	-19.33	-9.43	0.28
68	8412.00	0.72	150.21	8411.01	-19.61	-19.61	-9.26	0.21
69	8443.00	0.84	10.68	8442.01	-19.56	-19.56	-9.12	4.72
70	8475.00	3.86	357.89	8473.97	-18.25	-18.25	-9.12	9.52
71	8506.00	7.34	358.31	8504.82	-15.23	-15.23	-9.21	11.23
72	8537.00	10.85	0.48	8535.43	-10.33	-10.33	-9.25	11.37
73	8569.00	14.35	1.17	8566.65	-3.35	-3.35	-9.14	10.95
74	8600.00	17.99	0.00	8596.42	5.28	5.28	-9.06	11.79
75	8632.00	21.38	359.88	8626.55	16.06	16.06	-9.08	10.59

76	8663.00	24.71	359.63	8655.07	28.19	28.19	-9.13	10.75
77	8695.00	28.29	359.03	8683.70	42.47	42.47	-9.30	11.22
78	8726.00	32.14	358.89	8710.48	58.06	58.06	-9.59	12.42
79	8757.00	34.94	357.03	8736.32	75.17	75.17	-10.21	9.62
80	8789.00	38.09	356.89	8762.04	94.19	94.19	-11.22	9.85
81	8820.00	42.05	357.29	8785.76	114.11	114.11	-12.23	12.80
82	8852.00	46.81	357.59	8808.60	136.48	136.48	-13.22	14.89
83	8883.00	51.71	356.68	8828.83	159.94	159.94	-14.40	15.96
84	8915.00	56.87	356.56	8847.50	185.86	185.86	-15.94	16.13
85	8946.00	61.76	356.40	8863.31	212.47	212.47	-17.57	15.78
86	8978.00	65.57	356.38	8877.51	241.08	241.08	-19.38	11.91
87	9009.00	69.43	357.08	8889.37	269.67	269.67	-21.01	12.63
88	9041.00	74.72	357.02	8899.21	300.07	300.07	-22.58	16.53
89	9072.00	80.03	356.76	8905.98	330.26	330.26	-24.22	17.15
90	9131.00	88.67	359.15	8911.79	388.88	388.88	-26.30	15.19
91	9226.00	90.07	357.88	8912.83	483.84	483.84	-28.76	1.99
92	9322.00	91.05	357.81	8911.90	579.76	579.76	-32.37	1.02
93	9417.00	91.96	358.26	8909.40	674.67	674.67	-35.63	1.07
94	9513.00	92.09	358.85	8906.01	770.58	770.58	-38.05	0.63
95	9608.00	90.35	359.48	8903.99	865.55	865.55	-39.43	1.95
96	9704.00	90.91	359.67	8902.93	961.54	961.54	-40.15	0.62
97	9800.00	89.37	359.99	8902.70	1057.53	1057.53	-40.43	1.64
98	9895.00	89.58	359.59	8903.57	1152.53	1152.53	-40.78	0.48
99	9991.00	89.51	358.52	8904.33	1248.51	1248.51	-42.36	1.12
100	10086.00	89.93	358.46	8904.79	1343.48	1343.48	-44.86	0.45
101	10182.00	89.72	357.76	8905.09	1439.42	1439.42	-48.03	0.76
102	10277.00	90.28	358.66	8905.09	1534.37	1534.37	-51.00	1.12
103	10372.00	90.77	358.69	8904.21	1629.35	1629.35	-53.20	0.52
104	10465.00	91.33	358.04	8902.51	1722.29	1722.29	-55.85	0.92
105	10559.00	90.42	359.24	8901.08	1816.25	1816.25	-58.08	1.60
106	10652.00	90.35	359.89	8900.45	1909.25	1909.25	-58.78	0.70
107	10745.00	90.28	359.07	8899.94	2002.24	2002.24	-59.63	0.88
108	10838.00	89.79	357.99	8899.88	2095.21	2095.21	-62.01	1.28
109	10931.00	88.60	356.94	8901.19	2188.10	2188.10	-66.13	1.71
110	11024.00	89.79	358.73	8902.50	2281.02	2281.02	-69.64	2.31
111	11117.00	89.86	358.12	8902.78	2373.99	2373.99	-72.20	0.66
112	11210.00	90.14	358.26	8902.78	2466.94	2466.94	-75.13	0.34
113	11303.00	89.79	358.11	8902.84	2559.89	2559.89	-78.08	0.41
114	11396.00	89.65	357.95	8903.29	2652.84	2652.84	-81.28	0.23
115	11490.00	90.63	358.20	8903.06	2746.78	2746.78	-84.43	1.08
116	11585.00	90.56	358.52	8902.07	2841.74	2841.74	-87.15	0.34
117	11681.00	90.63	357.88	8901.08	2937.69	2937.69	-90.17	0.67
118	11776.00	91.53	359.44	8899.29	3032.64	3032.64	-92.39	1.90
119	11872.00	91.61	359.18	8896.66	3128.60	3128.60	-93.54	0.28

120	11968.00	90.63	358.78	8894.78	3224.56	3224.56	-95.25	1.10
121	12063.00	91.19	359.88	8893.27	3319.54	3319.54	-96.36	1.30
122	12159.00	90.42	358.97	8891.92	3415.52	3415.52	-97.33	1.24
123	12255.00	90.98	357.95	8890.75	3511.48	3511.48	-99.91	1.21
124	12350.00	91.26	358.00	8888.89	3606.40	3606.40	-103.26	0.30
125	12446.00	90.63	359.19	8887.31	3702.36	3702.36	-105.62	1.40
126	12541.00	90.28	359.11	8886.56	3797.35	3797.35	-107.03	0.38
127	12637.00	91.47	0.11	8885.09	3893.33	3893.33	-107.68	1.62
128	12733.00	90.00	359.36	8883.86	3989.32	3989.32	-108.12	1.72
129	12828.00	90.35	359.92	8883.57	4084.31	4084.31	-108.72	0.70
130	12924.00	90.56	0.13	8882.81	4180.31	4180.31	-108.68	0.31
131	13019.00	90.56	0.57	8881.88	4275.30	4275.30	-108.10	0.46
132	13115.00	90.42	0.40	8881.06	4371.30	4371.30	-107.29	0.23
133	13211.00	90.21	0.67	8880.53	4467.29	4467.29	-106.39	0.36
134	13306.00	90.56	0.62	8879.89	4562.28	4562.28	-105.32	0.37
135	13402.00	90.91	0.13	8878.66	4658.27	4658.27	-104.69	0.63
136	13497.00	90.98	1.08	8877.09	4753.25	4753.25	-103.69	1.00
137	13593.00	91.33	1.04	8875.16	4849.22	4849.22	-101.91	0.37
138	13688.00	90.07	2.27	8874.00	4944.17	4944.17	-99.17	1.85
139	13784.00	89.79	2.01	8874.11	5040.10	5040.10	-95.58	0.40
140	13879.00	90.07	1.71	8874.23	5135.05	5135.05	-92.50	0.43
141	13975.00	89.65	0.86	8874.46	5231.02	5231.02	-90.35	0.99
142	14071.00	90.07	1.29	8874.70	5327.01	5327.01	-88.55	0.63
143	14166.00	91.05	1.59	8873.77	5421.97	5421.97	-86.16	1.08
144	14262.00	90.07	0.44	8872.83	5517.95	5517.95	-84.46	1.57
145	14357.00	90.35	1.18	8872.48	5612.94	5612.94	-83.12	0.83
146	14453.00	89.30	0.75	8872.78	5708.92	5708.92	-81.50	1.18
147	14548.00	89.58	359.69	8873.70	5803.92	5803.92	-81.13	1.15
148	14644.00	91.19	0.05	8873.06	5899.91	5899.91	-81.35	1.72
149	14739.00	92.30	359.59	8870.17	5994.86	5994.86	-81.65	1.26
150	14835.00	91.75	359.75	8866.77	6090.80	6090.80	-82.20	0.60
151	14931.00	91.74	359.90	8863.85	6186.76	6186.76	-82.50	0.16
152	15026.00	91.05	0.85	8861.54	6281.72	6281.72	-81.87	1.24
153	15122.00	90.07	0.83	8860.60	6377.71	6377.71	-80.47	1.02
154	15217.00	89.79	0.06	8860.72	6472.70	6472.70	-79.73	0.86
155	15313.00	89.93	1.07	8860.95	6568.70	6568.70	-78.78	1.06
156	15408.00	90.35	0.21	8860.72	6663.69	6663.69	-77.72	1.01
157	15504.00	91.33	359.27	8859.31	6759.68	6759.68	-78.16	1.41
158	15599.00	92.23	359.04	8856.36	6854.62	6854.62	-79.56	0.98
159	15695.00	91.19	0.02	8853.50	6950.57	6950.57	-80.34	1.49
160	15791.00	91.33	359.90	8851.38	7046.55	7046.55	-80.41	0.19
161	15886.00	91.61	359.75	8848.95	7141.52	7141.52	-80.70	0.33
162	15981.00	91.75	359.90	8846.16	7236.48	7236.48	-80.99	0.22
163	16077.00	92.02	359.03	8843.00	7332.42	7332.42	-81.89	0.95

164	16172.00	90.70	0.07	8840.75	7427.39	7427.39	-82.63	1.77
165	16268.00	91.12	359.55	8839.23	7523.37	7523.37	-82.95	0.70
166	16364.00	90.49	0.53	8837.88	7619.36	7619.36	-82.88	1.21
167	16459.00	90.35	0.23	8837.18	7714.36	7714.36	-82.25	0.35
168	16555.00	90.91	359.78	8836.12	7810.35	7810.35	-82.25	0.75
169	16650.00	89.86	359.89	8835.49	7905.35	7905.35	-82.52	1.11
170	16746.00	89.93	0.03	8835.66	8001.35	8001.35	-82.59	0.16
171	16842.00	91.33	359.80	8834.61	8097.34	8097.34	-82.73	1.48
172	16937.00	91.89	0.12	8831.94	8192.30	8192.30	-82.80	0.68
173	17033.00	89.37	357.90	8830.88	8288.27	8288.27	-84.45	3.50
174	17128.00	90.14	358.19	8831.29	8383.21	8383.21	-87.69	0.87
175	17224.00	89.93	357.86	8831.23	8479.15	8479.15	-91.00	0.41
176	17320.00	90.63	357.99	8830.76	8575.09	8575.09	-94.48	0.74
177	17415.00	91.33	358.25	8829.14	8670.02	8670.02	-97.60	0.79
178	17511.00	90.14	357.29	8827.90	8765.94	8765.94	-101.33	1.59
179	17606.00	90.49	357.31	8827.38	8860.83	8860.83	-105.81	0.37
180	17702.00	91.26	357.62	8825.92	8956.72	8956.72	-110.05	0.86
181	17797.00	89.51	357.03	8825.28	9051.61	9051.61	-114.48	1.94
182	17893.00	89.86	356.61	8825.81	9147.46	9147.46	-119.81	0.57
183	17988.00	90.28	356.89	8825.69	9242.31	9242.31	-125.20	0.53
184	18084.00	90.28	356.24	8825.22	9338.14	9338.14	-130.95	0.68
185	18178.00	90.84	355.72	8824.30	9431.90	9431.90	-137.54	0.81
186	18275.00	90.77	355.61	8822.94	9528.61	9528.61	-144.87	0.13
187	18370.00	91.12	355.45	8821.37	9623.31	9623.31	-152.27	0.41
188	18466.00	90.56	355.31	8819.96	9718.99	9718.99	-160.00	0.60
189	18561.00	90.28	355.14	8819.27	9813.66	9813.66	-167.91	0.34
190	18657.00	90.56	355.06	8818.56	9909.30	9909.30	-176.11	0.30
191	18753.00	90.84	355.24	8817.39	10004.95	10004.95	-184.23	0.35
192	18794.00	91.12	355.43	8816.69	10045.81	10045.81	-187.56	0.83
Proj.	18850.00	91.11	355.43	8815.60	10101.62	10101.62	-192.02	0.02

## Jefferies 5301 43-12B

### LITHOLOGY

Rig crews caught lagged drill cutting samples at 30' intervals from 8,360' through 10,780'. Samples were logged at 10' intervals during the curve from 10,780' to 11,050'. Samples were continuously logged at 30' intervals throughout the lateral section.

Electric geophysical log, sample and/or MWD gamma ray markers and tops are included in the sample descriptions below for reference. Samples were examined wet and dry under a binocular microscope and checked for hydrocarbon cut fluorescence with *Entron* critical cleaning solvent in approximately 30' intervals. Sample descriptions begin just above the limestone marker in the Kibbey Formation. Drilling fluids consisted diesel invert during vertical and curve build sections and salt water during lateral to TD.

#### Drilling in Kibbey Formation [Mississippian Big Snowy Group]

8360-8390 SANDSTONE: white to clear, fine grained, friable, subrounded to rounded, moderately to well sorted, earthy texture, calcareous cement; SHALE: rounded to orange, firm, subblocky, earthy to waxy texture, calcareous cement

#### Kibbey Limestone Marker

**8,390' TVD (-6,272')**

8390-8426 LIMESTONE: wackestone, medium gray, tan, finely crystalline, hard, blocky, earthy to micro crystalline

8426-8450 SANDSTONE: white to clear, fine grained, friable, subrounded to rounded, moderately to well sorted, earthy texture, calcareous cement

8450-8480 SANDSTONE: white to clear, fine grained, friable, subrounded to rounded, moderately to well sorted, earthy texture, calcareous cement, trace salt

8480-8510 SANDSTONE: white to clear, trace gray, fine to medium grained, friable, subrounded to rounded, moderately to well sorted, earthy texture, calcareous cement

8510-8523 SANDSTONE: white to clear, light to medium gray, fine to medium grained, friable, subrounded to rounded, moderately to well sorted, earthy texture, calcareous cement

#### Charles Salt Formation

**8,523' TVD (-6,405')**

8523-8546 SALT: translucent, milky white, cryptocrystalline, hard, subhedral, crystalline texture

8546-8568 SANDSTONE: white to clear, trace gray, fine to medium grained, friable, subrounded to rounded, moderately to well sorted, earthy texture, calcareous cement; ANHYDRITE: white to off white, microcrystalline, soft, amorphous texture

8568-8600 SALT: translucent, milky white, cryptocrystalline, hard, subhedral, crystalline texture

8600-8630 SALT: translucent, milky white, cryptocrystalline, hard, subhedral, crystalline texture

8630-8660 SALT: translucent, milky white, cryptocrystalline, hard, subhedral, crystalline texture; trace ANHYDRITE: white to off white, microcrystalline, soft, amorphous texture

8660-8690 SALT: translucent, milky white, cryptocrystalline, hard, subhedral, crystalline texture; trace ANHYDRITE: white to off white, microcrystalline, soft, amorphous texture

8690-8720 SALT: translucent, milky white, cryptocrystalline, hard, subhedral, crystalline texture; trace ANHYDRITE: white to off white, microcrystalline, soft, amorphous texture

8720-8750 SALT: translucent, milky white, cryptocrystalline, hard, subhedral, crystalline texture; trace ANHYDRITE: white to off white, microcrystalline, soft, amorphous texture

8750-8780 SALT: translucent, milky white, cryptocrystalline, hard, subhedral, crystalline texture; trace ANHYDRITE: white to off white, microcrystalline, soft, amorphous texture

8780-8810 SALT: translucent, milky white, cryptocrystalline, hard, subhedral, crystalline texture; trace ANHYDRITE: white to off white, microcrystalline, soft, amorphous texture, trace LIMESTONE

8810-8828 SALT: translucent, milky white, cryptocrystalline, hard, subhedral, crystalline texture; trace ANHYDRITE: white to off white, microcrystalline, soft, amorphous texture, trace LIMESTONE

8828-8866 LIMESTONE: mudstone to wackestone, medium gray, medium brown, microcrystalline, blocky, firm to hard, earthy texture, trace to moderately anhydrite

8866-8890 SALT: translucent, milky white, cryptocrystalline, hard, subhedral, crystalline texture; trace ANHYDRITE: white to off white, microcrystalline, soft, amorphous texture, trace LIMESTONE

8890-8920 SALT: translucent, milky white, cryptocrystalline, hard, subhedral, crystalline texture; trace ANHYDRITE: white to off white, microcrystalline, soft, amorphous texture, trace LIMESTONE

8920-8950 LIMESTONE: mudstone, light gray, microcrystalline, subblocky, firm, crystalline texture, argillaceous in part, trace intercrystalline porosity

8950-8980 LIMESTONE: mudstone, light gray, microcrystalline, subblocky, firm, crystalline texture, argillaceous in part, trace intercrystalline porosity with interbedded DOLOMITE: mudstone, light blue, microcrystalline, subblocky, firm, microsucrosic texture

8980-9016 LIMESTONE: mudstone, light gray, microcrystalline, subblocky, firm, crystalline texture, argillaceous in part

9016-9042 SALT: translucent, milky white, cryptocrystalline, hard, subhedral, crystalline texture

9042-9080 LIMESTONE: mudstone, light gray, microcrystalline, subblocky, firm, crystalline texture, argillaceous in part, trace intergranular porosity with interbedded DOLOMITE: mudstone, light blue, microcrystalline, subblocky, firm, microsucrosic texture, trace intergranular porosity

9080-9110 DOLOMITIC LIMESTONE: mudstone, light gray to blue, light brown to gray, medium gray, microcrystalline, subblocky, firm, microsucrosic texture; LIMESTONE: mudstone, light gray, medium gray, microcrystalline, subblocky, firm, crystalline texture, argillaceous in part, trace intergranular porosity

9110-9148 LIMESTONE: as above; ANHYDRITE: medium to light gray, microcrystalline, soft, slightly firm, amorphous texture; DOLOMITE: mudstone, light blue, microcrystalline, subblocky, firm, microsucrosic texture

9148-9180 LIMESTONE: mudstone, light gray, medium gray, microcrystalline, subblocky, firm, crystalline texture, argillaceous in part, trace intergranular porosity; ANHYDRITE: medium to light gray, microcrystalline, soft, slightly firm, amorphous texture

9180-9224 ANHYDRITE: medium to light gray, microcrystalline, subblocky, firm, amorphous texture; SALT: translucent, milky white, cryptocrystalline, hard, subhedral, crystalline texture

**Base Charles Salt**

**9,224' TVD (-7,106')**

9224-9260 LIMESTONE: mudstone, light gray to brown, microcrystalline, subblocky, firm to hard, earthy texture, rare calcite, slightly argillaceous, trace intergranular porosity

9260-9290 LIMESTONE: mudstone, light gray to brown, trace light yellow, microcrystalline, subblocky, firm to hard, earthy texture, rare calcite, slightly argillaceous, with interbedded DOLOMITIC LIMESTONE: mudstone to wackestone, light brown to gray, blue, microcrystalline to very fine crystalline, subblocky, firm, earthy to sucrosic texture, trace fossils fragments, trace intergranular porosity

9290-9320 LIMESTONE: mudstone, light gray to light brown, microcrystalline to cryptocrystalline, subblocky to subplatey, firm to hard, sucrosic to earthy texture, slightly dolomitic; trace ANHYDRITE: white to off white, microcrystalline, subblocky, firm, amorphous texture

9320-9350 LIMESTONE: mudstone, light gray to light brown, microcrystalline to cryptocrystalline, subblocky to subplatey, firm to hard, sucrosic to earthy texture, slightly dolomitic

9350-9380 LIMESTONE: mudstone, light to medium brown, microcrystalline, subplatey, hard, crystalline texture, possible intergranular porosity; ANHYDRITE: white to off white, microcrystalline, subblocky, firm, amorphous texture subplatey, hard, crystalline texture

9378-9410 ANHYDRITE: very light gray, gray to blue, microcrystalline, firm, earthy texture with interbedded LIMESTONE: mudstone, light to medium brown, microcrystalline, subplatey, hard, crystalline texture, slightly dolomitic

9410-9451 LIMESTONE: mudstone to wackestone, brown, medium to dark gray, white in part, microcrystalline to very fine crystalline, subblocky to subplatey, firm, crystalline texture, trace calcite, slightly dolomitic

**Mission Canyon Formation**

**9,451' TVD (-7,333')**

9451-9480 LIMESTONE: mudstone to wackestone, brown, medium to dark gray, white in part, microcrystalline to very fine crystalline, subblocky to subplatey, firm, crystalline texture, trace calcite, slightly dolomitic

9480-9510 LIMESTONE: mudstone to wackestone, brown, medium to dark gray, white in part, microcrystalline to very fine crystalline, subblocky to subplatey, firm, earthy texture, trace algal matts, trace calcite

9510-9540 LIMESTONE: mudstone to wackestone, brown, medium to dark gray, white in part, microcrystalline to very fine crystalline, subblocky to subplatey, firm, earthy texture, trace algal matts, trace calcite

9540-9570 LIMESTONE: mudstone to wackestone, brown, medium to dark gray, white in part, microcrystalline to very fine crystalline, subblocky to subplatey, firm, earthy texture, trace algal matts, trace calcite

9570-9600 LIMESTONE: mudstone to wackestone, brown, medium to dark gray, white in part, microcrystalline to very fine crystalline, subblocky to subplatey, firm, earthy texture, trace calcite

9600-9630 LIMESTONE: mudstone to wackestone, brown, medium to dark gray, white in part, microcrystalline to very fine crystalline, subblocky to subplatey, firm, earthy texture, trace calcite, argillaceous in part



## Lodgepole Formation

**10,010' TVD (-7,892')**

10110-10140 LIMESTONE: mudstone to wackestone, dark gray, dark brown, white in part, microcrystalline to very fine crystalline, subblocky to subplatey, firm to hard, earthy texture, trace calcite, argillaceous in part, trace pyrite

10140-10170 LIMESTONE: mudstone to wackestone, dark gray, dark brown, white in part, microcrystalline to very fine crystalline, subblocky to subplatey, firm to hard, earthy texture, trace calcite, argillaceous in part, trace pyrite

10170-10200 LIMESTONE: mudstone to wackestone, dark gray, dark brown, white in part, microcrystalline to very fine crystalline, subblocky to subplatey, firm to hard, earthy texture, trace calcite, argillaceous in part, trace pyrite

10200-10240 LIMESTONE: mudstone to wackestone, dark gray, dark brown, white in part, microcrystalline to very fine crystalline, subblocky to subplatey, hard, earthy texture, trace calcite, argillaceous in part, trace pyrite

10240-10270 LIMESTONE: mudstone to wackestone, dark gray, dark brown, white in part, microcrystalline to very fine crystalline, subblocky to subplatey, hard, earthy texture, trace calcite, argillaceous in part, trace pyrite

10270-10300 LIMESTONE: mudstone to wackestone, dark gray, dark brown, white in part, microcrystalline to very fine crystalline, subblocky to blocky, hard, earthy texture, trace calcite, argillaceous in part, trace pyrite

10300-10350 LIMESTONE: mudstone to wackestone, dark gray, medium to dark brown, microcrystalline to very fine crystalline, subblocky to blocky, hard, earthy texture, trace calcite, argillaceous in part, trace pyrite

10300-10350 LIMESTONE: mudstone to wackestone, dark gray, medium to dark brown, microcrystalline to very fine crystalline, subblocky to blocky, hard, earthy texture, trace calcite, argillaceous in part, trace pyrite

10400-10450 LIMESTONE: mudstone to wackestone, dark gray, medium to dark brown, microcrystalline to very fine crystalline, subblocky to blocky, hard, earthy texture, trace calcite, argillaceous in part, trace pyrite

10450-10500 LIMESTONE: mudstone to wackestone, dark gray, medium to dark brown, microcrystalline to very fine crystalline, subblocky to blocky, hard, earthy texture, trace calcite, argillaceous in part, trace pyrite

10500-10550 LIMESTONE: mudstone to wackestone, dark gray, medium to dark brown, microcrystalline to very fine crystalline, subblocky to blocky, hard, earthy texture, trace calcite, argillaceous in part, trace pyrite

10550-10600 LIMESTONE: mudstone to wackestone, dark gray, medium to dark brown, microcrystalline to very fine crystalline, subblocky to blocky, hard, earthy texture, trace calcite, argillaceous in part, trace pyrite

10600-10650 LIMESTONE: mudstone to wackestone, dark gray, medium to dark brown, microcrystalline to very fine crystalline, subblocky to blocky, hard, earthy texture, trace calcite, argillaceous in part, trace pyrite

10650-10700 LIMESTONE: mudstone to wackestone, dark gray, medium to dark brown, microcrystalline to very fine crystalline, subblocky to blocky, hard, earthy texture, trace calcite, argillaceous in part, trace pyrite

10700-10750 LIMESTONE: mudstone to wackestone, dark gray, medium to dark brown, microcrystalline to very fine crystalline, subblocky to blocky, hard, earthy texture, trace calcite, argillaceous in part, trace pyrite

10750-10810 LIMESTONE: mudstone to wackestone, dark gray, medium to dark brown, microcrystalline to very fine crystalline, subblocky to blocky, hard, earthy texture, trace calcite, argillaceous in part, trace pyrite

**Lodgepole False Bakken Marker****10,810' MD / 10,718' TVD**

10810-10812 SHALE: very dark brown to brown, blocky, firm, waxy texture, very slightly calcareous

10812-10823 LIMESTONE: crystalline carbonaceous, light to medium gray, off white, microcrystalline, soft to friable, earthy to microscroscopic texture, common disseminated pyrite, occasional calcite, trace fossil fragments, no visible oil stain, no visible porosity

**Bakken Formation, Upper Shale****10,823' MD / 10,725' TVD**

10823-10888 SHALE: black, firm, subblocky, waxy texture, very carbonaceous, very slightly calcareous, petrolierous, visible oil stain, no visible porosity

**Bakken Formation, Middle Member****10,888' MD / 10,740' TVD**

10888-10950 SILTY SANDSTONE: light to medium gray, white in part, very fine grained, subrounded to rounded, firm, moderately sorted, occasional calcite fracture fill, trace nodules pyrite, dolomitic cement, visible intergranular porosity

10950-11000 SILTY SANDSTONE: light to medium gray, white in part, very fine grained, subrounded to rounded, firm, moderately sorted, trace calcite fracture fill, trace nodules pyrite, dolomitic cement, visible intergranular porosity

11000-11050 SILTY SANDSTONE: light to medium gray, white in part, very fine grained, subrounded to rounded, firm, moderately sorted, trace calcite fracture fill, trace nodules pyrite, dolomitic cement, visible intergranular porosity

11050-11100 SILTY SANDSTONE: light to medium gray, white in part, very fine grained, subrounded to rounded, firm, moderately sorted, trace calcite fracture fill, trace nodules pyrite, dolomitic cement, visible intergranular porosity

11100-11150 SILTY SANDSTONE: light brown, light gray, white in part, very fine grained, subrounded to rounded, firm, moderately to poorly sorted, trace disseminated pyrite, very sandy, dolomitic cement, visible intergranular porosity, visible light brown oil stain

11150-11200 SILTY SANDSTONE: light brown, light gray, white in part, very fine grained, subrounded to rounded, firm, moderately to poorly sorted, trace disseminated pyrite, very sandy, dolomitic cement, visible intergranular porosity, visible light brown oil stain

11200-11250 SILTY SANDSTONE: light brown, light gray, white in part, very fine grained, subrounded to rounded, firm, moderately to poorly sorted, trace disseminated pyrite, very sandy, dolomitic cement, visible intergranular porosity, visible light brown oil stain

11250-11300 SILTY SANDSTONE: light brown, light gray, white in part, very fine grained, subrounded to rounded, firm, moderately to poorly sorted, trace disseminated pyrite, very sandy, dolomitic cement, visible intergranular porosity, visible light brown oil stain

11300-11350 SILTY SANDSTONE: light brown, light gray, white in part, very fine grained, subrounded to rounded, firm, moderately to poorly sorted, trace disseminated pyrite, very sandy, dolomitic cement, visible intergranular porosity, visible light brown oil stain

11350-11400 SILTY SANDSTONE: light brown, light gray, white in part, very fine grained, subrounded to rounded, firm, moderately to poorly sorted, trace disseminated pyrite, very sandy, dolomitic cement, visible intergranular porosity, visible light brown oil stain





12550-12600 SILTY SANDSTONE: light to medium brown, light gray, white in part, very fine grained, subrounded to rounded, firm, moderately to poorly sorted, trace disseminated pyrite, very sandy, dolomitic cement, visible intergranular porosity, visible light to medium brown oil stain, instant diffuse cut, moderately streaming cut

12600-12650 SILTY SANDSTONE: light to medium brown, light gray, white in part, very fine grained, subrounded to rounded, firm, moderately to poorly sorted, common disseminated pyrite, sandy, dolomitic cement, visible intergranular porosity, visible light brown oil stain, very fast white streaming to blooming cut

12650-12700 SILTY SANDSTONE: light to medium brown, light gray, white in part, very fine grained, subrounded to rounded, firm, moderately to poorly sorted, common disseminated pyrite, sandy, dolomitic cement, visible intergranular porosity, visible light brown oil stain, very fast white streaming to blooming cut

12700-12750 SILTY SANDSTONE: light to medium brown, light gray, white in part, very fine grained, subrounded to rounded, firm, moderately to poorly sorted, common disseminated pyrite, sandy, dolomitic cement, visible intergranular porosity, visible light brown oil stain, very fast white streaming to blooming cut

12750-12800 SILTY SANDSTONE: light to medium brown, light gray, white in part, very fine grained, subrounded to rounded, firm, moderately to poorly sorted, common disseminated pyrite, sandy, dolomitic cement, visible intergranular porosity, visible light brown oil stain, very fast white streaming to blooming cut

12800-12850 SILTY SANDSTONE: light to medium brown, light gray, white in part, very fine grained, subrounded to rounded, firm, moderately to poorly sorted, common disseminated pyrite, sandy, dolomitic cement, visible intergranular porosity, visible light brown oil stain, instant white streaming cut

12850-12900 SILTY SANDSTONE: light to medium brown, light gray, white in part, very fine grained, subrounded to rounded, firm, moderately to poorly sorted, common nodules pyrite, sandy, dolomitic cement, visible intergranular porosity, visible light brown oil stain, instant white streaming cut

12900-12950 SILTY SANDSTONE: light to medium brown, light gray, white in part, very fine grained, subrounded to rounded, firm, moderately to poorly sorted, common nodules pyrite, sandy, dolomitic cement, visible intergranular porosity, visible light brown oil stain, instant white streaming cut

12950-13000 SILTY SANDSTONE: light to medium brown, light gray, white in part, very fine grained, subrounded to rounded, firm, moderately to poorly sorted, common nodules pyrite, sandy, dolomitic cement, visible intergranular porosity, visible light brown oil stain, instant white streaming cut

13000-13050 SILTY SANDSTONE: light to medium brown, light gray, white in part, very fine grained, subrounded to rounded, firm, moderately to poorly sorted, common nodules pyrite, sandy, dolomitic cement, visible intergranular porosity, visible light brown oil stain, instant white streaming cut

13050-13100 SILTY SANDSTONE: light to medium brown, light gray, white in part, very fine grained, subrounded to rounded, firm, moderately to poorly sorted, common nodules pyrite, sandy, dolomitic cement, visible intergranular porosity, visible light brown oil stain, instant white streaming cut

13100-13150 SILTY SANDSTONE: light to medium brown, light gray, white in part, very fine grained, subrounded to rounded, firm, moderately to poorly sorted, common nodules pyrite, sandy, dolomitic cement, visible intergranular porosity, visible light brown oil stain, instant white streaming cut

13150-13200 SILTY SANDSTONE: light to medium brown, light gray, white in part, very fine grained, subrounded to rounded, firm, moderately to poorly sorted, common nodules pyrite, sandy, dolomitic cement, visible intergranular porosity, visible light brown oil stain, instant white streaming cut























20850-20900 SLTY SANDSTONE: light to medium gray, white in part, light brown in part, very fine grained, subrounded to rounded, firm, moderately to poorly sorted, trace disseminated pyrite, silty, dolomitic cement, visible intergranular porosity, patchy oil stain, fast white streaming to blooming cut, very poor samples

20900-20950 SLTY SANDSTONE: light to medium gray, white in part, light brown in part, very fine grained, subrounded to rounded, firm, moderately to poorly sorted, trace disseminated pyrite, silty, dolomitic cement, visible intergranular porosity, patchy oil stain, fast white streaming to blooming cut, very poor samples

20950-21000 SLTY SANDSTONE: light to medium gray, white in part, light brown in part, very fine grained, subrounded to rounded, firm, moderately to poorly sorted, trace disseminated pyrite, silty, dolomitic cement, visible intergranular porosity, patchy oil stain, fast white streaming to blooming cut, very poor samples

21000-21050 SLTY SANDSTONE: light to medium gray, white in part, light brown in part, very fine grained, subrounded to rounded, firm, moderately to poorly sorted, trace disseminated pyrite, silty, dolomitic cement, visible intergranular porosity, patchy oil stain, fast white streaming to blooming cut, very poor samples

21050-21100 SLTY SANDSTONE: light to medium gray, white in part, light brown in part, very fine grained, subrounded to rounded, firm, moderately to poorly sorted, trace disseminated pyrite, silty, dolomitic cement, visible intergranular porosity, patchy oil stain, fast white streaming to blooming cut, very poor samples

21100-21150 SLTY SANDSTONE: light to medium gray, white in part, light brown in part, very fine grained, subrounded to rounded, firm, moderately to poorly sorted, trace disseminated pyrite, silty, dolomitic cement, visible intergranular porosity, patchy oil stain, fast white streaming to blooming cut, very poor samples

21150-21200 SLTY SANDSTONE: light to medium gray, white in part, light brown in part, very fine grained, subrounded to rounded, firm, moderately to poorly sorted, trace disseminated pyrite, silty, dolomitic cement, visible intergranular porosity, patchy oil stain, fast white streaming to blooming cut, very poor samples

21200-21250 SLTY SANDSTONE: light to medium gray, white in part, light brown in part, very fine grained, subrounded to rounded, firm, moderately to poorly sorted, trace disseminated pyrite, silty, dolomitic cement, visible intergranular porosity, patchy oil stain, fast white streaming to blooming cut, very poor samples

**TD at 21,250' reached on 21 February 2012 at 11:33 HRS (CST)**



# SUNDY NOTICE 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.  
**22220**



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

Notice of Intent

Approximate Start Date  
**February 17, 2011**

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

- |   |   |
|---|---|
| <input type="checkbox"/> Drilling Program     | <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     | <b>Change well status to CONFIDENTIAL</b>         |

Well Name and Number

**Jefferies 5301 43-12B**

Footages <b>250 F S L</b>	Qtr-Qtr <b>2510 F E L</b>	Section <b>SWSE</b>	Township <b>12</b>	Range <b>153 N</b>	Range <b>101 W</b>
Field <b>Baker</b>	Pool <b>Bakken</b>	County <b>McKenzie</b>			

## 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

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

Ends 8-21-2012

Company <b>Oasis Petroleum North America LLC</b>	Telephone Number <b>281-404-9491</b>	
Address <b>1001 Fannin, Suite 1500</b>		
City <b>Houston</b>	State <b>TX</b>	Zip Code <b>77002</b>
Signature 	Printed Name <b>Brittany Kunnemann</b>	
Title <b>Operations Assistant</b>	Date <b>February 17, 2012</b>	
Email Address <b>bkunnemann@oasispetroleum.com</b>		

## FOR STATE USE ONLY

<input type="checkbox"/> Received	<input checked="" type="checkbox"/> Approved
Date <b>2-22-2012</b>	
By 	
Title <b>Engineering Technician</b>	



# SUNDY 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.  
**22220**

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

<input checked="" type="checkbox"/> Notice of Intent	Approximate Start Date <b>February 1, 2012</b>	<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 checked="" type="checkbox"/> Other	<b>Waiver to rule Rule 43-02-03-31</b>

Well Name and Number <b>Jefferies 5301 43-12B</b>				
Footages <b>250 F S L</b>	Qtr-Qtr <b>2410 F E L</b>	Section <b>SWSE</b>	Township <b>12</b>	Range <b>153 N 101 W</b>
Field <b>Baker</b>	Pool <b>Bakken</b>	County <b>McKenzie</b>		

## 24-HOUR PRODUCTION RATE

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

The SM Energy/Lindvig 1-11HR (NDIC 9309) located less than a mile from 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 gamma ray.

Company <b>Oasis Petroleum North America LLC</b>		Telephone Number <b>281-404-9461</b>
Address <b>1001 Fannin, Suite 1500</b>		
City <b>Houston</b>	State <b>TX</b>	Zip Code <b>77002</b>
Signature <i>Kaitlin Bass</i>	Printed Name <b>Kaitlin Bass</b>	
Title <b>Operations Assistant</b>	Date <b>February 1, 2012</b>	
Email Address <b>kbass@oasispetroleum.com</b>		

## FOR STATE USE ONLY

<input type="checkbox"/> Received	<input checked="" type="checkbox"/> Approved
Date <i>2-2-2012</i>	
By <i>RCM</i>	
Title <b>Richard A. Suggs</b>	
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.  
**22220**

PLEASE READ INSTRUCTIONS BEFORE FILLING OUT FORM.

PLEASE SUBMIT THE ORIGINAL AND ONE COPY.

<input checked="" type="checkbox"/> Notice of Intent	Approximate Start Date <b>1/12/2012</b>	<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	<b>Change surface location</b>

Well Name and Number <b>Jefferies 5301 43-12B</b>					
Footages <b>250' F S L</b>	<b>2410' F E L</b>	Qtr-Qtr <b>SWSE</b>	Section <b>12</b>	Township <b>153 N</b>	Range <b>101 W</b>
Field <b>Baker</b>	Pool <b>Bakken</b>	County <b>McKenzie</b>			

## 24-HOUR PRODUCTION RATE

Before	After
Oil	Bbls
Water	Bbls
Gas	MCF

Name of Contractor(s)			
Address	City	State	Zip Code

## DETAILS OF WORK

We respectfully request permission to revise the APD issued for this well to include the following change:  
The surface location will change to 250' FSL & 2510' FEL, Sec. 12-153N-101W. Correlating to this surface location the new 7" casing point will be 207' FNL & 2500' FWL, Sec. 13-153N-101W at an azimuth of 209.65°. The new bottom hole location will be 200' FSL & 2000' FWL Sec. 24 T153N R101W at an azimuth of 180°.

The following statements remain true:

Notice has been provided to the owner of any permanently occupied dwelling within 1320 feet.  
This well is not located within 500 feet of an occupied dwelling.

Attached is the new well plat, drill plan, directional plan, and directional plot.

Company <b>Oasis Petroleum Inc.</b>	Telephone Number <b>(281) 404-9461</b>	
Address <b>1001 Fannin, Suite 1500</b>		
City <b>Houston</b>	State <b>TX</b>	Zip Code <b>77002</b>
Signature <i>Kaitlin Bass</i>	Printed Name <b>Kaitlin Bass</b>	
Title <b>Operations Assistant</b>	Date <b>January 23, 2012</b>	
Email Address <b>kbass@oasispetroleum.com</b>		

## FOR STATE USE ONLY

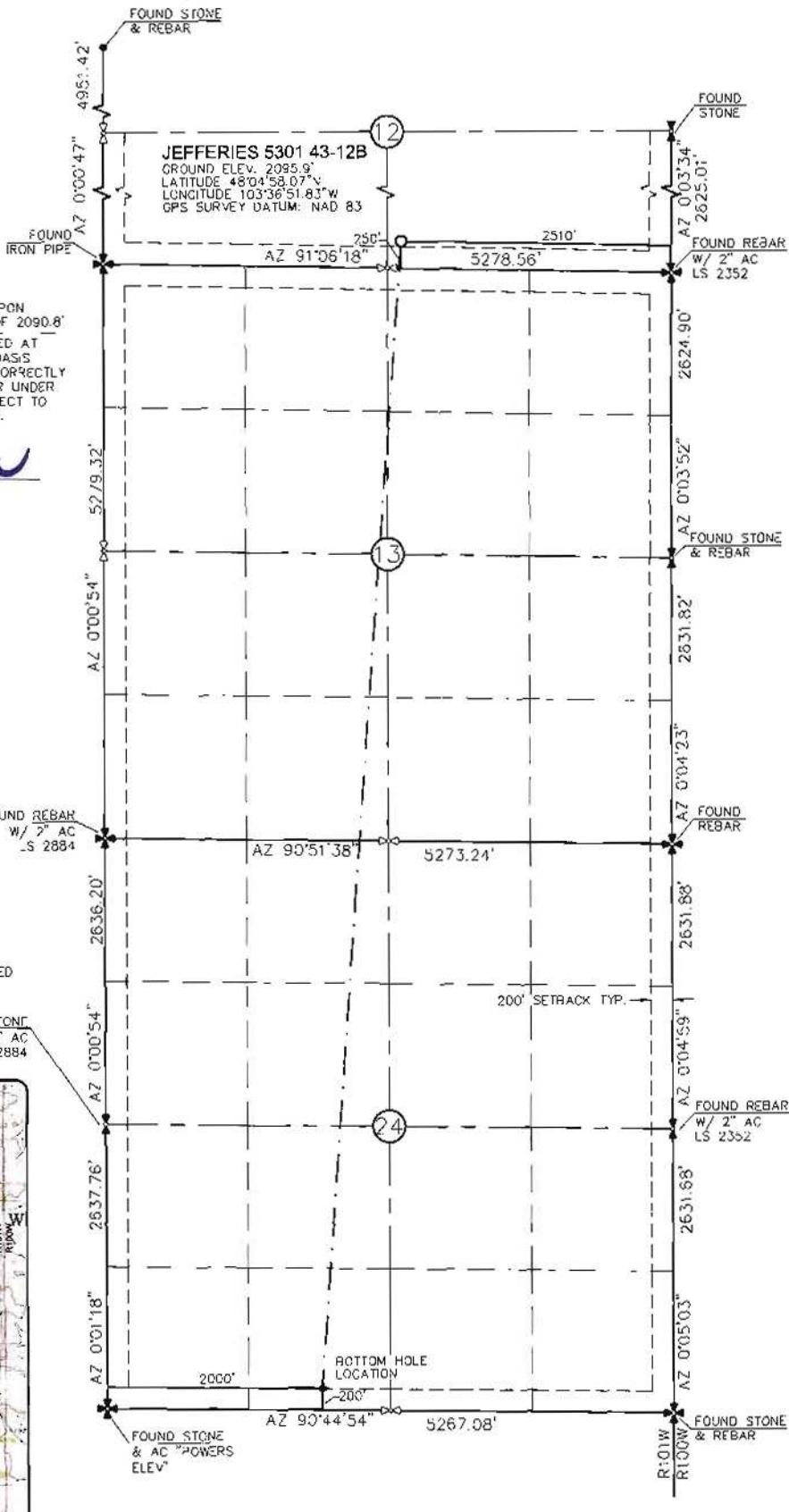
<input type="checkbox"/> Received	<input checked="" type="checkbox"/> Approved
Date <b>1-25-11</b>	
By <i>Ashley Ebel</i>	
Title <b>Petroleum Resource Specialist</b>	

### WELL LOCATION PLAT

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

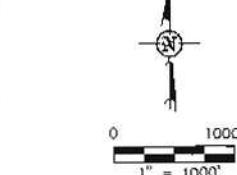
"JEFFERIES 5301 43-12B"

250 FEET FROM SOUTH LINE AND 2510 FEET FROM EAST LINE  
SECTION 12, T153N, R101W, 5TH P.M., MCKENZIE COUNTY, NORTH DAKOTA



STAKED ON 12/6/11.  
VERTICAL CONTROL DATUM WAS BASED UPON  
CONTROL POINT 13 WITH AN ELEVATION OF 2090.8'.  
THIS SURVEY AND PLAT IS BEING PROVIDED AT  
THE REQUEST OF FABIAN KJØRSTAD 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.

CARL S. VENDER LS 1222



- ✖ - MONUMENT RECOVERED
- ✗ - MONUMENT - NOT RECOVERED



24

© 2011, INTERSTATE ENGINEERING, INC.

1/8

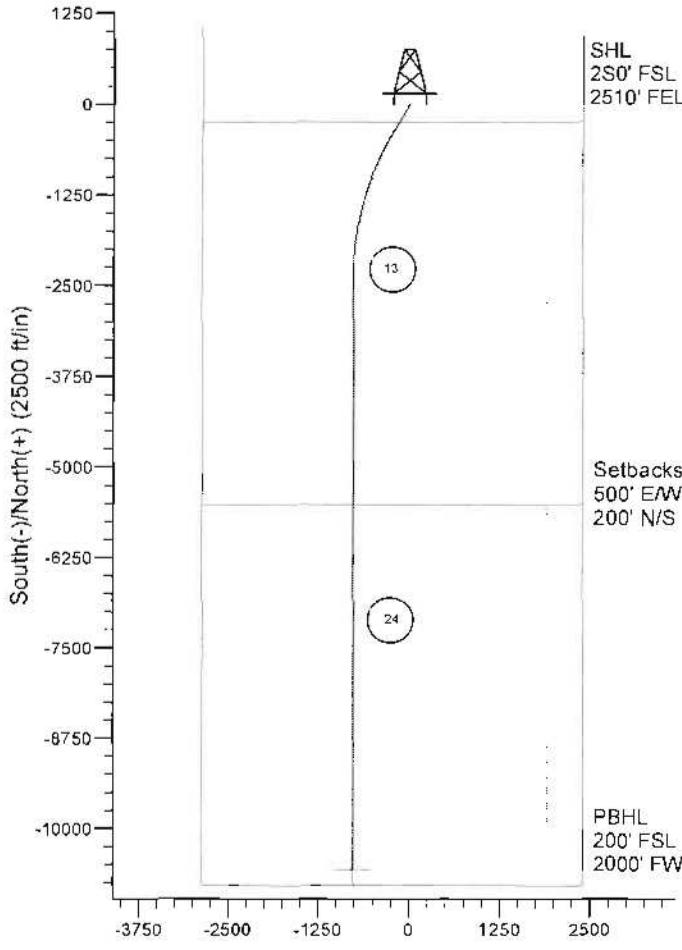


Interstate Engineering, Inc.  
P.O. Box 646  
425 East Main Street  
Sidney, Montana 59270  
Ph: (406) 433-5617  
Fax: (406) 433-5618  
[www.ienigl.com](http://www.ienigl.com)  
Other offices in Billings, North Dakota and South Dakota

OASIS PETROLEUM NORTH AMERICA, LLC  
WELL LOCATION PLAT  
SECTION 12, T153N, R101W  
MCKENZIE COUNTY, NORTH DAKOTA  
Drawn By: J.S.B. Project No.: 811-08-361  
Checked By: C.B.V. Date: DEC 2011  
INTERSTATE ENGINEERING, INC. Professional people you need, people you trust

Reference No.	Date	By	Description
REV 1	1/10/12	J.S.B.	SHARROW WELL LOCATIONS

DRILLING PLAN							
<b>PROSPECT/FIELD</b>	Initial HED	Horizontal Middle Bakken	<b>COUNTY/STATE</b>	McKenzies Co., ND			
<b>OPERATOR</b>	Cross Operator		<b>RIG</b>	Naylor 149			
<b>WELL NO.</b>	EWI 4-1-128		<b>LEASE</b>	Interim			
<b>LOCATION</b>	SW 1/4, T153N-R161W	Surface Location (survey plat), 150' N	2160'	<b>GROUND ELEV:</b>		1000' - Finished Pad Elev	<b>Sub Height:</b> 15'
<b>EST. T.D.</b>	21,310'	TOTAL LATERAL: 10,210' (est)		<b>KB ELEV:</b>		2115'	
<b>PROGNOSIS:</b>	Boring for 2,110' lateral		<b>LOGS:</b>	Type	Interval		
MARKER	DEPTH (Surf Loc)	DATUM (Surf Loc)	OH Logs, File to omit				
Pierre	NDIC MAP	1,968	150'	CBL/GR: Above top of cement/GR to base of casing			
Greenhorn		4,634	2,516'	MWD GR: KOP to lateral TD			
Mowry		5,030	2,912'				
Dakota		5,461	3,343'				
Rierdon		6,377	4,259'	Surf:	3 deg. max., 1 deg / 100'; surv every 500'		
Dunham Salt		6,896	4,978'	Prod:	5 deg. max., 1 deg / 100'; surv every 100'		
Dunham Salt Base		6,963	4,985'				
Spearfish		6,968	4,980'				
Pine Salt		7,212	5,094'				
Pine Salt Base		7,337	5,210'				
Opeche Salt		7,365	5,241'				
Opeche Salt Base		7,444	5,320'				
Broom Creek (Top of Minnelusa Gp.)		7,625	5,507'	DST'S: None planned			
Amsden		7,668	5,550'				
Tyler		7,844	5,738'				
Otter (Base of Minnelusa Gp.)		8,031	5,913'				
Kibbey		8,380	6,262'				
Charles Salt		8,527	6,402'	CORES:	None planned		
US		9,150	7,032'				
Base Last Salt		9,227	7,109'				
Radcliffe		9,275	7,157'				
Mission Canyon		9,451	7,333'				
Lodgepole		10,025	7,907'	MUDLOGGING:	Two-Man: 8,327'		
False Bakken		10,740	8,013'	-200' above the Charles (Kibbey) to			
Upper Bakken		10,755	8,027'	Casing point, Casing point to TD			
Middle Bakken		10,762	8,037'	30' samples at direction of wellsite geologist; 10' through target @			
Middle Bakken Sand Target		10,762	8,044'	curve land			
Base Middle Bakken Sand Target		10,771	8,051'				
Lower Bakken		10,791	8,073'				
Thros Forks		10,818	8,090'	BOP:	11" 5000 psi blind, pipe & annular		
Dip Rate:	-0.25° or 0.3°/100' TD/24 ft from 40' to 45' or 50' to 55' LT						
Max. Anticipated BHP:	43.75						
MUD:	Interval	Type	WT	VIS	WL	Remarks	
Surface	0' -	2,170' FW/Gel - Lime Sweeps	8.6 - 8.9	28-34	NC	Circ Mud Tanks	
Intermediate	2,170' -	11,100' Invert	9.6-10.4	40-60	30k(HgH)	Circ Mud Tanks	
Liner	11,100' -	21,310' Salt Water	9.3-10.4	28-34	NC	Circ Mud Tanks	
CASING:	Size	WT ppf	Hole	Depth	Cement	WOC	Remarks
Surface:	9-5/8"	36#	13-1/2"	2,170'	To Surface	12	100' into Pierre
Intermediate:	7"	29.32#	8-3/4"	11,100'	4,961'	24	500' above Dakota
Production:	4 1/2"	1" 6#	6"	21,310'	TOL 18-19.27"		50' above KOP
PROBABLE PLUGS, IF REQ'D:							
OTHER:	MD	TVD	FNL/FSL	FEL/FWL	S-T-R	AZI	
Surface:	2,170'	2,170'	250' FSL	2510' FEL	12-T153N-R161W		
KOP:	10,321'	10,321'	250' FSL	2510' FEL	12-T153N-R161W		
EOC:	11,813'	10,782'	30' FNL	2842' FWL	13-T153N-R161W	209.6	
Casing Point:	91,100'	10,762'	207' FNL	2800' FWL	13-T153N-R161W	209.6	
Middle Bakken Lateral TD:	21,310'	10,782'	200' FSL	2800' FWL	24-T153N-R161W	180.0	
Survey Company: Build Rate: 13 deg / 100'							
Comments:							
DRILL TO KOP DRILL CURVE TO 90 DEG AND 7" CASING POINT SET 7" CASING DRILL MIDDLE BAKKEN LATERAL MWD Surveys will be taken every 100' in vertical hole, and a minimum of every 30' while building curve and every 90' while drilling lateral MWD GR to be run from KOP to Lateral TD <b>GR must be run to ground surface.</b>							
Geology: MWD 12-9-2011		Prepared by:		Engineering: L. Strong 1/18/2012			



Project: Indian Hills  
Site: 153N-101W-13/24  
Well: Jefferies 5301 43-12B  
Wellbore: Jefferies 5301 43-12B  
Design: Plan #1

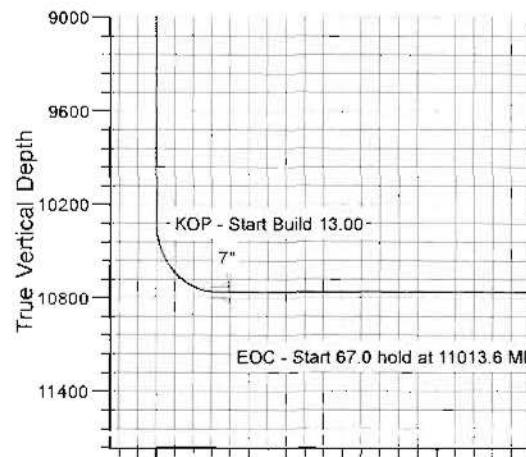


Azimuths to True North  
Magnetic North: 8.56°

Magnetic Field  
Strength: 56724.3nT  
Dip Angle: 73.09°  
Date: 12/9/2011  
Model: IGRF200510

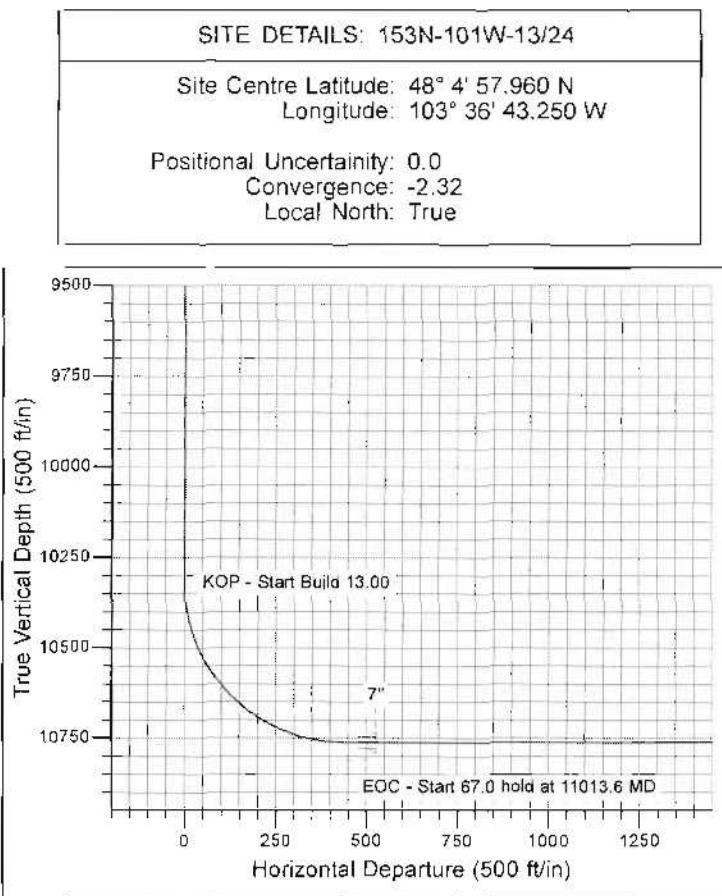
#### CASING DETAILS

TVD	MD	Name	Size
2170.0	2170.0	9 5/8"	9.625
10762.0	11100.0	7"	7.000



#### 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	
10321.3	0.00	0.00	10321.3	0.0	0.0	0.00	
11013.6	90.00	209.94	10762.0	-381.9	-220.0	13.00	
11080.6	90.00	209.94	10762.0	-440.0	-253.4	0.00	
13076.5	90.00	180.00	10762.0	-2346.3	-763.1	1.50	
21310.2	90.00	180.00	10762.0	-10580.0	-763.0	0.00	PBHL



TD at 21310.2

## **Oasis**

**Indian Hills**

**153N-101W-13/24**

**Jefferies 5301 43-12B**

**Jefferies 5301 43-12B**

**Jefferies 5301 43-12B**

**Plan: Plan #1**

## **Standard Planning Report**

**24 January, 2012**

**Microsoft**  
Planning Report

Database:	EDM 5000.1.9.0 Production DB	Local Co-ordinate Reference:	Well Jefferies 5301 43-12B
Company:	Oasis	TVD Reference:	WELL @ 2118.0ft (Original Well Elev)
Project:	Indian Hills	MD Reference:	WELL @ 2118.0ft (Original Well Elev)
Site:	153N-101W-13/24	North Reference:	True
Well:	Jefferies 5301 43-12B	Survey Calculation Method:	Minimum Curvature
Wellbore:	Jefferies 5301 43-12B		
Design:	Plan #1		

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

Site	153N-101W-13/24	Northing:	125,067.66 m	Latitude:	48° 4' 57.960 N
Site Position:		Easting:	368,214.56 m	Longitude:	103° 36' 43.250 W
From:	Lat/Long	Slot Radius:	13.200 in	Grid Convergence:	-2.32 °
Position Uncertainty:	0.0 ft				

Well	Jefferies 5301 43-12B	Northing:	125,078.23 m	Latitude:	48° 4' 58.070 N
Well Position	+N/S +E/W	11.2 ft -582.5 ft	Northing: Easting:	368,037.28 m	Longitude:
Position Uncertainty	0.0 ft		Wellhead Elevation:		Ground Level:

Wellbore	Jefferies 5301 43-12B	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
		IGRF200510	12/9/2011	8.56	73.09	56,724

Design	Plan #1
Audit Notes:	
Version:	
Phase:	
Vertical Section:	

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
10,321.3	0.00	0.00	10,321.3	0.0	0.0	0.00	0.00	0.00	0.00	0.00
11,013.6	90.00	209.94	10,762.0	-381.9	-220.0	13.00	13.00	0.00	209.94	
11,080.6	90.00	209.94	10,762.0	-440.0	-253.4	0.00	0.00	0.00	0.00	
13,076.5	90.00	180.00	10,762.0	-2,346.3	-763.1	1.50	0.00	-1.50	-90.00	
21,310.2	90.00	180.00	10,762.0	-10,580.0	-763.0	0.00	0.00	0.00	0.00	Jefferies 5301 43-12B

**Microsoft**  
Planning Report

**Database:** EDM 5000.1.9.0 Production DB  
**Company:** Oasis  
**Project:** Indian Hills  
**Site:** 153N-101W-13/24  
**Well:** Jefferies 5301 43-12B  
**Wellbore:** Jefferies 5301 43-12B  
**Design:** Plan #1

**Local Co-ordinate Reference:**

**TVD Reference:** WELL @ 2118.0ft (Original Well Elev)  
**MD Reference:** WELL @ 2118.0ft (Original Well Elev)  
**North Reference:** True

**Survey Calculation Method:** Minimum Curvature

**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
1,968.0	0.00	0.00	1,968.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>Pierre</b>									
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,170.0	0.00	0.00	2,170.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>9 5/8"</b>									
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	0.00
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	0.00
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	0.00
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	0.00
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	0.00
4,600.0	0.00	0.00	4,600.0	0.0	0.0	0.0	0.00	0.00	0.00
4,634.0	0.00	0.00	4,634.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>Greenhorn</b>									

**Microsoft**  
Planning Report

<b>Database:</b>	EDM 5000.1.9.0 Production DB	<b>Local Co-ordinate Reference:</b>	Well Jefferies 5301 43-12B
<b>Company:</b>	Oasis	<b>TVD Reference:</b>	WELL @ 2118.0ft (Original Well Elev)
<b>Project:</b>	Indian Hills	<b>MD Reference:</b>	WELL @ 2118.0ft (Original Well Elev)
<b>Site:</b>	153N-101W-13/24	<b>North Reference:</b>	True
<b>Well:</b>	Jefferies 5301 43-12B	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Jefferies 5301 43-12B		
<b>Design:</b>	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)
4,700.0	0.00	0.00	4,700.0	0.0	0.0	0.0	0.00	0.00	0.00
4,800.0	0.00	0.00	4,800.0	0.0	0.0	0.0	0.00	0.00	0.00
4,900.0	0.00	0.00	4,900.0	0.0	0.0	0.0	0.00	0.00	0.00
5,000.0	0.00	0.00	5,000.0	0.0	0.0	0.0	0.00	0.00	0.00
5,030.0	0.00	0.00	5,030.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>Mowry</b>									
5,100.0	0.00	0.00	5,100.0	0.0	0.0	0.0	0.00	0.00	0.00
5,200.0	0.00	0.00	5,200.0	0.0	0.0	0.0	0.00	0.00	0.00
5,300.0	0.00	0.00	5,300.0	0.0	0.0	0.0	0.00	0.00	0.00
5,400.0	0.00	0.00	5,400.0	0.0	0.0	0.0	0.00	0.00	0.00
5,461.0	0.00	0.00	5,461.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>Dakota</b>									
5,500.0	0.00	0.00	5,500.0	0.0	0.0	0.0	0.00	0.00	0.00
5,600.0	0.00	0.00	5,600.0	0.0	0.0	0.0	0.00	0.00	0.00
5,700.0	0.00	0.00	5,700.0	0.0	0.0	0.0	0.00	0.00	0.00
5,800.0	0.00	0.00	5,800.0	0.0	0.0	0.0	0.00	0.00	0.00
5,900.0	0.00	0.00	5,900.0	0.0	0.0	0.0	0.00	0.00	0.00
6,000.0	0.00	0.00	6,000.0	0.0	0.0	0.0	0.00	0.00	0.00
6,100.0	0.00	0.00	6,100.0	0.0	0.0	0.0	0.00	0.00	0.00
6,200.0	0.00	0.00	6,200.0	0.0	0.0	0.0	0.00	0.00	0.00
6,300.0	0.00	0.00	6,300.0	0.0	0.0	0.0	0.00	0.00	0.00
6,377.0	0.00	0.00	6,377.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>Rierdon</b>									
6,400.0	0.00	0.00	6,400.0	0.0	0.0	0.0	0.00	0.00	0.00
6,500.0	0.00	0.00	6,500.0	0.0	0.0	0.0	0.00	0.00	0.00
6,600.0	0.00	0.00	6,600.0	0.0	0.0	0.0	0.00	0.00	0.00
6,700.0	0.00	0.00	6,700.0	0.0	0.0	0.0	0.00	0.00	0.00
6,800.0	0.00	0.00	6,800.0	0.0	0.0	0.0	0.00	0.00	0.00
6,896.0	0.00	0.00	6,896.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>Dunham Salt</b>									
6,900.0	0.00	0.00	6,900.0	0.0	0.0	0.0	0.00	0.00	0.00
6,963.0	0.00	0.00	6,963.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>Dunham Salt Base</b>									
6,968.0	0.00	0.00	6,968.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>Spearfish</b>									
7,000.0	0.00	0.00	7,000.0	0.0	0.0	0.0	0.00	0.00	0.00
7,100.0	0.00	0.00	7,100.0	0.0	0.0	0.0	0.00	0.00	0.00
7,200.0	0.00	0.00	7,200.0	0.0	0.0	0.0	0.00	0.00	0.00
7,212.0	0.00	0.00	7,212.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>Pine Salt</b>									
7,300.0	0.00	0.00	7,300.0	0.0	0.0	0.0	0.00	0.00	0.00
7,337.0	0.00	0.00	7,337.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>Pine Salt Base</b>									
7,365.0	0.00	0.00	7,365.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>Opeche Salt</b>									
7,400.0	0.00	0.00	7,400.0	0.0	0.0	0.0	0.00	0.00	0.00
7,444.0	0.00	0.00	7,444.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>Opeche Salt Base</b>									
7,500.0	0.00	0.00	7,500.0	0.0	0.0	0.0	0.00	0.00	0.00
7,600.0	0.00	0.00	7,600.0	0.0	0.0	0.0	0.00	0.00	0.00
7,625.0	0.00	0.00	7,625.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>Broom Creek (Top of Minnelusa Gp.)</b>									
7,668.0	0.00	0.00	7,668.0	0.0	0.0	0.0	0.00	0.00	0.00

**Microsoft**  
Planning Report

<b>Database:</b>	EDM 5000.1.9.0 Production DB	<b>Local Co-ordinate Reference:</b>	Well Jefferies 5301 43-12B
<b>Company:</b>	Oasis	<b>TVD Reference:</b>	WELL @ 2118.0ft (Original Well Elev)
<b>Project:</b>	Indian Hills	<b>MD Reference:</b>	WELL @ 2118.0ft (Original Well Elev)
<b>Site:</b>	153N-101W-13/24	<b>North Reference:</b>	True
<b>Well:</b>	Jefferies 5301 43-12B	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Jefferies 5301 43-12B		
<b>Design:</b>	Plan #1		

**Planned Survey**

	<b>Measured Depth (ft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (ft)</b>	<b>+N-S (ft)</b>	<b>+E-W (ft)</b>	<b>Vertical Section (ft)</b>	<b>Dogleg Rate (/100ft)</b>	<b>Build Rate (/100ft)</b>	<b>Turn Rate (/100ft)</b>
<b>Amesden</b>										
7,700.0	0.00	0.00	7,700.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00
7,800.0	0.00	0.00	7,800.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00
7,844.0	0.00	0.00	7,844.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>Tyler</b>										
7,900.0	0.00	0.00	7,900.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00
8,000.0	0.00	0.00	8,000.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00
8,031.0	0.00	0.00	8,031.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>Otter (Base of Minnelusa Gp.)</b>										
8,100.0	0.00	0.00	8,100.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00
8,200.0	0.00	0.00	8,200.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00
8,300.0	0.00	0.00	8,300.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00
8,380.0	0.00	0.00	8,380.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>Kibbey</b>										
8,400.0	0.00	0.00	8,400.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00
8,500.0	0.00	0.00	8,500.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00
8,527.0	0.00	0.00	8,527.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>Charles Salt</b>										
8,600.0	0.00	0.00	8,600.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00
8,700.0	0.00	0.00	8,700.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00
8,800.0	0.00	0.00	8,800.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00
8,900.0	0.00	0.00	8,900.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00
9,000.0	0.00	0.00	9,000.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00
9,100.0	0.00	0.00	9,100.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00
9,150.0	0.00	0.00	9,150.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>JB</b>										
9,200.0	0.00	0.00	9,200.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00
9,227.0	0.00	0.00	9,227.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>Base Last Salt</b>										
9,275.0	0.00	0.00	9,275.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>Ratcliffe</b>										
9,300.0	0.00	0.00	9,300.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00
9,400.0	0.00	0.00	9,400.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00
9,451.0	0.00	0.00	9,451.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>Mission Canyon</b>										
9,500.0	0.00	0.00	9,500.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00
9,600.0	0.00	0.00	9,600.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00
9,700.0	0.00	0.00	9,700.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00
9,800.0	0.00	0.00	9,800.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00
9,900.0	0.00	0.00	9,900.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00
10,000.0	0.00	0.00	10,000.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00
10,025.0	0.00	0.00	10,025.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>Lodgepole</b>										
10,100.0	0.00	0.00	10,100.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00
10,200.0	0.00	0.00	10,200.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00
10,300.0	0.00	0.00	10,300.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00
10,321.3	0.00	0.00	10,321.3	0.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>KOP - Start Build 13.00</b>										
10,325.0	0.49	209.94	10,325.0	0.0	0.0	0.0	0.0	13.00	13.00	0.00
10,350.0	3.74	209.94	10,350.0	-0.8	-0.5	0.8	13.00	13.00	0.00	
10,375.0	6.99	209.94	10,374.9	-2.8	-1.6	2.9	13.00	13.00	0.00	
10,400.0	10.24	209.94	10,399.6	-6.1	-3.5	6.3	13.00	13.00	0.00	
10,425.0	13.49	209.94	10,424.0	-10.5	-6.1	10.9	13.00	13.00	0.00	

**Microsoft**  
Planning Report

<b>Database:</b>	EDM 5000.1.9.0 Production DB	<b>Local Co-ordinate Reference:</b>	Well Jefferies 5301 43-12B
<b>Company:</b>	Oasis	<b>TVD Reference:</b>	WELL @ 2118.0ft (Original Well Elev)
<b>Project:</b>	Indian Hills	<b>MD Reference:</b>	WELL @ 2118.0ft (Original Well Elev)
<b>Site:</b>	153N-101W-13/24	<b>North Reference:</b>	True
<b>Well:</b>	Jefferies 5301 43-12B	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Jefferies 5301 43-12B		
<b>Design:</b>	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)	
10,450.0	16.74	209.94	10,448.2	-16.2	-9.3	16.8	13.00	13.00	0.00	
10,475.0	19.99	209.94	10,471.9	-23.0	-13.2	23.9	13.00	13.00	0.00	
10,500.0	23.24	209.94	10,495.1	-31.0	-17.8	32.2	13.00	13.00	0.00	
10,525.0	26.49	209.94	10,517.8	-40.1	-23.1	41.6	13.00	13.00	0.00	
10,550.0	29.74	209.94	10,539.9	-50.3	-29.0	52.2	13.00	13.00	0.00	
10,575.0	32.99	209.94	10,561.2	-61.6	-35.5	64.0	13.00	13.00	0.00	
10,600.0	36.24	209.94	10,581.8	-73.9	-42.5	76.7	13.00	13.00	0.00	
10,625.0	39.49	209.94	10,601.5	-87.2	-50.2	90.5	13.00	13.00	0.00	
10,650.0	42.74	209.94	10,620.4	-101.4	-58.4	105.3	13.00	13.00	0.00	
10,675.0	45.99	209.94	10,638.2	-116.6	-67.1	121.1	13.00	13.00	0.00	
10,700.0	49.24	209.94	10,655.1	-132.5	-76.3	137.7	13.00	13.00	0.00	
10,725.0	52.49	209.94	10,670.9	-149.3	-86.0	155.1	13.00	13.00	0.00	
10,750.0	55.74	209.94	10,685.5	-166.9	-96.1	173.4	13.00	13.00	0.00	
10,775.0	58.99	209.94	10,699.0	-185.1	-106.6	192.3	13.00	13.00	0.00	
10,800.0	62.24	209.94	10,711.3	-204.0	-117.5	211.9	13.00	13.00	0.00	
10,825.0	65.49	209.94	10,722.3	-223.5	-128.7	232.1	13.00	13.00	0.00	
10,850.0	68.74	209.94	10,732.0	-243.4	-140.2	252.9	13.00	13.00	0.00	
10,873.7	71.82	209.94	10,740.0	-262.8	-151.3	273.0	13.00	13.00	0.00	
<b>False Bakken</b>										
10,875.0	71.99	209.94	10,740.4	-263.8	-151.9	274.1	13.00	13.00	0.00	
10,900.0	75.24	209.94	10,747.4	-284.6	-163.9	295.6	13.00	13.00	0.00	
10,925.0	78.49	209.94	10,753.1	-305.7	-176.0	317.6	13.00	13.00	0.00	
10,934.9	79.77	209.94	10,755.0	-314.1	-180.9	326.3	13.00	13.00	0.00	
<b>Upper Bakken</b>										
10,950.0	81.74	209.94	10,757.4	-327.0	-188.3	339.7	13.00	13.00	0.00	
10,975.0	84.99	209.94	10,760.3	-348.5	-200.7	362.1	13.00	13.00	0.00	
11,000.0	88.24	209.94	10,761.8	-370.2	-213.2	384.5	13.00	13.00	0.00	
11,013.5	90.00	209.94	10,762.0	-381.9	-219.9	396.7	13.00	13.00	0.00	
<b>EOC - Start 67.0 hold at 11013.8 MD - Middle Bakken Sand Target - Middle Bakken</b>										
11,080.6	90.00	209.94	10,762.0	-440.0	-253.4	457.1	0.01	0.01	0.00	
<b>Start DLS 1.50 TFO -90.00</b>										
11,100.0	90.00	209.65	10,762.0	-456.8	-263.0	474.6	1.50	0.00	-1.50	
<b>7"</b>										
11,200.0	90.00	208.15	10,762.0	-544.4	-311.4	565.4	1.50	0.00	-1.50	
11,300.0	90.00	206.65	10,762.0	-633.2	-357.4	657.2	1.50	0.00	-1.50	
11,400.0	90.00	205.15	10,762.0	-723.1	-401.1	750.1	1.50	0.00	-1.50	
11,500.0	90.00	203.65	10,762.0	-814.2	-442.4	843.9	1.50	0.00	-1.50	
11,600.0	90.00	202.15	10,762.0	-906.3	-481.3	938.6	1.50	0.00	-1.50	
11,700.0	90.00	200.65	10,762.0	-999.4	-517.7	1,034.1	1.50	0.00	-1.50	
11,800.0	90.00	199.15	10,762.0	-1,093.5	-551.8	1,130.3	1.50	0.00	-1.50	
11,900.0	90.00	197.65	10,762.0	-1,188.3	-583.3	1,227.2	1.50	0.00	-1.50	
12,000.0	90.00	196.15	10,762.0	-1,284.0	-612.4	1,324.7	1.50	0.00	-1.50	
12,100.0	90.00	194.65	10,762.0	-1,380.4	-639.0	1,422.8	1.50	0.00	-1.50	
12,200.0	90.00	193.15	10,762.0	-1,477.5	-663.0	1,521.4	1.50	0.00	-1.50	
12,300.0	90.00	191.65	10,762.0	-1,575.2	-684.4	1,620.3	1.50	0.00	-1.50	
12,400.0	90.00	190.15	10,762.0	-1,673.4	-703.3	1,719.6	1.50	0.00	-1.50	
12,500.0	90.00	188.65	10,762.0	-1,772.0	-719.7	1,819.2	1.50	0.00	-1.50	
12,600.0	90.00	187.15	10,762.0	-1,871.1	-733.4	1,919.0	1.50	0.00	-1.50	
12,700.0	90.00	185.65	10,762.0	-1,970.4	-744.5	2,018.9	1.50	0.00	-1.50	
12,800.0	90.00	184.15	10,762.0	-2,070.1	-753.1	2,118.9	1.50	0.00	-1.50	
12,900.0	90.00	182.65	10,762.0	-2,169.9	-759.0	2,218.9	1.50	0.00	-1.50	
13,000.0	90.00	181.15	10,762.0	-2,269.8	-762.3	2,318.8	1.50	0.00	-1.50	
13,076.5	90.00	180.00	10,762.0	-2,346.3	-763.1	2,395.1	1.50	0.00	-1.50	

**Microsoft**  
Planning Report

<b>Database:</b>	EDM 5000.1.9.0 Production DB	<b>Local Co-ordinate Reference:</b>	Well Jefferies 5301 43-12B
<b>Company:</b>	Oasis	<b>TVD Reference:</b>	WELL @ 2118.0ft (Original Well Elev)
<b>Project:</b>	Indian Hills	<b>MD Reference:</b>	WELL @ 2118.0ft (Original Well Elev)
<b>Site:</b>	153N-101W-13/24	<b>North Reference:</b>	True
<b>Well:</b>	Jefferies 5301 43-12B	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Jefferies 5301 43-12B		
<b>Design:</b>	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)
<b>Start 8233.7 hold at 13076.5 MD</b>									
13,100.0	90.00	180.00	10,762.0	-2,369.8	-763.1	2,418.6	0.00	0.00	0.00
13,200.0	90.00	180.00	10,762.0	-2,469.8	-763.1	2,518.3	0.00	0.00	0.00
13,300.0	90.00	180.00	10,762.0	-2,569.8	-763.1	2,618.1	0.00	0.00	0.00
13,400.0	90.00	180.00	10,762.0	-2,669.8	-763.1	2,717.8	0.00	0.00	0.00
13,500.0	90.00	180.00	10,762.0	-2,769.8	-763.1	2,817.5	0.00	0.00	0.00
13,600.0	90.00	180.00	10,762.0	-2,869.8	-763.1	2,917.3	0.00	0.00	0.00
13,700.0	90.00	180.00	10,762.0	-2,969.8	-763.1	3,017.0	0.00	0.00	0.00
13,800.0	90.00	180.00	10,762.0	-3,069.8	-763.1	3,116.8	0.00	0.00	0.00
13,900.0	90.00	180.00	10,762.0	-3,169.8	-763.1	3,216.5	0.00	0.00	0.00
14,000.0	90.00	180.00	10,762.0	-3,269.8	-763.1	3,316.2	0.00	0.00	0.00
14,100.0	90.00	180.00	10,762.0	-3,369.8	-763.1	3,416.0	0.00	0.00	0.00
14,200.0	90.00	180.00	10,762.0	-3,469.8	-763.1	3,515.7	0.00	0.00	0.00
14,300.0	90.00	180.00	10,762.0	-3,569.8	-763.1	3,615.5	0.00	0.00	0.00
14,400.0	90.00	180.00	10,762.0	-3,669.8	-763.1	3,715.2	0.00	0.00	0.00
14,500.0	90.00	180.00	10,762.0	-3,769.8	-763.1	3,814.9	0.00	0.00	0.00
14,600.0	90.00	180.00	10,762.0	-3,869.8	-763.1	3,914.7	0.00	0.00	0.00
14,700.0	90.00	180.00	10,762.0	-3,969.8	-763.1	4,014.4	0.00	0.00	0.00
14,800.0	90.00	180.00	10,762.0	-4,069.8	-763.1	4,114.2	0.00	0.00	0.00
14,900.0	90.00	180.00	10,762.0	-4,169.8	-763.1	4,213.9	0.00	0.00	0.00
15,000.0	90.00	180.00	10,762.0	-4,269.8	-763.1	4,313.7	0.00	0.00	0.00
15,100.0	90.00	180.00	10,762.0	-4,369.8	-763.1	4,413.4	0.00	0.00	0.00
15,200.0	90.00	180.00	10,762.0	-4,469.8	-763.1	4,513.1	0.00	0.00	0.00
15,300.0	90.00	180.00	10,762.0	-4,569.8	-763.1	4,612.9	0.00	0.00	0.00
15,400.0	90.00	180.00	10,762.0	-4,669.8	-763.1	4,712.6	0.00	0.00	0.00
15,500.0	90.00	180.00	10,762.0	-4,769.8	-763.1	4,812.4	0.00	0.00	0.00
15,600.0	90.00	180.00	10,762.0	-4,869.8	-763.1	4,912.1	0.00	0.00	0.00
15,700.0	90.00	180.00	10,762.0	-4,969.8	-763.1	5,011.8	0.00	0.00	0.00
15,800.0	90.00	180.00	10,762.0	-5,069.8	-763.1	5,111.6	0.00	0.00	0.00
15,900.0	90.00	180.00	10,762.0	-5,169.8	-763.1	5,211.3	0.00	0.00	0.00
16,000.0	90.00	180.00	10,762.0	-5,269.8	-763.1	5,311.1	0.00	0.00	0.00
16,100.0	90.00	180.00	10,762.0	-5,369.8	-763.1	5,410.8	0.00	0.00	0.00
16,200.0	90.00	180.00	10,762.0	-5,469.8	-763.1	5,510.5	0.00	0.00	0.00
16,300.0	90.00	180.00	10,762.0	-5,569.8	-763.0	5,610.3	0.00	0.00	0.00
16,400.0	90.00	180.00	10,762.0	-5,669.8	-763.0	5,710.0	0.00	0.00	0.00
16,500.0	90.00	180.00	10,762.0	-5,769.8	-763.0	5,809.8	0.00	0.00	0.00
16,600.0	90.00	180.00	10,762.0	-5,869.8	-763.0	5,909.5	0.00	0.00	0.00
16,700.0	90.00	180.00	10,762.0	-5,969.8	-763.0	6,009.2	0.00	0.00	0.00
16,800.0	90.00	180.00	10,762.0	-6,069.8	-763.0	6,109.0	0.00	0.00	0.00
16,900.0	90.00	180.00	10,762.0	-6,169.8	-763.0	6,208.7	0.00	0.00	0.00
17,000.0	90.00	180.00	10,762.0	-6,269.8	-763.0	6,308.5	0.00	0.00	0.00
17,100.0	90.00	180.00	10,762.0	-6,369.8	-763.0	6,408.2	0.00	0.00	0.00
17,200.0	90.00	180.00	10,762.0	-6,469.8	-763.0	6,508.0	0.00	0.00	0.00
17,300.0	90.00	180.00	10,762.0	-6,569.8	-763.0	6,607.7	0.00	0.00	0.00
17,400.0	90.00	180.00	10,762.0	-6,669.8	-763.0	6,707.4	0.00	0.00	0.00
17,500.0	90.00	180.00	10,762.0	-6,769.8	-763.0	6,807.2	0.00	0.00	0.00
17,600.0	90.00	180.00	10,762.0	-6,869.8	-763.0	6,906.9	0.00	0.00	0.00
17,700.0	90.00	180.00	10,762.0	-6,969.8	-763.0	7,006.7	0.00	0.00	0.00
17,800.0	90.00	180.00	10,762.0	-7,069.8	-763.0	7,106.4	0.00	0.00	0.00
17,900.0	90.00	180.00	10,762.0	-7,169.8	-763.0	7,206.1	0.00	0.00	0.00
18,000.0	90.00	180.00	10,762.0	-7,269.8	-763.0	7,305.9	0.00	0.00	0.00
18,100.0	90.00	180.00	10,762.0	-7,369.8	-763.0	7,405.6	0.00	0.00	0.00
18,200.0	90.00	180.00	10,762.0	-7,469.8	-763.0	7,505.4	0.00	0.00	0.00
18,300.0	90.00	180.00	10,762.0	-7,569.8	-763.0	7,605.1	0.00	0.00	0.00

**Microsoft**  
Planning Report

<b>Database:</b>	EDM 5000.1.9.0 Production DB	<b>Local Co-ordinate Reference:</b>	Well Jefferies 5301 43-12B
<b>Company:</b>	Oasis	<b>TVD Reference:</b>	WELL @ 2118.0ft (Original Well Elev)
<b>Project:</b>	Indian Hills	<b>MD Reference:</b>	WELL @ 2118.0ft (Original Well Elev)
<b>Site:</b>	153N-101W-13/24	<b>North Reference:</b>	True
<b>Well:</b>	Jefferies 5301 43-12B	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Jefferies 5301 43-12B		
<b>Design:</b>	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)
18,400.0	90.00	180.00	10,762.0	-7,669.8	-763.0	7,704.8	0.00	0.00	0.00
18,500.0	90.00	180.00	10,762.0	-7,769.8	-763.0	7,804.6	0.00	0.00	0.00
18,600.0	90.00	180.00	10,762.0	-7,869.8	-763.0	7,904.3	0.00	0.00	0.00
18,700.0	90.00	180.00	10,762.0	-7,969.8	-763.0	8,004.1	0.00	0.00	0.00
18,800.0	90.00	180.00	10,762.0	-8,069.8	-763.0	8,103.8	0.00	0.00	0.00
18,900.0	90.00	180.00	10,762.0	-8,169.8	-763.0	8,203.5	0.00	0.00	0.00
19,000.0	90.00	180.00	10,762.0	-8,269.8	-763.0	8,303.3	0.00	0.00	0.00
19,100.0	90.00	180.00	10,762.0	-8,369.8	-763.0	8,403.0	0.00	0.00	0.00
19,200.0	90.00	180.00	10,762.0	-8,469.8	-763.0	8,502.8	0.00	0.00	0.00
19,300.0	90.00	180.00	10,762.0	-8,569.8	-763.0	8,602.5	0.00	0.00	0.00
19,400.0	90.00	180.00	10,762.0	-8,669.8	-763.0	8,702.3	0.00	0.00	0.00
19,500.0	90.00	180.00	10,762.0	-8,769.8	-763.0	8,802.0	0.00	0.00	0.00
19,600.0	90.00	180.00	10,762.0	-8,869.8	-763.0	8,901.7	0.00	0.00	0.00
19,700.0	90.00	180.00	10,762.0	-8,969.8	-763.0	9,001.5	0.00	0.00	0.00
19,800.0	90.00	180.00	10,762.0	-9,069.8	-763.0	9,101.2	0.00	0.00	0.00
19,900.0	90.00	180.00	10,762.0	-9,169.8	-763.0	9,201.0	0.00	0.00	0.00
20,000.0	90.00	180.00	10,762.0	-9,269.8	-763.0	9,300.7	0.00	0.00	0.00
20,100.0	90.00	180.00	10,762.0	-9,369.8	-763.0	9,400.4	0.00	0.00	0.00
20,200.0	90.00	180.00	10,762.0	-9,469.8	-763.0	9,500.2	0.00	0.00	0.00
20,300.0	90.00	180.00	10,762.0	-9,569.8	-763.0	9,599.9	0.00	0.00	0.00
20,400.0	90.00	180.00	10,762.0	-9,669.8	-763.0	9,699.7	0.00	0.00	0.00
20,500.0	90.00	180.00	10,762.0	-9,769.8	-763.0	9,799.4	0.00	0.00	0.00
20,600.0	90.00	180.00	10,762.0	-9,869.8	-763.0	9,899.1	0.00	0.00	0.00
20,700.0	90.00	180.00	10,762.0	-9,969.8	-763.0	9,998.9	0.00	0.00	0.00
20,800.0	90.00	180.00	10,762.0	-10,069.8	-763.0	10,098.6	0.00	0.00	0.00
20,900.0	90.00	180.00	10,762.0	-10,169.8	-763.0	10,198.4	0.00	0.00	0.00
21,000.0	90.00	180.00	10,762.0	-10,269.8	-763.0	10,298.1	0.00	0.00	0.00
21,100.0	90.00	180.00	10,762.0	-10,369.8	-763.0	10,397.8	0.00	0.00	0.00
21,200.0	90.00	180.00	10,762.0	-10,469.8	-763.0	10,497.6	0.00	0.00	0.00
21,300.0	90.00	180.00	10,762.0	-10,569.8	-763.0	10,597.3	0.00	0.00	0.00
21,310.2	90.00	180.00	10,762.0	-10,580.0	-763.0	10,607.5	0.00	0.00	0.00
TD at 21310.2									

**Design Targets**

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N-S (ft)	+E-W (ft)	Northing (m)	Easting (m)	Latitude	Longitude
- hit/miss target	0.00	0.00	10,762.0	-10,580.0	-763.0	121,865.49	367,674.51	48° 3' 13.658 N	103° 37' 3.061 W
- Shape									
Jefferies 5301 43-12B P									
- plan hits target center									
- Point									

**Casing Points**

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)
2,170.0	2,170.0 9 5/8"		9.625	13.500
11,100.0	10,762.0 7"		7.000	8.750

**Microsoft**  
Planning Report

<b>Database:</b>	EDM 5000.1.9.0 Production DB	<b>Local Co-ordinate Reference:</b>	Well Jefferies 5301 43-12B
<b>Company:</b>	Oasis	<b>TVD Reference:</b>	WELL @ 2118.0ft (Original Well Elev)
<b>Project:</b>	Indian Hills	<b>MD Reference:</b>	WELL @ 2118.0ft (Original Well Elev)
<b>Site:</b>	153N-101W-13/24	<b>North Reference:</b>	True
<b>Well:</b>	Jefferies 5301 43-12B	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Jefferies 5301 43-12B		
<b>Design:</b>	Plan #1		

**Formations**

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,968.0	1,968.0	Pierre			
4,634.0	4,634.0	Greenhorn			
5,030.0	5,030.0	Mowry			
5,461.0	5,461.0	Dakota			
6,377.0	6,377.0	Rierdon			
6,896.0	6,896.0	Dunham Salt			
6,963.0	6,963.0	Dunham Salt Base			
6,968.0	6,968.0	Spearfish			
7,212.0	7,212.0	Pine Salt			
7,337.0	7,337.0	Pine Salt Base			
7,365.0	7,365.0	Opeche Salt			
7,444.0	7,444.0	Opeche Salt Base			
7,625.0	7,625.0	Broom Creek (Top of Minnelusa Gp.)			
7,668.0	7,668.0	Amsden			
7,844.0	7,844.0	Tyler			
8,031.0	8,031.0	Otter (Base of Minnelusa Gp.)			
8,380.0	8,380.0	Kibbey			
8,527.0	8,527.0	Charles Salt			
9,150.0	9,150.0	UB			
9,227.0	9,227.0	Base Last Salt			
9,275.0	9,275.0	Ratcliffe			
9,451.0	9,451.0	Mission Canyon			
10,025.0	10,025.0	Lodgepole			
10,873.7	10,740.0	False Bakken			
10,934.9	10,755.0	Upper Bakken			
11,013.5	10,762.0	Middle Bakken Sand Target			
11,013.5	10,762.0	Middle Bakken			

**Plan Annotations**

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			Comment
		+N/S (ft)	+E/W (ft)		
10,321.3	10,321.3	0.0	0.0		KOP - Start Build 13.00
11,013.6	10,762.0	-381.9	-220.0		EOC - Start 67.0 hold at 11013.6 MD
11,080.6	10,762.0	-440.0	-253.4		Start DLS 1.50 TFO -90.00
13,076.5	10,762.0	-2,346.3	-763.1		Start 8233.7 hold at 13076.5 MD
21,310.2	10,762.0	-10,580.0	-763.0		TD at 21310.2

## SECTION BREAKDOWN

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

\*JEFFRIES 5301 43-12B  
250 FEET FROM SOUTH LINE AND 2510 FEET FROM EAST LINE  
SECTIONS 12, 13, & 24, T15N, R10W, 5TH P.M., MCKENZIE COUNTY, NORTH DAKOTA

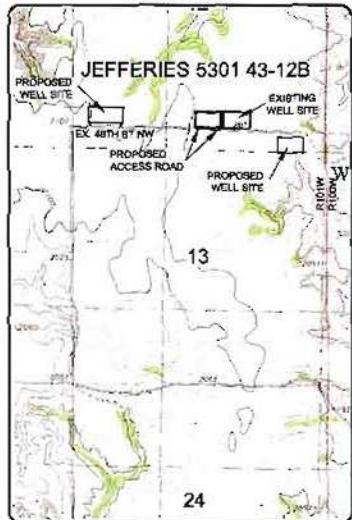
ALL BEARINGS ARE BASED ON G.P.S. DERIVED BEARINGS. THE ORIGINAL SURVEY OF THIS AREA FOR THE GENERAL LAND OFFICE (G.L.O.) WAS 1900. THE CORNERS FOUND ARE AS INDICATED AND ALL OTHERS ARE COMPUTED FROM THOSE CORNERS FOUND AND BASED ON G.L.O. DATA.



0                  100'  
— 1' = 1000'

-  - MONUMENT - RECOVERED
-  - MONUMENT - NOT RECOVERED

VICINITY MAP



24

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SHOOT IT

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P.O. Box 648  
426 East Main Street  
Sidney, Montana 59270  
Ph: (406) 433-5817  
Fax (406) 433-8618  
[www.lengl.com](http://www.lengl.com)

OASIS PETROLEUM NORTH AMERICA, LLC  
SECTION BREAKDOWN  
SECTIONS 12,13, & 24, T163N, R101W  
MCKENZIE COUNTY, NORTH DAKOTA

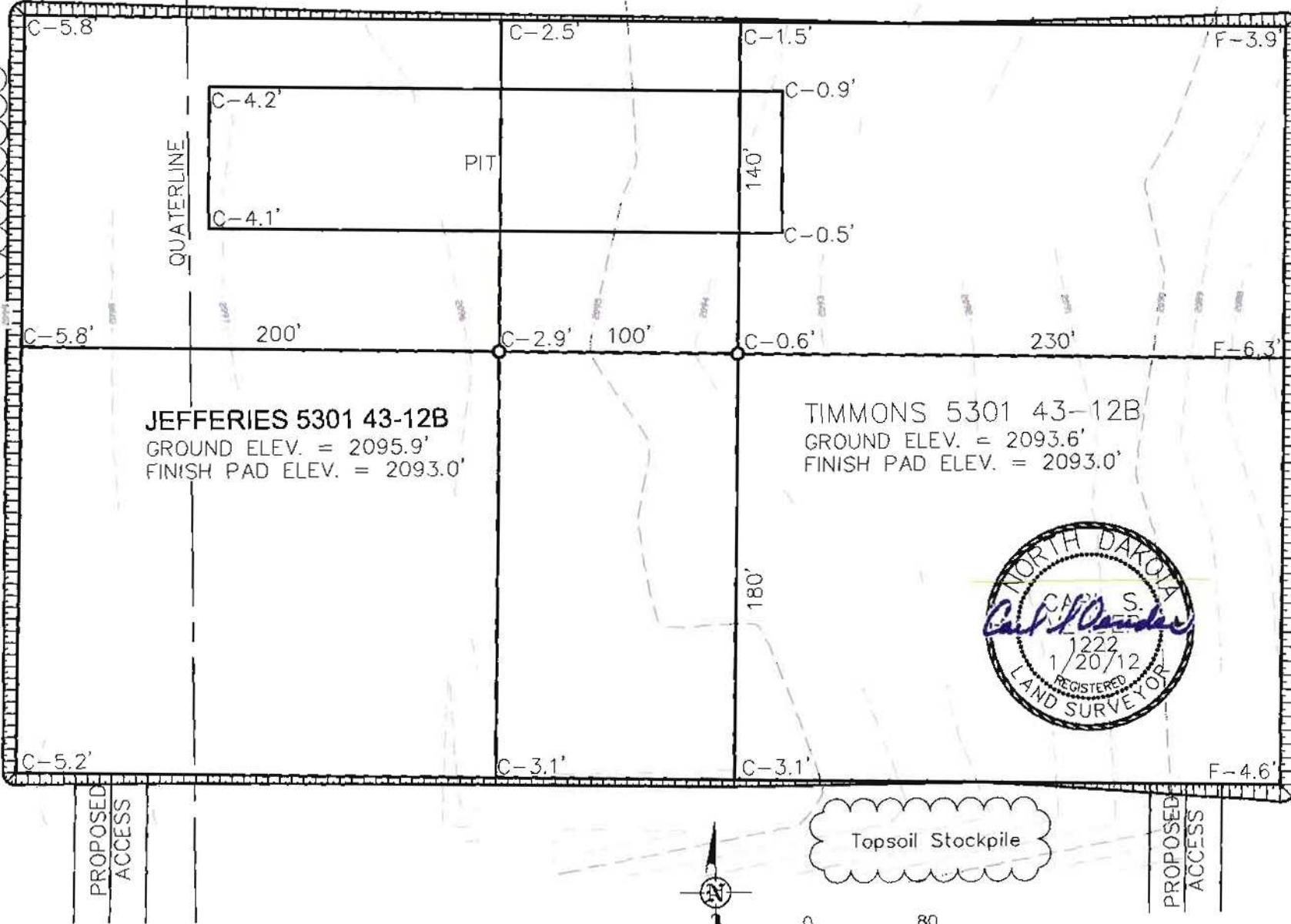
Patent No.	Date	By	Description
REV 1	1/19/12	465	SWARVED WELL LOCATIONS

# PAD LAYOUT

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

"JEFFERIES 5301 43-12B"

250 FEET FROM SOUTH LINE AND 2510 FEET FROM EAST LINE  
SECTION 12, 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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Sheet No. 1 of 1

Project Name:	Pad Layout	Date:	1/19/12
Location:	SECTION 12, T153N, R101W	Drawn By:	J.S.
Client:	MCKENZIE COUNTY, NORTH DAKOTA	Checked By:	S.S.V.
Printed No.:	S14-341	Date:	DEC-2011

Project Name:	OASIS PETROLEUM NORTH AMERICA, LLC	Date:	1/19/12
Location:	Pad Layout	Drawn By:	J.S.
Client:	SECTION 12, T153N, R101W	Checked By:	S.S.V.
Printed No.:	S14-341	Date:	DEC-2011

One-stop shop for engineering, surveying and design services

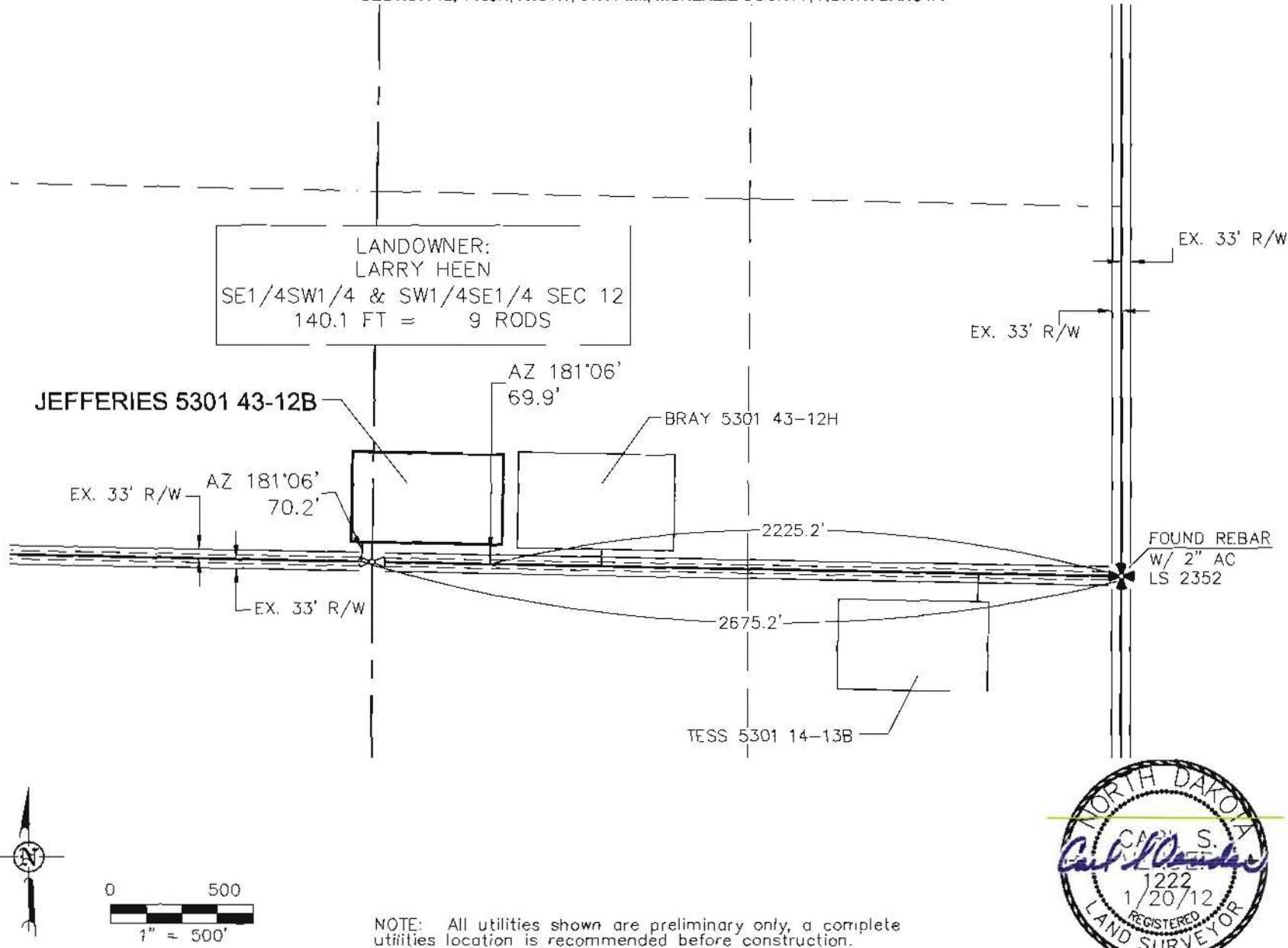
www.ieni.com

Engineering, Surveying and Design Services

# ACCESS APPROACH

OASIS PETROLEUM NORTH AMERICA, LLC  
1001 FANNIN, SUITE 1500 HOUSTON, TX 77002  
"JEFFERIES 5301 43-12B"

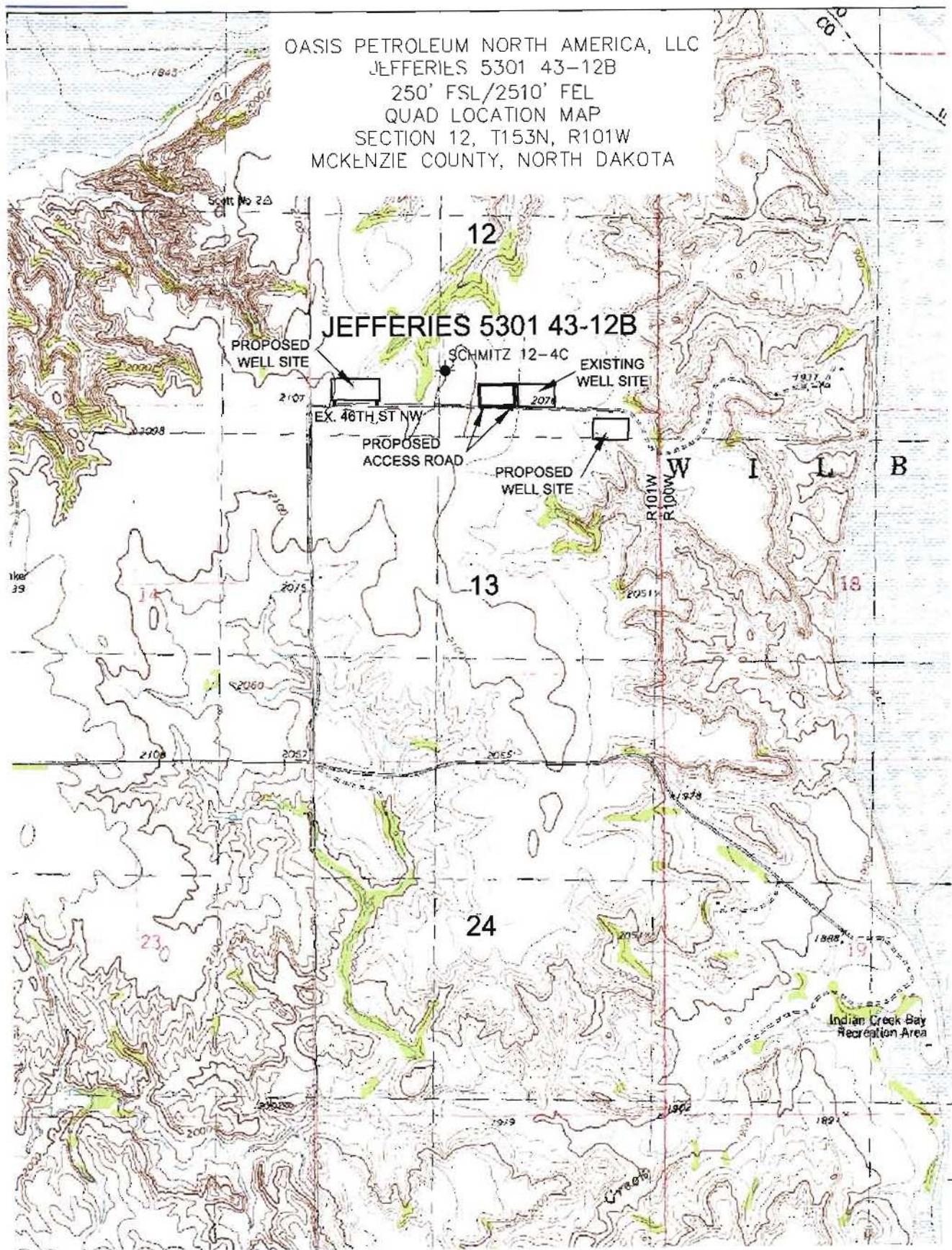
250 FEET FROM SOUTH LINE AND 2510 FEET FROM EAST LINE  
SECTION 12, T153N, R101W, 5TH P.M., MCKENZIE COUNTY, NORTH DAKOTA



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OASIS PETROLEUM NORTH AMERICA, LLC ACCESS APPROACH SECTION 12, T153N, R101W MCKENZIE COUNTY, NORTH DAKOTA	
Drawing No.: J.J.S.	Project No.: SL1-29391
Checked By: C.S.V.	Date: DEC 2011
4/8	

OASIS PETROLEUM NORTH AMERICA, LLC  
 JEFFERIES 5301 43-12B  
 250' FSL/2510' FEL  
 QUAD LOCATION MAP  
 SECTION 12, T153N, R101W  
 MCKENZIE COUNTY, NORTH DAKOTA



# COUNTY ROAD MAP

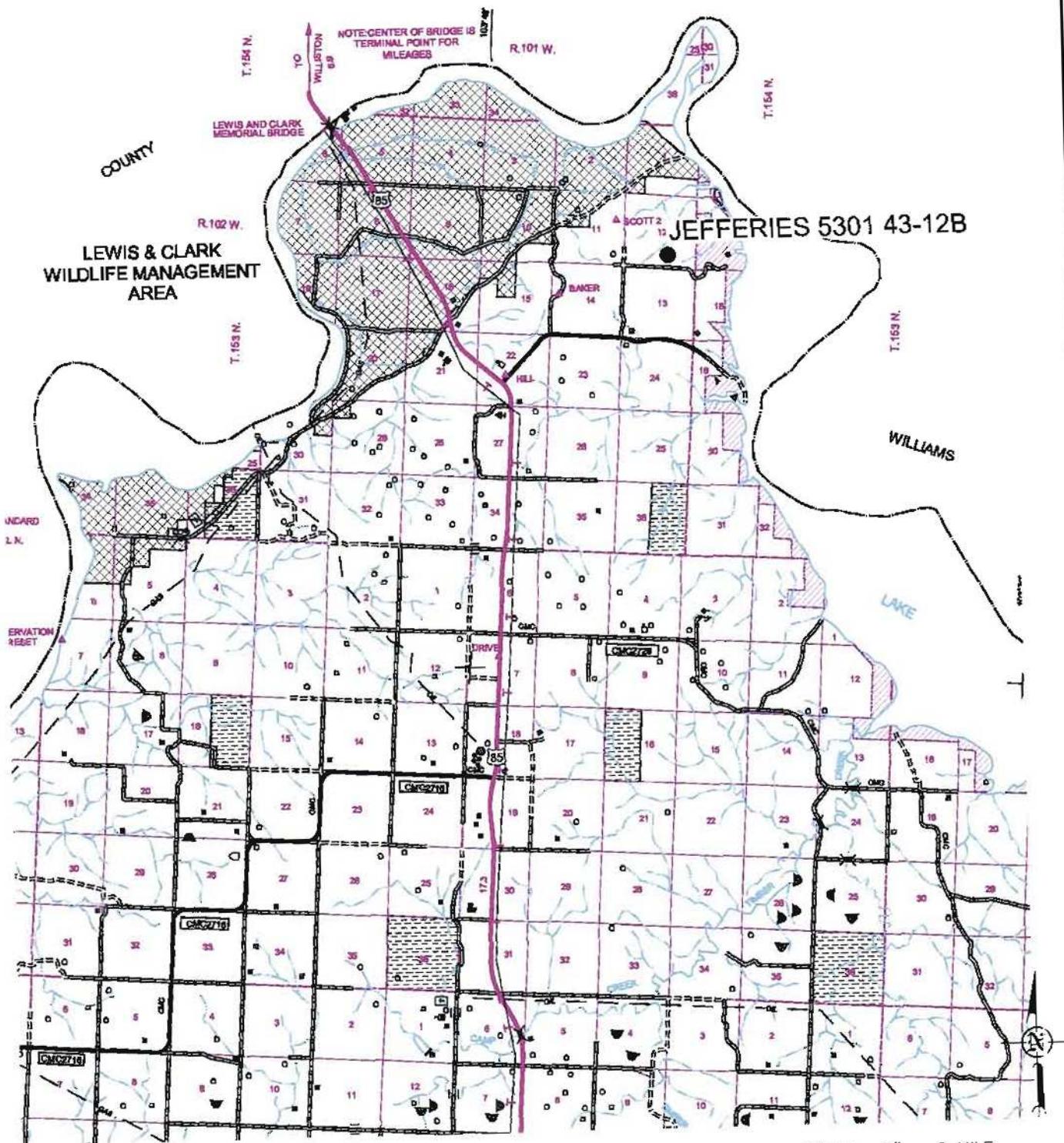
OASIS PETROLEUM NORTH AMERICA, LLC

1001 FANNIN, SUITE 1500 HOUSTON, TX 77002

"JEFFERIES 5301 43-12B"

250 FEET FROM SOUTH LINE AND 2510 FEET FROM EAST LINE

SECTION 12, T153N, R101W, 5TH P.M., MCKENZIE COUNTY, NORTH DAKOTA



SCALE: 1" = 2 MILE

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Other offices in Billings, North Dakota and South Dakota

OASIS PETROLEUM NORTH AMERICA, LLC  
COUNTY ROAD MAP  
SECTION 12, T153N, R101W

MCKENZIE COUNTY, NORTH DAKOTA

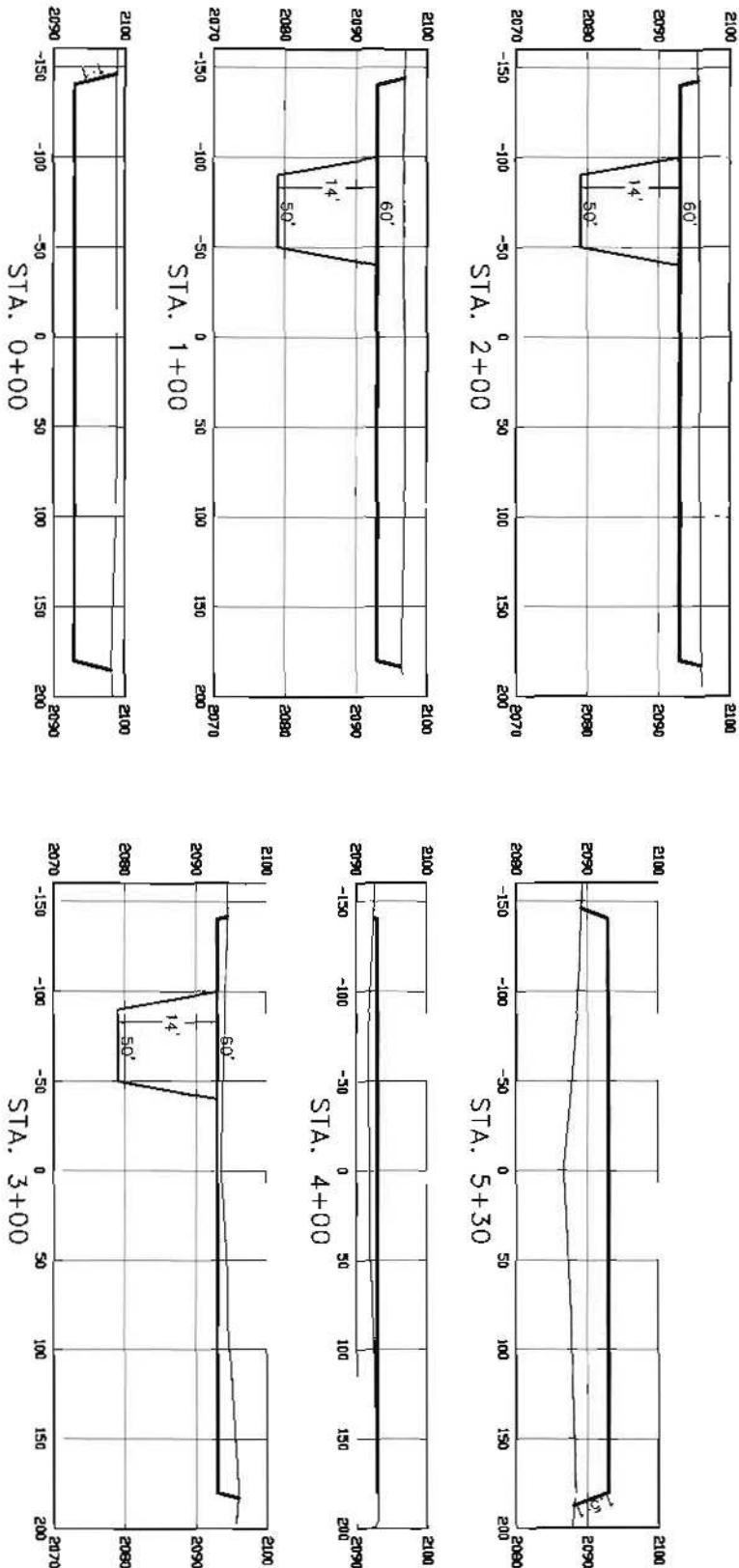
Drawn By: J.J.S. Project No.: S11-09-361  
Checked By: G.S.V. Date: DEC 2011

Revision No.	Date	By	Description
REV 1	1/19/12	JWS	SNAPPED WELL LOCATIONS

## CROSS SECTIONS

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

JEFFERIES 5301 43-12B.  
250 FEET FROM SOUTH LINE AND 250 FEET FROM EAST LINE  
SECTION 112, T153N R01W 5TH PM, MCKENZIE COUNTY, NORTH DAKOTA



SCALE  
HORIZ 1' = 100'  
VERT 1' = 20'

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OASIS PETROLEUM NORTH AMERICA, LLC  
PAD CROSS SECTIONS  
SECTION 12, T153N, R101W

Revision No.	Date	By	Description
REV 1	1-18-12	JJS	SWAMPED CELL LOCATIONS

**WELL LOCATION SITE QUANTITIES**

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

"JEFFERIES 5301 43-12B"

250 FEET FROM SOUTH LINE AND 2510 FEET FROM EAST LINE  
SECTION 12, T153N, R101W, 5TH P.M., MCKENZIE COUNTY, NORTH DAKOTA

WELL SITE ELEVATION 2095.9  
WELL PAD ELEVATION 2093.0

EXCAVATION	12,909
PLUS PIT	<u>3,150</u>
	16,059
EMBANKMENT	4,705
PLUS SHRINKAGE (30%)	<u>1,412</u>
	6,117
STOCKPILE PIT	3,150
STOCKPILE TOP SOIL (6")	3,284
STOCKPILE FROM PAD	3,508
DISTURBED AREA FROM PAD	4.07 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**

2510' FEL

250' FSL

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OASIS PETROLEUM NORTH AMERICA, LLC

QUANTITIES

SECTION 12, T153N, R101W

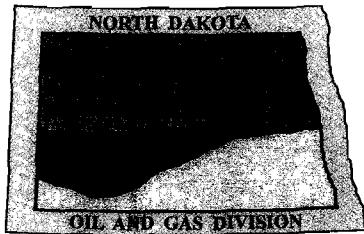
MCKENZIE COUNTY, NORTH DAKOTA

Drawn By: J.J.S. | Project No: 311-09-361

Checked By: C.S.V. | Date: DEC 2011

Revision No.	Date	By	Description
REV 1	1/19/12	J.S.	SNAPPED WELL LOCATIONS

# Oil and Gas Division<sup>22220</sup>



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](http://www.oilgas.nd.gov)

ROBIN E. HESKETH  
OASIS PETROLEUM NORTH AMERICA LLC  
1001 FANNIN, SUITE 1500  
HOUSTON, TX 77002 USA

Date: 1/19/2012

### RE: CORES AND SAMPLES

Well Name: **JEFFERIES 5301 43-12B** Well File No.: **22220**  
Location: **SWSE 12-153-101** County: **MCKENZIE**  
Permit Type: **Development - HORIZONTAL**  
Field: **BAKER** Target Horizon: **BAKKEN**

Dear ROBIN E. HESKETH:

North Dakota Century Code (NDCC) 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 the NDCC Section 38-08-04 and North Dakota Administrative Code 43-02-03-38.1.
- 2) Samples shall include all cuttings from:

#### Base of the Last Charles Salt

Samples of cuttings shall be taken at 30' maximum intervals through all vertical, build and horizontal sections. Samples must be washed, dried, packed in sample envelopes in correct order with labels showing operator, well name, location and depth, and forwarded in standard boxes to the State Geologist within 30 days of the completion of drilling operations.

- 3) Cores: ALL CORES cut shall be preserved in correct order, properly boxed, and forwarded to the State Geologist within 90 days of completion of drilling operations. Any extension of time must have written approval from the State Geologist.
- 4) All cores, core chips, and samples must be shipped, prepaid, to the State Geologist at the following address:

**ND Geological Survey Core Library  
Campus Road and Cornell  
Grand Forks, ND 58202**

- 5) NDCC 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

**Richard A. Suggs**  
Geologist



## SURFACE DAMAGE SETTLEMENT AND RELEASE

In consideration for the sum of \_\_\_\_\_ Dollars

(\$ \_\_\_\_\_) paid by Oasis Petroleum North America LLC ("Oasis") to the undersigned surface owners, Larry P. Heen, a married man dealing in his sole & separate property ("Owners," and together with Oasis, the "Parties") for themselves and their heirs, successors, administrators and assigns, hereby acknowledge the receipt and sufficiency of said payment as a full and complete settlement for and as a release of all claims for loss, damage or injury to the Subject Lands (as defined herein) arising out of the Operations (as defined herein) of the Jefferies 5301 43-12B & Timmons 5301 43-12B the "Well(s)" located on the approximately (6) six acre tract of land identified on the plat attached hereto as Exhibit "A" (the "Subject Lands") and which is situated on the following described real property located in McKenzie County, State of North Dakota, to wit:  
Township 153 North, Range 101 West, 5th P.M.  
Section 12: SE4SW4, SW4SE4

This pad shall accommodate the drilling of the Jefferies 5301 43-12B well and the Timmons 5301 43-12B well on the same location. The undersigned is fully aware that the cuttings generated from the drilling of the above described wells will be buried on site on the above described location.

The Parties agree that the settlement and release described herein does not include any claims by any third party against the Owners for personal injury or property damage arising directly out of Oasis's Operations, and Oasis agrees to indemnify, defend and hold harmless Owners against all liabilities arising from such claim (except as such claim arises from the gross negligence or wilful misconduct of the Owners).

In further consideration of the payments specified herein, Oasis is hereby specifically granted the right to construct, install and operate, replace or remove pads, pits, pumps, compressors, tanks, roads, pipelines, equipment or other facilities on the above described tract of land necessary for its drilling, completion, operation and/or plugging and abandonment of the Well(s) (the "Operations"), and to the extent such facilities are maintained by Oasis for use on the Subject Lands, this agreement shall permit Oasis's use of such facilities for the Operations on the Subject Lands.

Should commercial production be established from the Well(s), Oasis agrees to pay Owners an annual amount of: \_\_\_\_\_ per year beginning one year after the completion of the Wells and to be paid annually until the Wells is plugged and abandoned.

The Parties expressly agree and acknowledge that the payments described herein to be made by Oasis to the Owners constitute full satisfaction of the requirements of Chapter 38.11.1 of the North Dakota Century Code and, once in effect, the amended Chapter 38.11.1 of the North Dakota Century Code enacted by House Bill 1241. The Parties further expressly agree and acknowledge that the \$ payment set forth above constitutes full and adequate consideration for damages and disruption required under Section 38.11.1-04 of the North Dakota Century Code, and that the \$ payment set forth above constitutes full and adequate consideration for loss of production payments under Section 38.11.1-08.1 of the North Dakota Century Code.

Oasis shall keep the Site free of noxious weeds, and shall take reasonable steps to control erosion and washouts on the Site. Oasis shall restore the Site to a condition as near to the original condition of the Site as is reasonably possible, including the re-contouring, replacing of topsoil and re-seeding of the Site (such actions, the "Restoration").

The surface owners grant Oasis access to the Wells in the location(s) shown on the plats attached hereto as Exhibit "A".

Upon written request and the granting of a full release by the Owners of further Restoration by Oasis with respect to the affected area described in this paragraph, Oasis shall leave in place any road built by it in its Operations for the benefit of the Owners after abandoning its Operations, and shall have no further maintenance obligations with respect to any such road.

This agreement shall apply to the Parties and their respective successors, assigns, parent and subsidiary companies, affiliates and related companies, trusts and partnerships, as well as their contractors, subcontractors, officers, directors, agents and employees.

This agreement may be executed in multiple counterparts, each of which shall be an original, but all of which shall constitute one instrument.

[Signature Page Follows.]

DATED this 13th day of December 2011

SURFACE OWNERS

*Larry P. Heen*  
Larry P. Heen, a married man dealing in his sole & separate property

Address: 14033 45th Street NW

Williston, ND 58801

Phone: 701-572-6991

STATE OF North Dakota)  
COUNTY OF McKenzie)

ACKNOWLEDGMENT INDIVIDUAL

SS.

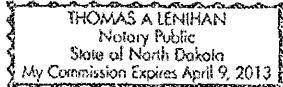
BE IT REMEMBERED, That on this 13th day of December, 2011 before me, a Notary Public, in and for said County and State, personally appeared Larry P. Heen, a married man dealing in his sole & separate property, to me known to be the identical person described in and who executed the within and foregoing instrument and acknowledged to me that he executed the same as his free and voluntary act and deed for the uses and purposes therein set forth.

IN WITNESS WHEREOF, I have hereunto set my official signature and affixed my notarial seal, the day and year first above written.

My commission expires: April 9, 2013

*Thomas A. Lenihan*  
Thomas A. Lenihan  
Notary Public

NOTARY STAMP



STATE OF \_\_\_\_\_)  
COUNTY OF \_\_\_\_\_)

ACKNOWLEDGMENT CORPORATION

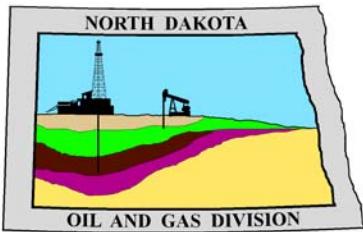
Before me the undersigned, a Notary Public, in and for said County and State, on this \_\_\_\_\_ day of \_\_\_\_\_, 2011, personally appeared \_\_\_\_\_, to me known to be the identical person who subscribed the name of the maker thereof to the foregoing instrument as its \_\_\_\_\_ and acknowledged to me that \_\_\_\_\_ executed the same as \_\_\_\_\_ free and voluntary act and deed and as the free and voluntary act and deed of such corporation, for the uses and purposes therein set forth.

Given under my hand and seal of office the day and year last above written.

My commission expires: \_\_\_\_\_

Notary Public

NOTARY STAMP



# 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](http://www.oilgas.nd.gov)

January 10, 2012

Kaitlin Bass  
Operations Assistant  
OASIS PETROLEUM NORTH AMERICA LLC  
1001 Fannin Suite 1500  
Houston, TX 77002

**RE: HORIZONTAL WELL  
JEFFERIES 5301 43-12B  
SWSE Section 12-153N-101W  
McKenzie County  
Well File # 22220**

Dear Kaitlin:

Pursuant to Commission Order No. 18012, 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 **200' setback** from the north & south boundaries and **500' setback** from the east & west boundaries within the 1280 acre spacing unit consisting of Sections 13 & 24-T153N-R101W.

**PERMIT STIPULATIONS:** A Closed Mud System is required on multi-well pads, although the disposal of drill cuttings is contingent upon site specific conditions to be determined by an NDIC Field Inspector. In cases where a spacing unit is accessed from an off-site drill pad, an affidavit must be provided affirming that the surface owner of the multi-well pad agrees to accept burial on their property of the cuttings generated from drilling the well(s) into an offsite spacing/drilling unit. OASIS PETRO NO AMER must contact NDIC Field Inspector Marc Binns at 701-220-5989 prior to location construction.

### 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 coordinates from the well head at casing point is: 450' S & 1910' E. Also, based on the azimuth of the proposed lateral the maximum legal coordinates from the well head is: 1910' E & 10586' S.

### 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.

Kaitlin Bass  
January 10, 2012  
Page 2

### **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](mailto:certsurvey@nd.gov).

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

### **Reserve pit**

Please be advised that conditions may be imposed on the use and reclamation of a drilling reserve pit on this site if specific site conditions warrant.

### **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 a Cement Bond Log from which the presence of cement can be determined in every well in which production or intermediate casing has been set and a Gamma Ray Log must be run from total depth to ground level elevation of the well bore. All logs must be submitted as one paper copy and one digital copy in LAS (Log ASCII) format, or a format approved by the Director. Image logs that include, but are not limited to, Mud Logs, Cement Bond Logs, and Cyberlook Logs, cannot be produced in their entirety as LAS (Log ASCII) files. To create a solution and establish a standard format for industry to follow when submitting image logs, the Director has given approval for the operator to submit an image log as a TIFF (\*.tif) formatted file. The TIFF (\*.tif) format will be accepted only when the log cannot be produced in its entirety as a LAS (Log ASCII) file format. The digital copy may be submitted on a 3.5" floppy diskette, a standard CD, or attached to an email sent to [digitallogs@nd.gov](mailto:digitallogs@nd.gov)

Thank you for your cooperation.

Sincerely,

David Tabor  
Engineering Technician IV



# 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 <b>New Location</b>	Type of Well <b>Oil &amp; Gas</b>	Approximate Date Work Will Start <b>12 / 30 / 2011</b>	Confidential Status <b>No</b>
Operator <b>OASIS PETROLEUM NORTH AMERICA LLC</b>		Telephone Number <b>281-404-9461</b>	
Address <b>1001 Fannin Suite 1500</b>		City <b>Houston</b>	State <b>TX</b> Zip Code <b>77002</b>

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 <b>JEFFERIES</b>				Well Number <b>5301 43-12B</b>			
Surface Footages <b>250 F S L      2410 F E L</b>		Qtr-Qtr <b>SWSE</b>	Section <b>12</b>	Township <b>153 N</b>	Range <b>101 W</b>	County <b>McKenzie</b>	
Longstring Casing Point Footages <b>206 F N L      2644 F E L</b>		Qtr-Qtr <b>NENW</b>	Section <b>13</b>	Township <b>153 N</b>	Range <b>101 W</b>	County <b>McKenzie</b>	
Longstring Casing Point Coordinates From Well Head <b>456 S From WH      234 W From WH</b>		Azimuth <b>207 °</b>	Longstring Total Depth <b>11085 Feet MD      10762 Feet TVD</b>				
Bottom Hole Footages From Nearest Section Line <b>200 F S L      2000 F W L</b>		Qtr-Qtr <b>SESW</b>	Section <b>24</b>	Township <b>153 N</b>	Range <b>101 W</b>	County <b>McKenzie</b>	
Bottom Hole Coordinates From Well Head <b>10586 S From WH      857 W From WH</b>		KOP Lateral 1 <b>10321 Feet MD</b>	Azimuth Lateral 1 <b>180 °</b>	Estimated Total Depth Lateral 1 <b>21314 Feet MD      10762 Feet TVD</b>			
Latitude of Well Head <b>48 ° 04 ' 58.05 "</b>		Longitude of Well Head <b>-103 ° 36 ' 50.36 "</b>	NAD Reference <b>NAD83</b>	Description of (Subject to NDIC Approval) <b>SPACING UNIT: Sections 13 &amp; 24-T153N-R101W</b>			
Ground Elevation <b>2094 Feet Above S.L.</b>	Acres in Spacing/Drilling Unit <b>1280</b>		Spacing/Drilling Unit Setback Requirement <b>200 Feet N/S      500 Feet E/W</b>		Industrial Commission Order <b>18012</b>		
North Line of Spacing/Drilling Unit <b>5278 Feet</b>		South Line of Spacing/Drilling Unit <b>5267 Feet</b>		East Line of Spacing/Drilling Unit <b>10520 Feet</b>		West Line of Spacing/Drilling Unit <b>10553 Feet</b>	
Objective Horizons <b>BAKKEN</b>						Pierre Shale Top <b>1968</b>	
Proposed Surface Casing	Size <b>9 - 5/8 "</b>	Weight <b>36 Lb./Ft.</b>	Depth <b>2170 Feet</b>	Cement Volume <b>643 Sacks</b>	NOTE: Surface hole must be drilled with fresh water and surface casing must be cemented back to surface.		
Proposed Longstring Casing	Size <b>7 - "</b>	Weight(s) <b>29&amp;32 Lb./Ft.</b>	Longstring Total Depth <b>11085 Feet MD      10762 Feet TVD</b>		Cement Volume <b>741 Sacks</b>	Cement Top <b>4961 Feet</b>	Top Dakota Sand <b>5461 Feet</b>
Base Last Charles Salt (If Applicable) <b>9227 Feet</b>		NOTE: Intermediate or longstring casing string must be cemented above the top Dakota Group Sand.					
Proposed Logs <b>CBL/GR-TOC/GR-BSC</b>							
Drilling Mud Type (Vertical Hole - Below Surface Casing) <b>Invert</b>				Drilling Mud Type (Lateral) <b>Salt Water Gel</b>			
Survey Type in Vertical Portion of Well <b>MWD Every 100 Feet</b>		Survey Frequency: Build Section <b>30 Feet</b>		Survey Frequency: Lateral <b>90 Feet</b>		Survey Contractor <b>Ryan</b>	

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****Email Attachments: Drill plan with drilling fluid data, Well Summary with Csg/Cmt design, Direct Plan/Plot, and Plats**

Lateral 2

KOP Lateral 2 Feet MD	Azimuth Lateral 2 °	Estimated Total Depth Lateral 2 Feet MD      Feet TVD			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			From WH		
KOP Footages From Nearest Section Line F      L		Qtr-Qtr	Section	Township <b>N</b>	Range <b>W</b>	County	
Bottom Hole Footages From Nearest Section Line F      L		Qtr-Qtr	Section	Township <b>N</b>	Range <b>W</b>	County	

Lateral 3

KOP Lateral 3 Feet MD	Azimuth Lateral 3 °	Estimated Total Depth Lateral 3 Feet MD      Feet TVD			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			From WH		
KOP Footages From Nearest Section Line F      L		Qtr-Qtr	Section	Township <b>N</b>	Range <b>W</b>	County	
Bottom Hole Footages From Nearest Section Line F      L		Qtr-Qtr	Section	Township <b>N</b>	Range <b>W</b>	County	

Lateral 4

KOP Lateral 4 Feet MD	Azimuth Lateral 4 °	Estimated Total Depth Lateral 4 Feet MD      Feet TVD			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			From WH		
KOP Footages From Nearest Section Line F      L		Qtr-Qtr	Section	Township <b>N</b>	Range <b>W</b>	County	
Bottom Hole Footages From Nearest Section Line F      L		Qtr-Qtr	Section	Township <b>N</b>	Range <b>W</b>	County	

Lateral 5

KOP Lateral 5 Feet MD	Azimuth Lateral 5 °	Estimated Total Depth Lateral 5 Feet MD      Feet TVD			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			From WH		
KOP Footages From Nearest Section Line F      L		Qtr-Qtr	Section	Township <b>N</b>	Range <b>W</b>	County	
Bottom Hole Footages From Nearest Section Line F      L		Qtr-Qtr	Section	Township <b>N</b>	Range <b>W</b>	County	

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

Date

12 / 9 / 2011

ePermit

Printed Name  
**Kaitlin Bass**

Title

**Operations Assistant****FOR STATE USE ONLY**

Permit and File Number <b>22220</b>	API Number <b>33 - 053 - 03936</b>
Field <b>BAKER</b>	
Pool <b>BAKKEN</b>	Permit Type <b>DEVELOPMENT</b>

**FOR STATE USE ONLY**

Date Approved <b>1 / 10 / 2012</b>
By <b>David Tabor</b>
Title <b>Engineering Technician IV</b>

**WELL LOCATION PLAT**  
 OASIS PETROLEUM NORTH AMERICA, LLC  
 1001 FANNIN, SUITE 1500 HOUSTON, TX 77002  
 "JEFFERIES 5301 43-12B"

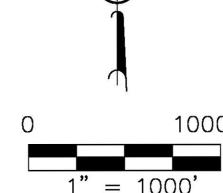
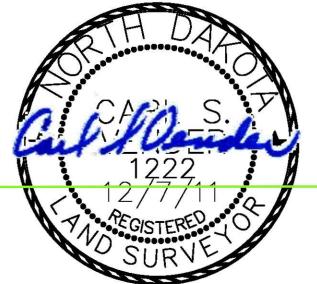
250 FEET FROM SOUTH LINE AND 2410 FEET FROM EAST LINE  
 SECTION 12, T153N, R101W, 5TH P.M., MCKENZIE COUNTY, NORTH DAKOTA

STAKED ON 12/6/11  
 VERTICAL CONTROL DATUM WAS BASED UPON  
 CONTROL POINT 13 WITH AN ELEVATION OF 2090.8'

THIS SURVEY AND PLAT IS BEING PROVIDED AT  
 THE REQUEST OF FABIAN KJORSTAD 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.

*Carl S. Vender*

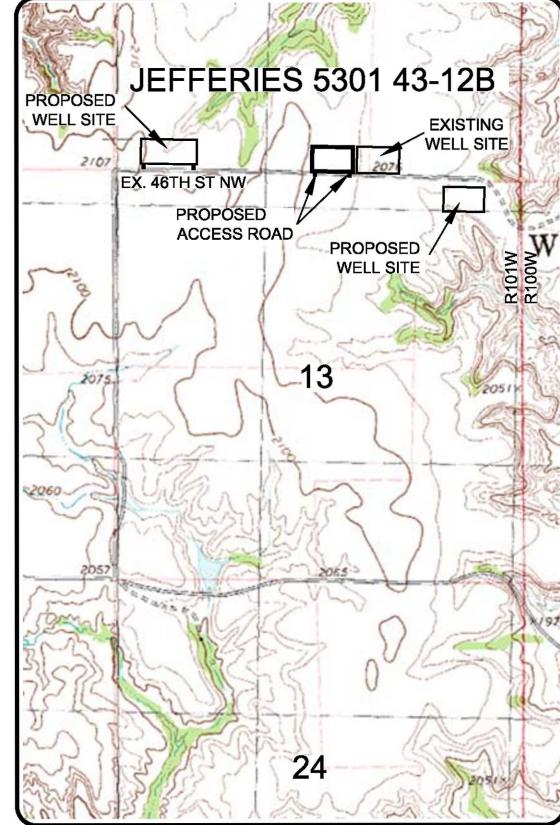
CARL S. VENDER LS 1222



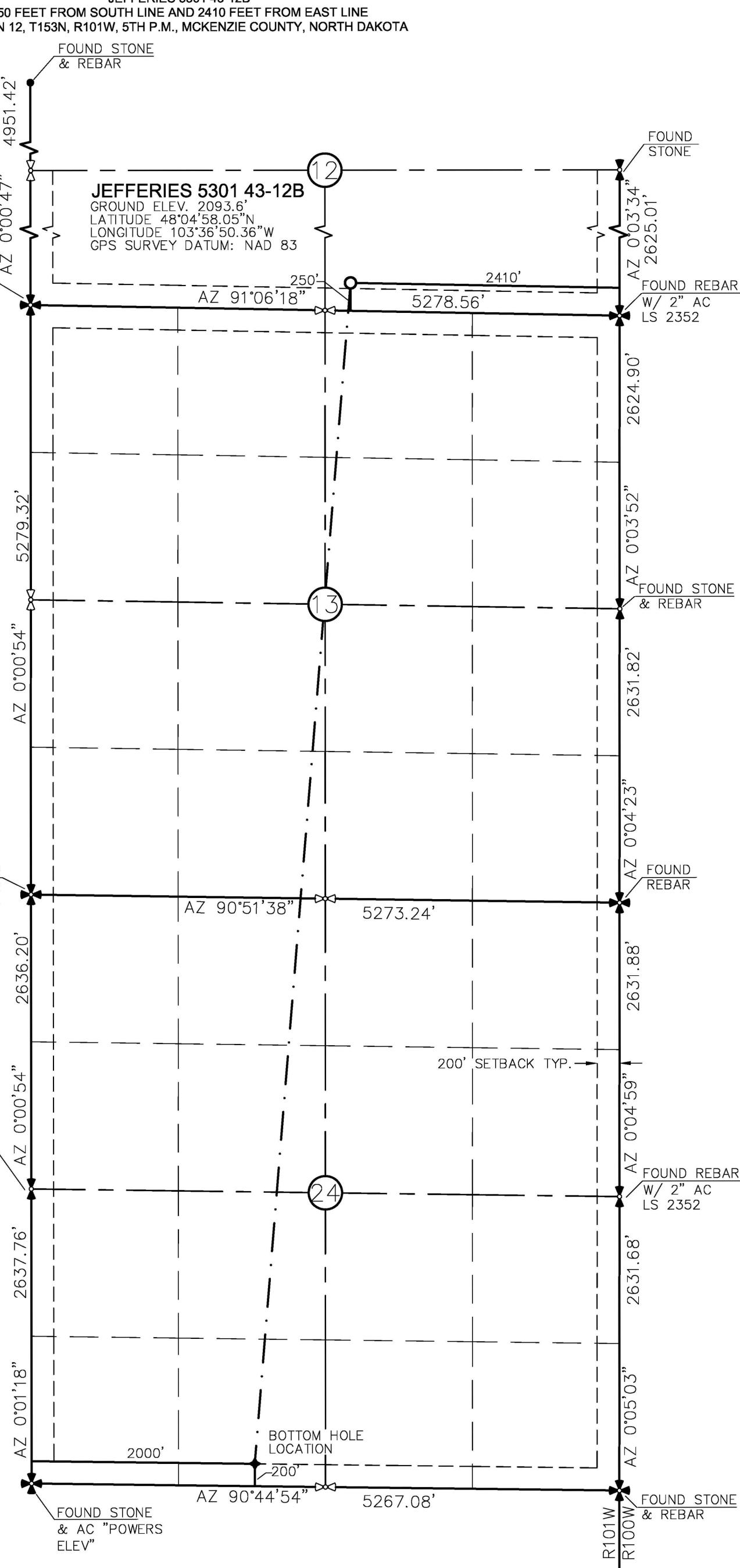
- MONUMENT - RECOVERED
- MONUMENT - NOT RECOVERED

FOUND STONE  
 & 2" AC  
 LS 2884

VICINITY MAP



24



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1/8

SHEET NO.



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ENGINEERING

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 Sidney, Montana 59270  
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[www.iengi.com](http://www.iengi.com)  
 Other offices in Minnesota, North Dakota and South Dakota

OASIS PETROLEUM NORTH AMERICA, LLC  
 WELL LOCATION PLAT  
 SECTION 12, T153N, R101W  
 MCKENZIE COUNTY, NORTH DAKOTA

Drawn By: J.J.S.	Project No.: S11-09-361
Checked By: C.S.V.	Date: DEC 2011

Revision No.	Date	By	Description
			© 2011 S11-09-361 Oasis Petroleum 2 Wells Sec 1 12 13 & 24 T153N
			R101W CAD\JEFFERIES WELL.dwg - 12/7/2011 1:22 PM joeh schmierer

**Oasis Petroleum**  
**Well Summary**  
**Jefferies 5301 43-12B**  
**Section 12 T153N R101W**  
**McKenzie County, ND**

**SURFACE CASING AND CEMENT DESIGN**

Size	Interval	Weight	Grade	Coupling	I.D.	Drift	Make-up Torque (ft-lbs)		
							Minimum	Optimum	Max
9-5/8"	0' to 2,170'	36	J-55	LTC	8.921"	8.765"	3400	4530	5660

Interval	Description	Collapse (psi) a	Burst (psi) b	Tension (1000 lbs) c	Cost per ft
0' to 2,170'	9-5/8", 36#, J-55, LTC, 8rd	2020 / 1.98	3520 / 3.46	453 / 2.70	

**API Rating & Safety Factor**

- a) Based on full casing evacuation with 9.0 ppg fluid on backside.
- b) Burst pressure based on 9 ppg fluid with no fluid on backside.
- c) Based on string weight in 9.0 ppg fluid at 2,170' TVD plus 100k# overpull.  
(Buoyed weight equals 67k lbs.)

Cement volumes are based on 9-5/8" casing set in 13-1/2" hole with 55% excess to circulate cement back to surface.  
Mix and pump the following slurry.

**Pre-flush (Spacer):      20 bbls** fresh water

**Lead Slurry:**      **443 sks** (234 bbls) 11.5 lb/gal VARICEM CEMENT with 0.25 lb/sk Poly-E-Flake (lost circulation additive)

**Tail Slurry:**      **200 sks** (72 bbls) 13 lb/gal VARICEM CEMENT with 0.25 lb/sk Poly-E-Flake (lost circulation additive)

**Oasis Petroleum**  
**Well Summary**  
**Jefferies 5301 43-12B**  
**Section 12 T153N R101W**  
**McKenzie County, ND**

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' – 6,750'	29	P-110	LTC	6.184"	6.059"	5,980	7,970	8,770
7"	6,750' – 10,321' (KOP)	32	HCP-110	LTC	6.094"	6.000***	6,730	8,970	9,870
7"	10,321' – 11,085'	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' – 6,750'	6,750'	7", 29#, P-110, LTC, 8rd	8,530 / 2.43*	11,220 / 1.19	797 / 2.09
6,750' – 10,321'	3,571'	7", 32#, HCP-110, LTC, 8rd	11,820 / 2.09*	12,460 / 1.29	
6,750' – 10,321'	3,571'	7", 32#, HCP-110, LTC, 8rd	11,820 / 1.05**	12,460 / 1.29	
10,321' – 11,085'	764'	7", 29 lb, P-110, LTC, 8rd	8,530 / 1.52*	11,220 / 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 9,000 psig max press for stimulation plus 10.2 ppg fluid in casing and 9.0 ppg fluid on backside—to 10,762' TVD.
- c. Based on string weight in 10 ppg fluid, (280k lbs buoied 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):**      **100 bbls** Saltwater  
**70 sks** Pozmix A  
**20 bbls** Fresh Water

**Lead Slurry:**      **110 sks** (50 bbls) 11.8 lb/gal ECONOCEM SYSTEM with 0.3% Fe-2 (additive material) and 0.25 lb/sk Poly-E-Flake (lost circulation additive)

**Primary Slurry:**      **349 sks** (86 bbls) 14 lb/gal EXTENDACEM SYSTEM with 0.6% HR-5 (retarder) and 0.25 lb/sk Poly-E-Flake (lost circulation additive)

**Tail Slurry:**      **282 sks** (78 bbls) 15.6 lb/gal HALCEM SYSTEM with 0.2% HR-5 (retarder), 0.25 lb/sk Poly-E-Flake (lost circulation additive) and 35% SSA-1 (additive material)

**Oasis Petroleum**  
**Well Summary**  
**Jefferies 5301 43-12B**  
**Section 12 T153N R101W**  
**McKenzie County, ND**

PRODUCTION LINER

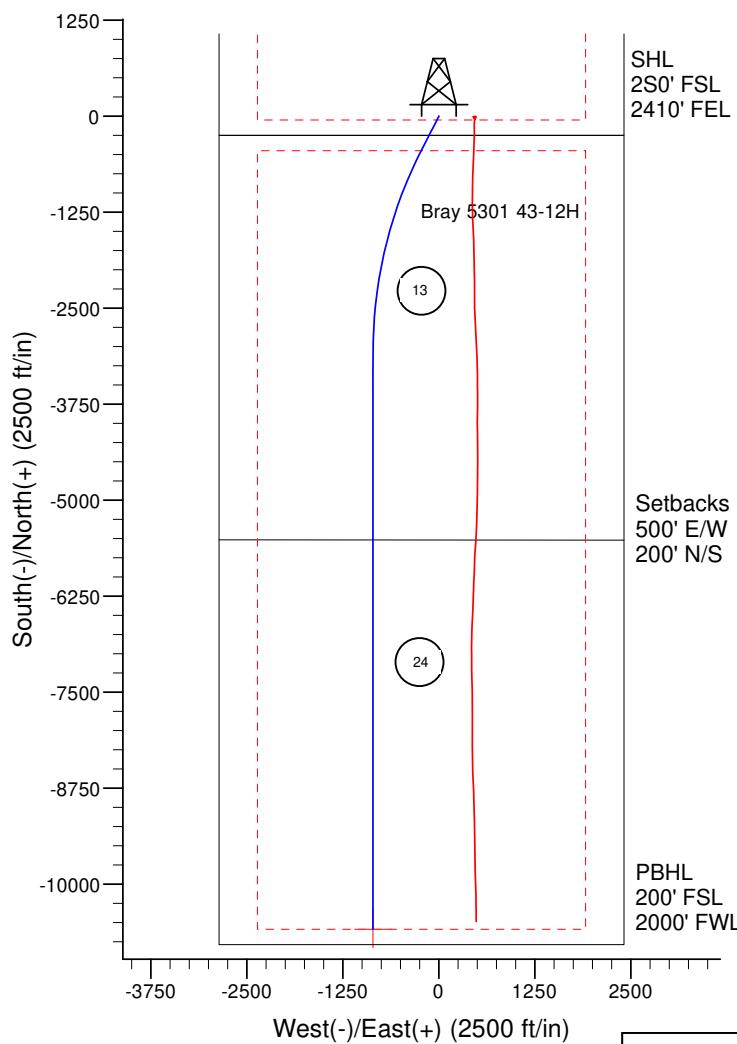
Size	Interval	Weight	Grade	Coupling	I.D.	Drift	Make-up Torque (ft-lbs)		
							Minimum	Optimum	Max
4-1/2"	10,270' to 21,313'	11.6	P-110	BTC	4.000"	3.875"			

Interval	Description	Collapse	Burst	Tension	Cost per ft
		(psi) a	(psi) b	(1000 lbs) c	
10,270' to 21,313'	4-1/2", 11.6 lb, P-110, BTC	7,560 / 1.42	10,690 / 1.105	279 / 1.33	\$13.25

API Rating & Safety Factor

- a) Based on full casing evacuation with 9.5 ppg fluid on backside @ 10,762' TVD.
- b) Burst pressure based on 9,000 psi Stimulation pressure with 10.2 ppg internal fluid gradient with 9.0 ppg gradient on backside @ 10,762' TVD.
- c) Based on string weight in 9.5 ppg fluid (Buoyed weight: 110k lbs.) plus 100k lbs overpull.

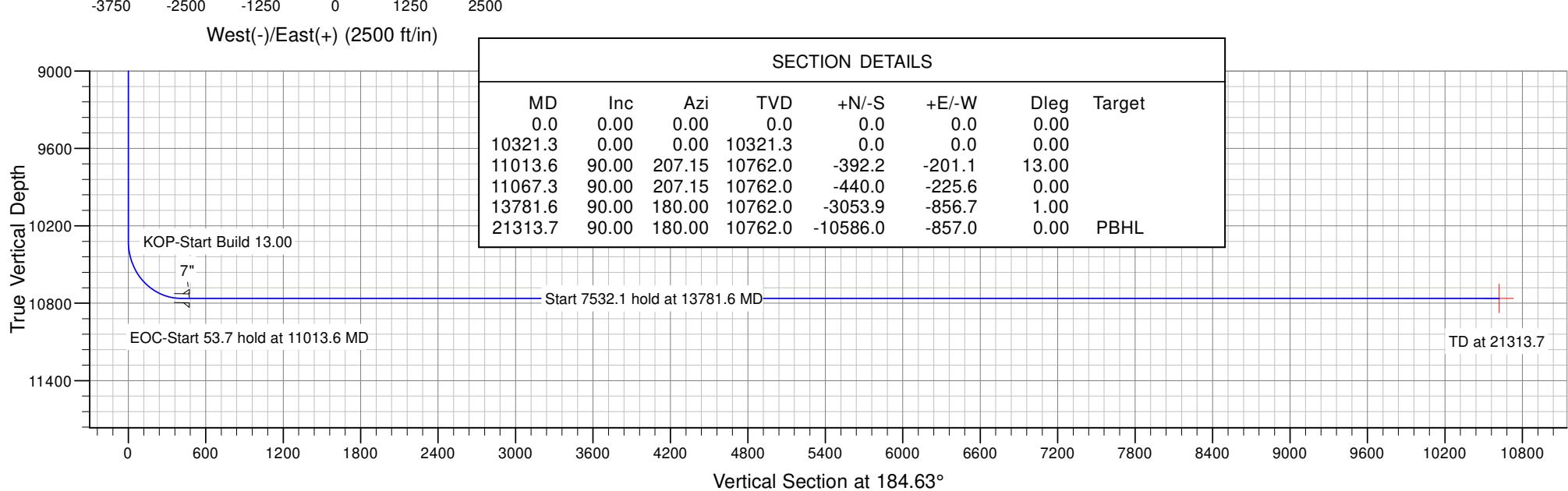
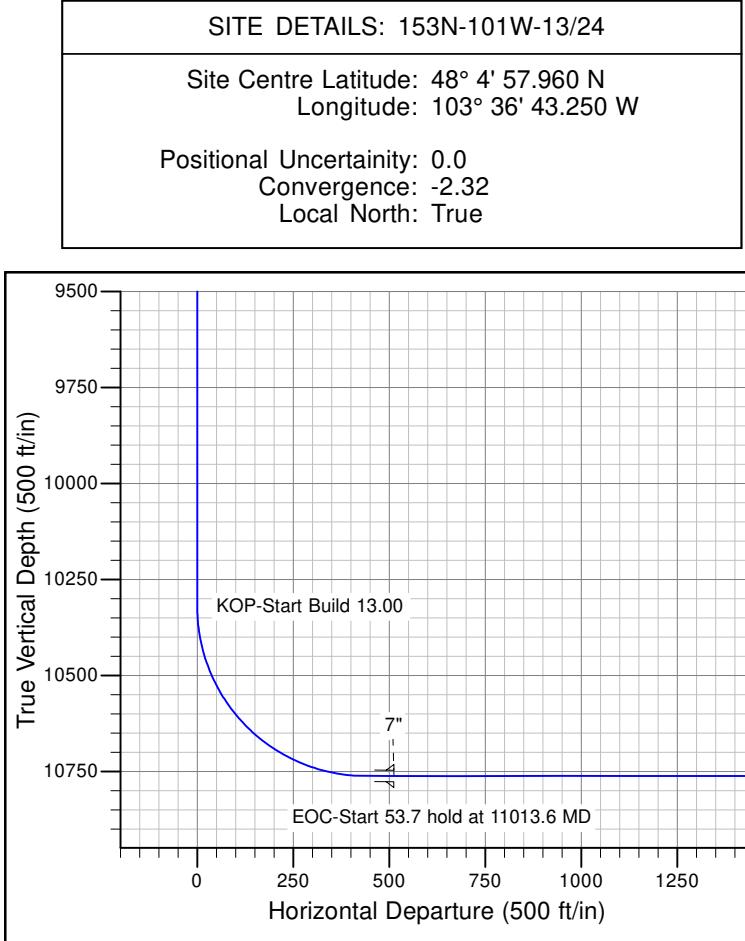
DRILLING PLAN								
<b>PROSPECT/FIELD</b>	Indian Hills		<b>Horizontal Middle Bakken</b>		<b>COUNTY/STATE</b>	McKenzie Co., ND		
<b>OPERATOR</b>	Oasis Operating		<b>RIG</b>		<b>Nabors 149</b>			
<b>WELL NO.</b>	5301 43-12B		<b>LEASE</b>		Jefferies			
<b>LOCATION</b>	SWSE 12-153N-101W		Surface Location (survey plat): 250' fsl		<b>GROUND ELEV:</b>	2093 Finished Pad Elev.		
<b>EST. T.D.</b>	21,313'		<b>Sub Hieght: 25</b>		<b>KB ELEV:</b>	2118		
<b>TOTAL LATERAL:</b>	10,228' (est)							
<b>PROGNOSIS:</b>	Based on 2,118' KB(est)		<b>LOGS:</b>	<b>Type</b>	<b>Interval</b>			
<b>MARKER</b>	<b>DEPTH (Surf Loc)</b>		<b>DATUM (Surf Loc)</b>		OH Logs: File to omit			
Pierre	NDIC MAP		1,968	150'	CBL/GR: Above top of cement/GR to base of casing			
Greenhorn	4,634		-2,516'		MWD GR: KOP to lateral TD			
Mowry	5,030		-2,912'					
Dakota	5,461		-3,343'					
Rierdon	6,377		-4,259'					
Dunham Salt	6,896		-4,778'					
Dunham Salt Base	6,963		-4,845'					
Spearfish	6,968		-4,850'					
Pine Salt	7,212		-5,094'					
Pine Salt Base	7,337		-5,219'					
Opeche Salt	7,365		-5,247'					
Opeche Salt Base	7,444		-5,326'					
Broom Creek (Top of Minnelusa Gp.)	7,625		-5,507'					
Amsden	7,668		-5,550'					
Tyler	7,844		-5,726'					
Otter (Base of Minnelusa Gp.)	8,031		-5,913'					
Kibbey	8,380		-6,262'					
Charles Salt	8,527		-6,409'					
UB	9,150		-7,032'					
<b>Base Last Salt</b>	9,227		-7,109'					
Ratcliffe	9,275		-7,157'					
Mission Canyon	9,451		-7,333'					
Lodgepole	10,025		-7,907'					
False Bakken	10,740		-8,613'					
Upper Bakken	10,755		-8,622'					
Middle Bakken	10,762		-8,637'					
<b>Middle Bakken Sand Target</b>	10,762		-8,644'					
<b>Base Middle Bakken Sand Target</b>	10,771		-8,653'					
Lower Bakken	10,791		-8,673'					
Three Forks	10,818		-8,700'					
Dip Rate:	<b>-0.25° or .63' /100' DOWN first 4000' then +0.55° or .93'/100' UP</b>							
<b>Max. Anticipated BHP:</b>	4676		<b>Surface Formation: Glacial till</b>					
<b>MUD:</b>	<b>Interval</b>	<b>Type</b>	<b>WT</b>	<b>Vis</b>	<b>WL</b>	<b>Remarks</b>		
Surface	0' -	2,170'	FW/Gel - Lime Sweeps	8.6 - 8.9	28-34	NC		
Intermediate	2,170' -	11,085'	Invert	9.6-10.4	40-60	30+(HpHt)		
Liner	11,085' -	21,313'	Salt Water	9.3-10.4	28-34	NC		
<b>CASING:</b>	<b>Size</b>	<b>Wt pfp</b>	<b>Hole</b>	<b>Depth</b>	<b>Cement</b>	<b>WOC</b>	<b>Remarks</b>	
Surface:	9-5/8"	36#	13-1/2"	2,170'	To Surface	12	100' into Pierre	
Intermediate:	7"	29/32#	8-3/4"	11,085'	4,961'	24	500' above Dakota	
Production:	4.5"	11.6#	6"	21,313'	<b>TOL @ 10,270'</b>		50' above KOP	
Production Liner:								
<b>PROBABLE PLUGS, IF REQ'D:</b>								
<b>OTHER:</b>	<b>MD</b>	<b>TVD</b>	<b>FNL/FSL</b>	<b>FEL/FWL</b>	<b>S-T-R</b>	<b>AZI</b>		
Surface:	2,170'	2,170'	250' FSL	2410' FEL	12-T153N-R101W		Survey Company:	
KOP:	10,321'	10,321'	250' FSL	2410' FEL	12-T153N-R101W		Build Rate: 13 deg /100'	
EOC	11,013'	10,762'	190' FNL	2635' FEL	13-T153N-R101W			
Casing Point:	11,085'	10,762'	206' FNL	2644' FEL	13-T153N-R101W			
Middle Bakken Lateral TD:	21,313'	10,762'	200' FSL	2000' FWL	24-T153N-R101W			
<b>Comments:</b>								
DRILL TO KOP. DRILL CURVE TO 90 DEG AND 7" CASING POINT SET 7" CASING. DRILL MIDDLE BAKKEN LATERAL. MWD Surveys will be taken every 100' in vertical hole, and a minimum of every 30' while building curve and every 90' while drilling lateral. MWD GR to be run from KOP to Lateral TD. <b>GR must be run to ground surface.</b>								
Geology: MRB 12-9-2011	Prepared by:		Engineering: L. Strong 12/9/2011					



Project: Indian Hills  
Site: 153N-101W-13/24  
Well: Jefferies 5301 43-12B  
Wellbore: OH  
Design: Plan #1

**T M** Azimuths to True North  
Magnetic North: 8.56°  
  
Magnetic Field  
Strength: 56724.3nT  
Dip Angle: 73.09°  
Date: 12/9/2011  
Model: IGRF200510

CASING DETAILS			
TVD	MD	Name	Size
2170.0	2170.0	9 5/8"	9.625
10762.0	11085.0	7"	7.000



# **Oasis**

**Indian Hills  
153N-101W-13/24  
Jefferies 5301 43-12B**

**OH**

**Plan: Plan #1**

# **Standard Planning Report**

**09 December, 2011**

# Oasis Petroleum

## Planning Report

<b>Database:</b>	Compass	<b>Local Co-ordinate Reference:</b>	Well Jefferies 5301 43-12B
<b>Company:</b>	Oasis	<b>TVD Reference:</b>	WELL @ 2118.0ft (Original Well Elev)
<b>Project:</b>	Indian Hills	<b>MD Reference:</b>	WELL @ 2118.0ft (Original Well Elev)
<b>Site:</b>	153N-101W-13/24	<b>North Reference:</b>	True
<b>Well:</b>	Jefferies 5301 43-12B	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #1		

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

<b>Site</b>	153N-101W-13/24			
<b>Site Position:</b>		<b>Northing:</b>	125,067.66 m	<b>Latitude:</b>
<b>From:</b>	Lat/Long	<b>Easting:</b>	368,214.56 m	<b>Longitude:</b>
<b>Position Uncertainty:</b>	0.0 ft	<b>Slot Radius:</b>	13.200 in	<b>Grid Convergence:</b>

<b>Well</b>	Jefferies 5301 43-12B				
<b>Well Position</b>	+N/-S +E/-W	9.1 ft -482.7 ft	<b>Northing:</b> <b>Easting:</b>	125,076.39 m 368,067.66 m	<b>Latitude:</b> <b>Longitude:</b>
<b>Position Uncertainty</b>	0.0 ft		<b>Wellhead Elevation:</b>		<b>Ground Level:</b>

<b>Wellbore</b>	OH				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination</b> (°)	<b>Dip Angle</b> (°)	<b>Field Strength</b> (nT)
	IGRF200510	12/9/2011	8.56	73.09	56,724

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

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
10,321.3	0.00	0.00	10,321.3	0.0	0.0	0.00	0.00	0.00	0.00	0.00
11,013.6	90.00	207.15	10,762.0	-392.2	-201.1	13.00	13.00	0.00	207.15	
11,067.3	90.00	207.15	10,762.0	-440.0	-225.6	0.00	0.00	0.00	0.00	
13,781.6	90.00	180.00	10,762.0	-3,053.9	-856.7	1.00	0.00	-1.00	-90.00	
21,313.7	90.00	180.00	10,762.0	-10,586.0	-857.0	0.00	0.00	0.00	0.00	Jefferies 5301 43-12E

# Oasis Petroleum

## Planning Report

<b>Database:</b>	Compass	<b>Local Co-ordinate Reference:</b>	Well Jefferies 5301 43-12B
<b>Company:</b>	Oasis	<b>TVD Reference:</b>	WELL @ 2118.0ft (Original Well Elev)
<b>Project:</b>	Indian Hills	<b>MD Reference:</b>	WELL @ 2118.0ft (Original Well Elev)
<b>Site:</b>	153N-101W-13/24	<b>North Reference:</b>	True
<b>Well:</b>	Jefferies 5301 43-12B	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	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
1,968.0	0.00	0.00	1,968.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>Pierre</b>									
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,170.0	0.00	0.00	2,170.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>9 5/8"</b>									
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	0.00
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	0.00
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	0.00
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	0.00
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	0.00
4,600.0	0.00	0.00	4,600.0	0.0	0.0	0.0	0.00	0.00	0.00
4,634.0	0.00	0.00	4,634.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>Greenhorn</b>									

# Oasis Petroleum

## Planning Report

<b>Database:</b>	Compass	<b>Local Co-ordinate Reference:</b>	Well Jefferies 5301 43-12B
<b>Company:</b>	Oasis	<b>TVD Reference:</b>	WELL @ 2118.0ft (Original Well Elev)
<b>Project:</b>	Indian Hills	<b>MD Reference:</b>	WELL @ 2118.0ft (Original Well Elev)
<b>Site:</b>	153N-101W-13/24	<b>North Reference:</b>	True
<b>Well:</b>	Jefferies 5301 43-12B	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	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)
4,700.0	0.00	0.00	4,700.0	0.0	0.0	0.0	0.00	0.00	0.00
4,800.0	0.00	0.00	4,800.0	0.0	0.0	0.0	0.00	0.00	0.00
4,900.0	0.00	0.00	4,900.0	0.0	0.0	0.0	0.00	0.00	0.00
5,000.0	0.00	0.00	5,000.0	0.0	0.0	0.0	0.00	0.00	0.00
5,030.0	0.00	0.00	5,030.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>Mowry</b>									
5,100.0	0.00	0.00	5,100.0	0.0	0.0	0.0	0.00	0.00	0.00
5,200.0	0.00	0.00	5,200.0	0.0	0.0	0.0	0.00	0.00	0.00
5,300.0	0.00	0.00	5,300.0	0.0	0.0	0.0	0.00	0.00	0.00
5,400.0	0.00	0.00	5,400.0	0.0	0.0	0.0	0.00	0.00	0.00
5,461.0	0.00	0.00	5,461.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>Dakota</b>									
5,500.0	0.00	0.00	5,500.0	0.0	0.0	0.0	0.00	0.00	0.00
5,600.0	0.00	0.00	5,600.0	0.0	0.0	0.0	0.00	0.00	0.00
5,700.0	0.00	0.00	5,700.0	0.0	0.0	0.0	0.00	0.00	0.00
5,800.0	0.00	0.00	5,800.0	0.0	0.0	0.0	0.00	0.00	0.00
5,900.0	0.00	0.00	5,900.0	0.0	0.0	0.0	0.00	0.00	0.00
6,000.0	0.00	0.00	6,000.0	0.0	0.0	0.0	0.00	0.00	0.00
6,100.0	0.00	0.00	6,100.0	0.0	0.0	0.0	0.00	0.00	0.00
6,200.0	0.00	0.00	6,200.0	0.0	0.0	0.0	0.00	0.00	0.00
6,300.0	0.00	0.00	6,300.0	0.0	0.0	0.0	0.00	0.00	0.00
6,377.0	0.00	0.00	6,377.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>Rierdon</b>									
6,400.0	0.00	0.00	6,400.0	0.0	0.0	0.0	0.00	0.00	0.00
6,500.0	0.00	0.00	6,500.0	0.0	0.0	0.0	0.00	0.00	0.00
6,600.0	0.00	0.00	6,600.0	0.0	0.0	0.0	0.00	0.00	0.00
6,700.0	0.00	0.00	6,700.0	0.0	0.0	0.0	0.00	0.00	0.00
6,800.0	0.00	0.00	6,800.0	0.0	0.0	0.0	0.00	0.00	0.00
6,896.0	0.00	0.00	6,896.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>Dunham Salt</b>									
6,900.0	0.00	0.00	6,900.0	0.0	0.0	0.0	0.00	0.00	0.00
6,963.0	0.00	0.00	6,963.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>Dunham Salt Base</b>									
6,968.0	0.00	0.00	6,968.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>Spearfish</b>									
7,000.0	0.00	0.00	7,000.0	0.0	0.0	0.0	0.00	0.00	0.00
7,100.0	0.00	0.00	7,100.0	0.0	0.0	0.0	0.00	0.00	0.00
7,200.0	0.00	0.00	7,200.0	0.0	0.0	0.0	0.00	0.00	0.00
7,212.0	0.00	0.00	7,212.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>Pine Salt</b>									
7,300.0	0.00	0.00	7,300.0	0.0	0.0	0.0	0.00	0.00	0.00
7,337.0	0.00	0.00	7,337.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>Pine Salt Base</b>									
7,365.0	0.00	0.00	7,365.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>Opeche Salt</b>									
7,400.0	0.00	0.00	7,400.0	0.0	0.0	0.0	0.00	0.00	0.00
7,444.0	0.00	0.00	7,444.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>Opeche Salt Base</b>									
7,500.0	0.00	0.00	7,500.0	0.0	0.0	0.0	0.00	0.00	0.00
7,600.0	0.00	0.00	7,600.0	0.0	0.0	0.0	0.00	0.00	0.00
7,625.0	0.00	0.00	7,625.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>Broom Creek (Top of Minnelusa Gp.)</b>									
7,668.0	0.00	0.00	7,668.0	0.0	0.0	0.0	0.00	0.00	0.00

# Oasis Petroleum

## Planning Report

<b>Database:</b>	Compass	<b>Local Co-ordinate Reference:</b>	Well Jefferies 5301 43-12B
<b>Company:</b>	Oasis	<b>TVD Reference:</b>	WELL @ 2118.0ft (Original Well Elev)
<b>Project:</b>	Indian Hills	<b>MD Reference:</b>	WELL @ 2118.0ft (Original Well Elev)
<b>Site:</b>	153N-101W-13/24	<b>North Reference:</b>	True
<b>Well:</b>	Jefferies 5301 43-12B	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	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)
<b>Amunden</b>									
7,700.0	0.00	0.00	7,700.0	0.0	0.0	0.0	0.00	0.00	0.00
7,800.0	0.00	0.00	7,800.0	0.0	0.0	0.0	0.00	0.00	0.00
7,844.0	0.00	0.00	7,844.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>Tyler</b>									
7,900.0	0.00	0.00	7,900.0	0.0	0.0	0.0	0.00	0.00	0.00
8,000.0	0.00	0.00	8,000.0	0.0	0.0	0.0	0.00	0.00	0.00
8,031.0	0.00	0.00	8,031.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>Otter (Base of Minnelusa Gp.)</b>									
8,100.0	0.00	0.00	8,100.0	0.0	0.0	0.0	0.00	0.00	0.00
8,200.0	0.00	0.00	8,200.0	0.0	0.0	0.0	0.00	0.00	0.00
8,300.0	0.00	0.00	8,300.0	0.0	0.0	0.0	0.00	0.00	0.00
8,380.0	0.00	0.00	8,380.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>Kibbey</b>									
8,400.0	0.00	0.00	8,400.0	0.0	0.0	0.0	0.00	0.00	0.00
8,500.0	0.00	0.00	8,500.0	0.0	0.0	0.0	0.00	0.00	0.00
8,527.0	0.00	0.00	8,527.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>Charles Salt</b>									
8,600.0	0.00	0.00	8,600.0	0.0	0.0	0.0	0.00	0.00	0.00
8,700.0	0.00	0.00	8,700.0	0.0	0.0	0.0	0.00	0.00	0.00
8,800.0	0.00	0.00	8,800.0	0.0	0.0	0.0	0.00	0.00	0.00
8,900.0	0.00	0.00	8,900.0	0.0	0.0	0.0	0.00	0.00	0.00
9,000.0	0.00	0.00	9,000.0	0.0	0.0	0.0	0.00	0.00	0.00
9,100.0	0.00	0.00	9,100.0	0.0	0.0	0.0	0.00	0.00	0.00
9,150.0	0.00	0.00	9,150.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>UB</b>									
9,200.0	0.00	0.00	9,200.0	0.0	0.0	0.0	0.00	0.00	0.00
9,227.0	0.00	0.00	9,227.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>Base Last Salt</b>									
9,275.0	0.00	0.00	9,275.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>Ratcliffe</b>									
9,300.0	0.00	0.00	9,300.0	0.0	0.0	0.0	0.00	0.00	0.00
9,400.0	0.00	0.00	9,400.0	0.0	0.0	0.0	0.00	0.00	0.00
9,451.0	0.00	0.00	9,451.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>Mission Canyon</b>									
9,500.0	0.00	0.00	9,500.0	0.0	0.0	0.0	0.00	0.00	0.00
9,600.0	0.00	0.00	9,600.0	0.0	0.0	0.0	0.00	0.00	0.00
9,700.0	0.00	0.00	9,700.0	0.0	0.0	0.0	0.00	0.00	0.00
9,800.0	0.00	0.00	9,800.0	0.0	0.0	0.0	0.00	0.00	0.00
9,900.0	0.00	0.00	9,900.0	0.0	0.0	0.0	0.00	0.00	0.00
10,000.0	0.00	0.00	10,000.0	0.0	0.0	0.0	0.00	0.00	0.00
10,025.0	0.00	0.00	10,025.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>Lodgepole</b>									
10,100.0	0.00	0.00	10,100.0	0.0	0.0	0.0	0.00	0.00	0.00
10,200.0	0.00	0.00	10,200.0	0.0	0.0	0.0	0.00	0.00	0.00
10,300.0	0.00	0.00	10,300.0	0.0	0.0	0.0	0.00	0.00	0.00
10,321.3	0.00	0.00	10,321.3	0.0	0.0	0.0	0.00	0.00	0.00
<b>KOP-Start Build 13.00</b>									
10,325.0	0.49	207.15	10,325.0	0.0	0.0	0.0	13.00	13.00	0.00
10,350.0	3.74	207.15	10,350.0	-0.8	-0.4	0.9	13.00	13.00	0.00
10,375.0	6.99	207.15	10,374.9	-2.9	-1.5	3.0	13.00	13.00	0.00
10,400.0	10.24	207.15	10,399.6	-6.2	-3.2	6.5	13.00	13.00	0.00
10,425.0	13.49	207.15	10,424.0	-10.8	-5.5	11.2	13.00	13.00	0.00

# Oasis Petroleum

## Planning Report

<b>Database:</b>	Compass	<b>Local Co-ordinate Reference:</b>	Well Jefferies 5301 43-12B
<b>Company:</b>	Oasis	<b>TVD Reference:</b>	WELL @ 2118.0ft (Original Well Elev)
<b>Project:</b>	Indian Hills	<b>MD Reference:</b>	WELL @ 2118.0ft (Original Well Elev)
<b>Site:</b>	153N-101W-13/24	<b>North Reference:</b>	True
<b>Well:</b>	Jefferies 5301 43-12B	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	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)
10,450.0	16.74	207.15	10,448.2	-16.6	-8.5	17.2	13.00	13.00	0.00
10,475.0	19.99	207.15	10,471.9	-23.6	-12.1	24.5	13.00	13.00	0.00
10,500.0	23.24	207.15	10,495.1	-31.8	-16.3	33.0	13.00	13.00	0.00
10,525.0	26.49	207.15	10,517.8	-41.2	-21.1	42.7	13.00	13.00	0.00
10,550.0	29.74	207.15	10,539.9	-51.6	-26.5	53.6	13.00	13.00	0.00
10,575.0	32.99	207.15	10,561.2	-63.2	-32.4	65.6	13.00	13.00	0.00
10,600.0	36.24	207.15	10,581.8	-75.9	-38.9	78.7	13.00	13.00	0.00
10,625.0	39.49	207.15	10,601.5	-89.5	-45.9	92.9	13.00	13.00	0.00
10,650.0	42.74	207.15	10,620.4	-104.1	-53.4	108.1	13.00	13.00	0.00
10,675.0	45.99	207.15	10,638.2	-119.7	-61.4	124.2	13.00	13.00	0.00
10,700.0	49.24	207.15	10,655.1	-136.1	-69.8	141.3	13.00	13.00	0.00
10,725.0	52.49	207.15	10,670.9	-153.4	-78.6	159.2	13.00	13.00	0.00
10,750.0	55.74	207.15	10,685.5	-171.4	-87.9	177.9	13.00	13.00	0.00
10,775.0	58.99	207.15	10,699.0	-190.1	-97.5	197.4	13.00	13.00	0.00
10,800.0	62.24	207.15	10,711.3	-209.5	-107.4	217.5	13.00	13.00	0.00
10,825.0	65.49	207.15	10,722.3	-229.5	-117.7	238.2	13.00	13.00	0.00
10,850.0	68.74	207.15	10,732.0	-250.0	-128.2	259.5	13.00	13.00	0.00
10,873.7	71.82	207.15	10,740.0	-269.8	-138.3	280.1	13.00	13.00	0.00
<b>False Bakken</b>									
10,875.0	71.99	207.15	10,740.4	-270.9	-138.9	281.2	13.00	13.00	0.00
10,900.0	75.24	207.15	10,747.4	-292.2	-149.8	303.4	13.00	13.00	0.00
10,925.0	78.49	207.15	10,753.1	-313.9	-160.9	325.9	13.00	13.00	0.00
10,934.9	79.77	207.15	10,755.0	-322.6	-165.4	334.9	13.00	13.00	0.00
<b>Upper Bakken</b>									
10,950.0	81.74	207.15	10,757.4	-335.8	-172.2	348.6	13.00	13.00	0.00
10,975.0	84.99	207.15	10,760.3	-357.9	-183.5	371.6	13.00	13.00	0.00
11,000.0	88.24	207.15	10,761.8	-380.1	-194.9	394.6	13.00	13.00	0.00
11,013.6	90.00	207.15	10,762.0	-392.2	-201.1	407.1	13.00	13.00	0.00
<b>EOC-Start 53.7 hold at 11013.6 MD - Middle Bakken - Middle Bakken Sand Target</b>									
11,067.3	90.00	207.15	10,762.0	-440.0	-225.6	456.8	0.00	0.00	0.00
<b>Start DLS 1.00 TFO -90.00</b>									
11,085.0	90.00	206.97	10,762.0	-455.8	-233.7	473.1	1.00	0.00	-1.00
<b>7"</b>									
11,100.0	90.00	206.82	10,762.0	-469.1	-240.4	487.0	1.00	0.00	-1.00
11,200.0	90.00	205.82	10,762.0	-558.8	-284.8	579.9	1.00	0.00	-1.00
11,300.0	90.00	204.82	10,762.0	-649.2	-327.5	673.5	1.00	0.00	-1.00
11,400.0	90.00	203.82	10,762.0	-740.3	-368.7	767.6	1.00	0.00	-1.00
11,500.0	90.00	202.82	10,762.0	-832.1	-408.3	862.4	1.00	0.00	-1.00
11,600.0	90.00	201.82	10,762.0	-924.6	-446.3	957.6	1.00	0.00	-1.00
11,700.0	90.00	200.82	10,762.0	-1,017.8	-482.6	1,053.4	1.00	0.00	-1.00
11,800.0	90.00	199.82	10,762.0	-1,111.6	-517.4	1,149.7	1.00	0.00	-1.00
11,900.0	90.00	198.82	10,762.0	-1,205.9	-550.4	1,246.4	1.00	0.00	-1.00
12,000.0	90.00	197.82	10,762.0	-1,300.9	-581.9	1,343.6	1.00	0.00	-1.00
12,100.0	90.00	196.82	10,762.0	-1,396.3	-611.6	1,441.1	1.00	0.00	-1.00
12,200.0	90.00	195.82	10,762.0	-1,492.3	-639.7	1,539.1	1.00	0.00	-1.00
12,300.0	90.00	194.82	10,762.0	-1,588.7	-666.1	1,637.3	1.00	0.00	-1.00
12,400.0	90.00	193.82	10,762.0	-1,685.6	-690.9	1,735.9	1.00	0.00	-1.00
12,500.0	90.00	192.82	10,762.0	-1,782.9	-713.9	1,834.7	1.00	0.00	-1.00
12,600.0	90.00	191.82	10,762.0	-1,880.6	-735.2	1,933.8	1.00	0.00	-1.00
12,700.0	90.00	190.82	10,762.0	-1,978.7	-754.9	2,033.2	1.00	0.00	-1.00
12,800.0	90.00	189.82	10,762.0	-2,077.1	-772.8	2,132.7	1.00	0.00	-1.00
12,900.0	90.00	188.82	10,762.0	-2,175.8	-789.0	2,232.3	1.00	0.00	-1.00
13,000.0	90.00	187.82	10,762.0	-2,274.7	-803.4	2,332.1	1.00	0.00	-1.00

# Oasis Petroleum

## Planning Report

<b>Database:</b>	Compass	<b>Local Co-ordinate Reference:</b>	Well Jefferies 5301 43-12B
<b>Company:</b>	Oasis	<b>TVD Reference:</b>	WELL @ 2118.0ft (Original Well Elev)
<b>Project:</b>	Indian Hills	<b>MD Reference:</b>	WELL @ 2118.0ft (Original Well Elev)
<b>Site:</b>	153N-101W-13/24	<b>North Reference:</b>	True
<b>Well:</b>	Jefferies 5301 43-12B	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	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)
13,100.0	90.00	186.82	10,762.0	-2,373.9	-816.2	2,432.0	1.00	0.00	-1.00
13,200.0	90.00	185.82	10,762.0	-2,473.3	-827.2	2,532.0	1.00	0.00	-1.00
13,300.0	90.00	184.82	10,762.0	-2,572.8	-836.5	2,632.0	1.00	0.00	-1.00
13,400.0	90.00	183.82	10,762.0	-2,672.6	-844.0	2,732.0	1.00	0.00	-1.00
13,500.0	90.00	182.82	10,762.0	-2,772.4	-849.8	2,831.9	1.00	0.00	-1.00
13,600.0	90.00	181.82	10,762.0	-2,872.3	-853.8	2,931.8	1.00	0.00	-1.00
13,700.0	90.00	180.82	10,762.0	-2,972.3	-856.1	3,031.7	1.00	0.00	-1.00
13,781.6	90.00	180.00	10,762.0	-3,053.9	-856.7	3,113.1	1.00	0.00	-1.00
<b>Start 7532.1 hold at 13781.6 MD</b>									
13,800.0	90.00	180.00	10,762.0	-3,072.3	-856.7	3,131.4	0.00	0.00	0.00
13,900.0	90.00	180.00	10,762.0	-3,172.3	-856.7	3,231.1	0.00	0.00	0.00
14,000.0	90.00	180.00	10,762.0	-3,272.3	-856.7	3,330.7	0.00	0.00	0.00
14,100.0	90.00	180.00	10,762.0	-3,372.3	-856.7	3,430.4	0.00	0.00	0.00
14,200.0	90.00	180.00	10,762.0	-3,472.3	-856.7	3,530.1	0.00	0.00	0.00
14,300.0	90.00	180.00	10,762.0	-3,572.3	-856.7	3,629.8	0.00	0.00	0.00
14,400.0	90.00	180.00	10,762.0	-3,672.3	-856.7	3,729.4	0.00	0.00	0.00
14,500.0	90.00	180.00	10,762.0	-3,772.3	-856.7	3,829.1	0.00	0.00	0.00
14,600.0	90.00	180.00	10,762.0	-3,872.3	-856.7	3,928.8	0.00	0.00	0.00
14,700.0	90.00	180.00	10,762.0	-3,972.3	-856.7	4,028.5	0.00	0.00	0.00
14,800.0	90.00	180.00	10,762.0	-4,072.3	-856.7	4,128.1	0.00	0.00	0.00
14,900.0	90.00	180.00	10,762.0	-4,172.3	-856.8	4,227.8	0.00	0.00	0.00
15,000.0	90.00	180.00	10,762.0	-4,272.3	-856.8	4,327.5	0.00	0.00	0.00
15,100.0	90.00	180.00	10,762.0	-4,372.3	-856.8	4,427.2	0.00	0.00	0.00
15,200.0	90.00	180.00	10,762.0	-4,472.3	-856.8	4,526.8	0.00	0.00	0.00
15,300.0	90.00	180.00	10,762.0	-4,572.3	-856.8	4,626.5	0.00	0.00	0.00
15,400.0	90.00	180.00	10,762.0	-4,672.3	-856.8	4,726.2	0.00	0.00	0.00
15,500.0	90.00	180.00	10,762.0	-4,772.3	-856.8	4,825.9	0.00	0.00	0.00
15,600.0	90.00	180.00	10,762.0	-4,872.3	-856.8	4,925.5	0.00	0.00	0.00
15,700.0	90.00	180.00	10,762.0	-4,972.3	-856.8	5,025.2	0.00	0.00	0.00
15,800.0	90.00	180.00	10,762.0	-5,072.3	-856.8	5,124.9	0.00	0.00	0.00
15,900.0	90.00	180.00	10,762.0	-5,172.3	-856.8	5,224.6	0.00	0.00	0.00
16,000.0	90.00	180.00	10,762.0	-5,272.3	-856.8	5,324.2	0.00	0.00	0.00
16,100.0	90.00	180.00	10,762.0	-5,372.3	-856.8	5,423.9	0.00	0.00	0.00
16,200.0	90.00	180.00	10,762.0	-5,472.3	-856.8	5,523.6	0.00	0.00	0.00
16,300.0	90.00	180.00	10,762.0	-5,572.3	-856.8	5,623.2	0.00	0.00	0.00
16,400.0	90.00	180.00	10,762.0	-5,672.3	-856.8	5,722.9	0.00	0.00	0.00
16,500.0	90.00	180.00	10,762.0	-5,772.3	-856.8	5,822.6	0.00	0.00	0.00
16,600.0	90.00	180.00	10,762.0	-5,872.3	-856.8	5,922.3	0.00	0.00	0.00
16,700.0	90.00	180.00	10,762.0	-5,972.3	-856.8	6,021.9	0.00	0.00	0.00
16,800.0	90.00	180.00	10,762.0	-6,072.3	-856.8	6,121.6	0.00	0.00	0.00
16,900.0	90.00	180.00	10,762.0	-6,172.3	-856.8	6,221.3	0.00	0.00	0.00
17,000.0	90.00	180.00	10,762.0	-6,272.3	-856.8	6,321.0	0.00	0.00	0.00
17,100.0	90.00	180.00	10,762.0	-6,372.3	-856.8	6,420.6	0.00	0.00	0.00
17,200.0	90.00	180.00	10,762.0	-6,472.3	-856.8	6,520.3	0.00	0.00	0.00
17,300.0	90.00	180.00	10,762.0	-6,572.3	-856.8	6,620.0	0.00	0.00	0.00
17,400.0	90.00	180.00	10,762.0	-6,672.3	-856.8	6,719.7	0.00	0.00	0.00
17,500.0	90.00	180.00	10,762.0	-6,772.3	-856.9	6,819.3	0.00	0.00	0.00
17,600.0	90.00	180.00	10,762.0	-6,872.3	-856.9	6,919.0	0.00	0.00	0.00
17,700.0	90.00	180.00	10,762.0	-6,972.3	-856.9	7,018.7	0.00	0.00	0.00
17,800.0	90.00	180.00	10,762.0	-7,072.3	-856.9	7,118.4	0.00	0.00	0.00
17,900.0	90.00	180.00	10,762.0	-7,172.3	-856.9	7,218.0	0.00	0.00	0.00
18,000.0	90.00	180.00	10,762.0	-7,272.3	-856.9	7,317.7	0.00	0.00	0.00
18,100.0	90.00	180.00	10,762.0	-7,372.3	-856.9	7,417.4	0.00	0.00	0.00
18,200.0	90.00	180.00	10,762.0	-7,472.3	-856.9	7,517.1	0.00	0.00	0.00

# Oasis Petroleum

## Planning Report

<b>Database:</b>	Compass	<b>Local Co-ordinate Reference:</b>	Well Jefferies 5301 43-12B
<b>Company:</b>	Oasis	<b>TVD Reference:</b>	WELL @ 2118.0ft (Original Well Elev)
<b>Project:</b>	Indian Hills	<b>MD Reference:</b>	WELL @ 2118.0ft (Original Well Elev)
<b>Site:</b>	153N-101W-13/24	<b>North Reference:</b>	True
<b>Well:</b>	Jefferies 5301 43-12B	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	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)
18,300.0	90.00	180.00	10,762.0	-7,572.3	-856.9	7,616.7	0.00	0.00	0.00
18,400.0	90.00	180.00	10,762.0	-7,672.3	-856.9	7,716.4	0.00	0.00	0.00
18,500.0	90.00	180.00	10,762.0	-7,772.3	-856.9	7,816.1	0.00	0.00	0.00
18,600.0	90.00	180.00	10,762.0	-7,872.3	-856.9	7,915.8	0.00	0.00	0.00
18,700.0	90.00	180.00	10,762.0	-7,972.3	-856.9	8,015.4	0.00	0.00	0.00
18,800.0	90.00	180.00	10,762.0	-8,072.3	-856.9	8,115.1	0.00	0.00	0.00
18,900.0	90.00	180.00	10,762.0	-8,172.3	-856.9	8,214.8	0.00	0.00	0.00
19,000.0	90.00	180.00	10,762.0	-8,272.3	-856.9	8,314.5	0.00	0.00	0.00
19,100.0	90.00	180.00	10,762.0	-8,372.3	-856.9	8,414.1	0.00	0.00	0.00
19,200.0	90.00	180.00	10,762.0	-8,472.3	-856.9	8,513.8	0.00	0.00	0.00
19,300.0	90.00	180.00	10,762.0	-8,572.3	-856.9	8,613.5	0.00	0.00	0.00
19,400.0	90.00	180.00	10,762.0	-8,672.3	-856.9	8,713.1	0.00	0.00	0.00
19,500.0	90.00	180.00	10,762.0	-8,772.3	-856.9	8,812.8	0.00	0.00	0.00
19,600.0	90.00	180.00	10,762.0	-8,872.3	-856.9	8,912.5	0.00	0.00	0.00
19,700.0	90.00	180.00	10,762.0	-8,972.3	-856.9	9,012.2	0.00	0.00	0.00
19,800.0	90.00	180.00	10,762.0	-9,072.3	-856.9	9,111.8	0.00	0.00	0.00
19,900.0	90.00	180.00	10,762.0	-9,172.3	-856.9	9,211.5	0.00	0.00	0.00
20,000.0	90.00	180.00	10,762.0	-9,272.3	-856.9	9,311.2	0.00	0.00	0.00
20,100.0	90.00	180.00	10,762.0	-9,372.3	-857.0	9,410.9	0.00	0.00	0.00
20,200.0	90.00	180.00	10,762.0	-9,472.3	-857.0	9,510.5	0.00	0.00	0.00
20,300.0	90.00	180.00	10,762.0	-9,572.3	-857.0	9,610.2	0.00	0.00	0.00
20,400.0	90.00	180.00	10,762.0	-9,672.3	-857.0	9,709.9	0.00	0.00	0.00
20,500.0	90.00	180.00	10,762.0	-9,772.3	-857.0	9,809.6	0.00	0.00	0.00
20,600.0	90.00	180.00	10,762.0	-9,872.3	-857.0	9,909.2	0.00	0.00	0.00
20,700.0	90.00	180.00	10,762.0	-9,972.3	-857.0	10,008.9	0.00	0.00	0.00
20,800.0	90.00	180.00	10,762.0	-10,072.3	-857.0	10,108.6	0.00	0.00	0.00
20,900.0	90.00	180.00	10,762.0	-10,172.3	-857.0	10,208.3	0.00	0.00	0.00
21,000.0	90.00	180.00	10,762.0	-10,272.3	-857.0	10,307.9	0.00	0.00	0.00
21,100.0	90.00	180.00	10,762.0	-10,372.3	-857.0	10,407.6	0.00	0.00	0.00
21,200.0	90.00	180.00	10,762.0	-10,472.3	-857.0	10,507.3	0.00	0.00	0.00
21,300.0	90.00	180.00	10,762.0	-10,572.3	-857.0	10,607.0	0.00	0.00	0.00
21,313.7	90.00	180.00	10,762.0	-10,586.0	-857.0	10,620.6	0.00	0.00	0.00

TD at 21313.7

### Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (m)	Easting (m)	Latitude	Longitude
Jefferies 5301 43-12B P - plan hits target center - Point	0.00	0.00	10,762.0	-10,586.0	-857.0	121,862.97	367,676.20	48° 3' 13.577 N	103° 37' 2.975 W

### Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)
2,170.0	2,170.0 9 5/8"		9.625	13.500
11,085.0	10,762.0 7"		7.000	8.750

# Oasis Petroleum

## Planning Report

<b>Database:</b>	Compass	<b>Local Co-ordinate Reference:</b>	Well Jefferies 5301 43-12B
<b>Company:</b>	Oasis	<b>TVD Reference:</b>	WELL @ 2118.0ft (Original Well Elev)
<b>Project:</b>	Indian Hills	<b>MD Reference:</b>	WELL @ 2118.0ft (Original Well Elev)
<b>Site:</b>	153N-101W-13/24	<b>North Reference:</b>	True
<b>Well:</b>	Jefferies 5301 43-12B	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #1		

### Formations

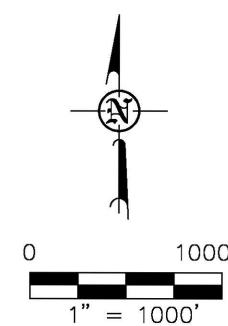
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,968.0	1,968.0	Pierre			
4,634.0	4,634.0	Greenhorn			
5,030.0	5,030.0	Mowry			
5,461.0	5,461.0	Dakota			
6,377.0	6,377.0	Rierdon			
6,896.0	6,896.0	Dunham Salt			
6,963.0	6,963.0	Dunham Salt Base			
6,968.0	6,968.0	Spearfish			
7,212.0	7,212.0	Pine Salt			
7,337.0	7,337.0	Pine Salt Base			
7,365.0	7,365.0	Opeche Salt			
7,444.0	7,444.0	Opeche Salt Base			
7,625.0	7,625.0	Broom Creek (Top of Minnelusa Gp.)			
7,668.0	7,668.0	Amsden			
7,844.0	7,844.0	Tyler			
8,031.0	8,031.0	Otter (Base of Minnelusa Gp.)			
8,380.0	8,380.0	Kibbey			
8,527.0	8,527.0	Charles Salt			
9,150.0	9,150.0	UB			
9,227.0	9,227.0	Base Last Salt			
9,275.0	9,275.0	Ratcliffe			
9,451.0	9,451.0	Mission Canyon			
10,025.0	10,025.0	Lodgepole			
10,873.7	10,740.0	False Bakken			
10,934.9	10,755.0	Upper Bakken			
11,013.6	10,762.0	Middle Bakken			
11,013.6	10,762.0	Middle Bakken Sand Target			

### Plan Annotations

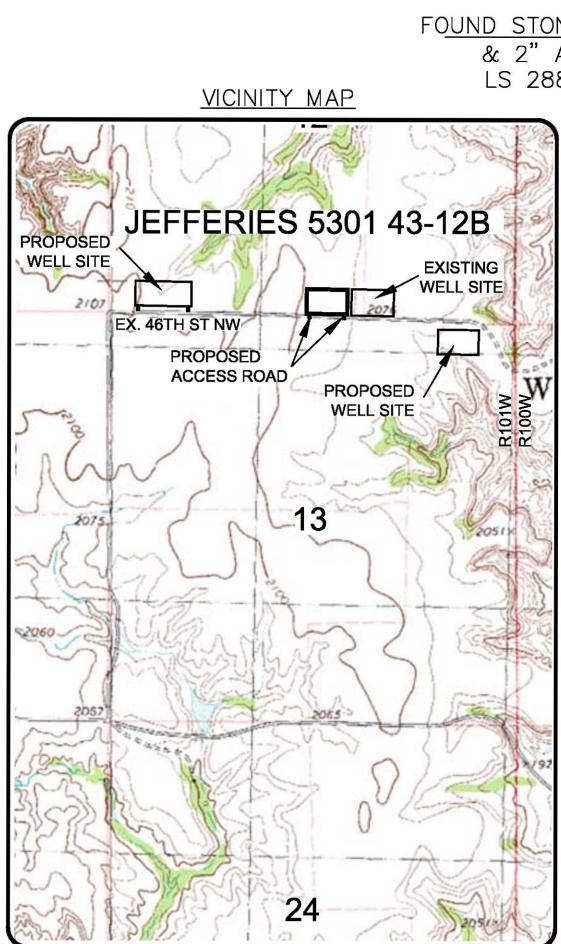
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
10,321.3	10,321.3	0.0	0.0	KOP-Start Build 13.00
11,013.6	10,762.0	-392.2	-201.1	EOC-Start 53.7 hold at 11013.6 MD
11,067.3	10,762.0	-440.0	-225.6	Start DLS 1.00 TFO -90.00
13,781.6	10,762.0	-3,053.9	-856.7	Start 7532.1 hold at 13781.6 MD
21,313.7	10,762.0	-10,586.0	-857.0	TD at 21313.7

**SECTION BREAKDOWN**  
OASIS PETROLEUM NORTH AMERICA, LLC  
1001 FANNIN, SUITE 1500 HOUSTON, TX 77002  
"JEFFERIES 5301 43-12B"  
250 FEET FROM SOUTH LINE AND 2410 FEET FROM EAST LINE  
SECTIONS 12, 13, & 24, T153N, R101W, 5TH P.M., MCKENZIE COUNTY, NORTH DAKOTA

ALL BEARINGS ARE BASED ON G.P.S. DERIVED BEARINGS. THE ORIGINAL SURVEY OF THIS AREA FOR THE GENERAL LAND OFFICE (G.L.O.) WAS 1900. THE CORNERS FOUND ARE AS INDICATED AND ALL OTHERS ARE COMPUTED FROM THOSE CORNERS FOUND AND BASED ON G.L.O. DATA.

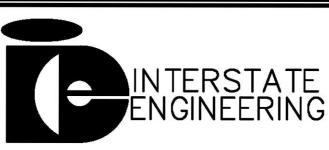


-  — MONUMENT — RECOVERED  
 — MONUMENT — NOT RECOVERED



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SECTION BREAKDOWN  
SECTIONS 12,13, & 24, T153N, R101W  
MCKENZIE COUNTY, NORTH DAKOTA

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## PAD LAYOUT

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

250 FEET FROM SOUTH LINE AND 2410 FEET FROM EAST LINE  
SECTION 12, T153N, R101W, 5TH P.M., MCKENZIE COUNTY, NORTH DAKOTA

Pit Stockpile

TIMMONS 5301 43-12B  
GROUND ELEV. = 2095.9'  
FINISH PAD ELEV. = 2093.0'

JEFFERIES 5301 43-12B  
GROUND ELEV. = 2093.6'  
FINISH PAD ELEV. = 2093.0'

PROPOSED  
ACCESS

PROPOSED  
ACCESS

Topsoil Stockpile



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OASIS PETROLEUM NORTH AMERICA, LLC  
PAD LAYOUT  
SECTION 12, T153N, R101W  
MCKENZIE COUNTY, NORTH DAKOTA

Drawn By: J.J.S. Project No: S11-9-361  
Checked By: C.S.V. Date: DEC 2011

Revision No.	Date	By	Description

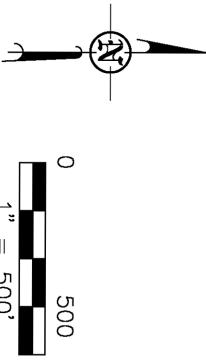
NOTE:  
All utilities shown are preliminary only, a complete  
utilties location is recommended before construction.

0  
1" = 80'

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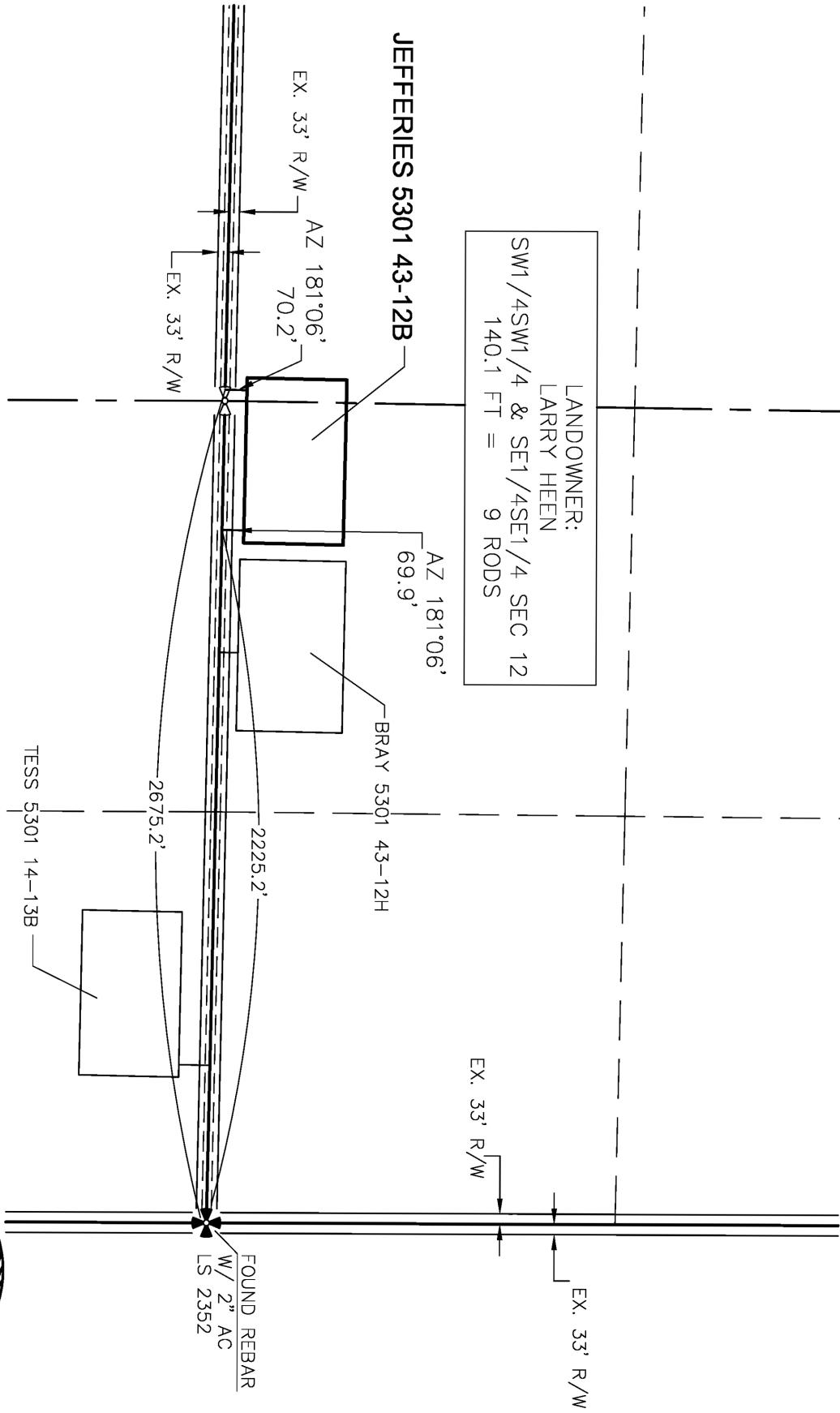
**NOTE:** All utilities shown are preliminary only, a complete location is recommended before construction.

ACCESS APPROACH

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

"JEFFERIES 5301 43-12B"

SECTION 12, T153N, R101W, 5TH P.M., MCKENZIE COUNTY, NORTH DAKOTA



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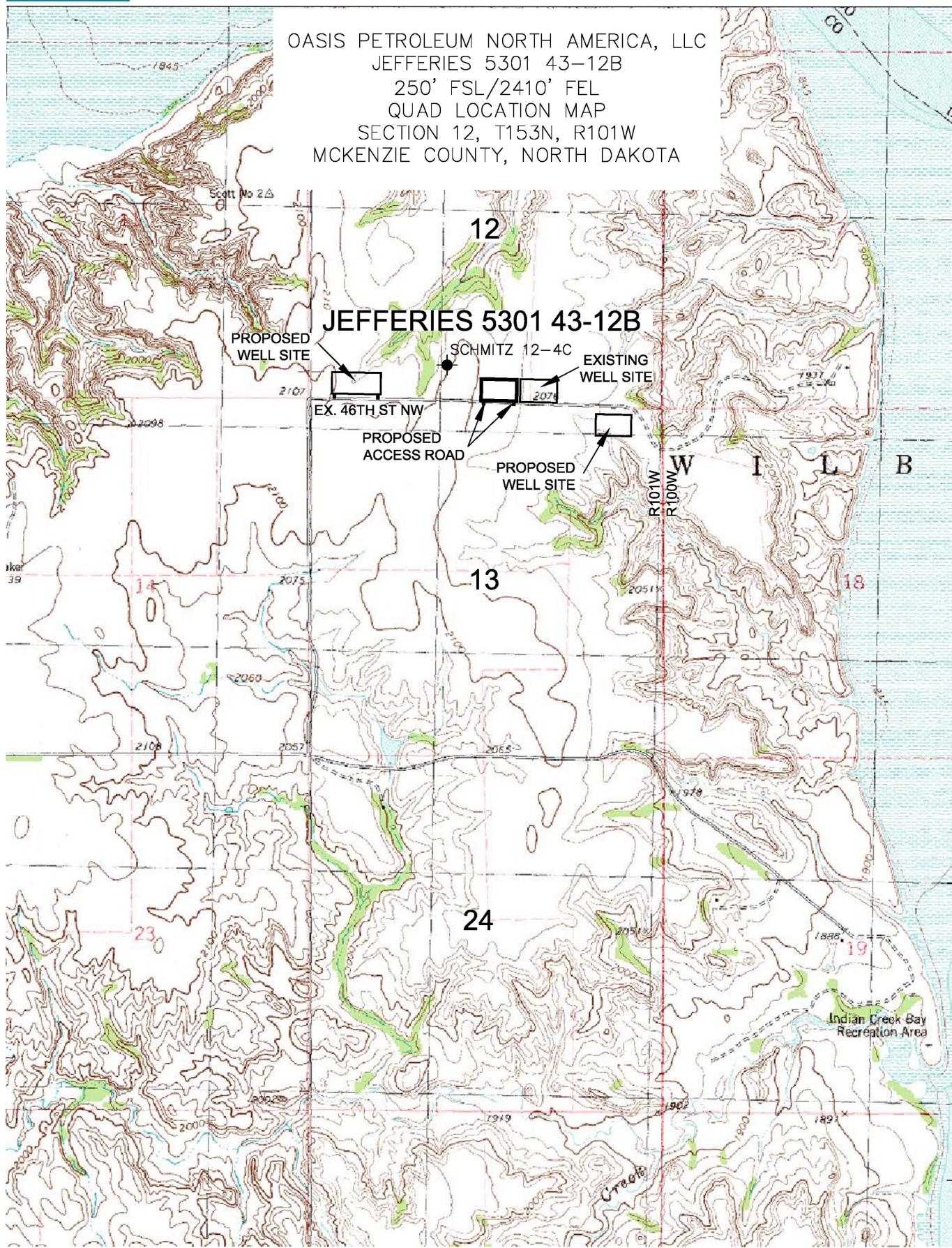
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OASIS PETROLEUM NORTH AMERICA, LLC  
ACCESS APPROACH  
SECTION 12, T153N, R101W  
MCKENZIE COUNTY, NORTH DAKOTA

OASIS PETROLEUM NORTH AMERICA, LLC  
JEFFERIES 5301 43-12B  
250' FSL/2410' FEL  
QUAD LOCATION MAP  
SECTION 12, T153N, R101W  
MCKENZIE COUNTY, NORTH DAKOTA



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Columbus, Georgia

OASIS PETROLEUM NORTH AMERICA, LLC  
QUAD LOCATION MAP  
SECTION 12, T15N, R10W

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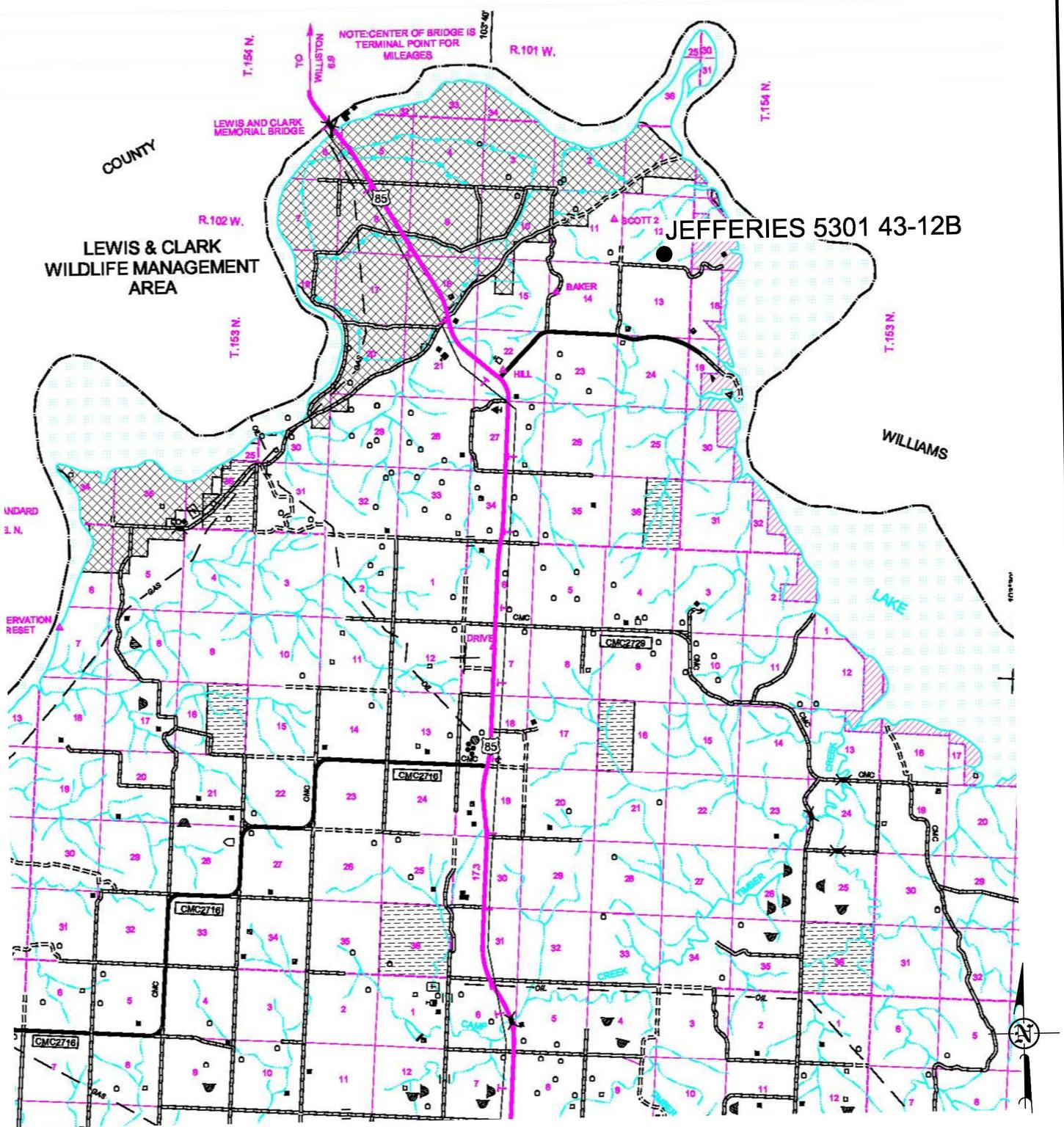
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Drawn By:	J.S.	Project No.:	S11-09-361
Checked By:	C.S.V.	Date:	DEC 2011

## COUNTY ROAD MAP

OASIS PETROLEUM NORTH AMERICA, LLC  
1001 FANNIN, SUITE 1500 HOUSTON, TX 77002  
"JEFFERIES 5301 43-12B"

JEFFERIES 350-45-12B  
250 FEET FROM SOUTH LINE AND 2410 FEET FROM EAST LINE  
SECTION 12, T153N, R101W, 5TH P.M., MCKENZIE COUNTY, NORTH DAKOTA



SCALE: 1" = 2 MILE

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OASIS PETROLEUM NORTH AMERICA, LLC  
COUNTY ROAD MAP  
SECTION 12, T153N, R101W  
MCKENZIE COUNTY, NORTH DAKOTA

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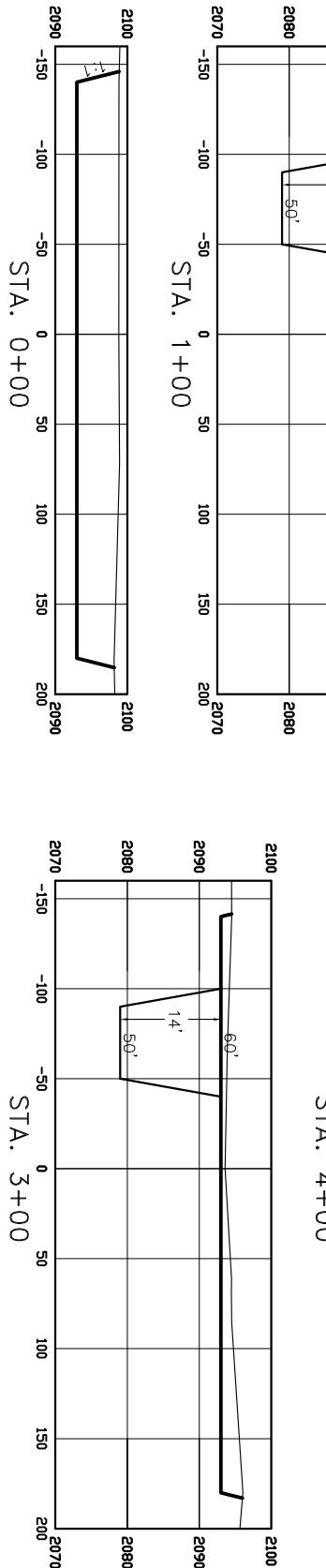
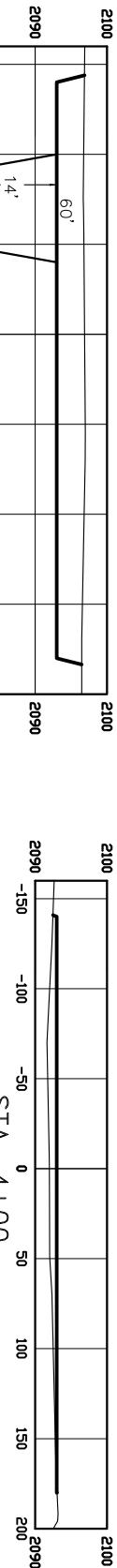
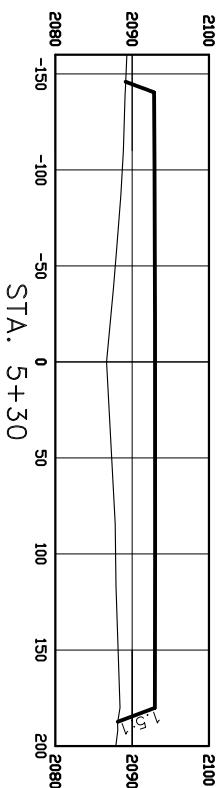
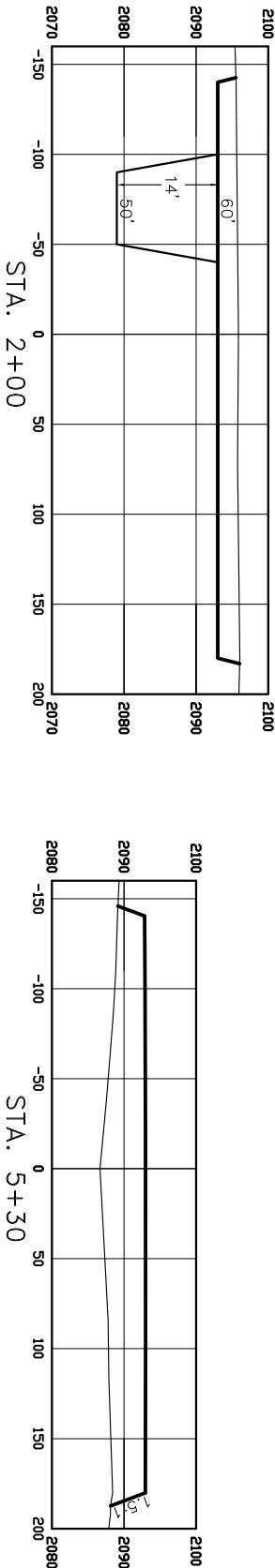
## CROSS SECTIONS

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

"JEFFERIES 5301 43-12B"

250 FEET FROM SOUTH LINE AND 2410 FEET FROM EAST LINE  
SECTION 14 TACON DRAW STRIPE MONTGOMERY COUNTY NORTH DAKOTA

SECTION 12, 1153N, R101W, 5TH F.M., MCKENZIE COUNTY, NORTH DAKOTA



SCALE  
HORIZ 1' = 100'  
VERT 1' = 20'

# WELL LOCATION SITE QUANTITIES

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

"JEFFERIES 5301 43-12B"

250 FEET FROM SOUTH LINE AND 2410 FEET FROM EAST LINE  
SECTION 12, T153N, R101W, 5TH P.M., MCKENZIE COUNTY, NORTH DAKOTA

WELL SITE ELEVATION	2093.6
WELL PAD ELEVATION	2093.0
EXCAVATION	12,909
PLUS PIT	<u>3,150</u>
	16,059
EMBANKMENT	4,705
PLUS SHRINKAGE (30%)	<u>1,412</u>
	6,117
STOCKPILE PIT	3,150
STOCKPILE TOP SOIL (6")	3,284
STOCKPILE FROM PAD	3,508
DISTURBED AREA FROM PAD	4.07 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

2410' FEL

250' FSL

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OASIS PETROLEUM NORTH AMERICA, LLC

QUANTITIES

SECTION 12, T153N, R101W

MCKENZIE COUNTY, NORTH DAKOTA

Drawn By: J.J.S. Project No.: S11-09-361

Checked By: C.S.V. Date: DEC 2011

Revision No. Date By Description

## SURFACE DAMAGE SETTLEMENT AND RELEASE

In consideration for the sum of \_\_\_\_\_ Dollars

(\$ \_\_\_\_\_) paid by Oasis Petroleum North America LLC ("Oasis") to the undersigned surface owners, Larry P. Heen, a married man dealing in his sole & separate property ("Owners," and together with Oasis, the "Parties") for themselves and their heirs, successors, administrators and assigns, hereby acknowledge the receipt and sufficiency of said payment as a full and complete settlement for and as a release of all claims for loss, damage or injury to the Subject Lands (as defined herein) arising out of the Operations (as defined herein) of the Jefferies 5301 43-12B & Timmons 5301 43-12B the "Well(s)" located on the approximately (6) six acre tract of land identified on the plat attached hereto as Exhibit "A" (the "Subject Lands") and which is situated on the following described real property located in McKenzie County, State of North Dakota, to wit:

Township 153 North, Range 101 West, 5th P.M.  
Section 12: SE4SW4, SW4SE4

This pad shall accommodate the drilling of the Jefferies 5301 43-12B well and the Timmons 5301 43-12B well on the same location. The undersigned is fully aware that the cuttings generated from the drilling of the above described wells will be buried on site on the above described location.

The Parties agree that the settlement and release described herein does not include any claims by any third party against the Owners for personal injury or property damage arising directly out of Oasis's Operations, and Oasis agrees to indemnify, defend and hold harmless Owners against all liabilities arising from such claim (except as such claim arises from the gross negligence or willful misconduct of the Owners).

In further consideration of the payments specified herein, Oasis is hereby specifically granted the right to construct, install and operate, replace or remove pads, pits, pumps, compressors, tanks, roads, pipelines, equipment or other facilities on the above described tract of land necessary for its drilling, completion, operation and/or plugging and abandonment of the Well(s) (the "Operations"), and to the extent such facilities are maintained by Oasis for use on the Subject Lands, this agreement shall permit Oasis's use of such facilities for the Operations on the Subject Lands.

Should commercial production be established from the Well(s), Oasis agrees to pay Owners an annual amount of: \_\_\_\_\_ per year beginning one year after the completion of the Wells and to be paid annually until the Wells is plugged and abandoned.

The Parties expressly agree and acknowledge that the payments described herein to be made by Oasis to the Owners constitute full satisfaction of the requirements of Chapter 38.11.1 of the North Dakota Century Code and, once in effect, the amended Chapter 38.11.1 of the North Dakota Century Code enacted by House Bill 1241. The Parties further expressly agree and acknowledge that the \$ \_\_\_\_\_ payment set forth above constitutes full and adequate consideration for damage and disruption required under Section 38.11.1-04 of the North Dakota Century Code, and that the \$ \_\_\_\_\_ payment set forth above constitutes full and adequate consideration for loss of production payments under Section 38.11.1-08.1 of the North Dakota Century Code.

Oasis shall keep the Site free of noxious weeds, and shall take reasonable steps to control erosion and washouts on the Site. Oasis shall restore the Site to a condition as near to the original condition of the Site as is reasonably possible, including the re-contouring, replacing of topsoil and re-seeding of the Site (such actions, the "Restoration").

The surface owners grant Oasis access to the Wells in the location(s) shown on the plats attached hereto as Exhibit "A".

Upon written request and the granting of a full release by the Owners of further Restoration by Oasis with respect to the affected area described in this paragraph, Oasis shall leave in place any road built by it in its Operations for the benefit of the Owners after abandoning its Operations, and shall have no further maintenance obligations with respect to any such road.

This agreement shall apply to the Parties and their respective successors, assigns, parent and subsidiary companies, affiliates and related companies, trusts and partnerships, as well as their contractors, subcontractors, officers, directors, agents and employees.

This agreement may be executed in multiple counterparts, each of which shall be an original, but all of which shall constitute one instrument.

[Signature Page Follows.]

DATED this 13th day of December 2011

SURFACE OWNERS

*Larry P. Heen*  
Larry P. Heen, a married man dealing in his sole & separate property

Address: 14033 45th Street NW

Williston, ND 58801

Phone: 701-572-6991

STATE OF North Dakota)  
COUNTY OF McKenzie)

ACKNOWLEDGMENT INDIVIDUAL

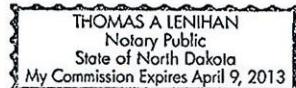
BE IT REMEMBERED, That on this 13th day of December, 2011 before me, a Notary Public, in and for said County and State, personally appeared Larry P. Heen, a married man dealing in his sole & separate property, to me known to be the identical person described in and who executed the within and foregoing instrument and acknowledged to me that he executed the same as his free and voluntary act and deed for the uses and purposes therein set forth.

IN WITNESS WHEREOF, I have hereunto set my official signature and affixed my notarial seal, the day and year first above written.

My commission expires: April 9, 2013)

*Thomas A. Lenihan*  
Thomas A. Lenihan  
Notary Public

NOTARY STAMP



STATE OF \_\_\_\_\_)

ACKNOWLEDGMENT CORPORATION

COUNTY OF \_\_\_\_\_)

Before me the undersigned, a Notary Public, in and for said County and State, on this \_\_\_\_\_ day of \_\_\_\_\_, 2011, personally appeared \_\_\_\_\_, to me known to be the identical person who subscribed the name of the maker thereof to the foregoing instrument as its \_\_\_\_\_ and acknowledged to me that \_\_\_\_\_ executed the same as \_\_\_\_\_ free and voluntary act and deed and as the free and voluntary act and deed of such corporation, for the uses and purposes therein set forth.

Given under my hand and seal of office the day and year last above written.

My commission expires: \_\_\_\_\_)

\_\_\_\_\_  
Notary Public

NOTARY STAMP