



SUNDRY NOTICES AND REPORTS ON WELLS - FORM

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



Well File No.
22221

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"/> Spill Report
<input checked="" type="checkbox"/> Report of Work Done	Date Work Completed December 15, 2013	<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	Well is now on pump

Well Name and Number Innoko 5301 41-12T					
Footages	Qtr-Qtr	Section	Township	Range	
250 F S L	2350 F E L	SWSE	12	153 N	101 W
Field	Pool			County	McKenzie
	Bakken				

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 12/15/2013 the above referenced well is on pump.

Tubing: 2-7/8" L-80 tubing @ 10125

Pump: 2-1/2" x 2.0" x 24' insert pump @ 10056

Company Oasis Petroleum North America LLC		Telephone Number 281 404-9563
Address 1001 Fannin, Suite 1500		
City Houston		State TX
Signature <i>Heather McCowan</i>		Printed Name Heather McCowan
Title Regulatory Assistant	Date January 10, 2014	
Email Address hmccowan@oasispetroleum.com		

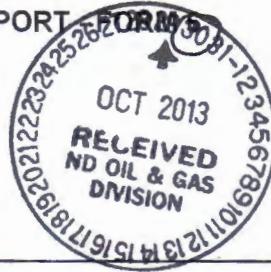
FOR STATE USE ONLY

<input type="checkbox"/> Received	<input type="checkbox"/> Approved
Date <i>1/13/14</i>	
By <i>Heather McCowan</i>	
Title <i>Regulatory Assistant</i>	



WELL COMPLETION OR RECOMPLETION REPORT

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



Well File No.
22221

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

Innoko 5301 43-12T

Spacing Unit Description

T153N R101W Sec 13 & 24

Operator

Oasis Petroleum North America

Telephone Number

(281) 404-9563

Field

Baker

Address

1001 Fannin, Suite 1500

Pool

Bakken

City

Houston

State

TX

Zip Code

77002

Permit Type

Wildcat

Development

Extension

LOCATION OF WELL

At Surface	250 F S L	2350 F E L	Qtr-Qtr SWSE	Section 12	Township 153 N	Range 101 W	County McKenzie
Spud Date	Spud Date	Date TD Reached	Drilling Contractor and Rig Number			KB Elevation (Ft)	Graded Elevation (Ft)
July 1, 2013		July 22, 2013	Nabors B25			2118	2093

Type of Electric and Other Logs Run (See Instructions)

N/A

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

Well Bore	Type	String Size (Inch)	Top Set (MD Ft)	Depth Set (MD Ft)	Hole Size (Inch)	Weight (Lbs/Ft)	Anchor Set (MD Ft)	Packer Set (MD Ft)	Sacks Cement	Top of Cement
Surface Hole	Surface	9 5/8		2152	13 1/2	36			691	0
Vertical Hole	Intermediate	7		11117	8 3/4	32			793	2150
Lateral1	Liner	4 1/2	10198	21091	6	13.5				

PERFORATION & OPEN HOLE INTERVALS

Well Bore	Well Bore TD Drillers Depth (MD Ft)	Completion Type	Open Hole/Perforated Interval (MD,Ft)		Kick-off Point (MD Ft)	Top of Casing Window (MD Ft)	Date Perfd or Drilled	Date Isolated	Isolation Method	Sacks Cement
			Top	Bottom						
Lateral1	21122	Perforations	11117	21122	10477		09/07/2013			

PRODUCTION

Current Producing Open Hole or Perforated Interval(s), This Completion Top and Bottom, (MD Ft) Lateral 1 - 11117-21122				Name of Zone (If Different from Pool Name)			
Date Well Completed (SEE INSTRUCTIONS)		Producing Method		Pumping-Size & Type of Pump		Well Status (Producing or Shut-In)	
September 18, 2013		Flowing		Producing			
Date of Test 09/18/2013	Hours Tested 24	Choke Size 41.5 /64	Production for Test	Cil (Bbls) 1379	Gas (MCF) 1080	Water (Bbls) 4311	Oil Gravity-API (Corr.) 41.0 °
Flowing Tubing Pressure (PSI)	Flowing Casing Pressure (PSI)		Calculated 24-Hour Rate	Cil (Bbls) 1379	Gas (MCF) 1080	Water (Bbls) 4311	Gas-Oil Ratio 783

GEOLOGICAL MARKERS

PLUG BACK INFORMATION

CORES CUT

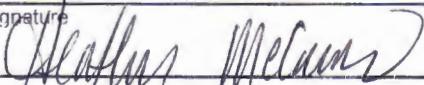
Top (Ft)	Bottom (Ft)	Formation	Top (Ft)	Bottom (Ft)	Formation

Drill Stem Test

Well Specific Stimulation

Date Stimulated 09/07/2013	Stimulated Formation Bakken		Top (Ft) 11117	Bottom (Ft) 21122	Stimulation Stages 36	Volume 90354	Volume Units Barrels
Type Treatment Sand Frac	Acid %	Lbs Proppant 3765029	Maximum Treatment Pressure (PSI) 8782		Maximum Treatment Rate (BBLS/Min) 37.7		
Details 100 mesh: 128,174 40/70 White: 1,458,059 20/40 Ceramic: 2,178,796							
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 hmccowan@oasispetroleum.com	Date 10/29/2013
Signature 	Printed Name Heather McCowan	Title Regulatory Assistant

WELL COMPLETION OR RECOMPLETION REPORT - FORM 6
SFN 2468

1. This report shall be filed by the operator with the Commission immediately after the completion of a well in an unspaced pool or reservoir. Please refer to Section 43-02-03-31 of the North Dakota Administrative Code (NDAC).
2. This report shall be filed by the operator with the Commission within thirty (30) days after the completion of a well, or recompletion of a well in a different pool. Please refer to Section 43-02-03-31 NDAC.
3. The well file number, operator, well name and number, field, pool, permit type, well location(s), and any other pertinent data shall coincide with the official records on file with the Commission. If it does not, an explanation shall be given.
4. If a parasite string was used in the drilling of a well, the size, depth set, cement volume used to plug, and the date plugged shall be included. This information may be included in the "Additional Information" portion of the report or included as an attachment.
5. In the "Perforation & Open Hole Intervals" table, each borehole should be identified in the "Well Bore" column (vertical, sidetrack 1, lateral 1, etc.). On horizontal or directional wells, the following information shall be entered in the table if applicable: pilot hole total depth, kick-off point, casing windows, original lateral total depth, and all sidetracked interval starting and ending footages.
6. In the "Production" section, list all the current producing open hole or perforated intervals associated with the production rates reported. Oil, gas, and water rates and recoveries from perforations or laterals tested but not included in the completion should be included in the "Additional Information" portion of the report or included as an attachment.
7. In The "Date Well Completed" portion of the form please report the appropriate date as follows:
 - An oil well shall be considered completed when the first oil is produced through wellhead equipment into tanks from the ultimate producing interval after casing has been run.
 - A gas well shall be considered complete when the well is capable of producing gas through wellhead equipment from the ultimate producing zone after casing has been run.
 - For EOR or SWD wells, please report the date the well is capable of injection through tubing and packer into the permitted injection zone. Also, please report the packer type and depth and the tubing size, depth, and type. The packer and tubing type may be included in the "Additional Information" portion of the report.
8. The top of the Dakota Formation shall be included in the "Geological Markers."
9. Stimulations for laterals can be listed as a total for each lateral.
10. The operator shall file with the Commission two copies of all logs run. Logs shall be submitted as one digital TIFF (tagged image file format) copy and one digital LAS (log ASCII) formatted copy, or a format approved by the Director. In addition, operators shall file two copies of drill stem test reports and charts, formation water analyses, core analyses, geologic reports, and noninterpretive lithologic logs or sample descriptions if compiled by the operator.
11. A certified copy of any directional survey run shall be filed directly with the Commission by the survey contractor
12. The original and one copy of this report shall be filed with the Industrial Commission of North Dakota, Oil and Gas Division, 600 East Boulevard, Dept 405, Bismarck, ND 58505-0840.



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.

22211

NDIC CTB No.

2 22100

PLEASE READ INSTRUCTIONS BEFORE FILLING OUT FORM.

PLEASE SUBMIT THE ORIGINAL AND FOUR COPIES.

Well Name and Number INNOKO 5301 43-12T	Qtr-Qtr SWSE	Section 12	Township 153 N	Range 101 W	County McKenzie
Operator Oasis Petroleum North America LLC	Telephone Number (281) 404-9573			Field BAKER	
Address 1001 Fannin, Suite 1500	City Houston		State TX	Zip Code 77002	
Name of First Purchaser Oasis Petroleum Marketing LLC	Telephone Number (281) 404-9573	% Purchased 100%	Date Effective September 19, 2013		
Principal Place of Business 1001 Fannin, Suite 1500	City Houston	State TX	Zip Code 77002		
Field Address	City	State	Zip Code		
Transporter Hiland Crude, LLC	Telephone Number (580) 616-2058	% Transported 75%	Date Effective September 19, 2013		
Address P.O. Box 3886	City Enid	State OK	Zip Code 73702		
The above named producer authorizes the above named purchaser to purchase the percentage of oil stated above which is produced from the lease designated above until further notice. The oil will be transported by the above named transporter.					

Other First Purchasers Purchasing From This Lease	% Purchased	Date Effective
Other First Purchasers Purchasing From This Lease	% Purchased	Date Effective
Other Transporters Transporting From This Lease	% Transported	Date Effective
Prairie Field Services, LLC	25%	September 19, 2013
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 October 1, 2013
Signature 	Printed Name Annette Terrell
	Title Marketing Assistant
Above Signature Witnessed By:	
Signature 	Printed Name Dina Barron
	Title Mktg. Contracts Administrator

FOR STATE USE ONLY		
Date Approved OCT 11 2013		
By 		
Title Oil & Gas Production Analyst		

Industrial Commission of North Dakota
Oil and Gas Division

CH
Well or Facility No
22221

Verbal Approval To Purchase and Transport Oil Tight Hole No

OPERATOR

Operator OASIS PETROLEUM NORTH AMERICA LL	Representative Cody Jeannotte	Rep Phone (701) 580-7993
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WELL INFORMATION

Well Name INNOKO 5301 43-12T	Inspector Richard Dunn
Well Location SWSE QQ Sec Twp Rng 12 153 N 101 W	County MCKENZIE
Footages 250 Feet From the S Line 2350 Feet From the E Line	Field BAKER
Date of First Production Through Permanent Wellhead	Pool BAKKEN
	This Is Not The First Sales

PURCHASER / TRANSPORTER

Purchaser OASIS PETROLEUM MARKETING LLC	Transporter HILAND CRUDE, LLC
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TANK BATTERY

Single Well Tank Battery Number :

SALES INFORMATION This Is Not The First Sales

ESTIMATED BARRELS TO BE SOLD	ACTUAL BARRELS SOLD	DATE
15000	BBLS	
	BBLS	

DETAILS

Must E-Mail or Call Inspector at 701-770-3554/rsdunn@nd.gov on first date of sales and report amount sold, date sold, and first date of production through the permanent wellhead. Must also forward Forms 6 & 8 to State prior to reaching 15000 Bbl estimate or no later than required time frame for submitting those forms.

Start Date	9/10/2013
Date Approved	9/12/2013
Approved By	Richard Dunn



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.

22221

PLEASE READ INSTRUCTIONS BEFORE FILLING OUT FORM.

PLEASE SUBMIT THE ORIGINAL AND ONE COPY.



<input checked="" type="checkbox"/> Notice of Intent	Approximate Start Date September 10, 2013
<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 Purpose | <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 | Change well status to CONFIDENTIAL |

Well Name and Number Innoko 5301 42-12T				
Footages 250 F S L 2350 F E L	Qtr-Qtr SWSE	Section 12	Township 153 N	Range 101 W
Field Whitewoods BAKER	Pool Bakken	County McKenzie		

24-HOUR PRODUCTION RATE

Before	After
Oil	Bbls
Water	Bbls
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.

OFF CONFIDENTIAL 3/11/14

Company Oasis Petroleum North America LLC	Telephone Number 281-404-9563	
Address 1001 Fannin, Suite 1500		
City Houston	State TX	Zip Code 77002
Signature <i>Heather McCowan</i>	Printed Name Heather McCowan	
Title Regulatory Assistant	Date September 10, 2013	
Email Address hmccowan@oasispetroleum.com		

FOR STATE USE ONLY

<input type="checkbox"/> Received	<input checked="" type="checkbox"/> Approved
Date 9/12/13	
By <i>Alice D. Wehner</i>	
Title Engineering Technician	



Scientific
Drilling

7327 West Barton Road
Casper, WY 82604
(307)-472-6621 Fax (307) 472-5439

Survey Certification

Operator	Oasis Petroleum
Well Name & No.	INNOKO 5301 43-12T
County & State	McKenzie County, ND
SDI Job No.	410713K29702
Rig	Nabors B25
Survey Date	2-Jul-2013

I, Seth M. Burstad, having personal knowledge of all the facts, hereby certify that the attached directional survey run from a measured depth of 100 feet to a measured depth of 2128 feet is true and correct as determined from all available records.

Seth Burstad

Signature

18-Jul-2013

Date

Seth M. Burstad

Rockies Region Well Planner
Scientific Drilling - Rocky Mountain District

Oasis Petroleum

McKenzie County, ND

INNOKO

INNOKO 5301 43-12T

OH

Design: OH

Standard Survey Report

18 July, 2013



www.scientificdrilling.com



Scientific Drilling International

Survey Report

Company:	Oasis Petroleum	Local Co-ordinate Reference:	Well INNOKO 5301 43-12T
Project:	McKenzie County, ND	TVD Reference:	GL 2393' & KB 25' @ 2118.00ft (Nabors B25)
Site:	INNOKO	MD Reference:	GL 2393' & KB 25' @ 2118.00ft (Nabors B25)
Well:	INNOKO 5301 43-12T	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Casper District

Project	McKenzie County, ND		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	North Dakota Northern Zone		

Site	INNOKO, SEC 12 T153N R101W		
Site Position:		Northing:	410,351.35 usft
From:	Lat/Long	Easting:	1,207,628.30 usft
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in
			Latitude: 48° 4' 58.040 N
			Longitude: 103° 36' 49.480 W
			Grid Convergence: -2.32 °

Well	INNOKO 5301 43-12T, 250 FSL 2350 FEL SEC 12 T153N R 101W				
Well Position	+N/S +E/W	0.00 ft 0.00 ft	Northing: 410,351.34 usft Easting: 1,207,628.30 usft	Latitude: 48° 4' 58.040 N Longitude: 103° 36' 49.480 W	
Position Uncertainty		0.00 ft	Wellhead Elevation: ft	Ground Level: 2,093.00 ft	

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2013	7/3/2013	8.52	73.00	56,451

Design	OH				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:		Depth From (TVD) (ft)	+N/S (ft)	+E/W (ft)	Direction (°)
		25.00	0.00	0.00	149.40

Survey Program	Date	7/18/2013		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
125.00	2,153.00	Survey #1 Surface Gyro (OH)	SDI Standard Keeper 103	SDI Standard Wireline Keeper ver 1.0.3

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)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
125.00	0.50	225.83	125.00	-0.38	-0.39	0.13	0.40	0.40	0.00
First SDI Gyro Survey									
225.00	0.47	239.05	224.99	-0.90	-1.06	0.23	0.12	-0.03	13.22
325.00	0.33	241.44	324.99	-1.24	-1.66	0.23	0.14	-0.14	2.39
425.00	0.16	239.33	424.99	-1.45	-2.03	0.22	0.17	-0.17	-2.11
525.00	0.05	80.81	524.99	-1.52	-2.11	0.23	0.21	-0.11	-158.52
625.00	0.35	160.05	624.99	-1.80	-1.96	0.55	0.34	0.30	79.24
725.00	0.38	122.31	724.99	-2.26	-1.58	1.14	0.24	0.03	-37.74
825.00	0.26	131.85	824.99	-2.59	-1.13	1.65	0.13	-0.12	9.54
925.00	0.31	81.19	924.99	-2.70	-0.69	1.97	0.25	0.05	-50.66

Scientific Drilling International

Survey Report

Company:	Oasis Petroleum	Local Co-ordinate Reference:	Well INNOKO 5301 43-12T
Project:	McKenzie County, ND	TVD Reference:	GL 2393' & KB 25' @ 2118.00ft (Nabors B25)
Site:	INNOKO	MD Reference:	GL 2393' & KB 25' @ 2118.00ft (Nabors B25)
Well:	INNOKO 5301 43-12T	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Casper District

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)	
1,025.00	0.52	109.59	1,024.98	-2.81	0.00	2.42	0.29	0.21	28.40	
1,125.00	0.87	124.28	1,124.98	-3.39	1.06	3.46	0.39	0.35	14.69	
1,225.00	0.68	133.14	1,224.97	-4.22	2.12	4.71	0.22	-0.19	8.86	
1,325.00	0.44	134.24	1,324.96	-4.90	2.82	5.65	0.24	-0.24	1.10	
1,425.00	0.52	133.80	1,424.96	-5.48	3.43	6.46	0.08	0.08	-0.44	
1,525.00	0.30	141.99	1,524.96	-6.00	3.92	7.16	0.23	-0.22	8.19	
1,625.00	0.40	161.52	1,624.95	-6.54	4.19	7.76	0.15	0.10	19.53	
1,725.00	0.11	126.48	1,724.95	-6.93	4.38	8.19	0.32	-0.29	-35.04	
1,825.00	0.36	339.98	1,824.95	-6.69	4.35	7.97	0.46	0.25	-146.50	
1,925.00	0.14	326.19	1,924.95	-6.29	4.17	7.54	0.23	-0.22	-13.79	
2,025.00	0.07	214.54	2,024.95	-6.24	4.07	7.44	0.18	-0.07	-111.65	
2,125.00	0.45	187.42	2,124.95	-6.68	3.98	7.78	0.39	0.38	-27.12	
2,153.00	0.59	184.46	2,152.95	-6.93	3.96	7.98	0.51	0.50	-10.57	
Last SDI Gyro Survey										

Design Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/S (ft)	+E/W (ft)	Comment	
125.00	125.00	-0.38	-0.39	First SDI Gyro Survey	
2,153.00	2,152.95	-6.93	3.96	Last SDI Gyro Survey	

Checked By: _____ Approved By: _____ Date: _____

MWDsolutions

LEAM Drilling Systems
2027A Airport Road
Conroe, Texas 77301

MWD Survey Company: Leam Drilling Systems, LLC.

MWD Job Number: ND-130800

Well Name: Innoko

County: McKenzie

Customer: Oasis Petroleum

Number: 5301 43-12T

State: North Dakota

First Survey Date: 7/4/2013

Final Survey Date: 7/20/2013

Survey Start Depth: 2128

Survey End Depth: 21123

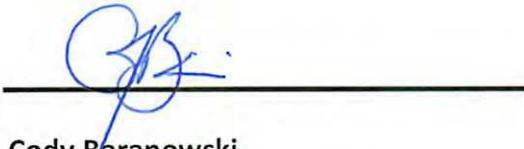
Survey Tool Type: Manned MWD

Survey Reference: True North

Declination: 8.04 °

MWD Surveyor Name: Randy Rakowitz

The data and calculations for this survey have been checked by me and conform to the calibration standards and operational procedures set forth by LEAM Drilling Systems, Inc. I am authorized and qualified to review the data, calculations and this report, and the report represents a true and correct Directional Survey of this well based on the original data corrected to True North and obtained at the well site. Wellbore coordinates are calculated using the Minimum Curvature Method.


Cody Baranowski
MWD Coordinator



MWD Solutions, Inc
12051 HWY 51E
Conroe, TX 77306

Survey Certification Form

I, Randy W. Rakowitz, an employee of MWD Solutions, Inc., hereby certify that on the dates beginning on 7/4/2013 and ending on 7/20/2013, I conducted or supervised the taking of an MWD Survey from a beginning depth of 2,128 ft. MD to an ending depth of 21,123 ft. MD; that the depth is true, correct, complete, and within the limitations of the tools as set forth by MWD Solutions, Inc., that I am authorized and qualified to make this report; that this survey was conducted in reference to True North with a declination of 8.04° with respect to the well Innoko 5301 43-12T located in McKenzie County , North Dakota as requested by Oasis Petroleum.

A handwritten signature in black ink, appearing to read "Randy W. Rakowitz", is written over a horizontal line.

Randy W. Rakowitz
Sr. MWD Operations Coordinator

Survey Report

MINIMUM CURVATURE CALCULATION

Operator	Oasis Petroleum
Well Name	Innoko 5301 43-12T
Location	McKenzie County
Start Date	7/4/2013
End Date	7/20/2013
Direction	181.58°

MWDsolutions

SUR NUM	MD ft	INC °	AZM °	TVD ft	N-S ft	E-W ft	SECT ft	DLS °/100'
TIE IN	2128	0.59	184.46	2127.95	-6.86	4.04	6.74	0.51
1	2187	1.40	197.30	2186.94	-7.85	3.80	7.74	1.42
2	2280	1.50	175.30	2279.91	-10.15	3.56	10.05	0.60
3	2373	1.00	185.40	2372.89	-12.17	3.59	12.07	0.59
4	2466	1.10	184.50	2465.87	-13.87	3.44	13.77	0.11
5	2560	1.40	189.60	2559.85	-15.90	3.18	15.81	0.34
6	2653	1.10	243.70	2652.83	-17.42	2.19	17.35	1.26
7	2746	1.30	231.40	2745.81	-18.47	0.56	18.45	0.35
8	2839	1.20	236.20	2838.79	-19.67	-1.07	19.69	0.16
9	2933	0.90	243.90	2932.77	-20.54	-2.55	20.60	0.35
10	3026	1.00	258.30	3025.76	-21.03	-4.00	21.13	0.28
11	3119	0.80	258.50	3118.75	-21.32	-5.43	21.46	0.22
12	3212	1.00	269.60	3211.74	-21.46	-6.88	21.64	0.28
13	3306	0.90	280.40	3305.73	-21.33	-8.43	21.55	0.22
14	3399	0.90	288.00	3398.71	-20.97	-9.84	21.23	0.13
15	3492	1.00	294.30	3491.70	-20.41	-11.27	20.71	0.16
16	3585	0.80	306.10	3584.69	-19.70	-12.54	20.03	0.29
17	3679	0.90	304.70	3678.68	-18.89	-13.67	19.26	0.11
18	3772	0.90	305.80	3771.67	-18.05	-14.87	18.45	0.02
19	3864	0.70	4.50	3863.66	-17.06	-15.41	17.48	0.87
20	3957	0.90	17.70	3956.65	-15.80	-15.14	16.21	0.29
21	4051	1.10	89.90	4050.64	-15.10	-14.02	15.48	1.27
22	4144	1.10	92.90	4143.62	-15.14	-12.23	15.47	0.06
23	4237	0.90	101.50	4236.61	-15.33	-10.62	15.62	0.27
24	4331	0.50	93.40	4330.60	-15.50	-9.49	15.76	0.44
25	4424	0.40	88.10	4423.60	-15.51	-8.76	15.75	0.12
26	4517	0.40	75.00	4516.60	-15.42	-8.12	15.64	0.10

Survey Report

MINIMUM CURVATURE CALCULATION

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MWDsolutions

SUR NUM	MD ft	INC °	AZM °	TVD ft	N-S ft	E-W ft	SECT ft	DLS °/100'
27	4610	0.30	77.90	4609.59	-15.28	-7.57	15.49	0.11
28	4704	0.10	64.80	4703.59	-15.20	-7.26	15.39	0.22
29	4797	0.20	57.00	4796.59	-15.07	-7.05	15.26	0.11
30	4890	0.30	71.40	4889.59	-14.91	-6.68	15.09	0.13
31	4983	0.10	62.70	4982.59	-14.79	-6.38	14.96	0.22
32	5076	0.50	15.70	5075.59	-14.37	-6.20	14.53	0.47
33	5170	0.70	55.30	5169.59	-13.64	-5.61	13.79	0.48
34	5263	0.30	163.40	5262.58	-13.55	-5.08	13.69	0.91
35	5356	0.60	153.40	5355.58	-14.22	-4.79	14.35	0.33
36	5450	0.30	175.70	5449.58	-14.91	-4.55	15.03	0.36
37	5543	0.30	200.50	5542.58	-15.38	-4.62	15.50	0.14
38	5636	0.90	213.70	5635.57	-16.22	-5.11	16.35	0.66
39	5729	1.00	212.60	5728.56	-17.51	-5.95	17.66	0.11
40	5822	1.00	210.10	5821.54	-18.89	-6.79	19.07	0.05
41	5916	0.50	243.40	5915.54	-19.79	-7.57	19.99	0.68
42	6009	0.90	247.20	6008.53	-20.25	-8.61	20.48	0.43
43	6102	1.10	252.30	6101.51	-20.80	-10.13	21.08	0.24
44	6196	1.40	320.00	6195.50	-20.20	-11.73	20.52	1.50
45	6289	1.90	345.80	6288.46	-17.83	-12.84	18.18	0.95
46	6382	2.50	6.60	6381.39	-14.32	-12.98	14.68	1.06
47	6475	2.00	6.10	6474.32	-10.70	-12.58	11.04	0.54
48	6568	1.50	351.80	6567.28	-7.88	-12.58	8.22	0.71
49	6662	1.20	345.70	6661.25	-5.71	-13.00	6.06	0.35
50	6755	0.50	38.00	6754.24	-4.44	-12.99	4.80	1.05
51	6848	1.10	201.70	6847.24	-4.95	-13.07	5.31	1.71
52	6941	1.20	213.10	6940.22	-6.60	-13.93	6.98	0.27
53	7035	1.00	232.80	7034.20	-7.92	-15.12	8.33	0.45
54	7128	0.90	233.90	7127.19	-8.84	-16.36	9.29	0.11
55	7221	0.80	255.30	7220.18	-9.43	-17.58	9.92	0.36

Survey Report

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56	7314	0.30	204.00	7313.17	-9.82	-18.30	10.32	0.71
57	7408	0.10	94.60	7407.17	-10.05	-18.32	10.55	0.37
58	7501	0.20	152.50	7500.17	-10.20	-18.17	10.70	0.18
59	7594	0.30	170.20	7593.17	-10.59	-18.05	11.08	0.13
60	7687	0.30	129.50	7686.17	-10.98	-17.82	11.47	0.22
61	7781	0.00	173.80	7780.17	-11.14	-17.63	11.62	0.32
62	7874	0.10	272.90	7873.17	-11.13	-17.71	11.62	0.11
63	7967	0.40	14.80	7966.17	-10.82	-17.71	11.30	0.46
64	8060	0.50	333.40	8059.17	-10.14	-17.81	10.63	0.36
65	8153	0.60	316.50	8152.16	-9.42	-18.33	9.93	0.20
66	8247	0.60	321.40	8246.16	-8.68	-18.97	9.20	0.05
67	8340	0.70	348.30	8339.15	-7.75	-19.39	8.28	0.34
68	8433	0.70	5.20	8432.14	-6.62	-19.45	7.16	0.22
69	8526	0.70	9.60	8525.14	-5.50	-19.31	6.03	0.06
70	8620	0.60	13.60	8619.13	-4.45	-19.10	4.98	0.12
71	8713	0.50	6.10	8712.13	-3.58	-18.94	4.10	0.13
72	8806	0.60	22.80	8805.12	-2.72	-18.71	3.24	0.20
73	8899	0.60	45.80	8898.12	-1.94	-18.17	2.44	0.26
74	8992	0.50	55.30	8991.11	-1.36	-17.49	1.85	0.15
75	9086	0.40	44.40	9085.11	-0.90	-16.92	1.36	0.14
76	9179	0.50	50.50	9178.11	-0.41	-16.38	0.86	0.12
77	9272	1.10	45.40	9271.10	0.48	-15.43	-0.05	0.65
78	9366	1.20	42.40	9365.08	1.84	-14.12	-1.45	0.12
79	9459	0.10	109.40	9458.07	2.53	-13.39	-2.16	1.25
80	9552	0.10	5.50	9551.07	2.58	-13.31	-2.22	0.17
81	9645	0.20	334.90	9644.07	2.81	-13.37	-2.44	0.13
82	9739	0.40	330.20	9738.07	3.25	-13.60	-2.87	0.21
83	9832	0.40	312.40	9831.07	3.75	-14.00	-3.36	0.13
84	9925	0.40	301.40	9924.07	4.13	-14.52	-3.73	0.08

Survey Report

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MWDsolutions

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85	10018	0.40	287.70	10017.06	4.40	-15.10	-3.98	0.10
86	10111	0.80	291.30	10110.06	4.74	-16.02	-4.29	0.43
87	10205	0.80	265.20	10204.05	4.92	-17.28	-4.44	0.38
88	10303	2.30	210.30	10302.02	3.16	-18.96	-2.64	1.99
89	10335	6.80	199.10	10333.91	0.82	-19.90	-0.27	14.27
90	10366	12.00	200.10	10364.48	-3.94	-21.61	4.54	16.78
91	10397	16.20	201.50	10394.54	-11.00	-24.31	11.66	13.59
92	10428	21.20	202.20	10423.89	-20.22	-28.01	20.98	16.14
93	10459	23.50	203.30	10452.56	-31.08	-32.57	31.97	7.54
94	10490	25.70	204.00	10480.75	-42.90	-37.75	43.93	7.16
95	10521	25.80	205.40	10508.67	-55.14	-43.38	56.31	1.99
96	10552	27.50	203.80	10536.38	-67.78	-49.16	69.11	5.95
97	10583	30.20	202.90	10563.53	-81.51	-55.09	83.00	8.82
98	10614	32.00	199.10	10590.07	-96.46	-60.81	98.10	8.59
99	10645	35.00	197.30	10615.92	-112.72	-66.14	114.50	10.19
100	10676	38.20	197.80	10640.80	-130.33	-71.72	132.26	10.37
101	10707	41.40	200.10	10664.62	-149.09	-78.17	151.19	11.36
102	10739	44.10	200.50	10688.12	-169.46	-85.71	171.76	8.48
103	10770	47.50	201.00	10709.72	-190.24	-93.58	192.75	11.03
104	10801	51.50	201.20	10729.85	-212.23	-102.07	214.96	12.91
105	10832	55.80	200.50	10748.22	-235.56	-110.95	238.53	13.99
106	10863	59.70	199.20	10764.76	-260.21	-119.84	263.42	13.07
107	10894	63.50	200.50	10779.50	-285.86	-129.11	289.31	12.80
108	10925	64.70	201.50	10793.05	-311.89	-139.10	315.60	4.84
109	10956	67.40	201.90	10805.63	-338.21	-149.58	342.20	8.79
110	10987	71.50	201.20	10816.51	-365.20	-160.23	369.48	13.39
111	11018	75.10	200.50	10825.41	-392.95	-170.80	397.51	11.81
112	11049	79.30	199.40	10832.28	-421.35	-181.11	426.19	13.98
113	11080	84.00	198.90	10836.78	-450.32	-191.17	455.42	15.24

Survey Report

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MWDsolutions

SUR NUM	MD ft	INC °	AZM °	TVD ft	N-S ft	E-W ft	SECT ft	DLS °/100'
114	11134	89.30	198.00	10839.94	-501.44	-208.22	506.99	9.95
115	11165	89.90	197.80	10840.15	-530.94	-217.75	536.74	2.04
116	11196	90.70	197.50	10839.99	-560.48	-227.15	566.53	2.76
117	11228	91.30	196.10	10839.43	-591.11	-236.39	597.40	4.76
118	11258	91.50	194.70	10838.70	-620.02	-244.36	626.52	4.71
119	11289	91.60	193.30	10837.86	-650.09	-251.86	656.78	4.53
120	11321	91.70	191.10	10836.94	-681.35	-258.61	688.22	6.88
121	11352	92.20	190.40	10835.88	-711.79	-264.39	718.81	2.77
122	11383	92.70	189.40	10834.56	-742.30	-269.72	749.45	3.60
123	11414	92.90	187.80	10833.04	-772.91	-274.35	780.18	5.20
124	11445	92.70	186.60	10831.53	-803.63	-278.23	811.00	3.92
125	11476	91.50	185.00	10830.39	-834.45	-281.36	841.89	6.45
126	11506	90.50	183.80	10829.87	-864.36	-283.66	871.85	5.21
127	11537	89.00	182.20	10830.01	-895.31	-285.28	902.84	7.07
128	11568	89.30	181.00	10830.47	-926.29	-286.15	933.83	3.99
129	11598	89.60	181.00	10830.75	-956.29	-286.67	963.83	1.00
130	11691	89.60	179.20	10831.40	-1049.28	-286.83	1056.79	1.94
131	11783	88.50	178.00	10832.93	-1141.24	-284.59	1148.65	1.77
132	11876	88.00	178.80	10835.77	-1234.16	-281.99	1241.46	1.01
133	11968	89.40	178.80	10837.86	-1326.11	-280.06	1333.33	1.52
134	12061	89.40	178.80	10838.83	-1419.09	-278.12	1426.22	0.00
135	12154	89.60	180.60	10839.64	-1512.08	-277.63	1519.16	1.95
136	12246	90.30	180.40	10839.72	-1604.07	-278.43	1611.14	0.79
137	12339	90.10	179.70	10839.40	-1697.07	-278.51	1704.11	0.78
138	12432	90.80	179.60	10838.67	-1790.07	-277.95	1797.05	0.76
139	12525	91.30	178.80	10836.96	-1883.04	-276.65	1889.95	1.01
140	12618	90.10	179.70	10835.83	-1976.02	-275.43	1982.87	1.61
141	12710	88.40	180.60	10837.03	-2068.01	-275.67	2074.83	2.09
142	12803	88.40	180.30	10839.63	-2160.97	-276.40	2167.77	0.32

Survey Report

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MWDsolutions

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143	12896	89.60	181.10	10841.25	-2253.95	-277.54	2260.74	1.55
144	12990	90.00	180.60	10841.58	-2347.94	-278.93	2354.74	0.68
145	13085	91.50	180.30	10840.33	-2442.92	-279.68	2449.71	1.61
146	13180	90.00	181.10	10839.09	-2537.90	-280.84	2544.68	1.79
147	13275	88.50	180.30	10840.33	-2632.89	-282.00	2639.66	1.79
148	13370	90.70	180.30	10841.00	-2727.88	-282.50	2734.63	2.32
149	13465	87.70	181.30	10842.32	-2822.85	-283.82	2829.60	3.33
150	13560	88.50	181.50	10845.47	-2917.76	-286.14	2924.55	0.87
151	13654	89.00	180.40	10847.52	-3011.73	-287.70	3018.52	1.29
152	13749	89.50	180.80	10848.77	-3106.71	-288.70	3113.49	0.67
153	13844	90.30	180.10	10848.93	-3201.71	-289.44	3208.47	1.12
154	13938	89.70	181.10	10848.93	-3295.70	-290.43	3302.46	1.24
155	14033	88.90	181.80	10850.09	-3390.66	-292.83	3397.45	1.12
156	14128	88.80	181.10	10852.00	-3485.61	-295.23	3492.43	0.74
157	14223	88.80	181.30	10853.99	-3580.57	-297.22	3587.41	0.21
158	14318	90.00	180.60	10854.99	-3675.55	-298.80	3682.39	1.46
159	14413	88.00	180.60	10856.64	-3770.53	-299.79	3777.36	2.11
160	14508	89.40	179.90	10858.80	-3865.50	-300.21	3872.31	1.65
161	14602	87.10	179.70	10861.67	-3959.45	-299.88	3966.21	2.46
162	14697	87.10	180.80	10866.48	-4054.32	-300.29	4061.06	1.16
163	14792	86.90	180.40	10871.45	-4149.19	-301.29	4155.92	0.47
164	14887	89.70	179.70	10874.27	-4244.14	-301.37	4250.83	3.04
165	14981	90.30	179.70	10874.27	-4338.13	-300.88	4344.78	0.64
166	15076	91.10	180.10	10873.10	-4433.13	-300.71	4439.73	0.94
167	15171	90.40	180.40	10871.86	-4528.12	-301.12	4534.70	0.80
168	15265	90.70	180.60	10870.96	-4622.11	-301.94	4628.68	0.38
169	15360	90.80	179.40	10869.72	-4717.10	-301.94	4723.63	1.27
170	15455	92.50	180.40	10866.98	-4812.05	-301.78	4818.55	2.08
171	15550	90.90	179.90	10864.16	-4907.01	-302.03	4913.47	1.76

Survey Report

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172	15645	91.00	178.80	10862.59	-5001.99	-300.95	5008.38	1.16
173	15739	90.30	178.80	10861.52	-5095.96	-298.98	5102.27	0.74
174	15834	90.40	179.00	10860.94	-5190.94	-297.16	5197.16	0.24
175	15929	90.30	178.50	10860.36	-5285.92	-295.08	5292.04	0.54
176	16024	89.40	178.80	10860.61	-5380.89	-292.85	5386.92	1.00
177	16119	90.80	178.50	10860.44	-5475.86	-290.61	5481.79	1.51
178	16213	91.40	179.00	10858.64	-5569.82	-288.56	5575.66	0.83
179	16308	92.20	179.40	10855.65	-5664.76	-287.23	5670.53	0.94
180	16403	91.20	179.20	10852.84	-5759.71	-286.07	5765.41	1.07
181	16498	91.80	179.70	10850.35	-5854.67	-285.16	5860.31	0.82
182	16593	90.10	178.10	10848.77	-5949.64	-283.34	5955.19	2.46
183	16688	90.00	178.80	10848.69	-6044.60	-280.77	6050.05	0.74
184	16783	91.90	178.30	10847.12	-6139.55	-278.36	6144.90	2.07
185	16877	90.60	177.10	10845.07	-6233.45	-274.59	6238.65	1.88
186	16972	91.50	176.40	10843.32	-6328.28	-269.21	6333.30	1.20
187	17067	91.30	176.90	10841.00	-6423.09	-263.66	6427.92	0.57
188	17162	90.90	178.10	10839.18	-6517.98	-259.51	6522.66	1.33
189	17257	91.60	180.10	10837.11	-6612.94	-258.02	6617.54	2.23
190	17281	92.40	177.30	10836.27	-6636.92	-257.48	6641.49	12.13
191	17375	91.20	177.30	10833.32	-6730.77	-253.05	6735.18	1.28
192	17470	90.70	179.60	10831.74	-6825.71	-250.48	6830.02	2.48
193	17565	90.80	181.30	10830.50	-6920.70	-251.23	6924.99	1.79
194	17660	90.10	181.50	10829.75	-7015.66	-253.55	7019.99	0.77
195	17755	90.70	181.70	10829.09	-7110.62	-256.20	7114.99	0.67
196	17849	91.10	180.80	10827.61	-7204.59	-258.25	7208.97	1.05
197	17944	90.10	181.80	10826.62	-7299.56	-260.41	7303.96	1.49
198	18039	90.30	181.50	10826.29	-7394.52	-263.14	7398.96	0.38
199	18134	90.20	181.50	10825.87	-7489.48	-265.63	7493.96	0.11
200	18228	90.20	181.10	10825.54	-7583.46	-267.76	7587.96	0.43

Survey Report

MINIMUM CURVATURE CALCULATION

Operator	Oasis Petroleum
Well Name	Innoko 5301 43-12T
Location	McKenzie County
Start Date	7/4/2013
End Date	7/20/2013
Direction	181.58°

MWDsolutions

SUR NUM	MD ft	INC °	AZM °	TVD ft	N-S ft	E-W ft	SECT ft	DLS °/100'
201	18323	91.30	181.50	10824.30	-7678.42	-269.92	7682.95	1.23
202	18418	92.30	181.10	10821.32	-7773.35	-272.07	7777.90	1.13
203	18513	90.50	181.80	10818.99	-7868.29	-274.48	7872.87	2.03
204	18608	90.10	181.80	10818.50	-7963.24	-277.46	7967.86	0.42
205	18702	90.10	181.80	10818.33	-8057.19	-280.41	8061.86	0.00
206	18797	93.20	183.20	10815.60	-8152.05	-284.55	8156.80	3.58
207	18892	91.70	182.40	10811.54	-8246.85	-289.19	8251.69	1.79
208	18987	91.10	181.70	10809.22	-8341.76	-292.59	8346.65	0.97
209	19082	89.60	181.10	10808.64	-8436.72	-294.91	8441.65	1.70
210	19177	90.60	180.80	10808.47	-8531.71	-296.48	8536.64	1.10
211	19271	91.50	181.70	10806.75	-8625.67	-298.53	8630.62	1.35
212	19366	89.10	178.30	10806.25	-8720.65	-298.53	8725.56	4.38
213	19461	88.60	178.70	10808.16	-8815.59	-296.05	8820.41	0.67
214	19555	89.80	179.40	10809.47	-8909.57	-294.49	8914.30	1.48
215	19650	90.70	179.60	10809.05	-9004.56	-293.66	9009.24	0.97
216	19745	90.70	179.40	10807.89	-9099.55	-292.83	9104.17	0.21
217	19840	91.50	179.40	10806.07	-9194.53	-291.84	9199.08	0.84
218	19935	91.70	179.20	10803.42	-9289.49	-290.68	9293.97	0.30
219	20029	91.60	178.10	10800.71	-9383.42	-288.46	9387.81	1.17
220	20124	91.50	179.00	10798.14	-9478.35	-286.06	9482.64	0.95
221	20219	91.50	178.50	10795.65	-9573.30	-283.99	9577.49	0.53
222	20314	90.20	179.70	10794.24	-9668.27	-282.50	9672.39	1.86
223	20409	90.20	179.40	10793.91	-9763.27	-281.75	9767.32	0.32
224	20503	90.60	179.40	10793.26	-9857.26	-280.76	9861.25	0.43
225	20598	91.30	180.10	10791.68	-9952.25	-280.35	9956.19	1.04
226	20693	91.10	179.60	10789.69	-10047.22	-280.10	10051.13	0.57
227	20788	90.40	179.20	10788.45	-10142.21	-279.11	10146.05	0.85
228	20883	90.60	179.00	10787.62	-10237.19	-277.61	10240.96	0.30
229	20978	89.70	179.00	10787.37	-10332.18	-275.96	10335.86	0.95

Survey Report

MINIMUM CURVATURE CALCULATION

Operator	Oasis Petroleum
Well Name	Innoko 5301 43-12T
Location	McKenzie County
Start Date	7/4/2013
End Date	7/20/2013
Direction	181.58°

MWDsolutions

SUR NUM	MD ft	INC °	AZM °	TVD ft	N-S ft	E-W ft	SECT ft	DLS °/100'
230	21072	88.50	178.30	10788.85	-10426.14	-273.74	10429.72	1.48
PTB	21123	88.50	178.30	10790.18	-10477.10	-272.23	10480.62	0.00
232								
233								
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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.
22221

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



<input checked="" type="checkbox"/> Notice of Intent	Approximate Start Date July 31, 2013	<input type="checkbox"/> Drilling Progress	Spill Report
<input type="checkbox"/> Report of Work Done	Date Work Completed	<input type="checkbox"/> Redrilling or Repair	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	Acidizing
		<input type="checkbox"/> Plug Well	Fracture Treatment
		<input type="checkbox"/> Supplemental History	Change Production Method
		<input type="checkbox"/> Temporarily Abandon	Reclamation
		<input checked="" type="checkbox"/> Other	Waiver from tubing/packer requirement

Well Name and Number Innoko 5301 41-12T				
Footages 250 F S L 2350 F E L	Qtr-Qtr SWSE	Section 12	Township 153 N	Range 101 W
Field WILLOWCREEK → BAKER	Pool THREE FORKS	County MCKENZIE		

24-HOUR PRODUCTION RATE			
Before		After	
Oil	Bbls	Oil	Bbls
Water	Bbls	Water	Bbls
Gas	MCF	Gas	MCF

Name of Contractor(s)			
Address		City	State
			Zip Code

DETAILS OF WORK

Oasis Petroleum North America LLC requests a waiver from the tubing/pkr requirement included in NDAC 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 Oasis Petroleum North America LLC		Telephone Number 281-404-9563
Address 1001 Fannin, Suite 1500		
City Houston		State TX
Signature 		Printed Name Heather McCowan
Title Regulatory Assistant		Date July 31, 2013
Email Address		

FOR STATE USE ONLY	
<input type="checkbox"/> Received	<input checked="" type="checkbox"/> Approved
Date August 2, 2013	
By 	
Title PETROLEUM ENGINEER	



SUNDRY NOTICES AND REPORTS ON WELLS - FORM 4

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

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 October 1, 2013
<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 checked="" type="checkbox"/> Other	Central production facility-commingle prod

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

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

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

FOR STATE USE ONLY

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



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.
22221



PLEASE READ INSTRUCTIONS BEFORE FILLING OUT FORM.

PLEASE SUBMIT THE ORIGINAL AND ONE COPY.

<input checked="" type="checkbox"/> Notice of Intent	Approximate Start Date July 15, 2013	<input type="checkbox"/> Drilling Proposal	<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 checked="" type="checkbox"/> Reclamation
		<input checked="" type="checkbox"/> Other	Intent to reclaim reserve pit

Well Name and Number

Innoko 5301 41-12T

Footages	250 F S L	2350 F E L	Qtr-Qtr SWSE	Section 12	Township 153 N	Range 101 W
Field	Willow Creek	Pool Bakken	County McKenzie			

24-HOUR PRODUCTION RATE

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

Name of Contractor(s)

Neu Construction

Address 204 S. Ellery Avenue P.O. Box 461	City Fairview	State MT	Zip Code 59221
--	------------------	-------------	--------------------------

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, Rick Dunn and the surface owners, were notified on 07/11/2013.

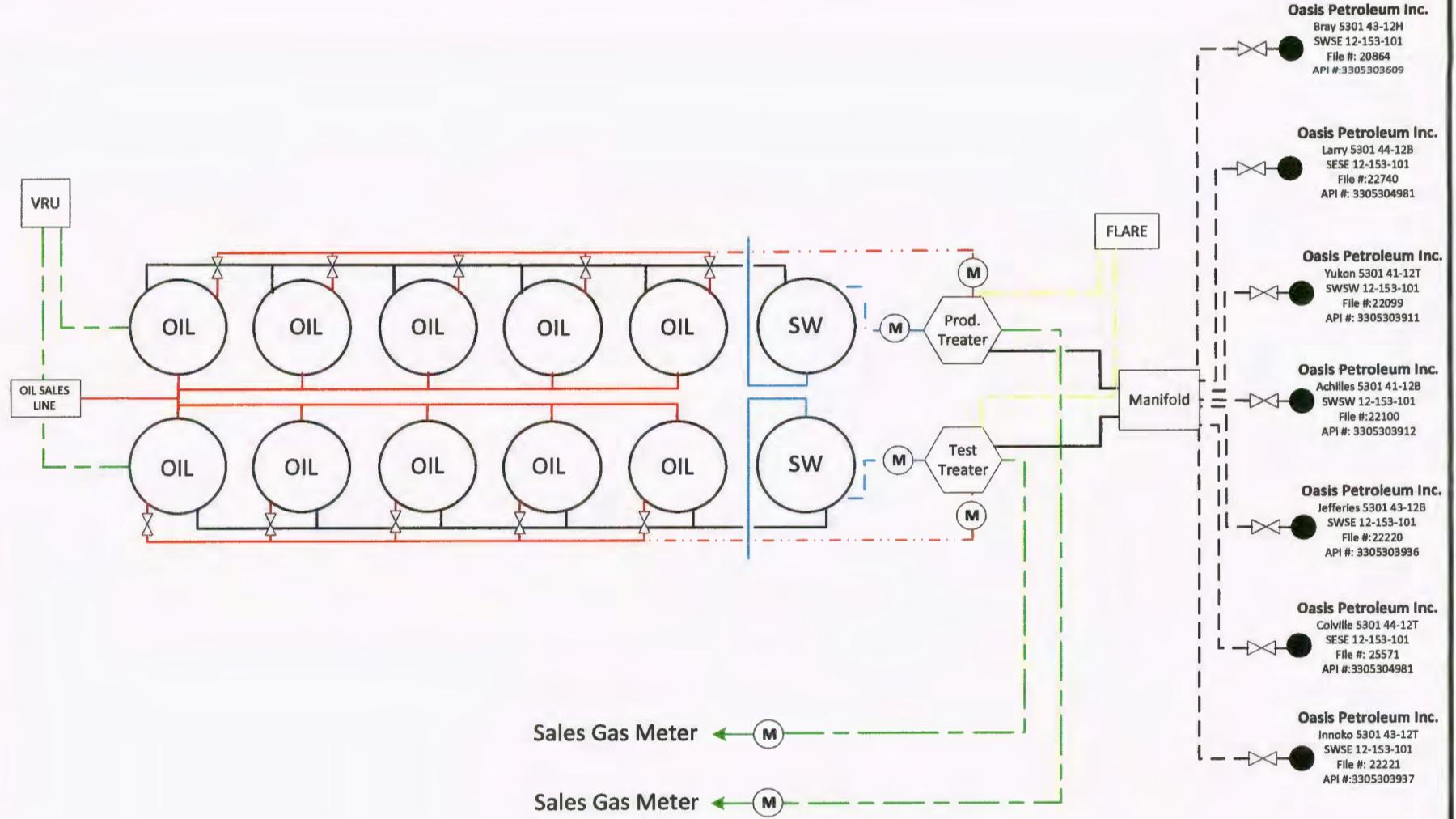
Surface owners: Larry Heen 14075 41st. Street NW Alexander, ND 58831

Spread material out in pit, cut top edge of liner and fold cuttings, cover entire pit with liner, backfill with clay slope and contour wellsite to ensure proper drainage.

Company Oasis Petroleum North America LLC	Telephone Number 281-404-9591	
Address 1001 Fannin, Suite 1500		
City Houston	State TX	Zip Code 77002
Signature <i>Chelsea Covington</i>	Printed Name Chelsea Covington	
Title Regulatory Assistant	Date July 11, 2013	
Email Address Ccovington@oasispetroleum.com		

FOR STATE USE ONLY

<input type="checkbox"/> Received	<input checked="" type="checkbox"/> Approved
Date <i>7-15-13</i>	
By <i>Rick Dunn</i>	
Title <i>Regulatory Assistant</i>	



OASIS PETROLEUM					
5301 13-24 ACHILLES CENTRAL TANK BATTERY					
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, 5th 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 9th 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 9th 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

"5301 13-24 CTB"

CALCULATED FROM
WITNESS CORNER

AZ 90°34'49"

2691.29'

CALCULATED
FROM WITNESS
CORNER

573.48

CALCULATED
FROM WITNESS
CORNER
FOUND
STONE

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.



AZ 0°00'47" 30 495| 44'

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.

12

YUKON
5301 41-12T
ACHILLIES
5301 41-12E

5301 13-24 CTB

VICINITY MAP

- MONUMENT - RECOVERED

 - MONUMENT - NOT RECOVERED

STAKED ON 3/08/12
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.

© 2012, INTERSTATE ENGINEERING, INC.

DARYL D. KASEMAN 'LS-3880

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

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

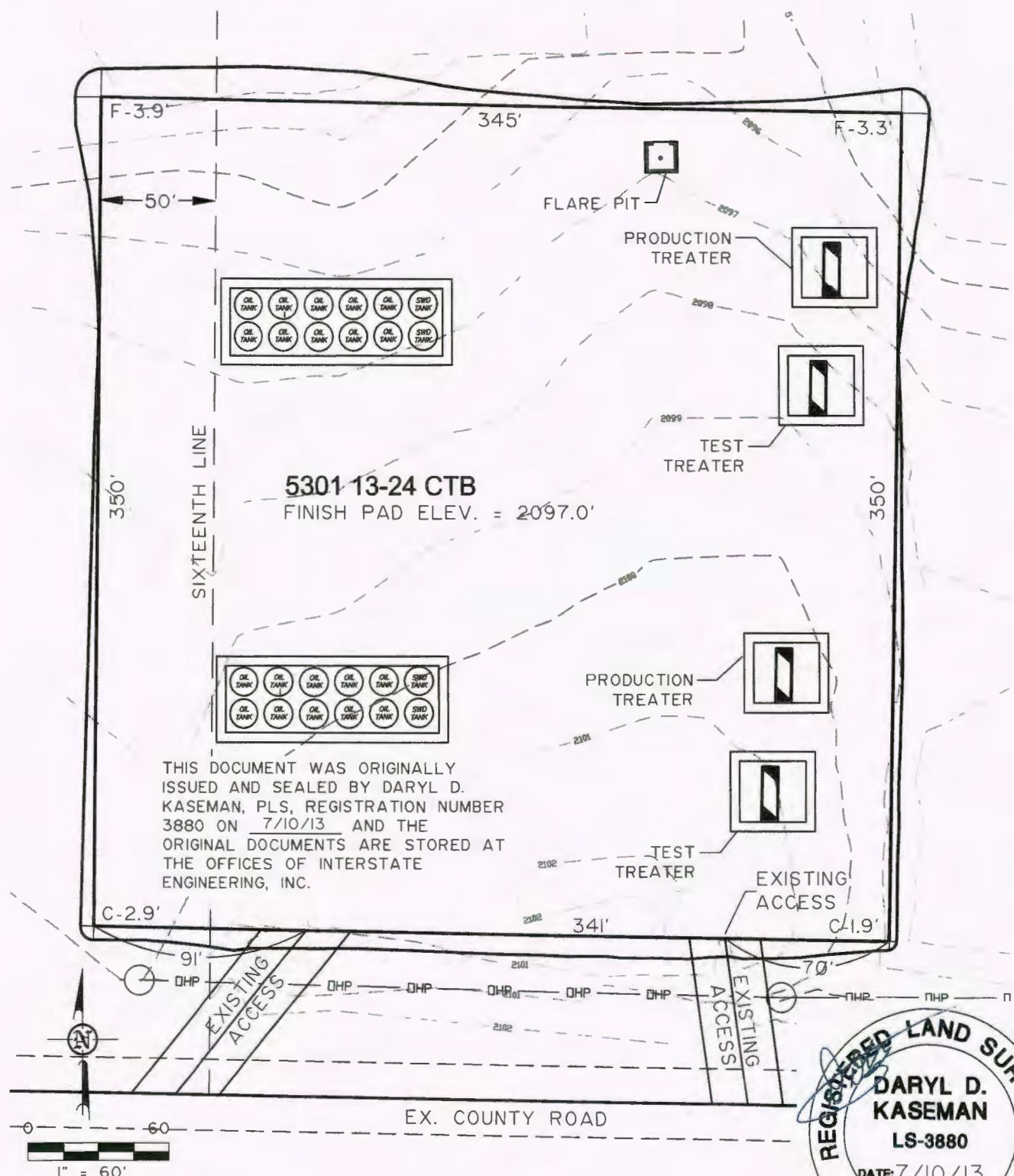
1 / 5



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
offices in Minnesota, North Dakota and South

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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2/5



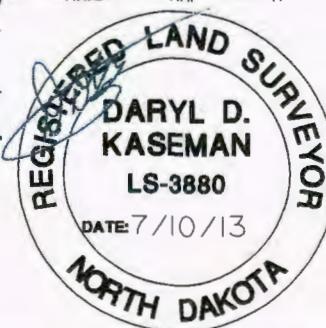
SHEET NO.

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
Other offices in Minnesota, North Dakota and South Dakota

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

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

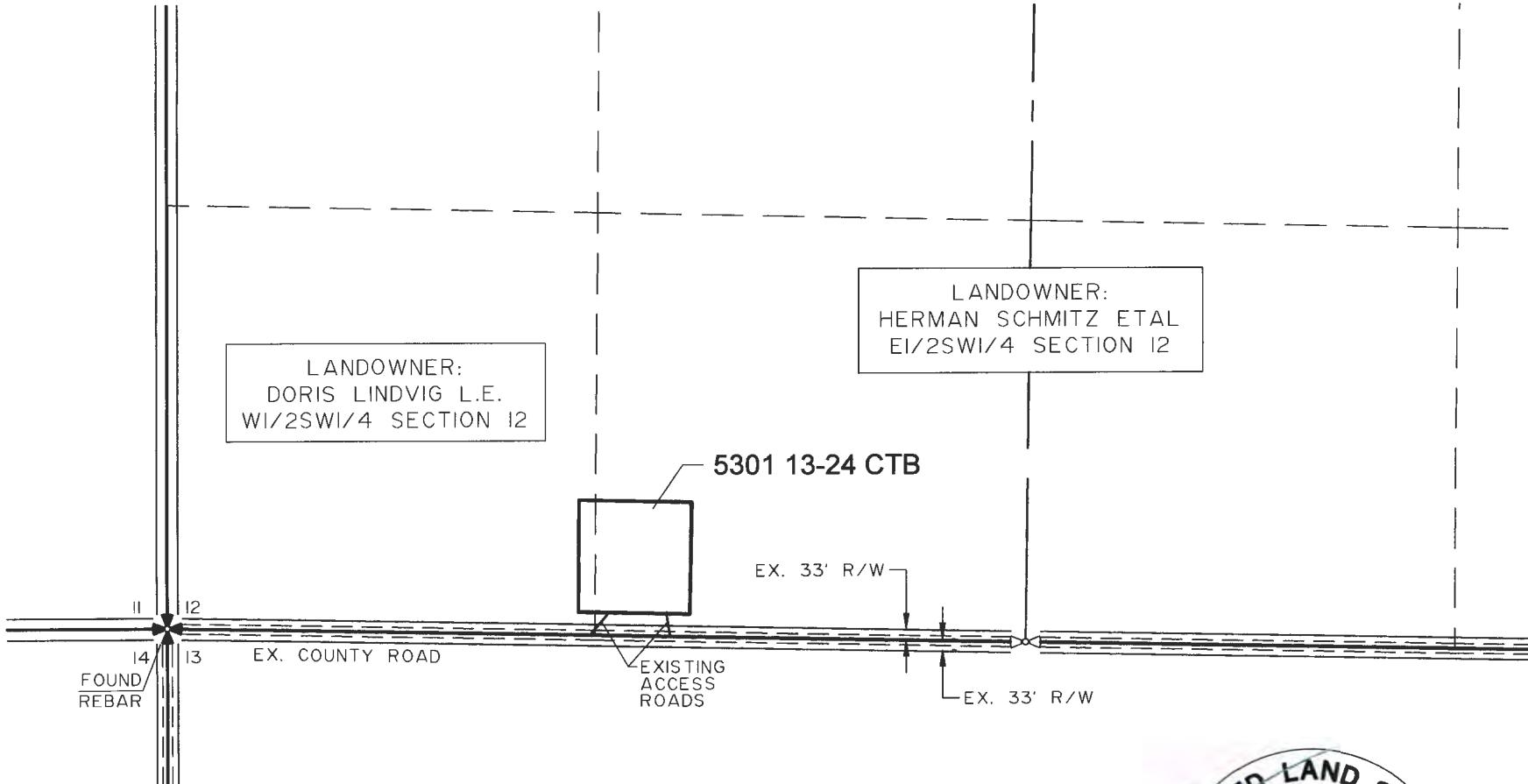
Revision No.	Date	By	Description
REV 1	7/10/13	JDM	ADDED WELLS



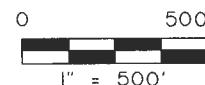
ACCESS APPROACH

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

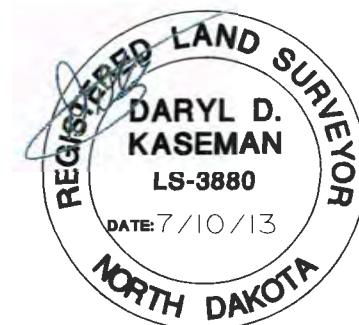
SECTION 12, T153N, R101W, 5TH P.M., MCKENZIE COUNTY, NORTH DAKOTA



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.

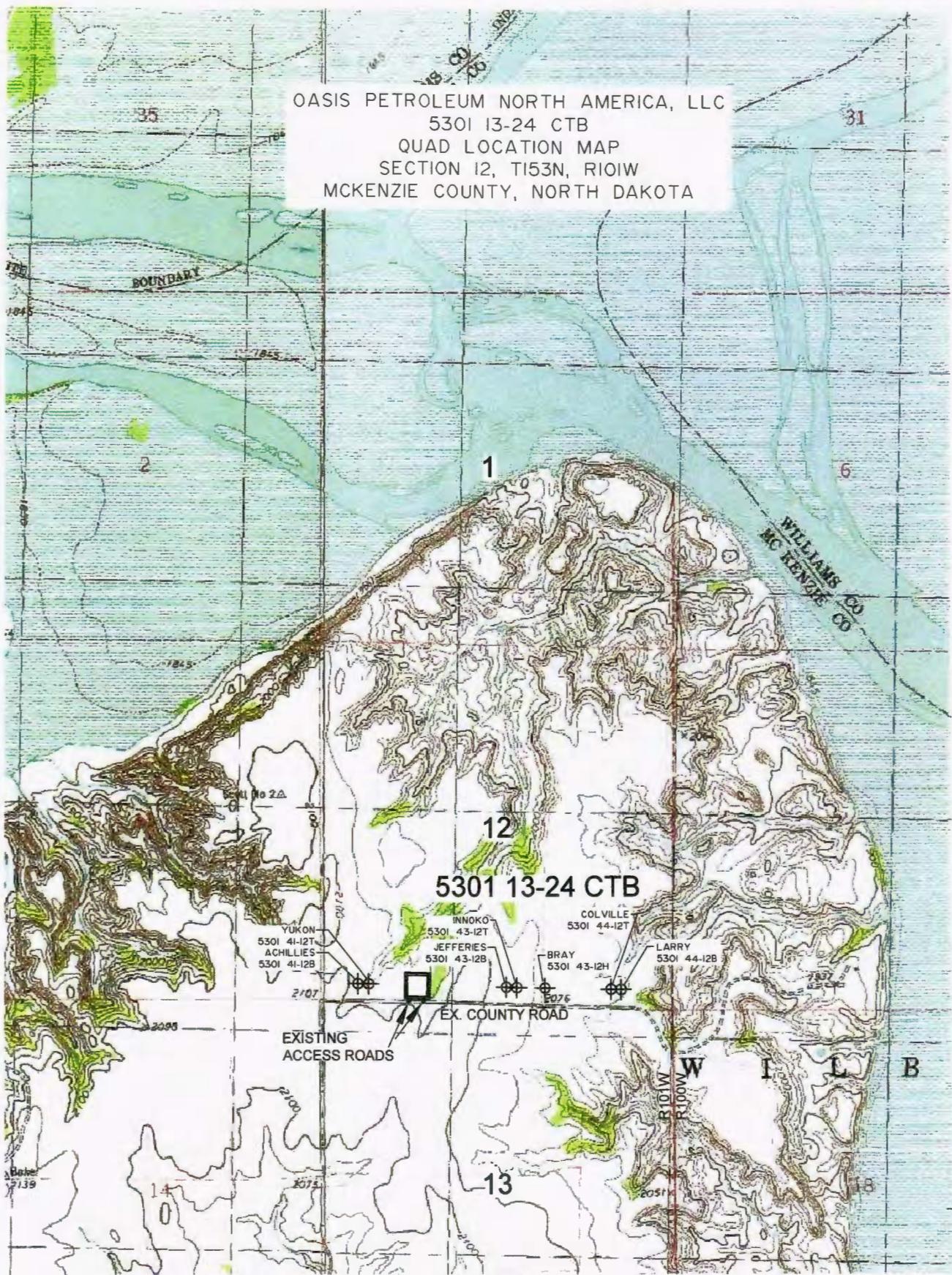


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3/5

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

OASIS PETROLEUM NORTH AMERICA, LLC
ACCESS APPROACH
SECTION 12, T153N, R101W
MCKENZIE COUNTY, NORTH DAKOTA
Drawn By: J.D.M.
Checked By: D.D.K.
Project No.: ST2309-249
Date: SEPT. 2012



4/5

SHEET NO.



Professionals you need, people you trust.

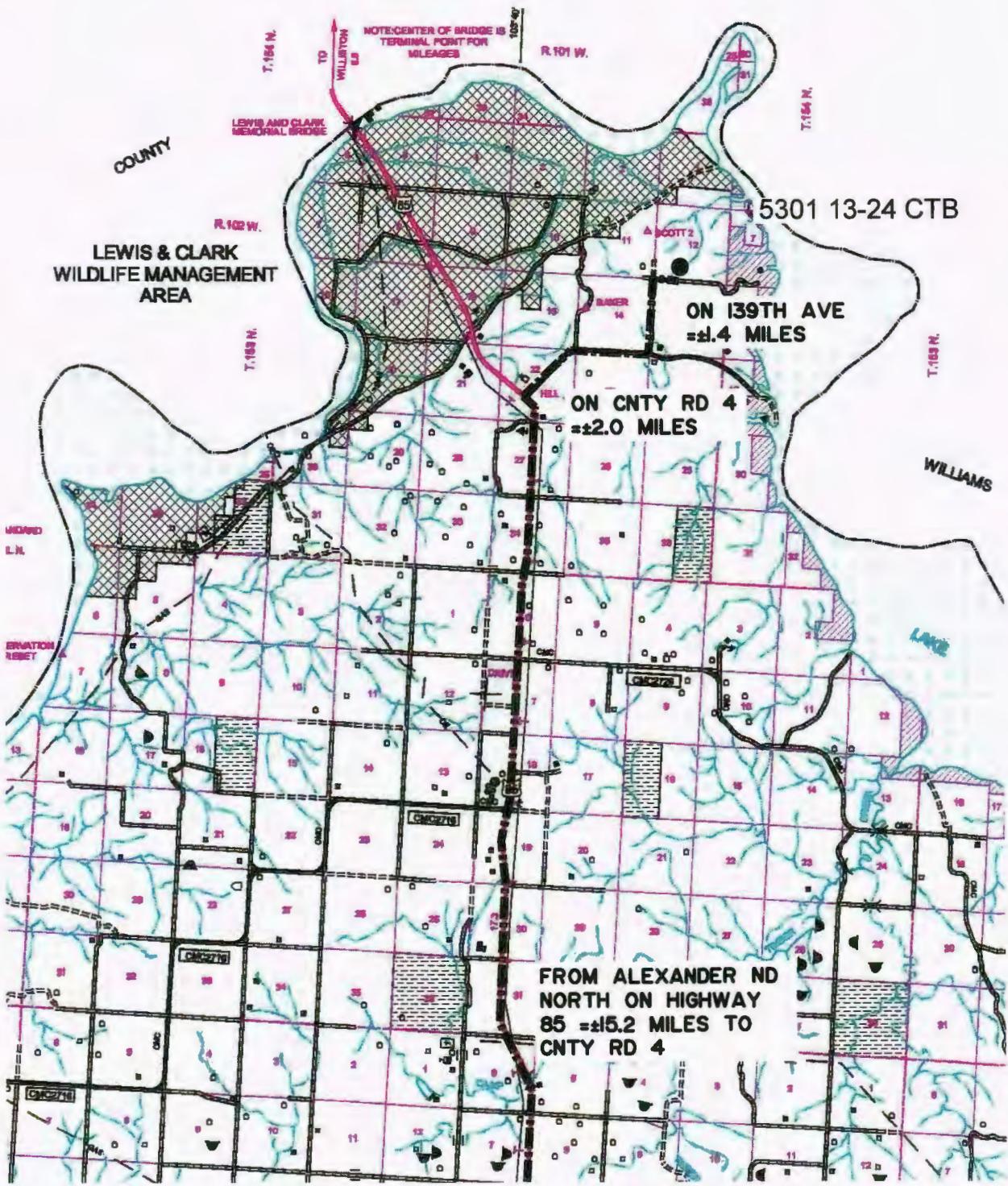
Interstate Engineering, Inc.
P.O. Box 648
425 East Main Street
Sidney, Montana 59270
Ph (406) 433-5617
Fax (406) 433-5618
www.iengi.com
Other offices in Minnesota, North Dakota and South Dakota

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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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

INTERSTATE ENGINEERING, INC.
P.O. Box 648
425 East Main Street
OASIS PETROLEUM NORTH AMERICA, LLC
COUNTY ROAD MAP
SECTION 12, T45R21M, R42W1M

421 East Main Street
Sidney, Montana 59270
Ph (406) 433-5617

SECTION 12, T15N, R10W
MCKENZIE COUNTY, NORTH DAKOTA

Fax (406) 433-5618
www.ingeni.com
Other offices in Minnesota, North Dakota and South Dakota

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

Revision No.	Date	By	Description
REV I	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

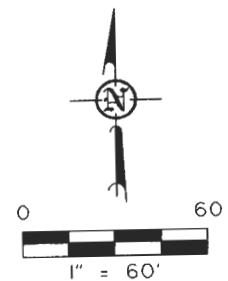
350'

350'

48°04'56.56"N
103°37'13.89"W

48°04'56.50"N
103°37'08.87"W

341'



Oasis Petroleum North America, LLC

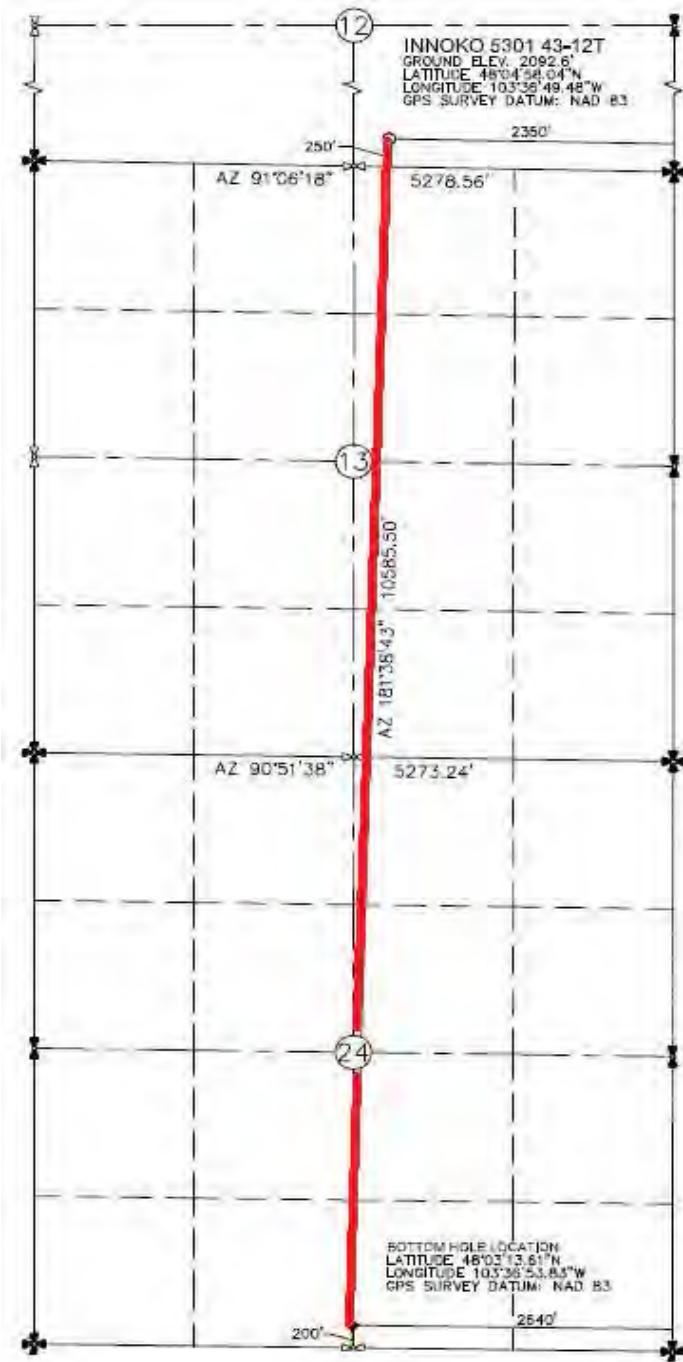
Innoko 5301 43-12T

250' FSL & 2,410' FWL

SW SE Section 12, T153N-R101W

Baker Field / Three Forks

McKenzie County, North Dakota



BOTTOM HOLE LOCATION:

10,476.07' south & 274.56' west of surface location or approx.

310.71' FSL & 2,596.09' FWL, SE SW Section 24, T153N-R101W

Prepared for:

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

Prepared by:

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WELL EVALUATION

Innoko 5301 43-12T



Figure 1: Nabors B25 drilling the Oasis Petroleum North America Innoko 5301-43-12T during July 2013, south of Williston in Williams County, North Dakota.
(Photos by Hannah Thatcher, wellsite geologist)

INTRODUCTION

The Oasis Petroleum North American, LLC. Innoko 5301 43-12T [SW SE Section 12, T153N, R101W] is located approximately 20 miles south of Williston, North Dakota. The well was spud on July 2, 2013 with Nabors drilling rig B25, and represents Oasis Petroleum's continuing development of the Three Forks Formation within Baker Field (**Figure 1**). The well was planned to drill an approximately 9,288' long lateral, along a proposed azimuth of 181.25°. The wellbore will be enhanced for production by multi-stage fracture stimulation.

OFFSET CONTROL INFORMATION

Three wells were used to develop a well-rounded prognosis of offset tops prior to drilling the Innoko 5301 43-12T. The Gulf Oil-Lindvig 1-11-3C [NW NE Sec. 11, T152N, R101W] is located approximately 0.71 miles northwest, the Oasis-Petroleum Bray 5301 43-12H is located 0.90 miles east [SW SE Sec. 12, T153N, R101W], and the most recent offset control well, the Oasis-Yukon 5301 41-12T [SW SW Sec. 12, T153N, R101W], is located approximately 0.4 miles southeast of the subject well (Figure 2).

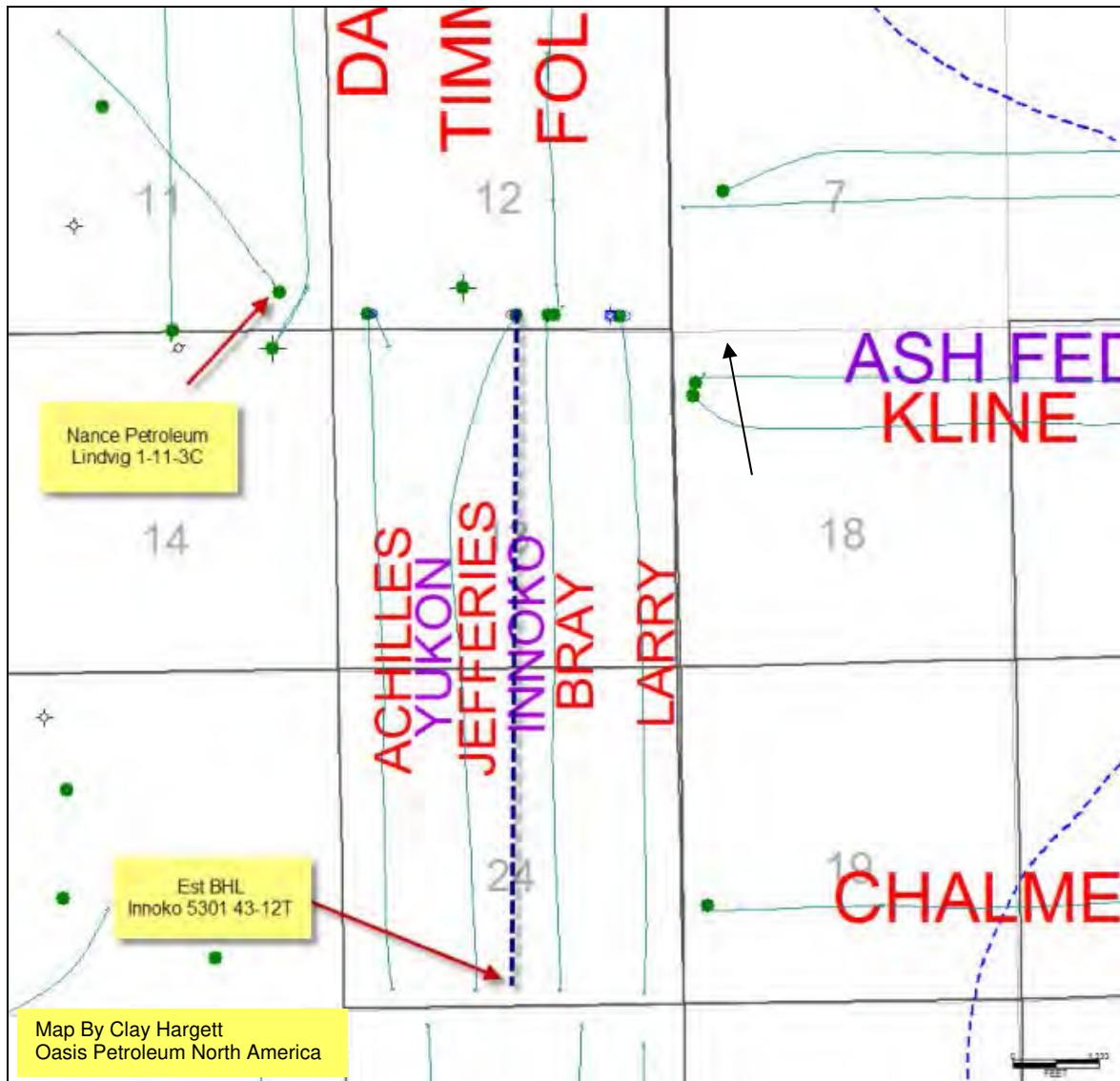


Figure 2: Offsetting control wells in relation to the Innoko 5301 43-12T well.

Kick-off point for the curve was established from the isopach of the “base last salt” marker to the Three Forks “target” in the offset wells. The Lindvig 1-11-3C was used as the primary offset through the vertical and curve sections. The curve was successfully landed within the Three Forks Formation at 10,839' TVD.

ENGINEERING

Vertical & Curve Operations:

On July 2, 2013 the Innoko 5301 43-12T was spud by Nabors drilling rig B25. A 13½" hole was drilled with freshwater to 2,111' where the well-bore was isolated with 9 5/8" casing and cemented to surface. From this depth, an 8 ¾" Smith MDSI616 bit was used to drill out of casing, using diesel invert drilling fluid. Invert fluid was used throughout the remaining vertical and curve sections, maintaining a mud weight of 9.6-10.3 (ppg) for stable-hole conditions. The vertical hole was drilled to a kick-off point (KOP) of 10,300' MD where the curve-build was initiated.

While drilling the curve, gamma-ray signatures were compared to those of the three offsets. Target projections from the False Bakken marker provided a reliable landing target (**Figure 3**). On the night of July 11, 2013 the curve was landed at a depth of 11,121' MD (10,839' TVD), placing the well-bore approximately 16' below the top of the target zone. Directional tools were then pulled out of the hole and a string of 7" casing was set (11,121' MD) and then cemented by Schlumberger after which true lateral operations commenced.

LANDING PROJECTION				
Formation/ Zone:	Proposed Top of Target From:			
	Lindvig 1-11-3C	Yukon 5301 41-12T	Bray 5301 43-12H	Average of Offset Wells
Kibbey Lime	10,827'	10,828'	10,832'	10,829'
Charles	10,825'	10,831'	10,838'	10,831'
UB	10,823'	-	10,836'	10,830'
Base Last Salt	10,816'	10,817'	10,825'	10,819'
Ratcliffe	10,822'	-	10,845'	10,834'
Mission Canyon	10,827'	10,819'	10,839'	10,828'
Lodgepole	10,819'	10,814'	10,831'	10,821'
Lodgepole A	-	-	-	-
Lodgepole B	10,819'	-	-	10,819'
Lodgepole C	10,824'	10,644'	10,830'	10,766'
Lodgepole D	10,815'	10,692'	10,828'	10,778'
Lodgepole E	10,815'	-	10,829'	10,822'
Lodgepole F	10,813'	10,778'	-	10,796'
False Bakken	10,815'	10,824'	10,823'	10,821'
Upper Bakken Shale	10,816'	10,821'	10,821'	10,819'
Middle Bakken	10,821'	10,822'	10,821'	10,821'
Lower Bakken	10,823'	10,822'	10,823'	10,823'

Figure 3: Table constructed to calculate distance from markers to target landing depth.

Lateral Operations:

Leam provided equipment and personnel for MWD and directional drilling services. The directional drillers and Sunburst geologists worked closely together throughout the project to make steering decisions to maximize the amount of borehole exposure to pay zone for the lateral section. At 11,121' MD, a 6" bit, 1.50° mud motor and MWD tools comprised the first lateral bottom-hole assembly (BHA). At 17,310' MD the BHA was replaced due to problems during sliding. The BHA was replaced and drilled efficiently to a total depth of 21,122' MD, at a final closure distance of 10,479.67' with a closure direction of 181.5°. The bottom-hole location is: 10,476.07' south and 274.56 west of surface location or 310.71' FSL & 2,596.09' FWL, SE SW Section 24, T153N, R101W (**Figure 4**).

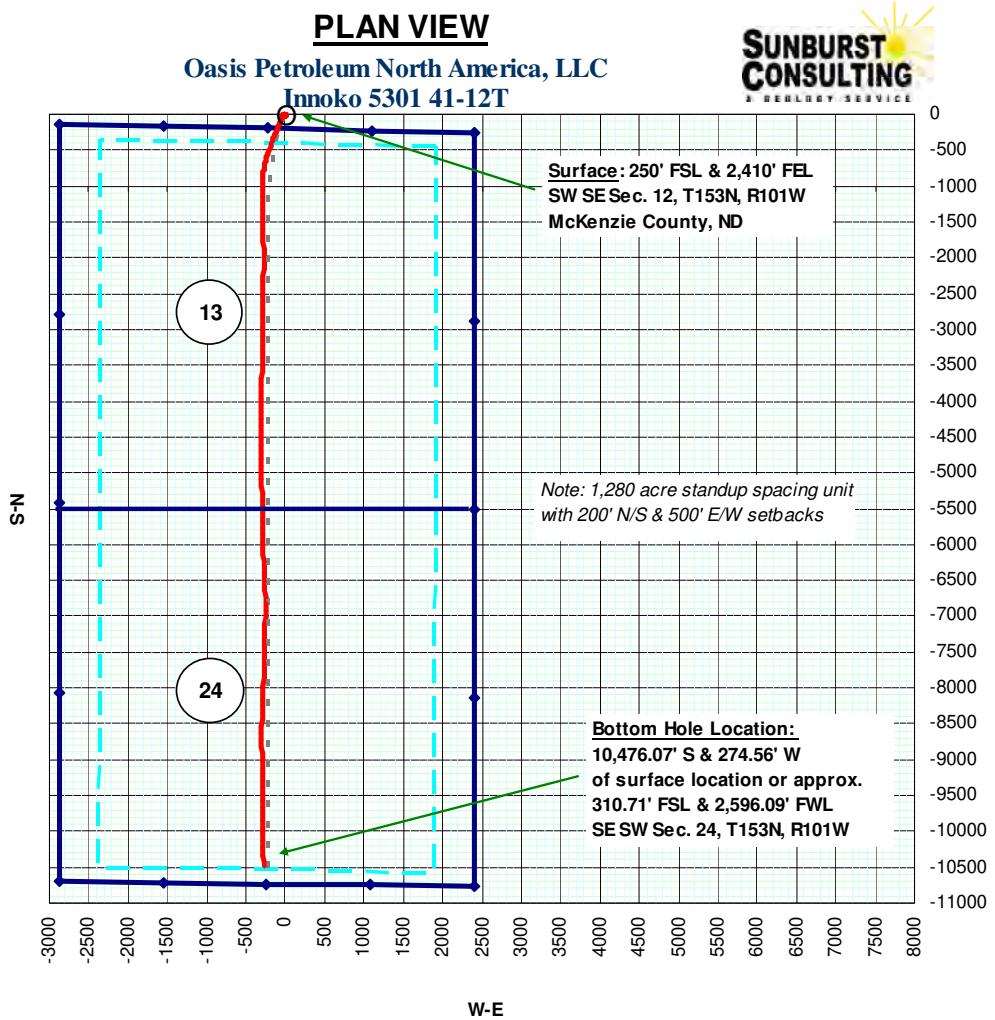


Figure 4. Plan view of the Innoko 5301 43-12T well's spacing unit and well path as drilled.

GEOLOGIC EVALUATION

Methods:

Geologic supervision for the Innoko 5301 43-12T was provided by Sunburst Consulting, Inc. with two well-site geologists. A digital gas detector and chromatograph were interfaced with a Pason electronic data recorder system (EDR). The EDR provided drill rate, on-off bottom and pump strokes to the gas detection computer and received total gas information from Sunburst for viewing around location. Lagged samples were caught by the rig crew in 30' intervals from 8,300' MD to 10,850' MD, 10' intervals from 10,850' MD to 11,080' MD, and 30' intervals from 11,080' MD to 21,122'. Wet and dry cuttings were examined under a binocular microscope. Complete lithologic descriptions & sampling intervals are provided in the lithology document within this evaluation. Two sets of dry cuttings were collected during the duration of the well. One set was sent to Oasis Petroleum North American, LLC, and the other to the State of North Dakota. Evidence of light hydrocarbons present in the drilling fluid was reported by the gas chromatography equipment and documented on the mud log presented with this report.

Generalized Stratigraphy and Zones of Interest:

The **Kibbey Formation** (Mississippian; Big Snowy Group) is a regressive sequence that consists of a dark orange to red-brown siltstone with trace amounts of off white to light gray anhydrite. Upper parts of the formation can contain porosity which can sometimes be as high as 20 percent. The **Kibbey “Lime”** marker was encountered at 8,390' (-6,272'), and consists of a gray to gray-brown argillaceous lime mudstone with no visible porosity.

The **Charles Formation** (Mississippian; Madison Group) represents a highly variable depositional environment, characterized by numerous and abrupt changes from restricted hypersaline to open shallow water carbonate deposition. The Charles is an evaporite dominated sequence characterized by interbedded halite, anhydrite, and intermittent beds of light to medium gray slightly argillaceous limestone. Salts are represented by drastic increases in the rate of penetration (ROP), anhydrite is characterized by sudden decrease in ROP. The **1st Charles Salt** was penetrated at 8,535' TVD (-6,417'). Other salt beds were encountered intermittently for the next 690 feet. The **Base of the Last Salt (BLS)** marker bed was drilled at 9,226' TVD (-7,207'). Below the BLS the Charles is characterized as a light gray argillaceous limestone and dolo-mudstone, and represents the return to shallow water, carbonate depositional environment which persisted for the next 50 feet. The **Ratcliffe** interval was logged at 9,278' TVD (-7,160') and is described as a light gray dolomite with interbedded anhydrite layers, followed by interbedded dolomitic and argillaceous limestone. The lack of porosity and absence of hydrocarbons indicates this interval has little prospect for future development.

The **Mission Canyon Formation** (Mississippian; Madison Group) was drilled at 9,458' TVD (-7,340') and is comprised largely of light gray lime mudstone, followed by gray to tan earthy textured argillaceous lime mudstone. Shows within the Mission Canyon ranged from 50 to 152 units against a 10.1 (ppg) mud weight.

The top of the **Lodgepole Formation** was logged at 10,012' TVD (-7,894'). In general, the Lodgepole can be described as a medium to dark gray-brown, argillaceous lime mudstone with crystalline texture and trace amounts of disseminated pyrite (**Figure 5**). The **False Bakken** (Carrington Shale), drilled at 10,718' TVD (-8,600'), is comprised of very dark brown to black, slightly pyritic & calcareous shale (**Figure 6**). Strong hydrocarbon shows in the lower 100' of the Lodgepole were as high as 80 total gas units, and suggests that some of the oil and gas from the Bakken Formation may be exploiting fractures within the lower Lodgepole.



Figure 5 & 6: Wet cutting of the Lodgepole Formation (left) and False Bakken sub-interval (right) at 10X.

The **Bakken Formation** (Devonian – Mississippian) has four formal members, an upper and lower black, fissile, organic-rich pyritic shale, separated by a clastic middle and lower member. The **Upper Bakken Shale** was drilled at 10,727' TVD (-8,609') with sample returns typically described as black, carbonaceous, petroliferous shale with trace amounts of disseminated pyrite (**Figure 7**). The **Middle Bakken**, penetrated at 10,743' TVD (-8,625'), consists of a varying thickness and sequence of interbedded siltstone, limestone and silty sandstone. Common *spotty light brown oil staining* was present along with gas shows as high as 611 units. Penetrated at 10,786' TVD (-8,668'), the **Lower Bakken Shale** was described as a black to dark brown carbonaceous shale with trace amounts of disseminated pyrite (**Figure 8**). Gas shows encountered in the lower shale member read as high as 591 units (C1-C4). The **Pronghorn** was penetrated at 10,798' TVD (-8,680') and is commonly described as a dark to medium gray, calcite cemented siltstone.



Figure 7 & 8: Wet cuttings of the Upper Bakken Shale (left), Lower Bakken Shale (right) at 10X.

The **Three Forks Formation** (Devonian; Kaskaskia Sequence), which represents a regressive sequence deposited in a supratidal sabkha environment, was drilled at 10,811' TVD (-8,693') and is comprised of a light to medium gray, cream to off white sucrosic dolomite with trace to occasional amounts of disseminated pyrite (**Figure 10**). The dolomite is also silty and sandy in parts, and contains possible intercrystalline porosity with *spotty light brown oil staining*. Another component of the Three Forks is a light gray-brown to gray-green claystone overlain by an orange to pink and green dolomite. Shows within the Three Forks Formation ranged from 93 to 911 units in a drilling mud weighing 9.7 (ppg).



Figure 10: Wet cuttings of the Three Forks dolomite at 10X.

Geo-steering:

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

The Oasis Petroleum North America, LLC prospect geologist defined the target as a 15' zone that began 12' below the top of the Three Forks and ended four feet above the claystone marker, 29' below the top of the Three Forks. The target zone consisted of an upper dolomite interval reading 75-50 (API) gamma counts (A marker). The center of the target interval was comprised of an argillaceous dolomite reading 65-30 (API) gamma counts (B marker). Underlying the argillaceous dolomite, in the center of the zone, was another dolomite layer with gamma readings of 90-70 (API) counts (C marker). The A-C gamma markers were used for determining depth within the target interval (**Figure 11**).

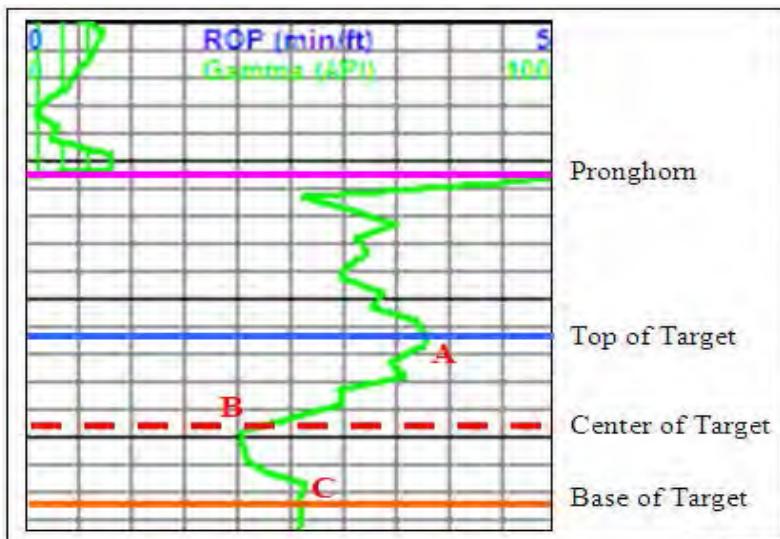


Figure 11: Offset gamma ray profile of the upper Three Forks (0-100 api. scale)

Horizontal drilling began 24' below the Three Forks top. Just out of casing the well-bore drilled just above the claystone, below the base of target ("C" marker). At 11,196' MD the bore was successfully turned up, and made its way back in to the target zone at 11,352' MD. The well bore continued to rise up to the center of the target, near the "B" marker. The well bore stayed directly above the center of the target for the next 400' where it began to fall down toward the base of target ("C" marker). Once again the well bore was turned back up to the center of target where it stayed for the next 700'. At 13,180' MD the well rose toward the top of target ("A" marker), where it drilled until 14,602' MD. Downward oriented slides soon, accompanied with a dip reversal, led to drilling out the bottom of the zone ("C" marker) at 14,700' MD. The well re-entered the target zone, at 15,485' MD, and began to rise up toward the center of the zone ("B" marker) where it drilled for the next 2,870'. The well then drilled towards the base of target ("C" marker) at 16,115' MD, and after 400' re-entered the target ("B" marker) and stayed until total depth was called at 21,122' MD.

Using the aforementioned information gathered during drilling, offset log information and the structural data provided from Oasis Petroleum North America, LLC, well-site geologists were able to anticipate, and interpret the local apparent dip during the drilling of the Innoko 5301 43-12T well. A total depth of 21,122' MD was reached on July 20, 2013 at 23:30 CT. The target resultant was 100% within the Three Forks Formation. The resulting structure of the Three Forks Formation was a rise in TVD of 47.10' over 10,020', resulting in an overall up-dip of 0.27° as portrayed on the Innoko 5301 43-12T profile (**Figure 12**).

Hydrocarbons:

Gas monitoring and fluid gains were monitored to evaluate the viability of this reservoir during the Innoko 5301 43-12T well. In the invert mud system, hydrostatic conditions were maintained near balance. This allowed for gas and fluid gains from the well to be monitored. The unit of measure for gas on this well was units (u), which was defined as 100 units equaling 1% methane equivalent in air.

Background gas observed during the lateral ranged from 20 to 600 units. Invert drilling fluid was used throughout the drilling of the vertical and curve weighed 9.6-10.3 (ppg) and saline drilling fluid was used during the lateral with a mud weight of 9.2-9.7 (ppg). Gas shows ranged up to 911 units, and connection gases were observed up to 2,059 units. Gas components (C1-C4) were observed throughout the course of the lateral. Trip gases were observed as high as 1,150 units (**Figure 12**).

Oil shows were very light throughout the lateral ranging from 0-3% in sample. It was observed as *a light brown spotty oil stain* that yielded a slow to moderate streaming to diffuse light green cut fluorescence.

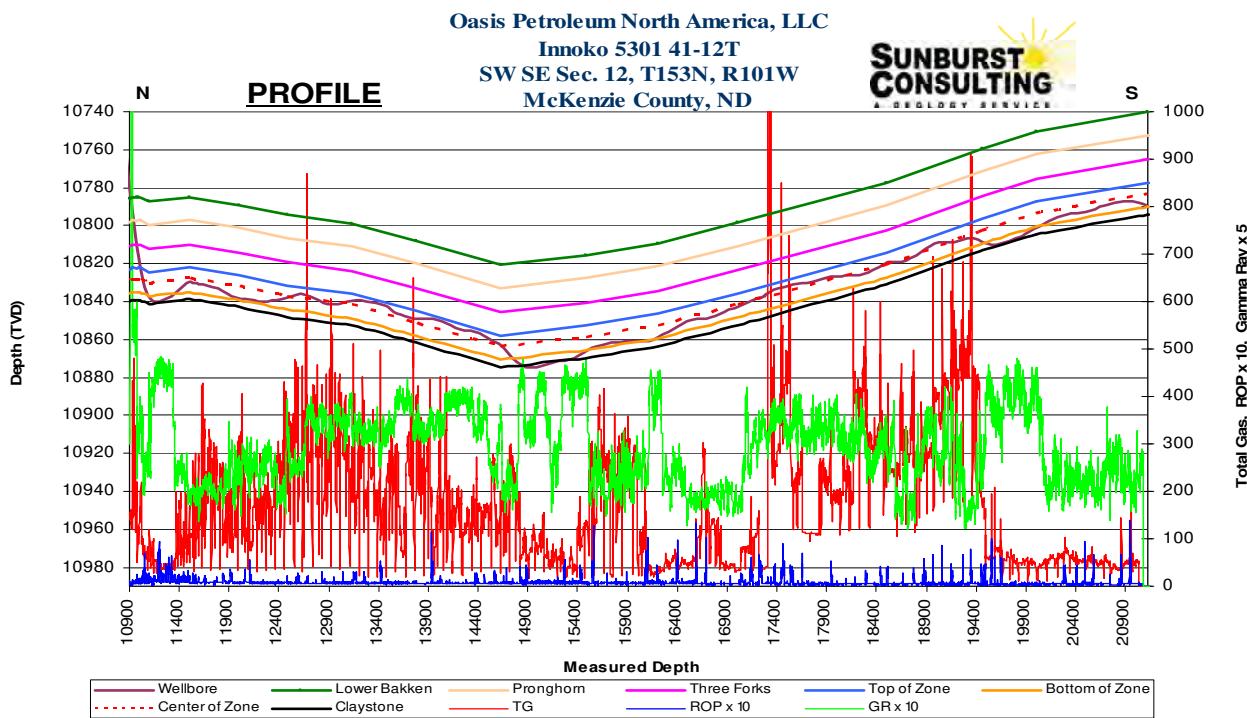


Figure 12: Well profile representing estimated dip value & gamma ray for the Innoko 5301 43-12T lateral.

SUMMARY

The Nabors B25 drilling rig successfully drilled a two-section, horizontal well-bore within the Three Forks Formation at the Innoko 5301 43-12T. A net of 10,125' was drilled within the Three Forks. A mud program consisting of diesel invert (9.6–10.3 ppg) was used during the vertical and curve build sections, and a saline based mud (9.2-9.7 ppg) was used during the lateral which maintained stable-hole conditions and permitted adequate analysis of gas concentrations.

Projections of dip were successfully used to maintain the well-bore in the Three Forks Formation for 100% of the lateral. Samples from the target consisted of light to medium gray, cream to off white, sucrosic dolomite. Intercrystalline porosity was generally seen throughout the target zone during the entire lateral. Samples from the ideal zone contained a *spotty light brown oil stain*. Hydrocarbon shows in the target zone were moderate throughout the lateral and stronger within the targeted interval.

The Innoko 5301 43-12T will be fitted with a 4 ½" production liner and swell packers in preparation for a fracture stimulation that will determine the true commercial value of the well. The well currently awaits fracture stimulation.

Respectfully submitted,

Hannah Thatcher
C/o Sunburst Consulting, Inc.
July 21, 2013

WELL DATA SUMMARY

<u>OPERATOR:</u>	Oasis Petroleum North America, LLC
<u>ADDRESS:</u>	1001 Fannin, Suite 1500 Houston, TX 77002
<u>WELL NAME:</u>	Innoko 5301 43-12T
<u>API #:</u>	33-053-03937-00-00
<u>WELL FILE #:</u>	22221
<u>SURFACE LOCATION:</u>	250' FSL & 2,410' FEL SW SE Section 12, T153N-R101W
<u>FIELD/ PROSPECT:</u>	Baker Field / Three Forks
<u>COUNTY, STATE</u>	McKenzie County, North Dakota
<u>BASIN:</u>	Williston
<u>WELL TYPE:</u>	Three Forks Horizontal
<u>ELEVATION:</u>	GL: 2,093' KB: 2,118'
<u>SPUD/ RE-ENTRY DATE:</u>	July 2, 2013
<u>BOTTOM HOLE LOCATION:</u>	10,476.07' south & 274.56' west of surface location or approx. 310.71' FSL & 2,596.09' FWL, SE SW Section 24, T153N-R101W
<u>CLOSURE COORDINATES:</u>	Closure Azimuth: 181.50° Closure Distance: 10,479.67'
<u>TOTAL DEPTH / DATE:</u>	21,122' on July 20, 2013 100% within Three Forks
<u>TOTAL DRILLING DAYS:</u>	19 days
<u>CONTRACTOR:</u>	Nabors B25

<u>PUMPS:</u>	H &H Triplex (stroke length - 12")
<u>TOOLPUSHERS:</u>	Casey Pippenger, Bruce Walter
<u>FIELD SUPERVISORS:</u>	Bruce Jorgenson, Bob Brown
<u>CHEMICAL COMPANY:</u>	Fluid Control
<u>MUD ENGINEER:</u>	Keith McCarty, Warren Carlson
<u>MUD TYPE:</u>	Fresh water in surface hole Diesel invert in curve; Salt water in lateral
<u>MUD LOSSES:</u>	Invert Mud: 506 bbls., Salt Water: 148 bbls.
<u>PROSPECT GEOLOGIST:</u>	Clay Hargett
<u>WELLSITE GEOLOGISTS:</u>	Hannah Thatcher, Daniel Haynes
<u>GEOSTEERING SYSTEM:</u>	Sunburst Digital Wellsite Geological System
<u>ROCK SAMPLING:</u>	30' from 8,300' - 10,850' 10' from 10,850' -11,080' 30' from 11,080' - 21,122' (TD)
<u>SAMPLE EXAMINATION:</u>	Trinocular microscope
<u>SAMPLE CUTS:</u>	Trichloroethylene
<u>GAS DETECTION:</u>	MSI (Mudlogging Systems, Inc.) TGC - total gas with chromatograph Serial Number(s): ML-440
<u>DIRECTIONAL DRILLERS:</u>	LEAM Drilling Systems / Oasis Clint Carnes, Bob Brown, Bruce Jorgenson, Mark Lawler
<u>MWD:</u>	LEAM Drilling Systems Tim Dufor, Eliot Fogel
<u>CASING:</u>	Surface: 9 5/8" 36# J-55 set to 2,111' Intermediate: 7" 32# HCL-80 set to 11,121'

KEY OFFSET WELLS:

Gulf Oil

Lindvig 1-11-3C

NW NW Sec. 11, T152N, R101W

McKenzie Co., ND

Oasis Petroleum North America, LLC

Yukon 5301 41-12T

SWSW Sec. 12, T153N, R101W

McKenzie Co., ND

Oasis Petroleum North America, LLC

Bray 5301 43-12H

SW SE Sec. 12, T153N, R101W

McKenzie Co., ND

WELL LOCATION PLAT
OASIS PETROLEUM NORTH AMERICA, LLC
1001 FANNIN, SUITE 1500, HOUSTON, TX 77002
"INNOKO 5301 43-127"
250 FEET FROM SOUTH LINE AND 2350 FEET FROM EAST LINE
SECTION 12, T153N, R101W, 5TH P.M., MCKENZIE COUNTY, NORTH DAKOTA

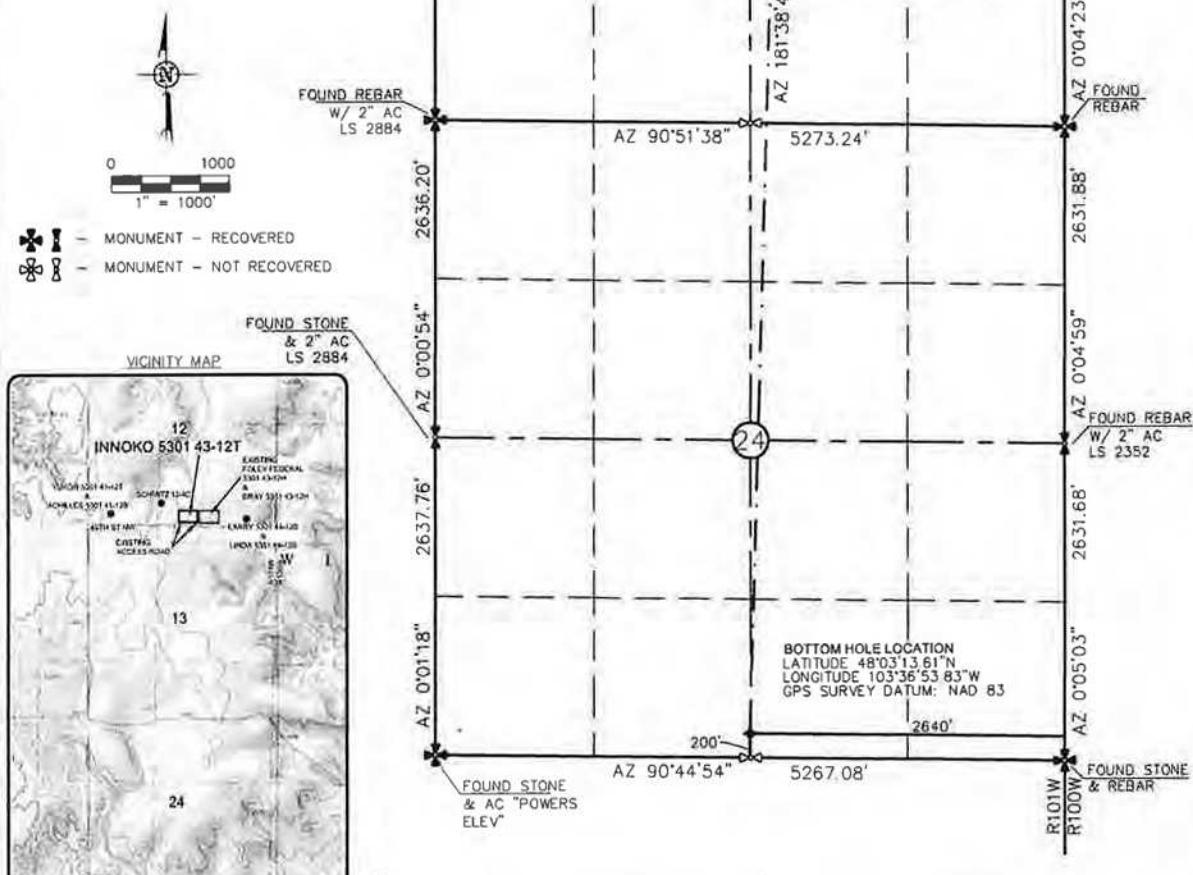
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DARYL D. KASEMAN, LS-3880



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SECTION BREAKDOWN
OASIS PETROLEUM NORTH AMERICA, LLC
1001 FANNIN, SUITE 1500, HOUSTON, TX 77002
"INNOKO 5301 43-12T"

250 FEET FROM SOUTH LINE AND 2350 FEET FROM EAST LINE
SECTIONS 12, 13 & 24, T153N, R101W, 5TH P.M., MCKENZIE COUNTY, NORTH DAKOTA



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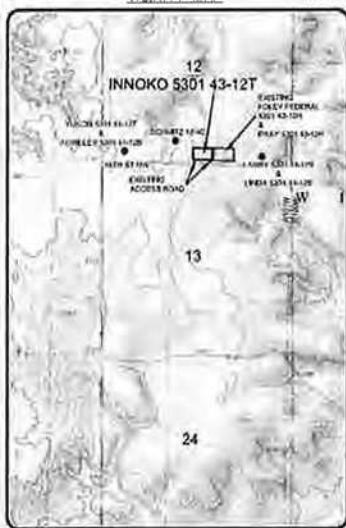
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- ✖ MONUMENT - NOT RECOVERED

FOUND STONE

& 2" AC

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Offices in Montana, North Dakota and South Dakota

OASIS PETROLEUM NORTH AMERICA, LLC
SECTION BREAKDOWN
SECTIONS 12, 13 & 24, T153N, R101W
MCKENZIE COUNTY, NORTH DAKOTA
Drawn By: J.S.
Checked By: D.H.
Project No.: 531-09261
Date: DEC 2011

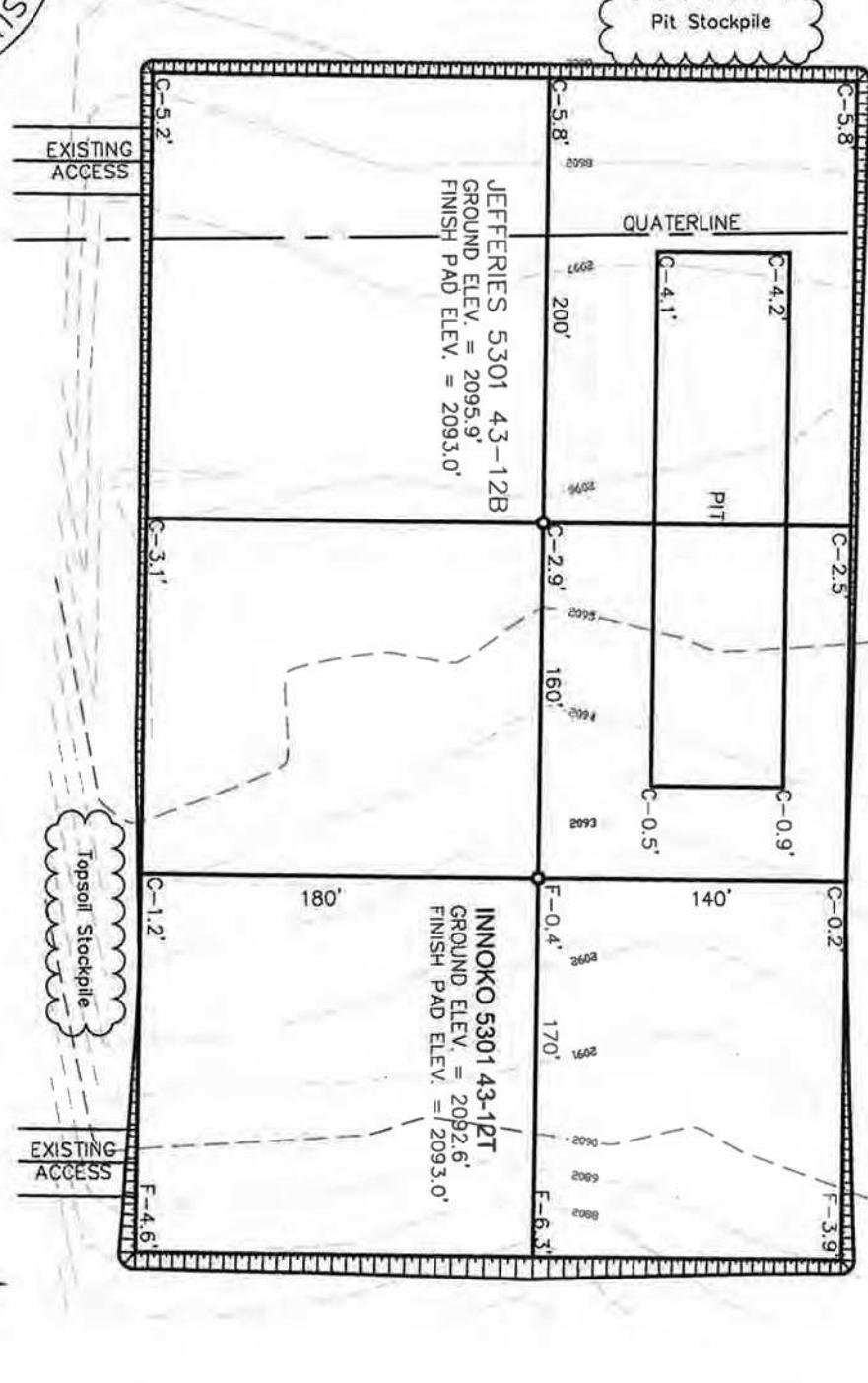
Polyline No.	Date	By	Description
REV 1	1/7/11	JWS	BURIED WELL LOCATIONS
REV 2	2/9/11	JWS	WORKS BOTTOM HOLE / CHANGED NAME
REV 4	8/20/11	JWS	MOVED WELL 86'



PAD LAYOUT

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

INCHING JOURNAL
250 FEET FROM SOUTH LINE AND 2350 FEET FROM EAST LINE
SECTION 12, T153N, R01W, 5TH P.M., MCKENZIE COUNTY, NORTH DAKOTA



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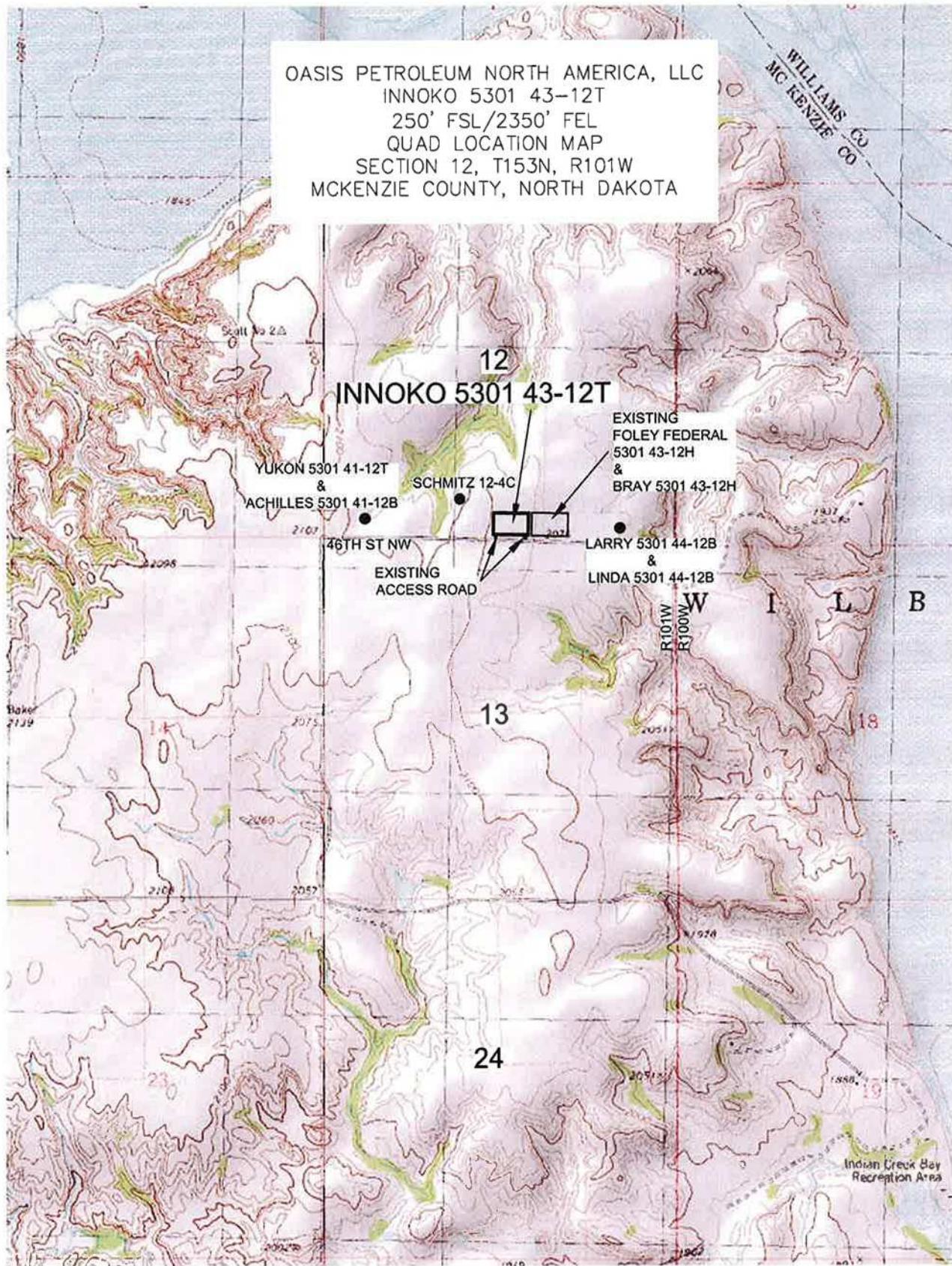
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Sidney, Montana 59270
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OASIS PETROLEUM NORTH AMERICA, LLC
PAD LAYOUT
SECTION 12, T153N, R101W
MCKENZIE COUNTY, NORTH DAKOTA

Revision No.	Date	By	Description
REV 1	1/19/13	JWS	SWAPPED WELL LOCATIONS
REV 2	2/9/13	BHJ	MMOVED BOTTOM HOLE / CHANGED NAME
REV 4	8/06/13	JWS	MMOVED WELL BOF



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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.J.S. Project No.: S11-09-361
Checked By: D.D.K. Date: DEC 2011

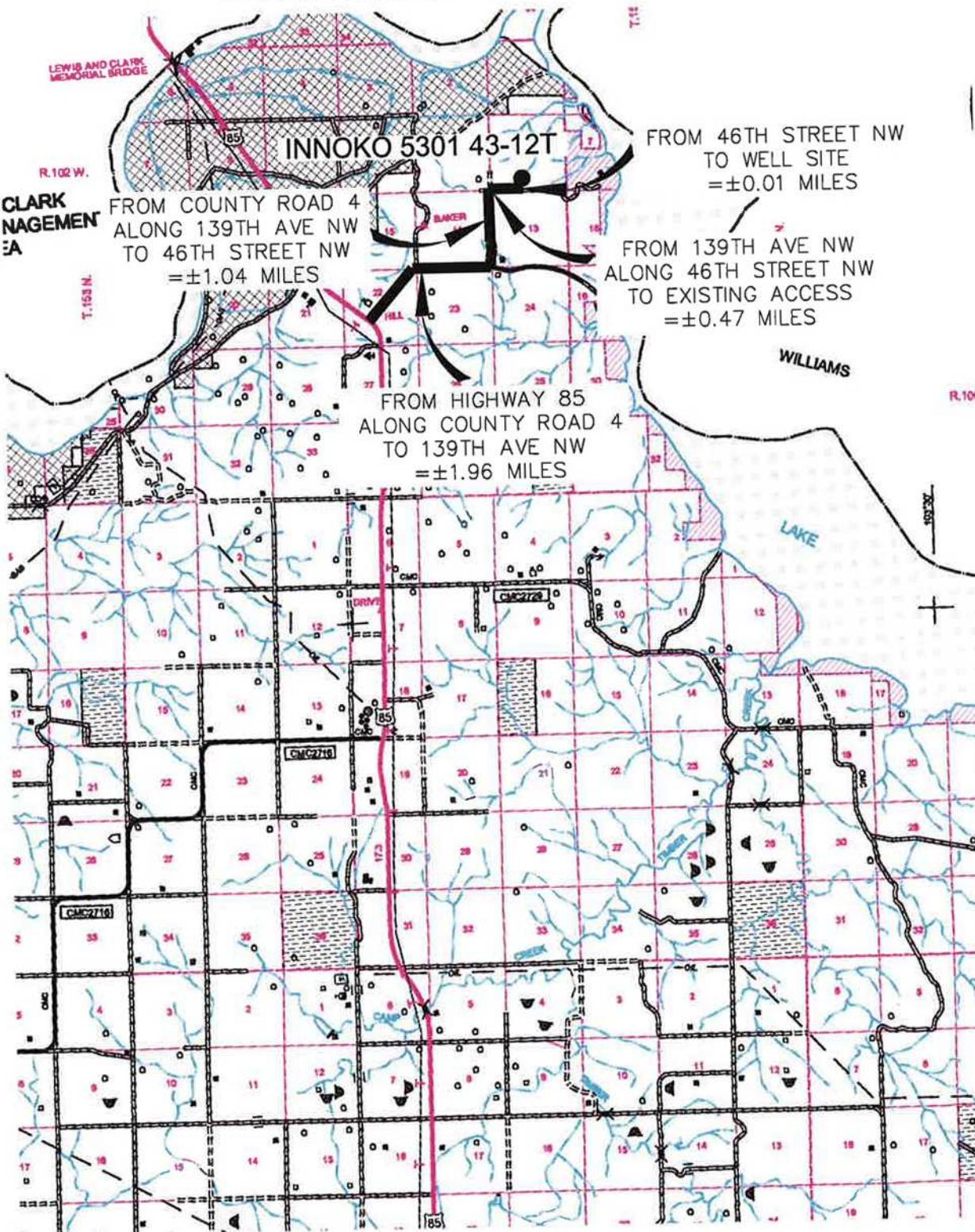
Revision No.	Date	By	Description
REV 1	1/19/12	JJS	SNAPPED WELL LOCATIONS
REV 2	2/27/12	BHH	Moved bottom hole / changed name
REV 3	3/05/12	JJS	Moved well info

COUNTY ROAD MAP

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

"INNOKO 5301 43-12T"

INNOKO 550143-121
250 FEET FROM SOUTH LINE AND 2350 FEET FROM EAST LINE
SECTION 12, T153N, R101W, 5TH P.M., MCKENZIE COUNTY, NORTH DAKOTA



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OASIS PETROLEUM NORTH AMERICA, LLC

COUNTY ROAD MAP
SECTION 13, T153N, R101W

**SECTION 12, T11S3N, R10W
MCKENZIE COUNTY, NORTH DAKOTA**

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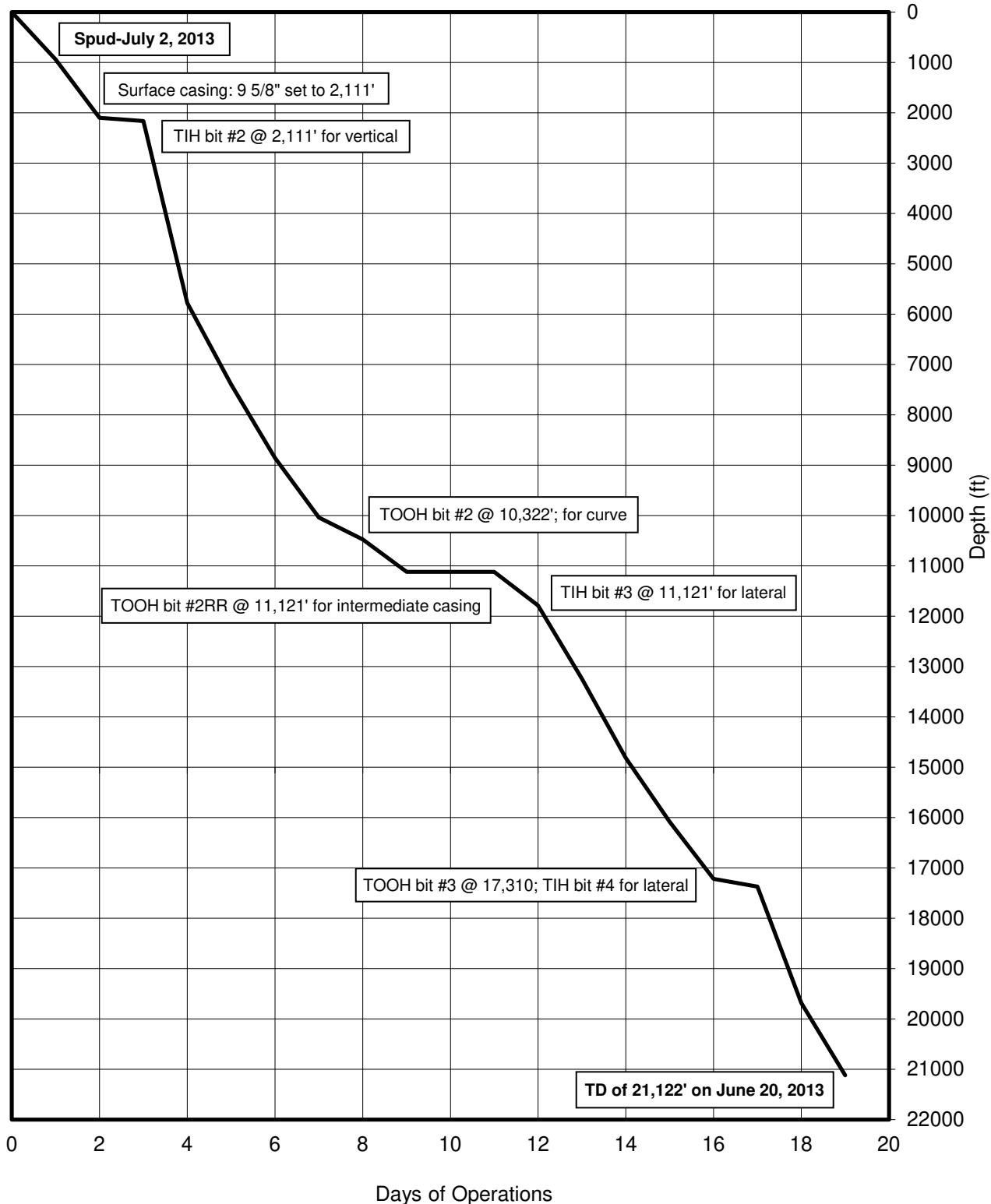
McKENZIE COUNTY, NORTH DAKOTA

Revision No.	Date	By	Description
REV 1	1/19/13	AJS	SWAPPED WELL LOCATIONS
REV 2	2/25/13	BHH	Moved bottom hole / changed name
REV 4	8/05/13	AJS	Moved well 60'

TIME VS DEPTH

Oasis Petroleum North America, LLC

Innoko 5301 43-12T



DAILY DRILLING SUMMARY

Day	Date 2013	Depth (0600 Hrs)	24 Hr Footage	Bit #	WOB (Klbs) RT	WOB (Klbs) MM	RPM (RT) (MM)	PP	SPM 1	SPM 2	GPM	24 Hr Activity		Formation
0	7/1	-	-	-	-	-	-	-	-	-	-	Rig up.		-
1	7/2	940'	-	2	15	-	170	-	900	100	100	551	P/U drill pipe, change rotating head/rubber, formation integrity test (FIT) 150 PSI, drill F/0 to 940'	Surface
2	7/3	2,100'	1,160	2	30	-	170	-	1700	100	100	551	Drill F/155-2100', TOOH, wait on tools, TIH	Surface
3	7/4	2,165'	65	2	30	-	170	-	1600	100	100	551	D/2100 to 2165, circulate and condition, TOOH, L/D BHA, run casing, cementing, nipple up BOP	Surface
4	7/5	5,780'	3,615	2	17	-	45	-	3800	80	80	537	Drill F/2165 to 5780	Dakota
5	7/6	7,395'	1,615	2	17	-	45	-	3600	80	80	537	Drill F/5780 to 7395	Opecne Salt
6	7/7	8,856'	1,461	2	25	-	45	-	3700	80	80	537	Drill F/7395 to 8856	Charles
7	7/8	10,038'	1,182	2	36	8	45	135	4021	80	80	537	Drill F/8856 to 10300	Mission Canyon
8	7/9	10,477'	439	2	35	28	45	135	3980	78	78	530	Drill 8,935'-10,300', TOOH, Pick up BHA, TIH, Drill 10,300'-10,477'	Lodgepole
9	7/10	11,121'	644	2	35	28	45	135	3980	78	78	530	Drill 10,300'-11,121', short trip, circulate and condition, L/D DP	Three Forks
10	7/11	11,121'	0	2	35	28	45	135	3980	78	78	530	Run casing, circulate and condition, primary cementing	Three Forks
11	7/12	11,121'	0	2	35	28	45	135	3980	78	78	530	P/U drill pipe, service rig, TIH, reaming/washing F/10618 to 10807	Three Forks
12	7/13	11,790'	669	3	18	47	40	135	2292	-	80	275	pressure test, pick up BHA, TIH, Drill 11,121'-11,790'	Three Forks
13	7/14	13,245'	1,455	3	27	47	40	135	2616	80	-	275	Rotary Drilling F/11,861'-13,245'	Three Forks
14	7/15	14,820'	1,575	3	27	60	40	135	3120	80	-	275	Rotary Drilling F/12,945'-14,820'	Three Forks
15	7/16	16,085'	1,265	3	27	60	40	135	3120	80	-	275	Rotary Drilling F/14,875'-16,085'	Three Forks
16	7/17	17,220'	1,135	3	27	60	40	135	3120	80	-	275	Rotary Drilling F/16,067'-17,220'	Three Forks
17	7/18	17,371'	151	4	27	60	45	276	3750	80	-	275	TIH, circulate and condition, TIH, drill F/16067 to 17371	Three Forks
18	7/19	19,685'	2,314	4	20	41	40	135	3560	-	80	275	Drill 18,861'-19,685'	Three Forks
19	7/20	21,122'	1,437	4	20	55	40	135	3600	80	-	275	Drill F/19579 to 21122, circulate and condition, TOOH	Three Forks

DAILY MUD SUMMARY

Day	Date 20-3	Mud Depth	Mud WT (ppg)	Vis (sec/ qt)	PV (cP)	YP (lbs/ 100 ft ²)	Gels (lbs/ 100 ft ²)	NAP/ H ₂ O (ratio)	NAP/ H ₂ O (%) by vol)	Cake (API/ HTHP)	Cor. Solids (%)	Oil/ H ₂ O (%)	Alk	pH	Excess Lime (lb/bbl)	Cl ⁻ (mg/L)	LGS/ HGS (%)	Salinity (ppm)	ES	Gain/ Loss (bbls)	
0	07/02	2,078'	9.7	73	13	4	8/13/-	30/17	82.7/17.3	-	2	11.5	71.5/15	1.2	-	1.6	42k	8.2/3.3	264,320	810	-/-
1	07/03	2,598'	9.6	63	21	9	9/15-	51/30	74/26	-	3	9.4	65.5/23	1	-	1.3	34k	7.3/2.2	264,320	432	-/-
2	07/04	2,598'	9.6	63	21	9	9/15-	51/30	74/26	-	3	9.4	65.5/23	1	-	1.3	34k	7.3/2.2	264,320	432	-/13
3	07/05	6,038'	9.72	51	19	8	8/13/-	46/27	77/23	-	3	11	67/20	1.6	-	2.1	33k	5.6/5.4	213,787	477	-/89
4	07/06	7,578'	9.65	48	17	7	7/12/-	41/24	81.5/18.5	-	3	11.5	70.5/16	1.8	-	2.3	33k	5.6/5.9	264,320	655	-/108
5	07/07	9,028'	9.88	47	19	8	9/14/-	46/27	81.8/18.2	-	3	12.9	69.5/15.5	1.5	-	1.9	34k	7.9/5.0	264,320	0	-/69
6	07/08	10,192'	10.1	45	21	11	12/18/-	53/32	81/19	-	3	13.9	68/16	1.2	-	1.6	34k	8.7/5.2	264,320	596	-/69
7	07/09	10,609'	10.28	20	22	12	12/19/-	56/34	80.1/19.9	-	3	14.9	66.5/16.5	1	-	1.3	34k	9/5.9	259,369	599	-/84
8	07/10	11,121'	10.6	62	20	11	11/18/-	51/31	80.5/19.5	-	3	15.9	66/16	1.7	-	2.2	35k	10.5/5.4	259,026	634	-/74
9	07/11																				
10	07/12	11,121'	9.7	26	1	1	-	3/2	-	0.5/90	-	-	0.5/90	-	9	-	153k	0/0.4	-	-	-/-
11	07/13	12,138'	9.7	26	1	1	-	3/2	-	0.5/90	-	-	0.5/90	-	9	-	153k	0/0.4	-	-	-/74
12	07/14	13,423'	9.7	26	1	1	-	3/2	-	0.5/90	-	-	0.5/90	-	8.6	-	151k	0/0.5	-	-	-/74
13	07/15	13,423'	9.7	26	1	1	-	3/2	-	0.5/90	-	-	0.5/90	-	8.6	-	151k	0/0.5	-	-	-/-
14	07/16	13,423'	9.6	26	1	1	-	3/2	-	1/92	-	-	1/92	-	7.5	-	138k	-0.3	-	-	-/-
15	07/17	13,423'	9.6	26	1	1	-	3/2	-	1/92	-	-	1/92	-	7.5	-	138k	-0.3	-	-	-/-
16	07/18	17,460'	9.6	26	1	1	-	3/2	-	1/92	-	-	1/92	-	7.5	-	138k	-0.3	-	-	-/-
17	07/19	17,460'	9.6	26	1	1	-	3/2	-	1/92	-	-	1/92	-	7.5	-	138k	-0.3	-	-	-/-
18	07/20	21,122'	9.6	26	1	1	-	3/2	-	1/92	-	-	1/92	-	7.5	-	138k	-0.3	-	-	-/-

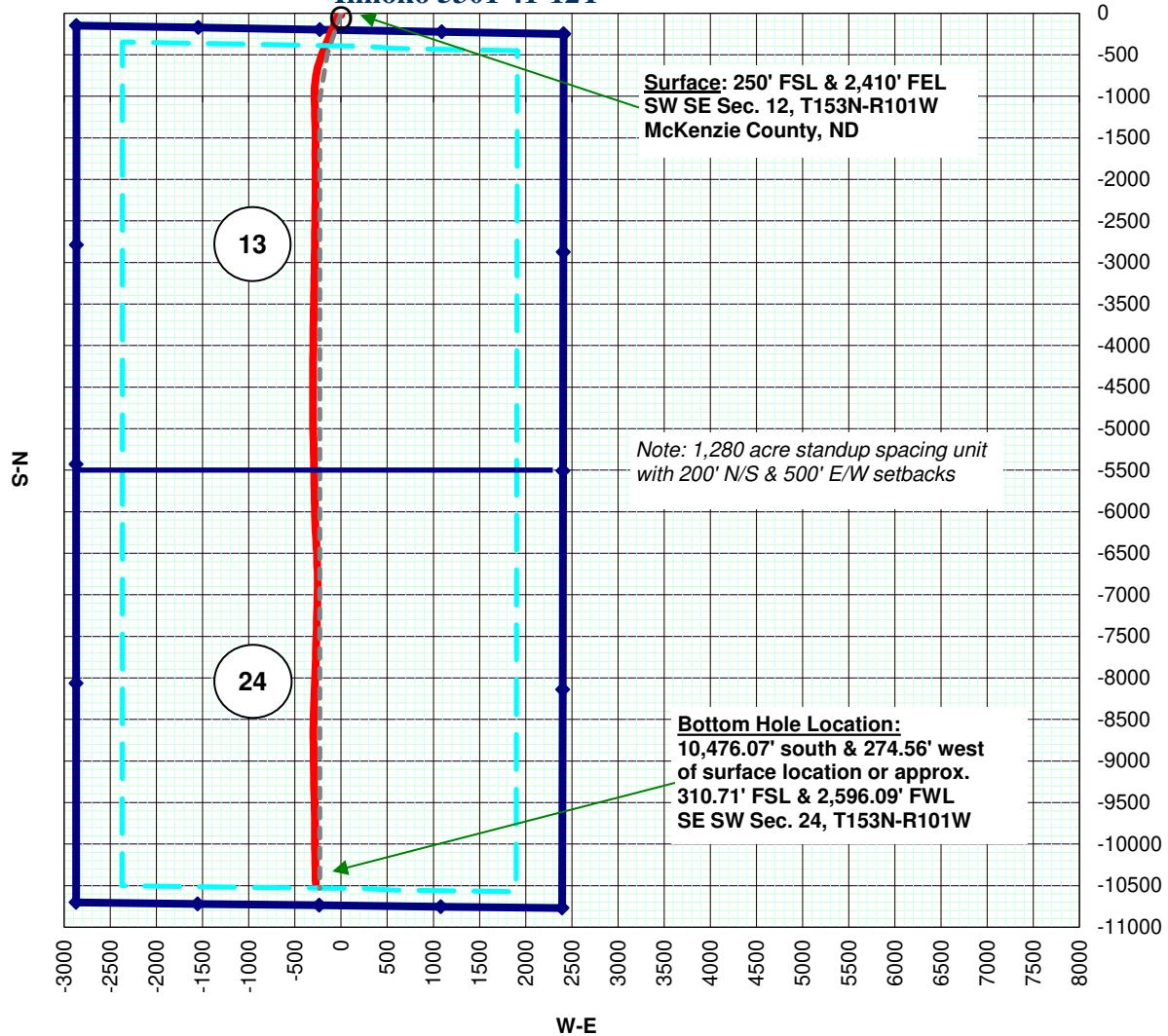
Change mud from diesel invert to salt water

BOTTOM HOLE ASSEMBLY RECORD

BHA Run	Depth In	Depth Out	Footage	Hours	Accum. Hours	Vert. Dev.	Bit Data					Motor Data							
							Bit #	Size (in.)	Type	Make	Model	Serial #	Jets	Hours	Motor #	Make	Bend	Hours	Rev/Gal
2	2,111'	11,121'	9,010'	100.5	100.50	Vertical/Curve	2	8 3/4	PDC	Smith	MSI616	JG4960	6x16	79	2	Huntington	1.50°	100.5	0.24
3	11,121'	17,310'	6,189'	105	205.50	Lateral	3	6	PDC	NOV	SKH1613M	A177288	6x20	105	3	Huntington	1.50°	105	0.49
4	17,310'	21,122'	3,812'	60	265.50	Lateral	4	6	PDC	Varel	VM613P2	4004837	6x20	60	4	NOV	1.86°	60	0.29

PLAN VIEW

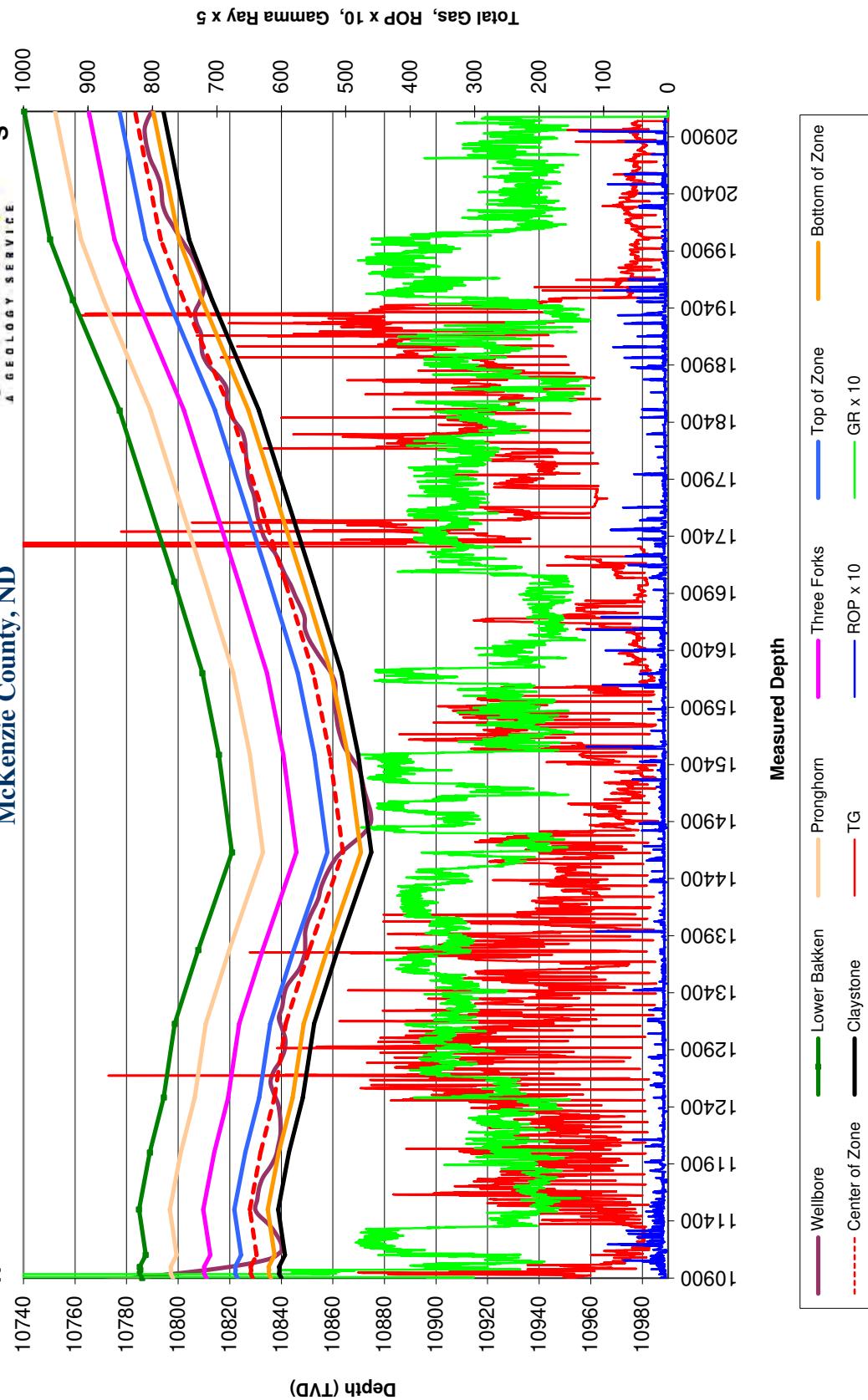
Oasis Petroleum North America, LLC
Innoko 5301 41-12T



Oasis Petroleum North America, LLC
Innoko 5301 41-12T
SW SE Sec. 12, T153N, R101W
McKenzie County, ND



PROFILE



FORMATION MARKERS & DIP ESTIMATES

Oasis Petroleum North America, LLC - Innoko 5301 41-127

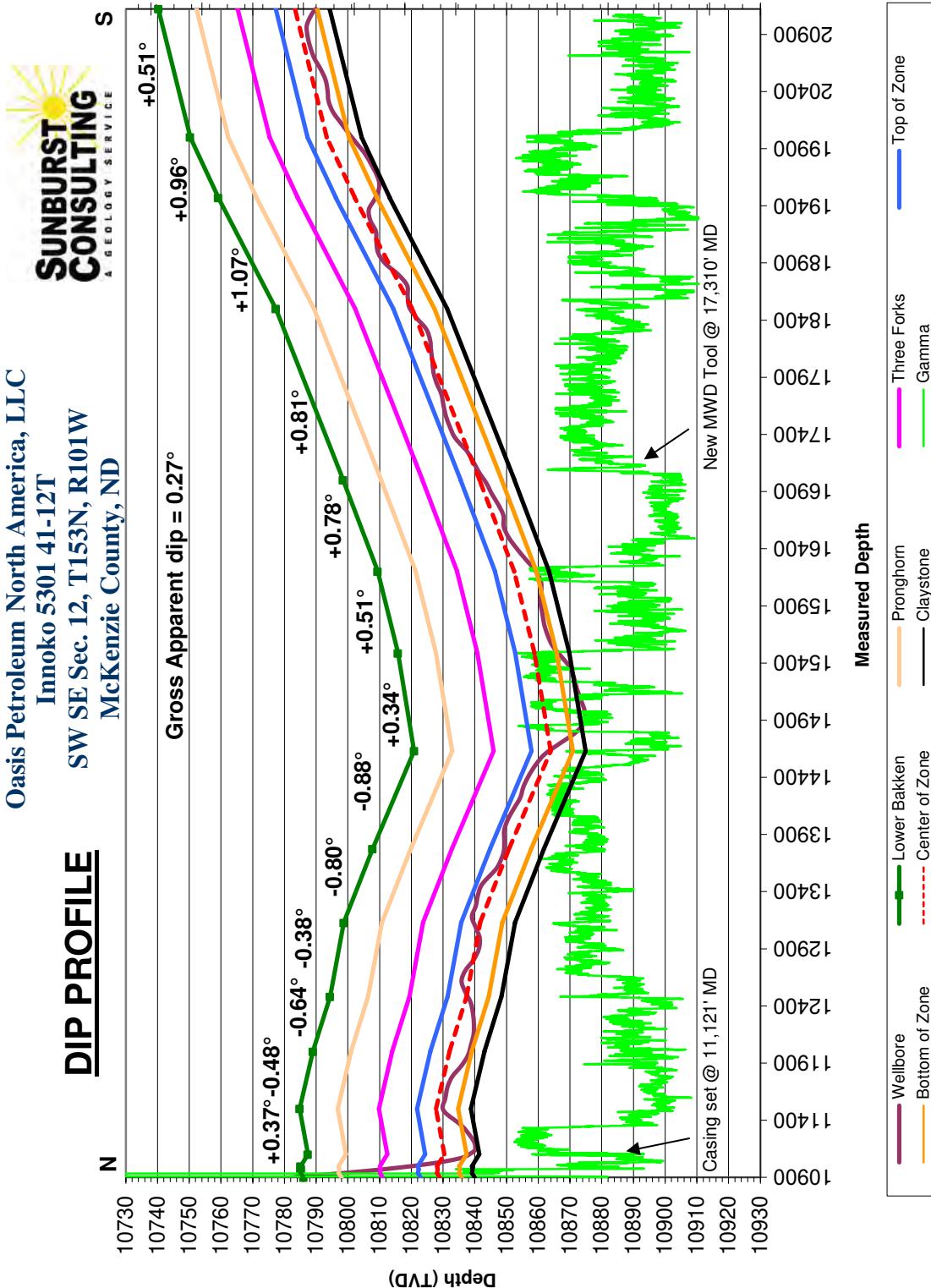
Dip Change Points	MD	TVD	TVD diff.	MD diff.	Dip	Dipping up/down	Type of Marker
Marker							
Cool Gamma Marker	11,102'	10,787.40					Gamma
Cool Gamma Marker	11,500'	10,784.80	-2.60	398.00	0.37	Up	Gamma
Cool Gamma Marker	12,000'	10,789.00	4.20	500.00	-0.48	Down	Gamma
Center of Target	12,482'	10,794.40	5.40	482.00	-0.64	Down	Gamma
Top of Target	13,127'	10,798.70	4.30	645.00	-0.38	Down	Gamma
Top of Target	13,775'	10,807.80	9.10	648.00	-0.80	Down	Gamma
Center of Target	14,630'	10,820.90	13.10	855.00	-0.88	Down	Gamma
Warm Gamma Marker	15,485'	10,815.80	-5.10	855.00	0.34	Up	Gamma
Base of Target	16,200'	10,809.40	-6.40	715.00	0.51	Up	Gamma
Center of Target	17,000'	10,798.50	-10.90	800.00	0.78	Up	Gamma
Center of Target	18,500'	10,777.30	-21.20	1500.00	0.81	Up	Gamma
Base of Target	19,470'	10,759.20	-18.10	970.00	1.07	Up	Gamma
Cool Gamma Marker	20,000'	10,750.30	-8.90	530.00	0.96	Up	Gamma
	21,122'	10,740.30	-10.00	1122.00	0.51	Up	Gamma
Gross Dip							
Initial Target Contact	11,102'	10,787.40					
Projected Final Target Contact	21,122'	10,740.30	-47.10	10020.00	0.27	Up	Projection

* = GR / electric log confirmation

Other markers based on natural deflections & drill rate changes

Oasis Petroleum North America, LLC
 Innoko 5301 41-12T
 SW SE Sec. 12, T153N, R101W
 McKenzie County, ND

DIP PROFILE



SUNBURST CONSULTING, INC.

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Operator:	Oasis Petroleum North America, LLC		
Well :	Innoko 5301 41-12T		
County:	McKenzie	State:	ND
QQ:	SW SE	Section:	12
Township:	153	N/S:	N
Range:	101	E/W:	W
Footages:	250	FN/SL:	S
	2410	FE/WL:	E

Kick-off:	7/8/2013
Finish:	7/20/2013
Directional Supervision:	
Leam Drilling Systems	

Date: 7/23/2013
 Time: 11:11
F9 to re-calculate

Proposed dir: 181.25

Minimum Curvature Method (SPE-3362)

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

No.	MD	INC	TRUE			N-S	E-W	SECT	DLS/
			AZM	TVD					100
Tie	2128.00	0.59	184.46	2127.95	-6.86	4.04	6.74	0.51	
1	2187.00	1.40	197.30	2186.94	-7.85	3.80	7.77	1.42	
2	2280.00	1.50	175.30	2279.91	-10.15	3.56	10.07	0.60	
3	2373.00	1.00	185.40	2372.89	-12.17	3.59	12.09	0.59	
4	2466.00	1.10	184.50	2465.87	-13.87	3.44	13.79	0.11	
5	2560.00	1.40	189.60	2559.85	-15.90	3.18	15.83	0.34	
6	2653.00	1.10	243.70	2652.83	-17.42	2.19	17.36	1.26	
7	2746.00	1.30	231.40	2745.81	-18.47	0.56	18.45	0.35	
8	2839.00	1.20	236.20	2838.79	-19.67	-1.07	19.69	0.16	
9	2933.00	0.90	243.90	2932.77	-20.54	-2.55	20.59	0.35	
10	3026.00	1.00	258.30	3025.76	-21.03	-4.00	21.11	0.28	
11	3119.00	0.80	258.50	3118.75	-21.32	-5.43	21.43	0.22	
12	3212.00	1.00	269.60	3211.74	-21.46	-6.88	21.60	0.28	
13	3306.00	0.90	280.40	3305.73	-21.33	-8.43	21.51	0.22	
14	3399.00	0.90	288.00	3398.71	-20.97	-9.84	21.18	0.13	
15	3492.00	1.00	294.30	3491.70	-20.41	-11.27	20.65	0.16	
16	3585.00	0.80	306.10	3584.69	-19.70	-12.54	19.96	0.29	
17	3679.00	0.90	304.70	3678.68	-18.89	-13.67	19.18	0.11	
18	3772.00	0.90	305.80	3771.67	-18.05	-14.87	18.37	0.02	
19	3864.00	0.70	4.50	3863.66	-17.06	-15.41	17.39	0.87	
20	3957.00	0.90	17.70	3956.65	-15.80	-15.14	16.13	0.29	
21	4051.00	1.10	89.90	4050.64	-15.10	-14.02	15.40	1.27	
22	4144.00	1.10	92.90	4143.62	-15.14	-12.23	15.40	0.06	
23	4237.00	0.90	101.50	4236.61	-15.33	-10.62	15.56	0.27	
24	4331.00	0.50	93.40	4330.60	-15.50	-9.49	15.70	0.44	
25	4424.00	0.40	88.10	4423.60	-15.51	-8.76	15.70	0.12	
26	4517.00	0.40	75.00	4516.60	-15.42	-8.12	15.59	0.10	
27	4610.00	0.30	77.90	4609.59	-15.28	-7.57	15.45	0.11	
28	4704.00	0.10	64.80	4703.59	-15.20	-7.26	15.35	0.22	
29	4797.00	0.20	57.00	4796.59	-15.07	-7.05	15.23	0.11	
30	4890.00	0.30	71.40	4889.59	-14.91	-6.68	15.05	0.13	
31	4983.00	0.10	62.70	4982.59	-14.79	-6.38	14.93	0.22	
32	5076.00	0.50	15.70	5075.59	-14.37	-6.20	14.50	0.47	
33	5170.00	0.70	55.30	5169.59	-13.64	-5.61	13.76	0.48	
34	5263.00	0.30	163.40	5262.58	-13.55	-5.08	13.66	0.91	
35	5356.00	0.60	153.40	5355.58	-14.22	-4.79	14.32	0.33	

SUNBURST CONSULTING, INC.

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Operator:	Oasis Petroleum North America, LLC		
Well :	Innoko 5301 41-12T		
County:	McKenzie	State:	ND
QQ:	SW SE	Section:	12
Township:	153	N/S:	N
Range:	101	E/W:	W
Footages:	250	FN/SL:	S
	2410	FE/WL:	E

Kick-off: 7/8/2013
 Finish: 7/20/2013
 Directional Supervision:
Leam Drilling Systems

Date: 7/23/2013
 Time: 11:11
F9 to re-calculate

Proposed dir: 181.25

Minimum Curvature Method (SPE-3362)

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

No.	MD	INC	TRUE			N-S	E-W	SECT	DLS/
			AZM	TVD					100
36	5450.00	0.30	175.70	5449.58	-14.91	-4.55	15.00	0.36	
37	5543.00	0.30	200.50	5542.58	-15.38	-4.62	15.48	0.14	
38	5636.00	0.90	213.70	5635.57	-16.22	-5.11	16.32	0.66	
39	5729.00	1.00	212.60	5728.56	-17.51	-5.95	17.63	0.11	
40	5822.00	1.00	210.10	5821.54	-18.89	-6.79	19.04	0.05	
41	5916.00	0.50	243.40	5915.54	-19.79	-7.57	19.95	0.68	
42	6009.00	0.90	247.20	6008.53	-20.25	-8.61	20.43	0.43	
43	6102.00	1.10	252.30	6101.51	-20.80	-10.13	21.02	0.24	
44	6196.00	1.40	320.00	6195.50	-20.20	-11.73	20.45	1.50	
45	6289.00	1.90	345.80	6288.46	-17.83	-12.84	18.11	0.95	
46	6382.00	2.50	6.60	6381.39	-14.32	-12.98	14.60	1.06	
47	6475.00	2.00	6.10	6474.32	-10.70	-12.58	10.97	0.54	
48	6568.00	1.50	351.80	6567.28	-7.88	-12.58	8.15	0.71	
49	6662.00	1.20	345.70	6661.25	-5.71	-13.00	5.99	0.35	
50	6755.00	0.50	38.00	6754.24	-4.44	-12.99	4.73	1.05	
51	6848.00	1.10	201.70	6847.24	-4.95	-13.07	5.24	1.71	
52	6941.00	1.20	213.10	6940.22	-6.60	-13.93	6.90	0.27	
53	7035.00	1.00	232.80	7034.20	-7.92	-15.12	8.25	0.45	
54	7128.00	0.90	233.90	7127.19	-8.84	-16.36	9.19	0.11	
55	7221.00	0.80	255.30	7220.18	-9.43	-17.58	9.82	0.36	
56	7314.00	0.30	204.00	7313.17	-9.82	-18.30	10.22	0.71	
57	7408.00	0.10	94.60	7407.17	-10.05	-18.32	10.45	0.37	
58	7501.00	0.20	152.50	7500.17	-10.20	-18.17	10.60	0.18	
59	7594.00	0.30	170.20	7593.17	-10.59	-18.05	10.98	0.13	
60	7687.00	0.30	129.50	7686.17	-10.98	-17.82	11.37	0.22	
61	7781.00	0.00	173.80	7780.17	-11.14	-17.63	11.52	0.32	
62	7874.00	0.10	272.90	7873.17	-11.13	-17.71	11.52	0.11	
63	7967.00	0.40	14.80	7966.17	-10.82	-17.71	11.20	0.46	
64	8060.00	0.50	333.40	8059.17	-10.14	-17.81	10.53	0.36	
65	8153.00	0.60	316.50	8152.16	-9.42	-18.33	9.82	0.20	
66	8247.00	0.60	321.40	8246.16	-8.68	-18.97	9.09	0.05	
67	8340.00	0.70	348.30	8339.15	-7.75	-19.39	8.17	0.34	
68	8433.00	0.70	5.50	8432.14	-6.62	-19.45	7.05	0.23	
69	8526.00	0.70	13.60	8525.14	-5.51	-19.26	5.92	0.11	
70	8620.00	0.60	13.60	8619.13	-4.47	-19.01	4.88	0.11	
71	8713.00	0.50	6.10	8712.13	-3.59	-18.85	4.00	0.13	

SUNBURST CONSULTING, INC.

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Operator:	Oasis Petroleum North America, LLC		
Well :	Innoko 5301 41-12T		
County:	McKenzie	State:	ND
QQ:	SW SE	Section:	12
Township:	153	N/S:	N
Range:	101	E/W:	W
Footages:	250	FN/SL:	S
	2410	FE/WL:	E

Kick-off:	7/8/2013
Finish:	7/20/2013
Directional Supervision:	
Leam Drilling Systems	

Date: 7/23/2013
 Time: 11:11
F9 to re-calculate

Proposed dir: 181.25

Minimum Curvature Method (SPE-3362)

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

No.	MD	INC	TRUE			N-S	E-W	SECT	DLS/
			AZM	TVD					100
72	8806.00	0.60	22.80	8805.12	-2.74	-18.62	3.15	0.20	
73	8899.00	0.60	45.80	8898.12	-1.95	-18.09	2.35	0.26	
74	8992.00	0.50	55.30	8991.11	-1.38	-17.40	1.76	0.15	
75	9086.00	0.40	44.40	9085.11	-0.91	-16.84	1.28	0.14	
76	9179.00	0.50	50.50	9178.11	-0.42	-16.30	0.78	0.12	
77	9272.00	1.10	45.40	9271.10	0.46	-15.35	-0.13	0.65	
78	9366.00	1.20	42.40	9365.08	1.82	-14.04	-1.52	0.12	
79	9459.00	0.10	109.40	9458.07	2.51	-13.31	-2.22	1.25	
80	9552.00	0.10	5.50	9551.07	2.57	-13.22	-2.28	0.17	
81	9645.00	0.20	334.90	9644.07	2.80	-13.28	-2.51	0.13	
82	9739.00	0.40	330.20	9738.07	3.23	-13.52	-2.93	0.21	
83	9832.00	0.40	312.40	9831.07	3.73	-13.92	-3.43	0.13	
84	9925.00	0.40	301.40	9924.07	4.12	-14.43	-3.80	0.08	
85	10018.00	0.40	287.70	10017.06	4.39	-15.02	-4.06	0.10	
86	10111.00	0.80	291.30	10110.06	4.72	-15.93	-4.37	0.43	
87	10205.00	0.80	265.20	10204.05	4.90	-17.20	-4.53	0.38	
88	10303.00	2.30	210.30	10302.02	3.15	-18.87	-2.74	1.99	
89	10335.00	6.80	199.10	10333.91	0.80	-19.82	-0.37	14.27	
90	10366.00	12.00	200.10	10364.48	-3.96	-21.53	4.43	16.78	
91	10397.00	16.20	201.50	10394.54	-11.01	-24.22	11.54	13.59	
92	10428.00	21.20	202.20	10423.89	-20.23	-27.93	20.84	16.14	
93	10459.00	23.50	203.30	10452.56	-31.10	-32.49	31.80	7.54	
94	10490.00	25.70	204.00	10480.75	-42.92	-37.67	43.73	7.16	
95	10521.00	25.80	205.40	10508.67	-55.15	-43.30	56.09	1.99	
96	10552.00	27.50	203.80	10536.38	-67.80	-49.08	68.85	5.95	
97	10583.00	30.20	202.90	10563.53	-81.53	-55.00	82.71	8.82	
98	10614.00	32.00	199.10	10590.07	-96.48	-60.73	97.78	8.59	
99	10645.00	35.00	197.30	10615.92	-112.73	-66.06	114.15	10.19	
100	10676.00	38.20	197.80	10640.80	-130.35	-71.63	131.88	10.37	
101	10707.00	41.40	200.10	10664.62	-149.11	-78.09	150.78	11.36	
102	10739.00	44.10	200.50	10688.12	-169.48	-85.63	171.31	8.48	
103	10770.00	47.50	201.00	10709.72	-190.26	-93.50	192.25	11.03	
104	10801.00	51.50	201.20	10729.85	-212.25	-101.99	214.42	12.91	
105	10832.00	55.80	200.50	10748.22	-235.57	-110.87	237.94	13.99	
106	10863.00	59.70	199.20	10764.76	-260.23	-119.76	262.78	13.07	
107	10894.00	63.50	200.50	10779.50	-285.87	-129.02	288.62	12.80	

SUNBURST CONSULTING, INC.

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Operator:	Oasis Petroleum North America, LLC		
Well :	Innoko 5301 41-12T		
County:	McKenzie	State:	ND
QQ:	SW SE	Section:	12
Township:	153	N/S:	N
Range:	101	E/W:	W
Footages:	250	FN/SL:	S
	2410	FE/WL:	E

Kick-off:	7/8/2013
Finish:	7/20/2013
Directional Supervision:	
Leam Drilling Systems	

Date: 7/23/2013
 Time: 11:11
F9 to re-calculate

Proposed dir: 181.25

Minimum Curvature Method (SPE-3362)

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

No.	MD	INC	TRUE				SECT	DLS/ 100
			AZM	TVD	N-S	E-W		
108	10925.00	64.70	201.50	10793.05	-311.90	-139.02	314.86	4.84
109	10956.00	67.40	201.90	10805.63	-338.22	-149.49	341.41	8.79
110	10987.00	71.50	201.20	10816.51	-365.22	-160.15	368.62	13.39
111	11018.00	75.10	200.50	10825.41	-392.96	-170.72	396.59	11.81
112	11049.00	79.30	199.40	10832.28	-421.37	-181.03	425.22	13.98
113	11080.00	84.00	198.90	10836.78	-450.34	-191.08	454.40	15.24
114	11134.00	89.30	198.00	10839.94	-501.46	-208.14	505.88	9.95
115	11165.00	89.90	197.80	10840.15	-530.95	-217.66	535.58	2.04
116	11196.00	90.70	197.50	10839.99	-560.49	-227.06	565.31	2.76
117	11228.00	91.30	196.10	10839.43	-591.12	-236.31	596.14	4.76
118	11258.00	91.50	194.70	10838.70	-620.04	-244.27	625.22	4.71
119	11289.00	91.60	193.30	10837.86	-650.10	-251.77	655.44	4.53
120	11321.00	91.70	191.10	10836.94	-681.37	-258.53	686.84	6.88
121	11352.00	92.20	190.40	10835.88	-711.80	-264.31	717.40	2.77
122	11383.00	92.70	189.40	10834.56	-742.31	-269.63	748.02	3.60
123	11414.00	92.90	187.80	10833.04	-772.93	-274.26	778.73	5.20
124	11445.00	92.70	186.60	10831.53	-803.65	-278.14	809.52	3.92
125	11476.00	91.50	185.00	10830.39	-834.47	-281.27	840.40	6.45
126	11506.00	90.50	183.80	10829.87	-864.37	-283.58	870.35	5.21
127	11537.00	89.00	182.20	10830.01	-895.33	-285.20	901.34	7.07
128	11568.00	89.30	181.00	10830.47	-926.31	-286.06	932.33	3.99
129	11598.00	89.60	181.00	10830.75	-956.31	-286.59	962.33	1.00
130	11691.00	89.60	179.20	10831.40	-1049.30	-286.75	1055.30	1.94
131	11783.00	88.50	178.00	10832.93	-1141.26	-284.50	1147.19	1.77
132	11876.00	88.00	178.80	10835.77	-1234.17	-281.91	1240.03	1.01
133	11968.00	89.40	178.80	10837.86	-1326.13	-279.98	1331.92	1.52
134	12061.00	89.40	178.80	10838.83	-1419.10	-278.03	1424.83	0.00
135	12154.00	89.60	180.60	10839.64	-1512.09	-277.55	1517.79	1.95
136	12246.00	90.30	180.40	10839.72	-1604.09	-278.35	1609.78	0.79
137	12339.00	90.10	179.70	10839.40	-1697.09	-278.43	1702.76	0.78
138	12432.00	90.80	179.60	10838.67	-1790.08	-277.86	1795.72	0.76
139	12525.00	91.30	178.80	10836.96	-1883.06	-276.56	1888.64	1.01
140	12618.00	90.10	179.70	10835.83	-1976.04	-275.35	1981.58	1.61
141	12710.00	88.40	180.60	10837.03	-2068.03	-275.59	2073.55	2.09
142	12803.00	88.40	180.30	10839.63	-2160.99	-276.32	2166.50	0.32
143	12896.00	89.60	181.10	10841.25	-2253.97	-277.45	2259.48	1.55

SUNBURST CONSULTING, INC.

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Operator:	Oasis Petroleum North America, LLC		
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QQ:	SW SE	Section:	12
Township:	153	N/S:	N
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Footages:	250	FN/SL:	S
	2410	FE/WL:	E

Kick-off:	7/8/2013
Finish:	7/20/2013
Directional Supervision:	
Leam Drilling Systems	

Date: 7/23/2013
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F9 to re-calculate

Proposed dir: 181.25

Minimum Curvature Method (SPE-3362)

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No.	MD	INC	TRUE				SECT	DLS/ 100
			AZM	TVD	N-S	E-W		
144	12990.00	90.00	180.60	10841.58	-2347.95	-278.85	2353.48	0.68
145	13085.00	91.50	180.30	10840.33	-2442.94	-279.59	2448.46	1.61
146	13180.00	90.00	181.10	10839.09	-2537.92	-280.75	2543.44	1.79
147	13275.00	88.50	180.30	10840.33	-2632.90	-281.92	2638.43	1.79
148	13370.00	90.70	180.00	10841.00	-2727.89	-282.16	2733.40	2.34
149	13465.00	87.70	181.30	10842.32	-2822.87	-283.24	2828.37	3.44
150	13591.00	88.50	181.50	10846.50	-2948.76	-286.32	2954.30	0.65
151	13654.00	89.00	180.40	10847.88	-3011.73	-287.36	3017.29	1.92
152	13749.00	89.50	180.80	10849.12	-3106.72	-288.36	3112.27	0.67
153	13844.00	90.30	180.10	10849.29	-3201.71	-289.10	3207.26	1.12
154	13938.00	89.70	181.10	10849.29	-3295.71	-290.09	3301.25	1.24
155	14033.00	88.90	181.80	10850.45	-3390.67	-292.49	3396.24	1.12
156	14128.00	88.80	181.10	10852.35	-3485.62	-294.89	3491.22	0.74
157	14223.00	88.80	181.30	10854.34	-3580.58	-296.88	3586.20	0.21
158	14318.00	90.00	180.60	10855.34	-3675.56	-298.46	3681.19	1.46
159	14413.00	88.00	180.60	10856.99	-3770.53	-299.45	3776.17	2.11
160	14508.00	89.40	179.90	10859.15	-3865.50	-299.87	3871.13	1.65
161	14602.00	87.10	180.80	10862.02	-3959.45	-300.44	3965.06	2.63
162	14697.00	87.10	180.80	10866.83	-4054.32	-301.77	4059.94	0.00
163	14792.00	86.90	180.40	10871.80	-4149.18	-302.76	4154.80	0.47
164	14887.00	89.70	179.70	10874.62	-4244.13	-302.84	4249.73	3.04
165	14981.00	90.30	179.70	10874.62	-4338.13	-302.35	4343.69	0.64
166	15076.00	91.10	180.10	10873.46	-4433.12	-302.18	4438.66	0.94
167	15171.00	90.40	180.40	10872.21	-4528.11	-302.60	4533.64	0.80
168	15265.00	90.70	180.60	10871.31	-4622.10	-303.42	4627.62	0.38
169	15360.00	90.80	179.40	10870.07	-4717.10	-303.42	4722.59	1.27
170	15455.00	92.50	180.40	10867.33	-4812.05	-303.25	4817.52	2.08
171	15550.00	90.90	179.90	10864.51	-4907.01	-303.50	4912.46	1.76
172	15645.00	91.00	178.80	10862.94	-5001.98	-302.42	5007.39	1.16
173	15739.00	90.30	178.80	10861.87	-5095.96	-300.45	5101.30	0.74
174	15834.00	90.40	179.00	10861.29	-5190.94	-298.63	5196.22	0.24
175	15929.00	90.30	178.50	10860.71	-5285.91	-296.56	5291.12	0.54
176	16024.00	89.40	178.80	10860.96	-5380.89	-294.32	5386.03	1.00
177	16119.00	90.80	178.50	10860.79	-5475.86	-292.08	5480.93	1.51
178	16213.00	91.40	179.00	10858.99	-5569.82	-290.03	5574.82	0.83
179	16308.00	92.20	179.40	10856.01	-5664.76	-288.71	5669.71	0.94

SUNBURST CONSULTING, INC.

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QQ:	SW SE	Section:	12
Township:	153	N/S:	N
Range:	101	E/W:	W
Footages:	250	FN/SL:	S
	2410	FE/WL:	E

Kick-off:	7/8/2013
Finish:	7/20/2013
Directional Supervision:	
Leam Drilling Systems	

Date: 7/23/2013
 Time: 11:11
F9 to re-calculate

Proposed dir: 181.25

Minimum Curvature Method (SPE-3362)

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

No.	MD	INC	TRUE				SECT	DLS/ 100
			AZM	TVD	N-S	E-W		
180	16403.00	91.20	179.20	10853.19	-5759.71	-287.55	5764.61	1.07
181	16498.00	91.80	179.70	10850.70	-5854.67	-286.63	5859.53	0.82
182	16593.00	90.10	178.10	10849.13	-5949.63	-284.81	5954.43	2.46
183	16688.00	90.00	178.80	10849.04	-6044.60	-282.24	6049.32	0.74
184	16783.00	91.90	178.30	10847.47	-6139.55	-279.84	6144.19	2.07
185	16877.00	90.60	177.10	10845.42	-6233.45	-276.07	6237.99	1.88
186	16972.00	91.50	176.40	10843.68	-6328.28	-270.68	6332.68	1.20
187	17067.00	91.30	176.90	10841.35	-6423.09	-265.13	6427.34	0.57
188	17162.00	90.90	178.10	10839.53	-6517.98	-260.99	6522.12	1.33
189	17257.00	91.60	180.10	10837.46	-6612.94	-259.50	6617.03	2.23
190	17281.00	92.40	177.30	10836.62	-6636.91	-258.95	6640.98	12.13
191	17375.00	91.20	177.30	10833.67	-6730.76	-254.53	6734.71	1.28
192	17470.00	90.70	179.60	10832.09	-6825.71	-251.96	6829.58	2.48
193	17565.00	90.80	181.30	10830.85	-6920.69	-252.70	6924.56	1.79
194	17660.00	90.10	181.50	10830.10	-7015.66	-255.03	7019.55	0.77
195	17755.00	90.70	181.70	10829.44	-7110.62	-257.68	7114.55	0.67
196	17849.00	91.10	180.80	10827.96	-7204.59	-259.73	7208.54	1.05
197	17944.00	90.10	181.80	10826.97	-7299.55	-261.88	7303.53	1.49
198	18039.00	90.30	181.50	10826.64	-7394.51	-264.62	7398.53	0.38
199	18134.00	90.20	181.50	10826.22	-7489.48	-267.11	7493.53	0.11
200	18228.00	90.20	181.50	10825.89	-7583.45	-269.57	7587.52	0.00
201	18323.00	91.30	181.50	10824.65	-7678.41	-272.05	7682.51	1.16
202	18418.00	92.30	181.10	10821.67	-7773.33	-274.21	7777.46	1.13
203	18513.00	90.50	181.80	10819.35	-7868.27	-276.61	7872.43	2.03
204	18608.00	90.10	181.80	10818.85	-7963.22	-279.59	7967.43	0.42
205	18702.00	90.10	181.80	10818.68	-8057.17	-282.55	8061.42	0.00
206	18797.00	93.20	183.20	10815.95	-8152.03	-286.69	8156.35	3.58
207	18892.00	91.70	182.40	10811.89	-8246.83	-291.32	8251.22	1.79
208	18987.00	91.10	181.70	10809.57	-8341.74	-294.72	8346.18	0.97
209	19082.00	89.60	181.10	10808.99	-8436.70	-297.04	8441.18	1.70
210	19177.00	90.60	180.80	10808.82	-8531.69	-298.62	8536.17	1.10
211	19271.00	91.50	181.70	10807.10	-8625.65	-300.67	8630.16	1.35
212	19366.00	89.10	178.30	10806.60	-8720.63	-300.67	8725.11	4.38
213	19461.00	88.60	178.70	10808.51	-8815.58	-298.18	8819.98	0.67
214	19555.00	89.80	179.40	10809.82	-8909.55	-296.62	8913.90	1.48
215	19650.00	90.70	179.60	10809.41	-9004.55	-295.79	9008.85	0.97

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Minimum Curvature Method (SPE-3362)

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No.	MD	INC	TRUE			N-S	E-W	SECT	DLS/
			AZM	TVD					100
216	19840.00	91.50	179.40	10805.76	-9194.50	-294.13	9198.73	0.43	
217	19935.00	91.70	179.20	10803.11	-9289.46	-292.97	9293.64	0.30	
218	20029.00	91.60	178.10	10800.40	-9383.39	-290.76	9387.50	1.17	
219	20124.00	91.50	179.00	10797.83	-9478.32	-288.36	9482.36	0.95	
220	20219.00	91.50	178.50	10795.34	-9573.27	-286.29	9577.24	0.53	
221	20314.00	90.20	179.70	10793.93	-9668.24	-284.79	9672.15	1.86	
222	20409.00	90.20	179.40	10793.60	-9763.24	-284.05	9767.11	0.32	
223	20503.00	90.60	179.40	10792.94	-9857.23	-283.06	9861.06	0.43	
224	20598.00	91.30	180.10	10791.37	-9952.22	-282.65	9956.01	1.04	
225	20693.00	91.10	179.60	10789.38	-10047.20	-282.40	10050.96	0.57	
226	20788.00	90.40	179.20	10788.14	-10142.18	-281.41	10145.91	0.85	
227	20883.00	90.60	179.00	10787.31	-10237.17	-279.91	10240.84	0.30	
228	20978.00	89.70	179.00	10787.06	-10332.15	-278.26	10335.76	0.95	
229	21072.00	88.50	178.30	10788.54	-10426.11	-276.04	10429.65	1.48	
230	21122.00	88.50	178.30	10789.84	-10476.07	-274.56	10479.57	0.00	

FORMATION TOPS & STRUCTURAL RELATIONSHIPS

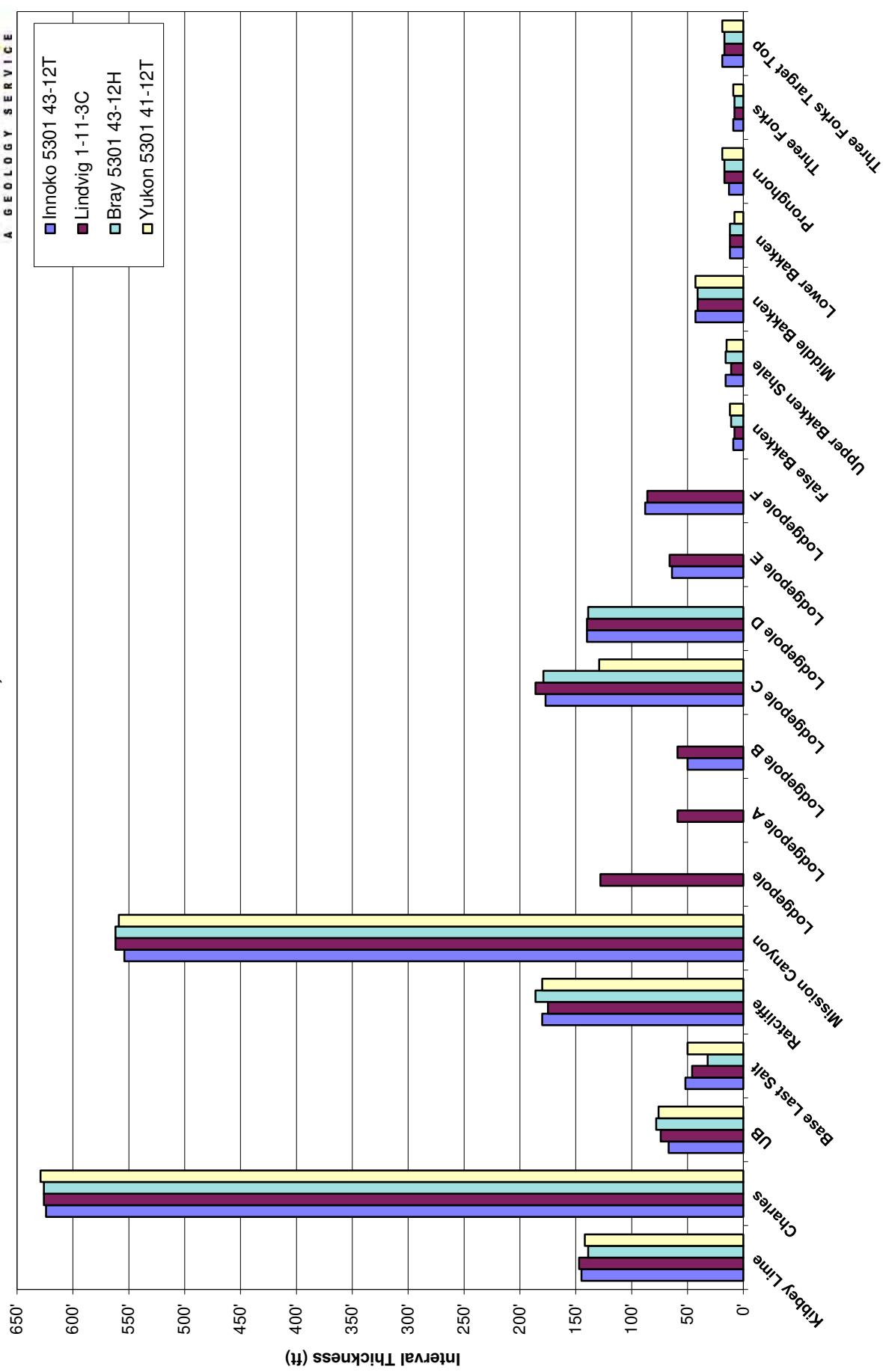
Formation/ Zone	Subject Well:										Offset Wells:		
	Elevation: GL: 2,093'	Prog. Top	Prog. Datum (MSL)	Driller's Depth Top (MD)	Driller's Depth Top (TVD)	Datum (MSL)	Interval Thickness	Thickness to Target	Dip To Prog.	Dip To Lindvig 1-11-3C	Dip To Yukon 5301 41-12T	Dip To Bray 5301 43-12H	
Kibbey Lime	8,375'	-6,257'	8,391'	8,390'	-6,272'	145'	2,430'	-15'	-18'	-26'	-26'	-8'	
Charles	8,522'	-6,404'	8,536'	8,535'	-6,417'	624'	2,285'	-13'	-16'	-29'	-29'	-14'	
UB	9,148'	-7,030'	9,160'	9,159'	-7,041'	67'	1,661'	-11'	-14'	-	-	-12'	
Base Last Salt	9,224'	-7,106'	9,227'	9,226'	-7,108'	52'	1,594'	-2'	-7'	-15'	-15'	-1'	
Ratcliffe	9,268'	-7,150'	9,278'	9,278'	-7,160'	180'	1,542'	-10'	-13'	-	-	-21'	
Mission Canyon	9,443'	-7,325'	9,459'	9,458'	-7,340'	554'	1,362'	-15'	-18'	-17'	-17'	-15'	
Lodgepole	10,009'	-7,891'	10,013'	10,012'	-7,894'	-	808'	-3'	-10'	-12'	-12'	-7'	
Lodgepole A	-	-	-	-	-	-	-	-	-	-	-	-	
Lodgepole B	10,194'	-8,076'	10,200'	10,199'	-8,081'	50'	621'	-5'	-10'	-	-	-	
Lodgepole C	-	-	10,250'	10,249'	-8,131'	177'	571'	-	-15'	158'	158'	-6'	
Lodgepole D	-	-	10,430'	10,426'	-8,308'	140'	394'	-	-6'	110'	110'	-4'	
Lodgepole E	-	-	10,586'	10,566'	-8,448'	64'	254'	-	-6'	-	-	-5'	
Lodgepole F	-	-	10,663'	10,630'	-8,512'	88'	190'	-	-4'	24'	24'	-	
False Bakken	10,717'	-8,599'	10,782'	10,718'	-8,600'	9'	102'	-1'	-6'	-22'	-22'	-1'	
Upper Bakken	10,726'	-8,608'	10,795'	10,727'	-8,609'	16'	93'	-1'	-7'	-19'	-19'	3'	
Middle Bakken	10,736'	-8,618'	10,823'	10,743'	-8,625'	43'	77'	-7'	-12'	-20'	-20'	3'	
Lower Bakken	10,777'	-8,659'	10,908'	10,786'	-8,668'	12'	34'	-9'	-14'	-20'	-20'	1'	
Pronghorn	10,790'	-8,672'	10,936'	10,798'	-8,680'	13'	22'	-8'	-14'	-24'	-24'	1'	
Three Forks	10,806'	-8,688'	10,972'	10,811'	-8,693'	9'	9'	-5'	-10'	-18'	-18'	5'	
Three Forks Target Top	10,814'	-8,696'	10,997'	10,820'	-8,702'	19'	0'	-6'	-11'	-18'	-18'	4'	
Three Forks Target	10,832'	-8,714'	11,141'	10,839'	-8,721'	-	-	-7'	-13'	-18'	-18'	2'	

CONTROL DATA

Operator:	Gulf Oil	Yukon 5301 41-12T			Oasis Petroleum North America, LLC			Oasis Petroleum North America, LLC		
Well Name:	Lindvig 1-11-3C	SW SW Sec. 12, T153N, R101W			Bray 5301 43-12H			SW SE Sec. 12, T153N, R101W		
Location:	NW NW Sec. 11, T152N, R101W McKenzie Co., ND	McKenzie Co., ND			McKenzie Co., ND			0.90 miles E of Innoko 5301 43-12T		
Elevation:	0.71 miles NW of Innoko 5301 43-12T KB: 2,108'	KB: 2,119'			KB: 2,091'			KB: 2,091'		
Formation/ Zone	E-Log Top	Datum (MSL)	Interval	Thickness to Target	E-Log Top	Datum (MSL)	Interval	Thickness to Target	E-Log Top	Datum (MSL)
Kibbey Lime	8,362'	-6,254'	147'	2,437'	8,365'	-6,246'	142'	2,438'	8,355'	-6,264'
Charles	8,509'	-6,401'	626'	2,290'	8,507'	-6,388'	629'	2,296'	8,494'	-6,403'
UB	9,135'	-7,027'	74'	1,664'	9,136'	-7,017'	76'	-	9,120'	-7,029'
Base Last Salt	9,209'	-7,101'	46'	1,590'	9,212'	-7,093'	50'	1,591'	9,198'	-7,107'
Ratcliffe	9,255'	-7,147'	175'	1,544'	9,262'	-7,143'	180'	-	9,230'	-7,139'
Mission Canyon	9,430'	-7,322'	562'	1,369'	9,442'	-7,323'	559'	1,361'	9,416'	-7,325'
Lodgepole	9,992'	-7,884'	128'	807'	10,001'	-7,882'	-	802'	9,978'	-7,887'
Lodgepole A	10,120'	-8,012'	59'	679'	-	-	-	-	-	-
Lodgepole B	10,179'	-8,071'	59'	620'	-	-	-	-	-	-
Lodgepole C	10,224'	-8,116'	186'	575'	10,408'	-8,289'	129'	395'	10,216'	-8,125'
Lodgepole D	10,410'	-8,302'	140'	389'	10,537'	-8,418'	-	266'	10,395'	-8,304'
Lodgepole E	10,550'	-8,442'	66'	249'	-	-	-	-	10,534'	-8,443'
Lodgepole F	10,616'	-8,508'	86'	183'	10,655'	-8,536'	-	148'	-	-
False Bakken	10,702'	-8,594'	8'	97'	10,697'	-8,578'	12'	106'	10,692'	-8,601'
Upper Bakken Shale	10,710'	-8,602'	11'	89'	10,709'	-8,590'	15'	94'	10,703'	-8,612'
Middle Bakken	10,721'	-8,613'	41'	78'	10,724'	-8,605'	43'	79'	10,719'	-8,628'
Lower Bakken	10,762'	-8,654'	12'	37'	10,767'	-8,648'	8'	36'	10,760'	-8,669'
Pronghorn	10,774'	-8,666'	17'	25'	10,775'	-8,656'	19'	28'	10,772'	-8,681'
Three Forks	10,791'	-8,683'	8'	8'	10,794'	-8,675'	9'	9'	10,789'	-8,698'
Three Forks Target Top	10,799'	-8,691'	17'	0'	10803	-8,684'	19	0'	10,797'	-8,706'
Three Forks Target Base	10,816'	-8,708'	3'	-	10822	-8,703'	2	-	10,814'	-8,723'
Claystone	10,819'	-8,711'	-	-	10824	-8,705'	-	-	10,817'	-8,726'

INTERVAL THICKNESS

Oasis Petroleum North America, LLC - Innoko 5301 43-12T

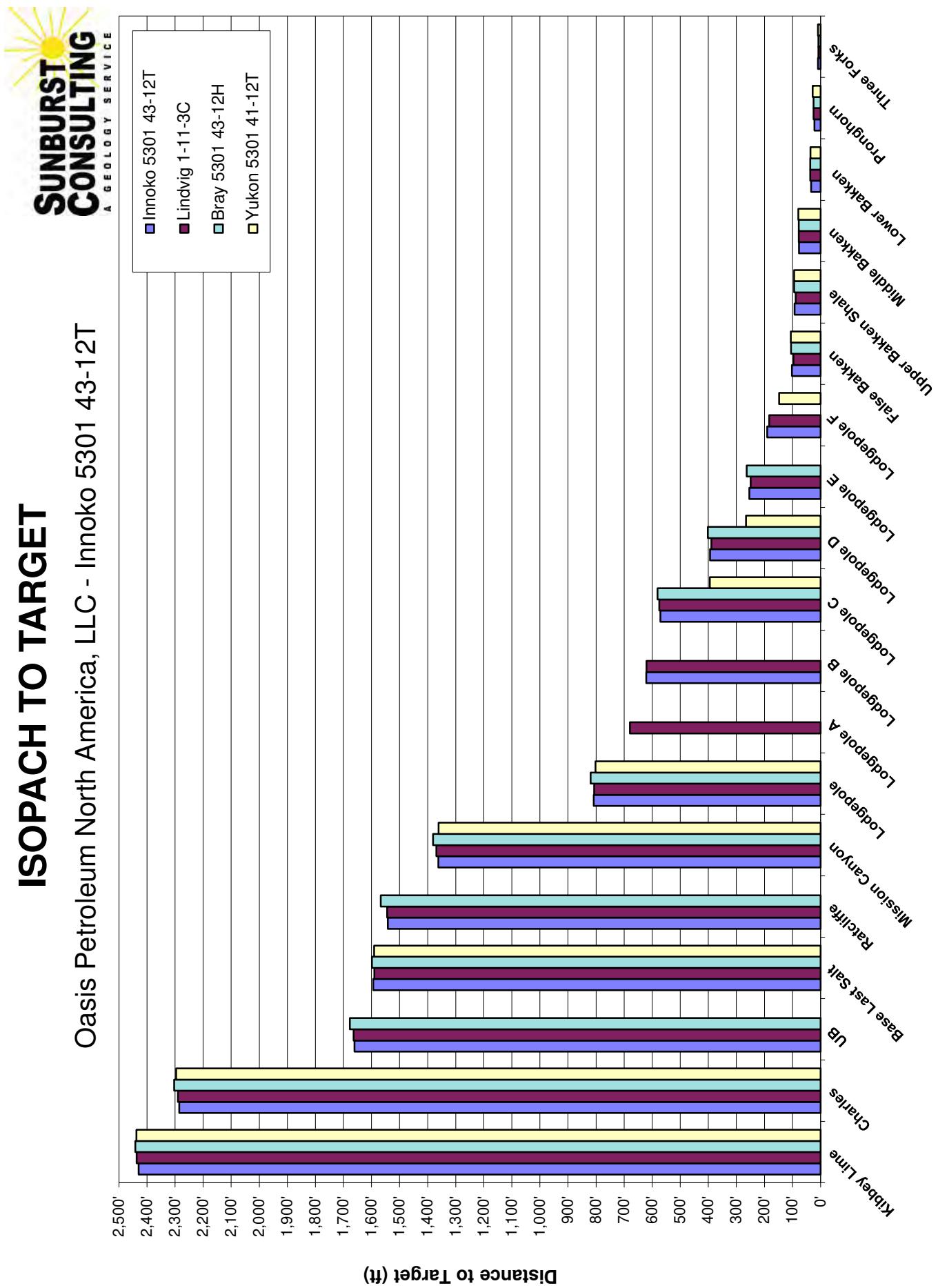


LANDING PROJECTION

Formation/ Zone:	Proposed Top of Target From:			
	Lindvig 1-11-3C	Yukon 5301 41-12T	Bray 5301 43-12H	Average of Offset Wells
Kibbey Lime	10,827'	10,828'	10,832'	10,829'
Charles	10,825'	10,831'	10,838'	10,831'
UB	10,823'	-	10,836'	10,830'
Base Last Salt	10,816'	10,817'	10,825'	10,819'
Ratcliffe	10,822'	-	10,845'	10,834'
Mission Canyon	10,827'	10,819'	10,839'	10,828'
Lodgepole	10,819'	10,814'	10,831'	10,821'
Lodgepole A	-	-	-	-
Lodgepole B	10,819'	-	-	10,819'
Lodgepole C	10,824'	10,644'	10,830'	10,766'
Lodgepole D	10,815'	10,692'	10,828'	10,778'
Lodgepole E	10,815'	-	10,829'	10,822'
Lodgepole F	10,813'	10,778'	-	10,796'
False Bakken	10,815'	10,824'	10,823'	10,821'
Upper Bakken Shale	10,816'	10,821'	10,821'	10,819'
Middle Bakken	10,821'	10,822'	10,821'	10,821'
Lower Bakken	10,823'	10,822'	10,823'	10,823'
Pronghorn	10,823'	10,826'	10,823'	10,824'
Three Forks	10,819'	10,820'	10,819'	10,819'
Three Forks Target Top	10,820'	10,820'	10,820'	10,820'

ISOPACH TO TARGET

Oasis Petroleum North America, LLC - Innoko 5301 43-12T



LITHOLOGY

Rig crews caught lagged samples in 30' intervals under the supervision of Sunburst geologists. A detailed list of sampling intervals is included in the well data summary page. Sample or gamma ray marker tops have been inserted in the sample descriptions below for reference. Samples were examined wet and dry under a trinocular microscope. The drilling fluid was diesel-based invert from surface casing to intermediate casing, while salt water drilling fluid was used throughout the lateral. Sample collection began at 8,300'.

Drilling in the Kibbey Formation

8270-8300 SILTSTONE: dark orange to light brown, tan to light pink, soft, sub-blocky, calcite cement, poorly cemented; rare ANHYDRITE: off white, soft, amorphous texture; trace SILTY SANDSTONE: tan to off white, very fine grained, sub-rounded, moderately sorted, calcite cement, poorly cemented

8300-8330 SILTSTONE: dark orange to light brown, tan to light pink, soft, sub-blocky, calcite cement, poorly cemented; rare ANHYDRITE: off white, soft, amorphous texture; trace SILTY SANDSTONE: tan to off white, very fine grained, sub-rounded, moderately sorted, calcite cement, poorly cemented

8330-8360 SILTSTONE: dark orange to light brown, tan to light pink, soft, sub-blocky, calcite cement, poorly cemented; rare ANHYDRITE: off white, soft, amorphous texture; trace SILTY SANDSTONE: as above

8360-8390 SILTSTONE: dark orange to light brown, tan to light pink, soft, sub-blocky, calcite cement, poorly cemented; rare ANHYDRITE: off white, soft, amorphous texture; trace SILTY SANDSTONE: as above

Kibbey "Lime"

[8,391' MD, 8,390' TVD (-6,272')]

8390-8420 SILTSTONE: dark orange to light brown, tan to light pink, soft, sub-blocky, calcite cement, poorly cemented; rare ANHYDRITE: off white, soft, amorphous texture; trace SILTY SANDSTONE: as above; ARGILLACEOUS LIMESTONE: mudstone, gray to gray-brown, microcrystalline, firm to hard, dense, chalky texture, no visible porosity

8420-8450 SILTSTONE: dark orange to light brown, tan to light pink, soft, sub-blocky, calcite cement, poorly cemented; rare ANHYDRITE: off white, soft, amorphous texture; trace SILTY SANDSTONE: as above; ARGILLACEOUS LIMESTONE: mudstone, gray to gray-brown, microcrystalline, firm to hard, dense, chalky texture, no visible porosity

8450-8480 SILTSTONE: dark orange to light brown, red to red-brown, occasional tan to light pink, soft, sub-blocky, calcite cement, poorly cemented, sandy in part; rare ANHYDRITE: as above; trace ARGILLACEOUS LIMESTONE: as above

8480-8510 SILTSTONE: dark orange to light brown, red to red-brown, occasional tan to light pink, soft, sub-blocky, calcite cement, poorly cemented, sandy in part; rare ANHYDRITE: as above; trace ARGILLACEOUS LIMESTONE: as above

8510-8540 SILTSTONE: dark orange to light brown, red to red-brown, occasional tan to light pink, soft, sub-blocky, calcite cement, poorly cemented, sandy in part; rare ANHYDRITE: as above; trace ARGILLACEOUS LIMESTONE: as above

Charles Formation: 1st Salt

[8,536' MD, 8,535' TVD (-6,417')]

8540-8570 SALT: translucent, anhedral, crystalline texture, hard, frosted; occasional SILTSTONE: dark orange to light brown, red to red-brown, occasional tan, soft, sub-blocky, calcite cement, poorly cemented, sandy in part

8570-8600 SALT: translucent, anhedral, crystalline texture, hard, frosted

8600-8630 SALT: translucent, anhedral, crystalline texture, hard, frosted

8630-8660 SALT: translucent, anhedral, crystalline texture, hard, frosted

8660-8690 SALT: translucent, anhedral, crystalline texture, hard, frosted; rare LIMESTONE: mudstone, cream, tan, light gray, microcrystalline, firm, dense, earthy texture, no visible porosity

8690-8720 SALT: translucent, anhedral, crystalline texture, hard, frosted; rare LIMESTONE: mudstone, cream, tan, light gray, microcrystalline, firm, dense, earthy texture, no visible porosity

8720-8750 SALT: translucent, anhedral, crystalline texture, hard, frosted; rare LIMESTONE: mudstone, cream, tan, light gray, microcrystalline, firm, dense, earthy texture, no visible porosity; rare ANHYDRITE: off white, soft, amorphous

8750-8780 SALT: translucent, anhedral, crystalline texture, hard, frosted; rare LIMESTONE: mudstone, cream, tan, light gray, microcrystalline, firm, dense, earthy texture, no visible porosity; rare ANHYDRITE: off white, soft, amorphous

8780-8810 ANHYDRITE: off white, soft, amorphous; common SALT: clear to milky, off white, crystalline, hard, euhedral; trace SILTSTONE: as above

8810-8840 ANHYDRITE: off white, soft, amorphous; common SALT: clear to milky, off white, crystalline, hard, euhedral; trace SILTSTONE: as above

8840-8870 ARGILLACEOUS LIMESTONE: mudstone, cream, tan, light gray, microcrystalline, firm, dense, earthy texture, no visible porosity, occasional ANHYDRITE: off white, soft, amorphous; trace SALT: as above

8870-8900 ARGILLACEOUS LIMESTONE: mudstone, cream, tan, light gray, microcrystalline, firm, dense, earthy texture, no visible porosity, occasional ANHYDRITE: off white, soft, amorphous

8900-8930 ARGILLACEOUS LIMESTONE: mudstone, cream, tan, light gray, microcrystalline, firm, dense, earthy texture, no visible porosity, occasional ANHYDRITE: off white, soft, amorphous

8930-8960 ARGILLACEOUS LIMESTONE: mudstone, cream, tan, light gray, microcrystalline, firm, dense, earthy texture, no visible porosity, occasional SALT: clear to milky, off white, crystalline, hard, euhedral; trace ANHYDRITE: as above

8960-8990 ARGILLACEOUS LIMESTONE: mudstone, cream, tan, light gray, microcrystalline, firm, dense, earthy texture, no visible porosity, occasional SALT: clear to milky, off white, crystalline, hard, euhedral; trace ANHYDRITE: as above

8990-9020 ARGILLACEOUS LIMESTONE: mudstone, cream, tan, light gray, microcrystalline, firm, dense, earthy texture, no visible porosity, occasional SALT: clear to milky, off white, crystalline, hard, euhedral; trace ANHYDRITE: as above, slow weak streaming pale yellow cut fluorescence

9020-9050 SALT: clear to milky, off white, crystalline, hard, euhedral; rare ARGILLACEOUS LIMESTONE: mudstone, cream, light gray, microcrystalline, firm, dense, earthy texture, no visible porosity; trace ANHYDRITE: off white, soft, amorphous

9050-9080 ARGILLACEOUS LIMESTONE: mudstone, cream, tan, light gray, microcrystalline, firm, dense, earthy texture, no visible porosity, occasional SALT: clear to milky, off white, crystalline, hard, euhedral; trace ANHYDRITE: as above

9080-9110 LIMESTONE: mudstone, light to medium gray-brown, tan, microcrystalline, firm to friable, rare algal matting; rare ANHYDRITE: off white, massive, soft, amorphous

9110-9140 LIMESTONE: mudstone, light to medium gray-brown, tan, microcrystalline, firm to friable, rare algal matting; rare ANHYDRITE: off white, massive, soft, amorphous

UB

[9,160' MD, 9,159' TVD (-7,041')]

9140-9170 LIMESTONE: mudstone, light to medium gray-brown, tan, microcrystalline, firm to friable, rare algal matting; common ANHYDRITE: off white, massive, soft, amorphous

9170-9200 LIMESTONE: mudstone, light to medium gray-brown, tan, microcrystalline, firm to friable, rare algal matting; common ANHYDRITE: off white, massive, soft, amorphous

9200-9230 LIMESTONE: mudstone, light to medium gray-brown, tan, massive, microcrystalline, firm to friable, rare algal matting; rare ANHYDRITE: as above; rare SALT: translucent to milky white, crystalline, hard, euhedral

Base Last Salt

[9,227' MD, 9,226' TVD (-7,207')]

9230-9260 LIMESTONE: mudstone, light to medium gray-brown, tan, massive, microcrystalline, firm to friable, rare algal matting; rare ANHYDRITE: as above; rare SALT: translucent to milky white, crystalline, hard, euhedral

Ratcliffe

[9,279' MD, 9,278' TVD (-7,160')]

9260-9290 LIMESTONE: mudstone, light to medium gray-brown, tan, massive, microcrystalline, firm to friable, rare algal matting; rare ANHYDRITE: as above; rare SALT: translucent to milky white, crystalline, hard, euhedral

9290-9320 LIMESTONE: mudstone, light to medium gray-brown, tan, massive, microcrystalline, firm to friable, rare algal matting; rare ANHYDRITE: as above

9320-9350 LIMESTONE: mudstone, light to medium gray-brown, tan, massive, microcrystalline, firm to friable, rare algal matting; rare ANHYDRITE: as above

9350-9380 LIMESTONE: mudstone, light to medium gray-brown, tan, massive, microcrystalline, firm to friable, rare Algal matting; rare ANHYDRITE: off white, massive, soft, amorphous

9380-9410 LIMESTONE: mudstone, light to medium gray-brown, tan, massive, microcrystalline, firm to friable, rare Algal matting; rare ANHYDRITE: off white, massive, soft, amorphous

9410-9440 LIMESTONE: mudstone, light to medium gray-brown, tan, massive, microcrystalline, firm to friable, rare Algal matting; rare ANHYDRITE: off white, massive, soft, amorphous

Mission Canyon Formation

[9,459' MD, 9,458' TVD (-7,340')]

9440-9470 LIMESTONE: mudstone, light to medium gray-brown, tan, massive, microcrystalline, firm to friable, rare algal matting; rare ANHYDRITE: off white, massive, soft, amorphous

9470-9500 LIMESTONE: mudstone, light to medium gray-brown, tan, massive, microcrystalline, firm to friable, rare algal matting; rare ANHYDRITE: off white, massive, soft, amorphous

9500-9530 LIMESTONE: mudstone, light to medium gray-brown, tan, massive, microcrystalline, firm to friable, rare algal matting; rare ANHYDRITE: off white, massive, soft, amorphous

9530-9560 LIMESTONE: mudstone, light to medium gray-brown, tan, massive, microcrystalline, firm to friable, rare algal matting; rare ANHYDRITE: off white, massive, soft, amorphous

9560-9590 LIMESTONE: mudstone, light to medium gray-brown, tan, massive, microcrystalline, firm to friable, rare algal matting; rare ANHYDRITE: off white, massive, soft, amorphous

9590-9620 LIMESTONE: mudstone, light to medium gray-brown, tan, massive, microcrystalline, firm to friable, rare algal matting; rare ANHYDRITE: off white, massive, soft, amorphous

9620-9650 LIMESTONE: mudstone, light to medium gray-brown, tan, massive, microcrystalline, firm to friable, rare algal matting; rare ANHYDRITE: off white, massive, soft, amorphous

9650-9680 LIMESTONE: mudstone, light to medium gray-brown, tan, massive, microcrystalline, firm to friable, rare algal matting; rare ANHYDRITE: off white, massive, soft, amorphous

9680-9710 LIMESTONE: mudstone, light to medium gray-brown, tan, massive, microcrystalline, firm to friable, rare algal matting; rare ANHYDRITE: off white, massive, soft, amorphous

9710-9740 ARGILLACEOUS LIMESTONE: mudstone to wackestone, light to medium brown gray, common cream to tan, microcrystalline, firm to hard, algal structure, trace disseminated pyrite, no visible porosity

9740-9770 ARGILLACEOUS LIMESTONE: mudstone to wackestone, light to medium brown gray, common cream to tan, microcrystalline, firm to hard, algal structure, trace disseminated pyrite, no visible porosity

9770-9800 ARGILLACEOUS LIMESTONE: mudstone to wackestone, light to medium brown gray, common cream to tan, microcrystalline, firm to hard, algal structure, trace disseminated pyrite, no visible porosity

9800-9830 ARGILLACEOUS LIMESTONE: mudstone to wackestone, light to medium brown gray, common cream to tan, microcrystalline, firm to hard, algal structure, trace disseminated pyrite, no visible porosity

9830-9860 ARGILLACEOUS LIMESTONE: mudstone to wackestone, light to medium brown gray, common cream to tan, microcrystalline, firm to hard, algal structure, trace disseminated pyrite, no visible porosity

9860-9890 ARGILLACEOUS LIMESTONE: mudstone to wackestone, light to medium brown gray, common cream to tan, microcrystalline, firm to hard, algal structure, trace disseminated pyrite, no visible porosity

9890-9920 ARGILLACEOUS LIMESTONE: mudstone to wackestone, light to medium brown gray, common cream to tan, microcrystalline, firm to hard, algal structure, trace disseminated pyrite, no visible porosity

9920-9950 ARGILLACEOUS LIMESTONE: mudstone to wackestone, light to medium brown gray, common cream to tan, microcrystalline, firm to hard, algal structure, trace disseminated pyrite, no visible porosity, very slow weak diffuse pale green cut fluorescence

9950-9980 ARGILLACEOUS LIMESTONE: mudstone to wackestone, light to medium brown gray, common cream to tan, microcrystalline, firm to hard, algal structure, trace disseminated pyrite, no visible porosity, very slow weak diffuse pale green cut fluorescence

9980-10010 ARGILLACEOUS LIMESTONE: mudstone to wackestone, light to medium brown gray, common cream to tan, microcrystalline, firm to hard, algal structure, trace disseminated pyrite, no visible porosity

Lodgepole Formation **[10,013' MD, 10,012' TVD (-7,894')]**

10010-10040 ARGILLACEOUS LIMESTONE: mudstone, gray to dark gray, occasional off white, microcrystalline, firm, dense, earthy texture, no visible porosity

10040-10070 ARGILLACEOUS LIMESTONE: mudstone, gray to dark gray, occasional off white, microcrystalline, firm, dense, earthy texture, no visible porosity

10070-10100 ARGILLACEOUS LIMESTONE: mudstone, gray to dark gray, occasional off white, microcrystalline, firm, dense, earthy texture, no visible porosity

10100-10130 ARGILLACEOUS LIMESTONE: mudstone, gray to medium gray, dark gray, trace off white, microcrystalline, firm, dense, earthy texture, trace disseminated pyrite, no visible porosity

10130-10160 ARGILLACEOUS LIMESTONE: mudstone, gray to medium gray, dark gray, trace off white, microcrystalline, firm, dense, earthy texture, trace disseminated pyrite, no visible porosity

10160-10190 ARGILLACEOUS LIMESTONE: mudstone, gray to medium gray, dark gray, trace off white, microcrystalline, firm, dense, earthy texture, trace disseminated pyrite, no visible porosity

10190-10220 ARGILLACEOUS LIMESTONE: mudstone, gray to medium gray, dark gray, trace off white, microcrystalline, firm, dense, earthy texture, trace disseminated pyrite, no visible porosity, very slow weak cloudy pale green cut fluorescence

10220-10250 ARGILLACEOUS LIMESTONE: mudstone, gray to medium gray, dark gray, trace off white, microcrystalline, firm, dense, earthy texture, trace disseminated pyrite, no visible porosity, slow weak cloudy pale green cut fluorescence

10250-10280 ARGILLACEOUS LIMESTONE: mudstone, gray to medium gray, dark gray, trace off white, microcrystalline, firm, dense, earthy texture, trace disseminated pyrite, no visible porosity, slow weak cloudy pale green cut fluorescence

10280-10300 ARGILLACEOUS LIMESTONE: mudstone, gray to medium gray, dark gray, trace off white, microcrystalline, firm, dense, earthy texture, trace disseminated pyrite, no visible porosity, very slow cloudy pale green cut fluorescence

10310-10340 ARGILLACEOUS LIMESTONE: mudstone, gray to medium gray, dark gray, trace off white, microcrystalline, firm, dense, earthy texture, trace disseminated pyrite, no visible porosity

10340-10370 ARGILLACEOUS LIMESTONE: mudstone, gray to medium gray, dark gray, trace off white, microcrystalline, firm, dense, earthy texture, trace disseminated pyrite, no visible porosity

10370-10400 ARGILLACEOUS LIMESTONE: mudstone, gray to medium gray, dark gray, trace off white, microcrystalline, firm, dense, earthy texture, trace disseminated pyrite, no visible porosity

10400-10430 ARGILLACEOUS LIMESTONE: mudstone, gray to medium gray, dark gray, trace off white, microcrystalline, firm, dense, earthy texture, trace disseminated pyrite, no visible porosity

10430-10460 ARGILLACEOUS LIMESTONE: mudstone, gray to medium gray, dark gray, trace off white, microcrystalline, firm, dense, earthy texture, trace disseminated pyrite, no visible porosity

10460-10490 ARGILLACEOUS LIMESTONE: mudstone, medium to dark gray-brown, occasional light gray to tan, very fine crystalline, firm to friable, earthy, microcrystalline, dense, trace disseminated pyrite, no visible porosity

10490-10520 ARGILLACEOUS LIMESTONE: mudstone, medium to dark gray-brown, occasional light gray to tan, very fine crystalline, firm to friable, earthy, microcrystalline, dense, trace disseminated pyrite, no visible porosity

10520-10550 ARGILLACEOUS LIMESTONE: mudstone, medium to dark gray-brown, occasional light gray to tan, very fine crystalline, firm to friable, earthy, microcrystalline, dense, trace disseminated pyrite, no visible porosity

10550-10580 ARGILLACEOUS LIMESTONE: mudstone, medium to dark gray-brown, occasional light gray to tan, very fine crystalline, firm to friable, earthy, microcrystalline, dense, trace disseminated pyrite, no visible porosity

10580-10610 ARGILLACEOUS LIMESTONE: mudstone, medium to dark gray-brown, occasional light gray to tan, very fine crystalline, firm to friable, earthy, microcrystalline, dense, trace disseminated pyrite, no visible porosity

10610-10640 ARGILLACEOUS LIMESTONE: mudstone, medium to dark gray-brown, occasional light gray to tan, very fine crystalline, firm to friable, earthy, microcrystalline, dense, trace disseminated pyrite, no visible porosity

10640-10670 ARGILLACEOUS LIMESTONE: mudstone, medium to dark gray-brown, occasional light gray to tan, very fine crystalline, firm to friable, earthy, microcrystalline, dense, trace disseminated pyrite, no visible porosity

10670-10700 ARGILLACEOUS LIMESTONE: mudstone, medium to dark gray-brown, occasional light gray to tan, very fine crystalline, firm to friable, earthy, microcrystalline, dense, trace disseminated pyrite, no visible porosity

10700-10730 ARGILLACEOUS LIMESTONE: mudstone, medium to dark gray-brown, occasional light gray to tan, very fine crystalline, firm to friable, earthy, microcrystalline, dense, trace disseminated pyrite, no visible porosity

10730-10760 ARGILLACEOUS LIMESTONE: mudstone, medium to dark gray-brown, occasional light gray to tan, very fine crystalline, firm to friable, earthy, microcrystalline, dense, trace disseminated pyrite, no visible porosity

False Bakken

[10,782' MD, 10,718' TVD (-8,600')]

10760-10790 ARGILLACEOUS LIMESTONE: mudstone, medium to dark gray-brown, occasional light gray to tan, very fine crystalline, firm to friable, earthy, microcrystalline, dense, banded, trace disseminated pyrite, no visible porosity

Bakken Formation: Upper Bakken Shale

[10,797' MD, 10,727' TVD (-8,609')]

10790-10820 ARGILLACEOUS LIMESTONE: mudstone, medium to dark gray, common light gray to tan, trace off white, microcrystalline, firm to hard, dense, earthy texture, rare disseminated pyrite, no visible porosity; occasional SHALE: very dark brown, trace black, soft to firm, blocky, earthy texture, trace disseminated pyrite

Middle Bakken

[10,823' MD, 10,743' TVD (-8,625')]

10820-10850 SHALE: black to very dark brown, firm, blocky, earthy texture, disseminated pyrite, petroliferous, carbonaceous; SILTSTONE: light gray to light gray-brown, sub-blocky, calcite cemented, trace disseminated pyrite, possible intergranular porosity

10860-10870 SILTSTONE: light gray to light gray-brown, sub-blocky, calcite cemented, trace disseminated pyrite, possible intergranular porosity; rare SHALE: black to very dark brown, firm, blocky, earthy texture, disseminated pyrite, petroliferous, carbonaceous

10850-10860 SHALE: black to very dark brown, firm, blocky, earthy texture, disseminated pyrite, petroliferous, carbonaceous; trace SILTSTONE: light gray, light gray-brown, sub-blocky, calcite cemented, trace disseminated pyrite, possible intergranular porosity

10870-10880 SILTSTONE: light gray to light gray-brown, sub-blocky, calcite cemented, trace disseminated pyrite, possible intergranular porosity; rare SHALE: as above

10880-10890 SILTSTONE: as above; occasional SILTY SANDSTONE: medium to light gray, gray to brown, fine grained, sub-rounded, firm, moderately sorted, calcite cement, moderately cemented, trace disseminated pyrite, possible intergranular porosity, trace spotty light brown oil stain

10890-10900 SILTSTONE: light gray to light gray-brown, sub-blocky, calcite cemented, trace disseminated pyrite, possible intergranular porosity; rare SHALE: as above; SILTY SANDSTONE: as above

10900-10910 SILTSTONE: light gray to light gray-brown, sub-blocky, calcite cemented, trace disseminated pyrite, possible intergranular porosity; rare SHALE: black to very dark brown, firm, blocky, earthy texture, trace disseminated pyrite, petroliferous, carbonaceous; SILTY SANDSTONE: as above

Lower Bakken Shale

[10,908' MD, 10,786' TVD (-8,668')]

10910-10920 SILTSTONE: light gray to light gray-brown, sub-blocky, calcite cemented, trace disseminated pyrite, possible intergranular porosity; rare SHALE: black to very dark brown, firm, blocky, earthy texture, rare disseminated pyrite, petroliferous, carbonaceous; SILTY SANDSTONE: as above

10920-10930 SILTY SANDSTONE: medium to light gray, gray to brown, fine grained, sub-rounded, firm, moderately sorted, calcite cement, moderately cemented, trace disseminated pyrite, possible intergranular porosity, trace spotty light brown oil stain; occasional SHALE: black to dark brown, firm to hard, blocky, earthy texture, carbonaceous, rare disseminated pyrite

Pronghorn

[10,936' MD, 10,798' TVD (-8,680')]

10930-10940 SHALE: black to dark brown, firm to hard, blocky, earthy texture, carbonaceous, abundant disseminated pyrite

10940-10950 SHALE: black to dark brown, firm to hard, blocky, earthy texture, carbonaceous, rare disseminated pyrite

10950-10960 SILTSTONE: dark to medium brown gray, sub-blocky to sub-rounded, soft, well sorted, calcite cement, moderately cemented, visible intergranular porosity, trace spotty light brown oil stain; trace SHALE: black to dark brown, firm to hard, blocky, earthy texture, carbonaceous, rare disseminated pyrite

10960-10970 SILTSTONE: dark to medium brown gray, sub-blocky to sub-rounded, soft, well sorted, calcite cement, moderately cemented, visible intergranular porosity, trace spotty light brown oil stain; trace SHALE: black to dark brown, firm to hard, blocky, earthy texture, carbonaceous, rare disseminated pyrite

Three Forks Formation **[10,972' MD, 10,811' TVD (-8,693')]**

10970-10980 SILTSTONE: dark to medium brown gray, sub-blocky to sub-rounded, soft, well sorted, calcite cement, moderately cemented, visible intergranular porosity, trace spotty light brown oil stain; trace SHALE: black to dark brown, firm to hard, blocky, earthy texture, carbonaceous, rare disseminated pyrite

10980-10990 SILTSTONE: as above; ARGILLACEOUS DOLOMITE: mudstone, medium gray to gray-brown, pale green, cream to tan, fine crystalline, sucrosic texture, firm to friable, rare disseminated pyrite, silty in part, sandy in part, possible intercrystalline porosity, trace spotty light brown oil stain

10990-11000 ARGILLACEOUS DOLOMITE: mudstone, medium gray to gray-brown, pale green, cream to tan, fine crystalline, sucrosic texture, firm to friable, rare disseminated pyrite, silty in part, sandy in part, possible intercrystalline porosity, trace spotty light brown oil stain

11000-11010 ARGILLACEOUS DOLOMITE: mudstone, medium gray to gray-brown, pale green, cream to tan, fine crystalline, sucrosic texture, firm to friable, rare disseminated pyrite, silty in part, sandy in part, possible intercrystalline porosity, trace spotty light brown oil stain

11010-11020 ARGILLACEOUS DOLOMITE: mudstone, medium gray to gray-brown, pale green, cream to tan, fine crystalline, sucrosic texture, firm to friable, rare disseminated pyrite, silty in part, sandy in part, possible intercrystalline porosity, trace spotty light brown oil stain; common SHALE: light green, trace gray, friable, earthy texture, trace disseminated pyrite, no visible porosity, trace spotty light brown oil stain

11030-11040 ARGILLACEOUS DOLOMITE: mudstone, medium gray to gray-brown, pale green, cream to tan, fine crystalline, sucrosic texture, firm to friable, rare disseminated pyrite, silty in part, sandy in part, possible intercrystalline porosity; common SHALE: as above, trace spotty light brown oil stain

11020-11030 ARGILLACEOUS DOLOMITE: mudstone, medium gray to gray-brown, pale green, cream to tan, fine crystalline, sucrosic texture, firm to friable, rare disseminated pyrite, silty in part, sandy in part, possible intercrystalline porosity, trace spotty light brown oil stain; common SHALE: light green, trace gray, friable, earthy texture, trace disseminated pyrite, no visible porosity, trace spotty light brown oil stain

11040-11050 ARGILLACEOUS DOLOMITE: mudstone, medium gray to gray-brown, pale green, cream to tan, fine crystalline, sucrosic texture, firm to friable, rare disseminated pyrite, silty in part, sandy in part, possible intercrystalline porosity, trace spotty light brown oil stain; common SHALE: as above, trace spotty light brown oil stain

11050-11060 ARGILLACEOUS DOLOMITE: mudstone, tan, pink, friable, earthy texture, trace disseminated pyrite, trace spotty light brown oil stain; common SHALE: as above, trace spotty light brown oil stain

11060-11070 DOLOMITE: mudstone, tan, pink, friable, earthy texture, trace disseminated pyrite, possible intercrystalline porosity, trace spotty light brown oil stain; common SHALE: as above, trace spotty light brown oil stain

11070-11080 DOLOMITE: mudstone, tan, pink, friable, earthy texture, trace disseminated pyrite, possible intercrystalline porosity, trace spotty light brown oil stain; common SHALE: as above, trace spotty light brown oil stain

11080-11130 DOLOMITE: mudstone, tan, pink, friable, earthy texture, trace disseminated pyrite, possible intercrystalline porosity, trace spotty light brown oil stain; common SHALE: as above, trace spotty light brown oil stain, fast moderately diffuse pale green cut fluorescence

Landed curve at 01:00 CDT, 11 July 2013

11130-11160 DOLOMITE: mudstone, tan, pink, friable, earthy texture, trace disseminated pyrite, possible intercrystalline porosity, trace spotty light brown oil stain; common SHALE: as above, trace spotty light brown oil stain, fast weak diffuse pale green cut fluorescence

11160-11190 DOLOMITE: mudstone, tan, pink, friable, earthy texture, rare sucrosic texture, hard to firm, silty in part, sandy in part, trace disseminated pyrite, possible intercrystalline porosity, trace spotty light brown oil stain; common SHALE: as above; trace CLAYSTONE: light gray, medium gray to tan, occasional off white, massive, fine crystalline, dolomitic cement, trace disseminated pyrite, no visible porosity, trace spotty light brown oil stain, fast moderately diffuse pale green cut fluorescence

11190-11220 DOLOMITE: mudstone, tan, pink, friable, earthy texture, rare sucrosic texture, hard to firm, silty in part, sandy in part, trace disseminated pyrite, possible intercrystalline porosity, trace spotty light brown oil stain; common SHALE: as above; trace CLAYSTONE: as above, fast moderately diffuse pale green cut fluorescence

11250-11250 DOLOMITE: mudstone, tan, pink, friable, earthy texture, rare sucrosic texture, hard to firm, silty in part, sandy in part, trace disseminated pyrite, possible intercrystalline porosity, trace spotty light brown oil stain; common SHALE: as above; trace CLAYSTONE: as above, fast moderately diffuse pale green cut fluorescence

11250-11280 DOLOMITE: mudstone, tan, pink, friable, earthy texture, rare sucrosic texture, hard to firm, silty in part, sandy in part, trace disseminated pyrite, possible intercrystalline porosity, trace spotty light brown oil stain; common SHALE: as above; trace CLAYSTONE: as above, fast moderately diffuse pale green cut fluorescence

11280-11310 DOLOMITE: mudstone, tan, pink, friable, earthy texture, rare sucrosic texture, hard to firm, silty in part, sandy in part, trace disseminated pyrite, possible intercrystalline porosity, trace spotty light brown oil stain; SHALE: light green, trace gray, friable, earthy texture, trace disseminated pyrite, no visible porosity, trace spotty light brown oil stain, fast weak diffuse pale green cut fluorescence

11310-11340 DOLOMITE: mudstone, tan, pink, orange, off white, friable, sucrosic texture, hard to firm, silty in part, sandy in part, trace disseminated pyrite, possible intercrystalline porosity, trace spotty light brown oil stain; occasional SHALE: as above, fast weak diffuse pale green cut fluorescence

11340-11370 DOLOMITE: mudstone, tan, pink, orange, off white, friable, sucrosic texture, hard to firm, silty in part, sandy in part, trace disseminated pyrite, possible intercrystalline porosity, trace spotty light brown oil stain; occasional SHALE: as above, fast weak diffuse pale green cut fluorescence

11370-11400 DOLOMITE: mudstone, tan, pink, orange, off white, friable, sucrosic texture, hard to firm, silty in part, sandy in part, trace disseminated pyrite, possible intercrystalline porosity, trace spotty light brown oil stain; occasional SHALE: as above, fast weak diffuse pale green cut fluorescence

11400-11430 DOLOMITE: mudstone, tan, pink, orange, off white, friable, sucrosic texture, hard to firm, silty in part, sandy in part, trace disseminated pyrite, possible intercrystalline porosity, trace spotty light brown oil stain; rare SHALE: as above, fast weak diffuse pale green cut fluorescence

11430-11460 DOLOMITE: mudstone, tan, pink, orange, off white, friable, sucrosic texture, hard to firm, silty in part, sandy in part, trace disseminated pyrite, possible intercrystalline porosity, trace spotty light brown oil stain; rare SHALE: as above, fast weak diffuse pale green cut fluorescence

11460-11490 DOLOMITE: mudstone, tan, pink, orange, off white, friable, sucrosic texture, hard to firm, silty in part, sandy in part, trace disseminated pyrite, possible intercrystalline porosity, trace spotty light brown oil stain; rare SHALE: as above, fast weak diffuse pale green cut fluorescence

11490-11520 DOLOMITE: mudstone, tan, pink, friable, earthy texture, sucrosic texture, hard to firm, silty in part, sandy in part, trace disseminated pyrite, possible intercrystalline porosity, trace spotty light brown oil stain; rare SHALE: as above, fast weak diffuse pale green cut fluorescence

11520-11550 DOLOMITE: mudstone, tan, pink, friable, earthy texture, sucrosic texture, hard to firm, silty in part, sandy in part, trace disseminated pyrite, possible intercrystalline porosity, trace spotty light brown oil stain; rare SHALE: as above, fast weak diffuse pale green cut fluorescence

19050-19080 DOLOMITE: mudstone, tan, pink, friable, earthy texture, rare sucrosic texture, hard to firm, silty in part, sandy in part, trace disseminated pyrite, possible intercrystalline porosity, trace spotty light brown oil stain; rare SHALE: as above, moderately lube contamination

19080-19110 DOLOMITE: mudstone, tan, pink, friable, earthy texture, rare sucrosic texture, hard to firm, silty in part, sandy in part, trace disseminated pyrite, possible intercrystalline porosity, trace spotty light brown oil stain; rare SHALE: as above, moderately lube contamination

19110-19140 DOLOMITE: mudstone, tan, pink, friable, earthy texture, rare sucrosic texture, hard to firm, silty in part, sandy in part, trace disseminated pyrite, possible intercrystalline porosity, trace spotty light brown oil stain; rare SHALE: as above, moderately weak diffuse pale green cut fluorescence

19140-19170 DOLOMITE: mudstone, tan, pink, friable, earthy texture, rare sucrosic texture, hard to firm, silty in part, sandy in part, trace disseminated pyrite, possible intercrystalline porosity, trace spotty light brown oil stain; rare SHALE: as above, moderately weak diffuse pale green cut fluorescence

19170-19200 DOLOMITE: mudstone, tan, pink, friable, earthy texture, rare sucrosic texture, hard to firm, silty in part, sandy in part, trace disseminated pyrite, possible intercrystalline porosity, trace spotty light brown oil stain; rare SHALE: as above, moderately weak diffuse pale green cut fluorescence

19200-19230 DOLOMITE: mudstone, tan, pink, friable, earthy texture, rare sucrosic texture, hard to firm, silty in part, sandy in part, trace disseminated pyrite, possible intercrystalline porosity, trace spotty light brown oil stain; rare SHALE: as above, fast weak diffuse pale green cut fluorescence

19230-19260 DOLOMITE: mudstone, tan, pink, friable, earthy texture, rare sucrosic texture, hard to firm, silty in part, sandy in part, trace disseminated pyrite, possible intercrystalline porosity, trace spotty light brown oil stain; rare SHALE: as above, fast weak diffuse pale green cut fluorescence

19260-19290 DOLOMITE: mudstone, tan, pink, friable, earthy texture, rare sucrosic texture, hard to firm, silty in part, sandy in part, trace disseminated pyrite, possible intercrystalline porosity, trace spotty light brown oil stain; rare SHALE: as above, fast weak diffuse pale green cut fluorescence

1929-19320 DOLOMITE: mudstone, tan, pink, friable, earthy texture, rare sucrosic texture, hard to firm, silty in part, sandy in part, trace disseminated pyrite, possible intercrystalline porosity, trace spotty light brown oil stain; rare SHALE: as above, fast weak diffuse pale green cut fluorescence

19320-19350 DOLOMITE: mudstone, tan, pink, friable, earthy texture, rare sucrosic texture, hard to firm, silty in part, sandy in part, trace disseminated pyrite, possible intercrystalline porosity, trace spotty light brown oil stain; rare SHALE: as above, fast weak diffuse pale green cut fluorescence

19350-19380 DOLOMITE: mudstone, tan, pink, friable, earthy texture, rare sucrosic texture, hard to firm, silty in part, sandy in part, trace disseminated pyrite, possible intercrystalline porosity, trace spotty light brown oil stain; rare SHALE: as above, fast weak diffuse pale green cut fluorescence

19380-19410 DOLOMITE: mudstone, tan, pink, friable, earthy texture, rare sucrosic texture, hard to firm, silty in part, sandy in part, trace disseminated pyrite, possible intercrystalline porosity, trace spotty light brown oil stain; rare SHALE: as above, fast weak diffuse pale green cut fluorescence

19410-19440 DOLOMITE: mudstone, tan, pink, friable, earthy texture, rare sucrosic texture, hard to firm, silty in part, sandy in part, trace disseminated pyrite, possible intercrystalline porosity, trace spotty light brown oil stain; rare SHALE: as above, fast weak diffuse pale green cut fluorescence

19440-19470 DOLOMITE: mudstone, tan, pink, friable, earthy texture, rare sucrosic texture, hard to firm, silty in part, sandy in part, trace disseminated pyrite, possible intercrystalline porosity, trace spotty light brown oil stain; rare SHALE: as above, fast weak diffuse pale green cut fluorescence

19470-19500 DOLOMITE: mudstone, tan, pink, friable, earthy texture, rare sucrosic texture, hard to firm, silty in part, sandy in part, trace disseminated pyrite, possible intercrystalline porosity, trace spotty light brown oil stain; rare SHALE: as above; trace CLAYSTONE: light gray, medium gray to tan, occasional off white, massive, fine crystalline, dolomitic cement, trace disseminated pyrite, no visible porosity, trace spotty light brown oil stain, fast weak cloudy pale green cut fluorescence

20730-20760 DOLOMITE: mudstone, tan, pink, friable, earthy texture, rare sucrosic texture, hard to firm, silty in part, sandy in part, trace disseminated pyrite, possible intercrystalline porosity, trace spotty light brown oil stain; trace SHALE: as above, fast weak diffuse pale green cut

20760-20790 DOLOMITE: mudstone, tan, pink, friable, earthy texture, rare sucrosic texture, hard to firm, silty in part, sandy in part, trace disseminated pyrite, possible intercrystalline porosity, trace spotty light brown oil stain; trace SHALE: as above, fast weak diffuse pale green cut

20709-20820 DOLOMITE: mudstone, tan, pink, friable, earthy texture, rare sucrosic texture, hard to firm, silty in part, sandy in part, trace disseminated pyrite, possible intercrystalline porosity, trace spotty light brown oil stain; trace SHALE: as above, fast weak diffuse pale green cut

20820-20850 DOLOMITE: mudstone, tan, pink, friable, earthy texture, rare sucrosic texture, hard to firm, silty in part, sandy in part, trace disseminated pyrite, possible intercrystalline porosity, trace spotty light brown oil stain; trace SHALE: as above, fast weak diffuse pale green cut

20850-20880 DOLOMITE: mudstone, tan, pink, friable, earthy texture, rare sucrosic texture, hard to firm, silty in part, sandy in part, trace disseminated pyrite, possible intercrystalline porosity, trace spotty light brown oil stain; trace SHALE: as above, fast weak diffuse pale green cut

20880-20910 DOLOMITE: mudstone, tan, pink, friable, earthy texture, rare sucrosic texture, hard to firm, silty in part, sandy in part, trace disseminated pyrite, possible intercrystalline porosity, trace spotty light brown oil stain; trace SHALE: as above, fast weak diffuse pale green cut

20910-20940 DOLOMITE: mudstone, tan, pink, friable, earthy texture, rare sucrosic texture, hard to firm, silty in part, sandy in part, trace disseminated pyrite, possible intercrystalline porosity, trace spotty light brown oil stain; trace SHALE: as above, fast weak diffuse pale green cut

20940-20970 DOLOMITE: mudstone, tan, pink, friable, earthy texture, rare sucrosic texture, hard to firm, silty in part, sandy in part, trace disseminated pyrite, possible intercrystalline porosity, trace spotty light brown oil stain; trace SHALE: as above, fast weak diffuse pale green cut

20970-21000 DOLOMITE: mudstone, tan, pink, friable, earthy texture, rare sucrosic texture, hard to firm, silty in part, sandy in part, trace disseminated pyrite, possible intercrystalline porosity, trace spotty light brown oil stain; trace SHALE: as above, fast weak diffuse pale green cut

21000-21030 DOLOMITE: mudstone, tan, pink, friable, earthy texture, rare sucrosic texture, hard to firm, silty in part, sandy in part, trace disseminated pyrite, possible intercrystalline porosity, trace spotty light brown oil stain; trace SHALE: as above, fast weak diffuse pale green cut

21030-21060 DOLOMITE: mudstone, tan, pink, friable, earthy texture, rare sucrosic texture, hard to firm, silty in part, sandy in part, trace disseminated pyrite, possible intercrystalline porosity, trace spotty light brown oil stain; trace SHALE: as above, fast weak diffuse pale green cut

21060-21126 DOLOMITE: mudstone, tan, pink, friable, earthy texture, rare sucrosic texture, hard to firm, silty in part, sandy in part, trace disseminated pyrite, possible intercrystalline porosity, trace spotty light brown oil stain; trace SHALE: as above, fast weak diffuse pale green cut



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.
22221

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



<input checked="" type="checkbox"/> Notice of Intent	Approximate Start Date June 25, 2013	<input type="checkbox"/> Drilling Prognosis	<input checked="" 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 Name change	

Well Name and Number Innoko 5301 41-12T					
Footages	Qtr-Qtr	Section	Township	Range	
250 F S L	2350 F E L	SWSE	12	153 N	101 W
Field <i>Bakker</i>	Pool Bakken			County McKenzie	

24-HOUR PRODUCTION RATE			
Before		After	
Oil	Bbls	Oil	Bbls
Water	Bbls	Water	Bbls
Gas	MCF	Gas	MCF

Name of Contractor(s)			
Address		City	State
			Zip Code

DETAILS OF WORK

Oasis Petroleum respectfully requests permission a name change on the above referenced well:

Name changed to: Innoko 5301 43-12T

Invoice #38124 80 7/2/13

cc 25,00

Company Oasis Petroleum North America LLC		Telephone Number 281-404-9563
Address 1001 Fannin, Suite 1500		
City Houston		State TX
Signature <i>Heather McCowan</i>		Printed Name Heather McCowan
Title Regulatory Assistant	Date June 25, 2013	
Email Address hmccowan@oasispetroleum.com		

<input type="checkbox"/> Received	<input checked="" type="checkbox"/> Approved
Date <i>06-28-2013</i>	
By <i>David Burns</i>	
Title David Burns Engineering Tech.	



SUNDY NOTICI 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.

22221



PLEASE READ INSTRUCTIONS BEFORE FILLING OUT FORM.

PLEASE SUBMIT THE ORIGINAL AND ONE COPY.

 Notice of Intent

Approximate Start Date

June 10, 2013

 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 OtherWaiver to rule Rule 43-02-03-31

Well Name and Number

Innoko 5301 4/ -12T

Footages

250**F****S****L****2350****F****E****L**

Qtr-Qtr

SWSE

Section

12

Township

153 N

Range

101 W

Field

Pool
BakkenCounty
McKenzie

24-HOUR PRODUCTION RATE

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

Name of Contractor(s)

Address

City

State

Zip Code

DETAILS OF WORK

Oasis Petroleum respectfully requests 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 Gulf Oil/ Lindvig 1-11-3C located within a mile of the subject well

*Approval per log run on # 9309 - Lindvig 1-11 HR

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 Oasis Petroleum North America LLC	Telephone Number 281-404-9563	
Address 1001 Fannin, Suite 1500		
City Houston	State TX	Zip Code 77002
Signature <i>Heather McCowan</i>	Printed Name Heather McCowan	
Title Regulatory Assistant	Date June 10, 2013	
Email Address hmccowan@oasispetroleum.com		

FOR STATE USE ONLY

<input type="checkbox"/> Received	<input checked="" type="checkbox"/> Approved
Date <i>6-10-2013</i>	
By <i>Richard A. Suggs</i>	
Title Geologist	



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.
22221

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

<input checked="" type="checkbox"/> Notice of Intent	Approximate Start Date June 6, 2013
<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 checked="" type="checkbox"/> Other | <u>location revision</u> |

Well Name and Number
Innoko 5301 43-12T

Footages	Qtr-Qtr	Section	Township	Range
250 F S L	2410 F E L	SWSE	12	153 N 101 W
Field Baker	Pool Bakken	County McKenzie		

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 & 2350' FEL, Sec. 12-153N-101W. (This modification was made to accommodate the drilling rigs)
Correlating to this surface location the new casing point will be 210' FNL & 2520' FEL, Sec. 13-153N-101W

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 Oasis Petroleum Inc.	Telephone Number (281) 404-9563	
Address 1001 Fannin, Suite 1500		
City Houston	State TX	Zip Code 77002
Signature 	Printed Name Heather McCowan	
Title Regulatory Assistant	Date June 6, 2013	
Email Address hmccowan@oasispetroleum.com		

FOR STATE USE ONLY

<input type="checkbox"/> Received	<input checked="" type="checkbox"/> Approved
Date 6-7-13	
By 	
Title Petroleum Resource Specialist	

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

250 FEET FROM SOUTH LINE AND 2350 FEET FROM EAST LINE
SECTION 12, T153N, R101W, 5TH P.M., MCKENZIE COUNTY, NORTH DAKOTA

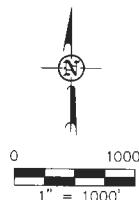
THIS DOCUMENT WAS ORIGINALLY ISSUED AND SEALED BY DARYL D. KASEMAN, PLS, REGISTRATION NUMBER 3880 ON 6/05/13 AND THE ORIGINAL DOCUMENTS ARE STORED AT THE OFFICES OF INTERSTATE ENGINEERING, INC.



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.

DARYL D. KASEMAN, LS-3880

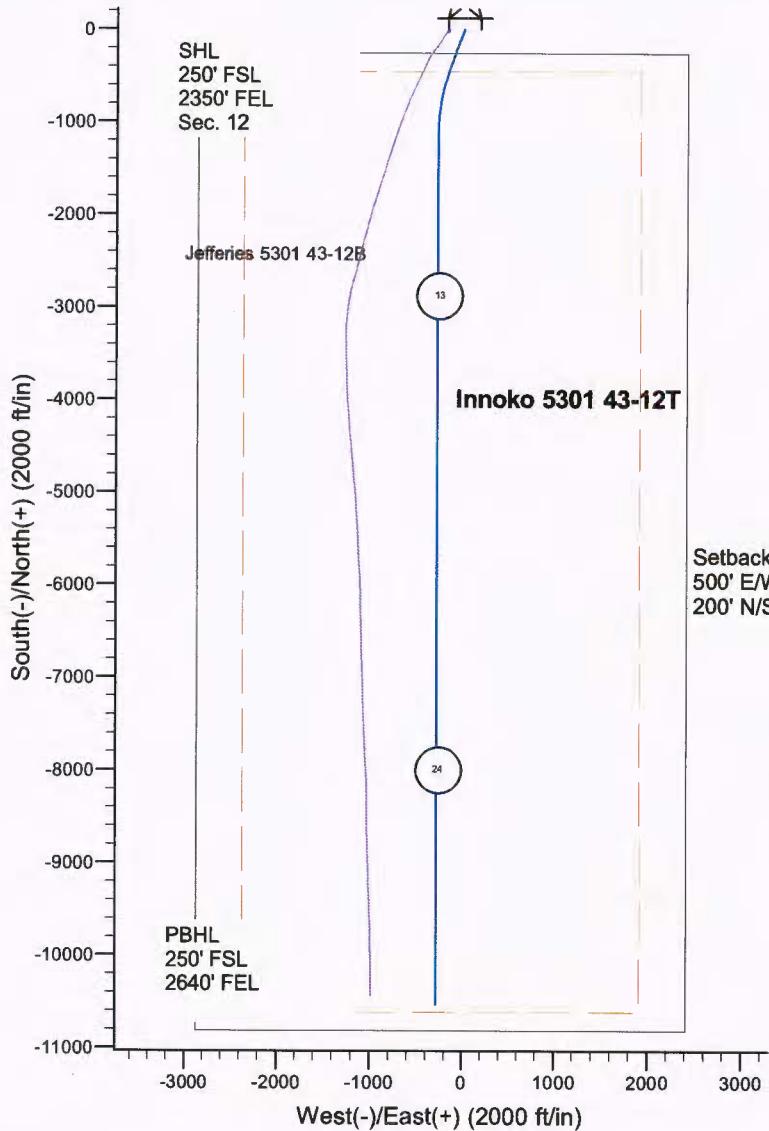


- MONUMENT — RECOVERED
- MONUMENT — NOT RECOVERED

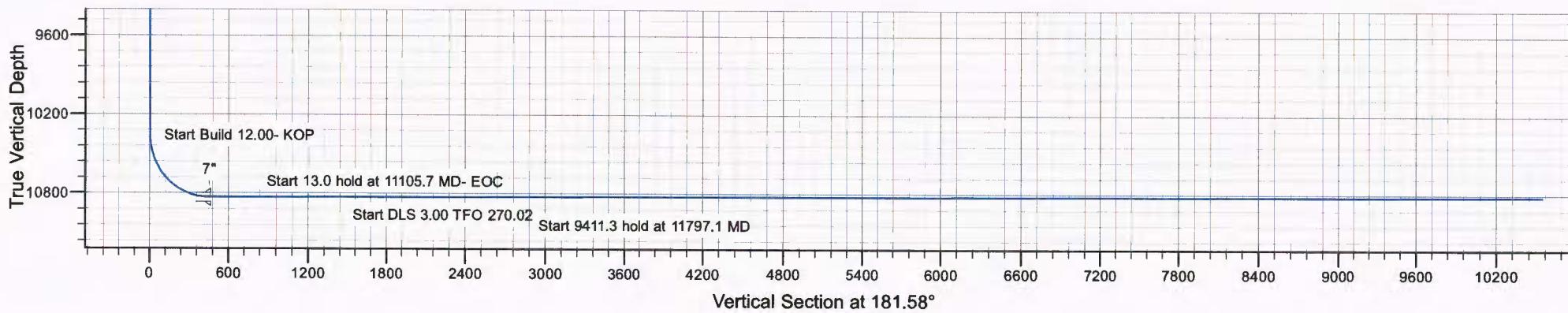


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1/8	INTERSTATE ENGINEERING	Interstate Engineering, Inc. P.O. Box 648 425 East Main Street Sidney, Montana 59270 Ph. (406) 433-5617 Fax (406) 433-5618 www.interstateeng.com	OASIS PETROLEUM NORTH AMERICA, LLC WELL LOCATION PLAT SECTION 12, T153N, R101W MCKENZIE COUNTY, NORTH DAKOTA																				
		Drawn By: J.J.S. Project No.: S1109-361 Checked By: D.D.K. Date: DEC 2011	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Revision No.</th> <th>Date</th> <th>By</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>REV 1</td> <td>1/9/12</td> <td>JJS</td> <td>SWAPPED WELL LOCATIONS</td> </tr> <tr> <td>REV 2</td> <td>2/5/13</td> <td>JJS</td> <td>Moved bottom hole / changed name</td> </tr> <tr> <td>REV 3</td> <td>2/14/13</td> <td>JJS</td> <td>Revised well call</td> </tr> <tr> <td>REV 4</td> <td>6/05/13</td> <td>JJS</td> <td>Moved well E&W</td> </tr> </tbody> </table>	Revision No.	Date	By	Description	REV 1	1/9/12	JJS	SWAPPED WELL LOCATIONS	REV 2	2/5/13	JJS	Moved bottom hole / changed name	REV 3	2/14/13	JJS	Revised well call	REV 4	6/05/13	JJS	Moved well E&W
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WELL DETAILS: Innoko 5301 43-12T																																																															
Northing 125075.65	Ground Level: 2093.0	Easting 368085.94	Latitude 48° 4' 58.050 N	Longitude 103° 36' 49.476 W																																																											
Project: Indian Hills Site: 153N-101W-13/24 Well: Innoko 5301 43-12T Wellbore: Innoko 5301 43-12T Design: INNOKO 5301 43-12T PLAN																																																															
<p>Azimuths to True North Magnetic North: 8.34°</p> <p>Magnetic Field Strength: 56589.9snT Dip Angle: 73.02° Date: 3/28/2013 Model: IGRF200510</p>																																																															
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<p>True Vertical Depth (450 ft/in)</p> <p>Vertical Section at 181.58° (450 ft/in)</p>																																																															



OASIS
PETROLEUM

DRILLING PLAN									
OPERATOR	Oasis Petroleum	COUNTY/STATE	McKenzie Co., ND						
WELL NAME	TINNOKO 5301-43-12T	RIG	Nabors B25						
WELL TYPE	Horizontal Three Forks	Surface Location (survey plat)	2350' Lat						
LOCATION	SWSW 12 153N-101W	GROUND ELEV:	2063'	Finished Pad Elev.	Sub Height:	2118'			
EST. T.D.	21,208'	KB ELEV:	2118'						
TOTAL LATERAL:	10,089' (est)								
PROGNOSIS:	Beaded (in 2,118' KB/est)	LOGS:	Type	Interval					
MARKER	DEPTH (Surf Loc)	DATUM (Surf Loc)	OH Logs: Triple Combo KOP to Kirby (or min run of 1800' whichever is greater); GR/Res to BSC; GR to surf; CND through the Dakota						
Pierre	NDIC MAP	2,018	100'						
Greenhorn		4,646	-2,528'						
Mowry		5,038	-2,918'						
Dakota		5,463	-3,345'						
Rierdon		6,382	-4,284'						
Dunham Salt		6,899	-4,781'						
Dunham Salt Base		6,976	-4,858'						
Spearfish		6,986	-4,868'						
Pine Salt		7,277	-5,159'						
Pine Salt Base		7,333	-5,215'						
Opeche Salt		7,360	-5,242'						
Opeche Salt Base		7,399	-5,281'						
Broom Creek (Top of Minnelusa Gp.)		7,804	-5,486'						
Amsden		7,863	-5,545'						
Tyler		7,852	-5,734'						
Otter (Base of Minnelusa Gp.)		8,024	-5,906'						
Kibbey		8,375	-6,257'						
Charles Salt		8,522	-6,404'						
UB		9,148	-7,030'						
Base Last Salt		9,224	-7,108'						
Ratcliffe		9,268	-7,150'						
Mission Canyon		9,443	-7,325'						
Lodgepole		10,009	-7,891'						
Lodgepole Fracture Zone		10,194	-8,076'						
False Bakken		10,717	-8,599'						
Upper Bakken		10,726	-8,608'						
Middle Bakken		10,736	-8,618'						
Lower Bakken		10,777	-8,659'						
Pronghorn		10,790	-8,672'						
Three Forks		10,806	-8,688'						
Three Forks Target Top		10,814	-8,696'						
Three Forks Target Base		10,832	-8,714'						
Claystone		10,834	-8,716'						
Dip Rate:	overall +0.09° or .16°/100' up (complex)								
Max. Anticipated BHP:	4585								
MUD:	Interval	Type	WT	Vis	WL	Remarks			
Surface:	0' -	2,100' FW/Gel - Lime Sweeps	8.4-9.0	28-32	NC	Circ Mud Tanks			
Intermediate:	2,100' -	11,119' Invert	9.5-10.4	40-50	30+HHP	Circ Mud Tanks			
Lateral:	11,119' -	21,208' Salt Water	9.8-10.2	28-32	NC	Circ Mud Tanks			
CASING:	Size	Wt ppf	Hole	Depth	Cement	WOC			
Surface:	9-5/8"	36#	13-1/2"	2,100'	To Surface	12			
Intermediate:	7"	32#	8-3/4"	11,119'	3,963'	24			
Production Liner:	4.5"	13.5#	6"	21,208'	TOL @ 10,305'	100' into Pierre 1500' above Dakota 50' above KOP			
PROBABLE PLUGS, IF REQ'D:									
OTHER:	MD	TVD	FNL/FSL	FEL/FWL	S-T-R	AZI			
Surface:	2,100	2,118	250' FSL	2350' FEL	Sec. 12 T153N-R101W	Survey Company:			
KOP:	10,355'	10,355'	250' FSL	2350' FEL	Sec. 12 T153N-R101W	Build Rate: 12 deg /100'			
EOC:	11,106'	10,832'	198' FNL	2516' FEL	Sec. 13 T153N-R101W				
Casing Point:	11,119'	10,832'	210' FNL	2520' FEL	Sec. 13 T153N-R101W	200.3			
Middle Bakken Lateral TD:	21,208'	10,816'	280' FSL	2640' FEL	Sec. 24 T153N-R101W	180.0			
						180.0			
Comments:									
DRILL TO KOP AND LOG.									
DRILL CURVE TO 90 DEG AND 7" CASING POINT									
SET 7" CASING. DRILL THREE FORKS 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.									
OASIS									
Geology:	1/0/1900								
	Engineering: S. Dunlap 4/5/13								

Oasis

Indian Hills

153N-101W-13/24

Innoko 5301 43-12T

T153N R101W SEC 12

Innoko 5301 43-12T

Plan: INNOKO 5301 43-12T PLAN 1

Standard Planning Report

05 June, 2013

Planning Report

Database:	OpenWellsCompass - EDM Prod	Local Co-ordinate Reference:	Well Innoko 5301 43-12T
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:	Innoko 5301 43-12T	Survey Calculation Method:	Minimum Curvature
Wellbore:	Innoko 5301 43-12T		
Design:	INNOKO 5301 43-12T PLAN 1		

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

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

Well	Innoko 5301 43-12T				
Well Position	+N-S +E-W	9.1 ft -422.7 ft	Northing: Easting:	125,075.65 m 368,085.94 m	Latitude: Longitude:
Position Uncertainty	0.0 ft		Wellhead Elevation:		Ground Level:

Wellbore	Innoko 5301 43-12T				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	3/28/2013	8.34	73.02	56,590

Design	INNOKO 5301 43-12T PLAN 1				
Audit Notes:					
Version:		Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:		Depth From (TVD) (ft)	+N-S (ft)	+E-W (ft)	Direction (°)
		0.0	0.0	0.0	181.58

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
10,355.0	0.00	0.00	10,355.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00
11,105.7	90.09	200.35	10,832.5	-448.4	-166.3	12.00	12.00	0.00	200.35	
11,118.7	90.09	200.35	10,832.4	-460.6	-170.8	0.00	0.00	0.00	0.00	
11,797.1	90.09	180.00	10,831.4	-1,124.7	-290.0	3.00	0.00	-3.00	270.02	
21,208.4	90.09	180.00	10,816.4	-10,536.0	-290.0	0.00	0.00	0.00	0.00	

Planning Report

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Well:	Innoko 5301 43-12T	Survey Calculation Method:	Minimum Curvature
Wellbore:	Innoko 5301 43-12T		
Design:	INNOKO 5301 43-12T 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
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,018.0	0.00	0.00	2,018.0	0.0	0.0	0.0	0.00	0.00	0.00
Pierre									
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
9 5/8"									
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
4,646.0	0.00	0.00	4,646.0	0.0	0.0	0.0	0.00	0.00	0.00
Greenhorn									
4,700.0	0.00	0.00	4,700.0	0.0	0.0	0.0	0.00	0.00	0.00

Planning Report

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Project:	Indian Hills	MD Reference:	WELL @ 2118.0ft (Original Well Elev)
Site:	153N-101W-13/24	North Reference:	True
Well:	Innoko 5301 43-12T	Survey Calculation Method:	Minimum Curvature
Wellbore:	Innoko 5301 43-12T		
Design:	INNOKO 5301 43-12T 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)	
4,800.0	0.00	0.00	4,800.0	0.0	0.0	0.0	0.00	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	0.00
5,000.0	0.00	0.00	5,000.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
5,036.0	0.00	0.00	5,036.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
Mowry										
5,100.0	0.00	0.00	5,100.0	0.0	0.0	0.0	0.00	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	0.00
5,300.0	0.00	0.00	5,300.0	0.0	0.0	0.0	0.00	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	0.00
5,463.0	0.00	0.00	5,463.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
Dakota										
5,500.0	0.00	0.00	5,500.0	0.0	0.0	0.0	0.00	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	0.00
5,700.0	0.00	0.00	5,700.0	0.0	0.0	0.0	0.00	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	0.00
5,900.0	0.00	0.00	5,900.0	0.0	0.0	0.0	0.00	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	0.00
6,100.0	0.00	0.00	6,100.0	0.0	0.0	0.0	0.00	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	0.00
6,300.0	0.00	0.00	6,300.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
6,382.0	0.00	0.00	6,382.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
Rierdon										
6,400.0	0.00	0.00	6,400.0	0.0	0.0	0.0	0.00	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	0.00
6,600.0	0.00	0.00	6,600.0	0.0	0.0	0.0	0.00	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	0.00
6,800.0	0.00	0.00	6,800.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
6,899.0	0.00	0.00	6,899.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
Dunham Salt										
6,900.0	0.00	0.00	6,900.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
6,976.0	0.00	0.00	6,976.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
Dunham Salt Base										
6,986.0	0.00	0.00	6,986.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
Spearfish										
7,000.0	0.00	0.00	7,000.0	0.0	0.0	0.0	0.00	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	0.00
7,200.0	0.00	0.00	7,200.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
7,277.0	0.00	0.00	7,277.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
Pine Salt										
7,300.0	0.00	0.00	7,300.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
7,333.0	0.00	0.00	7,333.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
Pine Salt Base										
7,360.0	0.00	0.00	7,360.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
Opeche Salt										
7,399.0	0.00	0.00	7,399.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
Opeche Salt Base										
7,400.0	0.00	0.00	7,400.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
7,500.0	0.00	0.00	7,500.0	0.0	0.0	0.0	0.00	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	0.00
7,604.0	0.00	0.00	7,604.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
Broom Creek (Top of Minnelusa Gp.)										
7,663.0	0.00	0.00	7,663.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00

Planning Report

Database:	OpenWellsCompass - EDM Prod	Local Co-ordinate Reference:	Well Innoko 5301 43-12T
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:	Innoko 5301 43-12T	Survey Calculation Method:	Minimum Curvature
Wellbore:	Innoko 5301 43-12T		
Design:	INNOKO 5301 43-12T 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)	
Amesden										
7,700.0	0.00	0.00	7,700.0	0.0	0.0	0.0	0.00	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	0.00
7,852.0	0.00	0.00	7,852.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
Tyler										
7,900.0	0.00	0.00	7,900.0	0.0	0.0	0.0	0.00	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	0.00
8,024.0	0.00	0.00	8,024.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
Otter (Base of Minnelusa Gp.)										
8,100.0	0.00	0.00	8,100.0	0.0	0.0	0.0	0.00	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	0.00
8,300.0	0.00	0.00	8,300.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
8,375.0	0.00	0.00	8,375.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
Kibbey										
8,400.0	0.00	0.00	8,400.0	0.0	0.0	0.0	0.00	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	0.00
8,522.0	0.00	0.00	8,522.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
Charles Salt										
8,600.0	0.00	0.00	8,600.0	0.0	0.0	0.0	0.00	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	0.00
8,800.0	0.00	0.00	8,800.0	0.0	0.0	0.0	0.00	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	0.00
9,000.0	0.00	0.00	9,000.0	0.0	0.0	0.0	0.00	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	0.00
9,148.0	0.00	0.00	9,148.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
UB										
9,200.0	0.00	0.00	9,200.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
9,224.0	0.00	0.00	9,224.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
Base Last Salt										
9,268.0	0.00	0.00	9,268.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
Ratcliffe										
9,300.0	0.00	0.00	9,300.0	0.0	0.0	0.0	0.00	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	0.00
9,443.0	0.00	0.00	9,443.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
Mission Canyon										
9,500.0	0.00	0.00	9,500.0	0.0	0.0	0.0	0.00	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	0.00
9,700.0	0.00	0.00	9,700.0	0.0	0.0	0.0	0.00	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	0.00
9,900.0	0.00	0.00	9,900.0	0.0	0.0	0.0	0.00	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	0.00
10,009.0	0.00	0.00	10,009.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
Lodgepole										
10,100.0	0.00	0.00	10,100.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
10,194.0	0.00	0.00	10,194.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
Lodgepole Fracture Zone										
10,200.0	0.00	0.00	10,200.0	0.0	0.0	0.0	0.00	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	0.00
10,355.0	0.00	0.00	10,355.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
Start Build 12.00- KOP										
10,375.0	2.40	200.35	10,375.0	-0.4	-0.1	0.4	12.00	12.00	0.00	
10,400.0	5.40	200.35	10,399.9	-2.0	-0.7	2.0	12.00	12.00	0.00	

Planning Report

Database:	OpenWellsCompass - EDM Prod	Local Co-ordinate Reference:	Well Innoko 5301 43-12T
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:	Innoko 5301 43-12T	Survey Calculation Method:	Minimum Curvature
Wellbore:	Innoko 5301 43-12T		
Design:	INNOKO 5301 43-12T 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)	
10,425.0	8.40	200.35	10,424.7	-4.8	-1.8	4.8	12.00	12.00	0.00	
10,450.0	11.40	200.35	10,449.4	-8.8	-3.3	8.9	12.00	12.00	0.00	
10,475.0	14.40	200.35	10,473.7	-14.1	-5.2	14.2	12.00	12.00	0.00	
10,500.0	17.40	200.35	10,497.8	-20.5	-7.6	20.7	12.00	12.00	0.00	
10,525.0	20.40	200.35	10,521.4	-28.1	-10.4	28.4	12.00	12.00	0.00	
10,550.0	23.40	200.35	10,544.6	-36.8	-13.7	37.2	12.00	12.00	0.00	
10,575.0	26.40	200.35	10,567.3	-46.7	-17.3	47.1	12.00	12.00	0.00	
10,600.0	29.40	200.35	10,589.4	-57.7	-21.4	58.2	12.00	12.00	0.00	
10,625.0	32.40	200.35	10,610.8	-69.7	-25.8	70.4	12.00	12.00	0.00	
10,650.0	35.40	200.35	10,631.6	-82.8	-30.7	83.6	12.00	12.00	0.00	
10,675.0	38.40	200.35	10,651.6	-96.8	-35.9	97.8	12.00	12.00	0.00	
10,700.0	41.40	200.35	10,670.8	-111.9	-41.5	113.0	12.00	12.00	0.00	
10,717.0	43.44	200.35	10,683.3	-122.6	-45.5	123.8	12.00	12.00	0.00	
False Bakken										
10,725.0	44.40	200.35	10,689.1	-127.8	-47.4	129.1	12.00	12.00	0.00	
10,726.0	44.52	200.35	10,689.8	-128.5	-47.7	129.7	12.00	12.00	0.00	
Upper Bakken										
10,736.0	45.72	200.35	10,696.8	-135.1	-50.1	136.4	12.00	12.00	0.00	
Middle Bakken										
10,750.0	47.40	200.35	10,706.5	-144.7	-53.7	146.1	12.00	12.00	0.00	
10,775.0	50.40	200.35	10,722.9	-162.3	-60.2	163.9	12.00	12.00	0.00	
10,777.0	50.64	200.35	10,724.2	-163.8	-60.7	165.4	12.00	12.00	0.00	
Lower Bakken										
10,790.0	52.20	200.35	10,732.3	-173.3	-64.3	175.0	12.00	12.00	0.00	
Pronghorn										
10,800.0	53.40	200.35	10,738.3	-180.8	-67.0	182.5	12.00	12.00	0.00	
10,806.0	54.12	200.35	10,741.9	-185.3	-68.7	187.1	12.00	12.00	0.00	
Three Forks										
10,825.0	56.40	200.35	10,752.7	-199.9	-74.2	201.9	12.00	12.00	0.00	
10,850.0	59.40	200.35	10,766.0	-219.8	-81.5	221.9	12.00	12.00	0.00	
10,875.0	62.40	200.35	10,778.1	-240.3	-89.1	242.6	12.00	12.00	0.00	
10,900.0	65.40	200.35	10,789.1	-261.3	-96.9	263.9	12.00	12.00	0.00	
10,925.0	68.40	200.35	10,798.9	-282.9	-104.9	285.6	12.00	12.00	0.00	
10,950.0	71.40	200.35	10,807.5	-304.9	-113.1	307.9	12.00	12.00	0.00	
10,975.0	74.40	200.35	10,814.9	-327.3	-121.4	330.5	12.00	12.00	0.00	
11,000.0	77.40	200.35	10,821.0	-350.0	-129.8	353.4	12.00	12.00	0.00	
11,025.0	80.40	200.35	10,825.8	-373.0	-138.4	376.7	12.00	12.00	0.00	
11,050.0	83.40	200.35	10,829.3	-396.2	-147.0	400.1	12.00	12.00	0.00	
11,075.0	86.40	200.35	10,831.5	-419.6	-155.6	423.7	12.00	12.00	0.00	
11,100.0	89.40	200.35	10,832.4	-443.0	-164.3	447.3	12.00	12.00	0.00	
11,105.7	90.09	200.35	10,832.5	-448.4	-166.3	452.8	12.00	12.00	0.00	
Start 13.0 hold at 11105.7 MD- EOC										
11,118.7	90.09	200.35	10,832.4	-460.6	-170.8	465.1	0.00	0.00	0.00	
Start DLS 3.00 TFO 270.02										
11,119.0	90.09	200.34	10,832.4	-460.8	-170.9	465.3	3.00	0.00	-3.00	
7"										
11,200.0	90.09	197.91	10,832.3	-537.3	-197.4	542.5	3.00	0.00	-3.00	
11,300.0	90.09	194.91	10,832.2	-633.2	-225.7	639.2	3.00	0.00	-3.00	
11,400.0	90.09	191.91	10,832.0	-730.5	-248.9	737.1	3.00	0.00	-3.00	
11,500.0	90.09	188.91	10,831.8	-828.8	-267.0	835.9	3.00	0.00	-3.00	
11,600.0	90.09	185.91	10,831.7	-928.0	-279.9	935.3	3.00	0.00	-3.00	
11,700.0	90.09	182.91	10,831.5	-1,027.7	-287.6	1,035.2	3.00	0.00	-3.00	
11,797.1	90.09	180.00	10,831.4	-1,124.7	-290.0	1,132.3	3.00	0.00	-3.00	

Planning Report

Database:	OpenWellsCompass - EDM Prod	Local Co-ordinate Reference:	Well Innoko 5301 43-12T
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:	Innoko 5301 43-12T	Survey Calculation Method:	Minimum Curvature
Wellbore:	Innoko 5301 43-12T		
Design:	INNOKO 5301 43-12T 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)	
Start 9411.3 hold at 11797.1 MD										
11,800.0	90.09	180.00	10,831.4	-1,127.6	-290.0	1,135.2	0.00	0.00	0.00	
11,900.0	90.09	180.00	10,831.2	-1,227.6	-290.0	1,235.1	0.00	0.00	0.00	
12,000.0	90.09	180.00	10,831.0	-1,327.6	-290.0	1,335.1	0.00	0.00	0.00	
12,100.0	90.09	180.00	10,830.9	-1,427.6	-290.0	1,435.1	0.00	0.00	0.00	
12,200.0	90.09	180.00	10,830.7	-1,527.6	-290.0	1,535.0	0.00	0.00	0.00	
12,300.0	90.09	180.00	10,830.6	-1,627.6	-290.0	1,635.0	0.00	0.00	0.00	
12,400.0	90.09	180.00	10,830.4	-1,727.6	-290.0	1,735.0	0.00	0.00	0.00	
12,500.0	90.09	180.00	10,830.2	-1,827.6	-290.0	1,834.9	0.00	0.00	0.00	
12,600.0	90.09	180.00	10,830.1	-1,927.6	-290.0	1,934.9	0.00	0.00	0.00	
12,700.0	90.09	180.00	10,829.9	-2,027.6	-290.0	2,034.8	0.00	0.00	0.00	
12,800.0	90.09	180.00	10,829.8	-2,127.6	-290.0	2,134.8	0.00	0.00	0.00	
12,900.0	90.09	180.00	10,829.6	-2,227.6	-290.0	2,234.8	0.00	0.00	0.00	
13,000.0	90.09	180.00	10,829.4	-2,327.6	-290.0	2,334.7	0.00	0.00	0.00	
13,100.0	90.09	180.00	10,829.3	-2,427.6	-290.0	2,434.7	0.00	0.00	0.00	
13,200.0	90.09	180.00	10,829.1	-2,527.6	-290.0	2,534.7	0.00	0.00	0.00	
13,300.0	90.09	180.00	10,829.0	-2,627.6	-290.0	2,634.6	0.00	0.00	0.00	
13,400.0	90.09	180.00	10,828.8	-2,727.6	-290.0	2,734.6	0.00	0.00	0.00	
13,500.0	90.09	180.00	10,828.6	-2,827.6	-290.0	2,834.5	0.00	0.00	0.00	
13,600.0	90.09	180.00	10,828.5	-2,927.6	-290.0	2,934.5	0.00	0.00	0.00	
13,700.0	90.09	180.00	10,828.3	-3,027.6	-290.0	3,034.5	0.00	0.00	0.00	
13,800.0	90.09	180.00	10,828.2	-3,127.6	-290.0	3,134.4	0.00	0.00	0.00	
13,900.0	90.09	180.00	10,828.0	-3,227.6	-290.0	3,234.4	0.00	0.00	0.00	
14,000.0	90.09	180.00	10,827.8	-3,327.6	-290.0	3,334.4	0.00	0.00	0.00	
14,100.0	90.09	180.00	10,827.7	-3,427.6	-290.0	3,434.3	0.00	0.00	0.00	
14,200.0	90.09	180.00	10,827.5	-3,527.6	-290.0	3,534.3	0.00	0.00	0.00	
14,300.0	90.09	180.00	10,827.4	-3,627.6	-290.0	3,634.2	0.00	0.00	0.00	
14,400.0	90.09	180.00	10,827.2	-3,727.6	-290.0	3,734.2	0.00	0.00	0.00	
14,500.0	90.09	180.00	10,827.1	-3,827.6	-290.0	3,834.2	0.00	0.00	0.00	
14,600.0	90.09	180.00	10,826.9	-3,927.6	-290.0	3,934.1	0.00	0.00	0.00	
14,700.0	90.09	180.00	10,826.7	-4,027.6	-290.0	4,034.1	0.00	0.00	0.00	
14,800.0	90.09	180.00	10,826.6	-4,127.6	-290.0	4,134.0	0.00	0.00	0.00	
14,900.0	90.09	180.00	10,826.4	-4,227.6	-290.0	4,234.0	0.00	0.00	0.00	
15,000.0	90.09	180.00	10,826.3	-4,327.6	-290.0	4,334.0	0.00	0.00	0.00	
15,100.0	90.09	180.00	10,826.1	-4,427.6	-290.0	4,433.9	0.00	0.00	0.00	
15,200.0	90.09	180.00	10,825.9	-4,527.6	-290.0	4,533.9	0.00	0.00	0.00	
15,300.0	90.09	180.00	10,825.8	-4,627.6	-290.0	4,633.9	0.00	0.00	0.00	
15,400.0	90.09	180.00	10,825.6	-4,727.6	-290.0	4,733.8	0.00	0.00	0.00	
15,500.0	90.09	180.00	10,825.5	-4,827.6	-290.0	4,833.8	0.00	0.00	0.00	
15,600.0	90.09	180.00	10,825.3	-4,927.6	-290.0	4,933.7	0.00	0.00	0.00	
15,700.0	90.09	180.00	10,825.1	-5,027.6	-290.0	5,033.7	0.00	0.00	0.00	
15,800.0	90.09	180.00	10,825.0	-5,127.6	-290.0	5,133.7	0.00	0.00	0.00	
15,900.0	90.09	180.00	10,824.8	-5,227.6	-290.0	5,233.6	0.00	0.00	0.00	
16,000.0	90.09	180.00	10,824.7	-5,327.6	-290.0	5,333.6	0.00	0.00	0.00	
16,100.0	90.09	180.00	10,824.5	-5,427.6	-290.0	5,433.6	0.00	0.00	0.00	
16,200.0	90.09	180.00	10,824.3	-5,527.6	-290.0	5,533.5	0.00	0.00	0.00	
16,300.0	90.09	180.00	10,824.2	-5,627.6	-290.0	5,633.5	0.00	0.00	0.00	
16,400.0	90.09	180.00	10,824.0	-5,727.6	-290.0	5,733.4	0.00	0.00	0.00	
16,500.0	90.09	180.00	10,823.9	-5,827.6	-290.0	5,833.4	0.00	0.00	0.00	
16,600.0	90.09	180.00	10,823.7	-5,927.6	-290.0	5,933.4	0.00	0.00	0.00	
16,700.0	90.09	180.00	10,823.5	-6,027.6	-290.0	6,033.3	0.00	0.00	0.00	
16,800.0	90.09	180.00	10,823.4	-6,127.6	-290.0	6,133.3	0.00	0.00	0.00	
16,900.0	90.09	180.00	10,823.2	-6,227.6	-290.0	6,233.2	0.00	0.00	0.00	

Planning Report

Database:	OpenWellsCompass - EDM Prod	Local Co-ordinate Reference:	Well Innoko 5301 43-12T
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:	Innoko 5301 43-12T	Survey Calculation Method:	Minimum Curvature
Wellbore:	Innoko 5301 43-12T		
Design:	INNOKO 5301 43-12T 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)
17,000.0	90.09	180.00	10,823.1	-6,327.6	-290.0	6,333.2	0.00	0.00	0.00
17,100.0	90.09	180.00	10,822.9	-6,427.6	-290.0	6,433.2	0.00	0.00	0.00
17,200.0	90.09	180.00	10,822.7	-6,527.6	-290.0	6,533.1	0.00	0.00	0.00
17,300.0	90.09	180.00	10,822.6	-6,627.6	-290.0	6,633.1	0.00	0.00	0.00
17,400.0	90.09	180.00	10,822.4	-6,727.6	-290.0	6,733.1	0.00	0.00	0.00
17,500.0	90.09	180.00	10,822.3	-6,827.6	-290.0	6,833.0	0.00	0.00	0.00
17,600.0	90.09	180.00	10,822.1	-6,927.6	-290.0	6,933.0	0.00	0.00	0.00
17,700.0	90.09	180.00	10,821.9	-7,027.6	-290.0	7,032.9	0.00	0.00	0.00
17,800.0	90.09	180.00	10,821.8	-7,127.6	-290.0	7,132.9	0.00	0.00	0.00
17,900.0	90.09	180.00	10,821.6	-7,227.6	-290.0	7,232.9	0.00	0.00	0.00
18,000.0	90.09	180.00	10,821.5	-7,327.6	-290.0	7,332.8	0.00	0.00	0.00
18,100.0	90.09	180.00	10,821.3	-7,427.6	-290.0	7,432.8	0.00	0.00	0.00
18,200.0	90.09	180.00	10,821.2	-7,527.6	-290.0	7,532.8	0.00	0.00	0.00
18,300.0	90.09	180.00	10,821.0	-7,627.6	-290.0	7,632.7	0.00	0.00	0.00
18,400.0	90.09	180.00	10,820.8	-7,727.6	-290.0	7,732.7	0.00	0.00	0.00
18,500.0	90.09	180.00	10,820.7	-7,827.6	-290.0	7,832.6	0.00	0.00	0.00
18,600.0	90.09	180.00	10,820.5	-7,927.6	-290.0	7,932.6	0.00	0.00	0.00
18,700.0	90.09	180.00	10,820.4	-8,027.6	-290.0	8,032.6	0.00	0.00	0.00
18,800.0	90.09	180.00	10,820.2	-8,127.6	-290.0	8,132.5	0.00	0.00	0.00
18,900.0	90.09	180.00	10,820.0	-8,227.6	-290.0	8,232.5	0.00	0.00	0.00
19,000.0	90.09	180.00	10,819.9	-8,327.6	-290.0	8,332.5	0.00	0.00	0.00
19,100.0	90.09	180.00	10,819.7	-8,427.6	-290.0	8,432.4	0.00	0.00	0.00
19,200.0	90.09	180.00	10,819.6	-8,527.6	-290.0	8,532.4	0.00	0.00	0.00
19,300.0	90.09	180.00	10,819.4	-8,627.6	-290.0	8,632.3	0.00	0.00	0.00
19,400.0	90.09	180.00	10,819.2	-8,727.6	-290.0	8,732.3	0.00	0.00	0.00
19,500.0	90.09	180.00	10,819.1	-8,827.6	-290.0	8,832.3	0.00	0.00	0.00
19,600.0	90.09	180.00	10,818.9	-8,927.6	-290.0	8,932.2	0.00	0.00	0.00
19,700.0	90.09	180.00	10,818.8	-9,027.6	-290.0	9,032.2	0.00	0.00	0.00
19,800.0	90.09	180.00	10,818.6	-9,127.6	-290.0	9,132.1	0.00	0.00	0.00
19,900.0	90.09	180.00	10,818.4	-9,227.6	-290.0	9,232.1	0.00	0.00	0.00
20,000.0	90.09	180.00	10,818.3	-9,327.6	-290.0	9,332.1	0.00	0.00	0.00
20,100.0	90.09	180.00	10,818.1	-9,427.6	-290.0	9,432.0	0.00	0.00	0.00
20,200.0	90.09	180.00	10,818.0	-9,527.6	-290.0	9,532.0	0.00	0.00	0.00
20,300.0	90.09	180.00	10,817.8	-9,627.6	-290.0	9,632.0	0.00	0.00	0.00
20,400.0	90.09	180.00	10,817.6	-9,727.6	-290.0	9,731.9	0.00	0.00	0.00
20,500.0	90.09	180.00	10,817.5	-9,827.6	-290.0	9,831.9	0.00	0.00	0.00
20,600.0	90.09	180.00	10,817.3	-9,927.6	-290.0	9,931.8	0.00	0.00	0.00
20,700.0	90.09	180.00	10,817.2	-10,027.6	-290.0	10,031.8	0.00	0.00	0.00
20,800.0	90.09	180.00	10,817.0	-10,127.6	-290.0	10,131.8	0.00	0.00	0.00
20,900.0	90.09	180.00	10,816.8	-10,227.6	-290.0	10,231.7	0.00	0.00	0.00
21,000.0	90.09	180.00	10,816.7	-10,327.6	-290.0	10,331.7	0.00	0.00	0.00
21,100.0	90.09	180.00	10,816.5	-10,427.6	-290.0	10,431.7	0.00	0.00	0.00
21,208.4	90.09	180.00	10,816.4	-10,536.0	-290.0	10,540.0	0.00	0.00	0.00
TD at 21208.4									

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)	
2,100.0	2,100.0 9 5/8"		9.625	13.500	
11,119.0	10,832.4 7"		7.000	8.750	

Planning Report

Database:	OpenWellsCompass - EDM Prod	Local Co-ordinate Reference:	Well Innoko 5301 43-12T
Company:	Oasis	TVD Reference:	WELL @ 2118.0ft (Original Well Elev)
Project:	Indian Hills	MD Reference:	WELL @ 2118.0ft (Orginal Well Elev)
Site:	153N-101W-13/24	North Reference:	True
Well:	Innoko 5301 43-12T	Survey Calculation Method:	Minimum Curvature
Wellbore:	Innoko 5301 43-12T		
Design:	INNOKO 5301 43-12T PLAN 1		

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
2,018.0	2,018.0	Pierre			
4,646.0	4,646.0	Greenhorn			
5,036.0	5,036.0	Mowry			
5,463.0	5,463.0	Dakota			
6,382.0	6,382.0	Rierdon			
6,899.0	6,899.0	Dunham Salt			
6,976.0	6,976.0	Dunham Salt Base			
6,986.0	6,986.0	Spearfish			
7,277.0	7,277.0	Pine Salt			
7,333.0	7,333.0	Pine Salt Base			
7,360.0	7,360.0	Opeche Salt			
7,399.0	7,399.0	Opeche Salt Base			
7,604.0	7,604.0	Broom Creek (Top of Minnelusa Gp.)			
7,663.0	7,663.0	Amsden			
7,852.0	7,852.0	Tyler			
8,024.0	8,024.0	Otter (Base of Minnelusa Gp.)			
8,375.0	8,375.0	Kibbey			
8,522.0	8,522.0	Charles Salt			
9,148.0	9,148.0	UB			
9,224.0	9,224.0	Base Last Salt			
9,268.0	9,268.0	Ratcliffe			
9,443.0	9,443.0	Mission Canyon			
10,009.0	10,009.0	Lodgepole			
10,194.0	10,194.0	Lodgepole Fracture Zone			
10,717.0	10,683.3	False Bakken			
10,726.0	10,689.8	Upper Bakken			
10,736.0	10,696.8	Middle Bakken			
10,777.0	10,724.2	Lower Bakken			
10,790.0	10,732.3	Pronghorn			
10,806.0	10,741.9	Three Forks			

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/S (ft)	+E/W (ft)	
10,355.0	10,355.0	0.0	0.0	Start Build 12.00- KOP
11,105.7	10,832.5	-448.4	-166.3	Start 13.0 hold at 11105.7 MD- EOC
11,118.7	10,832.4	-460.6	-170.8	Start DLS 3.00 TFO 270.02
11,797.1	10,831.4	-1,124.7	-290.0	Start 9411.3 hold at 11797.1 MD
21,208.4	10,816.4	-10,536.0	-290.0	TD at 21208.4

SECTION BREAKDOWN

OASIS PETROLEUM NORTH AMERICA, LLC

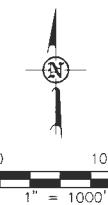
1001 FANNIN, SUITE 1500, HOUSTON, TX 77002

"INNOKO 5301 43-12T"

250 FEET FROM SOUTH LINE AND 2350 FEET FROM EAST LINE
SECTIONS 12, 13 & 24, T153N, R101W, 5TH P.M., MCKENZIE COUNTY, NORTH DAKOTA

THIS DOCUMENT WAS ORIGINALLY ISSUED AND SEALED BY MARYL D. KASEMAN, PLS. REGISTRATION NUMBER 3880 ON 6/05/13 AND THE ORIGINAL DOCUMENTS ARE STORED AT THE OFFICES OF INTERSTATE ENGINEERING, INC.

ALL AZIMUTHS ARE BASED ON C.P.S. OBSERVATIONS. 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. THE MAPPING ANGLE FOR THIS AREA IS APPROXIMATELY -0°03'.



- MONUMENT - RECOVERED
- MONUMENT - NOT RECOVERED



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P.O. Box 648
425 East Main Street
Sidney, Montana 59270
Ph: (406) 433-5617
Fax: (406) 433-5616
www.interstateeng.com

OASIS PETROLEUM NORTH AMERICA, LLC
SECTION BREAKDOWN
SECTIONS 12, 13 & 24, T153N, R101W

MCKENZIE COUNTY, NORTH DAKOTA

Drawn By: J.S. Project No.: 511-09-361
Checked By: D.C.K. Date: DEC 2011

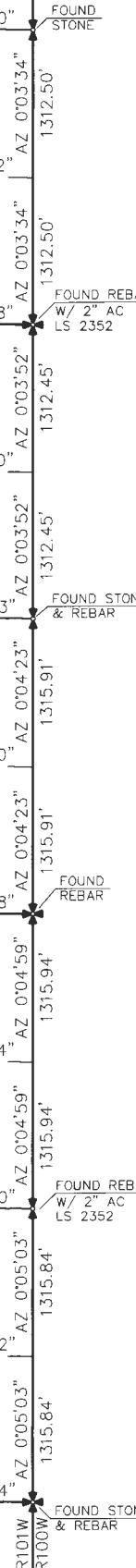
Revisor No.	Date	Rv	Description
REV 1	1/19/12	JJS	SWAPPED WELL LOCATIONS
REV 2	2/5/13	BH	MMOVED BOTTOM HOLE / CHANGED NAME
REV 4	6/05/13	JJS	MMOVED WELL 60'

2/8

SHEET NO.



Professionals you need, people you trust

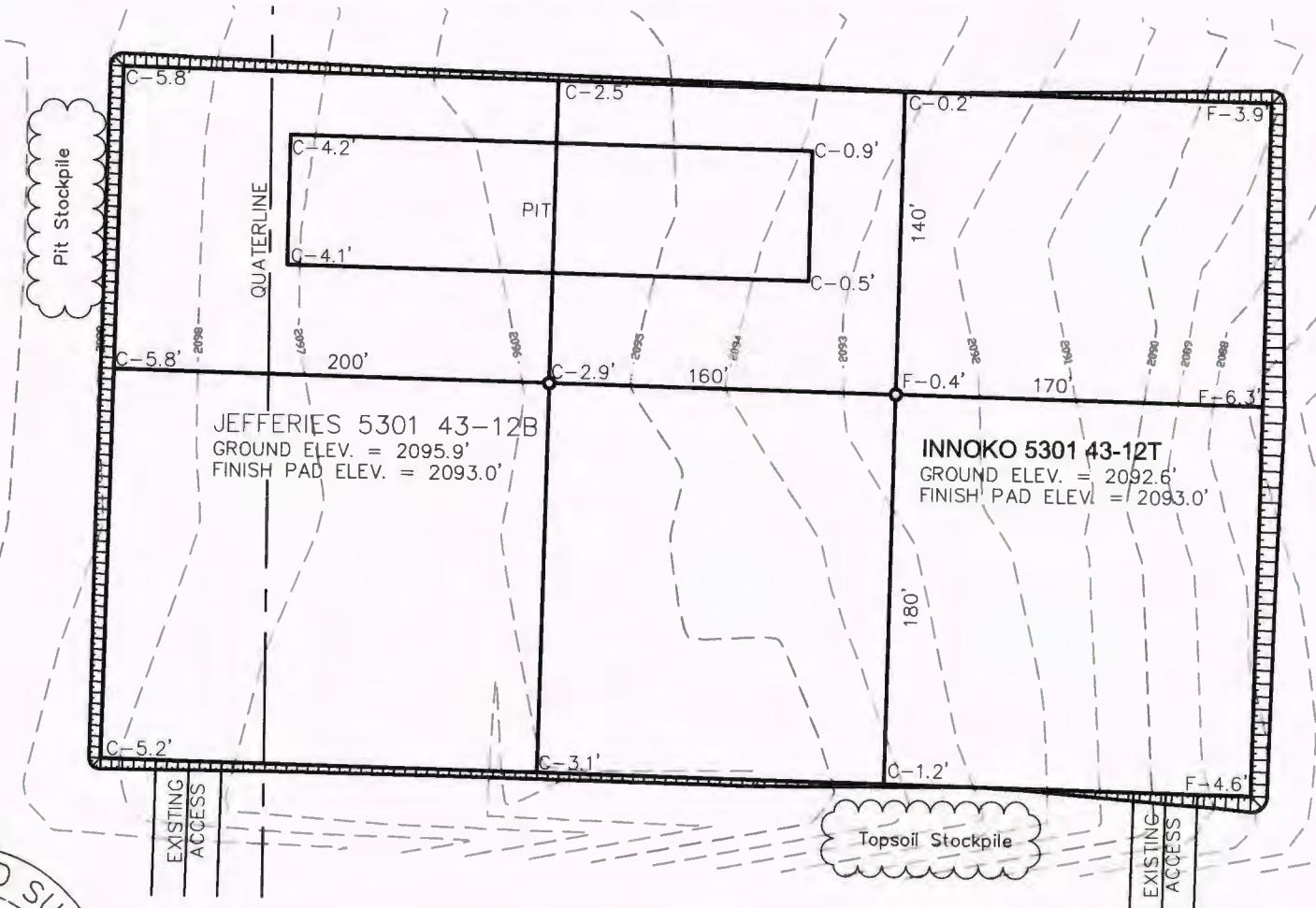


PAD LAYOUT

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

"INNOKO 5301 43-12T"

250 FEET FROM SOUTH LINE AND 2350 FEET FROM EAST LINE
SECTION 12, T153N, R101W, 5TH P.M., MCKENZIE COUNTY, NORTH DAKOTA



THIS DOCUMENT WAS ORIGINALLY
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KASEMAN, PLS, REGISTRATION NUMBER
3880 ON 6/05/13 AND THE
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ENGINEERING, INC.

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

0 80
1" = 80'

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80

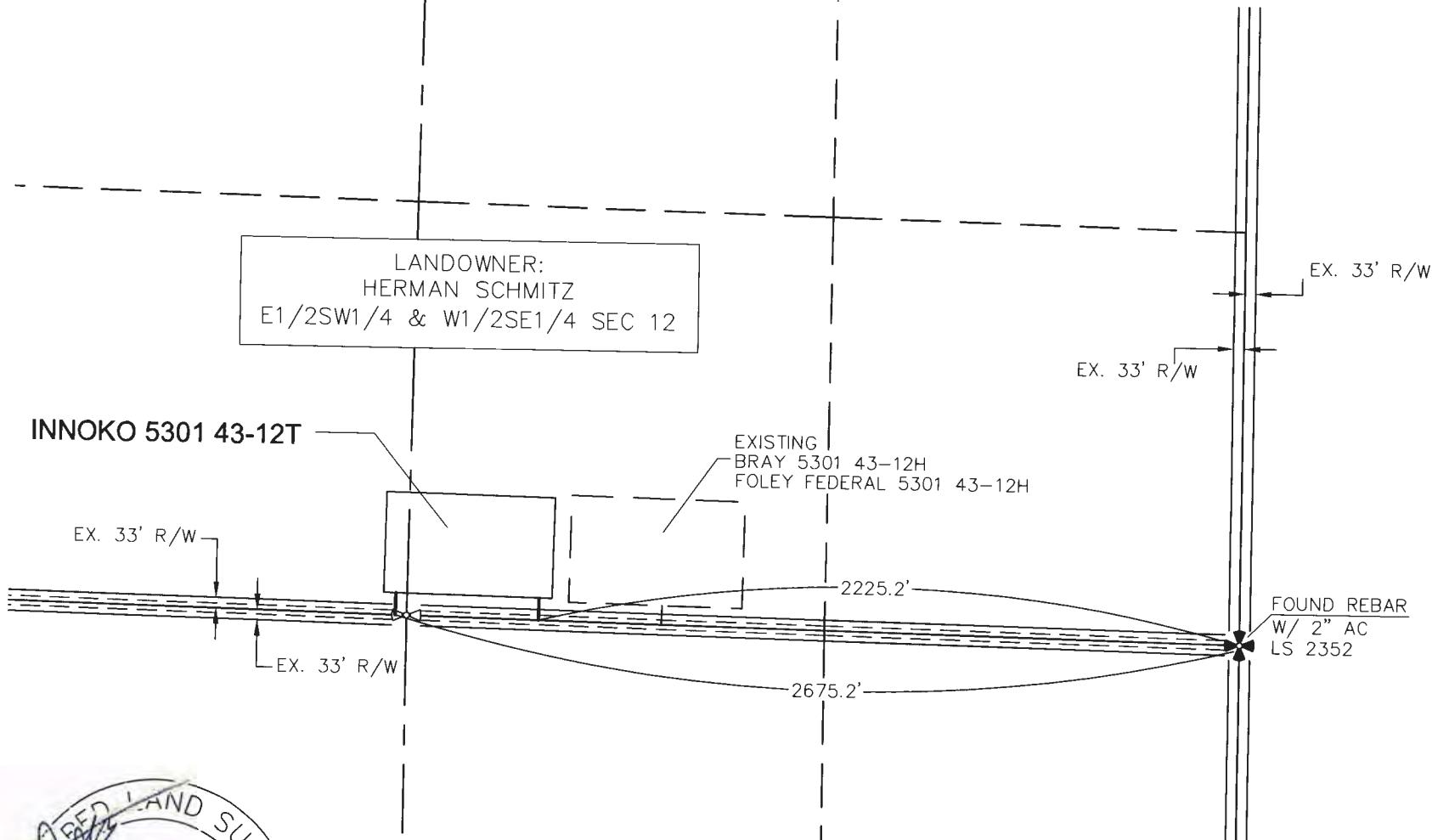
OASIS PETROLEUM NORTH AMERICA, LLC		PAD LAYOUT	
SECTION 12, T153N, R101W		MCKENZIE COUNTY, NORTH DAKOTA	
Drawn By:	J.J.S.	Project No.:	S11-9-351
Checked By:	D.D.K.	Date:	DEC 2011
Interstate Engineering, Inc. P.O. Box 648 428 East Main Street Sidney, Montana 59270 Ph. (406) 433-5617 Fax (406) 433-5618 www.interstateeng.com Office offices in Minnesota, North Dakota and South Dakota			
REV 1 1/19/12 J.S. SWAPPED WELL LOCATIONS REV 2 2/6/13 B.H. MOVED BOTTOM HOLE / CHANGED NAME REV 3 6/05/13 J.S. MOVED WELL 6' REV 4 6/05/13 J.S. MOVED WELL 6'			

ACCESS APPROACH

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

"INNOKO 5301 43-12T"

250 FEET FROM SOUTH LINE AND 2350 FEET FROM EAST LINE
SECTION 12, T153N, R101W, 5TH P.M., MCKENZIE COUNTY, NORTH DAKOTA



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

0 500
1" = 500'

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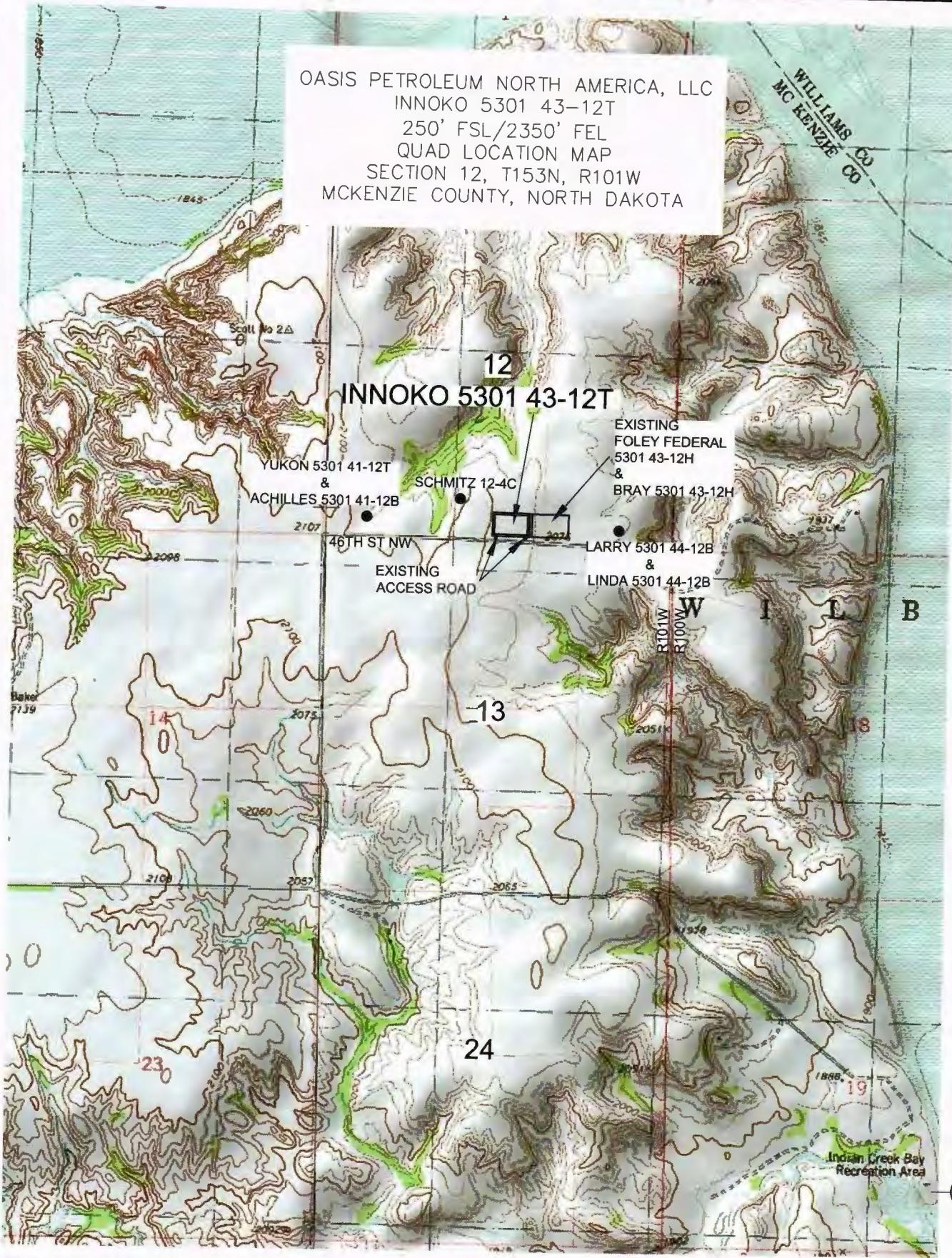
Professional people you can trust.

4/8

SHEET NO.

OASIS PETROLEUM NORTH AMERICA, LLC		Revision	Date	By	Description
ACCESS APPROACH		REV 1	1/19/12	JLS	SWAPPED WELL LOCATIONS
SECTION 12, T153N, R101W					Moved bottom hole / changed name
					Moved well 60'
MCKENZIE COUNTY, NORTH DAKOTA		REV 2	2/5/13	BHM	
		REV 4	6/16/13	JLS	
Project No:	S11-09-361	Drawn By:		Checked By:	DEC 2011
		J.J.S.		D.D.K.	Date:

Interstate Engineering, Inc.
P.O. Box 648
Sidney, Montana 59270
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www.interstateeng.com
Our office is in Missoula, North, Denver and Salt Lake City



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www.Interstateeng.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.J.S. Project No.: S11-05-361
Checked By: D.D.K. Date: DEC 2011

Revision No.	Date	By	Description
REV 1	1/19/12	JJS	SWAPPED WELL LOCATIONS
REV 2	2/5/13	BHH	Moved bottom hole / changed name
REV 4	6/05/13	JJS	Moved well 60'

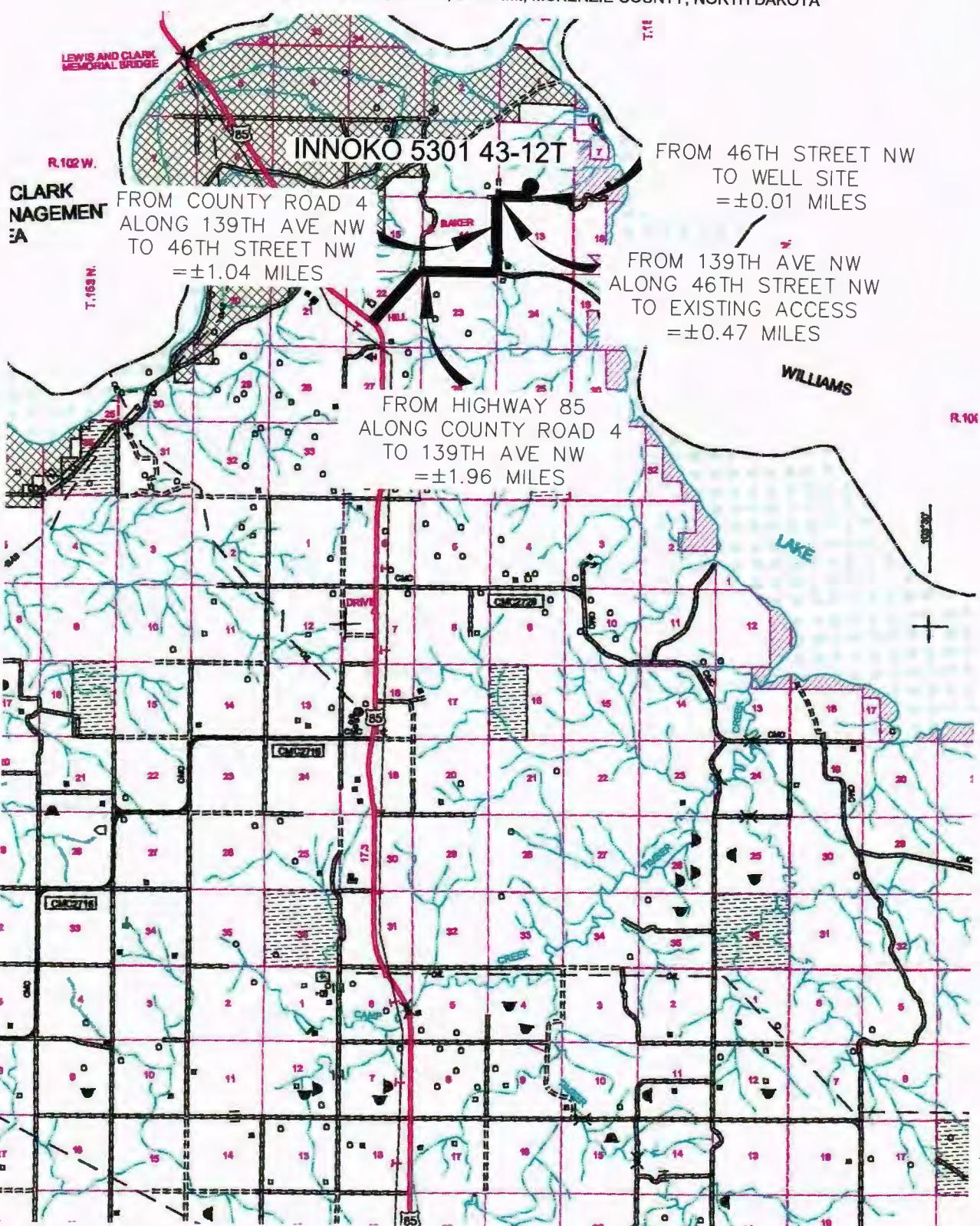


COUNTY ROAD MAP

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

"INNOKO 5301 43-12T"

250 FEET FROM SOUTH LINE AND 2350 FEET FROM EAST LINE
SECTION 12, T153N, R101W, 5TH P.M., MCKENZIE COUNTY, NORTH DAKOTA



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SCALE: 1" = 2 MILE

6/8



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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

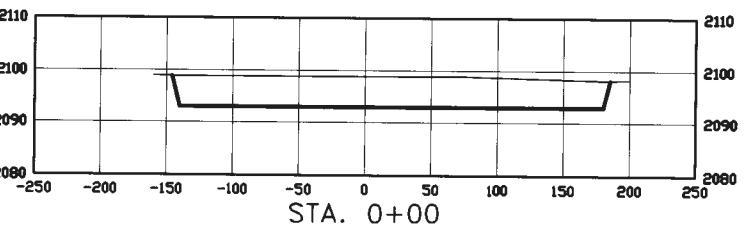
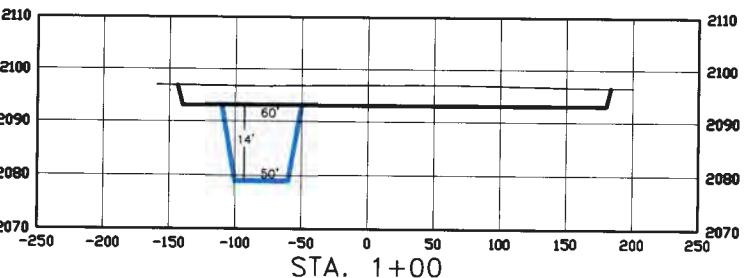
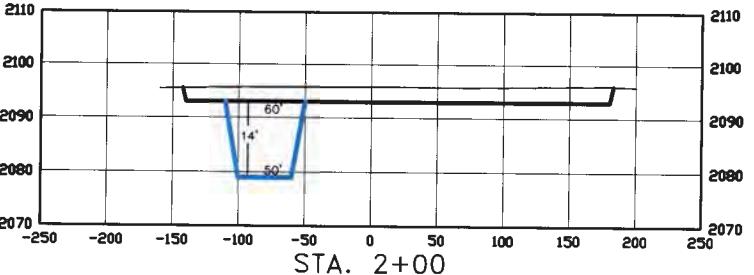
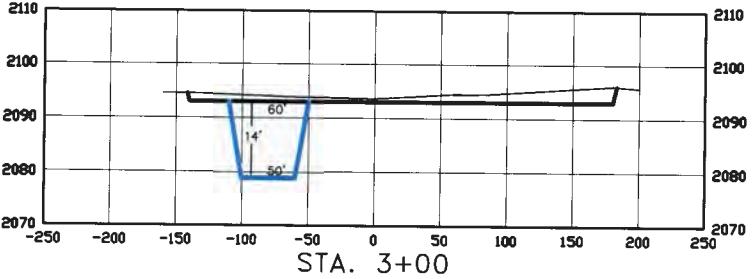
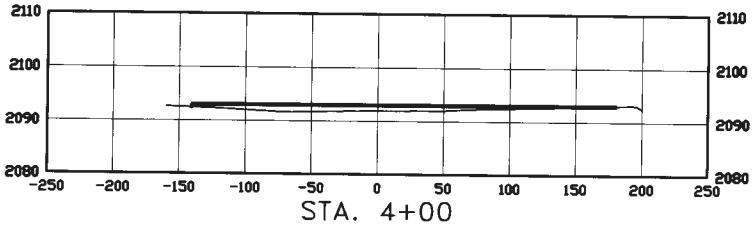
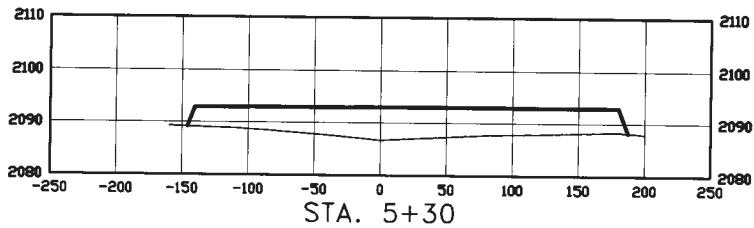
Drawn By: J.J.S. Project No.: S11-09-361
Checked By: D.D.K. Date: DEC 2011

Revision No.	Date	By	Description
REV 1	1/19/12	JJS	SWAPPED WELL LOCATIONS
REV 2	2/5/13	BHH	MMOVED BOTTOM HOLE / CHANGED NAME
REV 4	6/05/13	JJS	MMOVED WELL 60'

CROSS SECTIONS

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

250 FEET FROM SOUTH LINE AND 2350 FEET FROM EAST LINE
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 6/05/13 AND THE ORIGINAL DOCUMENTS ARE STORED AT THE OFFICES OF INTERSTATE ENGINEERING, INC.

SCALE

HORIZ 1"=140'
VERT 1"=35'

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SHEET NO.

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

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

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

Revision No.	Date	By	Description
REV 1	1/19/12	JJS	SWAPPED WELL LOCATIONS
REV 2	2/5/13	BH+	MOVED BOTTOM HOLE / CHANGED NAME
REV 4	6/05/13	JJS	MOVED WELL 60'

WELL LOCATION SITE QUANTITIES

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

"INNOKO 5301 43-12T"

250 FEET FROM SOUTH LINE AND 2350 FEET FROM EAST LINE
SECTION 12, T153N, R101W, 5TH P.M., MCKENZIE COUNTY, NORTH DAKOTA

WELL SITE ELEVATION	2092.6
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

2350' 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:	D.D.K.	Date:	DEC 2011

Revision No.	Date	By	Description
REV 1	1/19/12	JJS	SWAPPED WELL LOCATIONS
REV 2	2/5/13	BHH	MOVED BOTTOM HOLE / CHANGED NAME
REV 4	6/05/13	JJS	MOVED WELL 60'



SUNDRY NOTICES AND REPORTS ON WELLS - FORM 1

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.
22221



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

<input checked="" type="checkbox"/> Notice of Intent	Approximate Start Date June 18, 2013
<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 checked="" type="checkbox"/> Other	Suspension of Drilling

Well Name and Number Innoko 5301 43-12T						
Footages	Qlr-Qtr	Section	Township	Range		
250 F S L	2350 F E L	SWSE	12	153 N	101 W	
Field	Pool	County				
Baker	Bakken	McKenzie				

24-HOUR PRODUCTION RATE			
Before		After	
Oil	Bbls	Oil	Bbls
Water	Bbls	Water	Bbls
Gas	MCF	Gas	MCF

Name of Contractor(s) Advanced Energy Services			
Address	City	State	Zip Code

DETAILS OF WORK

Oasis Petroleum North America LLC requests permission for suspension of drilling for up to 90 days for the referenced well under NDAC 43-02-03-55. Oasis Petroleum North America LLC Intends to drill the surface hole with freshwater based drilling mud and set surface casing with a small drilling rig and move off within 3 to 5 days. The casing will be set at a depth pre-approved by the NDIC per the Application for Permit to Drill NDAC 43-02-03-21. No saltwater will be used in the drilling and cementing operations of the surface casing. Once the surface casing is cemented, a plug or mechanical seal will be placed at the top of the casing to prevent any foreign matter from getting into the well. A rig capable of drilling to TD will move onto the location within the 90 days previously outlined to complete the drilling and casing plan as per the APD. The undersigned states that this request for suspension of drilling operations in accordance with the Subsection 4 of Section 43-02-03-55 of the NDAC, is being requested to take advantage of the cost savings and time savings of using an initial rig that is smaller than the rig necessary to drill a well to total depth but is not intended to alter or extend the terms and conditions of, or suspend any obligation under, any oil and gas lease with acreage in or under the spacing or drilling unit for the above-referenced well. Oasis Petroleum North America LLC understands NDAC 43-02-03-31 requirements regarding confidentiality pertaining to this permit. The drilling pit will be fenced immediately after construction if the well pad is located in a pasture (NDAC 43-02-03-19 & 19.1). Oasis Petroleum North America LLC will plug and abandon the well and reclaim the well site if the well is not drilled by the larger rotary rig within 90 days after spudding the well with the smaller drilling rig.

Oasis must notify NDIC Inspector Richard Dunn 701-770-3554 with spud & TD		
Company Oasis Petroleum North America LLC	Telephone Number (281) 404-9563	
Address 1001 Fannin, Suite 1500		
City Houston	State TX	Zip Code 77002
Signature 	Printed Name Heather McCowan	
Title Regulatory Assistant	Date June 18, 2013	
Email Address hmccowan@oasispetroleum.com		

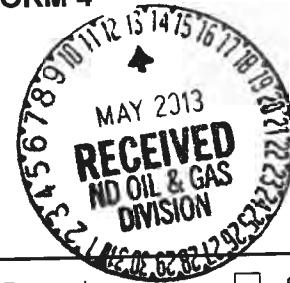
FOR STATE USE ONLY	
<input type="checkbox"/> Received	<input checked="" type="checkbox"/> Approved
Date 06-21-2013	
By 	
Title David Burns	

Engineering Tech.



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.
22221

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

<input checked="" type="checkbox"/> Notice of Intent	Approximate Start Date Immediately
<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 checked="" type="checkbox"/> Reclamation
<input type="checkbox"/> Other	Rescind APD permit

Well Name and Number
Timmons 5301 43-12B

Footages	Qtr-Qtr	Section	Township	Range
250 F S L	2410 F E L	SWSE	12	153 N 101 W
Field Baker	Pool Bakken		County McKenzie	

24-HOUR PRODUCTION RATE			
Before		After	
Oil	Bbls	Oil	Bbls
Water	Bbls	Water	Bbls
Gas	MCF	Gas	MCF

Name of Contractor(s)

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

DETAILS OF WORK

Oasis Petroleum North America LLC respectfully request that the permit issued for the above referenced well be reinstated.

Please apply charges to credit card on file.

\$100 APD renewal cc Inv 37681 Lt 05/30/2013

Company Oasis Petroleum North America LLC	Telephone Number 281-404-9563	
Address 1001 Fannin, Suite 1500		
City Houston	State TX	Zip Code 77002
Signature <i>Heather McCowan</i>	Printed Name Heather McCowan	
Title Regulatory Assistant	Date May 9, 2013	
Email Address hmccowan@oasispetroleum.com		

FOR STATE USE ONLY

<input type="checkbox"/> Received	<input checked="" type="checkbox"/> Approved
Date 5-29-13	
By <i>Heather McCowan</i>	
Title Petroleum Resource Specialist	



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.
22221

PLEASE READ INSTRUCTIONS BEFORE FILLING OUT FORM.

PLEASE SUBMIT THE ORIGINAL AND ONE COPY.

<input checked="" type="checkbox"/> Notice of Intent	Approximate Start Date May 9, 2013	<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	<u>Revise well plan and well name</u>

Well Name and Number Timmons 5301 43-12B					
Footages 250 F S L	2410 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	Bbls	Oil	Bbls
Water	Bbls	Water	Bbls
Gas	MCF	Gas	MCF

Name of Contractor(s)			
Address	City	State	Zip Code

DETAILS OF WORK

Oasis Petroleum respectfully requests to make the following changes to the well plan for the subject well:

Intermediate casing point changed to: 220' FNL & 2555'FWL Sec. 13 T153N 101W

Casing point depth changed to: 11119' MD/ 10832' TVD

Bottom hole changed to: 250'FSL & 2640'FWL Sec. 24 T153N R101W

Total depth changed to: 21194' MD/ 10805' TVD

spacing unit changed
to sections 13+24

Well name changed to: Innoko 5301 41-12T

Attached are revised plats, drill plan, directional plan and plot.

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

#25 WNC cc

Inv 3768 b Lbs 5/30/2013

Company Oasis Petroleum North America LLC	Telephone Number 281-404-9563	
Address 1001 Fannin, Suite 1500		
City Houston	State TX	Zip Code 77002
Signature <i>Heather McCowan</i>	Printed Name Heather McCowan	
Title Regulatory Assistant	Date May 9, 2013	
Email Address hmccowan@oasispetroleum.com		

<input type="checkbox"/> Received	<input checked="" type="checkbox"/> Approved
Date <i>5-29-13</i>	
By <i>Nathaniel Erhle</i>	
Title Petroleum Resource Specialist	

DRILLING PLAN							
OPERATOR	Oasis Petroleum			COUNTY/STATE	McKenzie Co., ND		
WELL NAME	INNOKO 5801 41-13T			RIG	Nabors B25		
WELL TYPE	Horizontal Three Forks						
LOCATION	SWSW 12-153N-R101W			Surface Location (Survey plat)	250' NNE	2410' RG	
EST. T.D.	23,104'						
TOTAL LATERAL:	10,075' (est)			GROUND ELEV:	2093' Finished Pad Elev.	Sub Height: 25'	
PROGNOSIS:	Based on 2,118' KB (est)			KB ELEV:	2118'		
MARKER	DEPTH (Surf Loc)	DATUM (Surf Loc)	LOGS:	Type	Interval		
Pierre	NDIC MAP	2,018	100'	OH Logs: Triple Combo KOP to Kirby (or min run of 1800' whichever is greater); GR/Res to BSC; GR to surf; CND through the Dakota			
Greenhorn		4,646	-2,528'	CBL/GR: Above top of cement/GR to base of casing			
Mowry		5,036	-2,918'	MWD GR: KOP to lateral TD			
Dakota		5,463	-3,345'				
Rierdon		6,382	-4,264'				
Dunham Salt		6,899	-4,781'				
Dunham Salt Base		6,978	-4,858'				
Spearfish		6,986	-4,868'				
Pine Salt		7,277	-5,159'				
Pine Salt Base		7,333	-5,215'				
Opeche Salt		7,360	-5,242'				
Opeche Salt Base		7,399	-5,281'				
Broom Creek (Top of Minnelusa Gp.)		7,604	-5,486'				
Amsden		7,663	-5,545'				
Tyler		7,852	-5,734'				
Otter (Base of Minnelusa Gp.)		8,024	-5,906'				
Kibbey		8,375	-6,257'				
Charles Salt		8,522	-6,404'				
UB		9,148	-7,030'				
Base Last Salt		9,224	-7,106'				
Ratcliffe		9,268	-7,150'				
Mission Canyon		9,443	-7,325'				
Lodgepole		10,009	-7,891'				
Lodgepole Fracture Zone		10,194	-8,076'				
False Bakken		10,717	-8,599'				
Upper Bakken		10,726	-8,608'				
Middle Bakken		10,736	-8,618'				
Lower Bakken		10,777	-8,659'				
Pronghorn		10,790	-8,672'				
Three Forks		10,806	-8,686'				
Three Forks Target Top		10,814	-8,696'				
Three Forks Target Base		10,832	-8,714'				
Claystone		10,834	-8,716'				
Dip Rate:	Overall +0.09° or 16°/100' up (Complex)						
Max. Anticipated BHP:	4588						
MUD:	Interval	Type	Surface Formation: Glacial till				
Surface:	0' -	2,118'	FW/Gel - Lime Sweeps	WT	Vis	WL	
Intermediate:	2,118' -	11,119'	Invert	8.4-9.0	28-32	NC	
Lateral:	11,119' -	21,194'	Salt Water	9.5-10.4	40-50	30+HHP	
				9.8-10.2	28-32	NC	
CASING:	Size	Wt ppf	Hole	Depth	Cement	WOC	Remarks
Surface:	9-5/8"	36#	13-1/2"	2,118'	To Surface	12	100' into Pierre
Intermediate:	7"	32#	8-3/4"	11,119'	3,963'	24	1500' above Dakota
Production Liner:	4.5"	13.5#	6"	21,194'	TOL @ 10,305'		50' above KOP
PROBABLE PLUGS, IF REQ'D:							
OTHER:	MD	TVL	FNL/FSL	FEL/PWL	S-T-R	AZI	
Surface:	2,118	2,118	250' FSL	2410' PWL	Sec. 12 T153N-R101W		Survey Company:
KOP:	10,355'	10,355'	250' FSL	2410' PWL	Sec. 12 T153N-R101W		Build Rate: 12 deg /100'
EOC:	11,106'	10,832'	208' FNL	2551' PWL	Sec. 13 T153N-R101W	90.2	
Casing Point:	11,119'	10,832'	220' FNL	2555' PWL	Sec. 13 T153N-R101W	90.2	
Middle Bakken Lateral TD:	21,194'	10,805'	250' FSL	2540' PWL	Sec. 24 T153N-R101W	90.2	
Comments:							
DRILL TO KOP AND LOG.							
DRILL CURVE TO 90 DEG AND 7" CASING POINT							
SET 7" CASING. DRILL THREE FORKS 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 latera							
MWD GR to be run from KOP to Lateral TD.							
OASIS PETROLEUM	Geology:	1/0/1900					
		Engineering: S. Dunlap 4/5/13					

**Oasis Petroleum
Well Summary
Innoko 5301 43-12T
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)		
	From	To						Minimum	Optimum	Max
9-5/8"	0	2118	36	J-55	LTC	8.921"	8.765"	3400	4530	5660

Interval	Description	Collapse	Burst	Tension	Cost per ft
		(psi) / a	(psi) / b	(1000 lbs) / c	
0' - 2118'	9-5/8", 36#, J-55, LTC, 8rd	2020 / 2.04	3520 / 3.55	453 / 2.73	

API Rating & Safety Factor

- a) Based on full casing evacuation with 9.0 ppg fluid on backside (2118' setting depth).
- b) Burst pressure based on 9 ppg fluid with no fluid on backside (2118' setting depth).
- c) Based on string weight in 9.0 ppg fluid at 2118' TVD plus 100k# overpull.
(Buoyed weight equals 66k lbs.)

Cement volumes are based on 9-5/8" casing set in 13-1/2" hole with 60% excess to circulate cement back to surface.
Mix and pump the following slurry.

Pre-flush (Spacer): 20 bbls fresh water

Lead Slurry: **437 sks** (225 bbls), 11.5 lb/gal, 2.90 cu. ft./sk Conventional Class G Cement with 4.0% BWOB Extender, 2.0% BWOB Expanding Agent, 2.0% CaCl₂, and 0.250 lb/sk Lost Circulation Additive

Tail Slurry: **337 sks** (70 bbls), 15.8 lb/gal, 1.16 cu. ft./sk Conventional Class G Cement with 0.25% BWOB CaCl₂, and 0.250 lb/sk Lost Circulation Agent

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

INTERMEDIATE CASING AND CEMENT DESIGN

Size	Interval	Weight	Grade	Coupling	I.D.	Drift**	Make-up Torque (ft-lbs)		
							Minimum	Optimum	Max
7"	0' -11119'	32	HCP-110	LTC	6.094"	6.000"**	6,730	8,970	9,870

**Special Drift 7" 32# to 6.0".

Interval	Length	Description	Collapse (psi) a	Burst (psi) b	Tension (1000 lbs) c	Condition
0' -11119'	3956'	7", 32#, HCP-110, LTC, 8rd	11,820 / 2.10*	12,460 / 1.19	797/2.02	New
0' -11119'	3956'	7", 32#, HCP-110, LTC, 8rd	11,820 / 1.07**	12,460 / 1.19		New

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 (from 6399' to 10355').
- 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 10832' TVD.
- c. Based on string weight in 10 ppg fluid, (301k lbs buoyed weight) plus 100k lbs overpull.

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

Pre-flush (Spacer): **50 bbls** Saltwater
20 bbls CW8
20 bbls Freshwater

Lead Slurry: **184 sks** (85 bbls), 11.8 ppg, 2.59 cu. ft./sk 65:35 POZ Cement with 6% BWOB Extender, 0.15% BWOB Viscosifier, 0.8% BWOB Fluid Loss Additive, 0.2% BWOB Anti Foam, and 0.25 lb/sk Lost Circulation Additive

Tail Slurry: **563 sks** (164 bbls), 15.6 ppg, 1.64 cu. ft./sk Conventional Class G Cement with 10.0% BWOB NaCL, 35.0% BWOB Silica Flour, 0.2% BWOB Fluid Loss, 0.27% BWOB Retarder, 0.2% BWOB Anti Foam, and 0.25 lb/sk Lost Circulation Additive

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

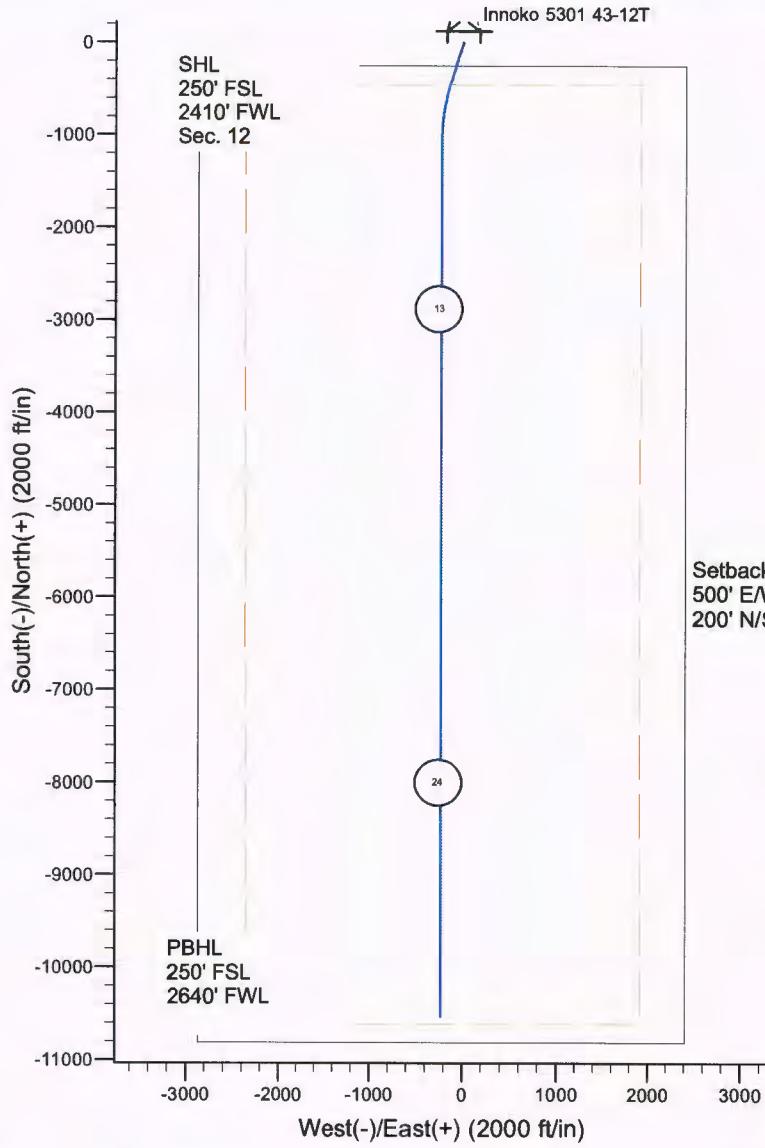
PRODUCTION LINER

Size	Interval	Weight	Grade	Coupling	I.D.	Drift	Make-up Torque (ft-lbs)		
							Minimum	Optimum	Max
4-1/2"	10305'-21194'	13.5	P-110	BTC	3.92"	3.795"	2,270	3,020	3,780

Interval	Length	Description	Collapse	Burst	Tension	Condition
			(psi) a	(psi) b	(1000 lbs) c	
10305'-21194'	10889'	4-1/2", 13.5 lb, P-110, BTC	10670 / 1.99	12410 / 1.19	422 / 2.04	New

API Rating & Safety Factor

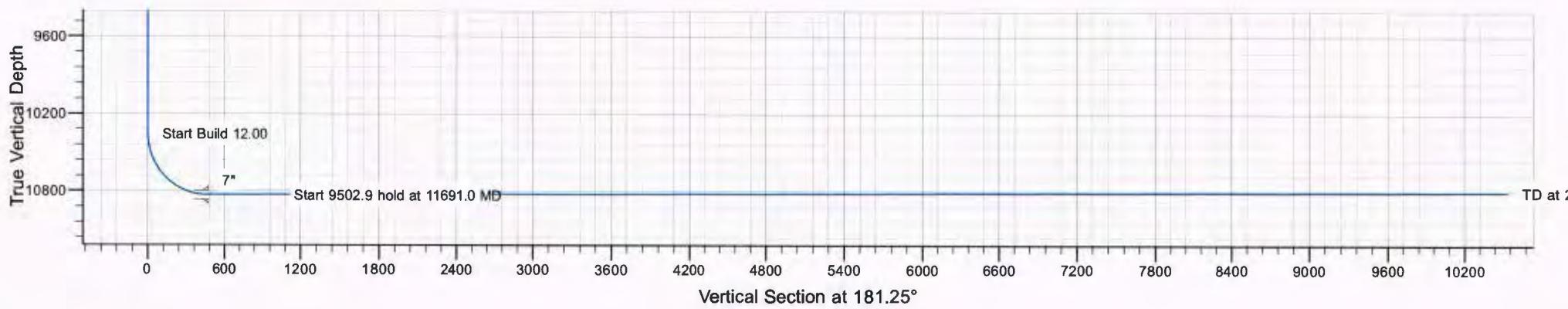
- a) Based on full casing evacuation with 9.5 ppg fluid on backside @ 10832' TVD.
- b) Burst pressure based on 9,000 psi treating pressure with 10.2 ppg internal fluid gradient and 9.0 ppg external fluid gradient @ 10832' TVD.
- c) Based on string weight in 9.5 ppg fluid (Buoyed weight: 107k lbs.) plus 100k lbs overpull.



WELL DETAILS: Innoko 5301 43-12T													
Northing 125076.38		Ground Level: 2093.0		Easting 368067.66		Latitude 48° 4' 58.050 N							
Longitude 103° 36' 50.360 W													
Project: Indian Hills Site: 153N-101W-13/24 Well: Innoko 5301 43-12T Wellbore: Innoko 5301 43-12T Design: Design #1													
<p>Azimuths to True North Magnetic North: 8.34°</p> <p>Magnetic Field Strength: 56589.8nT Dip Angle: 73.02° Date: 3/28/2013 Model: IGRF200510</p>													
Casing Details													
TVD 2018.0 10832.4	MD 2018.0 11119.0	Name 9 5/8"	Size 9.625										
7"	7"	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							
10355.0	0.00	0.00	10355.0	0.0	0.0	0.00							
11106.3	90.16	197.15	10832.5	-457.5	-141.2	12.00							
11119.3	90.16	197.15	10832.4	-469.9	-145.0	0.00							
11691.0	90.16	180.00	10830.8	-1033.1	-229.9	3.00							
21193.9	90.16	180.00	10804.5	-10536.0	-229.9	0.00							

True Vertical Depth (450 ft/in)

Vertical Section at 181.25° (450 ft/in)



Oasis

**Indian Hills
153N-101W-13/24
Innoko 5301 43-12T**

Innoko 5301 43-12T

Plan: Design #1

Standard Survey Report

08 April, 2013

Survey Report

Company:	Oasis	Local Co-ordinate Reference:	Well Innoko 5301 43-12T						
Project:	Indian Hills	TVD Reference:	WELL @ 2118.0ft (Original Well Elev)						
Site:	153N-101W-13/24	MD Reference:	WELL @ 2118.0ft (Original Well Elev)						
Well:	Innoko 5301 43-12T	North Reference:	True						
Wellbore:	Innoko 5301 43-12T	Survey Calculation Method:	Minimum Curvature						
Design:	Design #1	Database:	OpenWellsCompass - EDM Prod						
Project	Indian Hills								
Map System:	US State Plane 1983	System Datum:	Mean Sea Level						
Geo Datum:	North American Datum 1983								
Map Zone:	North Dakota Northern Zone								
Site	153N-101W-13/24								
Site Position:		Northing:	125,067.66 m						
From:	Lat/Long	Easting:	368,214.56 m						
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in						
			Latitude: 46° 4' 57.960 N						
			Longitude: 103° 36' 43.250 W						
			Grid Convergence: -2.32 °						
Well	Innoko 5301 43-12T								
Well Position	+N-S +E-W	0.0 ft	Northing: 125,076.39 m						
		0.0 ft	Easting: 368,067.66 m						
Position Uncertainty		0.0 ft	Wellhead Elevation: ft						
			Latitude: 48° 4' 58.050 N						
			Longitude: 103° 36' 50.360 W						
			Ground Level: 2,093.0 ft						
Wellbore	Innoko 5301 43-12T								
Magnetics	Model Name	Sample Date	Declination (°)						
	IGRF200510	3/28/2013	8.34						
			Dip Angle (°)						
			73.02						
			Field Strength (nT)						
			56,590						
Design	Design #1								
Audit Notes:									
Version:		Phase:	PROTOTYPE						
			Tie On Depth: 0.0						
Vertical Section:		Depth From (TVD) (ft)	+N-S (ft)						
		0.0	+E-W (ft)						
		0.0	Direction (°)						
		0.0	181.25						
Survey Tool Program	Date	4/8/2013							
From (ft)	To (ft)	Survey (Wellbore)	Tool Name						
0.0		21,193.9 Design #1 (Innoko 5301 43-12T)	Description						
			MWD						
			MWD - Standard						
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

Survey Report

Company:	Oasis	Local Co-ordinate Reference:	Well Innoko 5301 43-12T						
Project:	Indian Hills	TVD Reference:	WELL @ 2118.0ft (Original Well Elev)						
Site:	153N-101W-13/24	MD Reference:	WELL @ 2118.0ft (Original Well Elev)						
Well:	Innoko 5301 43-12T	North Reference:	True						
Wellbore:	Innoko 5301 43-12T	Survey Calculation Method:	Minimum Curvature						
Design:	Design #1	Database:	OpenWellsCompass - EDM Prod						
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)
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
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,018.0	0.00	0.00	2,018.0	0.0	0.0	0.0	0.00	0.00	0.00
Pierre									
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
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
4,646.0	0.00	0.00	4,646.0	0.0	0.0	0.0	0.00	0.00	0.00
Greenhorn									
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

Survey Report

Company:	Oasis	Local Co-ordinate Reference:	Well Innoko 5301 43-12T						
Project:	Indian Hills	TVD Reference:	WELL @ 2118.0ft (Original Well Elev)						
Site:	153N-101W-13/24	MD Reference:	WELL @ 2118.0ft (Original Well Elev)						
Well:	Innoko 5301 43-12T	North Reference:	True						
Wellbore:	Innoko 5301 43-12T	Survey Calculation Method:	Minimum Curvature						
Design:	Design #1	Database:	OpenWellsCompass - EDM Prod						
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)
5,000.0	0.00	0.00	5,000.0	0.0	0.0	0.0	0.00	0.00	0.00
5,036.0	0.00	0.00	5,036.0	0.0	0.0	0.0	0.00	0.00	0.00
Mowry									
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
5,463.0	0.00	0.00	5,463.0	0.0	0.0	0.0	0.00	0.00	0.00
Dakota									
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
6,382.0	0.00	0.00	6,382.0	0.0	0.0	0.0	0.00	0.00	0.00
Rierdon									
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
6,899.0	0.00	0.00	6,899.0	0.0	0.0	0.0	0.00	0.00	0.00
Dunham Salt									
6,900.0	0.00	0.00	6,900.0	0.0	0.0	0.0	0.00	0.00	0.00
6,976.0	0.00	0.00	6,976.0	0.0	0.0	0.0	0.00	0.00	0.00
Dunham Salt Base									
6,986.0	0.00	0.00	6,986.0	0.0	0.0	0.0	0.00	0.00	0.00
Spearfish									
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
7,277.0	0.00	0.00	7,277.0	0.0	0.0	0.0	0.00	0.00	0.00
Pine Salt									
7,300.0	0.00	0.00	7,300.0	0.0	0.0	0.0	0.00	0.00	0.00
7,333.0	0.00	0.00	7,333.0	0.0	0.0	0.0	0.00	0.00	0.00
Pine Salt Base									
7,360.0	0.00	0.00	7,360.0	0.0	0.0	0.0	0.00	0.00	0.00
Opeche Salt									
7,399.0	0.00	0.00	7,399.0	0.0	0.0	0.0	0.00	0.00	0.00
Opeche Salt Base									

Survey Report

Company:	Oasis	Local Co-ordinate Reference:	Well Innoko 5301 43-12T						
Project:	Indian Hills	TVD Reference:	WELL @ 2118.0ft (Original Well Elev)						
Site:	153N-101W-13/24	MD Reference:	WELL @ 2118.0ft (Original Well Elev)						
Well:	Innoko 5301 43-12T	North Reference:	True						
Wellbore:	Innoko 5301 43-12T	Survey Calculation Method:	Minimum Curvature						
Design:	Design #1	Database:	OpenWellsCompass - EDM Prod						
Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/S (ft)	+E/W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
7,400.0	0.00	0.00	7,400.0	0.0	0.0	0.0	0.00	0.00	0.00
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
7,604.0	0.00	0.00	7,604.0	0.0	0.0	0.0	0.00	0.00	0.00
Broom Creek (Top of Minnelusa Gp.)									
7,663.0	0.00	0.00	7,663.0	0.0	0.0	0.0	0.00	0.00	0.00
Amsden									
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
7,852.0	0.00	0.00	7,852.0	0.0	0.0	0.0	0.00	0.00	0.00
Tyler									
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
8,024.0	0.00	0.00	8,024.0	0.0	0.0	0.0	0.00	0.00	0.00
Otter (Base of Minnelusa Gp.)									
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
8,375.0	0.00	0.00	8,375.0	0.0	0.0	0.0	0.00	0.00	0.00
Kibbey									
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
8,522.0	0.00	0.00	8,522.0	0.0	0.0	0.0	0.00	0.00	0.00
Charles Salt									
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
9,148.0	0.00	0.00	9,148.0	0.0	0.0	0.0	0.00	0.00	0.00
UB									
9,200.0	0.00	0.00	9,200.0	0.0	0.0	0.0	0.00	0.00	0.00
9,224.0	0.00	0.00	9,224.0	0.0	0.0	0.0	0.00	0.00	0.00
Base Last Salt									
9,268.0	0.00	0.00	9,268.0	0.0	0.0	0.0	0.00	0.00	0.00
Ratcliffe									
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
9,443.0	0.00	0.00	9,443.0	0.0	0.0	0.0	0.00	0.00	0.00
Mission Canyon									
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

Survey Report

Company:	Oasis	Local Co-ordinate Reference:	Well Innoko 5301 43-12T						
Project:	Indian Hills	TVD Reference:	WELL @ 2118.0ft (Original Well Elev)						
Site:	153N-101W-13/24	MD Reference:	WELL @ 2118.0ft (Original Well Elev)						
Well:	Innoko 5301 43-12T	North Reference:	True						
Wellbore:	Innoko 5301 43-12T	Survey Calculation Method:	Minimum Curvature						
Design:	Design #1	Database:	OpenWellsCompass - EDM Prod						
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)
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
10,009.0	0.00	0.00	10,009.0	0.0	0.0	0.0	0.00	0.00	0.00
Lodgepole									
10,100.0	0.00	0.00	10,100.0	0.0	0.0	0.0	0.00	0.00	0.00
10,194.0	0.00	0.00	10,194.0	0.0	0.0	0.0	0.00	0.00	0.00
Lodgepole Fracture Zone									
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
10,355.0	0.00	0.00	10,355.0	0.0	0.0	0.0	0.00	0.00	0.00
10,400.0	5.40	197.15	10,399.9	-2.0	-0.6	2.0	12.00	12.00	0.00
10,500.0	17.40	197.15	10,497.8	-20.9	-6.4	21.0	12.00	12.00	0.00
10,600.0	29.40	197.15	10,589.4	-58.8	-18.1	59.1	12.00	12.00	0.00
10,700.0	41.40	197.15	10,670.8	-114.0	-35.2	114.7	12.00	12.00	0.00
10,717.0	43.44	197.15	10,683.3	-125.0	-38.6	125.8	12.00	12.00	0.00
False Bakken									
10,726.0	44.52	197.15	10,689.8	-130.9	-40.4	131.8	12.00	12.00	0.00
Upper Bakken									
10,736.0	45.72	197.15	10,696.8	-137.7	-42.5	138.6	12.00	12.00	0.00
Middle Bakken									
10,777.0	50.64	197.15	10,724.2	-166.9	-51.5	168.0	12.00	12.00	0.00
Lower Bakken									
10,790.0	52.20	197.15	10,732.3	-176.6	-54.5	177.8	12.00	12.00	0.00
Pronghorn									
10,800.0	53.40	197.15	10,738.3	-184.2	-56.8	185.4	12.00	12.00	0.00
10,806.0	54.12	197.15	10,741.9	-188.8	-58.3	190.1	12.00	12.00	0.00
Three Forks									
10,900.0	65.40	197.15	10,789.1	-266.3	-82.2	268.0	12.00	12.00	0.00
11,000.0	77.40	197.15	10,821.0	-356.7	-110.1	359.0	12.00	12.00	0.00
11,100.0	89.40	197.15	10,832.4	-451.5	-139.3	454.4	12.00	12.00	0.00
11,106.3	90.16	197.15	10,832.5	-457.5	-141.2	460.5	12.00	12.00	0.00
11,119.3	90.16	197.15	10,832.4	-469.9	-145.0	473.0	0.00	0.00	0.00
11,200.0	90.16	194.73	10,832.2	-547.5	-167.2	551.0	3.00	0.00	-3.00
11,300.0	90.16	191.73	10,831.9	-644.8	-190.1	648.8	3.00	0.00	-3.00
11,400.0	90.16	188.73	10,831.6	-743.2	-207.8	747.6	3.00	0.00	-3.00
11,500.0	90.16	185.73	10,831.4	-842.4	-220.4	847.0	3.00	0.00	-3.00
11,600.0	90.16	182.73	10,831.1	-942.1	-227.8	946.9	3.00	0.00	-3.00
11,691.0	90.16	180.00	10,830.8	-1,033.1	-229.9	1,037.9	3.00	0.00	-3.00
11,700.0	90.16	180.00	10,830.8	-1,042.1	-229.9	1,046.9	0.00	0.00	0.00
11,800.0	90.16	180.00	10,830.5	-1,142.1	-229.9	1,146.8	0.00	0.00	0.00
11,900.0	90.16	180.00	10,830.2	-1,242.1	-229.9	1,246.8	0.00	0.00	0.00
12,000.0	90.16	180.00	10,830.0	-1,342.1	-229.9	1,346.8	0.00	0.00	0.00
12,100.0	90.16	180.00	10,829.7	-1,442.1	-229.9	1,446.8	0.00	0.00	0.00
12,200.0	90.16	180.00	10,829.4	-1,542.1	-229.9	1,546.7	0.00	0.00	0.00

Survey Report

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

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)
12,300.0	90.16	180.00	10,829.1	-1,642.1	-229.9	1,646.7	0.00	0.00	0.00
12,400.0	90.16	180.00	10,828.9	-1,742.1	-229.9	1,746.7	0.00	0.00	0.00
12,500.0	90.16	180.00	10,828.6	-1,842.1	-229.9	1,846.7	0.00	0.00	0.00
12,600.0	90.16	180.00	10,828.3	-1,942.1	-229.9	1,946.6	0.00	0.00	0.00
12,700.0	90.16	180.00	10,828.0	-2,042.1	-229.9	2,046.6	0.00	0.00	0.00
12,800.0	90.16	180.00	10,827.8	-2,142.1	-229.9	2,146.6	0.00	0.00	0.00
12,900.0	90.16	180.00	10,827.5	-2,242.1	-229.9	2,246.6	0.00	0.00	0.00
13,000.0	90.16	180.00	10,827.2	-2,342.1	-229.9	2,346.6	0.00	0.00	0.00
13,100.0	90.16	180.00	10,828.9	-2,442.1	-229.9	2,446.5	0.00	0.00	0.00
13,200.0	90.16	180.00	10,826.6	-2,542.1	-229.9	2,546.5	0.00	0.00	0.00
13,300.0	90.16	180.00	10,828.4	-2,642.1	-229.9	2,646.5	0.00	0.00	0.00
13,400.0	90.16	180.00	10,826.1	-2,742.1	-229.9	2,746.5	0.00	0.00	0.00
13,500.0	90.16	180.00	10,825.8	-2,842.1	-229.9	2,846.4	0.00	0.00	0.00
13,600.0	90.16	180.00	10,825.5	-2,942.1	-229.9	2,946.4	0.00	0.00	0.00
13,700.0	90.16	180.00	10,825.3	-3,042.1	-229.9	3,046.4	0.00	0.00	0.00
13,800.0	90.16	180.00	10,825.0	-3,142.1	-229.9	3,146.4	0.00	0.00	0.00
13,900.0	90.16	180.00	10,824.7	-3,242.1	-229.9	3,246.3	0.00	0.00	0.00
14,000.0	90.16	180.00	10,824.4	-3,342.1	-229.9	3,346.3	0.00	0.00	0.00
14,100.0	90.16	180.00	10,824.1	-3,442.1	-229.9	3,446.3	0.00	0.00	0.00
14,200.0	90.16	180.00	10,823.9	-3,542.1	-229.9	3,546.3	0.00	0.00	0.00
14,300.0	90.16	180.00	10,823.6	-3,642.1	-229.9	3,646.2	0.00	0.00	0.00
14,400.0	90.16	180.00	10,823.3	-3,742.1	-229.9	3,746.2	0.00	0.00	0.00
14,500.0	90.16	180.00	10,823.0	-3,842.1	-229.9	3,846.2	0.00	0.00	0.00
14,600.0	90.16	180.00	10,822.8	-3,942.1	-229.9	3,946.2	0.00	0.00	0.00
14,700.0	90.16	180.00	10,822.5	-4,042.1	-229.9	4,046.1	0.00	0.00	0.00
14,800.0	90.16	180.00	10,822.2	-4,142.1	-229.9	4,146.1	0.00	0.00	0.00
14,900.0	90.16	180.00	10,821.9	-4,242.1	-229.9	4,246.1	0.00	0.00	0.00
15,000.0	90.16	180.00	10,821.7	-4,342.1	-229.9	4,346.1	0.00	0.00	0.00
15,100.0	90.16	180.00	10,821.4	-4,442.1	-229.9	4,446.0	0.00	0.00	0.00
15,200.0	90.16	180.00	10,821.1	-4,542.1	-229.9	4,546.0	0.00	0.00	0.00
15,300.0	90.16	180.00	10,820.8	-4,642.1	-229.9	4,646.0	0.00	0.00	0.00
15,400.0	90.16	180.00	10,820.5	-4,742.1	-229.9	4,746.0	0.00	0.00	0.00
15,500.0	90.16	180.00	10,820.3	-4,842.1	-229.9	4,845.9	0.00	0.00	0.00
15,600.0	90.16	180.00	10,820.0	-4,942.1	-229.9	4,945.9	0.00	0.00	0.00
15,700.0	90.16	180.00	10,819.7	-5,042.1	-229.9	5,045.9	0.00	0.00	0.00
15,800.0	90.16	180.00	10,819.4	-5,142.1	-229.9	5,145.9	0.00	0.00	0.00
15,900.0	90.16	180.00	10,819.2	-5,242.1	-229.9	5,245.8	0.00	0.00	0.00
16,000.0	90.16	180.00	10,818.9	-5,342.1	-229.9	5,345.8	0.00	0.00	0.00
16,100.0	90.16	180.00	10,818.6	-5,442.1	-229.9	5,445.8	0.00	0.00	0.00
16,200.0	90.16	180.00	10,818.3	-5,542.1	-229.9	5,545.8	0.00	0.00	0.00
16,300.0	90.16	180.00	10,818.1	-5,642.1	-229.9	5,645.8	0.00	0.00	0.00
16,400.0	90.16	180.00	10,817.8	-5,742.1	-229.9	5,745.7	0.00	0.00	0.00
16,500.0	90.16	180.00	10,817.5	-5,842.1	-229.9	5,845.7	0.00	0.00	0.00

Survey Report

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

Planned Survey

Measured									
Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/S (ft)	+E/W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
16,600.0	90.16	180.00	10,817.2	-5,942.1	-229.9	5,945.7	0.00	0.00	0.00
16,700.0	90.16	180.00	10,816.9	-6,042.1	-229.9	6,045.7	0.00	0.00	0.00
16,800.0	90.16	180.00	10,816.7	-6,142.1	-229.9	6,145.6	0.00	0.00	0.00
16,900.0	90.16	180.00	10,816.4	-6,242.1	-229.9	6,245.6	0.00	0.00	0.00
17,000.0	90.16	180.00	10,816.1	-6,342.1	-229.9	6,345.6	0.00	0.00	0.00
17,100.0	90.16	180.00	10,815.8	-6,442.1	-229.9	6,445.6	0.00	0.00	0.00
17,200.0	90.16	180.00	10,815.6	-6,542.1	-229.9	6,545.5	0.00	0.00	0.00
17,300.0	90.16	180.00	10,815.3	-6,642.1	-229.9	6,645.5	0.00	0.00	0.00
17,400.0	90.16	180.00	10,815.0	-6,742.1	-229.9	6,745.5	0.00	0.00	0.00
17,500.0	90.16	180.00	10,814.7	-6,842.1	-229.9	6,845.5	0.00	0.00	0.00
17,600.0	90.16	180.00	10,814.4	-6,942.1	-229.9	6,945.4	0.00	0.00	0.00
17,700.0	90.16	180.00	10,814.2	-7,042.1	-229.9	7,045.4	0.00	0.00	0.00
17,800.0	90.16	180.00	10,813.9	-7,142.1	-229.9	7,145.4	0.00	0.00	0.00
17,900.0	90.16	180.00	10,813.6	-7,242.1	-229.9	7,245.4	0.00	0.00	0.00
18,000.0	90.16	180.00	10,813.3	-7,342.1	-229.9	7,345.3	0.00	0.00	0.00
18,100.0	90.16	180.00	10,813.1	-7,442.1	-229.9	7,445.3	0.00	0.00	0.00
18,200.0	90.16	180.00	10,812.8	-7,542.1	-229.9	7,545.3	0.00	0.00	0.00
18,300.0	90.16	180.00	10,812.5	-7,642.1	-229.9	7,645.3	0.00	0.00	0.00
18,400.0	90.16	180.00	10,812.2	-7,742.1	-229.9	7,745.2	0.00	0.00	0.00
18,500.0	90.16	180.00	10,812.0	-7,842.1	-229.9	7,845.2	0.00	0.00	0.00
18,600.0	90.16	180.00	10,811.7	-7,942.1	-229.9	7,945.2	0.00	0.00	0.00
18,700.0	90.16	180.00	10,811.4	-8,042.1	-229.9	8,045.2	0.00	0.00	0.00
18,800.0	90.16	180.00	10,811.1	-8,142.1	-229.9	8,145.1	0.00	0.00	0.00
18,900.0	90.16	180.00	10,810.8	-8,242.1	-229.9	8,245.1	0.00	0.00	0.00
19,000.0	90.16	180.00	10,810.6	-8,342.1	-229.9	8,345.1	0.00	0.00	0.00
19,100.0	90.16	180.00	10,810.3	-8,442.1	-229.9	8,445.1	0.00	0.00	0.00
19,200.0	90.16	180.00	10,810.0	-8,542.1	-229.9	8,545.1	0.00	0.00	0.00
19,300.0	90.16	180.00	10,809.7	-8,642.1	-229.9	8,645.0	0.00	0.00	0.00
19,400.0	90.16	180.00	10,809.5	-8,742.1	-229.9	8,745.0	0.00	0.00	0.00
19,500.0	90.16	180.00	10,809.2	-8,842.1	-229.9	8,845.0	0.00	0.00	0.00
19,600.0	90.16	180.00	10,808.9	-8,942.1	-229.9	8,945.0	0.00	0.00	0.00
19,700.0	90.16	180.00	10,808.6	-9,042.1	-229.9	9,044.9	0.00	0.00	0.00
19,800.0	90.16	180.00	10,808.4	-9,142.1	-229.9	9,144.9	0.00	0.00	0.00
19,900.0	90.16	180.00	10,808.1	-9,242.1	-229.9	9,244.9	0.00	0.00	0.00
20,000.0	90.16	180.00	10,807.8	-9,342.1	-229.9	9,344.9	0.00	0.00	0.00
20,100.0	90.16	180.00	10,807.5	-9,442.1	-229.9	9,444.8	0.00	0.00	0.00
20,200.0	90.16	180.00	10,807.2	-9,542.1	-229.9	9,544.8	0.00	0.00	0.00
20,300.0	90.16	180.00	10,807.0	-9,642.1	-229.9	9,644.8	0.00	0.00	0.00
20,400.0	90.16	180.00	10,806.7	-9,742.1	-229.9	9,744.8	0.00	0.00	0.00
20,500.0	90.16	180.00	10,806.4	-9,842.1	-229.9	9,844.7	0.00	0.00	0.00
20,600.0	90.16	180.00	10,806.1	-9,942.1	-229.9	9,944.7	0.00	0.00	0.00
20,700.0	90.16	180.00	10,805.9	-10,042.1	-229.9	10,044.7	0.00	0.00	0.00
20,800.0	90.16	180.00	10,805.6	-10,142.1	-229.9	10,144.7	0.00	0.00	0.00
20,900.0	90.16	180.00	10,805.3	-10,242.1	-229.9	10,244.6	0.00	0.00	0.00

Survey Report

Company:	Oasis	Local Co-ordinate Reference:	Well Innoko 5301 43-12T						
Project:	Indian Hills	TVD Reference:	WELL @ 2118.0ft (Original Well Elev)						
Site:	153N-101W-13/24	MD Reference:	WELL @ 2118.0ft (Original Well Elev)						
Well:	Innoko 5301 43-12T	North Reference:	True						
Wellbore:	Innoko 5301 43-12T	Survey Calculation Method:	Minimum Curvature						
Design:	Design #1	Database:	OpenWellsCompass - EDM Prod						
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)
21,193.9	90.16	180.00	10,804.5	-10,536.0	-229.9	10,538.5	0.00	0.00	0.00
Casing Points									
Measured Depth (ft)	Vertical Depth (ft)			Name			Casing Diameter (in)	Hole Diameter (in)	
2,018.0	2,018.0	9 5/8"					9.625	13.500	
11,119.0	10,832.4	7"					7.000	8.750	
Formations									
Measured Depth (ft)	Vertical Depth (ft)			Name	Lithology		Dip (°)	Dip Direction (°)	
2,018.0	2,018.0	Pierre							
4,646.0	4,646.0	Greenhorn							
5,036.0	5,036.0	Mowry							
5,463.0	5,463.0	Dakota							
6,382.0	6,382.0	Rierdon							
6,899.0	6,899.0	Dunham Salt							
6,976.0	6,976.0	Dunham Salt Base							
6,986.0	6,986.0	Spearfish							
7,277.0	7,277.0	Pine Salt							
7,333.0	7,333.0	Pine Salt Base							
7,360.0	7,360.0	Opeche Salt							
7,399.0	7,399.0	Opeche Salt Base							
7,604.0	7,604.0	Broom Creek (Top of Minnelusa Gp.)							
7,663.0	7,663.0	Amsden							
7,852.0	7,852.0	Tyler							
8,024.0	8,024.0	Otter (Base of Minnelusa Gp.)							
8,375.0	8,375.0	Kibbey							
8,522.0	8,522.0	Charles Salt							
9,148.0	9,148.0	UB							
9,224.0	9,224.0	Base Last Salt							
9,268.0	9,268.0	Ratcliffe							
9,443.0	9,443.0	Mission Canyon							
10,009.0	10,009.0	Lodgepole							
10,194.0	10,194.0	Lodgepole Fracture Zone							
10,717.0	10,683.3	False Bakken							
10,726.0	10,689.8	Upper Bakken							
10,736.0	10,696.8	Middle Bakken							
10,777.0	10,724.2	Lower Bakken							
10,790.0	10,732.3	Pronghorn							
10,806.0	10,741.9	Three Forks							

Survey Report

Company: Oasis
Project: Indian Hills
Site: 153N-101W-13/24
Well: Innoko 5301 43-12T
Wellbore: Innoko 5301 43-12T
Design: Design #1

Local Co-ordinate Reference: Well Innoko 5301 43-12T
TVD Reference: WELL @ 2118.0ft (Original Well Elev)
MD Reference: WELL @ 2118.0ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: OpenWellsCompass - EDM Prod

Checked By: _____ Approved By: _____ Date: _____

WELL LOCATION PLAT
OASIS PETROLEUM NORTH AMERICA, LLC
1001 FANNIN, SUITE 1500, HOUSTON, TX 77002
"INNOKO 5301 43-127"
250 FEET FROM SOUTH LINE AND 2410 FEET FROM EAST LINE
SECTION 12, T153N, R101W, 5TH P.M., MCKENZIE COUNTY, NORTH DAKOTA

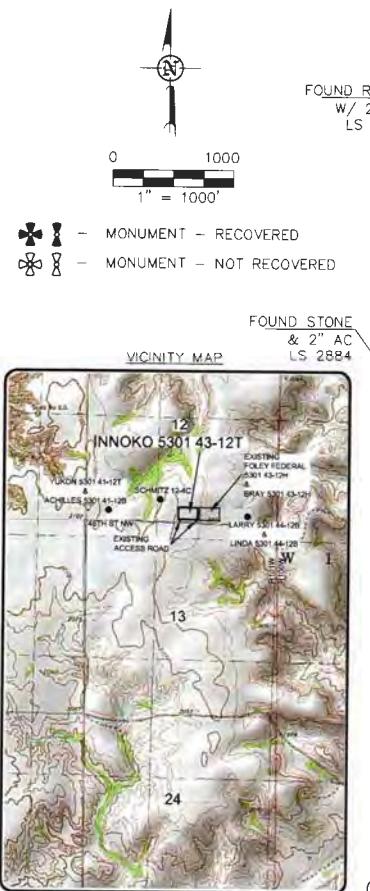
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STAKED ON 12/6/11
VERTICAL CONTROL DATUM WAS BASED UPON
CONTROL POINT 13 WITH AN ELEVATION OF 2090.8'

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.

MARK W. KADRMAS LS-3498



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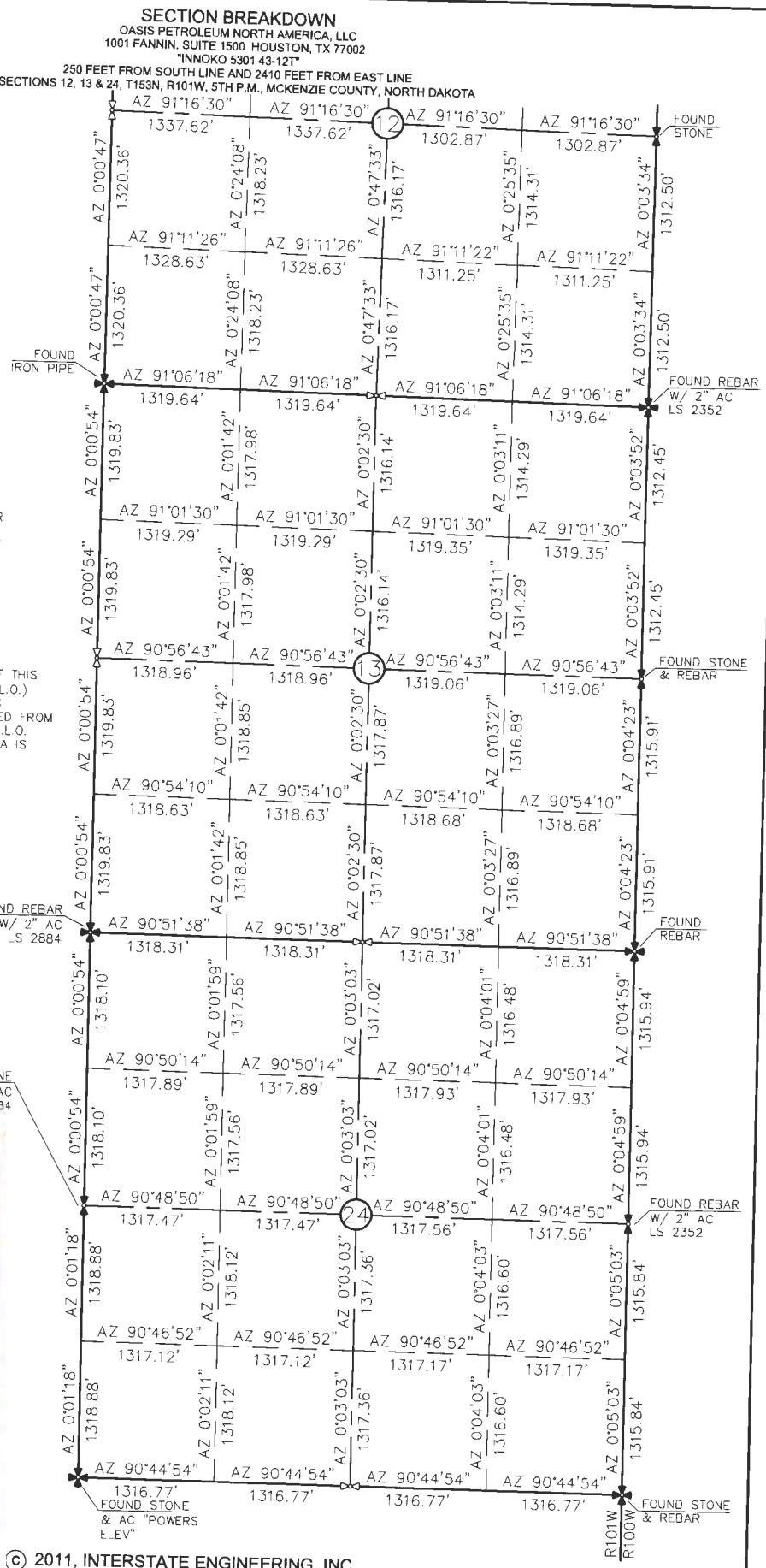
SHEET NO.

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

offices in Minnesota, North Dakota and South Dakota

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

Revision No.	Date	By	Description
REV 1	1/19/12	JJS	SWAPPED WELL LOCATIONS
REV 2	2/5/13	BHH	MOVED BOTTOM HOLE / CHANGED NAME
REV 3	2/14/13	JJS	REVISED WELL CALL



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2/8



SHEET NO.

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Other offices in Montana, North Dakota and South Dakota

OASIS PETROLEUM NORTH AMERICA, LLC
SECTION BREAKDOWN
SECTIONS 12, 13 & 24, T153N, R101W
MCKENZIE COUNTY, NORTH DAKOTA

Drawn By: JJS Project No.: S11-09-361
Checked By: DPK Date: DEC 2011

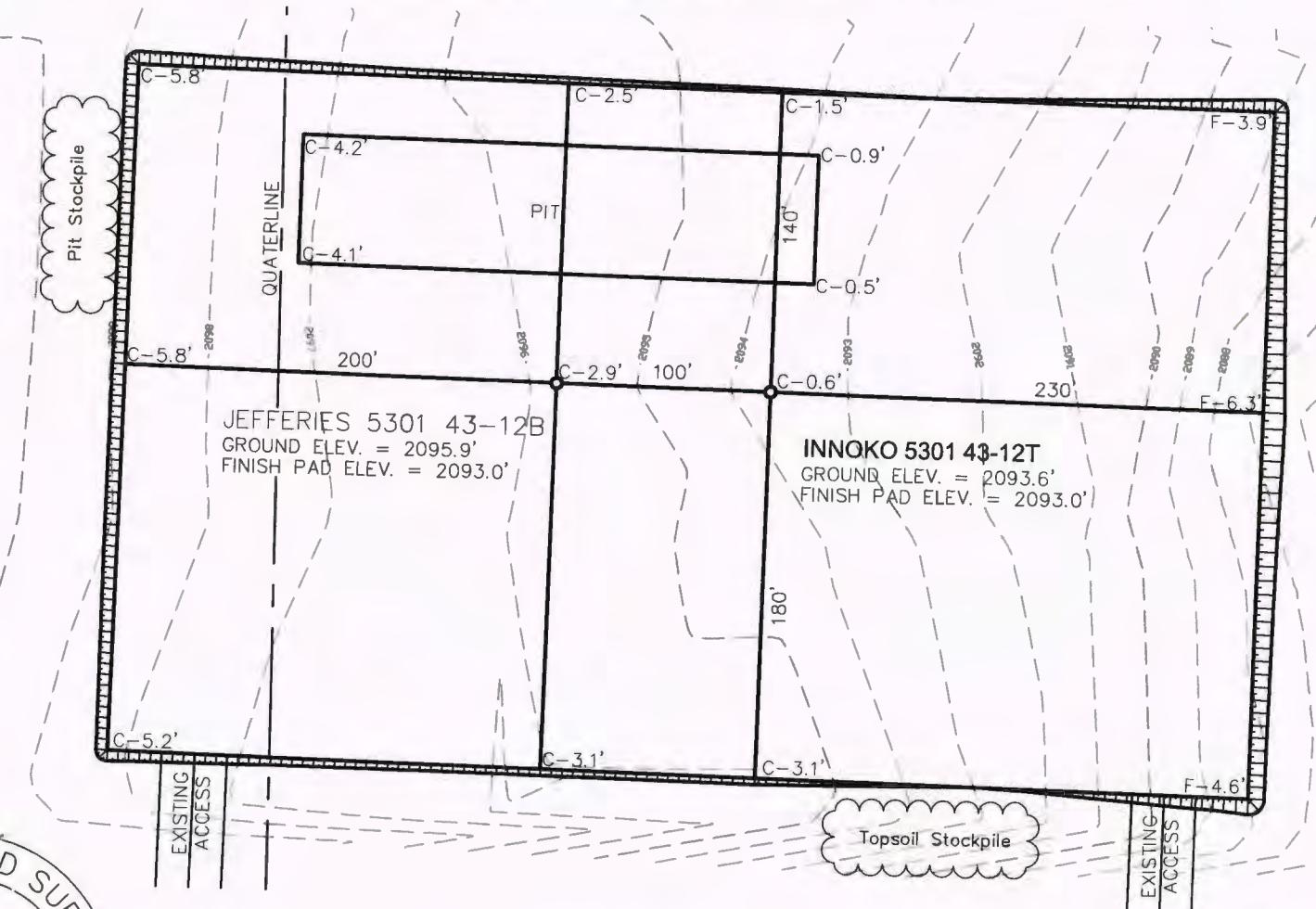
Revision No.	Date	By	Description
REV. 1	1/18/12	MS	SWAPPED WELL LOCATIONS
REV. 2	2/5/13	BH	MMOVED BOTTOM HOLE / CHANGED NAME

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PAD LAYOUT

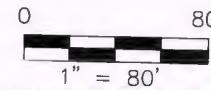
OASIS PETROLEUM NORTH AMERICA, LLC
1001 FANNIN, SUITE 1500 HOUSTON, TX 77002
"INNOKO 5301 43-12T"

250 FEET FROM SOUTH LINE AND 2410 FEET FROM EAST LINE
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 2/06/13 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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3/8

OASIS PETROLEUM NORTH AMERICA, LLC.	
PAD LAYOUT	
SECTION 12, T153N, R101W	
MCKENZIE COUNTY, NORTH DAKOTA	
Drawn By:	J.I.S.
Checked By:	D.D.K.
Project No.:	S14-9-361
Date:	DEC. 2011

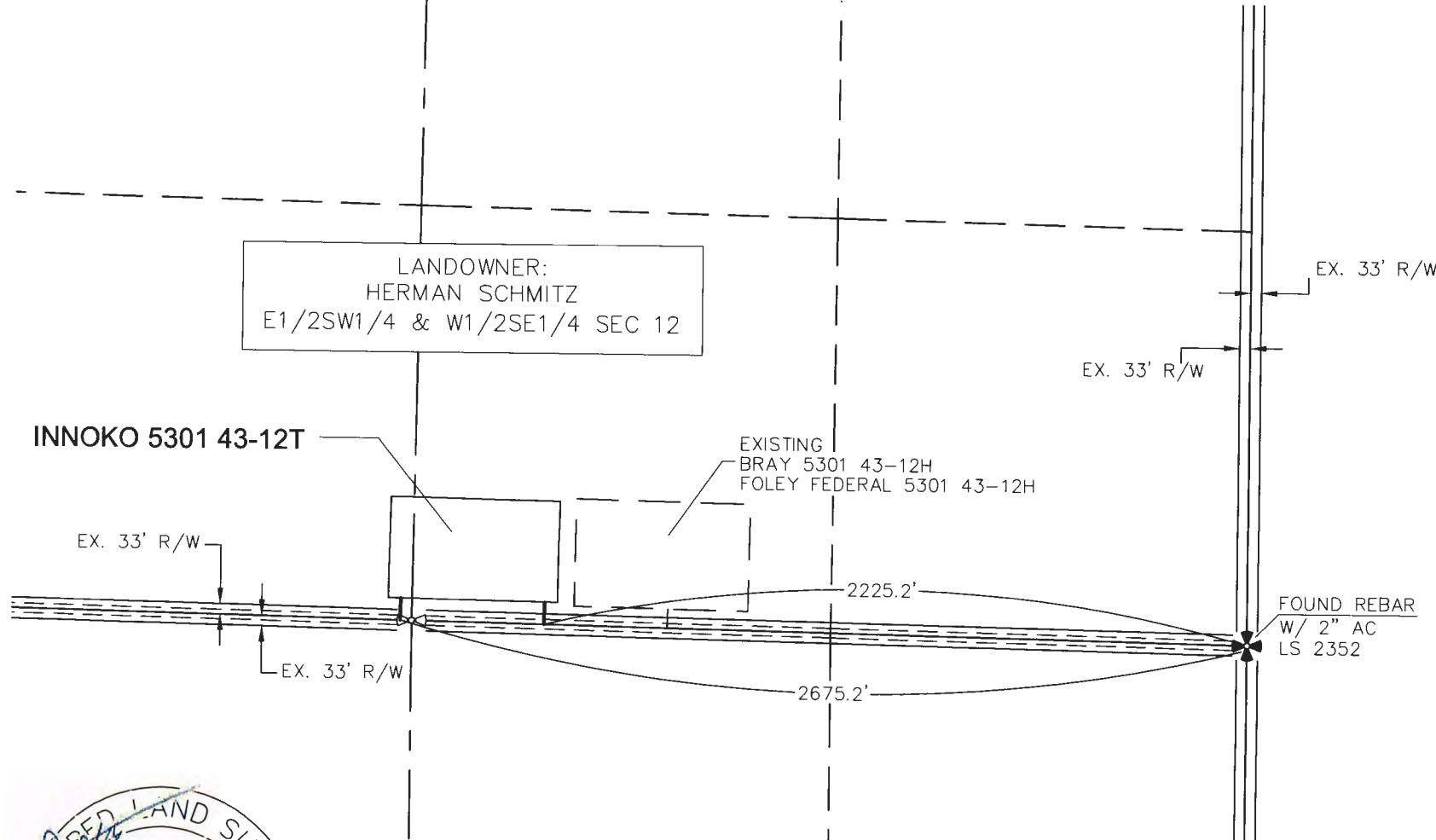
Interstate Engineering, Inc.
P.O. Box 548
425 East Main Street
Sidney, Montana 59270
Ph (406) 433-5617
Fax (406) 433-5618
www.interstateeng.com

Other offices in Montana, North Dakota and South Dakota

ACCESS APPROACH

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

250 FEET FROM SOUTH LINE AND 2410 FEET FROM EAST LINE
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 2/06/13 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.

0 500
1" = 500'

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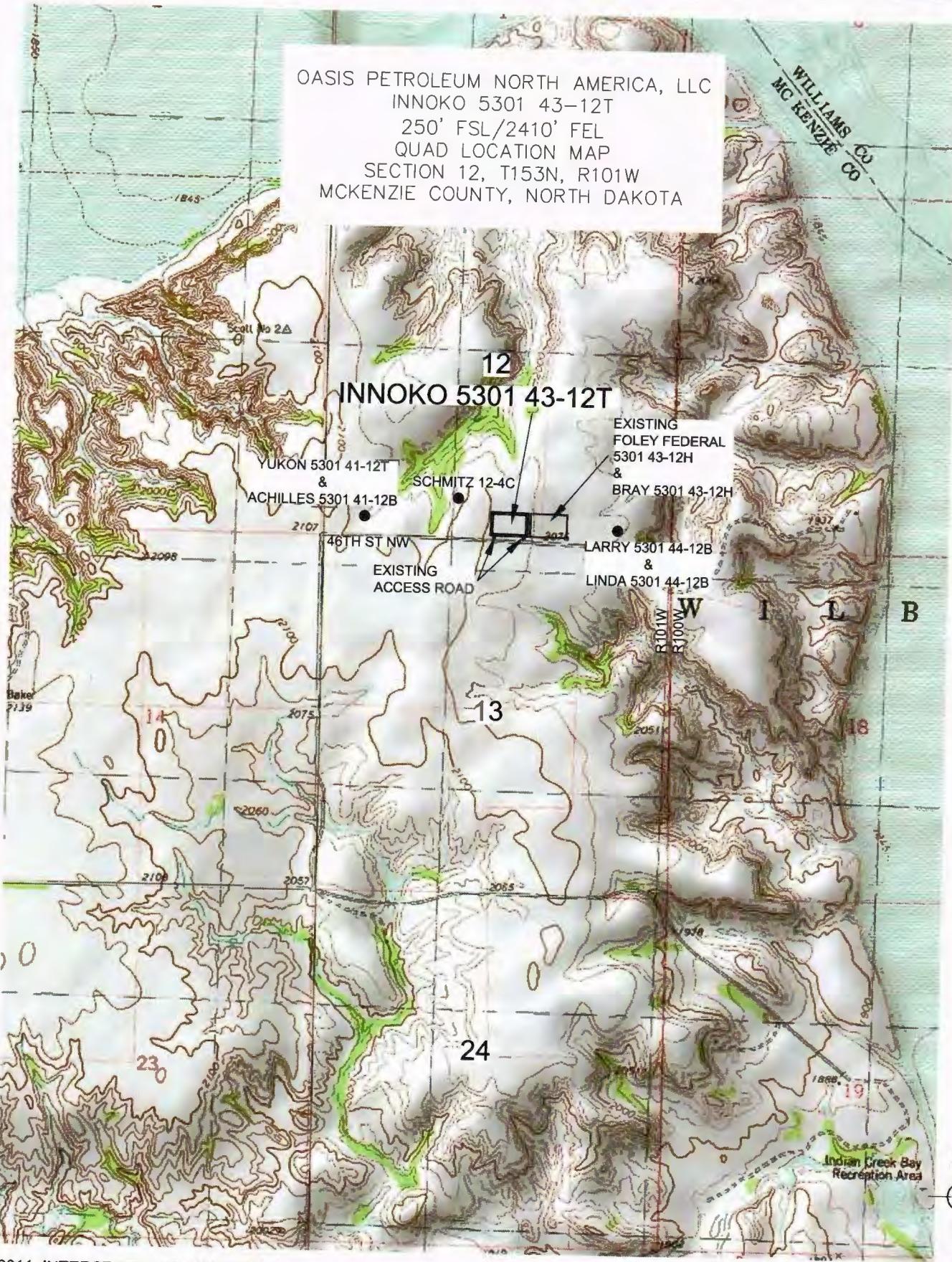


Professionals you can trust

4/8

SHEET NO.

OASIS PETROLEUM NORTH AMERICA, LLC		Revision No.	Date	By	Description
ACCESS APPROACH		REV 1	1/18/12	LS	SWARDED WELL LOCATIONS
SECTION 12, T153N, R101W		REV 2	2/2/12	B&H	MORED BOTTOM HOLE / CHANGED NAME
MCKENZIE COUNTY, NORTH DAKOTA		Project No.: SH-109-361			
Drawn By:	J.I.S.	Checked By:	D.D.K.	Date: DEC 2011	
Other offices in Minnesota, North Dakota and South Dakota					
425 East Main Street Sidney, Montana 59270 Ph: (406) 433-5617 Fax: (406) 433-5618 www.interstateeng.com					



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 Sidney, Montana 59270
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 Fax (406) 433-5618
www.interstateeng.com
Other offices in Minnesota, North Dakota and South Dakota

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

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

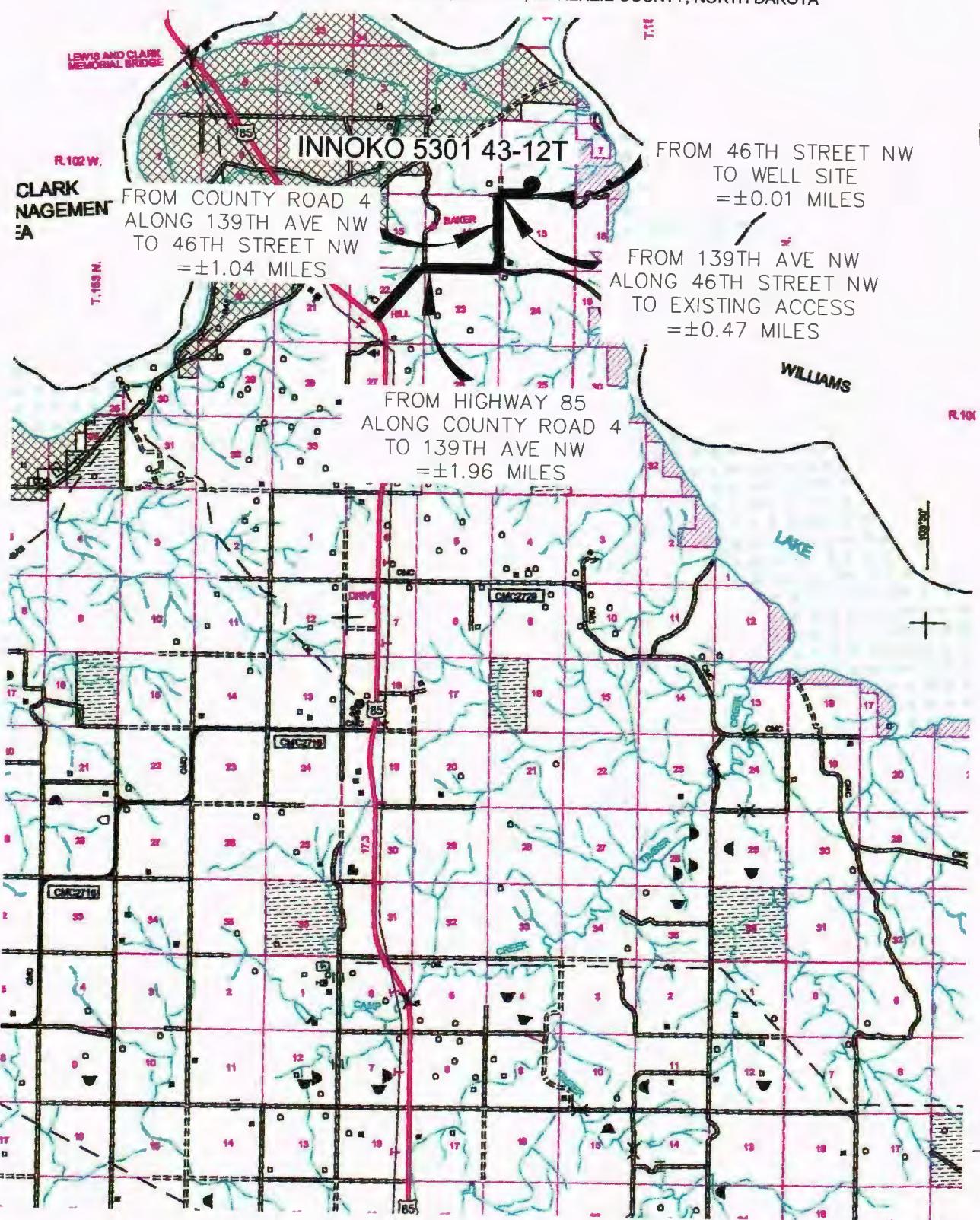
Revision No.	Date	By	Description
REV 1	1/19/12	JJS	SWAPPED WELL LOCATIONS
REV 2	2/5/13	BHH	Moved bottom hole / changed name

COUNTY ROAD MAP

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

"INNOKO 5301 43-12T"

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



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SCALE: 1" = 2 MILE

6/8



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Fax (406) 433-5618
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Other offices in Minnesota, North Dakota and South Dakota

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

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

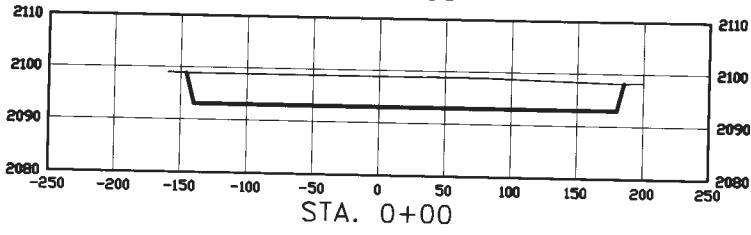
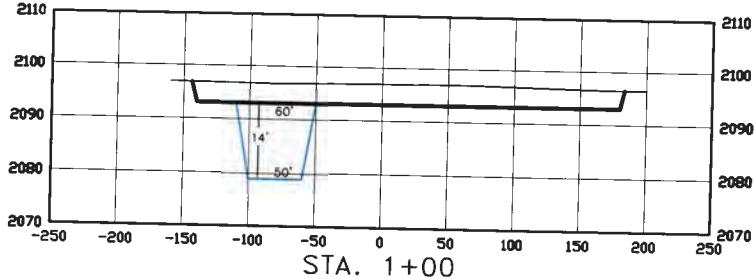
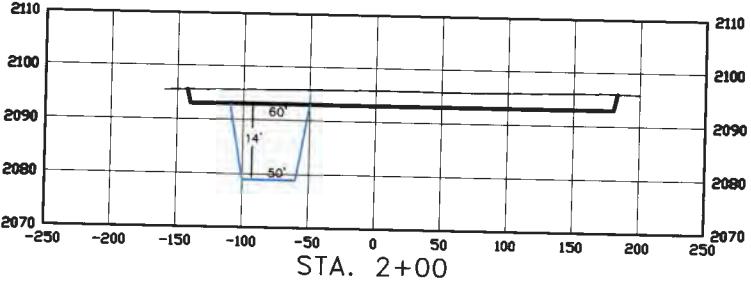
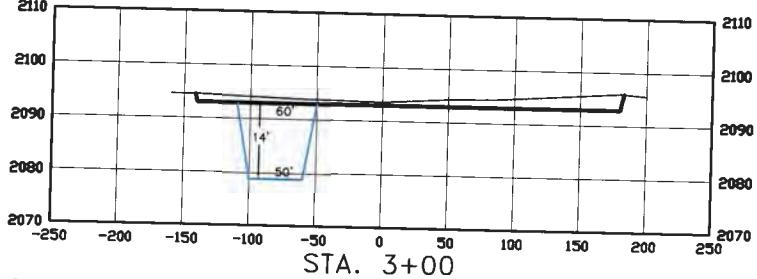
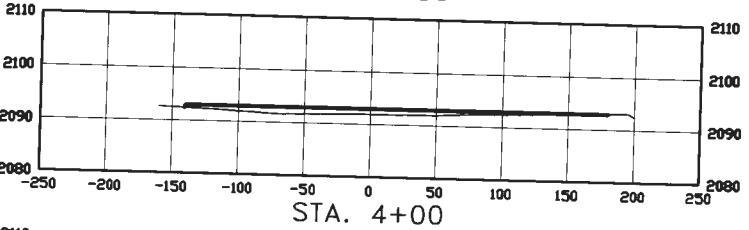
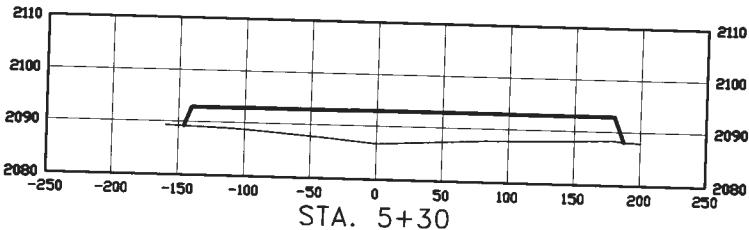
Revision No.	Date	By	Description
REV 1	1/19/12	LJS	SWAPPED WELL LOCATIONS
REV 2	2/5/13	BHH	MOVED BOTTOM HOLE / CHANGED NAME

CROSS SECTIONS

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

"INNOKO 5301 43-12T"

250 FEET FROM SOUTH LINE AND 2410 FEET FROM EAST LINE
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 2/06/13 AND THE ORIGINAL DOCUMENTS ARE STORED AT THE OFFICES OF INTERSTATE ENGINEERING, INC.



SCALE

HORIZ 1"=140'
VERT 1"=35'

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

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

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

Revision No.	Date	By	Description
REV 1	1/19/12	JJS	SWAPPED WELL LOCATIONS
REV 2	2/5/13	BHH	MOVED BOTTOM HOLE / CHANGED NAME

WELL LOCATION SITE QUANTITIES

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

"INNOKO 5301 43-12T"

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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Fax (406) 433-5618
www.interstateeng.com

Other offices in Minnesota, North Dakota and South Dakota

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:	D.D.K.	Date:	DEC 2011

Revision No.	Date	By	Description
REV 1	1/19/12	JJS	SWAPPED WELL LOCATIONS
REV 2	2/5/13	BHH	MOVED BOTTOM HOLE / CHANGED NAME



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.
22221



PLEASE READ INSTRUCTIONS BEFORE FILLING OUT FORM.

PLEASE SUBMIT THE ORIGINAL AND ONE COPY.

<input checked="" type="checkbox"/> Notice of Intent	Approximate Start Date Immediately	<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 checked="" type="checkbox"/> Reclamation
		<input type="checkbox"/> Other	Rescind APD permit

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

24-HOUR PRODUCTION RATE			
Before		After	
Oil	Bbls	Oil	Bbls
Water	Bbls	Water	Bbls
Gas	MCF	Gas	MCF

Name of Contractor(s)			
Address		City	State
			Zip Code

DETAILS OF WORK

Oasis Petroleum North America LLC respectfully request that the permit issued for the above referenced well be canceled.

No construction per Heather's email.

Company Oasis Petroleum North America LLC		Telephone Number 281-404-9563	
Address 1001 Fannin, Suite 1500			
City Houston		State TX	Zip Code 77002
Signature <i>Heather McCowan</i>		Printed Name Heather McCowan	
Title Regulatory Assistant		Date April 10, 2013	
Email Address hmccowan@oasispetroleum.com			

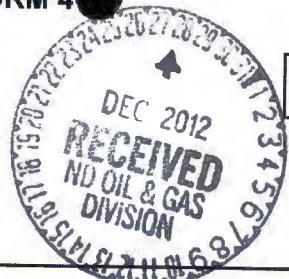
FOR STATE USE ONLY	
<input type="checkbox"/> Received	<input checked="" type="checkbox"/> Approved
Date 04-16-2013	
By <i>David Burns</i>	
Title Engineering Tech.	



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.
22221



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

<input checked="" type="checkbox"/> Notice of Intent	Approximate Start Date December 27, 2012	<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	Extend Drilling Permit

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

24-HOUR PRODUCTION RATE			
Before		After	
Oil	Bbls	Oil	Bbls
Water	Bbls	Water	Bbls
Gas	MCF	Gas	MCF

Name of Contractor(s)			
Address		City	State
			Zip Code

DETAILS OF WORK

The drilling permit issued for this well will expire on January 10, 2013. We respectfully request a one year extension to this permit.

The \$100 filing fee can be charged to the credit card on file.

Inv# 36059 Lt 0103/2013

Company Oasis Petroleum North America LLC		Telephone Number 281 404-9491
Address 1001 Fannin Suite 1500		
City Houston	State TX	Zip Code 77002
Signature 	Printed Name Brandi Terry	
Title Regulatory Specialist	Date December 27, 2011	
Email Address bterry@oasispetroleum.com		

FOR STATE USE ONLY

<input type="checkbox"/> Received	<input checked="" type="checkbox"/> Approved
Date 1-3-2013	
By 	
Title David Burns	Engineering Tech.



22221 S

Oil and Gas Division

Lynn D. Helms - Director Bruce E. Hicks - Assistant Director
Department of Mineral Resources
Lynn D. Helms - Director
North Dakota Industrial Commission
www.dmr.nd.gov/oilgas

December 14, 2012

OASIS PETRO NO AMER
1001 FANNIN STE 1500
HOUSTON, TX 77002

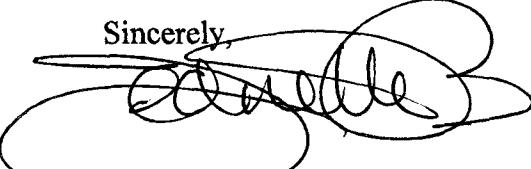
RE: TIMMONS 5301 43-12B
SWSE Sec. 12-153N-101W
MCKENZIE COUNTY
WELL FILE NO. 22221

Gentlemen:

The records and files of the Industrial Commission indicate that the above referenced permit will expire January 10, 2013.

Permits to drill are only valid for one year in the State of North Dakota. If you would like to renew for another year, please submit a Form 4 along with the \$100.00 filing fee. Alternatively, you may elect to send in a Form 4 cancelling the permit. If you have any questions, please contact Todd Holweger.

Sincerely,



Jeanette Bean

Administrative Assistant



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.
22221

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

<input checked="" type="checkbox"/> Notice of Intent	Approximate Start Date January 18, 2012	<input type="checkbox"/> Drilling Prognosis	<input type="checkbox"/> Spill Report
<input type="checkbox"/> Report of Work Done	Date Work Completed	<input checked="" 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	Change surface location

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

24-HOUR PRODUCTION RATE

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

Name of Contractor(s)			
Address	City	State	Zip Code

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 & 2410' FEL, Sec. 12-153N-101W. Correlating to this surface location the new 7" casing point will be 703' FSL & 2529' FWL, Sec. 12-153N-101W at an azimuth of 324.3°. The new bottom hole location will be 200' FNL & 2000' FWL Sec. 1 T153N R101W at an azimuth of 0°.

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

FOR STATE USE ONLY

<input type="checkbox"/> Received	<input checked="" type="checkbox"/> Approved
Date 1-25-12	
By <i>Nathaniel Eber</i>	
Title Petroleum Resource Specialist	

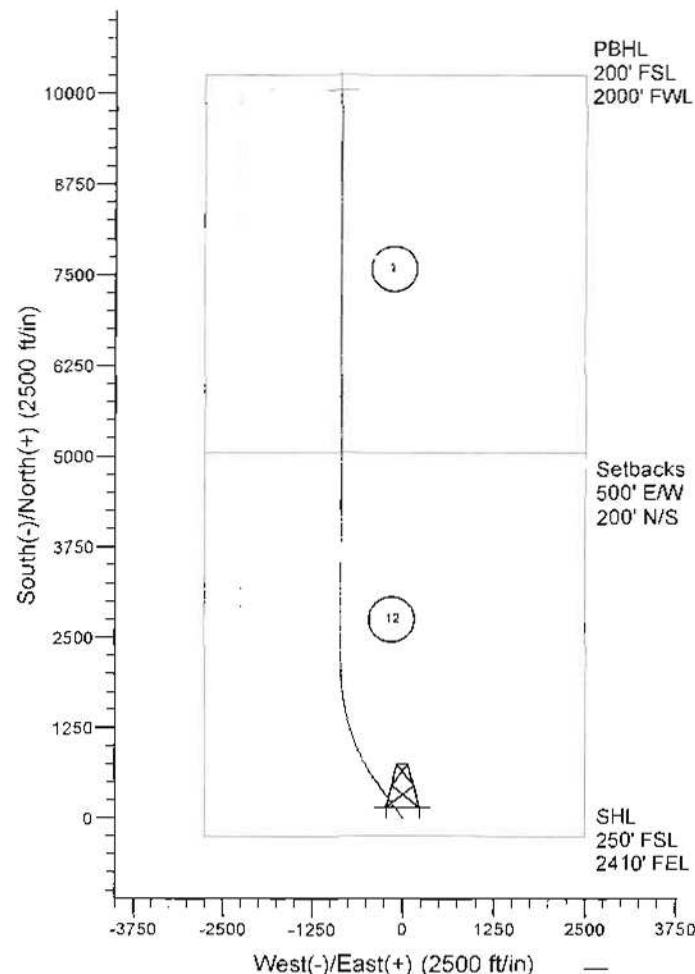
WELL LOCATION PLAT
OASIS PETROLEUM NORTH AMERICA, LLC
1001 FANNIN, SUITE 1500 HOUSTON, TX 77002
"TIMMONS 6301 43-12B"
250 FEET FROM SOUTH LINE AND 2410 FEET FROM EAST LINE
SECTION 12, T15N, R101W, 5TH P.M., MCKENZIE COUNTY, NORTH DAKOTA

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.

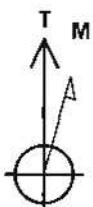
CARL S. VENDER LS 1222



DRILLING PLAN							
OPERATOR	Oasis Petroleum			COUNTY/STATE	McKenzie Co., ND		
WELL NAME	Hawthorne 8-10S 43-120			RIG	Nugen 140		
WELL TYPE	Horizontal / Multi-Bakken						
LOCATION	Sec. 12 T15N R101W			Surface Location (survey plat)	100' N	2,412' TA	
EST. T.D.	20,822			GROUND ELEV:	2,044' Finished Pad Elev	Sub Height: 0'	
TOTAL LATERAL:	9,707' (est)			KB ELEV:	2,112'		
PROGNOSIS:	Based on 4,116' lateral			LOGS:	Type	Interval	
MARKER	DEPTH (Surf Loc)	DATUM (Surf Loc)			OH Logs: Infill-well no logs planned.		
Pierre	NDIC MAP	1,968			CBL/GR: Above top of cement/GR to base of casing		
Greenhorn		4,634	(4,510)		MWD GR: KOP to lateral TD		
Mowry		5,030	(2,912)				
Dakota		5,461	(1,343)				
Riordan		8,377	(1,259)		Surf:	3 deg. max., 1 deg / 100', surv every 500'	
Dunham Salt		6,898	(1,778)		Prod:	5 deg. max., 1 deg / 100', surv every 100'	
Dunham Salt Base		6,963	(4,843)				
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)				
Amstern		7,668	(5,550)				
Tyler		7,844	(5,715)				
Olter (Base of Minnelusa Gp.)		8,031	(5,811)				
Kibbey		8,365	(6,247)				
Charles Salt		8,512	(6,394)				
UB		9,135	(7,217)				
Base Last Salt		9,212	(7,302)				
Ratcliffe		9,260	(7,350)				
Mission Canyon		9,436	(7,512)				
Lodgepole		10,010	(8,392)				
Lodgepole Fracture Zone		10,160	(8,642)				
False Bakken		10,718	(9,005)				
Upper Bakken		10,725	(8,607)				
Middle Bakken		10,740	(8,622)				
Middle Bakken Sand Target		10,747	(8,629)				
Base Middle Bakken Sand Target		10,750	(8,633)				
Lower Bakken		10,778	(8,656)				
Three Forks		10,803	(8,680)				
Dip Rate:	Varies (0.6° to -0.7°)						
Max. Anticipated BHP:	4,116			Surface Formation: Glacial till			
MUD:	Interval	Type	WT	Vis	WL	Remarks	
Surface	0' -	2,070' FW/Gel - lime sweeps	8.6 - 8.9	28-34	NC	Circ Mud Tanks	
Intermediate	2,070' -	11,115' Invert	9.6-10.4	40-60	30H(H2HT)	Circ Mud Tanks	
Liner	11,115' -	20,822' 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"	2,070'	To Surface	12	100' into Pierre
Intermediate	7"	29/32#	8-3/4"	11,115'	4,861'	24	500' above Dakota
Production:	4.5"	11.5#	6"	20,822'	TOL @ 10,260'		50' above KOP
PROBABLE PLUGS, IF REQ'D:							
OTHER:	MD	TVD	FNL/FSL	FEL/FWL	S-T-R	AZI	
Surface:	2,070	2,070	250 FSL	2410' FEL	12-T15N-R101W		Survey Company:
KOP	10,360	10,360	150 FSL	21,070' FEL	12-T15N-R101W		Build Rate: 13 deg /100'
EOC.	11,030'	10,747	600 FSL	21,356' FWL	12-T15N-R101W	324.3	
Casing Point:	11,115	10,747	700 FSL	21,299' FWL	12-T15N-R101W	324.3	
Middle Bakken Lateral TD	20,822	10,747	200 FSL	20,800' FWL	1-T15N-R101W	0.0	
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							
GR must be run to ground surface.							
OASIS PETROLEUM							
Geology: SPG 12-27-2011							Engineering: L. Strong 1/18/2012



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



Azimuths to True North
Magnetic North: 8.55°

Magnetic Field
Strength: 56719.2snT
Dip Angle: 73.09°
Date: 12/27/2011
Model: IGRF200510

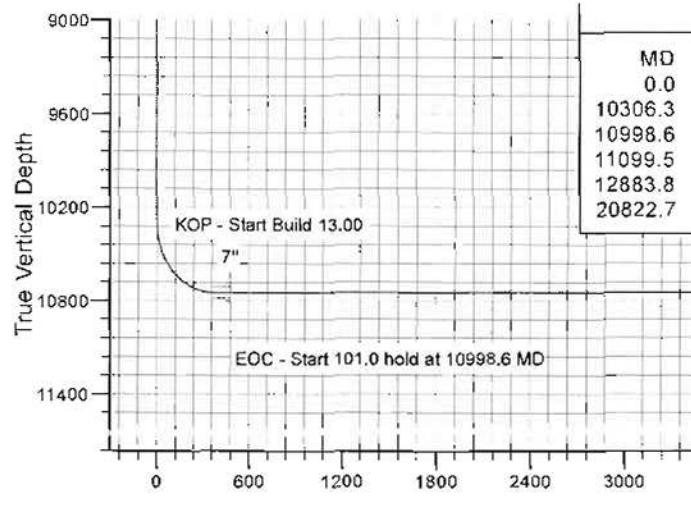
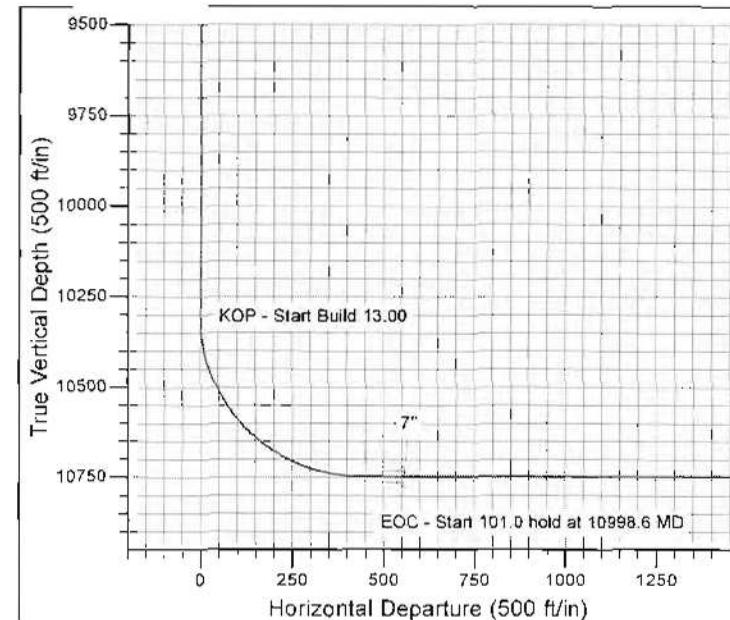
CASING DETAILS

TVD	MD	Name	Size
2070.0	2070.0	9 5/8"	9.625
10747.0	11115.0	7"	7.000

SITE DETAILS: 153N-101W-1/12

Site Centre Latitude: 48° 4' 57.940 N
Longitude: 103° 36' 41.780 W

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



SECTION DETAILS							
MD	Inc	Azi	TVD	+N/S	+E/W	Deg	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	
10306.3	0.00	0.00	10306.3	0.0	0.0	0.00	
10998.6	90.00	324.31	10747.0	358.0	-257.1	13.00	
11099.5	90.00	324.31	10747.0	440.0	-316.0	0.00	
12883.8	90.00	360.00	10747.0	2111.1	-853.9	2.00	
20822.7	90.00	360.00	10747.0	10050.0	-854.0	0.00	PBHL

Vertical Section at 355.14°

Oasis

**Indian Hills
153N-101W-1/12
Timmons 5301 43-12B**

OH

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 Timmons 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-1/12	North Reference:	True
Well:	Timmons 5301 43-12B	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

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

Site	153N-101W-1/12			
Site Position:		Northing:	125,065.82 m	Latitude: 48° 4' 57.940 N
From:	Lat/Long	Easting:	368,244.93 m	Longitude: 103° 36' 41.780 W
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence: -2.32°

Well	Timmons 5301 43-12B			
Well Position	+N/S 11.2 ft	Northing:	125,076.39 m	Latitude: 48° 4' 58.050 N
	+E/W -582.5 ft	Easting:	368,067.66 m	Longitude: 103° 36' 50.360 W
Position Uncertainty	0.0 ft	Wellhead Elevation:		Ground Level: 2,093.11 ft

Wellbore	OH			
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°) Field Strength (nT)
	IGRF200510	12/27/2011	8.55	73.09 56,719

Design	Plan #1			
Audit Notes:				
Version:		Phase:	PROTOTYPE	Tie On Depth:
Vertical Section:		Depth From (TVD) (ft)	+N/S (ft)	+E/W (ft)
		0.0	0.0	0.0
				355.14

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
10,306.3	0.00	0.00	10,306.3	0.0	0.0	0.00	0.00	0.00	0.00	0.00
10,998.6	90.00	324.31	10,747.0	358.0	-257.1	13.00	13.00	0.00	324.31	
11,099.5	90.00	324.31	10,747.0	440.0	-316.0	0.00	0.00	0.00	0.00	0.00
12,883.8	90.00	360.00	10,747.0	2,111.1	-853.9	2.00	0.00	2.00	90.00	
20,822.7	90.00	360.00	10,747.0	10,050.0	-854.0	0.00	0.00	0.00	0.00	Timmons 5301 43-12B

Microsoft
Planning Report

Database:	EDM 5000.1.9.0 Production DB	Local Co-ordinate Reference:	Well Timmons 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-1/12	North Reference:	True
Well:	Timmons 5301 43-12B	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/S (ft)	+E/W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,968.0	0.00	0.00	1,968.0	0.0	0.0	0.0	0.00	0.00	0.00
Pierre									
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,070.0	0.00	0.00	2,070.0	0.0	0.0	0.0	0.00	0.00	0.00
9 5/8"									
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
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
Greenhorn									

Microsoft
Planning Report

Database:	EDM 5000.1.9.0 Production DB	Local Co-ordinate Reference:	Well Timmons 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-1/12	North Reference:	True
Well:	Timmons 5301 43-12B	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N-S (ft)	+E-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,700.0	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
Mowry									
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
Dakota									
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
Rierdon									
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
Dunham Salt									
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
Dunham Salt Base									
6,968.0	0.00	0.00	6,968.0	0.0	0.0	0.0	0.00	0.00	0.00
Spearfish									
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
Pine Salt									
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
Pine Salt Base									
7,365.0	0.00	0.00	7,365.0	0.0	0.0	0.0	0.00	0.00	0.00
Opeche Salt									
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
Opeche Salt Base									
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
Broom Creek (Top of Minnelusa Gp.)									
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

Database:	EDM 5000.1.9.0 Production DB	Local Co-ordinate Reference:	Well Timmons 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-1/12	North Reference:	True
Well:	Timmons 5301 43-12B	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/S (ft)	+E/W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
Amsden									
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
Tyler									
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
Otter (Base of Minnelusa Gp.)									
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
8,365.0	0.00	0.00	8,365.0	0.0	0.0	0.0	0.00	0.00	0.00
Kibbey									
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
8,512.0	0.00	0.00	8,512.0	0.0	0.0	0.0	0.00	0.00	0.00
Charles Salt									
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
9,135.0	0.00	0.00	9,135.0	0.0	0.0	0.0	0.00	0.00	0.00
UB									
9,200.0	0.00	0.00	9,200.0	0.0	0.0	0.0	0.00	0.00	0.00
9,212.0	0.00	0.00	9,212.0	0.0	0.0	0.0	0.00	0.00	0.00
Base Last Salt									
9,260.0	0.00	0.00	9,260.0	0.0	0.0	0.0	0.00	0.00	0.00
Ratcliffe									
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
9,436.0	0.00	0.00	9,436.0	0.0	0.0	0.0	0.00	0.00	0.00
Mission Canyon									
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
10,010.0	0.00	0.00	10,010.0	0.0	0.0	0.0	0.00	0.00	0.00
Lodgepole									
10,100.0	0.00	0.00	10,100.0	0.0	0.0	0.0	0.00	0.00	0.00
10,160.0	0.00	0.00	10,160.0	0.0	0.0	0.0	0.00	0.00	0.00
Lodgepole Fracture Zone									
10,200.0	0.00	0.00	10,200.0	0.0	0.0	0.0	0.00	0.00	0.00
10,306.3	0.00	0.00	10,306.3	0.0	0.0	0.0	0.00	0.00	0.00
KOP - Start Build 13.00									
10,325.0	2.44	324.31	10,325.0	0.3	-0.2	0.3	13.00	13.00	0.00
10,350.0	5.69	324.31	10,349.9	1.8	-1.3	1.9	13.00	13.00	0.00
10,375.0	8.94	324.31	10,374.7	4.3	-3.1	4.6	13.00	13.00	0.00

Microsoft
Planning Report

Database:	EDM 5000.1.9.0 Production DB	Local Co-ordinate Reference:	Well Timmons 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-1/12	North Reference:	True
Well:	Timmons 5301 43-12B	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/S (ft)	+E/W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (%/100ft)	Turn Rate (°/100ft)
10,400.0	12.19	324.31	10,399.3	8.1	-5.8	8.5	13.00	13.00	0.00
10,425.0	15.44	324.31	10,423.6	12.9	-9.3	13.7	13.00	13.00	0.00
10,450.0	18.69	324.31	10,447.5	18.9	-13.6	19.9	13.00	13.00	0.00
10,475.0	21.94	324.31	10,470.9	25.9	-18.6	27.4	13.00	13.00	0.00
10,500.0	25.19	324.31	10,493.8	34.0	-24.4	36.0	13.00	13.00	0.00
10,525.0	28.44	324.31	10,516.1	43.2	-31.0	45.7	13.00	13.00	0.00
10,550.0	31.69	324.31	10,537.8	53.4	-38.3	56.4	13.00	13.00	0.00
10,575.0	34.94	324.31	10,558.7	64.5	-46.3	66.2	13.00	13.00	0.00
10,600.0	38.19	324.31	10,578.7	76.6	-55.0	81.0	13.00	13.00	0.00
10,625.0	41.44	324.31	10,597.9	89.6	-64.4	94.7	13.00	13.00	0.00
10,650.0	44.69	324.31	10,616.2	103.5	-74.3	109.4	13.00	13.00	0.00
10,675.0	47.94	324.31	10,633.5	118.1	-84.9	124.9	13.00	13.00	0.00
10,700.0	51.19	324.31	10,649.7	133.6	-95.9	141.2	13.00	13.00	0.00
10,725.0	54.44	324.31	10,664.8	149.8	-107.6	158.3	13.00	13.00	0.00
10,750.0	57.69	324.31	10,678.7	166.6	-119.7	176.2	13.00	13.00	0.00
10,775.0	60.94	324.31	10,691.5	184.1	-132.2	194.6	13.00	13.00	0.00
10,800.0	64.19	324.31	10,703.0	202.1	-145.1	213.7	13.00	13.00	0.00
10,825.0	67.44	324.31	10,713.3	220.6	-158.4	233.2	13.00	13.00	0.00
10,832.3	68.38	324.31	10,716.0	226.1	-162.4	239.0	13.00	13.00	0.00
False Bakken									
10,850.0	70.69	324.31	10,722.2	239.6	-172.1	253.3	13.00	13.00	0.00
10,858.7	71.82	324.31	10,725.0	246.3	-176.9	260.4	13.00	13.00	0.00
Upper Bakken									
10,875.0	73.94	324.31	10,729.8	258.9	-186.0	273.7	13.00	13.00	0.00
10,900.0	77.19	324.31	10,736.0	278.6	-200.1	294.5	13.00	13.00	0.00
10,919.9	79.77	324.31	10,740.0	294.4	-211.5	311.3	13.00	13.00	0.00
Middle Bakken									
10,925.0	80.44	324.31	10,740.9	298.5	-214.4	315.6	13.00	13.00	0.00
10,950.0	83.69	324.31	10,744.3	318.6	-228.8	336.8	13.00	13.00	0.00
10,975.0	86.94	324.31	10,746.4	338.8	-243.4	358.2	13.00	13.00	0.00
10,998.5	90.00	324.31	10,747.0	358.0	-257.1	378.4	13.00	13.00	0.00
EOC - Start 101.0 hold at 10998.6 MD - Middle Bakken Sand Target									
11,000.0	90.00	324.31	10,747.0	359.1	-257.9	379.7	0.21	0.21	0.00
11,099.5	90.00	324.31	10,747.0	440.0	-316.0	465.2	0.00	0.00	0.00
Start DLS 2.00 TFO 90.00									
11,115.0	90.00	324.62	10,747.0	452.6	-325.0	478.5	2.00	0.00	2.00
7"									
11,200.0	90.00	326.32	10,747.0	522.6	-373.2	552.3	2.00	0.00	2.00
11,300.0	90.00	328.32	10,747.0	606.8	-427.1	640.8	2.00	0.00	2.00
11,400.0	90.00	330.32	10,747.0	692.8	-478.2	730.8	2.00	0.00	2.00
11,500.0	90.00	332.32	10,747.0	780.5	-526.1	822.2	2.00	0.00	2.00
11,600.0	90.00	334.32	10,747.0	869.9	-571.0	915.1	2.00	0.00	2.00
11,700.0	90.00	336.32	10,747.0	960.7	-612.8	1,009.1	2.00	0.00	2.00
11,800.0	90.00	338.32	10,747.0	1,053.0	-651.3	1,104.3	2.00	0.00	2.00
11,900.0	90.00	340.32	10,747.0	1,146.5	-686.6	1,200.6	2.00	0.00	2.00
12,000.0	90.00	342.32	10,747.0	1,241.3	-718.7	1,297.7	2.00	0.00	2.00
12,100.0	90.00	344.32	10,747.0	1,337.1	-747.4	1,395.5	2.00	0.00	2.00
12,200.0	90.00	346.32	10,747.0	1,433.8	-772.7	1,494.1	2.00	0.00	2.00
12,300.0	90.00	348.32	10,747.0	1,531.3	-794.6	1,593.1	2.00	0.00	2.00
12,400.0	90.00	350.32	10,747.0	1,629.6	-813.2	1,692.6	2.00	0.00	2.00
12,500.0	90.00	352.32	10,747.0	1,728.5	-828.2	1,792.4	2.00	0.00	2.00
12,600.0	90.00	354.32	10,747.0	1,827.8	-839.9	1,892.3	2.00	0.00	2.00
12,700.0	90.00	356.32	10,747.0	1,927.4	-848.0	1,992.3	2.00	0.00	2.00

Microsoft
Planning Report

Database:	EDM 5000.1.9.0 Production DB	Local Co-ordinate Reference:	Well Timmons 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-1/12	North Reference:	True
Well:	Timmons 5301 43-12B	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/S (ft)	+E/W (ft)	Vertical Section (ft)	Dogleg Rate (/100ft)	Build Rate (/100ft)	Turn Rate (/100ft)
12,800.0	90.00	358.32	10,747.0	2,027.3	-852.7	2,092.2	2.00	0.00	2.00
12,883.8	90.00	360.00	10,747.0	2,111.1	-853.9	2,175.8	2.00	0.00	2.00
Start 7938.9 hold at 12883.8 MD									
12,900.0	90.00	360.00	10,747.0	2,127.3	-853.9	2,192.0	0.00	0.00	0.00
13,000.0	90.00	360.00	10,747.0	2,227.3	-853.9	2,291.6	0.00	0.00	0.00
13,100.0	90.00	360.00	10,747.0	2,327.3	-853.9	2,391.3	0.00	0.00	0.00
13,200.0	90.00	360.00	10,747.0	2,427.3	-853.9	2,490.9	0.00	0.00	0.00
13,300.0	90.00	360.00	10,747.0	2,527.3	-853.9	2,590.5	0.00	0.00	0.00
13,400.0	90.00	360.00	10,747.0	2,627.3	-853.9	2,690.2	0.00	0.00	0.00
13,500.0	90.00	360.00	10,747.0	2,727.3	-853.9	2,789.8	0.00	0.00	0.00
13,600.0	90.00	360.00	10,747.0	2,827.3	-853.9	2,889.5	0.00	0.00	0.00
13,700.0	90.00	360.00	10,747.0	2,927.3	-853.9	2,989.1	0.00	0.00	0.00
13,800.0	90.00	360.00	10,747.0	3,027.3	-853.9	3,088.7	0.00	0.00	0.00
13,900.0	90.00	360.00	10,747.0	3,127.3	-853.9	3,188.4	0.00	0.00	0.00
14,000.0	90.00	360.00	10,747.0	3,227.3	-853.9	3,288.0	0.00	0.00	0.00
14,100.0	90.00	360.00	10,747.0	3,327.3	-853.9	3,387.7	0.00	0.00	0.00
14,200.0	90.00	360.00	10,747.0	3,427.3	-853.9	3,487.3	0.00	0.00	0.00
14,300.0	90.00	360.00	10,747.0	3,527.3	-853.9	3,586.9	0.00	0.00	0.00
14,400.0	90.00	360.00	10,747.0	3,627.3	-853.9	3,686.6	0.00	0.00	0.00
14,500.0	90.00	360.00	10,747.0	3,727.3	-853.9	3,786.2	0.00	0.00	0.00
14,600.0	90.00	360.00	10,747.0	3,827.3	-853.9	3,885.9	0.00	0.00	0.00
14,700.0	90.00	360.00	10,747.0	3,927.3	-853.9	3,985.5	0.00	0.00	0.00
14,800.0	90.00	360.00	10,747.0	4,027.3	-853.9	4,085.2	0.00	0.00	0.00
14,900.0	90.00	360.00	10,747.0	4,127.3	-853.9	4,184.8	0.00	0.00	0.00
15,000.0	90.00	360.00	10,747.0	4,227.3	-853.9	4,284.4	0.00	0.00	0.00
15,100.0	90.00	360.00	10,747.0	4,327.3	-853.9	4,384.1	0.00	0.00	0.00
15,200.0	90.00	360.00	10,747.0	4,427.3	-853.9	4,483.7	0.00	0.00	0.00
15,300.0	90.00	360.00	10,747.0	4,527.3	-853.9	4,583.4	0.00	0.00	0.00
15,400.0	90.00	360.00	10,747.0	4,627.3	-853.9	4,683.0	0.00	0.00	0.00
15,500.0	90.00	360.00	10,747.0	4,727.3	-853.9	4,782.6	0.00	0.00	0.00
15,600.0	90.00	360.00	10,747.0	4,827.3	-853.9	4,882.3	0.00	0.00	0.00
15,700.0	90.00	360.00	10,747.0	4,927.3	-853.9	4,981.9	0.00	0.00	0.00
15,800.0	90.00	360.00	10,747.0	5,027.3	-853.9	5,081.6	0.00	0.00	0.00
15,900.0	90.00	360.00	10,747.0	5,127.3	-853.9	5,181.2	0.00	0.00	0.00
16,000.0	90.00	360.00	10,747.0	5,227.3	-853.9	5,280.8	0.00	0.00	0.00
16,100.0	90.00	360.00	10,747.0	5,327.3	-853.9	5,380.5	0.00	0.00	0.00
16,200.0	90.00	360.00	10,747.0	5,427.3	-853.9	5,480.1	0.00	0.00	0.00
16,300.0	90.00	360.00	10,747.0	5,527.3	-853.9	5,579.8	0.00	0.00	0.00
16,400.0	90.00	360.00	10,747.0	5,627.3	-853.9	5,679.4	0.00	0.00	0.00
16,500.0	90.00	360.00	10,747.0	5,727.3	-854.0	5,779.0	0.00	0.00	0.00
16,600.0	90.00	360.00	10,747.0	5,827.3	-854.0	5,878.7	0.00	0.00	0.00
16,700.0	90.00	360.00	10,747.0	5,927.3	-854.0	5,978.3	0.00	0.00	0.00
16,800.0	90.00	360.00	10,747.0	6,027.3	-854.0	6,078.0	0.00	0.00	0.00
16,900.0	90.00	360.00	10,747.0	6,127.3	-854.0	6,177.6	0.00	0.00	0.00
17,000.0	90.00	360.00	10,747.0	6,227.3	-854.0	6,277.3	0.00	0.00	0.00
17,100.0	90.00	360.00	10,747.0	6,327.3	-854.0	6,376.9	0.00	0.00	0.00
17,200.0	90.00	360.00	10,747.0	6,427.3	-854.0	6,476.5	0.00	0.00	0.00
17,300.0	90.00	360.00	10,747.0	6,527.3	-854.0	6,576.2	0.00	0.00	0.00
17,400.0	90.00	360.00	10,747.0	6,627.3	-854.0	6,675.8	0.00	0.00	0.00
17,500.0	90.00	360.00	10,747.0	6,727.3	-854.0	6,775.5	0.00	0.00	0.00
17,600.0	90.00	360.00	10,747.0	6,827.3	-854.0	6,875.1	0.00	0.00	0.00
17,700.0	90.00	360.00	10,747.0	6,927.3	-854.0	6,974.7	0.00	0.00	0.00
17,800.0	90.00	360.00	10,747.0	7,027.3	-854.0	7,074.4	0.00	0.00	0.00

Microsoft
Planning Report

Database:	EDM 5000.1.9.0 Production DB	Local Co-ordinate Reference:	Well Timmons 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-1/12	North Reference:	True
Well:	Timmons 5301 43-12B	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/S (ft)	+E/W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
17,900.0	90.00	360.00	10,747.0	7,127.3	-854.0	7,174.0	0.00	0.00	0.00
18,000.0	90.00	360.00	10,747.0	7,227.3	-854.0	7,273.7	0.00	0.00	0.00
18,100.0	90.00	360.00	10,747.0	7,327.3	-854.0	7,373.3	0.00	0.00	0.00
18,200.0	90.00	360.00	10,747.0	7,427.3	-854.0	7,472.9	0.00	0.00	0.00
18,300.0	90.00	360.00	10,747.0	7,527.3	-854.0	7,572.6	0.00	0.00	0.00
18,400.0	90.00	360.00	10,747.0	7,627.3	-854.0	7,672.2	0.00	0.00	0.00
18,500.0	90.00	360.00	10,747.0	7,727.3	-854.0	7,771.9	0.00	0.00	0.00
18,600.0	90.00	360.00	10,747.0	7,827.3	-854.0	7,871.5	0.00	0.00	0.00
18,700.0	90.00	360.00	10,747.0	7,927.3	-854.0	7,971.2	0.00	0.00	0.00
18,800.0	90.00	360.00	10,747.0	8,027.3	-854.0	8,070.8	0.00	0.00	0.00
18,900.0	90.00	360.00	10,747.0	8,127.3	-854.0	8,170.4	0.00	0.00	0.00
19,000.0	90.00	360.00	10,747.0	8,227.3	-854.0	8,270.1	0.00	0.00	0.00
19,100.0	90.00	360.00	10,747.0	8,327.3	-854.0	8,369.7	0.00	0.00	0.00
19,200.0	90.00	360.00	10,747.0	8,427.3	-854.0	8,469.4	0.00	0.00	0.00
19,300.0	90.00	360.00	10,747.0	8,527.3	-854.0	8,569.0	0.00	0.00	0.00
19,400.0	90.00	360.00	10,747.0	8,627.3	-854.0	8,668.6	0.00	0.00	0.00
19,500.0	90.00	360.00	10,747.0	8,727.3	-854.0	8,768.3	0.00	0.00	0.00
19,600.0	90.00	360.00	10,747.0	8,827.3	-854.0	8,867.9	0.00	0.00	0.00
19,700.0	90.00	360.00	10,747.0	8,927.3	-854.0	8,967.6	0.00	0.00	0.00
19,800.0	90.00	360.00	10,747.0	9,027.3	-854.0	9,067.2	0.00	0.00	0.00
19,900.0	90.00	360.00	10,747.0	9,127.3	-854.0	9,166.8	0.00	0.00	0.00
20,000.0	90.00	360.00	10,747.0	9,227.3	-854.0	9,266.5	0.00	0.00	0.00
20,100.0	90.00	360.00	10,747.0	9,327.3	-854.0	9,366.1	0.00	0.00	0.00
20,200.0	90.00	360.00	10,747.0	9,427.3	-854.0	9,465.8	0.00	0.00	0.00
20,300.0	90.00	360.00	10,747.0	9,527.3	-854.0	9,565.4	0.00	0.00	0.00
20,400.0	90.00	360.00	10,747.0	9,627.3	-854.0	9,665.0	0.00	0.00	0.00
20,500.0	90.00	360.00	10,747.0	9,727.3	-854.0	9,764.7	0.00	0.00	0.00
20,600.0	90.00	360.00	10,747.0	9,827.3	-854.0	9,864.3	0.00	0.00	0.00
20,700.0	90.00	360.00	10,747.0	9,927.3	-854.0	9,964.0	0.00	0.00	0.00
20,800.0	90.00	360.00	10,747.0	10,027.3	-854.0	10,063.6	0.00	0.00	0.00
20,822.7	90.00	360.00	10,747.0	10,050.0	-854.0	10,086.2	0.00	0.00	0.00

TD at 20822.7

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/S (ft)	+E/W (ft)	Northing (m)	Easting (m)	Latitude	Longitude
Timmons 5301 43-12B F - plan hits target center - Point	0.00	0.00	10,747.0	10,050.0	-854.0	128.147.65	367,931.42	48° 6' 37.233 N	103° 37' 2.945 W

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)
2,070.0	2,070.0	9 5/8"		9.625
11,115.0	10,747.0	7"		7.000
				8.750

Microsoft
Planning Report

Database:	EDM 5000.1.9.0 Production DB	Local Co-ordinate Reference:	Well Timmons 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-1/12	North Reference:	True
Well:	Timmons 5301 43-12B	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

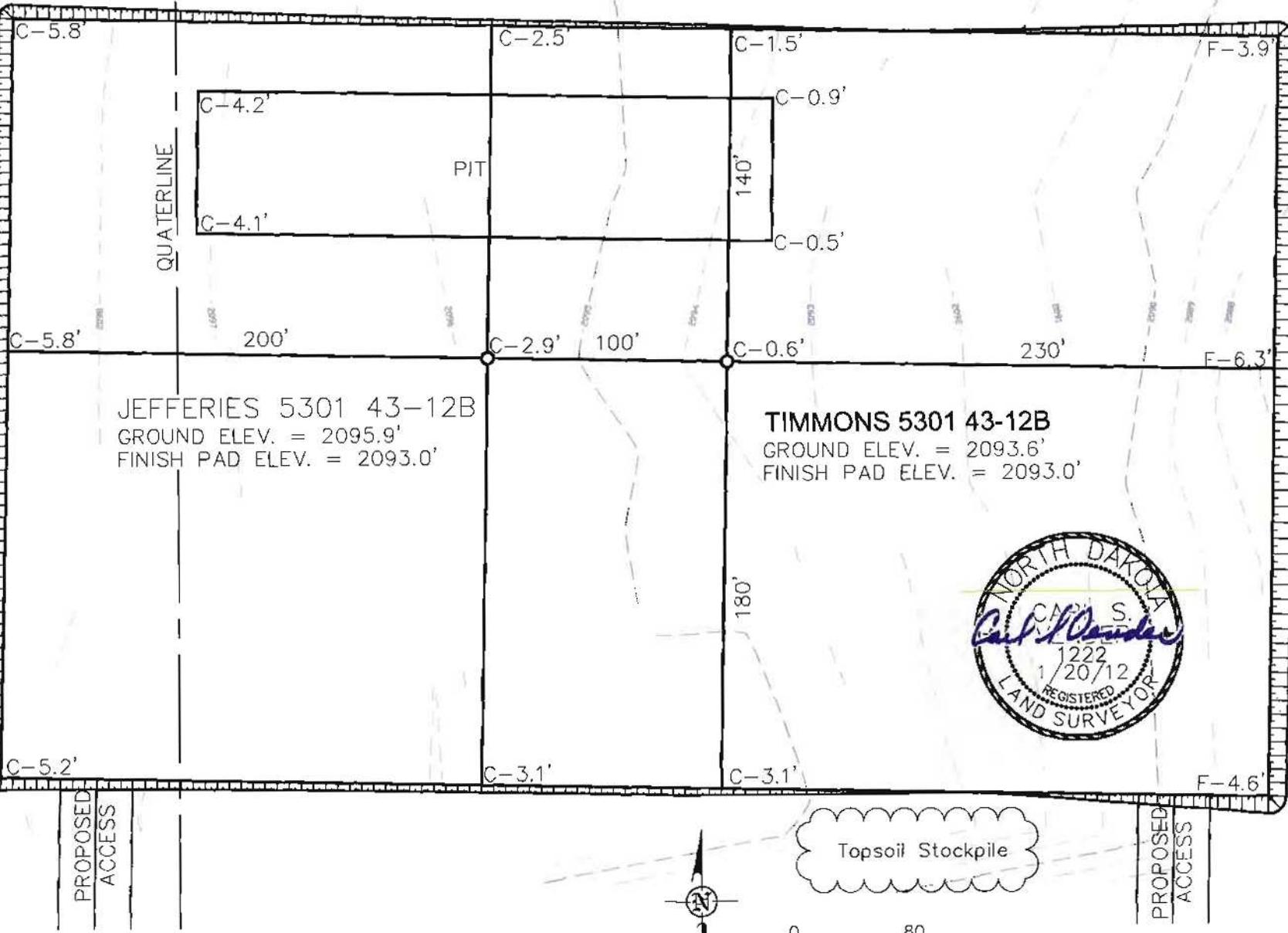
Formations	Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
	1,968.0	1,968.0	Pierre			
	4,634.0	4,634.0	Greenhorn			
	5,030.0	5,030.0	Mowry			
	5,461.0	5,461.0	Dakota			
	6,377.0	6,377.0	Rierdon			
	6,896.0	6,896.0	Dunham Salt			
	6,963.0	6,963.0	Dunham Salt Base			
	6,968.0	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.)			
	8,365.0	8,365.0	Kibbey			
	8,512.0	8,512.0	Charles Salt			
	9,135.0	9,135.0	UB			
	9,212.0	9,212.0	Base Last Salt			
	9,260.0	9,260.0	Ratcliffe			
	9,436.0	9,436.0	Mission Canyon			
	10,010.0	10,010.0	Lodgepole			
	10,160.0	10,160.0	Lodgepole Fracture Zone			
	10,832.3	10,716.0	False Bakken			
	10,858.7	10,725.0	Upper Bakken			
	10,919.9	10,740.0	Middle Bakken			
	10,998.5	10,747.0	Middle Bakken Sand Target			

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/S (ft)	+E/W (ft)		
10,306.3	10,306.3	0.0	0.0	KOP - Start Build 13.00	
10,998.6	10,747.0	358.0	-257.1	EOC - Start 101.0 hold at 10998.6 MD	
11,099.5	10,747.0	440.0	-316.0	Start DLS 2.00 TFO 90.00	
12,883.8	10,747.0	2,111.1	-853.9	Start 7938.9 hold at 12883.8 MD	
20,822.7	10,747.0	10,050.0	-854.0	TD at 20822.7	

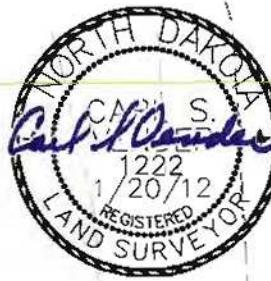
PAD LAYOUT

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



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



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3/8 SHEET NO.

Interstate Engineering, Inc.
P.O. Box 648
4225 East Main Street
Sidney, Montana 59270
Ph. (406) 433-9817
Fax (406) 433-6618
www.iedg.com
Other offices in Missoula, Helena, Bozeman, and South Dakota

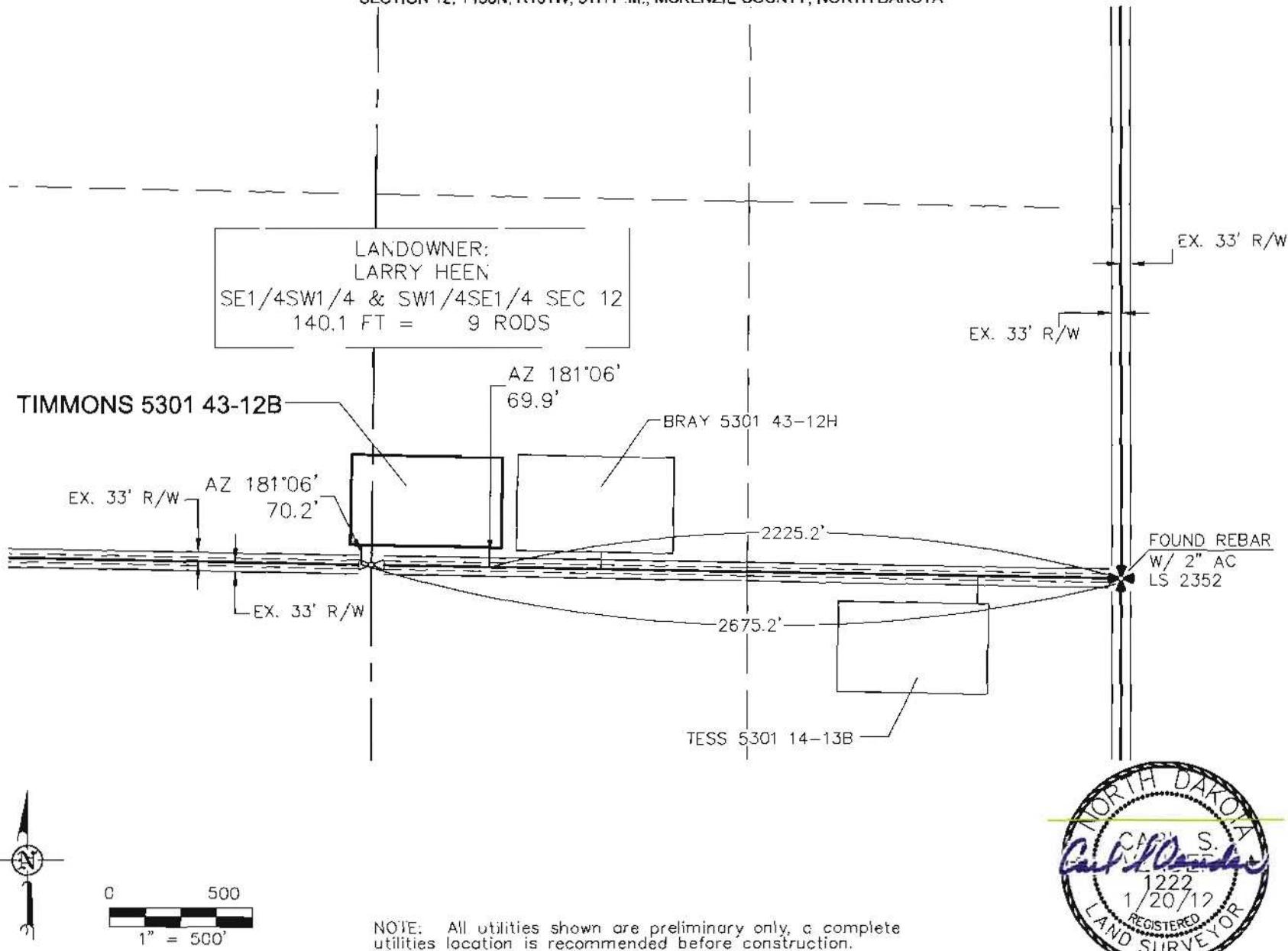
OASIS PETROLEUM NORTH AMERICA, LLC
PAD LAYOUT
SECTION 12, T153N, R101W
MCKENZIE COUNTY, NORTH DAKOTA
Project No.: S114-301
Drawn By: J.S.
Checked By: C.S.V.
Date: DEC-04-11

ACCESS APPROACH

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

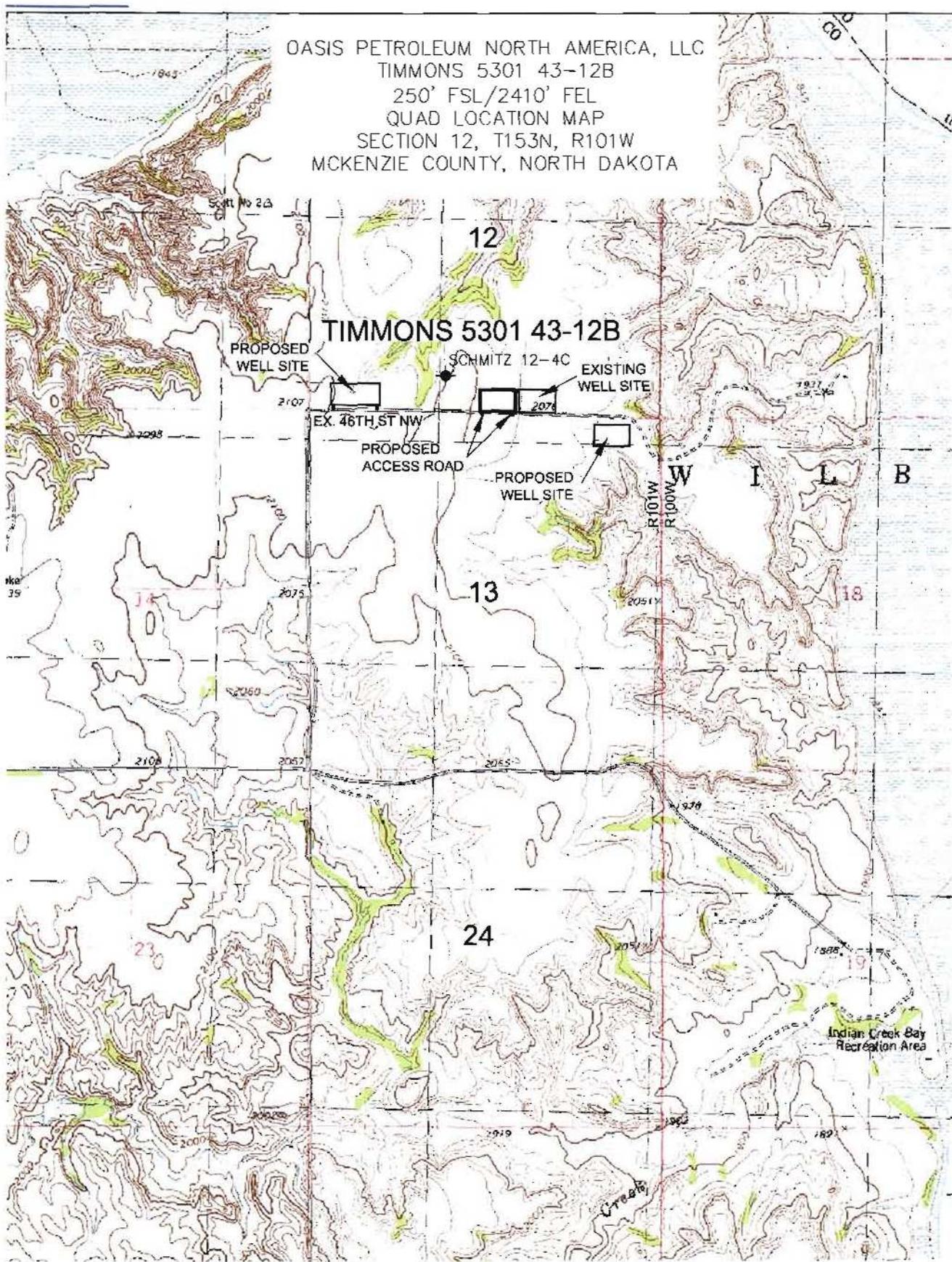
"TIMMONS 5301 43-12B"

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



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Interstate Engineering, Inc. P.O. Box 646 425 East Main Street Sidney, Montana 59270 Ph: (406) 433-5617 Fax: (406) 433-5818 www.intereng.com Other offices in Montana, North Dakota and South Dakota	OASIS PETROLEUM NORTH AMERICA, LLC Project No.: REC-1 Revision No.: 1 Date: 1/18/12 Description: SWARDED WELL LOCATIONS	ACCES APPROACH SECTION 12, T153N, R101W MCKENZIE COUNTY, NORTH DAKOTA Project No.: ST-149-36 Drawn By: J.J.S. Checked By: C.S.V. Date: DEC 2011
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Sheet No.:		



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

Drawn By: J.S. Project No: S1109-361
Checked By: CSV Date: DEC 2011

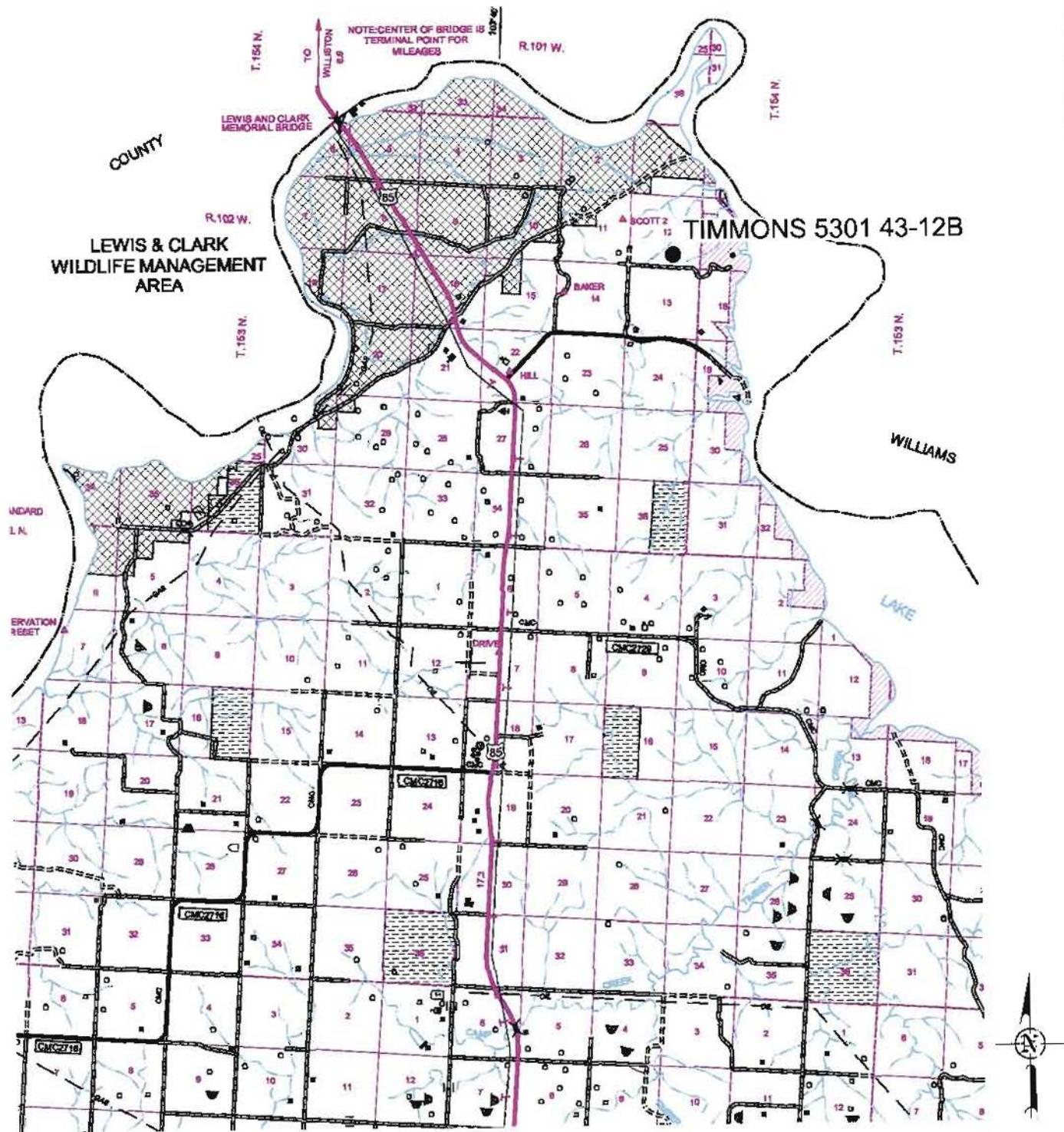
Revision No.	Date	By	Description
REV 1	1/19/12	J.S.	SNAPPED WELL LOCATIONS

COUNTY ROAD MAP

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

"TIMMONS 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



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

Drawn By:	J.J.S.	Project No.:	S11-09-381
Checked By:	C.B.V.	Date:	DEC 2011

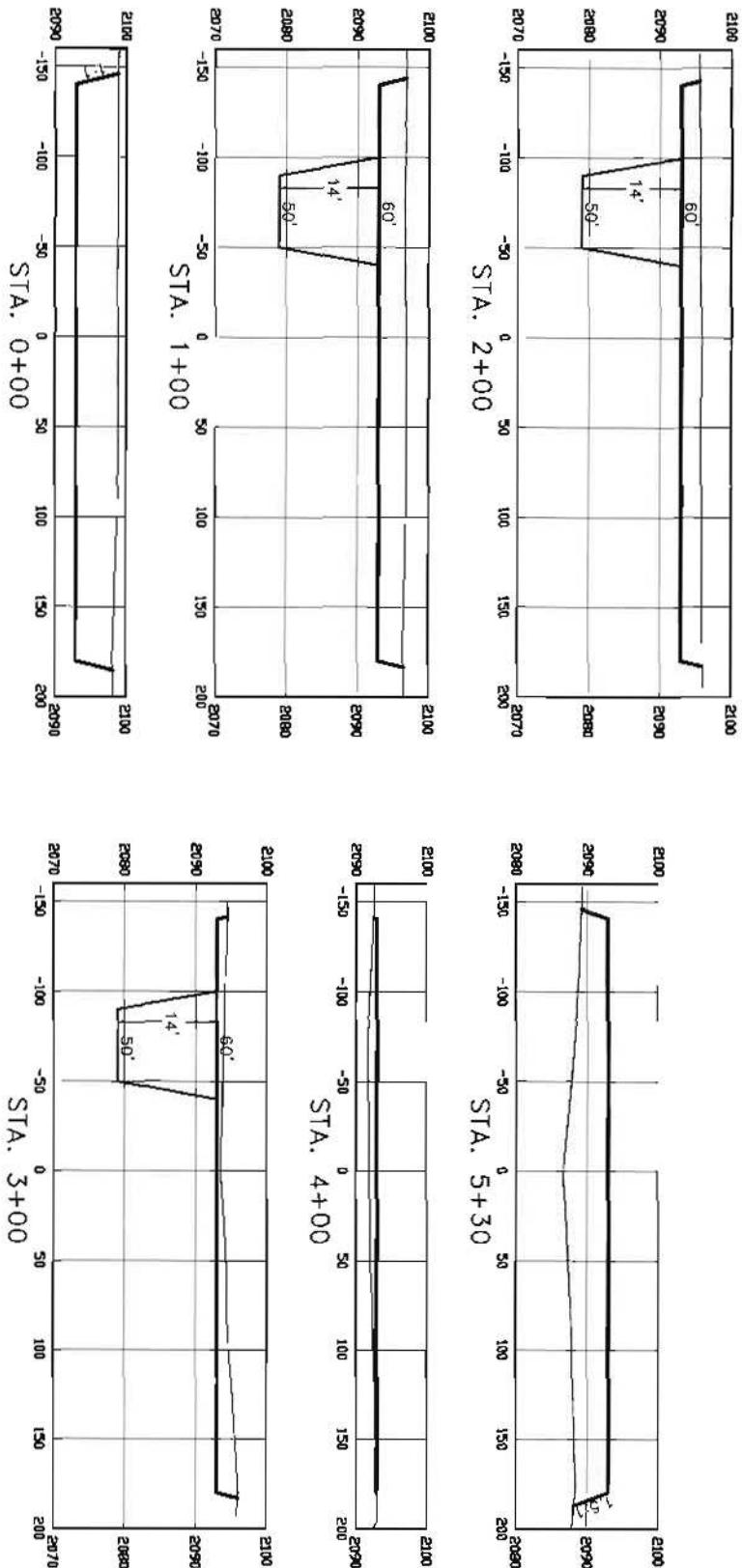
Revision No.	Date	By	Description
REV 1	1/19/12	JJS	SWAPPED WELL LOCATIONS

CROSS SECTIONS

OASIS PETROLEUM NORTH AMERICA, INC.
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



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



**INTERSTATE
ENGINEERING**

SHEET 10

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425 East Main Street
Sidney, Montana 59270
Ph (406) 433-5817
Fax (406) 433-5618
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OASIS PETROLEUM NORTH AMERICA, LLC
PAD CROSS SECTIONS
SECTION 12, T153N, R101W

OASIS PETROLEUM NORTH AMERICA, LLC		Revision No.	Date	By	Description
PAD CROSS SECTIONS SECTION 12, T153N, R101W		REV 1	1/19/12	J.S.	SWAMPY WELL LOCATIONS
MCKENZIE COUNTY, NORTH DAKOTA					
Own By:	J.S.	Project No.:	S11-6-361		
Entered By:	C.V.S.	Date:	DEC 2011		

WELL LOCATION SITE QUANTITIES

WELL EJECTION SITE QUANTITE
OASIS PETROLEUM NORTH AMERICA, LLC

CASIO PETROLEUM NORTH AMERICA, LLC

"TIMMONS 530143-12B"

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' FSI

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8/8



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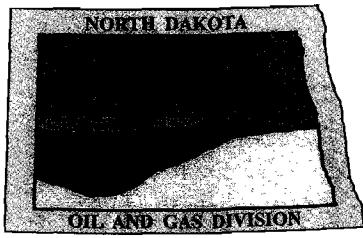
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Digitized by srujanika@gmail.com

ROLEUM NORTH A

QUANTITIES
SECTION 13. X152N, P124W

Revision No.	Date	By	Description
REV 1	1/10/12	JWS	SWAPPED WELL LOCATIONS



Oil and Gas Division 2221

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

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: **TIMMONS 5301 43-12B** Well File No.: **22221**
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.

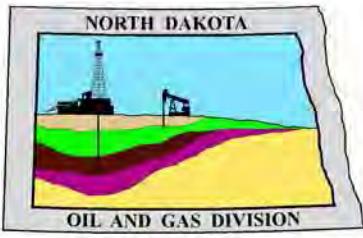
- 3) Cores: ALL CORES cut shall be preserved in correct order, properly boxed, and forwarded to the State Geologist within 90 days of completion of drilling operations. Any extension of time must have written approval from the State Geologist.
- 4) All cores, core chips, and samples must be shipped,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



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

January 10, 2012

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

**RE: HORIZONTAL WELL
TIMMONS 5301 43-12B
SWSE Section 12-153N-101W
McKenzie County
Well File # 22221**

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 12 & 1-T153N-R101W.

PERMIT STIPULATIONS: OASIS PETRO NO AMER must contact NDIC Field Inspector Marc Binns at 701-220-5989 prior to location construction. 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.

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: 50°S & 2010' E. Also, based on the azimuth of the proposed lateral the maximum legal coordinates from the well head is: 2010' E & 10054' N.

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.

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

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 New Location	Type of Well Oil & Gas	Approximate Date Work Will Start 1 / 25 / 2012	Confidential Status No
Operator OASIS PETROLEUM NORTH AMERICA LLC		Telephone Number 281-404-9461	
Address 1001 Fannin Suite 1500		City Houston	State TX Zip Code 77002

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

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

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

Well Name TIMMONS			Well Number 5301 43-12B				
Surface Footages 250 F S L 2510 F E L		Qtr-Qtr SWSE	Section 12	Township 153 N	Range 101 W	County McKenzie	
Longstring Casing Point Footages 631 F N L 2517 F W L		Qtr-Qtr SESW	Section 12	Township 153 N	Range 101 W	County McKenzie	
Longstring Casing Point Coordinates From Well Head 381 N From WH 253 W From WH		Azimuth 326.4 °	Longstring Total Depth 11015 Feet MD 10747 Feet TVD				
Bottom Hole Footages From Nearest Section Line 200 F N L 2000 F W L		Qtr-Qtr LOT2	Section 1	Township 153 N	Range 101 W	County McKenzie	
Bottom Hole Coordinates From Well Head 10054 N From WH 770 W From WH		KOP Lateral 1 10306 Feet MD	Azimuth Lateral 1 360 °	Estimated Total Depth Lateral 1 20794 Feet MD 10747 Feet TVD			
Latitude of Well Head 48 ° 04 ' 58.07 "	Longitude of Well Head -103 ° 36 ' 51.83 "	NAD Reference NAD83		Description of (Subject to NDIC Approval) SPACING UNIT: Sections 12 & 1-T153N-R101W			
Ground Elevation 2096 Feet Above S.L.	Acres in Spacing/Drilling Unit 1280	Spacing/Drilling Unit Setback Requirement 200 Feet N/S 500 Feet E/W			Industrial Commission Order 18012		
North Line of Spacing/Drilling Unit 5280 Feet	South Line of Spacing/Drilling Unit 5278 Feet	East Line of Spacing/Drilling Unit 10443 Feet			West Line of Spacing/Drilling Unit 10497 Feet		
Objective Horizons BAKKEN						Pierre Shale Top 1968	
Proposed Surface Casing	Size 9 - 5/8 "	Weight 36 Lb./Ft.	Depth 2070 Feet	Cement Volume 616 Sacks	NOTE: Surface hole must be drilled with fresh water and surface casing must be cemented back to surface.		
Proposed Longstring Casing	Size 7 - "	Weight(s) 29&32 Lb./Ft.	Longstring Total Depth 11015 Feet MD 10747 Feet TVD		Cement Volume 732 Sacks	Cement Top 4961 Feet	Top Dakota Sand 5461 Feet
Base Last Charles Salt (If Applicable) 9212 Feet	NOTE: Intermediate or longstring casing string must be cemented above the top Dakota Group Sand.						
Proposed Logs CBL/GR-TOC/GR-BSC							
Drilling Mud Type (Vertical Hole - Below Surface Casing) Invert				Drilling Mud Type (Lateral) Salt Water Gel			
Survey Type in Vertical Portion of Well MWD Every 100 Feet		Survey Frequency: Build Section 30 Feet		Survey Frequency: Lateral 90 Feet		Survey Contractor Ryan	

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

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

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

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

See Page 2 for Comments section and signature block.

COMMENTS, ADDITIONAL INFORMATION, AND/OR LIST OF ATTACHMENTS**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 N	Range W	County	
Bottom Hole Footages From Nearest Section Line F L		Qtr-Qtr	Section	Township N	Range W	County	

Lateral 3

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

Lateral 4

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

Lateral 5

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

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

Date

1 / 6 / 2012

ePermit

Printed Name
Kaitlin BassTitle
Operations Assistant**FOR STATE USE ONLY**

Permit and File Number 22221	API Number 33 - 053 - 03937
Field BAKER	
Pool BAKKEN	Permit Type DEVELOPMENT

FOR STATE USE ONLY

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

**Oasis Petroleum
Well Summary**
Timmons 5103 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 2,070'	36	J-55	LTC	8.921"	8.765"	3400	4530	5660

Interval	Description	Collapse	Burst	Tension	Cost per ft
		(psi) a	(psi) b	(1000 lbs) c	
0' to 2,070'	9-5/8", 36#, J-55, LTC, 8rd	2020 / 2.08	3520 / 3.63	453 / 2.75	

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 2,070' TVD plus 100k# overpull.
(Buoyed weight equals 64k 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: **416 sks** (220 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
Timmons 5103 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' – 10,306' (KOP)	32	HCP-110	LTC	6.094"	6.000***	6,730	8,970	9,870
7"	10,306' – 11,015'	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' – 10,306'	3,556'	7", 32#, HCP-110, LTC, 8rd	11,820 / 2.20*	12,460 / 1.29	
6,750' – 10,306'	3,556'	7", 32#, HCP-110, LTC, 8rd	11,820 / 1.05**	12,460 / 1.29	
10,306' – 11,015'	709'	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 10,747' TVD.
- c. Based on string weight in 10 ppg fluid, (280k lbs buoyed weight) plus 100k lbs overpull.

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

Pre-flush (Spacer): **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: **347 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: **275 sks** (77 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
Timmons 5103 43-12B
Section 12 T153N R101W
McKenzie County, ND

PRODUCTION LINER

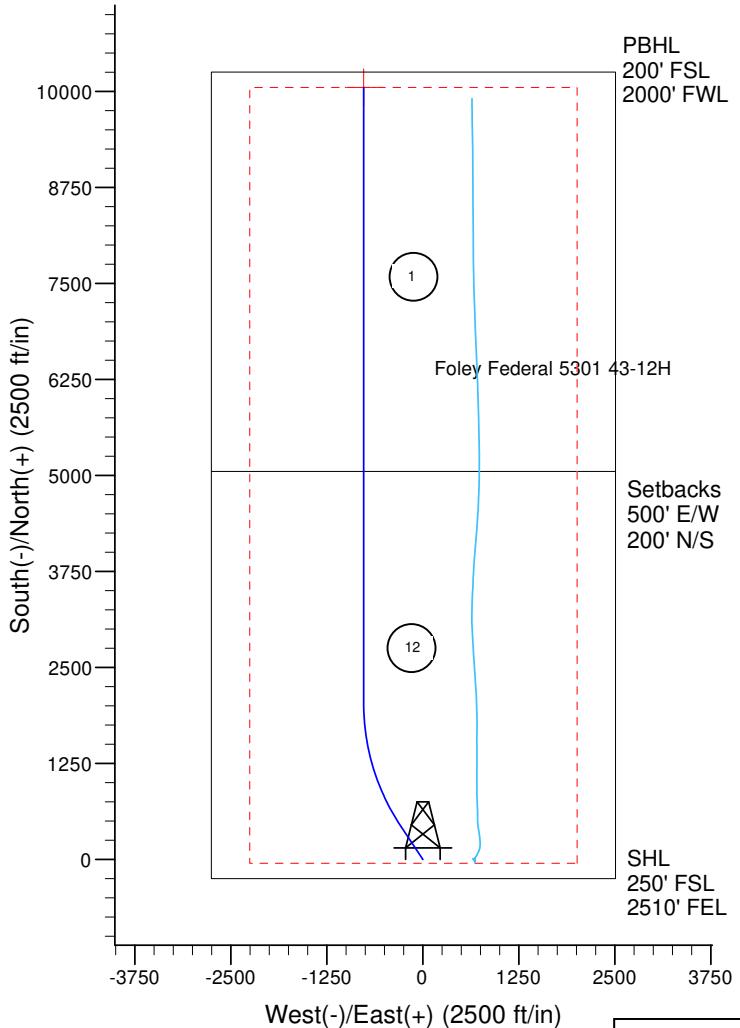
Size	Interval	Weight	Grade	Coupling	I.D.	Drift	Make-up Torque (ft-lbs)		
							Minimum	Optimum	Max
4-1/2"	10,260' to 20,794'	11.6	P-110	BTC	4.000"	3.875"			

Interval	Description	Collapse	Burst	Tension	Cost per ft
		(psi) a	(psi) b	(1000 lbs) c	
10,260' to 20,794'	4-1/2", 11.6 lb, P-110, BTC	7,560 / 1.42	10,690 / 1.105	279 / 1.36	\$13.25

API Rating & Safety Factor

- a) Based on full casing evacuation with 9.5 ppg fluid on backside @ 10,747' 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 @ 10,747' TVD.
- c) Based on string weight in 9.5 ppg fluid (Buoyed weight: 104k lbs.) plus 100k lbs overpull.

DRILLING PLAN						
OPERATOR	Oasis Petroleum		COUNTY/STATE	McKenzie Co., ND		
WELL NAME	Timmons 5103 43-12B		RIG	Nabors 149		
WELL TYPE	Horizontal Middle Bakken					
LOCATION	Sec. 12 T153N R101W		Surface Location (survey plat):	250' fsl	2,510' fsl	
EST. T.D.	20,794'				GROUND ELEV:	2093 Finished Pad Elev.
	TOTAL LATERAL:		9,779' (est)		KB ELEV:	2118
PROGNOSIS:	Based on 2,118' KB(est)		LOGS:	Type	Interval	
MARKER	DEPTH (Surf Loc)	DATUM (Surf Loc)		OH Logs: Infill-well no logs planned.		
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		8,365	(6,247)			
Charles Salt		8,512	(6,394)			
UB		9,135	(7,017)			
Base Last Salt		9,212	(7,094)			
Ratcliffe		9,260	(7,142)			
Mission Canyon		9,436	(7,318)			
Lodgepole		10,010	(7,892)			
Lodgepole Fracture Zone		10,160	(8,042)			
False Bakken		10,716	(8,598)			
Upper Bakken		10,725	(8,607)			
Middle Bakken		10,740	(8,622)			
Middle Bakken Sand Target		10,747	(8,629)			
Base Middle Bakken Sand Target		10,756	(8,638)			
Lower Bakken		10,776	(8,658)			
Three Forks		10,803	(8,685)			
Dip Rate:	Variable 2.36° to -0.71°					
Max. Anticipated BHP:	4669		Surface Formation:	Glacial till		
MUD:	Interval		Type	WT	Vis	WL
Surface	0' -	2,070'	FW/Gel - Lime Sweeps	8.6 - 8.9	28-34	NC
Intermediate	2,070' -	11,015'	Invert	9.6-10.4	40-60	30+(HpHt)
Liner	11,015' -	20,794'	Salt Water	9.3-10.4	28-34	NC
CASING:	Size	Wt pfp	Hole	Depth	Cement	WOC
Surface:	9-5/8"	36#	13-1/2"	2,070'	To Surface	12
Intermediate:	7"	29/32#	8-3/4"	11,015'	4,961'	24
Production:	4.5"	11.6#	6"	20,794'	TOL @ 10,260'	50' above KOP
PROBABLE PLUGS, IF REQ'D:						
OTHER:	MD	IVD	FNL/FSL	FEL/FWL	S-T-R	AZI
Surface:	2,070'	2,070'	250' FSL	2510' FEL	12-T153N-R101W	Survey Company:
KOP:	10,306'	10,306'	250' FSL	2510' FEL	12-T153N-R101W	Build Rate: 13 deg /100'
EOC:	10,999'	10,747'	617' FSL	2526' FWL	12-T153N-R101W	326.4
Casing Point:	11,015'	10,747'	631' FSL	2517' FWL	12-T153N-R101W	326.4
Middle Bakken Lateral TD:	20,794'	10,747'	200' FNL	2000' FWL	1-T153N-R101W	0.0
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.						
GR must be run to ground surface.						
OASIS PETROLEUM						
Geology: SPG 12-27-2011	Engineering: L. Strong 1/6/2012					

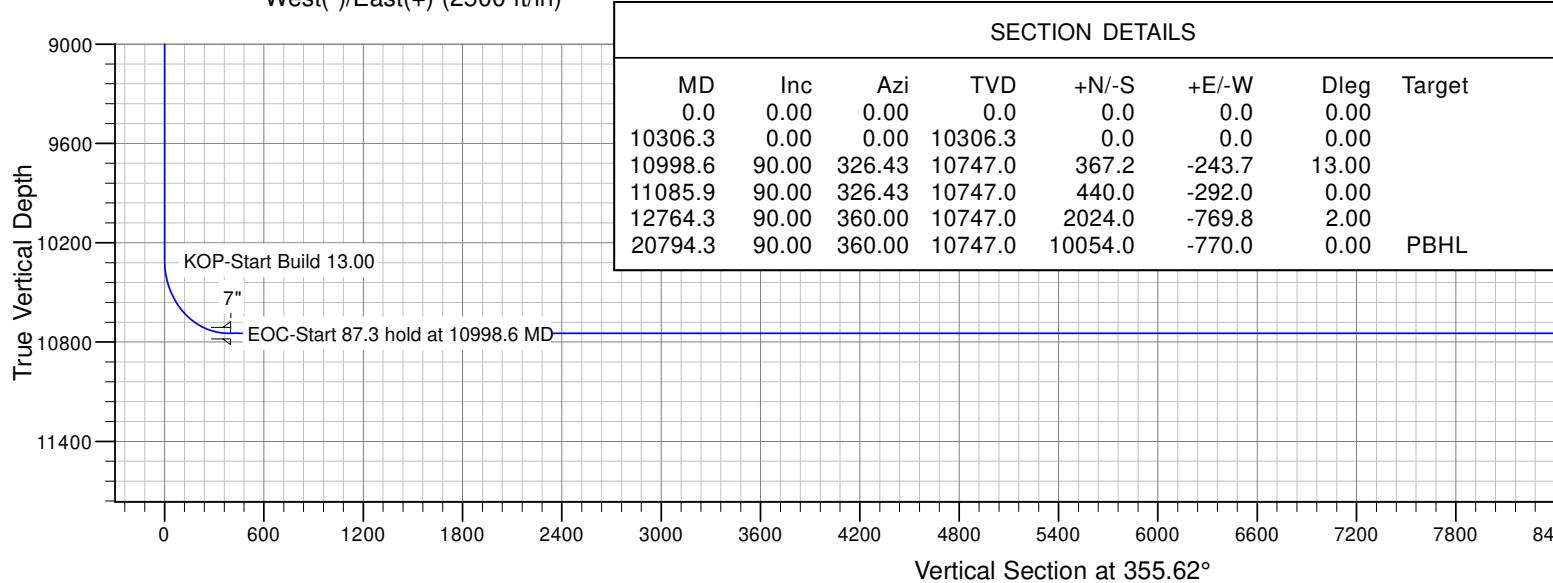
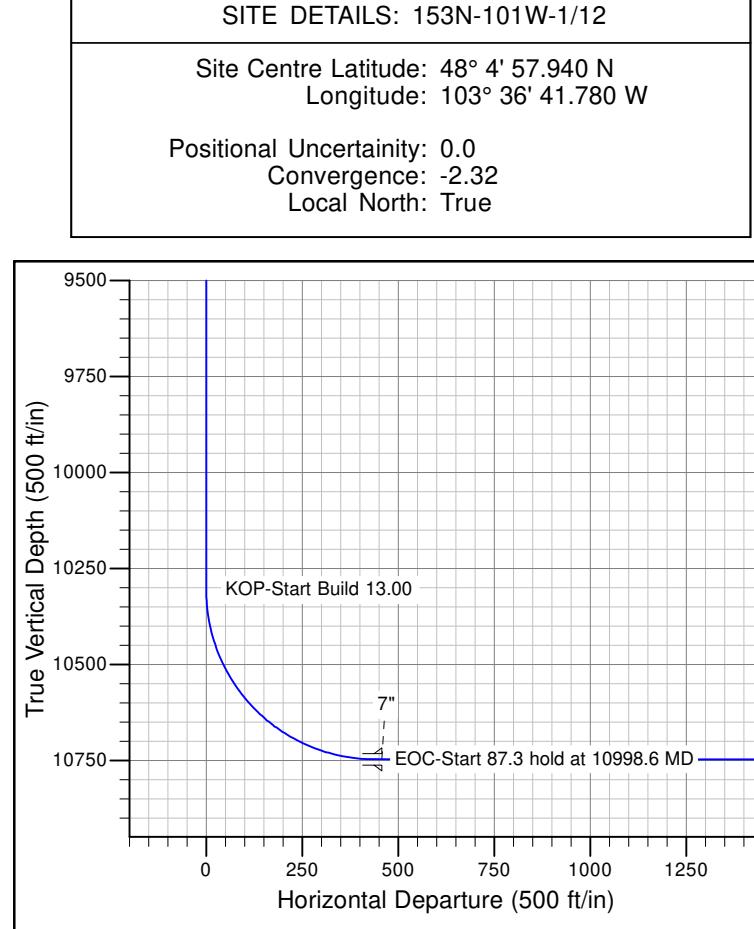


Project: Indian Hills
Site: 153N-101W-1/12
Well: Timmons 5301 43-12B
Wellbore: OH
Design: Plan #1

T M Azimuths to True North
Magnetic North: 8.55°

Magnetic Field
Strength: 56719.2snT
Dip Angle: 73.09°
Date: 12/27/2011
Model: IGRF200510

CASING DETAILS			
TVD	MD	Name	Size
2070.0	2070.0	9 5/8"	9.625
10747.0	11015.0	7"	7.000



Oasis

**Indian Hills
153N-101W-1/12
Timmons 5301 43-12B**

OH

Plan: Plan #1

Standard Planning Report

06 January, 2012

Oasis Petroleum

Planning Report

Database:	Compass	Local Co-ordinate Reference:	Well Timmons 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-1/12	North Reference:	True
Well:	Timmons 5301 43-12B	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

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

Site	153N-101W-1/12
Site Position:	Northing:
From: Lat/Long	Easting:
Position Uncertainty: 0.0 ft	Slot Radius: 13.200 in

Well	Timmons 5301 43-12B
Well Position	+N/-S 13.2 ft Northing: +E/-W -682.4 ft Easting: Position Uncertainty 0.0 ft
	125,065.82 m Latitude: 368,244.93 m Longitude: Wellhead Elevation: 13.200 in Grid Convergence: -2.32 °
	48° 4' 57.940 N 103° 36' 41.780 W

Wellbore	OH
Magnetics	Model Name Sample Date Declination IGRF200510 12/27/2011 (°) Dip Angle (°) 8.55 73.09 Field Strength (nT) 56,719

Design	Plan #1
Audit Notes:	
Version:	Phase: PROTOTYPE Tie On Depth: 0.0
Vertical Section:	Depth From (TVD) (ft) +N/-S (ft) +E/-W (ft) Direction (°)
	0.0 0.0 0.0 355.62

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
10,306.3	0.00	0.00	10,306.3	0.0	0.0	0.00	0.00	0.00	0.00	0.00
10,998.6	90.00	326.43	10,747.0	367.2	-243.7	13.00	13.00	0.00	326.43	
11,085.9	90.00	326.43	10,747.0	440.0	-292.0	0.00	0.00	0.00	0.00	
12,764.3	90.00	360.00	10,747.0	2,024.0	-769.8	2.00	0.00	2.00	90.00	
20,794.3	90.00	360.00	10,747.0	10,054.0	-770.0	0.00	0.00	0.00	0.00	Timmons 5301 43-12I

Oasis Petroleum

Planning Report

Database:	Compass	Local Co-ordinate Reference:	Well Timmons 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-1/12	North Reference:	True
Well:	Timmons 5301 43-12B	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,968.0	0.00	0.00	1,968.0	0.0	0.0	0.0	0.00	0.00	0.00
Pierre									
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,070.0	0.00	0.00	2,070.0	0.0	0.0	0.0	0.00	0.00	0.00
9 5/8"									
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
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
Greenhorn									

Oasis Petroleum

Planning Report

Database:	Compass	Local Co-ordinate Reference:	Well Timmons 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-1/12	North Reference:	True
Well:	Timmons 5301 43-12B	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,700.0	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
Mowry									
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
Dakota									
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
Rierdon									
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
Dunham Salt									
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
Dunham Salt Base									
6,968.0	0.00	0.00	6,968.0	0.0	0.0	0.0	0.00	0.00	0.00
Spearfish									
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
Pine Salt									
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
Pine Salt Base									
7,365.0	0.00	0.00	7,365.0	0.0	0.0	0.0	0.00	0.00	0.00
Opeche Salt									
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
Opeche Salt Base									
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
Broom Creek (Top of Minnelusa Gp.)									
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

Database:	Compass	Local Co-ordinate Reference:	Well Timmons 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-1/12	North Reference:	True
Well:	Timmons 5301 43-12B	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
Amunden									
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
Tyler									
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
Otter (Base of Minnelusa Gp.)									
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
8,365.0	0.00	0.00	8,365.0	0.0	0.0	0.0	0.00	0.00	0.00
Kibbey									
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
8,512.0	0.00	0.00	8,512.0	0.0	0.0	0.0	0.00	0.00	0.00
Charles Salt									
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
9,135.0	0.00	0.00	9,135.0	0.0	0.0	0.0	0.00	0.00	0.00
UB									
9,200.0	0.00	0.00	9,200.0	0.0	0.0	0.0	0.00	0.00	0.00
9,212.0	0.00	0.00	9,212.0	0.0	0.0	0.0	0.00	0.00	0.00
Base Last Salt									
9,260.0	0.00	0.00	9,260.0	0.0	0.0	0.0	0.00	0.00	0.00
Ratcliffe									
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
9,436.0	0.00	0.00	9,436.0	0.0	0.0	0.0	0.00	0.00	0.00
Mission Canyon									
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
10,010.0	0.00	0.00	10,010.0	0.0	0.0	0.0	0.00	0.00	0.00
Lodgepole									
10,100.0	0.00	0.00	10,100.0	0.0	0.0	0.0	0.00	0.00	0.00
10,160.0	0.00	0.00	10,160.0	0.0	0.0	0.0	0.00	0.00	0.00
Lodgepole Fracture Zone									
10,200.0	0.00	0.00	10,200.0	0.0	0.0	0.0	0.00	0.00	0.00
10,306.3	0.00	0.00	10,306.3	0.0	0.0	0.0	0.00	0.00	0.00
KOP-Start Build 13.00									
10,325.0	2.44	326.43	10,325.0	0.3	-0.2	0.3	13.00	13.00	0.00
10,350.0	5.69	326.43	10,349.9	1.8	-1.2	1.9	13.00	13.00	0.00
10,375.0	8.94	326.43	10,374.7	4.5	-3.0	4.7	13.00	13.00	0.00

Oasis Petroleum

Planning Report

Database:	Compass	Local Co-ordinate Reference:	Well Timmons 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-1/12	North Reference:	True
Well:	Timmons 5301 43-12B	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
10,400.0	12.19	326.43	10,399.3	8.3	-5.5	8.7	13.00	13.00	0.00
10,425.0	15.44	326.43	10,423.6	13.2	-8.8	13.9	13.00	13.00	0.00
10,450.0	18.69	326.43	10,447.5	19.4	-12.8	20.3	13.00	13.00	0.00
10,475.0	21.94	326.43	10,470.9	26.6	-17.6	27.9	13.00	13.00	0.00
10,500.0	25.19	326.43	10,493.8	34.9	-23.2	36.6	13.00	13.00	0.00
10,525.0	28.44	326.43	10,516.1	44.3	-29.4	46.4	13.00	13.00	0.00
10,550.0	31.69	326.43	10,537.8	54.7	-36.3	57.4	13.00	13.00	0.00
10,575.0	34.94	326.43	10,558.7	66.2	-43.9	69.3	13.00	13.00	0.00
10,600.0	38.19	326.43	10,578.7	78.6	-52.2	82.3	13.00	13.00	0.00
10,625.0	41.44	326.43	10,597.9	91.9	-61.0	96.3	13.00	13.00	0.00
10,650.0	44.69	326.43	10,616.2	106.1	-70.4	111.2	13.00	13.00	0.00
10,675.0	47.94	326.43	10,633.5	121.2	-80.4	127.0	13.00	13.00	0.00
10,700.0	51.19	326.43	10,649.7	137.1	-91.0	143.6	13.00	13.00	0.00
10,725.0	54.44	326.43	10,664.8	153.6	-102.0	161.0	13.00	13.00	0.00
10,750.0	57.69	326.43	10,678.7	170.9	-113.4	179.1	13.00	13.00	0.00
10,775.0	60.94	326.43	10,691.5	188.8	-125.3	197.9	13.00	13.00	0.00
10,800.0	64.19	326.43	10,703.0	207.3	-137.6	217.2	13.00	13.00	0.00
10,825.0	67.44	326.43	10,713.3	226.3	-150.2	237.1	13.00	13.00	0.00
10,832.3	68.38	326.43	10,716.0	231.9	-153.9	243.0	13.00	13.00	0.00
False Bakken									
10,850.0	70.69	326.43	10,722.2	245.8	-163.1	257.5	13.00	13.00	0.00
10,858.7	71.82	326.43	10,725.0	252.7	-167.7	264.7	13.00	13.00	0.00
Upper Bakken									
10,875.0	73.94	326.43	10,729.8	265.6	-176.3	278.3	13.00	13.00	0.00
10,900.0	77.19	326.43	10,736.0	285.8	-189.7	299.4	13.00	13.00	0.00
10,919.9	79.77	326.43	10,740.0	302.0	-200.4	316.5	13.00	13.00	0.00
Middle Bakken									
10,925.0	80.44	326.43	10,740.9	306.2	-203.2	320.8	13.00	13.00	0.00
10,950.0	83.69	326.43	10,744.3	326.8	-216.9	342.4	13.00	13.00	0.00
10,975.0	86.94	326.43	10,746.4	347.6	-230.7	364.2	13.00	13.00	0.00
10,998.5	90.00	326.43	10,747.0	367.2	-243.7	384.7	13.00	13.00	0.00
EOC-Start 87.3 hold at 10998.6 MD - Middle Bakken Sand Target									
11,000.0	90.00	326.43	10,747.0	368.4	-244.5	386.0	0.26	0.26	0.00
11,015.0	90.00	326.43	10,747.0	380.9	-252.8	399.1	0.00	0.00	0.00
7"									
11,085.9	90.00	326.43	10,747.0	440.0	-292.0	461.0	0.00	0.00	0.00
Start DLS 2.00 TFO 90.00									
11,100.0	90.00	326.71	10,747.0	451.8	-299.8	473.3	2.00	0.00	2.00
11,200.0	90.00	328.71	10,747.0	536.3	-353.2	561.7	2.00	0.00	2.00
11,300.0	90.00	330.71	10,747.0	622.6	-403.6	651.6	2.00	0.00	2.00
11,400.0	90.00	332.71	10,747.0	710.7	-451.0	743.1	2.00	0.00	2.00
11,500.0	90.00	334.71	10,747.0	800.3	-495.3	835.8	2.00	0.00	2.00
11,600.0	90.00	336.71	10,747.0	891.5	-536.4	929.8	2.00	0.00	2.00
11,700.0	90.00	338.71	10,747.0	984.0	-574.3	1,025.0	2.00	0.00	2.00
11,800.0	90.00	340.71	10,747.0	1,077.8	-609.0	1,121.2	2.00	0.00	2.00
11,900.0	90.00	342.71	10,747.0	1,172.7	-640.4	1,218.2	2.00	0.00	2.00
12,000.0	90.00	344.71	10,747.0	1,268.7	-668.4	1,316.1	2.00	0.00	2.00
12,100.0	90.00	346.71	10,747.0	1,365.6	-693.1	1,414.6	2.00	0.00	2.00
12,200.0	90.00	348.71	10,747.0	1,463.3	-714.4	1,513.6	2.00	0.00	2.00
12,300.0	90.00	350.71	10,747.0	1,561.7	-732.2	1,613.1	2.00	0.00	2.00
12,400.0	90.00	352.71	10,747.0	1,660.7	-746.7	1,712.8	2.00	0.00	2.00
12,500.0	90.00	354.71	10,747.0	1,760.1	-757.6	1,812.8	2.00	0.00	2.00
12,600.0	90.00	356.71	10,747.0	1,859.8	-765.1	1,912.8	2.00	0.00	2.00

Oasis Petroleum

Planning Report

Database:	Compass	Local Co-ordinate Reference:	Well Timmons 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-1/12	North Reference:	True
Well:	Timmons 5301 43-12B	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
12,700.0	90.00	358.71	10,747.0	1,959.7	-769.1	2,012.7	2.00	0.00	2.00
12,764.3	90.00	360.00	10,747.0	2,024.0	-769.8	2,076.9	2.00	0.00	2.00
Start 8030.0 hold at 12764.3 MD									
12,800.0	90.00	360.00	10,747.0	2,059.7	-769.8	2,112.5	0.00	0.00	0.00
12,900.0	90.00	360.00	10,747.0	2,159.7	-769.8	2,212.2	0.00	0.00	0.00
13,000.0	90.00	360.00	10,747.0	2,259.7	-769.8	2,311.9	0.00	0.00	0.00
13,100.0	90.00	360.00	10,747.0	2,359.7	-769.8	2,411.6	0.00	0.00	0.00
13,200.0	90.00	360.00	10,747.0	2,459.7	-769.8	2,511.3	0.00	0.00	0.00
13,300.0	90.00	360.00	10,747.0	2,559.7	-769.8	2,611.0	0.00	0.00	0.00
13,400.0	90.00	360.00	10,747.0	2,659.7	-769.8	2,710.7	0.00	0.00	0.00
13,500.0	90.00	360.00	10,747.0	2,759.7	-769.8	2,810.4	0.00	0.00	0.00
13,600.0	90.00	360.00	10,747.0	2,859.7	-769.8	2,910.1	0.00	0.00	0.00
13,700.0	90.00	360.00	10,747.0	2,959.7	-769.8	3,009.8	0.00	0.00	0.00
13,800.0	90.00	360.00	10,747.0	3,059.7	-769.8	3,109.5	0.00	0.00	0.00
13,900.0	90.00	360.00	10,747.0	3,159.7	-769.8	3,209.3	0.00	0.00	0.00
14,000.0	90.00	360.00	10,747.0	3,259.7	-769.8	3,309.0	0.00	0.00	0.00
14,100.0	90.00	360.00	10,747.0	3,359.7	-769.8	3,408.7	0.00	0.00	0.00
14,200.0	90.00	360.00	10,747.0	3,459.7	-769.8	3,508.4	0.00	0.00	0.00
14,300.0	90.00	360.00	10,747.0	3,559.7	-769.8	3,608.1	0.00	0.00	0.00
14,400.0	90.00	360.00	10,747.0	3,659.7	-769.8	3,707.8	0.00	0.00	0.00
14,500.0	90.00	360.00	10,747.0	3,759.7	-769.8	3,807.5	0.00	0.00	0.00
14,600.0	90.00	360.00	10,747.0	3,859.7	-769.9	3,907.2	0.00	0.00	0.00
14,700.0	90.00	360.00	10,747.0	3,959.7	-769.9	4,006.9	0.00	0.00	0.00
14,800.0	90.00	360.00	10,747.0	4,059.7	-769.9	4,106.6	0.00	0.00	0.00
14,900.0	90.00	360.00	10,747.0	4,159.7	-769.9	4,206.3	0.00	0.00	0.00
15,000.0	90.00	360.00	10,747.0	4,259.7	-769.9	4,306.0	0.00	0.00	0.00
15,100.0	90.00	360.00	10,747.0	4,359.7	-769.9	4,405.8	0.00	0.00	0.00
15,200.0	90.00	360.00	10,747.0	4,459.7	-769.9	4,505.5	0.00	0.00	0.00
15,300.0	90.00	360.00	10,747.0	4,559.7	-769.9	4,605.2	0.00	0.00	0.00
15,400.0	90.00	360.00	10,747.0	4,659.7	-769.9	4,704.9	0.00	0.00	0.00
15,500.0	90.00	360.00	10,747.0	4,759.7	-769.9	4,804.6	0.00	0.00	0.00
15,600.0	90.00	360.00	10,747.0	4,859.7	-769.9	4,904.3	0.00	0.00	0.00
15,700.0	90.00	360.00	10,747.0	4,959.7	-769.9	5,004.0	0.00	0.00	0.00
15,800.0	90.00	360.00	10,747.0	5,059.7	-769.9	5,103.7	0.00	0.00	0.00
15,900.0	90.00	360.00	10,747.0	5,159.7	-769.9	5,203.4	0.00	0.00	0.00
16,000.0	90.00	360.00	10,747.0	5,259.7	-769.9	5,303.1	0.00	0.00	0.00
16,100.0	90.00	360.00	10,747.0	5,359.7	-769.9	5,402.8	0.00	0.00	0.00
16,200.0	90.00	360.00	10,747.0	5,459.7	-769.9	5,502.5	0.00	0.00	0.00
16,300.0	90.00	360.00	10,747.0	5,559.7	-769.9	5,602.3	0.00	0.00	0.00
16,400.0	90.00	360.00	10,747.0	5,659.7	-769.9	5,702.0	0.00	0.00	0.00
16,500.0	90.00	360.00	10,747.0	5,759.7	-769.9	5,801.7	0.00	0.00	0.00
16,600.0	90.00	360.00	10,747.0	5,859.7	-769.9	5,901.4	0.00	0.00	0.00
16,700.0	90.00	360.00	10,747.0	5,959.7	-769.9	6,001.1	0.00	0.00	0.00
16,800.0	90.00	360.00	10,747.0	6,059.7	-769.9	6,100.8	0.00	0.00	0.00
16,900.0	90.00	360.00	10,747.0	6,159.7	-769.9	6,200.5	0.00	0.00	0.00
17,000.0	90.00	360.00	10,747.0	6,259.7	-769.9	6,300.2	0.00	0.00	0.00
17,100.0	90.00	360.00	10,747.0	6,359.7	-769.9	6,399.9	0.00	0.00	0.00
17,200.0	90.00	360.00	10,747.0	6,459.7	-769.9	6,499.6	0.00	0.00	0.00
17,300.0	90.00	360.00	10,747.0	6,559.7	-769.9	6,599.3	0.00	0.00	0.00
17,400.0	90.00	360.00	10,747.0	6,659.7	-769.9	6,699.0	0.00	0.00	0.00
17,500.0	90.00	360.00	10,747.0	6,759.7	-769.9	6,798.7	0.00	0.00	0.00
17,600.0	90.00	360.00	10,747.0	6,859.7	-769.9	6,898.5	0.00	0.00	0.00
17,700.0	90.00	360.00	10,747.0	6,959.7	-769.9	6,998.2	0.00	0.00	0.00

Oasis Petroleum

Planning Report

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Company:	Oasis	TVD Reference:	WELL @ 2118.0ft (Original Well Elev)
Project:	Indian Hills	MD Reference:	WELL @ 2118.0ft (Original Well Elev)
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Well:	Timmons 5301 43-12B	Survey Calculation Method:	Minimum Curvature
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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)
17,800.0	90.00	360.00	10,747.0	7,059.7	-769.9	7,097.9	0.00	0.00	0.00
17,900.0	90.00	360.00	10,747.0	7,159.7	-769.9	7,197.6	0.00	0.00	0.00
18,000.0	90.00	360.00	10,747.0	7,259.7	-769.9	7,297.3	0.00	0.00	0.00
18,100.0	90.00	360.00	10,747.0	7,359.7	-769.9	7,397.0	0.00	0.00	0.00
18,200.0	90.00	360.00	10,747.0	7,459.7	-769.9	7,496.7	0.00	0.00	0.00
18,300.0	90.00	360.00	10,747.0	7,559.7	-769.9	7,596.4	0.00	0.00	0.00
18,400.0	90.00	360.00	10,747.0	7,659.7	-769.9	7,696.1	0.00	0.00	0.00
18,500.0	90.00	360.00	10,747.0	7,759.7	-769.9	7,795.8	0.00	0.00	0.00
18,600.0	90.00	360.00	10,747.0	7,859.7	-769.9	7,895.5	0.00	0.00	0.00
18,700.0	90.00	360.00	10,747.0	7,959.7	-769.9	7,995.2	0.00	0.00	0.00
18,800.0	90.00	360.00	10,747.0	8,059.7	-770.0	8,095.0	0.00	0.00	0.00
18,900.0	90.00	360.00	10,747.0	8,159.7	-770.0	8,194.7	0.00	0.00	0.00
19,000.0	90.00	360.00	10,747.0	8,259.7	-770.0	8,294.4	0.00	0.00	0.00
19,100.0	90.00	360.00	10,747.0	8,359.7	-770.0	8,394.1	0.00	0.00	0.00
19,200.0	90.00	360.00	10,747.0	8,459.7	-770.0	8,493.8	0.00	0.00	0.00
19,300.0	90.00	360.00	10,747.0	8,559.7	-770.0	8,593.5	0.00	0.00	0.00
19,400.0	90.00	360.00	10,747.0	8,659.7	-770.0	8,693.2	0.00	0.00	0.00
19,500.0	90.00	360.00	10,747.0	8,759.7	-770.0	8,792.9	0.00	0.00	0.00
19,600.0	90.00	360.00	10,747.0	8,859.7	-770.0	8,892.6	0.00	0.00	0.00
19,700.0	90.00	360.00	10,747.0	8,959.7	-770.0	8,992.3	0.00	0.00	0.00
19,800.0	90.00	360.00	10,747.0	9,059.7	-770.0	9,092.0	0.00	0.00	0.00
19,900.0	90.00	360.00	10,747.0	9,159.7	-770.0	9,191.7	0.00	0.00	0.00
20,000.0	90.00	360.00	10,747.0	9,259.7	-770.0	9,291.5	0.00	0.00	0.00
20,100.0	90.00	360.00	10,747.0	9,359.7	-770.0	9,391.2	0.00	0.00	0.00
20,200.0	90.00	360.00	10,747.0	9,459.7	-770.0	9,490.9	0.00	0.00	0.00
20,300.0	90.00	360.00	10,747.0	9,559.7	-770.0	9,590.6	0.00	0.00	0.00
20,400.0	90.00	360.00	10,747.0	9,659.7	-770.0	9,690.3	0.00	0.00	0.00
20,500.0	90.00	360.00	10,747.0	9,759.7	-770.0	9,790.0	0.00	0.00	0.00
20,600.0	90.00	360.00	10,747.0	9,859.7	-770.0	9,889.7	0.00	0.00	0.00
20,700.0	90.00	360.00	10,747.0	9,959.7	-770.0	9,989.4	0.00	0.00	0.00
20,794.3	90.00	360.00	10,747.0	10,054.0	-770.0	10,083.4	0.00	0.00	0.00
TD at 20794.3									

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										
- Shape										
Timmons 5301 43-12B F		0.00	0.00	10,747.0	10,054.0	-770.0	128,149.68	367,926.70	48° 6' 37.292 N	103° 37' 3.177 W
- plan hits target center										
- Point										

Casing Points										
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)						
2,070.0		9 5/8"	9.625	13.500						
11,015.0		7"	7.000	8.750						

Oasis Petroleum

Planning Report

Database:	Compass	Local Co-ordinate Reference:	Well Timmons 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-1/12	North Reference:	True
Well:	Timmons 5301 43-12B	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	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.)			
8,365.0	8,365.0	Kibbey			
8,512.0	8,512.0	Charles Salt			
9,135.0	9,135.0	UB			
9,212.0	9,212.0	Base Last Salt			
9,260.0	9,260.0	Ratcliffe			
9,436.0	9,436.0	Mission Canyon			
10,010.0	10,010.0	Lodgepole			
10,160.0	10,160.0	Lodgepole Fracture Zone			
10,832.3	10,716.0	False Bakken			
10,858.7	10,725.0	Upper Bakken			
10,919.9	10,740.0	Middle Bakken			
10,998.5	10,747.0	Middle Bakken Sand Target			

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			Comment
		+N/S (ft)	+E/W (ft)		
10,306.3	10,306.3	0.0	0.0	KOP-Start Build 13.00	
10,998.6	10,747.0	367.2	-243.7	EOC-Start 87.3 hold at 10998.6 MD	
11,085.9	10,747.0	440.0	-292.0	Start DLS 2.00 TFO 90.00	
12,764.3	10,747.0	2,024.0	-769.8	Start 8030.0 hold at 12764.3 MD	
20,794.3	10,747.0	10,054.0	-770.0	TD at 20794.3	

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

"TIMMONS 5301 43-12B"

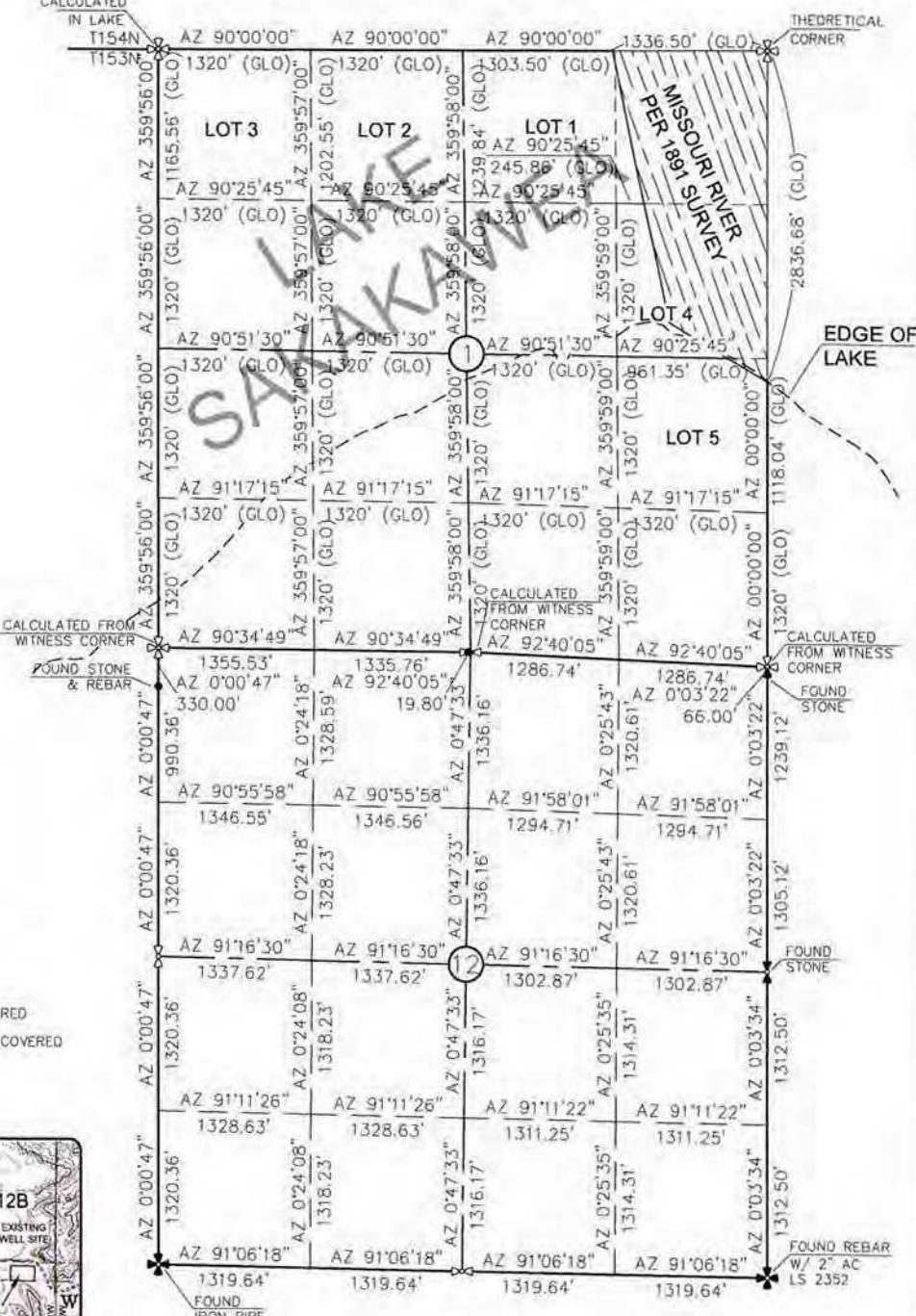
250 FEET FROM SOUTH LINE AND 2510 FEET FROM EAST LINE
SECTIONS 1 & 12, T153N, R101W, 5TH P.M., MCKENZIE COUNTY, NORTH DAKOTA

CALCULATED

IN LAKE

T154N

T153N



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.



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www.interstate.com
Operations in Minnesota, North Dakota and South Dakota

OASIS PETROLEUM NORTH AMERICA, LLC
SECTION BREAKDOWN
SECTIONS 1 & 12, T153N, R101W
MCKENZIE COUNTY, NORTH DAKOTA

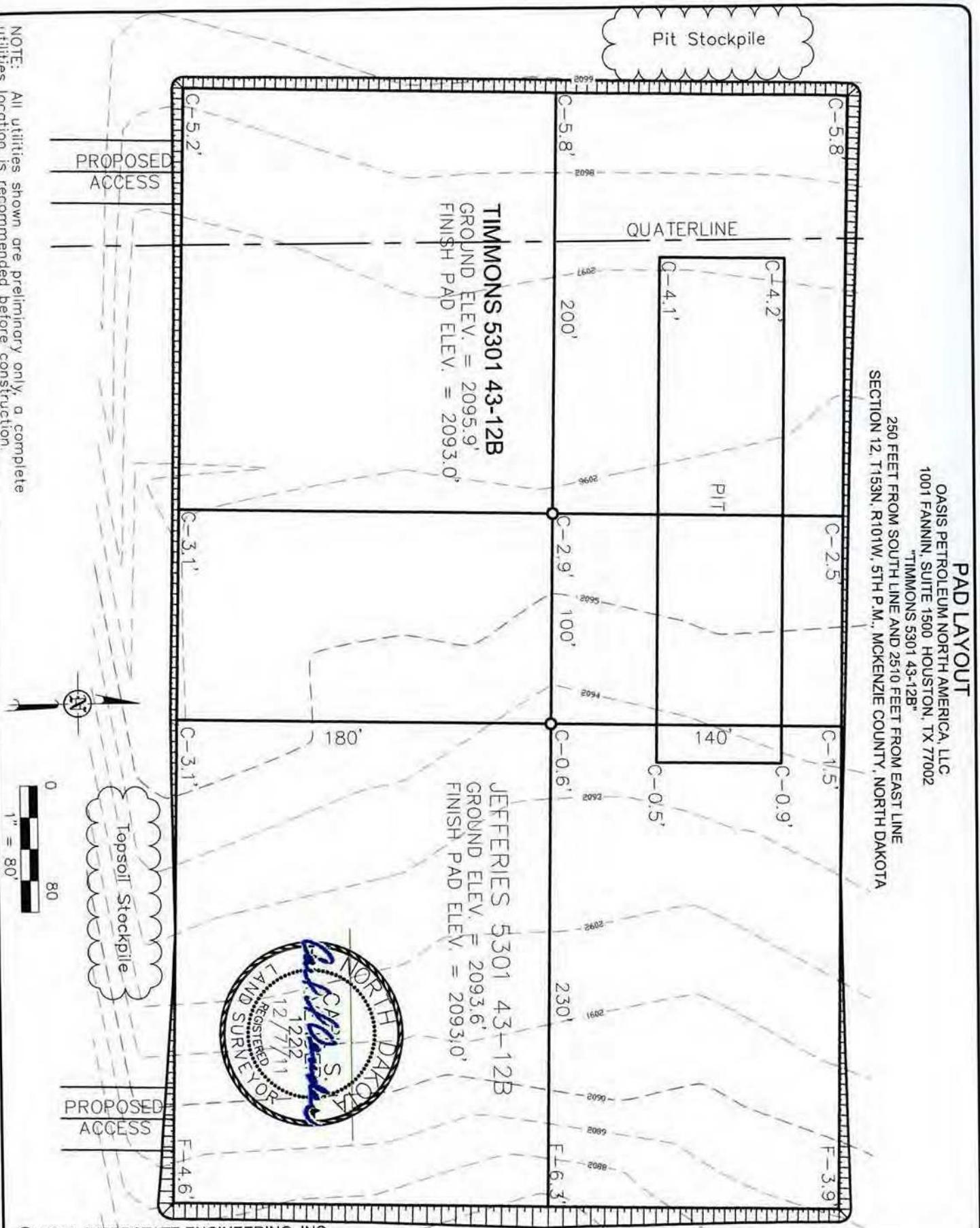
Revision No.	Date	By	Description
Drawn By: JLS	Project No.: 811-09-361		
Checked By: C.R.V.	Date: DEC 2011		

PAD LAYOUT

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

NIN, SUITE 1500 HOUSTON, TX 77002

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



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

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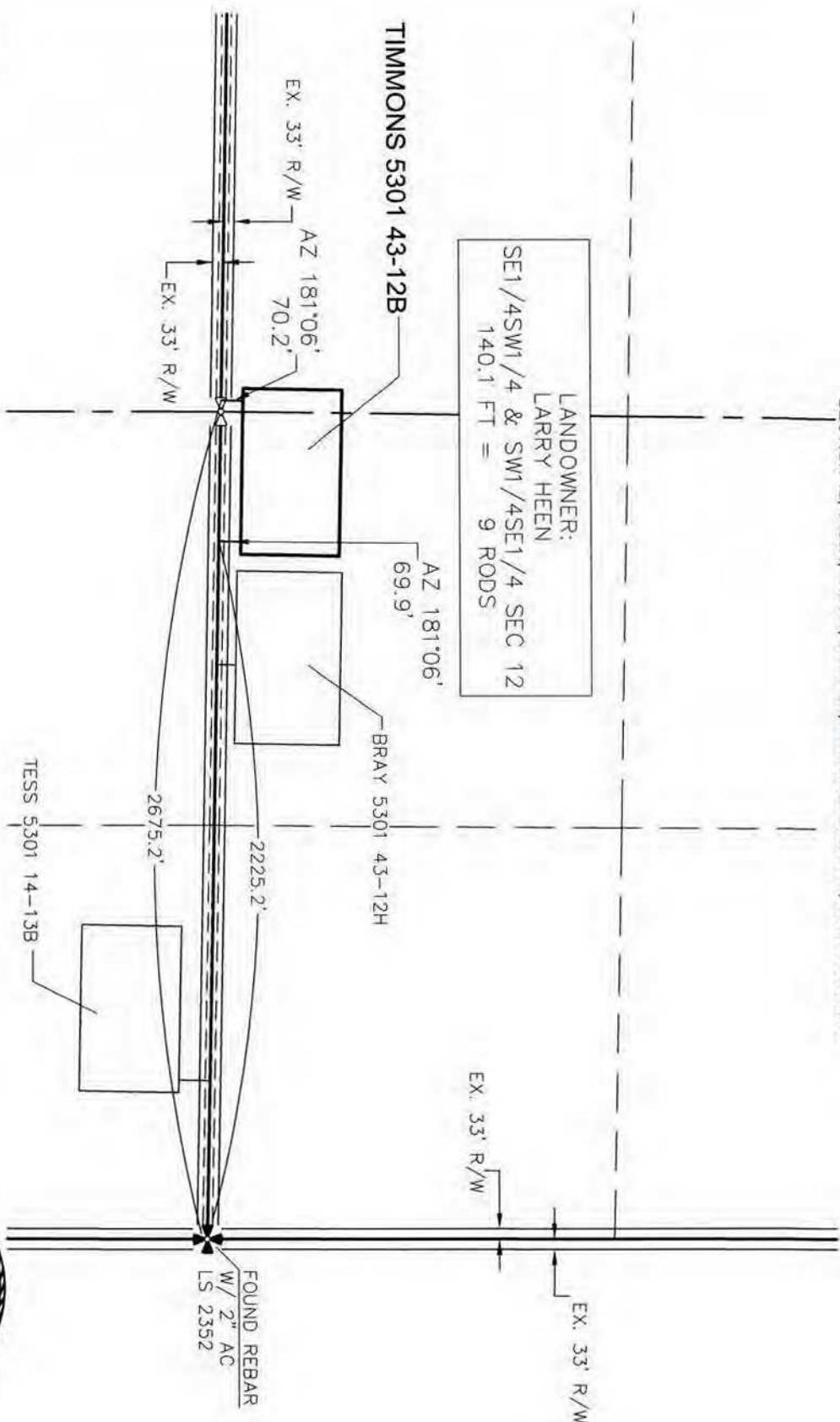
OASIS PETROLEUM NORTH AMERICA, LLC
PAD LAYOUT
SECTION 12, T153N, R101W
MCKENZIE COUNTY, NORTH DAKOTA

ACCESS APPROACH

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

"TIMMONS 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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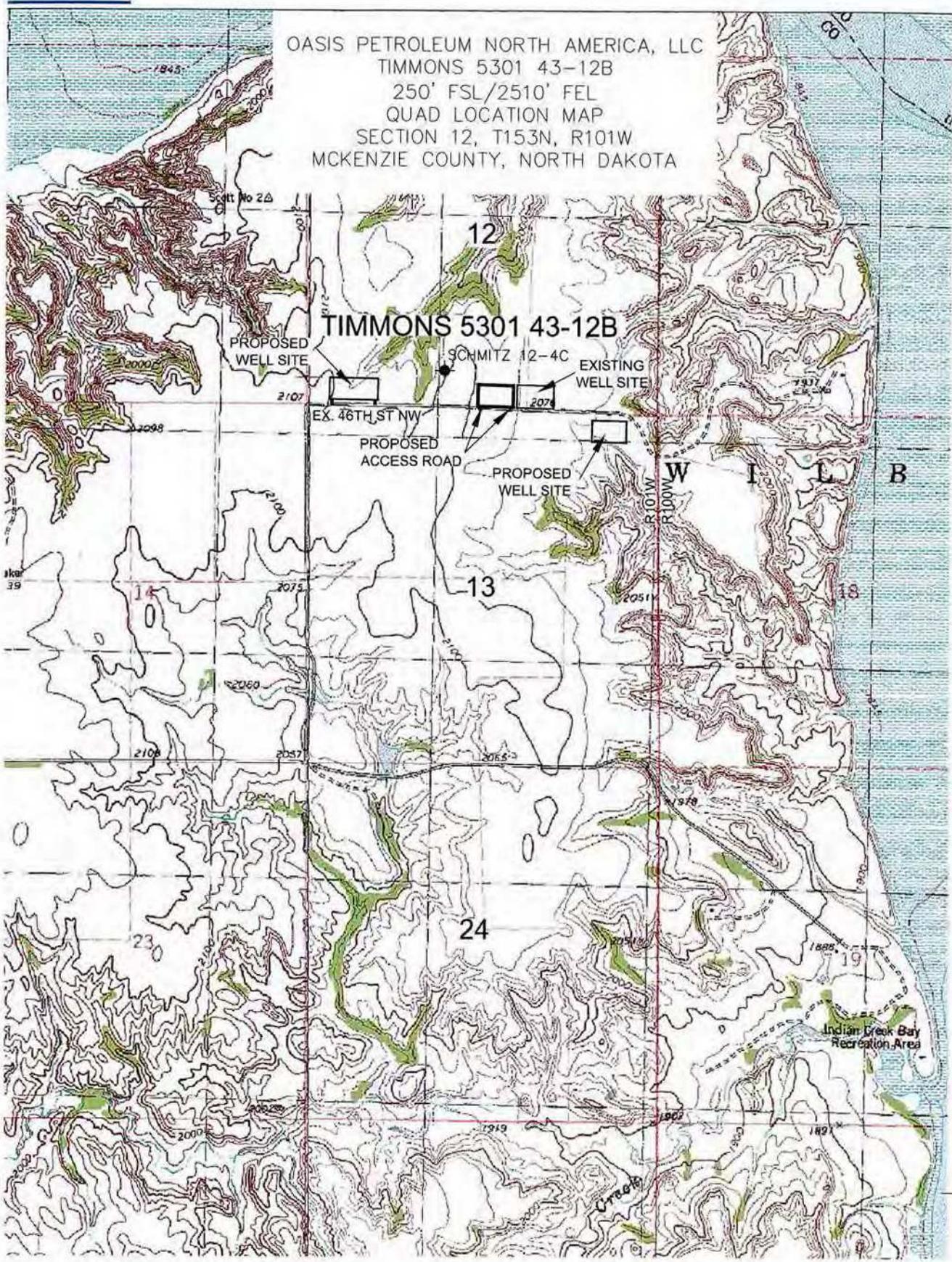


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OASIS PETROLEUM NORTH AMERICA, LLC
ACCESS APPROACH
SECTION 12, T153N, R101W
MCKENZIE COUNTY, NORTH DAKOTA
Drawn By: J.J.S. Project No.: S11-09-361
Checked By: C.S.V. Date: DEC 2011

Revision No.	Date	By	Description

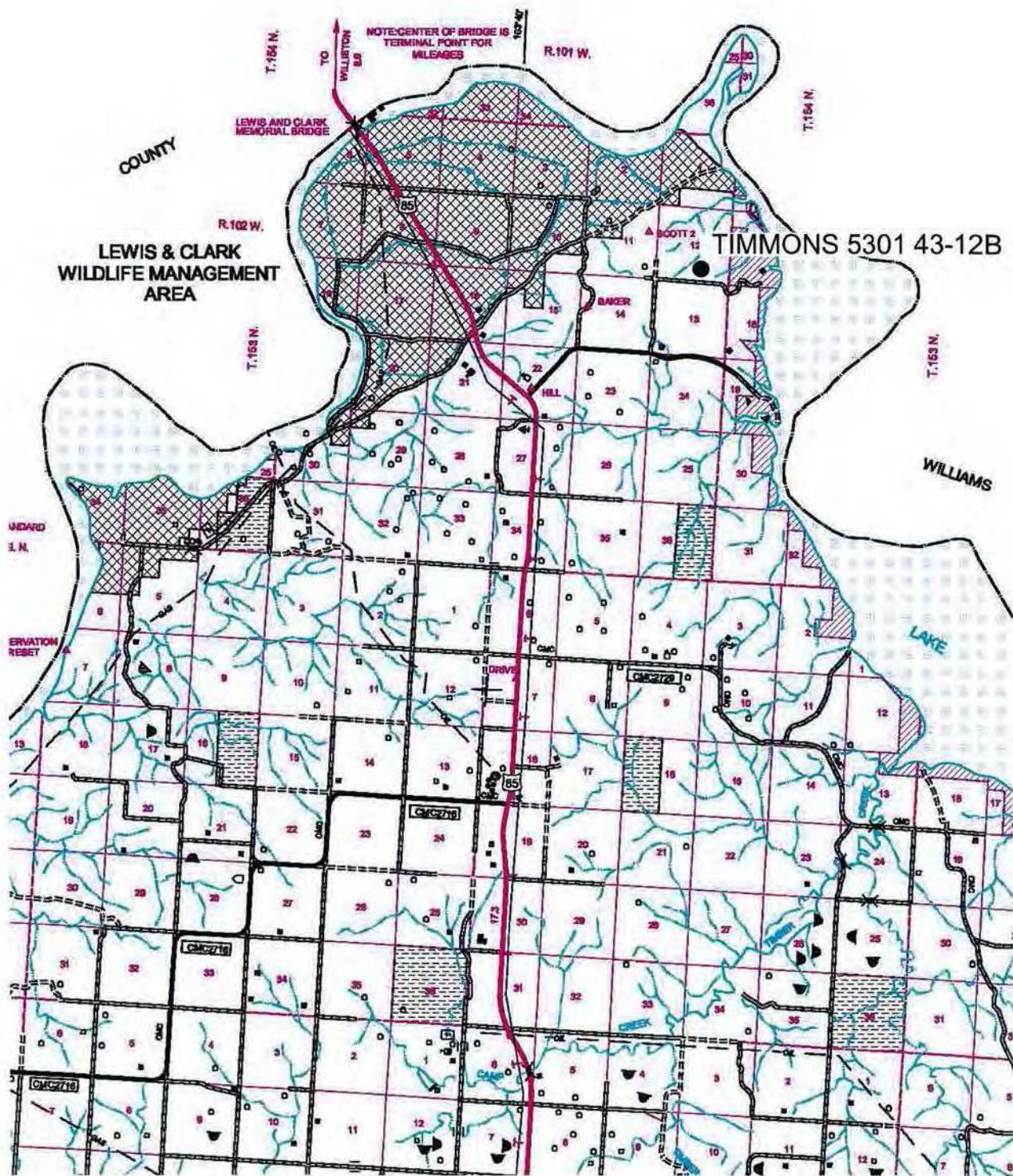


COUNTY ROAD MAP

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

"TIMMONS 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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SCALE: 1" = 2 MILE

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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

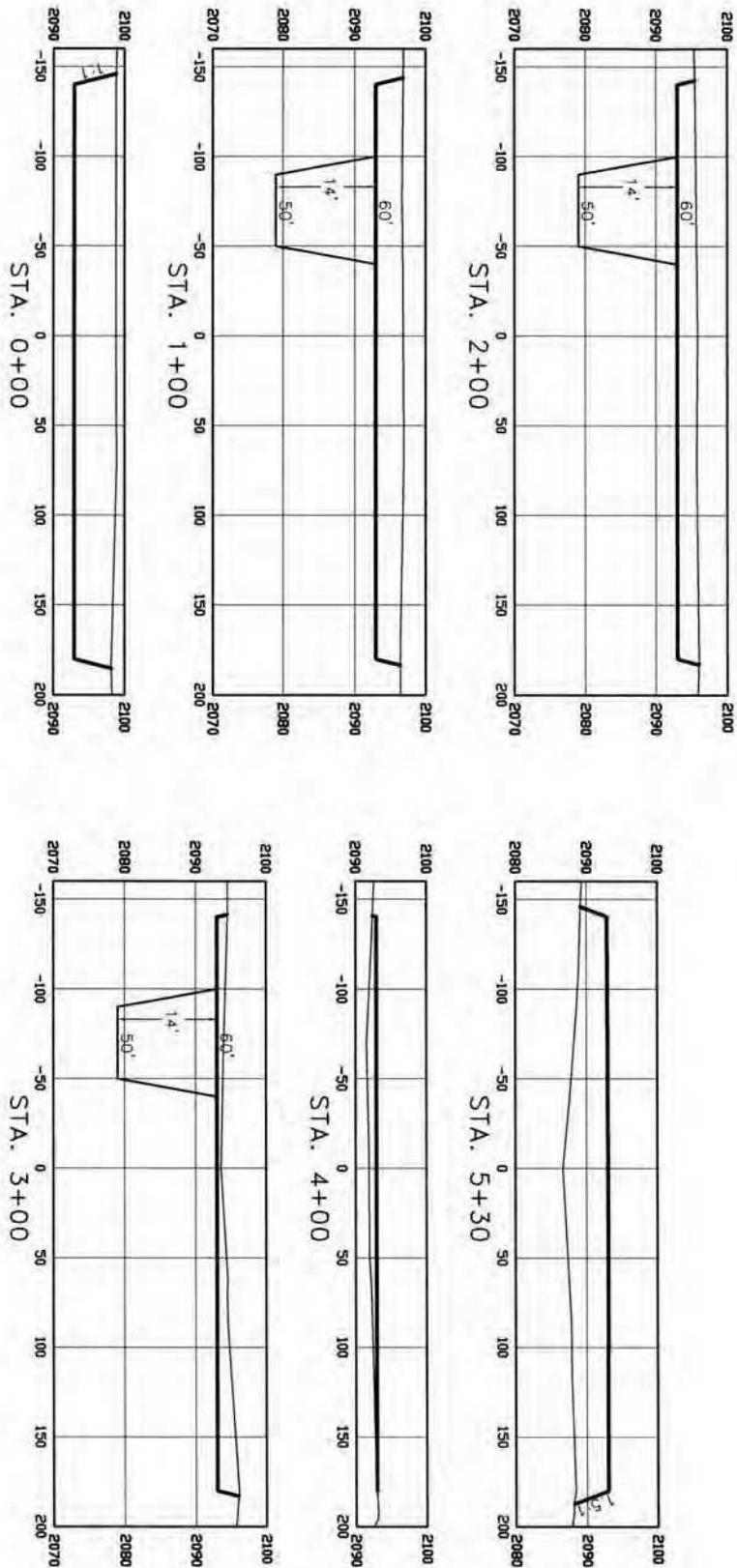
Revision No.	Date	By	Description

CROSS SECTIONS

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

"TIMMONS 53301 43-12B"

250 FEET FROM SOUTH LINE AND 2510 FEET FROM EAST LINE
SECTION 12 T153N R101W 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

MCKENZIE COUNTY, NORTH DAKOTA

Revision No.	Date	By	Description

WELL LOCATION SITE QUANTITIES

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

"TIMMONS 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 SI OPES AT 1.5:1

WELL SITE LOCATION

2510' EFL

250' ESI

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

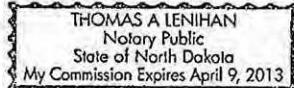
BE IT REMEMBERED, That on this 13th day of December, 2011 before me, a Notary Public, in and for said County and State, personally appeared Larry P. Heen, a married man dealing in his sole & separate property, to me known to be the identical person described in and who executed the within and foregoing 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