CHECK SHEET

Date: 6/25/2008 API Number: 083-22766

Company: Continental Resources Inc

Well Name: Alice 3-21H

County: Richland

Field: Wildcat Richland

Surf. Location: 400 FNL 1700 FWL NE NW Lot: Sec: 21 Twp: 23 N Rng: 56 E

Permit Number: 26809 Drilling Fee:

Intention to Drill: 6/24/2008 Expiration Date: 12/24/2008

Mineral Ownership: ☑ Private ☐ State ☐ Federal ☐ Indian

Well Type: Horizontal ☐ Multiple Laterals

Proposed Depth/Formation: MD: 19220 TVD: Bakken

Drilling Unit Acres Description:

Samples Required: ☐ Received:

COMPLETION INFORMATION

Completion Date: August 20, 2008 TD: 19578 PBTD: N/A

Completed As: Oil Well IP / Formation: 470 BOD, 93 MCFD, 23 BWD BAKKEN

Geological Well Report: 4/16/09 Mud Log: 4/16/09 (4)

Sundry Notices: Liner Repair 10-15-08

Subsequent Report of Abandonment: Received: Approved:

Electric Logs: CBL·GR·VDL Display / 4·16·09

Miscellaneous: Directional Surveys (4) / 4·17·09

PLAINTIFFS' EXHIBIT P270

Form No. 4 R8/00

LOCATE WELL CORRECTLY

(SUBMIT IN TRIPLICATE)
TO

BOARD OF OIL AND GAS CONSERVATION
OF THE STATE OF MONTANA
2535 ST. JOHNS AVENUE BILLINGS, MONTANA 59102

ARM 36.22.307
ARM 36.22.1011
ARM 36.22.1013
ARM 36.22.1414

COMPLETION REPORT

Company **Continental Resources, Inc.** Lease **Alice** Well No. **3-21H**

Address **P.O Box 1032** Field (or Area) **Wildcat**

The well is located **400** ft. from **N** (N or S) line and **1700** ft. from **W** (E or W) line of Sec. **21**

Sec. **21** ; T. **23N** R. **56E** County **Richland** ;Elevation **2487.5 KB** (D.F., R.B. or G.L.)

Commenced drilling **June 30, 2008** ;Completed **August 20, 2008**

Write the API# or the well name of another well on this lease if one exists

The information given herewith is a complete and correct record of the well. The summary on this page is for the condition of the well at the above date.

Completed as **Oil Well** (oil well, gas well, dry hole, cbm, injection) Signed Nicole Crockett

API# 25 - **083-22766** Title **Regulatory Compliance Specialist**

Bottomhole Location(s): Date **April 13, 2009**

Lat #1 ~~1862' FSL~~ & 1740 FWL, Sec 21-23N-56E 1811 FSL
Lat #1 ST #1 8 FNL & 1694 FWL, Sec 28-23N-56E OK
Lat #1 ST #2 ~~247 FSL & 1623 FWL~~, Sec 21-23N-56E 153 FSL 1624 FWL

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APR 13 2009
MONTANA BOARD OF OIL & GAS CONS. BILLINGS

IMPORTANT ZONES OF POROSITY

(denote oil by O, gas by G, water by W: state formation if known)

From **10,493'** to **13,136' Lat #1 O Bakken** From **13,558'** to **19,578' ST #3 O Bakken**
From **12,144'** to **14,957' ST #1 O Bakken** From _____ to _____
From **13,558'** to **~~14,706~~ 14800' ST #2 O Bakken** From _____ to _____

CASING RECORD

Size Casing	Weight Per Ft.	Grade	Thread	Casing Set	From	To	Sack of cement	Cut And Pulled from
16				0	0	40'	5 yds grout	
9 5/8	36#	J 55		1813'	0	1813'	531 sx	
7	29-32#	L80		10,493'	0	10,493'	735 sx	
4 1/2	11.6#	P 110		19,578'	9711'	19,578'	no cmt	

TUBING RECORD

Size Tubing	Weight Per Ft.	Grade	Thread	Amount	Perforations
2 7/8				9672	

COMPLETION RECORD

Rotary tools were used from **0** to **TD**
Cable tools were used from **NA** to _____
Total depth **See Back** ft.; Plugged back to _____ T.D.; Open hole from **See Back** to _____

PERFORATIONS			ACIDIZED, SHOT, SAND FRACED, CEMENTED			
Interval		Number and	Interval		Amount of	
From	To	Size and Type	From	To	Material Used	Pressure
			10,493'	13,136'	20,755 bbls wtr	
			12,084'	14,957'	1,096,872# sd	
			13,464'	~~14,706'~~	14800	
			13,464'	19,578'		

(if P&A show plugs above)

INITIAL PRODUCTION

Well is producing from **Bakken** (pool) formation.
I.P. **470** barrels of oil per **24** hours **Pumping** (Pumping or flowing)
93 MCF of gas per **24** hours.
23 barrels of water per **24** hours, or _____ % W.C.

P-0020889

Initial 10-day average production 232 (bbl./day) (if taken)

Pressures (if measured): Tubing 110 psi flowing; _____ psi shut-in

Casing 90 psi flowing; _____ psi shut-in

Gravity 36 ° API (corrected to 60°F.)

Formation Volume Factor NA Porosity _____ % Average Connate water _____ %

Type of trap NA

Producing mechanism NA

DRILL STEM TESTS

D.S.T. No.	From	To	Tool Open (Min.)	Shut-in	F.P.	S.I.P.	Recovery	Cushion
	NA							

CORES

No.	Interval	Recovered
	NA	

LOG RUNS

Type	From	To
CBL	Surface	9738'
Mud GR Lat #1	8200	13,146'
Mud GR ST #1	8200	14,966'
Mud GR ST #3	8200	19,578'

FORMATION RECORD
(ELECTRIC LOG TOPS)

From	To	FORMATION	Top of Formation
		Continue of Bottomhole Locations	
		Lat #1 ST#3 ~~678'~~ 679 FSL & 1730 FWL, Sec 28-23N-56E	**TVD**
		Greenhorn	**4,512**
		Mowry	**4,907**
		Dakota	**5,420**
		Rierdon	**6,392**
		Piper Lime	**6,609**
		Dunham Salt	**6,856**
		Spearfish	**6,916**
		Pine Salt	**7,162**
		Minnelusa	**7,347**
		Kibbey	**8,088**
		Charles Salt	**8,233**
		Mission Canyon	**8,988**
		Lodgepole	**9,499**
		Bakken Shale	**10,247**

Total Depth Lat #1 13,136' MD

Total Depth Lat #1 ST #1 14,957' MD

Total Depth Lat #1 ST #2 ~~14,786'~~ MD 14860

Total Depth Lat #1 ST #3 19,578' MD

Open Hole Lat #1 10,493' to 13,136' MD

Open Hole Lat #1 ST #1 12,084' to 14,957' MD

Open Hole Lat #1 ST #2 13,464' to ~~14,786'~~ MD 14800

Open Hole Lat #1 ST #3 13,464' to 19,578' MD

(Use additional sheets where needed to complete description)

FORM NO. 22 R7/99 SUBMIT IN QUADRUPLICATE TO: ARM 36.22.307 ARM 36.22.601

MONTANA BOARD OF OIL AND GAS CONSERVATION
2535 ST. JOHNS AVENUE, BILLINGS, MONTANA 59102

RECEIVED
JUN 16 2008
MONTANA BOARD OF OIL & GAS CONS. BILLINGS

Application for Permit

To: Drill [X] Deepen [ ] Re-enter [ ]
Oil [X] Gas [ ] Other [ ]

Operator: **Continental Resources, Inc.**
Address **P.O. Box 1032**
City **Enid** State **OK** ZIP **73702**
Telephone Number **580-233-8955**

Surface Location of Well (quarter-quarter section and footage measurements)
SHL 400 FNL & 1700 FWL, Sec 21-23N-56E, NENW
BHL 660 FSL & 1700 FWL, Sec 28-23N-56E, SESW
(if directionally drilled, show both surface and bottom hole locations above)

Lease Name: **Alice**
Lease Type (Private/State/Federal): **Private**
Well Number: **3-21H**
Unit Agreement Name:
Field Name or Wildcat: **Wildcat**
Objective Formation(s): **Bakken**
Section, Township, and Range: **Sec 21-23N-56E**
County: **Richland**

Proposed total depth	Formation at total depth	Elevation (indicate GL or KB)
19,220 MD	Bakken	2474 GL

Size and description of drilling/spacing unit: **Sec 21 & 28-23N-56E, 1280 acres**
Docket #~~357-2003~~ 182-2008 Order #~~283-2004~~ 167-2008

API number of another well on this lease (if any):

Anticipated spud date: **7/28/08**

Hole size	Casing size	Weight/foot	Grade (API)	Depth	Sacks of Cement	Type of Cement
30"	20"	60#	X42		48	Grout
13 1/2"	9 5/8"	36#	J-55	1790	850	Class "C", 2% CaCl
8 3/4"	7"	26,29,32#	L-80	10,520	670	35/65 Poz/C, 8% gel

Describe Proposed Operations:
Describe or attach labeled diagram of blowout preventer equipment. Indicate if air drilled or describe mud program.

Plans are to drill a vertical wellbore to the Lodgepole, then build an angle at 12 degrees per 100 feet to land 7" casing in the Bakken formation at approximately 90 degrees. A 6" horizontal wellbore will be drilled approximately 9914' in the Bakken formation. A 4 1/2" uncemented liner will be run to total depth. See attached for diagram of BOP, Mud, and Casing program.

Only freshwater based fluid may be used when drilling surface hole Rule 36.22.1001

Saltwater Pits Shall Be Impermeable

BOARD USE ONLY

Approved (date) JUN 24 2008
By Steve Sasak
Title CHIEF FIELD INSPECTOR

Permit Fee $150.00
Check Number 102821
Permit Expires DEC 24 2008
Permit Number 26809

THIS PERMIT IS SUBJECT TO THE CONDITIONS OF APPROVAL STATED ON THE BACK

API Number 25- 083- 22766

The undersigned hereby certifies that the information contained on this application is true and correct:
Signed (Agent) Brook Cresswell
Title **Regulatory Compliance Specialist**
Date **June 12, 2008**

Samples Required: NONE ✓ ALL _____ FROM _____ feet to _____ feet
Core chips to address below, full cores to USGS, Core Laboratory, Arvada, CO. Required samples must be **washed, dried** and delivered prepaid to:

Montana Board of Oil and Gas Conservation
2535 St. Johns Avenue
Billings, MT 59102

P-0020891

SUPPLEMENTAL INFORMATION

Note: Additional information or attachments may be required by Rule or by special request.

1. Attach a survey plat certified by a registered surveyor. The survey plat must show the location of the well with reference to the nearest lines of an established public survey.

2. Attach an 8 1/2 x 11" photocopy of that portion of a topographic map showing the well location, the access route from county or other established roads, residences, and water wells within a 1/2 mile radius of the well.

3. Attach a sketch of the well site showing the dimensions and orientation of the site, the size and location of pits, topsoil stockpile, and the estimated cut/fill at the corners and centerstake. (Note: the diagram need not be done by an engineer or surveyor). Attach a sketch of a top view and two side views of the reserve pit(s), if utilized. The reserve pit sketch must show the length, width, depth, cut and fill, amount of freeboard, area of topsoil stockpile, and the height and width of berms.

4. Describe the type and amount of material or liner, if any, to be used to seal the reserve pit. If a synthetic liner is used, indicate the liner thickness (mils), bursting strength, tensile strength, tear strength, puncture resistance, hydrostatic resistance, or attach the manufacturer's specifications.

5. Describe the proposed plan for the treatment and/or the disposal of reserve pit fluids and solids after the well is drilled. If the operator intends to dispose of or treat the reserve pit contents off-site, specify the location and the method of waste treatment and disposal. (Note: The operator must comply with all applicable federal, state, county, and local laws and regulations with regard to the handling, transportation, treatment, and disposal of solid wastes.)

6. Does construction of the access road or location, or some other aspect of the drilling operation require additional federal, state, or local permits or authorizations? If yes, indicate the type of permit or authorization required:

- [X] No additional permits needed
- [ ] Stream crossing permit (apply through county conservation district)
- [ ] Air quality permit (apply through Montana Department of Environmental Quality)
- [ ] Water discharge permit (apply through Montana Department of Environmental Quality)
- [ ] Water use permit (apply through Montana Department of Natural Resources and Conservation)
- [ ] Solid waste disposal permit (apply through Montana Department of Environmental Quality)
- [ ] State lands drilling authorization (apply through Montana Department of Natural Resources and Conservation)
- [ ] Federal drilling permit (specify agency)
- [ ] Other federal, state, county, or local permit or authorization: (specify type) _____

NOTICES:

1. Date and time of spudding must be reported to the Board verbally or in writing within 72 hours after the commencement of drilling operations.

2. The operator must give notice of drilling operations to the surface owner as required by Section 82-10-503, MCA, before the commencement of any surface activity.

BOARD USE ONLY | CONDITIONS OF APPROVAL

The operator must comply with the following condition(s) of approval:

WARNING: Failure to comply with conditions of approval may void this permit.

MONTANA BOARD OF OIL AND GAS ATTACHMENT TO APD "CONDITIONS OF APPROVAL"

Continental Resources, Inc.
Alice 3-21H
NE NW Section 21 T23N R56E
Richland County, MT

A. If dry gravel, sand or coal is encountered while constructing the reserve pit and/or in the rathole and mousehole, the following must be done:

1. Contact BOGC field inspector, **Ron Prevost, 406-433-2098.**
2. If field inspector cannot be reached contact the Board of Oil and Gas office in Billings, MT, number 406-656-0040.

B. If water is encountered, in the reserve pit, while constructing the pit and/or in the rathole and mousehole, contact inspector listed above in Part A.

C. **Surface casing must be set at least 50' into the Pierre Shale or estimated minimum surface casing to be set at this location is 1664', whichever is greater. If an operator wants to modify the surface casing setting depth. He must file a Form Number 2 requesting a change to the surface casing setting depth before setting surface casing on the well.**

Continental Resources, Inc.
Drilling Program
Alice 3-21H

ADDITIONAL INFORMATION

Objective Horizon: Bakken

Mud Program: 0' – 1790' (13 1/2" Hole) Spud in w/ freshwater. Allow vis to increase to 40 sec/qt prior to running casing. Treat any losses w/ cedar fiber. Mud wt 8.3 - 9.1 ppg, vis 28-40 sec/qt.

1790' - Intermediate Csg Point (8 3/4" Hole) Thoroughly clean tanks. Displace hole w/ 80/20 Invert Oil/Water Mud after drilling cement shoe & float equipment. Adjust salinity to 250,000 ppm. Mud Wt. 9.4-9.7 ppg, vis 45-60, WL 6-8 cc, HTHP 30-40 cc, YP 6-8 lbs/100 sq ft.

Lateral Sections (6" Hole) 9.8 ppg Brine water to TD.

Casing Program: 20" Conductor, GL to 40'. Pre-set 20" 60 ppf X42 conductor in 30" hole with rat-hole digger. Cement w/ 6 yards (8 sx/yd) grout.

9 5/8" Surface, GL to 1790'. Drill a 13 ½" hole to 1790', set 9 5/8" 32 ppf L-80 casing.

7" Intermediate Casing, GL to Bakken. Drill 8 3/4" hole from 1790' to Bakken Middle Dolomite. Run casing as follows:

0'- 4700'	7", 26#, L-80, LTC
4700'- 7950'	7", 29#, L-80, LTC
7950'- 8800'	7", 32#, HCL-L-80, LTC
8800'- 10390'	7", 29#, L-80, LTC

Cement Program: 0' – 1790' (9 5/8" 36#) Lead w/ 550 sx 35/65 Poz/C & 2% CACI, mixed @ 12 ppg, 2.37 yld. Tail-in w/ 300 sx Class C & 2% CACI @ 14.2 ppg, 1.48 yld. Displace w/ fresh water. (Circ cement to surface.) WOC 12 hr before cut-off/ 12 hr nipple up before drill out.

1790' - Intermediate Csg Point (7" – 26#, 29# & 32#) Lead w/ 270 sx 35/65 Poz/C & 3% KCl & 8% GEL, mixed @ 12 ppg, 1.59 yld. Tail-in w/ 400 sx Class G & 5% sand & 3% KCl, mixed @ 15.6 ppg, 1.59 yld. WOC 12 hr before cut-off/ 12 hr nipple up before drill out.

BOP Program: Blowout Preventer. An 11" 5000 psi dual ram (blind and pipe), 5000 psi annular BOP stack with 5000 psi choke manifold (see attachment) will be installed on the 9 5/8" surface and on the 7" intermediate casing strings. The accumulator unit will be located a minimum of sixty feet from the rig floor.

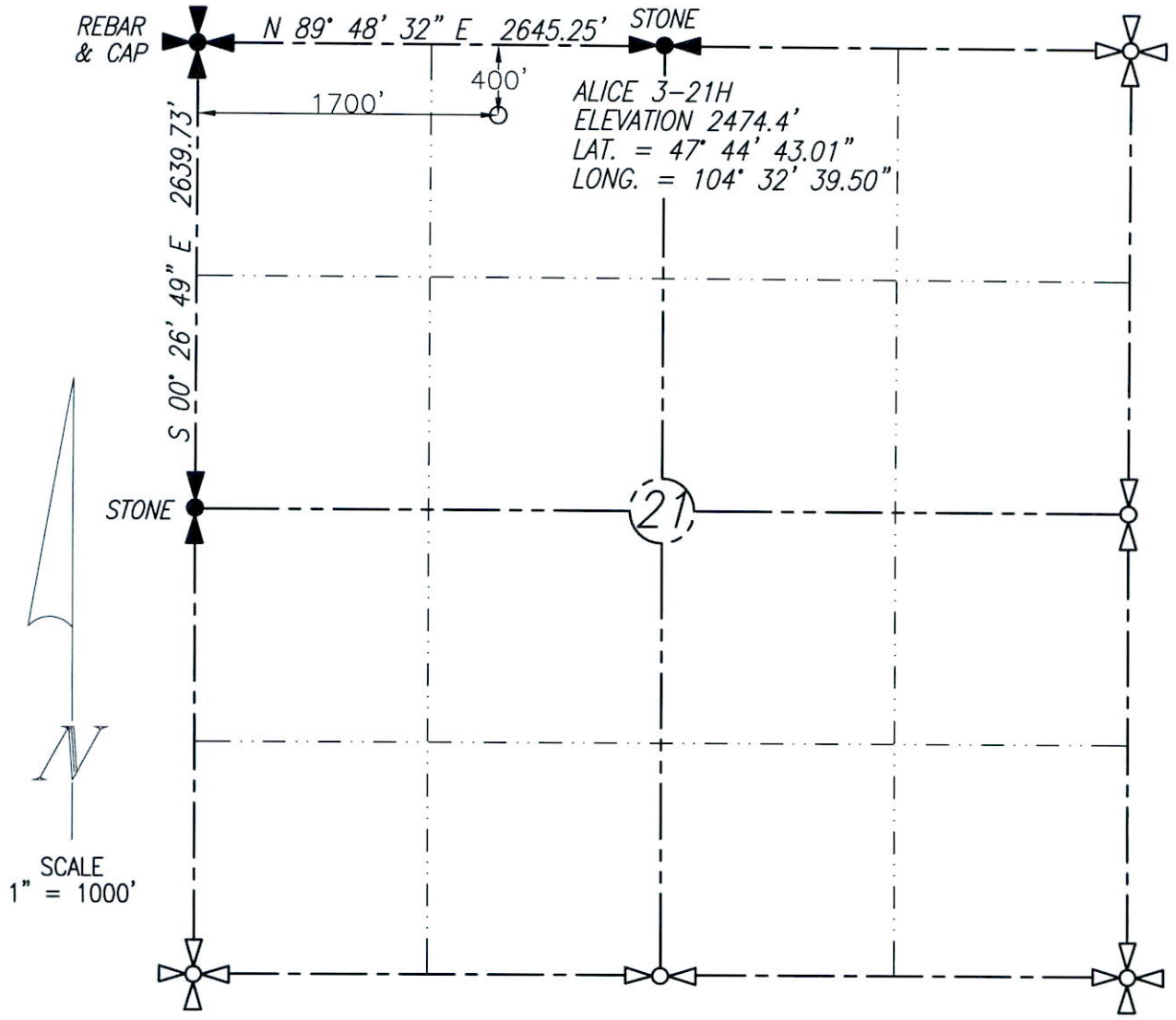
Testing. The BOP stack and all related equipment shall be subjected to a hydrostatic pressure test against the casing (test plug will be utilized if compatible with BOP/wellhead size) upon installation to 4500 psi. BOP pipe rams will be function checked at least once per 24 hour period to insure operational status. Blind rams will be function checked on trips.

Reserve Pit: A 12 mil plastic liner will be used to line the reserve pit during the drilling operations (see attached spec. sheet). Drilling fluids and cuttings will be disposed of by trucking free liquids to an approved Class II disposal, evaporation of the remaining liquids and back filling of the solids within the lined reserve pit.

Alice 3-21H
SHL NW 21-23N-56E
BHL SW 28-23N-56E
EST KB = 2491 2491
EST GL = 2474

TOPS	Depth TVD	Subsea
GREENHORN	4521	-2030
MOWRY	4903	-2412
DAKOTA	5331	-2840
RIERDON	6420	-3929
PIPER	6641	-4150
DUNHAM SALT	6883	-4392
DUNHAM BASE	6913	-4422
SPEARFISH	6926	-4435
PINE SALT	7159	-4668
PINE BASE	7190	-4699
OPECHE SALT	#VALUE!	ABSENT
MINNELUSA	7349	-4858
KIBBEY	8086	-5595
CHARLES SALT	8222	-5731
BASE LAST SALT	8811	-6320
MISSION CANYON	8992	-6501
LODGEPOLE	9496	-7005
KOP (441' ABOVE C.P.)	9391	-6900
FIRST LODGEPOLE GAMMA M	10209	-7718
BAKKEN BLACK SHALE	10272	-7781
BAKKEN MIDDLE SILT	10280	-7789
CASING POINT (IN ZONE)	10287	-7796
MIDDLE BAKKEN AT TD	10255	-7764

WELL LOCATION PLAT
CONTINENTAL RESOURCES INC.
ALICE 3-21H
SECTION 21, T23N, R56E
RICHLAND COUNTY, MT.
400' FNL & 1700' FWL



I CERTIFY THAT THIS PLAT CORRECTLY REPRESENTS WORK PERFORMED BY ME OR UNDER MY RESPONSIBLE CHARGE, AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF

JOHN PAULSON R.L.S. 11705LS

JOHN R. PAULSON 11705LS REGISTERED LAND SURVEYOR

DATE STAKED: 1-14-2008

BASIS OF VERTICAL DATUM: NAVD 1988

PERSON AUTHORIZING SURVEY; SUNNY SHEPARD

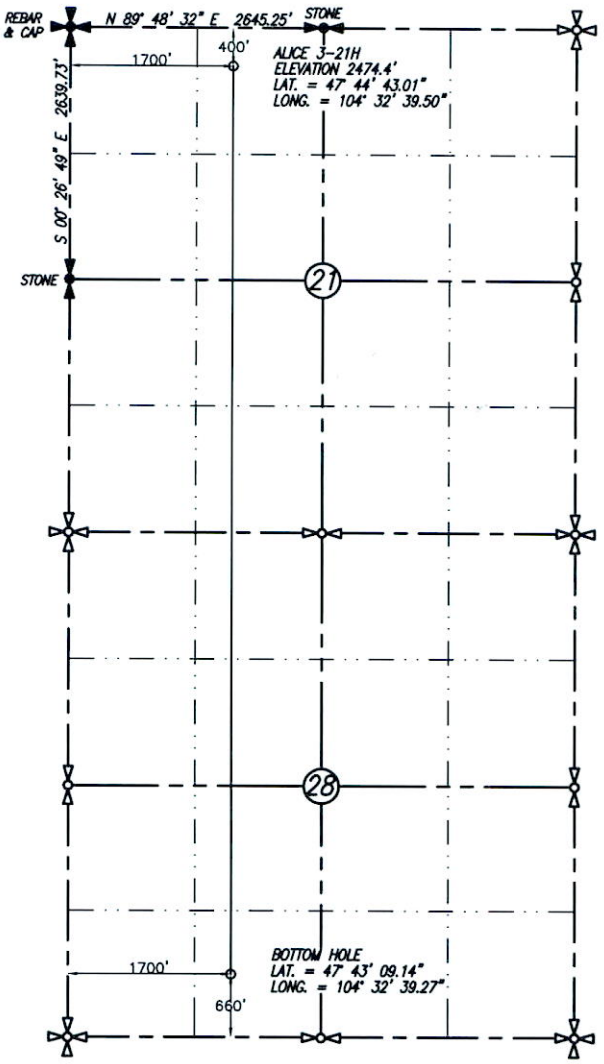
EXPLANATION AREA: NAD83 (96)

BASIS OF BEARING: ASSUMED

BROSZ ENGINEERING INC.
BOX 357
BOWMAN, N.D. 58623
PHONE: 701-523-3340
FAX: 701-523-5243

PROJECT NO. 08-10

BOTTOM HOLE LOCATION PLAT
CONTINENTAL RESOURCES INC.
ALICE 3–21H
SECTION 21, T23N, R56E
RICHLAND COUNTY, MT.
400' FNL & 1700' FWL



N

SCALE
1" = 2000'

I CERTIFY THAT THIS PLAT CORRECTLY REPRESENTS WORK PERFORMED BY ME OR UNDER MY RESPONSIBLE CHARGE, AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF

JOHN PAULSON R.L.S. 11705LS

MONTANA JOHN R. PAULSON 11705LS REGISTERED LAND SURVEYOR

DATE STAKED: 1–14–2008

BASIS OF VERTICAL DATUM:
NAVD 1988

PERSON AUTHORIZING SURVEY;
SUNNY SHEPARD

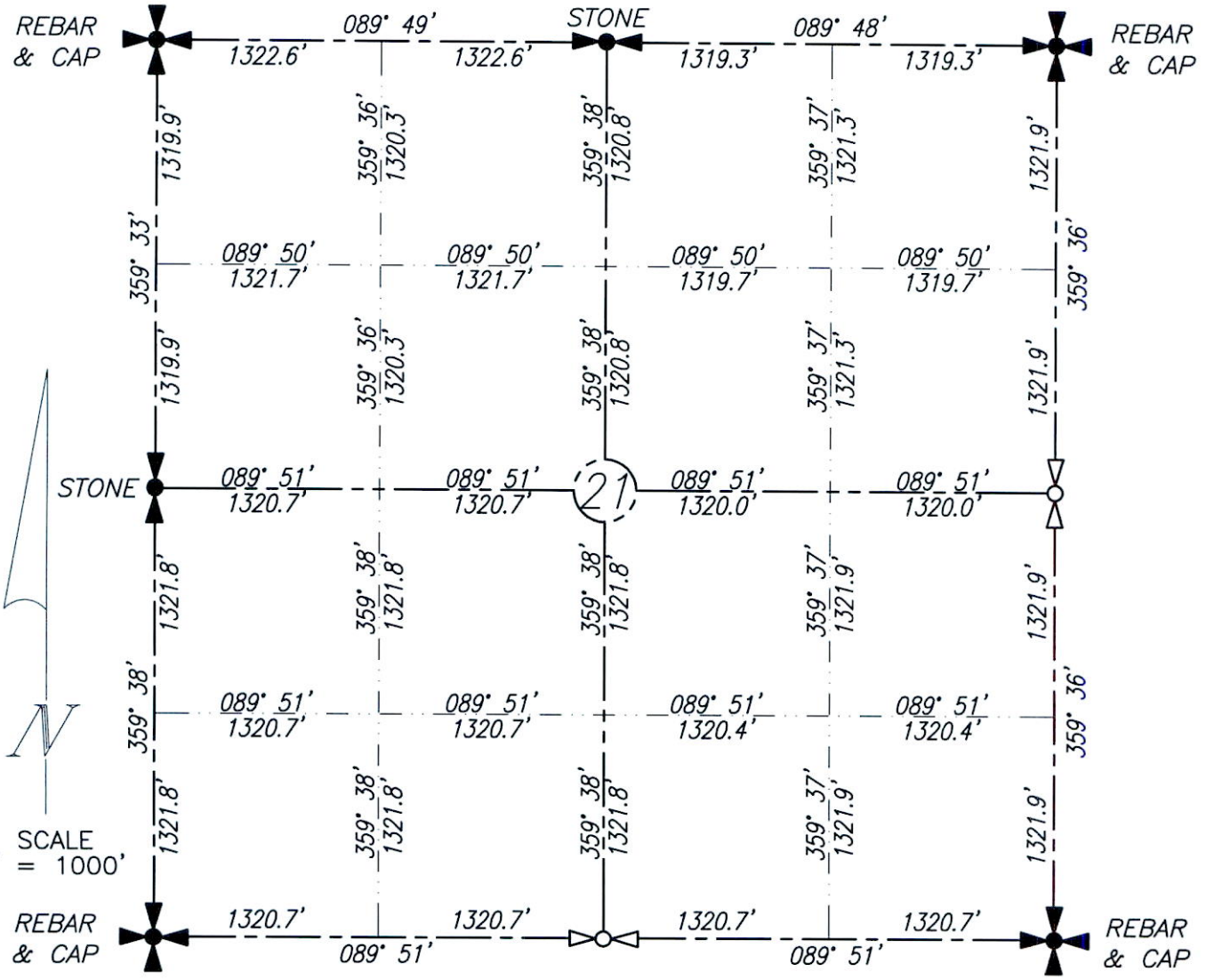
EXPLANATION AREA:
NAD83 (96)

BASIS OF BEARING:
ASSUMED

BROSZ ENGINEERING INC.
BOX 357
BOWMAN, N.D. 58623
PHONE: 701–523–3340
FAX: 701–523–5243

PROJECT NO. 08–10

HORIZONTAL SECTION PLAT
CONTINENTAL RESOURCES INC.
P.O. BOX 1032 ENID, OK 73702
ALICE 3-21H
SECTION 21, T23N, R56E
RICHLAND COUNTY, MT.



ALL CORNERS SHOWN ON THIS PLAT WERE FOUND IN THE FIELD
DISTANCES TO ALL OTHERS ARE CALCULATED.
ALL BEARINGS SHOWN ARE ASSUMED.

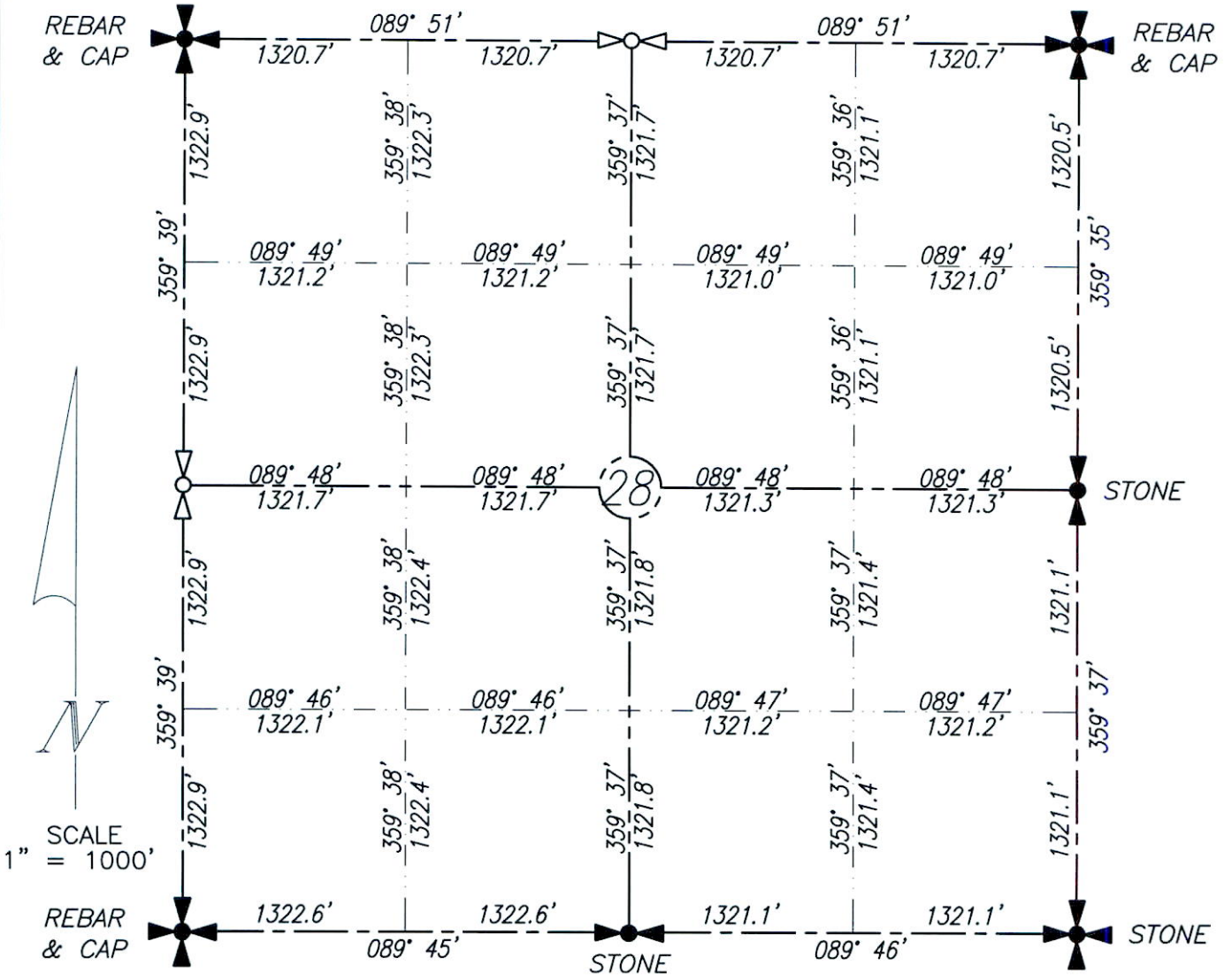
I CERTIFY THAT THIS PLAT CORRECTLY REPRESENTS WORK PERFORMED BY ME OR UNDER MY RESPONSIBLE CHARGE, AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF

JOHN PAULSON R.L.S. 11705LS

REGISTERED LAND SURVEYOR

BROSZ ENGINEERING INC.
BOX 357
BOWMAN, N.D. 58623
PHONE: 701-523-3340
FAX: 701-523-5243
PROJECT NO. 08-10

HORIZONTAL SECTION PLAT
CONTINENTAL RESOURCES INC.
P.O. BOX 1032 ENID, OK 73702
ALICE 3-21H
SECTION 28, T23N, R56E
RICHLAND COUNTY, MT.



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JOHN PAULSON R.L.S. 11705LS

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BOX 357
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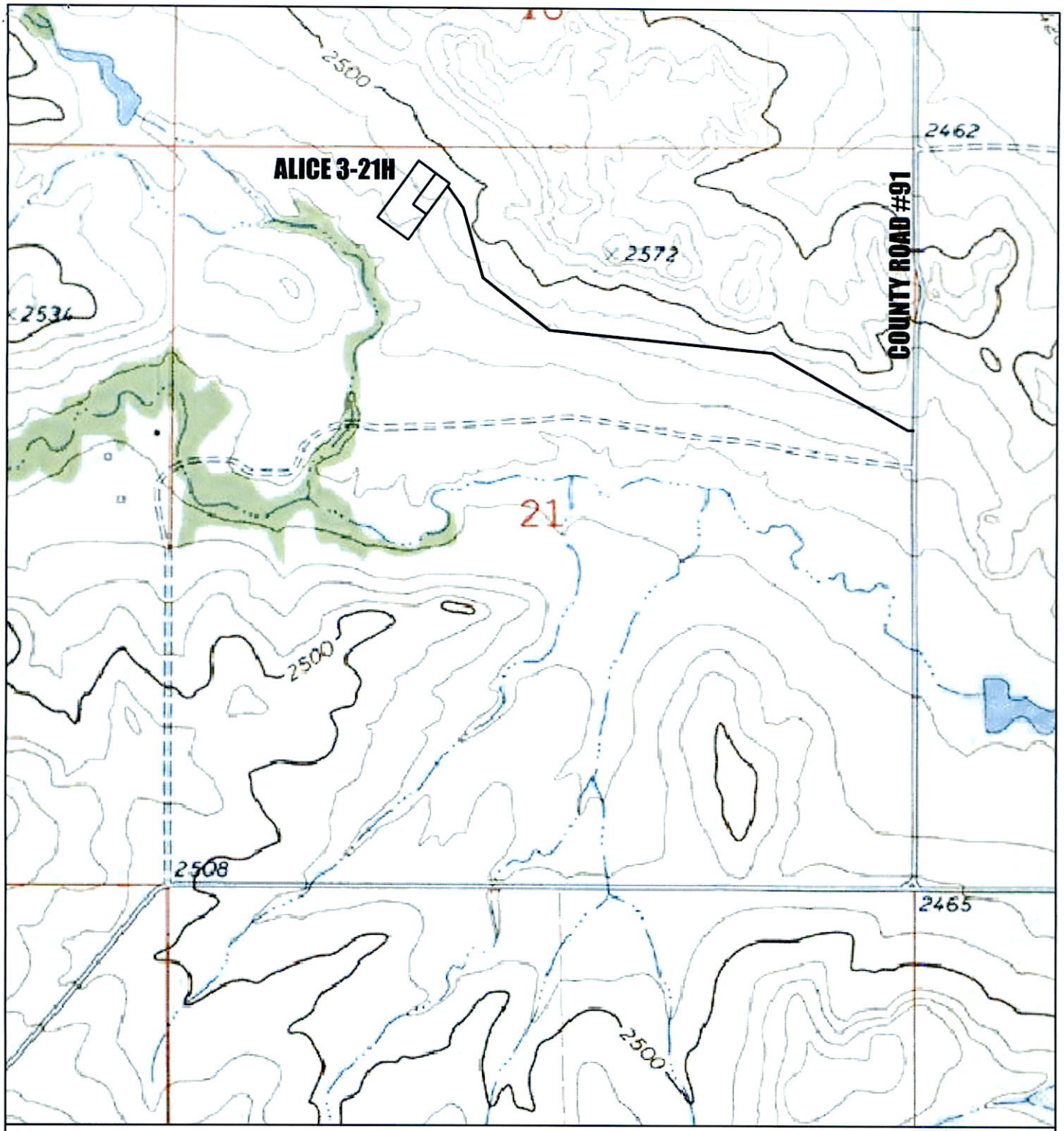
PROJECT NO. 08-10



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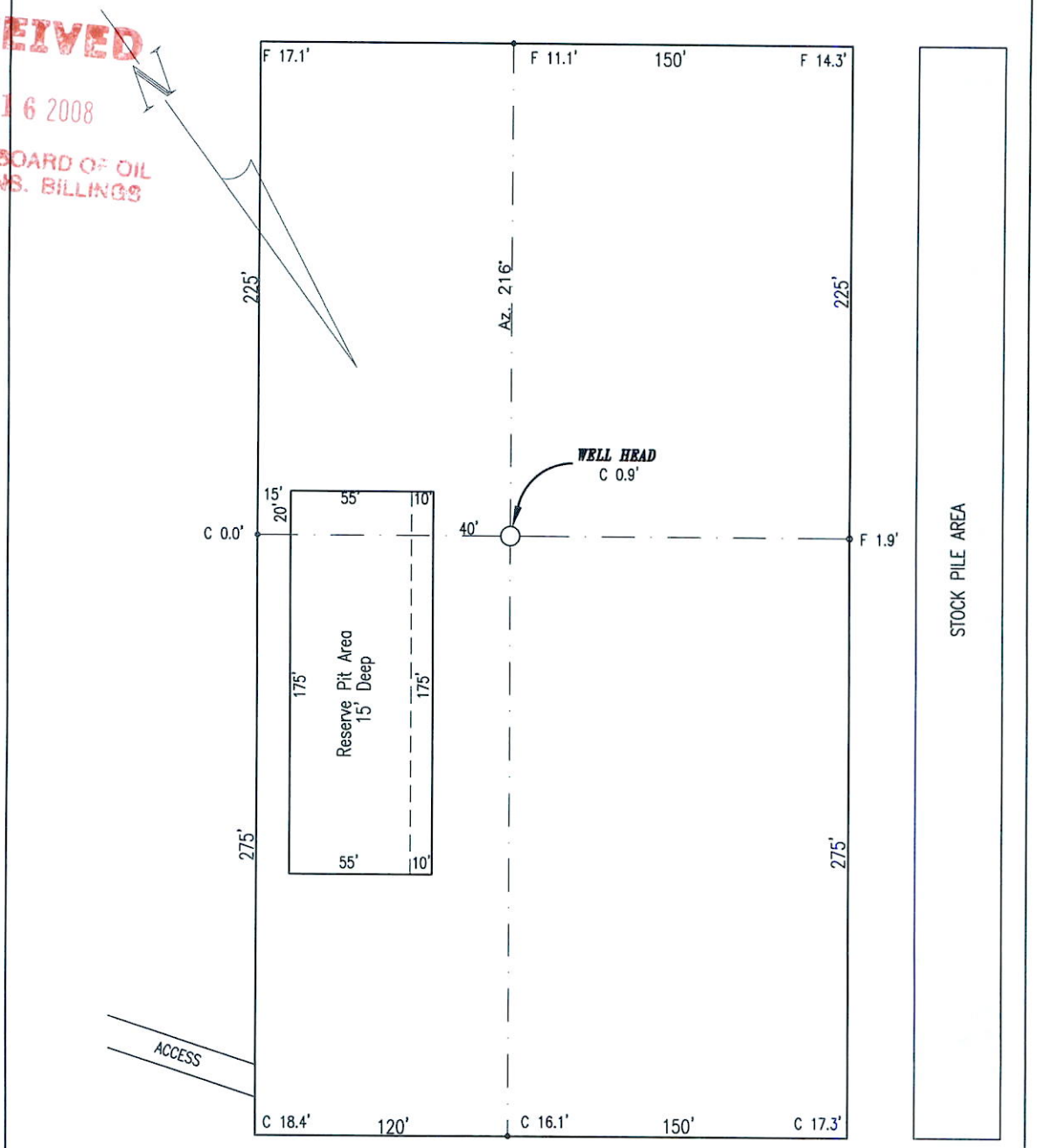
CONTINENTAL RESOURCES

WELL LOCATION

ALICE 3-21H
SECTION 21, T23N, R56E
RICHLAND CO., MONTANA



CONTINENTAL RESOURCES INC.
PO BOX 1032
ENID, OKLAHOMA 73702

DRILLING RIG LAYOUT
ALICE 3-21H
SECTION 21, T23N, R56E
RICHLAND COUNTY, MONTANA

ESTIMATED EARTH QUANTITIES

TOP-SOIL:	2,500	CUBIC YARDS
SUB-SOIL:	23,232	CUBIC YARDS
TOTAL CUT:	25,732	CUBIC YARDS
TOTAL FILL:	20,976	CUBIC YARDS

Use excess materials in acess road fill

ALL INDICATED CUTS & FILLS ARE STAKED GRADE ELEVATIONS.

BACKSLOPES ASSUMED AT 1 1/2 : 1 %

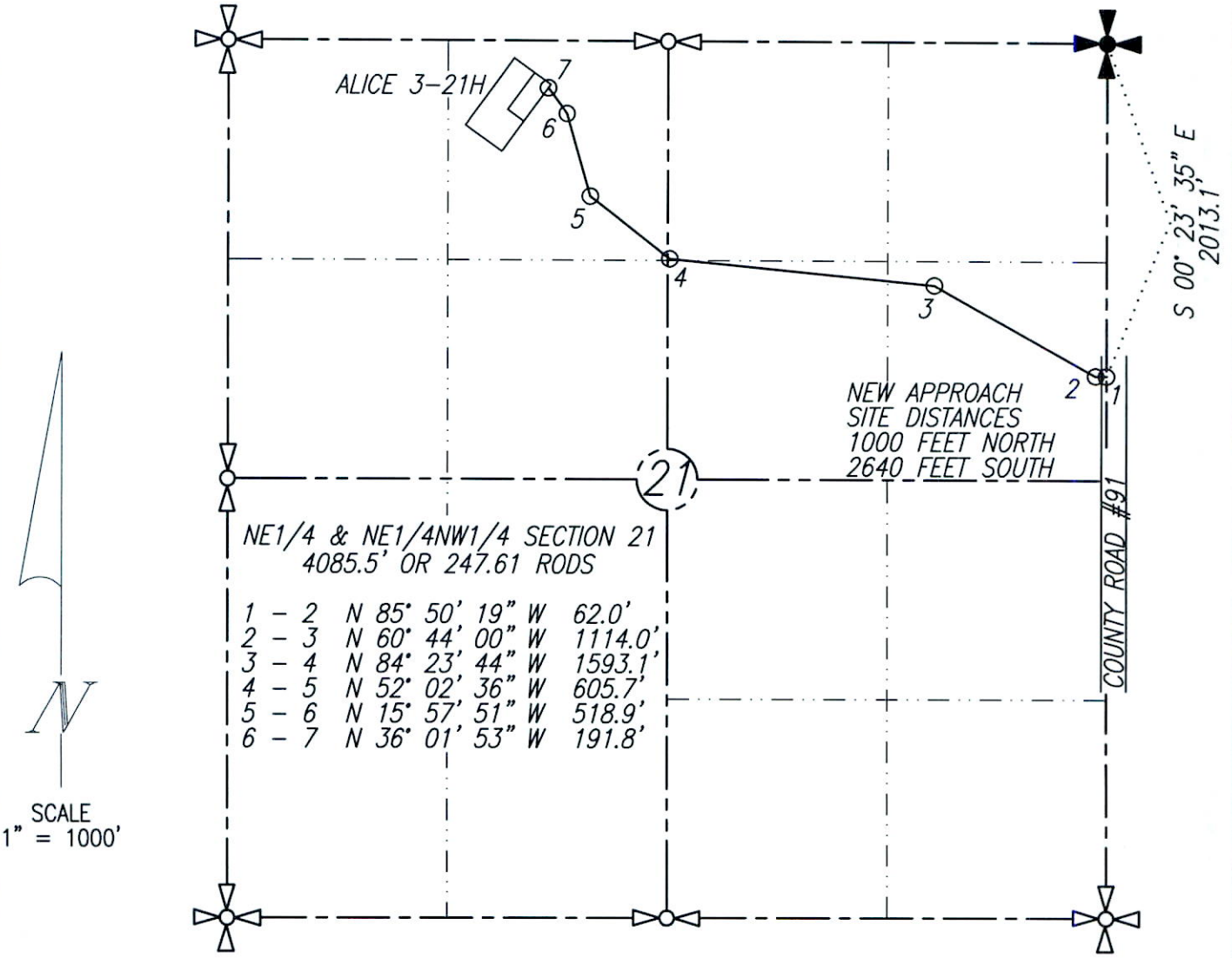
Ground Elevation at Well Head: 2474.4 ft. ASL
Finished Rig Grade Elevation: 2473.5 ft. ASL

DRAFT: HEDGE	SCALE 1" = 60'	DATE: JANUARY 14, 2008	PROJECT NO. 08-10

P-0020902

ROAD LOCATION PLAT
CONTINENTAL RESOURCES INC.
ALICE 3-21H
SECTION 21, T23N, R56E
RICHLAND COUNTY, MT.

RECEIVED
JUN 16 2008
MONTANA BOARD OF OIL & GAS CONS. BILLINGS



NE1/4 & NE1/4NW1/4 SECTION 21
4085.5' OR 247.61 RODS

1 - 2	N 85° 50' 19" W	62.0'
2 - 3	N 60° 44' 00" W	1114.0'
3 - 4	N 84° 23' 44" W	1593.1'
4 - 5	N 52° 02' 36" W	605.7'
5 - 6	N 15° 57' 51" W	518.9'
6 - 7	N 36° 01' 53" W	191.8'

I CERTIFY THAT THIS PLAT CORRECTLY REPRESENTS WORK PERFORMED BY ME OR UNDER MY RESPONSIBLE CHARGE, AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF

JOHN PAULSON R.L.S. 11705LS

JOHN R. PAULSON 11705LS REGISTERED LAND SURVEYOR

DATE STAKED: 1-14-2008

PERSON AUTHORIZING SURVEY;
SUNNY SHEPARD

BASIS OF BEARING:
ASSUMED

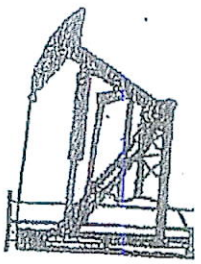
BROSZ ENGINEERING INC.
BOX 357
BOWMAN, N.D. 58623
PHONE: 701-523-3340
FAX: 701-523-5243

PROJECT NO. 08-10

J & L Fencing & Pitliners, Inc.

P.O. Box 165 ° Sidney, Montana 59270
Phone: (406) 798-3655

Jeff Aisenbrey



LORTEX 12 MIL

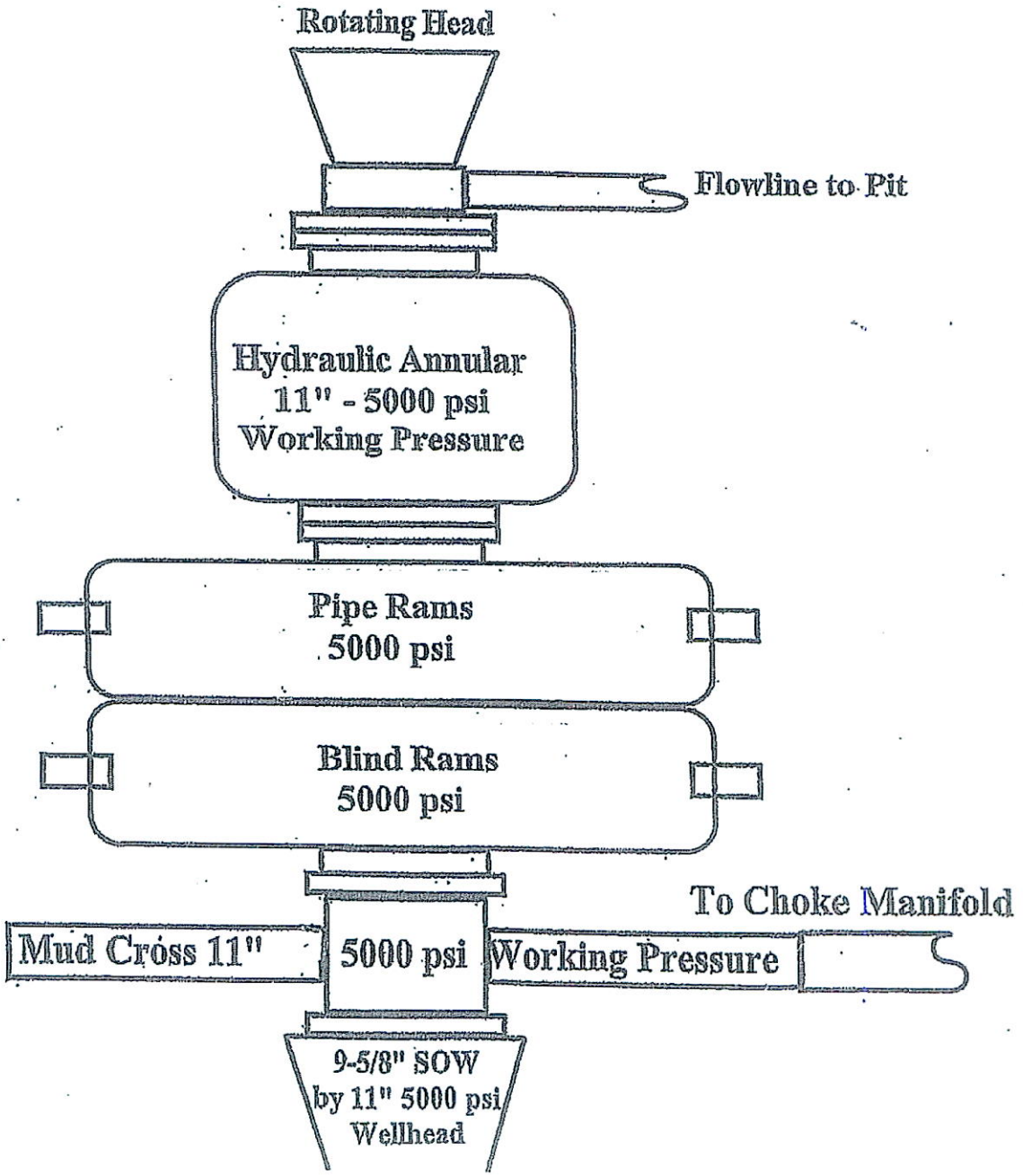
WOVEN REINFORCED HIGH DENSITY POLYETHYLENE FABRIC COATED WITH LOW DENSITY POLYETHYLENE

PHYSICAL PROPERTIES /SPECIFICATIONS:

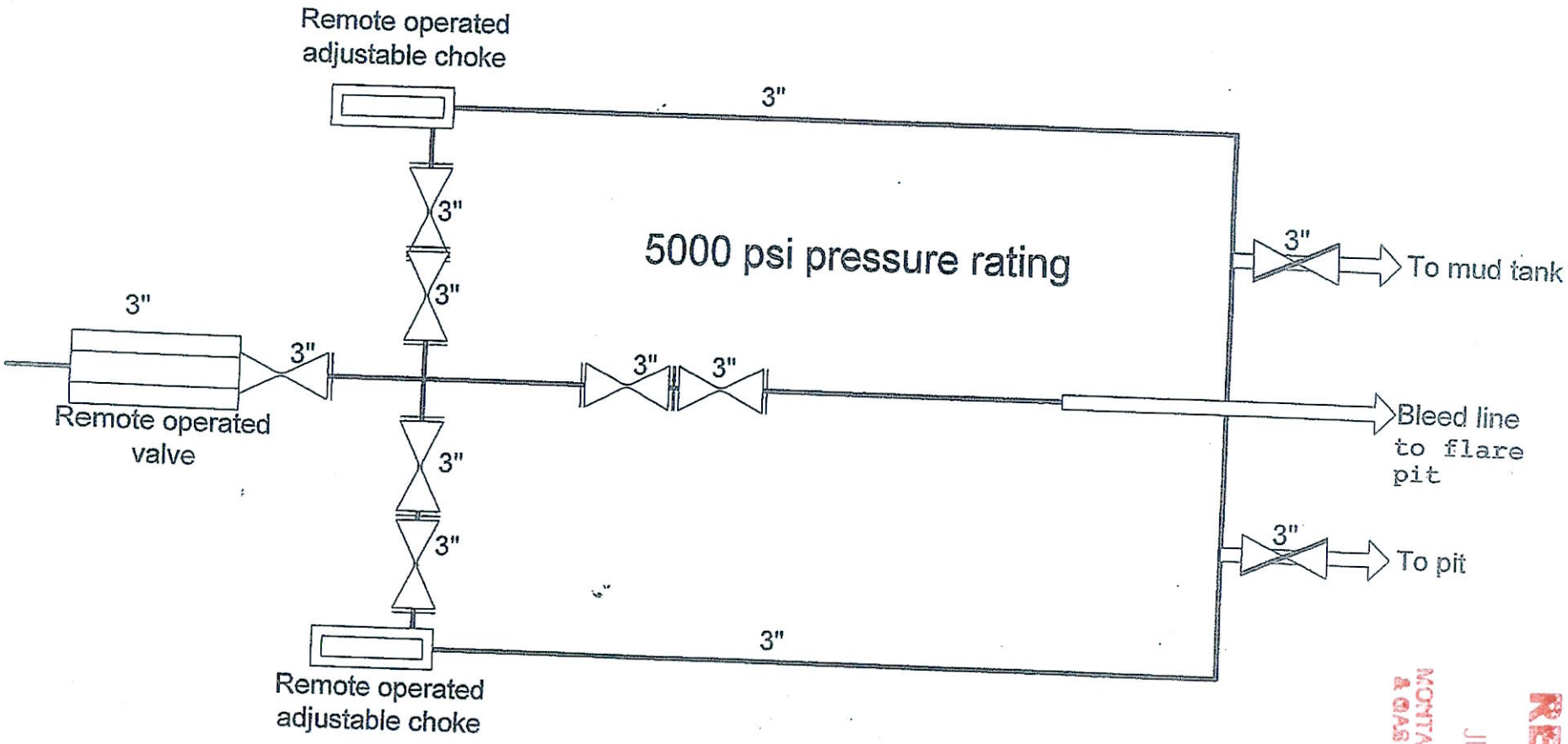
CONSTRUCTION:	12xD6 Count per square inch Warp 950 Danier @ 50 Fill 1900 Danier @ 100
FABRIC GRADES:	Industrial, Carbon Black
STANDARD COATING COLORS:	Black
STANDARD COATING THICKNESS:	1.5 mils +/- .15 mil each side LDPE
TOTAL THICKNESS:	12 mils +/- .5 mil
NOMINAL WEIGHT:	5.3 Oz/square yard
NOMINAL TENSILE STRENGTH:	160 lbs. W x 140 lbs. Fill ASTM 1682-64 (Grab)
TEAR STRENGTH:	46 lbs W x 49 lbs Fill ASTM 2261-71 (Tongue)
MULLEN BURST STRENGTH:	325 PSI ASTM D751-73
HYDROSTATIC RESISTANCE:	125 PSI ASTM D1682-63
FLEX ABRASION:	5000 + cycles W 5000 + cycles Fill ASTM D1175-71
PUNCTURE RESISTANCE:	40 Pounds FTMS 101B method 2065
IDENTIFICATION:	Printed in White Ink "12 mil" on 36 inch repeat

Continental Resources, Inc.

BOP STACK



Continental Resources, Inc
Choke Manifold Diagram



P-0020906

FORM NO. 2 R7/99

ARM 36.22.307, 601, 605 1003, 1004, 1011, 1013, 1103, 1222, 1240, 1301, 1306, 1309, and 1417

RECEIVED
OCT 15 2008
MONTANA BOARD OF OIL & GAS CONS. BILLINGS

Submit In Quadruplicate To:

MONTANA BOARD OF OIL AND GAS CONSERVATION
2535 ST. JOHNS AVENUE
BILLINGS, MONTANA 59102

SUNDRY NOTICES AND REPORT OF WELLS

Operator **Continental Resources, Inc**

Address **P.O. Box 1032**

City **Enid** State **OK** Zip Code **73703**

Telephone Number (**580**) **233-8955** Fax Number (**580**) **548-5293**

Lease Name: **Alice**

Lease Type (Private/State/Federal): **Private**

Well Number: **3-21H**

Unit Agreement Name:

Field Name or Wildcat: ~~Elm Coulee~~ Wildcat

Section, Township, and Range: **21 T23N R56E**

County: **Richland**

Location of well (1/4-1/4 section and footage measurements):
NENW 21 T23N R56E, 400 FNL&1700FWL

PBHL: 660 FSL/1700 FWL SESW Sec 28

If directionally or horizontally drilled, show both surface and bottom hole locations

API Number:
25 ■ **083** ■ **22766** ■
State County Well

Well Type (oil, gas, injection, other): **Oil**

Indicate below with an X the nature of this notice, report, or other data:

Notice of Intention to Change plans	☐	Subsequent Report of Mechanical Integrity Test	☐
Notice of Intention to Run Mechanical Integrity Test	☐	Subsequent Report of Stimulation or Chemical Treatment	☐
Notice of Intention to Stimulate or to Chemically Treat	☐	Subsequent Report of Perforation or Cementing	☐
Notice of Intention to Perforate or to Cement	☐	Subsequent Report of Well Abandonment	☐
Notice of Intention to Abandon Well	☐	Subsequent Report of Pulled or Altered Casing	☐
Notice of Intention to Pull or Alter Casing	☐	Subsequent Report of Drilling Waste Disposal	☐
Notice of Intention to Change Well Status	☐	Subsequent Report of Production Waste Disposal	☐
Supplemental Well History	☐	Subsequent Report of Change in Well Status	☐
Other (specify) **Liner Repair**	☐	Subsequent Report of Gas Analysis (ARM 36.22.1222)	☐
	☐		☐

Describe Proposed or Completed Operations:

Describe planned or completed work in detail. Attach maps, well-bore configuration diagrams, analyses, or other information as necessary. Indicate the intended starting date for proposed operations or the completion date for completed operations.

Continental Resources would like to repair the drilling pit liner. We will be digging a pit that is approximately 175'x55'x15', lining the new pit with 16mil liner, and transfering the contents of the pit into the new pit. Make needed repairs. Recover pits at later date.

BOARD USE ONLY

Approved OCT 16 2008
Date

Steven P. Sasse Sr. CHIEF FIELD INSPECTOR
Name Title

The undersigned hereby certifies that the information contained on this application is true and correct:

10/6/08 Michael P Swift
Date Signed (Agent)

Michael P. Swift, CEP-IT
Print Name & Title

P-0020907

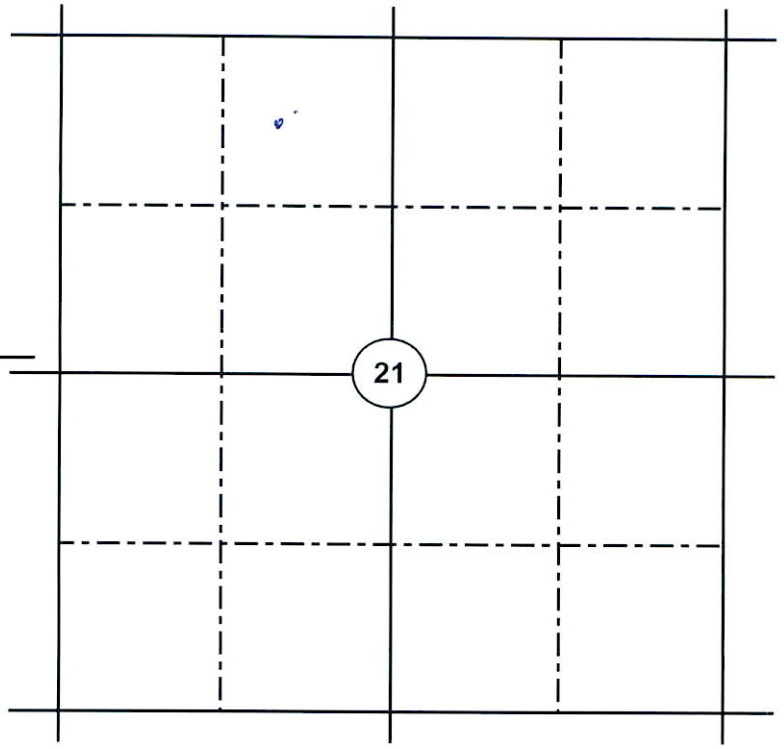
SUPPLEMENTAL INFORMATION

NOTE: Additional information or attachments may be required by Rule or by special request.

Plot the location of the well or site that is the subject of this notice or report.

Range **56E**

Township **23**



BOARD USE ONLY	CONDITIONS OF APPROVAL

The operator must comply with the following condition(s) of approval:

Contact BOGC Field Inspector, Ron Prevost to inspect pit prior to liner being set. Contact number 406-433-2098.

Failure to comply with the conditions of approval may void this permit.

Montana Board of Oil and Gas Conservation
Environmental Assessment

Operator: Continental Resources, Inc.
Well Name/Number: Alice 3-21H
Location: NE NW Section 21 T23N R56E
County: Richland **, MT; Field (or Wildcat)** W/C (Bakken Horizontal)

Air Quality

(possible concerns)
Long drilling time: No, 30 to 40 days drilling time.
Unusually deep drilling (high horsepower rig): No, triple derrick drilling rig to drill a 19,220'MD TVD10,255' Bakken Formation single lateral horizontal development well.
Possible H2S gas production: Slight
In/near Class I air quality area: No
Air quality permit for flaring/venting (if productive): Yes, DEQ air quality permit required under 75-2-211.

Mitigation:
X Air quality permit (AQB review)
__ Gas plants/pipelines available for sour gas
__ Special equipment/procedures requirements
__ Other:
Comments: No special concerns – using triple rig to drill 19,220'MD TVD10,255' single horizontal lateral.

Water Quality

(possible concerns)
Salt/oil based mud: Yes, freshwater and freshwater mud system on surface hole and oil based invert mud system on the mainhole and saltwater for the horizontal lateral.
High water table: No.
Surface drainage leads to live water: No, closest drainage is an unnamed ephemeral tributary drainage to Three Buttes Creek another ephemeral drainage. Within this drainage are stock ponds.
Water well contamination: No, closest stockwater wells are about 3/8 of a mile to the southwest of this location. Depth of wells are 75' or less. Surface casing will be drilled with freshwater and freshwater muds. Surface casing will be set and cemented to surface from 1790'.
Porous/permeable soils: No, sandy clay soils.
Class I stream drainage: No

Mitigation:
X Lined reserve pit
X Adequate surface casing
__ Berms/dykes, re-routed drainage
__ Closed mud system
__ Off-site disposal of solids/liquids (in approved facility)
__ Other:
Comments: 1790' of surface casing cemented to surface adequate to protect all freshwater zones.

Soils/Vegetation/Land Use

(possible concerns)
Steam crossings: No, stream crossing.
High erosion potential: Yes, moderate cut, up to 18.4' and moderate fill, up to 14.3', required.
Loss of soil productivity: No, location will be restored after drilling, if nonproductive. If productive unused portion of drillsite will be reclaimed.
Unusually large wellsite: No, 500'X270' location size required.
Damage to improvements: Slight
Conflict with existing land use/values: Slight

Mitigation
__ Avoid improvements (topographic tolerance)
__ Exception location requested
_X_ Stockpile topsoil
__ Stream Crossing Permit (other agency review)
_X_ Reclaim unused part of wellsite if productive
__ Special construction methods to enhance reclamation
__ Other _____

Comments: Access will be over county road, #334. An access from existing county road into location, about 4086' of new access will be built. Drilling fluids will be recycled and/or hauled to a commercial Class II disposal. Cuttings and mud solids will be buried in the lined reserve pit after allowing pit to dry. No special concerns

Health Hazards/Noise

(possible concerns)
Proximity to public facilities/residences Residences about 3/8 of a mile to the southwest of this location. The town of Lambert is about 5 miles to the southwest.
Possibility of H2S: Slight
Size of rig/length of drilling time: Triple drilling rig/short 30 to 40 days drilling time

Mitigation:
_X_ Proper BOP equipment
__ Topographic sound barriers
__ H2S contingency and/or evacuation plan
__ Special equipment/procedures requirements
__ Other:_____

Comments: Sufficient surface casing and working BOP should mitigate any H2S concerns.

Wildlife/recreation

(possible concerns)
Proximity to sensitive wildlife areas (DFWP identified): Fox Lake State Game Management Area about 6 miles to the southwest of this location..
Proximity to recreation sites: None identified
Creation of new access to wildlife habitat: No
Conflict with game range/refuge management: No
Threatened or endangered Species: None identified.

Mitigation:
__ Avoidance (topographic tolerance/exception)

__ Other agency review (DFWP, federal agencies, DSL)
__ Screening/fencing of pits, drillsite
__ Other:_____
Comments: The drilling of this well should have no effect on the Fox Lake Game Management Area. Surface lands are private at this location. No concerns

Historical/Cultural/Paleontological

(possible concerns)
Proximity to known sites None identified
Mitigation
__ avoidance (topographic tolerance, location exception)
__ other agency review (SHPO, DSL, federal agencies)
__ Other:_____
Comments: On private lands. No concerns.

Social/Economic

(possible concerns)
__ Substantial effect on tax base
__ Create demand for new governmental services
__ Population increase or relocation
Comments: On private lands. No concerns.

Remarks or Special Concerns for this site

Summary: Evaluation of Impacts and Cumulative effects

No significant long term impacts expected, some short term surface impacts will occur, but will mitigate in time.

I conclude that the approval of the subject Notice of Intent to Drill (does/**does not**) constitute a major action of state government significantly affecting the quality of the human environment, and (does/**does not**) require the preparation of an environmental impact statement.

Prepared by (BOGC): Steven Sasaki
(title:) Chief Field Inspector
Date: June 23, 2008

Other Persons Contacted:

Montana Bureau of Mines and Geology, GWIC website

(Name and Agency)

Water wells in Richland County

(subject discussed)

June 23, 2008

(date)

If location was inspected before permit approval:
Inspection date: _____
Inspector: _____
Others present during inspection: _____

AFFIDAVIT OF PUBLICATION
STATE OF MONTANA,

County of Lewis & Clark,

Beverly Allison

Being duly sworn, deposes and says:

That she is the principal clerk of the Independent Record a newspaper of general circulation published daily in the City of Helena, in the County of Lewis & Clark, State of Montana, and has charge of the advertisement thereof:

That the Oil & Gas

a true copy of which is hereto annexed, was published in said newspaper on the following dates: viz.:

June 9, 2008

making in all 1 publication(s).

Beverly G Allison

Subscribed and sworn to before me this 9 day of June, 2008.

Rose Marie Farr

NOTARY PUBLIC for the State of Montana
Printed Name: Rose Marie Farr
Residing at Helena, Montana
My commission expires 8-15-2010

(NOTARIAL SEAL)

BEFORE THE BOARD OF OIL AND GAS CONSERVATION OF THE STATE OF MONTANA
NOTICE OF INTENTION TO APPLY FOR PERMIT TO DRILL AN OIL AND GAS WELL

In the Matter of the Application of
CONTINENTAL RESOURCES, INC.
for a Permit to Drill a horizontal oil & gas well.

1. Name and address of Applicant:
Continental Resources, Inc.
P.O. Box 1032
Enid, Oklahoma 73702
(580) 233-8955 fax (580) 548-5293

2. Well Name and Legal Description:
Alice 3-21H
Surface Hole Location:
400' FNL & 1700' FWL, Sec 21-23N-56E
Horizontal Intercept #1:
1178' FSL & 1700' FWL, Sec 21-23N-56E
Horizontal Terminus #1:
660' FSL & 1700; FWL, Sec 28-23N-56E
County: Richland

3. Proposed Total Depth:
(1) 10,255' TVD, 20,474' MD

Notice is hereby given that an application for permit to drill an oil and gas well at the surface location set forth above to the depth as stated will be filed with the Montana Board of Oil and Gas Conservation. Pursuant to Rules 36.22.601 and 36.22.604, Administrative Rules of Montana, an interested party may demand an opportunity to be heard by the Montana Board of Oil and Gas Conservation concerning the application. SUCH DEMAND FOR HEARING MUST BE RECEIVED BY THE MONTANA BOARD OF OIL AND GAS CONSERVATION AT THE ADDRESS SET FORTH BELOW NO LATER THAN TEN (10) DAYS AFTER THE DATE OF PUBLICATION OF THIS NOTICE, OR THE APPLICATION WILL BE ACTED UPON BY THE BOARD'S PETROLEUM ENGINEER WITHOUT HEARING. A DEMAND MUST: (1) SET FORTH THE NAME, ADDRESS AND TELEPHONE NUMBER OF EACH INTERESTED PARTY, THEIR OWNERSHIP INTEREST IN THE LANDS SURROUNDING THE PROPOSED WELL, AND THE REASONS WHY A HEARING IS SOUGHT (2) BE SERVED UPON THE APPLICANT BY COPY MAILED OR FAX TRANSMITTED TO THE ADDRESS SET FORTH ABOVE.

Montana Board of Oil and Gas Conservation
2535 St. Johns Avenue
Billings, Montana 59102
Fax Number: (406) 655-6015

June 9, 2008

P-0020913

AFFIDAVIT OF PUBLICATION

Debbie Crossland, being duly sworn says that she is the clerk for the Sidney Herald, a corporation, a newspaper of general circulation, published bi-weekly at Sidney, Richland County, Montana and that the notice here to attached and entitled:

#3504

Continental Resources
Box 1032
Enid, OK 73702

has been published in the said newspaper

Sidney Herald

1 times, as follows. The said notice was published in said paper
on June 8, 2008
it was also published in said paper
on _____, 2008
it was also published in said paper
on _____, 2008
it was also published in said paper
on _____, 2008

Debbie Crossland
Debbie Crossland

State of: **Montana**
County of: **Richland**
Subscribed and sworn to before me
This 23 day of June, 2008.

Libby Berndt
Libby Berndt
Notary Public for the State of Montana residing at Sidney, Montana. My commission expires
July 5, 2010
The Sidney Herald's federal ID number is 86-0497096

NOTICE
BEFORE THE BOARD OF OIL AND GAS CONSERVATION OF THE STATE OF MONTAN A NOTICE OF INTENTION TO APPLY FOR PERMIT TO DRILL AN OIL AND GAS WELL

In the Matter of the Application of CONTINENTAL RESOURCES, INC. for a Permit to Drill a horizontal oil and gas well.

1. Name and Address of Applicant: Continental Resources, Inc., P.O. BOX 1032, Enid, Oklahoma 73702, 580-233-8955, fax 580-548-5293.

2. Well Name and Legal Description:
Alice 3-21H
Surface Hole Location: 400' FNL & 1700' FWL, Sec 21-23N-56E
Horizontal Intercept #1: 1178' FSL & 1700' FWL, Sec 21-23N-56E
Horizontal Terminus#1: 660' FSL & 1700' FWL, Sec 28-23N-56E
County: Richland

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Montana Board of Oil and Gas Conservation, 2535 St. John's Avenue, Billings, Montana 59102, FAX Number: (406) 655-6015.

(Publish June 8, 2008)

SPUD INFORMATION

WELL NAME: Alice 3-21H

API # : 083-22766

LOCATION: 23N-56E-21: NENW
(Twp-Rge-Sec: ¼ ¼)

SPUD TIME: 2pm

DATE: 6-30-08

DRILLING COMPANY: Pioneer

RIG # : 42

CALLER'S NAME: John Walsh

COMPANY NAME: CR

OTHER:

Schlumberger

Cementing Service Report

Customer	Job Number
CONTINENTAL RESOURCES INC	2206849246

Well	Location (legal)	Schlumberger Location	Job Start
Alice 3-21H	Sec.21, T23N-R56E	Williston, ND	2008-Jul-02

Field	Formation Name/Type	Deviation	Bit Size	Well MD	Well TVD
	Surface	°	13.5 in	1,800 ft	1,800 ft

County	State/Province	BHP	BHST	BHCT	Pore Press. Gradient
Richland	Montana	psi	110 °F	°F	psi/ft

Well Master: 0631035187	API / UWI:

Rig Name	Drilled For	Service Via
PIONEER # 42	Oil & Gas	

Offshore Zone	Well Class	Well Type
	New	Exploration

Drilling Fluid Type	Max. Density	Plastic Vi: cp
	lb/gal	

Service Line	Job Type
Cementing	Cem Surface Casing

Max. Allowed Tubing Pressure	Max. Allowed Ann. Pressure	WellHead Connection
1500 psi	psi	Single cement hea

Service Instructions

Cement 1,800 ft 9 5/8 Surface Casing
330 sks Class C Lead
200 sks Class C Tail

Casing/Liner

Depth, ft	Size, in	Weight, lb/ft	Grade	Thread
1813	9.63	36	K55	8RD

Tubing/Drill Pipe

Depth,	Size, in	Weight, lb/ft	Grade	Thread

Perforations/Open Hole

Top, ft	Bottom, ft	spf	No. of Shots	Total Interval
				ft
				Diameter
				in

Treat Down	Displacement	Packer Type	Packer Depth
Casing	136 bbl		ft

Tubing Vol.	Casing Vol.	Annular Vol.	OpenHole Vol
bbl	139 bbl	158 bbl	298 bbl

Casing/Tubing Secured ☑ 1 Hole Volume Circulated prior to Cementing ☑

Lift Pressure: 450 psi

Pipe Rotated ☐ Pipe Reciprocated ☐

No. Centralizers: Top Plugs: 1 Bottom Plugs:

Cement Head Type: Single

Job Scheduled For: Arrived on Location: 2008-Jul-01 23:00 Leave Location: 2008-Jul-02 7:00

Casing Tools		Squeeze Job	
Shoe Type:	Guide	Squeeze Type	
Shoe Depth:	1800 ft	Tool Type:	
Stage Tool Type:		Tool Depth:	ft
Stage Tool Depth:	ft	Tail Pipe Size:	in
Collar Type:	Float	Tail Pipe Depth:	ft
Collar Depth:	1758 ft	Sqz Total Vol:	bbl

Date	Time	Treating Pressure	Flow Rate	Density	Volume	0	0	0	Message
	24 hr clock	psi	bbl/min	lb/gal	bbl	0	0	0	
2008-Jul-02	4:28	3624	0.0	8.32	0.0	0	0	0	
2008-Jul-02	4:28								Pressure Test Lines
2008-Jul-02	4:28	3620	0.1	8.32	0.0	0	0	0	
2008-Jul-02	4:31								Start Pumping Spacer
2008-Jul-02	4:31	34	0.0	8.32	0.0	0	0	0	
2008-Jul-02	4:31	34	0.0	8.32	0.0	0	0	0	
2008-Jul-02	4:32	34	0.0	8.32	0.0	0	0	0	
2008-Jul-02	4:32	33	0.0	8.32	0.0	0	0	0	
2008-Jul-02	4:32	72	2.5	8.32	0.3	0	0	0	
2008-Jul-02	4:33	214	5.6	8.31	1.7	0	0	0	
2008-Jul-02	4:33	223	5.8	8.32	3.5	0	0	0	
2008-Jul-02	4:33	213	5.7	8.32	5.4	0	0	0	
2008-Jul-02	4:34	205	5.6	8.32	7.3	0	0	0	
2008-Jul-02	4:34	213	5.8	8.38	9.2	0	0	0	
2008-Jul-02	4:34	214	5.8	9.10	10.9	0	0	0	
2008-Jul-02	4:34								Start Mixing Lead Slurry
2008-Jul-02	4:34	219	5.7	9.26	11.1	0	0	0	
2008-Jul-02	4:35	237	5.6	10.03	13.0	0	0	0	
2008-Jul-02	4:35	253	5.7	10.57	15.0	0	0	0	
2008-Jul-02	4:35	273	5.9	10.95	16.9	0	0	0	
2008-Jul-02	4:36	261	5.9	11.11	18.9	0	0	0	
2008-Jul-02	4:36	299	6.4	11.16	21.0	0	0	0	

Well	Field	Service Date	Customer	Job Number
Alice #3-21H		08184-Jul-02	CONTINENTAL RESOURCES INC	2206849246

Date	Time	Treating Pressure	Flow Rate	Density	Volume	0	0	0	Message
	24 hr clock	psi	bbl/min	lb/gal	bbl	0	0	0	
2008-Jul-02	4:36	299	6.3	11.15	23.1	0	0	0	
2008-Jul-02	4:37	292	6.4	11.31	25.3	0	0	0	
2008-Jul-02	4:37	293	6.4	11.44	27.4	0	0	0	
2008-Jul-02	4:37	289	6.6	11.36	29.5	0	0	0	
2008-Jul-02	4:38	292	6.6	11.17	31.7	0	0	0	
2008-Jul-02	4:38	292	6.5	11.24	33.8	0	0	0	
2008-Jul-02	4:38	277	6.3	11.16	36.0	0	0	0	
2008-Jul-02	4:39	265	6.4	11.09	38.1	0	0	0	
2008-Jul-02	4:39	267	6.3	11.16	40.3	0	0	0	
2008-Jul-02	4:39	273	6.6	11.15	42.4	0	0	0	
2008-Jul-02	4:40	271	6.5	11.18	44.5	0	0	0	
2008-Jul-02	4:40	269	6.2	11.16	46.7	0	0	0	
2008-Jul-02	4:40	263	6.3	11.18	48.8	0	0	0	
2008-Jul-02	4:41	264	6.3	11.11	51.0	0	0	0	
2008-Jul-02	4:41	255	6.3	11.21	53.1	0	0	0	
2008-Jul-02	4:41	253	6.5	11.16	55.2	0	0	0	
2008-Jul-02	4:42	245	6.3	11.16	57.4	0	0	0	
2008-Jul-02	4:42	245	6.4	11.17	59.5	0	0	0	
2008-Jul-02	4:42	247	6.6	11.20	61.7	0	0	0	
2008-Jul-02	4:43	240	6.4	11.19	63.8	0	0	0	
2008-Jul-02	4:43	243	6.5	11.19	65.9	0	0	0	
2008-Jul-02	4:43	255	6.3	11.18	68.1	0	0	0	
2008-Jul-02	4:44	239	6.4	11.15	70.2	0	0	0	
2008-Jul-02	4:44	241	6.3	11.20	72.4	0	0	0	
2008-Jul-02	4:44	245	6.4	11.20	74.5	0	0	0	
2008-Jul-02	4:45	245	6.6	11.16	76.6	0	0	0	
2008-Jul-02	4:45	247	6.5	11.19	78.8	0	0	0	
2008-Jul-02	4:45	250	6.3	11.21	80.9	0	0	0	
2008-Jul-02	4:46	244	6.4	11.16	83.0	0	0	0	
2008-Jul-02	4:46	246	6.3	11.20	85.2	0	0	0	
2008-Jul-02	4:46	255	6.5	11.21	87.3	0	0	0	
2008-Jul-02	4:47	255	6.4	11.18	89.4	0	0	0	
2008-Jul-02	4:47	253	6.3	11.19	91.6	0	0	0	
2008-Jul-02	4:47	251	6.6	11.18	93.7	0	0	0	
2008-Jul-02	4:48	261	6.5	11.22	95.9	0	0	0	
2008-Jul-02	4:48	254	6.6	11.20	98.0	0	0	0	
2008-Jul-02	4:48	251	6.5	11.21	100.2	0	0	0	
2008-Jul-02	4:49	252	6.4	11.11	102.3	0	0	0	
2008-Jul-02	4:49	254	6.6	11.20	104.5	0	0	0	
2008-Jul-02	4:49	254	6.3	11.19	106.6	0	0	0	
2008-Jul-02	4:50	250	6.5	11.21	108.8	0	0	0	
2008-Jul-02	4:50	254	6.5	11.20	110.9	0	0	0	
2008-Jul-02	4:50	256	6.3	11.21	113.1	0	0	0	
2008-Jul-02	4:51	251	6.4	11.21	115.2	0	0	0	
2008-Jul-02	4:51	248	6.4	11.20	117.4	0	0	0	
2008-Jul-02	4:51	256	6.5	11.13	119.5	0	0	0	
2008-Jul-02	4:52	258	6.6	11.20	121.7	0	0	0	
2008-Jul-02	4:52	253	6.6	11.20	123.8	0	0	0	
2008-Jul-02	4:52	247	6.4	11.18	126.0	0	0	0	
2008-Jul-02	4:53	251	6.4	11.20	128.1	0	0	0	
2008-Jul-02	4:53	247	6.4	11.19	130.3	0	0	0	
2008-Jul-02	4:53	253	6.5	11.18	132.4	0	0	0	
2008-Jul-02	4:54	247	6.4	11.18	134.6	0	0	0	
2008-Jul-02	4:54	251	6.4	11.20	136.7	0	0	0	

Well	Field	Service Date	Customer	Job Number
Alice #3-21H		08184-Jul-02	CONTINENTAL RESOURCES INC	2206849246

Date	Time	Treating Pressure	Flow Rate	Density	Volume	0	0	0	Message
	24 hr clock	psi	bbl/min	lb/gal	bbl	0	0	0	
2008-Jul-02	4:54	251	6.5	11.19	138.9	0	0	0	
2008-Jul-02	4:55	243	6.7	11.18	141.0	0	0	0	
2008-Jul-02	4:55	253	6.5	11.19	143.2	0	0	0	
2008-Jul-02	4:55	251	6.5	11.19	145.3	0	0	0	
2008-Jul-02	4:56	246	6.4	11.19	147.5	0	0	0	
2008-Jul-02	4:56	252	6.3	11.18	149.6	0	0	0	
2008-Jul-02	4:56	254	6.5	11.19	151.7	0	0	0	
2008-Jul-02	4:57	251	6.4	11.20	153.9	0	0	0	
2008-Jul-02	4:57	248	6.5	11.21	156.1	0	0	0	
2008-Jul-02	4:57	254	6.4	11.20	158.2	0	0	0	
2008-Jul-02	4:58	247	6.5	11.18	160.4	0	0	0	
2008-Jul-02	4:58	249	6.6	11.18	162.5	0	0	0	
2008-Jul-02	4:58	253	6.6	11.19	164.7	0	0	0	
2008-Jul-02	4:59	256	6.4	11.19	166.8	0	0	0	
2008-Jul-02	4:59	254	6.5	11.21	169.0	0	0	0	
2008-Jul-02	4:59	246	6.4	11.20	171.1	0	0	0	
2008-Jul-02	5:00	253	6.5	11.20	173.3	0	0	0	
2008-Jul-02	5:00	255	6.4	11.20	175.4	0	0	0	
2008-Jul-02	5:00	249	6.2	11.19	177.5	0	0	0	
2008-Jul-02	5:01	256	6.3	11.19	179.7	0	0	0	
2008-Jul-02	5:01	251	6.7	11.19	181.8	0	0	0	
2008-Jul-02	5:01	246	6.6	11.17	184.0	0	0	0	
2008-Jul-02	5:02	259	6.4	11.19	186.1	0	0	0	
2008-Jul-02	5:02	252	6.5	11.20	188.3	0	0	0	
2008-Jul-02	5:02	254	6.4	11.18	190.4	0	0	0	
2008-Jul-02	5:03	261	6.2	11.19	192.6	0	0	0	
2008-Jul-02	5:03	257	6.3	11.23	194.7	0	0	0	
2008-Jul-02	5:03	211	5.8	11.15	196.8	0	0	0	
2008-Jul-02	5:04	134	4.5	11.35	198.4	0	0	0	
2008-Jul-02	5:04	140	4.4	12.12	199.8	0	0	0	
2008-Jul-02	5:04	154	4.3	12.50	200.7	0	0	0	
2008-Jul-02	5:04								Start Mixing Tail Slurry
2008-Jul-02	5:04	151	4.4	12.77	201.3	0	0	0	
2008-Jul-02	5:05	162	4.5	13.21	202.8	0	0	0	
2008-Jul-02	5:05	149	4.5	13.44	204.3	0	0	0	
2008-Jul-02	5:05	105	3.3	13.55	205.5	0	0	0	
2008-Jul-02	5:06	118	3.4	13.64	206.7	0	0	0	
2008-Jul-02	5:06	129	3.7	13.91	207.8	0	0	0	
2008-Jul-02	5:06	129	3.7	14.12	209.0	0	0	0	
2008-Jul-02	5:07	126	3.7	13.99	210.2	0	0	0	
2008-Jul-02	5:07	124	3.6	14.07	211.4	0	0	0	
2008-Jul-02	5:07	123	3.6	14.27	212.7	0	0	0	
2008-Jul-02	5:08	194	4.2	14.39	214.0	0	0	0	
2008-Jul-02	5:08	187	4.4	14.24	215.5	0	0	0	
2008-Jul-02	5:08	184	4.4	14.24	217.0	0	0	0	
2008-Jul-02	5:09	195	4.6	14.22	218.5	0	0	0	
2008-Jul-02	5:09	185	4.7	14.21	220.0	0	0	0	
2008-Jul-02	5:09	181	4.4	14.25	221.5	0	0	0	
2008-Jul-02	5:10	187	4.5	14.29	223.1	0	0	0	
2008-Jul-02	5:10	182	4.7	13.97	224.6	0	0	0	
2008-Jul-02	5:10	181	4.5	14.01	226.1	0	0	0	
2008-Jul-02	5:11	190	4.4	14.05	227.6	0	0	0	
2008-Jul-02	5:11	193	4.7	14.03	229.1	0	0	0	
2008-Jul-02	5:11	200	4.6	14.18	230.6	0	0	0	

Well	Field	Service Date	Customer	Job Number
Alice #3-21H		08184-Jul-02	CONTINENTAL RESOURCES INC	2206849246

Date	Time	Treating Pressure	Flow Rate	Density	Volume	0	0	0	Message
	24 hr clock	psi	bbl/min	lb/gal	bbl	0	0	0	
2008-Jul-02	5:12	199	4.5	14.34	232.2	0	0	0	
2008-Jul-02	5:12	198	4.6	14.29	233.7	0	0	0	
2008-Jul-02	5:12	201	4.5	14.28	235.2	0	0	0	
2008-Jul-02	5:13	216	4.5	14.43	236.8	0	0	0	
2008-Jul-02	5:13	197	4.7	14.37	238.3	0	0	0	
2008-Jul-02	5:13	227	5.2	14.15	240.0	0	0	0	
2008-Jul-02	5:14	224	5.2	14.14	241.6	0	0	0	
2008-Jul-02	5:14	226	5.1	14.27	243.3	0	0	0	
2008-Jul-02	5:14	222	4.9	14.32	245.0	0	0	0	
2008-Jul-02	5:15	227	4.9	14.28	246.7	0	0	0	
2008-Jul-02	5:15	231	5.1	14.26	248.4	0	0	0	
2008-Jul-02	5:15	219	4.8	14.06	250.1	0	0	0	
2008-Jul-02	5:16	229	5.4	14.05	251.7	0	0	0	
2008-Jul-02	5:16	130	3.9	14.04	253.3	0	0	0	
2008-Jul-02	5:16	55	1.6	12.64	254.2	0	0	0	
2008-Jul-02	5:17								Drop Top Plug
2008-Jul-02	5:17	27	0.1	11.58	254.3	0	0	0	
2008-Jul-02	5:17	27	0.2	11.60	254.3	0	0	0	
2008-Jul-02	5:17								Start Displacement
2008-Jul-02	5:17	26	0.1	11.80	254.4	0	0	0	
2008-Jul-02	5:17	25	0.1	11.37	254.4	0	0	0	
2008-Jul-02	5:18	24	0.1	11.21	254.4	0	0	0	
2008-Jul-02	5:18	24	0.1	10.99	254.5	0	0	0	
2008-Jul-02	5:18	24	0.1	10.85	254.5	0	0	0	
2008-Jul-02	5:19	24	0.1	10.75	254.5	0	0	0	
2008-Jul-02	5:19	25	0.0	10.66	254.6	0	0	0	
2008-Jul-02	5:19	25	0.2	10.54	254.6	0	0	0	
2008-Jul-02	5:20	25	0.1	10.55	254.6	0	0	0	
2008-Jul-02	5:20	25	0.0	10.49	254.6	0	0	0	
2008-Jul-02	5:20	25	0.2	10.45	254.7	0	0	0	
2008-Jul-02	5:21	25	0.0	10.42	254.7	0	0	0	
2008-Jul-02	5:21	25	0.2	10.41	254.7	0	0	0	
2008-Jul-02	5:21	94	2.8	10.12	255.0	0	0	0	
2008-Jul-02	5:22	232	6.4	9.06	256.8	0	0	0	
2008-Jul-02	5:22	213	6.5	8.73	258.9	0	0	0	
2008-Jul-02	5:22	197	6.5	8.58	261.1	0	0	0	
2008-Jul-02	5:23	190	6.5	8.49	263.2	0	0	0	
2008-Jul-02	5:23	181	6.5	8.41	265.4	0	0	0	
2008-Jul-02	5:23	177	6.6	8.37	267.5	0	0	0	
2008-Jul-02	5:24	174	6.5	8.36	269.7	0	0	0	
2008-Jul-02	5:24	174	6.4	8.34	271.8	0	0	0	
2008-Jul-02	5:24	176	6.4	8.32	274.0	0	0	0	
2008-Jul-02	5:25	172	6.4	8.31	276.1	0	0	0	
2008-Jul-02	5:25	171	6.4	8.30	278.3	0	0	0	
2008-Jul-02	5:25	171	6.5	8.30	280.4	0	0	0	
2008-Jul-02	5:26	171	6.5	8.27	282.6	0	0	0	
2008-Jul-02	5:26	178	6.3	8.29	284.7	0	0	0	
2008-Jul-02	5:26	182	6.1	8.29	286.8	0	0	0	
2008-Jul-02	5:27	184	6.5	8.31	289.0	0	0	0	
2008-Jul-02	5:27	199	6.5	8.31	291.1	0	0	0	
2008-Jul-02	5:27	197	6.5	8.24	293.3	0	0	0	
2008-Jul-02	5:28	202	6.3	8.31	295.4	0	0	0	
2008-Jul-02	5:28	218	6.4	8.31	297.5	0	0	0	
2008-Jul-02	5:28	222	6.5	8.31	299.7	0	0	0	

Well	Field	Service Date	Customer	Job Number
Alice #3-21H		08184-Jul-02	CONTINENTAL RESOURCES INC	2206849246

Date	Time	Treating Pressure	Flow Rate	Density	Volume	0	0	0	Message
	24 hr clock	psi	bbl/min	lb/gal	bbl	0	0	0	
2008-Jul-02	5:29	223	6.3	8.31	301.8	0	0	0	
2008-Jul-02	5:29	223	6.5	8.31	303.9	0	0	0	
2008-Jul-02	5:29	231	6.4	8.31	306.1	0	0	0	
2008-Jul-02	5:30	250	6.3	8.31	308.2	0	0	0	
2008-Jul-02	5:30	241	6.4	8.31	310.4	0	0	0	
2008-Jul-02	5:30	233	6.3	8.31	312.5	0	0	0	
2008-Jul-02	5:31	235	6.4	8.31	314.6	0	0	0	
2008-Jul-02	5:31	251	6.4	8.32	316.8	0	0	0	
2008-Jul-02	5:31	247	6.4	8.32	318.9	0	0	0	
2008-Jul-02	5:32	249	6.4	8.31	321.0	0	0	0	
2008-Jul-02	5:32	263	6.3	8.31	323.2	0	0	0	
2008-Jul-02	5:32	275	6.5	8.31	325.3	0	0	0	
2008-Jul-02	5:33	268	6.5	8.31	327.4	0	0	0	
2008-Jul-02	5:33	271	6.4	8.31	329.6	0	0	0	
2008-Jul-02	5:33	291	6.4	8.31	331.7	0	0	0	
2008-Jul-02	5:34	311	6.4	8.31	333.9	0	0	0	
2008-Jul-02	5:34	301	6.3	8.31	336.0	0	0	0	
2008-Jul-02	5:34	310	6.4	8.31	338.1	0	0	0	
2008-Jul-02	5:35	313	6.4	8.32	340.3	0	0	0	
2008-Jul-02	5:35	347	6.4	8.31	342.4	0	0	0	
2008-Jul-02	5:35	352	6.4	8.31	344.5	0	0	0	
2008-Jul-02	5:36	354	6.3	8.31	346.6	0	0	0	
2008-Jul-02	5:36	373	6.4	8.31	348.8	0	0	0	
2008-Jul-02	5:36	403	6.4	8.31	350.9	0	0	0	
2008-Jul-02	5:37	411	6.4	8.31	353.0	0	0	0	
2008-Jul-02	5:37	381	6.3	8.31	355.1	0	0	0	
2008-Jul-02	5:37	413	6.4	8.31	357.3	0	0	0	
2008-Jul-02	5:38	459	6.5	8.31	359.4	0	0	0	
2008-Jul-02	5:38	466	6.4	8.31	361.5	0	0	0	
2008-Jul-02	5:38	433	6.3	8.31	363.6	0	0	0	
2008-Jul-02	5:39	443	6.3	8.31	365.8	0	0	0	
2008-Jul-02	5:39	513	6.5	8.31	367.9	0	0	0	
2008-Jul-02	5:39								Lost Aquisition
2008-Jul-02	5:39	500	6.3	8.31	369.9	0	0	0	
2008-Jul-02	5:39	503	6.3	8.32	370.0	0	0	0	
2008-Jul-02	5:42								Regained Aquistion
2008-Jul-02	5:42	356	2.2	8.31	370.5	0	0	0	
2008-Jul-02	5:42	409	2.2	8.32	371.0	0	0	0	
2008-Jul-02	5:43	367	2.1	8.32	371.7	0	0	0	
2008-Jul-02	5:43	375	2.1	8.32	372.4	0	0	0	
2008-Jul-02	5:43	373	2.2	8.32	373.1	0	0	0	
2008-Jul-02	5:44	382	2.1	8.31	373.8	0	0	0	
2008-Jul-02	5:44	441	2.0	8.31	374.5	0	0	0	
2008-Jul-02	5:44	444	2.1	8.32	375.2	0	0	0	
2008-Jul-02	5:45	461	2.1	8.31	376.0	0	0	0	
2008-Jul-02	5:45	439	2.1	8.31	376.7	0	0	0	
2008-Jul-02	5:45	383	2.2	8.31	377.4	0	0	0	
2008-Jul-02	5:46	436	2.1	8.31	378.1	0	0	0	
2008-Jul-02	5:46	389	2.2	8.32	378.8	0	0	0	
2008-Jul-02	5:46	454	2.1	8.31	379.5	0	0	0	
2008-Jul-02	5:47	400	2.1	8.32	380.2	0	0	0	
2008-Jul-02	5:47	435	2.1	8.31	380.9	0	0	0	
2008-Jul-02	5:47	413	2.1	8.32	381.6	0	0	0	
2008-Jul-02	5:48	510	2.1	8.31	382.3	0	0	0	

Well	Field	Service Date	Customer	Job Number
Alice #3-21H		08184-Jul-02	CONTINENTAL RESOURCES INC	2206849246

Date	Time	Treating Pressure	Flow Rate	Density	Volume	0	0	0	Message
	24 hr clock	psi	bbl/min	lb/gal	bbl	0	0	0	
2008-Jul-02	5:48								136 bbls Total Disp
2008-Jul-02	5:48	1127	0.0	8.32	382.7	0	0	0	
2008-Jul-02	5:48	1123	0.1	8.32	382.7	0	0	0	
2008-Jul-02	5:48								Bump Top Plug
2008-Jul-02	5:48	1117	0.0	8.32	382.7	0	0	0	
2008-Jul-02	5:49	1114	0.0	8.32	382.7	0	0	0	
2008-Jul-02	5:49	1113	0.0	8.32	382.7	0	0	0	
2008-Jul-02	5:49	1112	0.0	8.32	382.7	0	0	0	
2008-Jul-02	5:50	1112	0.0	8.31	382.7	0	0	0	
2008-Jul-02	5:50	1112	0.0	8.32	382.7	0	0	0	
2008-Jul-02	5:50	1112	0.0	8.31	382.8	0	0	0	
2008-Jul-02	5:51	1112	0.0	8.31	382.8	0	0	0	
2008-Jul-02	5:51	1113	0.0	8.31	382.8	0	0	0	
2008-Jul-02	5:51								Bleed Off Pressure
2008-Jul-02	5:51	1042	0.0	8.31	382.8	0	0	0	
2008-Jul-02	5:51	448	0.0	8.31	382.8	0	0	0	
2008-Jul-02	5:52	12	0.0	8.31	382.8	0	0	0	
2008-Jul-02	5:52	13	0.0	8.32	382.8	0	0	0	
2008-Jul-02	5:52								60 bbls cement to Surface
2008-Jul-02	5:52								Float Not Holding
2008-Jul-02	5:52								Pressure Up On Casing
2008-Jul-02	5:52	13	0.1	8.32	382.8	0	0	0	
2008-Jul-02	5:55	7	0.0	8.32	382.8	0	0	0	
2008-Jul-02	5:56	8	0.0	8.32	382.9	0	0	0	
2008-Jul-02	5:56	9	0.0	8.32	382.9	0	0	0	
2008-Jul-02	5:56	828	2.5	8.32	383.4	0	0	0	
2008-Jul-02	5:57	1150	0.0	8.31	383.6	0	0	0	
2008-Jul-02	5:57	1144	0.0	8.31	383.6	0	0	0	
2008-Jul-02	5:57								Bleed Off Pressure
2008-Jul-02	5:57								Float Holding
2008-Jul-02	5:57	1141	0.0	8.31	383.6	0	0	0	
2008-Jul-02	5:57	1143	0.0	8.31	383.6	0	0	0	
2008-Jul-02	5:57	15	0.0	8.31	383.6	0	0	0	
2008-Jul-02	5:58	13	0.0	8.31	383.6	0	0	0	
2008-Jul-02	5:58	8	0.0	8.31	383.6	0	0	0	
2008-Jul-02	5:58								End Job
2008-Jul-02	5:58	7	0.0	8.31	383.6	0	0	0	
2008-Jul-02	5:58	7	0.0	8.31	383.6	0	0	0	
2008-Jul-02	5:59	7	0.0	8.31	383.7	0	0	0	
2008-Jul-02	5:59	7	0.0	8.31	383.7	0	0	0	

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Post Job Summary

Average Pump Rates, bpm

Slurry	N2	Mud	Maximum Rate
5			7

Volume of Fluid Injected, bbl

Total Slurry	Mud	Spacer	N2
242		10	

Treating Pressure Summary, psi

Maximum	Final	Average	Bump Plug to	Breakdown
1000		250	1000	

Breakdown Fluid

Volume	Density
bbl	lb/gal

Avg. N2 Percent	Designed Slurry Volume	Displacement	Mix Water Temp	Cement Circulated to Surface?	Volume
%	242 bbl	136 bbl	70 °F	☑	60 bbl
				☐ Washed Thru Perfs	To ft

Customer or Authorized Representative	Schlumberger Supervisor		
John, Walsh,	Didier, Dominic	CirculationLost	☑ Job Completed

Schlumberger

Cementing Service Report

Customer		Job Number
CONTINENTAL RESOURCES INC		2206849247

Well	Location (legal)	Schlumberger Location	Job Start
Alice 3-21H	Sec.21, T23N-R56E	Williston, ND	2008-Jul-20

Field	Formation Name/Type	Deviation	Bit Size	Well MD	Well TVD
	Bakken	°	8.75 in	10,493 ft	ft

County	State/Province	BHP	BHST	BHCT	Pore Press. Gradient
Richland	Montana	psi	235 °F	°F	psi/ft

Well Master: 0631035187 API / UWI:

Rig Name	Drilled For	Service Via
Pioneer # 42	Oil & Gas	Land

Offshore Zone	Well Class	Well Type
	New	Exploration

Drilling Fluid Type	Max. Density	Plastic Vis
	lb/gal	cp

Service Line	Job Type
Cementing	Cem Interm Casing

Max. Allowed Tubing Pressure	Max. Allowed Ann. Pressure	WellHead Connection
2400 psi	psi	Single cement hea

Service Instructions

Bakken
Cement 10,287 ft 7" Casing
365 sks Lead. Coverage 4,831 ft-7,722 ft
370 sks Tail Coverage 7,722 ft-10,287 ft

Casing/Liner

Depth, ft	Size, in	Weight, lb/ft	Grade	Thread
10493	7			

Tubing/Drill Pipe

Depth,	Size, in	Weight, lb/ft	Grade	Thread

Perforations/Open Hole

Top, ft	Bottom, ft	spf	No. of Shots	Total Interval
				ft
				Diameter
				in

Treat Down	Displacement	Packer Type	Packer Depth
Casing	390 bbl		ft

Tubing Vol.	Casing Vol.	Annular Vol.	OpenHole Vol
bbl	393 bbl	281 bbl	bbl

Casing/Tubing Secured ☑ 1 Hole Volume Circulated prior to Cementing ☑

Lift Pressure: 1900 psi

Pipe Rotated ☐ Pipe Reciprocated ☐

No. Centralizers: Top Plugs: 1 Bottom Plugs:

Cement Head Type: Single

Job Scheduled For:	Arrived on Location:	Leave Location:
7/20/2008 7:00	2008-Jul-20 7:00	2008-Jul-20 13:30

Casing Tools

Shoe Type:	Guide
Shoe Depth:	10493 ft
Stage Tool Type:	
Stage Tool Depth:	ft
Collar Type:	Float
Collar Depth:	10408 ft

Squeeze Job

Squeeze Type	
Tool Type:	
Tool Depth:	ft
Tail Pipe Size:	in
Tail Pipe Depth:	ft
Sqz Total Vol:	bbl

Date	Time	Treating Pressure	Flow Rate	Density	Volume	CMT STG VOL	0	0	Message
	24 hr clock	psi	bbl/min	lb/gal	bbl	bbl	0	0	
2008-Jul-20	8:18	-4	0.0	8.38	0.0	0.0	0	0	
2008-Jul-20	8:56	212	0.0	8.37	0.0	0.0	0	0	
2008-Jul-20	8:57	5000	0.0	8.37	0.0	0.0	0	0	
2008-Jul-20	8:57								Pressure Test Lines 5000 PSI
2008-Jul-20	8:57								Start Salt water
2008-Jul-20	8:57	62	0.0	8.37	0.0	0.0	0	0	
2008-Jul-20	9:01	763	6.9	9.99	20.3	20.3	0	0	
2008-Jul-20	9:06	826	7.1	9.94	55.5	55.5	0	0	
2008-Jul-20	9:11	823	7.1	9.98	90.9	90.9	0	0	
2008-Jul-20	9:16	832	7.1	9.99	126.2	126.2	0	0	
2008-Jul-20	9:21	832	7.1	9.99	161.5	161.5	0	0	
2008-Jul-20	9:26	874	7.0	9.99	196.7	196.7	0	0	
2008-Jul-20	9:31	885	7.0	9.99	232.0	232.0	0	0	
2008-Jul-20	9:32	848	7.1	9.99	235.9	235.9	0	0	
2008-Jul-20	9:32								Good Circulation to Surface
2008-Jul-20	9:34								Start Pumping Wash
2008-Jul-20	9:34	860	7.0	9.07	250.9	0.5	0	0	
2008-Jul-20	9:36	495	3.5	8.38	264.4	14.0	0	0	
2008-Jul-20	9:37								Start Pumping Spacer
2008-Jul-20	9:37	768	5.6	8.37	271.0	0.3	0	0	
2008-Jul-20	9:41	798	5.6	9.40	291.4	20.7	0	0	
2008-Jul-20	9:42								Start Mixing Lead Slurry

Well	Field	Service Date	Customer	Job Number
Alice #3-21H		08202-Jul-20	CONTINENTAL RESOURCES INC	2206849247

Date	Time	Treating Pressure	Flow Rate	Density	Volume	CMT STG VOL	0	0	Message
	24 hr clock	psi	bbl/min	lb/gal	bbl	bbl	0	0	
2008-Jul-20	9:42	821	5.6	10.23	294.1	0.4	0	0	
2008-Jul-20	9:46	794	5.4	12.79	318.2	24.5	0	0	
2008-Jul-20	9:51	879	6.4	12.56	349.2	55.5	0	0	
2008-Jul-20	9:56	772	6.4	12.76	379.8	86.1	0	0	
2008-Jul-20	10:01	296	3.2	12.69	393.3	99.6	0	0	
2008-Jul-20	10:06	286	3.2	13.34	410.8	117.1	0	0	
2008-Jul-20	10:07								Start Mixing Tail Slurry
2008-Jul-20	10:07	307	3.2	14.19	414.2	0.3	0	0	
2008-Jul-20	10:08	517	4.9	14.84	416.9	2.9	0	0	
2008-Jul-20	10:08								Good Circulation to Surface
2008-Jul-20	10:11	287	4.2	15.59	431.1	17.2	0	0	
2008-Jul-20	10:16	373	5.7	15.57	457.2	43.2	0	0	
2008-Jul-20	10:21	216	4.3	15.64	483.1	69.2	0	0	
2008-Jul-20	10:26	272	5.0	15.41	508.3	94.4	0	0	
2008-Jul-20	10:29								Shutdown
2008-Jul-20	10:29	-15	0.8	12.79	518.8	104.9	0	0	
2008-Jul-20	10:29								Drop Top Plug
2008-Jul-20	10:29	-11	0.0	12.70	518.8	104.9	0	0	
2008-Jul-20	10:29								Start Displacement
2008-Jul-20	10:29	-13	0.0	12.79	518.8	0.0	0	0	
2008-Jul-20	10:31	-5	0.0	11.47	518.8	0.0	0	0	
2008-Jul-20	10:33	172	6.5	8.67	524.8	6.0	0	0	
2008-Jul-20	10:33								Good Circulation to Surface
2008-Jul-20	10:36	154	6.6	8.37	547.4	28.6	0	0	
2008-Jul-20	10:41	163	6.6	9.20	579.8	61.0	0	0	
2008-Jul-20	10:46	218	7.4	9.82	613.4	94.6	0	0	
2008-Jul-20	10:50								Good Circulation to Surface
2008-Jul-20	10:50	225	7.4	9.82	643.8	125.0	0	0	
2008-Jul-20	10:51	234	7.4	9.82	650.5	131.7	0	0	
2008-Jul-20	10:56	231	7.4	9.82	687.5	168.7	0	0	
2008-Jul-20	10:59								Rig turned returns to pit
2008-Jul-20	10:59	229	7.4	9.82	705.9	187.0	0	0	
2008-Jul-20	11:01	223	7.4	9.82	724.6	205.8	0	0	
2008-Jul-20	11:04	238	7.4	9.82	743.8	224.9	0	0	
2008-Jul-20	11:04								Good Circulation to Surface
2008-Jul-20	11:06	165	6.4	9.81	759.9	241.1	0	0	
2008-Jul-20	11:11								Good salt water to surface
2008-Jul-20	11:11	167	6.4	9.81	790.8	272.0	0	0	
2008-Jul-20	11:11	185	6.4	9.81	792.1	273.3	0	0	
2008-Jul-20	11:14								Caught Cement Plug
2008-Jul-20	11:14	394	6.3	9.81	812.5	293.6	0	0	
2008-Jul-20	11:16	566	6.4	9.81	824.1	305.3	0	0	
2008-Jul-20	11:17								Good Circulation to Surface
2008-Jul-20	11:17	670	6.3	9.81	827.8	309.0	0	0	
2008-Jul-20	11:21	1163	6.3	9.81	855.7	336.9	0	0	
2008-Jul-20	11:26	1513	4.9	9.81	883.9	365.1	0	0	
2008-Jul-20	11:30								Good Circulation to Surface
2008-Jul-20	11:30	1593	3.5	8.48	902.3	383.5	0	0	
2008-Jul-20	11:31	1659	3.4	8.47	905.0	386.2	0	0	
2008-Jul-20	11:36								Bump Top Plug
2008-Jul-20	11:36	2380	0.0	8.41	909.0	392.0	0	0	
2008-Jul-20	11:36	2178	0.0	8.41	909.0	392.0	0	0	
2008-Jul-20	11:36	2035	0.0	8.41	909.0	392.0	0	0	
2008-Jul-20	11:36								Bleed Off Pressure

Well	Field	Service Date	Customer	Job Number
Alice #3-21H		08202-Jul-20	CONTINENTAL RESOURCES INC	2206849247

Date	Time	Treating Pressure	Flow Rate	Density	Volume	CMT STG VOL	0	0	Message
	24 hr clock	psi	bbl/min	lb/gal	bbl	bbl	0	0	
2008-Jul-20	11:36	1952	0.0	8.41	909.0	392.0	0	0	
2008-Jul-20	11:36								Check floats
2008-Jul-20	11:37	929	0.0	8.41	909.0	392.0	0	0	
2008-Jul-20	11:37								Floats held
2008-Jul-20	11:37								Good returns through-out job
2008-Jul-20	11:37	393	0.0	8.41	909.0	392.0	0	0	
2008-Jul-20	11:37	-13	0.0	8.41	909.0	392.0	0	0	
2008-Jul-20	11:37								End Job

Post Job Summary

Average Pump Rates, bpm

Slurry	N2	Mud	Maximum Rate
5			7.5

Volume of Fluid Injected, bbl

Total Slurry	Mud	Spacer	N2
222		290	

Treating Pressure Summary, psi

Maximum	Final	Average	Bump Plug to	Breakdown
5000		600	2390	

Breakdown Fluid

Volume	Density
bbl	lb/gal

Avg. N2 Percent	Designed Slurry Volume	Displacement	Mix Water Temp
%	222 bbl	390 bbl	°F

☐ Cement Circulated to Surface? Volume bbl

☐ Washed Thru Perfs To ft

Customer or Authorized Representative	Schlumberger Supervisor		
Alfred, Bredahl	Hanson IV, Robert	☐ CirculationLost	☑ Job Completed

AFE # D07485

SERVICE ORDER AND DELIVERY RECEIPT

3

High Plains, Inc.

Dickinson, ND: (701) 483-06
Williston, ND: (701) 572-27
Gillette, WY: (307) 682-914
Baker, MT: (406) 778-35

TICKET NO: 23741

TERMS: NET 30 DAYS

(PO)

Remit to: P.O. Box 1483
Dickinson, ND 58602-1483

DATE 9-15-08

CUSTOMER Continental Resources Inc	CUSTOMER ORDER NO.
MAILING ADDRESS	WELL NAME Alice 3-21 H
	SECTION/TOWNSHIP/RANGE
CITY STATE ZIP	COUNTY Richland
CUSTOMER AGENT Jason Walters	STATE MT FIELD NAME

TO HIGH PLAINS INC.

CONDITIONS OF THIS CONTRACT

You are hereby requested to furnish the services and materials and equipment herein set forth upon the following terms and conditions, to-wit:

The undersigned as customer, agrees to pay you for the service and/or materials ordered hereunder at the office of **High Plains Incorporated**. Should any account not be paid within the term fixed ... the invoice, interest will be charged at the rate of eighteen (18) percent annum from the date of such invoice.

In the event you employ an attorney to enforce any claim of indebtedness against the undersigned customer, said customer agrees to pay all cost of collection and reasonable attorney's fees which in ... event shall be less than the sum of $75.00.

Because of the uncertain and unknown conditions and the hazards existing in connection with the rendering of your field service, and because of physical conditions existing in an oil well which are ... subject to your control, customer agrees that you do not guarantee the results of your service, and that you will not be held liable for injury to persons or property arising from any cause whatsoever in the performance of such filed service by you.

Should any of your instruments, tools or equipment be lost or destroyed in the rendition of your service, customer agrees to use all reasonable diligence and facilities available to recover the same ... customer agrees to reimburse you for the reasonable value of any instruments, tools, or other personal property that cannot be recovered within 60 days, or for the cost of repairing any damage to ... recovered.

Customer agrees that all depth measurements shall be made by it or its employees, and shall be supervised by customer or employees.

Customer certifies that it is the owner of the well on which the work herein ordered is to be done: or that it has the full right and authority to order such work done on such wells; and that the well in wh... the work is to be done by you is in proper and suitable condition for the performance of said work.

Customer further agrees that the terms and conditions herein set forth constitute the entire agreement and that no employee of your company is authorize...

	DESCRIPTION		DEPTH SERVICED FROM	DEPTH SERVICED TO	
	SERVICE CHARGE 9-15-08				
	PRESSURE CONTROL CHARGE 2600 PSI w/GIT				
1	Set Baker Frac Plugs	②	18594	17842	
2	Baker #10 Slow Set Power Charge			2 @	
3	Perforate 3⅛" Expendable	18520	18463	18406	
4	6 JSPF 36 Total Shots - 10 = 26	18350	18293	18236	
5	Perforate 3⅛" Expendable	17766	17712	17657	
6	6 JSPF 36 Total Shots - 10 = 26	17663	17549	17494	
7	Select Fire Subs			14 @	
8	20 Ton Crane				
9	5½" 5000# Lubricator + 1002 XO				
10	5½" 5000# Wireline BOPs				
11	Pump Down Charge			2 @	

JOB TIME SUMMARY	DAY	24 HOUR TIME		
ARRIVE LOCATION	9/15	0700	1 FLUID Water/Gel	ENGINEER Cooper
START OPERATION		O/A	2 FLUID LEVEL Pumping	SERVICEMEN Dvorak Winters 303
COMPLETE OPERATION			3 H.P.I. TO 18594	TRUCK NO. 111 DIST. Dickinson
START OPERATION			4 SIZE PIPE 4½/7"	I hereby acknowledge receipt of the service and/or material described ...
COMPLETE OPERATION		1800	5 PACKER AT 9726	CUSTOMER Continental Resources
RELEASED		1830	6 REFERENCE LOG Swell	BY Jason Walters 9/19/08
			O. Var Depth	PRINT AGENT'S NAME

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OCT 2 1 2008
MONTANA BOARD OF OIL & GAS CONS. BILLINGS

AFE#D07485

SERVICE ORDER AND DELIVERY RECEIPT 4

TICKET NO: 23742 ✓ (PD)

TERMS: NET 30 DAYS

High Plains, Inc.

Dickinson, ND: (701) 483-0679
Williston, ND: (701) 572-2766
Gillette, WY: (307) 682-9149
Baker, MT: (406) 778-3597

Remit to: P.O. Box 1483
Dickinson, ND 58602-1483

DATE 9-16-08

CUSTOMER Continental Resources Inc.	CUSTOMER ORDER NO.
MAILING ADDRESS	WELL NAME Alice 3-21 H
	SECTION/TOWNSHIP/RANGE
CITY STATE ZIP	COUNTY Richland
CUSTOMER AGENT Jason Walters	STATE Mt FIELD NAME

TO HIGH PLAINS INC. **CONDITIONS OF THIS CONTRACT**

You are hereby requested to furnish the services and materials and equipment herein set forth upon the following terms and conditions, to-wit:

The undersigned as customer, agrees to pay you for the service and/or materials ordered hereunder at the office of High Plains Incorporated. Should any account not be paid within the term fixed in the invoice, interest will be charged at the rate of eighteen (18) percent annum from the date of such invoice

In the event you employ an attorney to enforce any claim of indebtedness against the undersigned customer, said customer agrees to pay all cost of collection and reasonable attorney's fees which in no event, shall be less than the sum of $75.00.

Because of the uncertain and unknown conditions and the hazards existing in connection with the rendering of your field service, and because of physical conditions existing in an oil well which are not subject to your control, customer agrees that you do not guarantee the results of your service, and that you will not be held liable for injury to persons or property arising from any cause whatsoever in the performance of such filed service by you.

Should any of your instruments, tools or equipment be lost or destroyed in the rendition of your service, customer agrees to use all reasonable diligence and facilities available to recover the same and customer agrees to reimburse you for the reasonable value of any instruments, tools, or other personal property that cannot be recovered within 60 days, or for the cost of repairing any damage to items recovered.

Customer agrees that all depth measurements shall be made by it or its employees, and shall be supervised by customer or employees.

Customer certifies that it is the owner of the well on which the work herein ordered is to be done; or that it has the full right and authority to order such work done on such wells, and that the well in which the work is to be done by you is in proper and suitable condition for the performance of said work.

Customer further agrees that the terms and conditions herein set forth constitute the entire agreement and that no employee of your company is author

	DESCRIPTION		DEPTH SERVICED FROM	DEPTH SERVICED TO
	SERVICE CHARGE Set Baker Frac Plugs @ 17090		16350	15611
	PRESSURE CONTROL CHARGE 2680 PSI w/GIT			
1	Perforate 3⅛" Expendable	17024	16970	16915
2	6 JSPF 36 Shots - 10 = 26	16861	16806	16752
3	Perforate 3⅛" Expendable	16281	16227	16172
4	6 JSPF 36 Shots - 10 = 26	16118	16063	16009
5	Perforate 3⅛" Expendable	15538	15483	15427
6	6 JSPF 36 Shots - 10 = 26	15372	15317	15261
7	Select Fire subs 21 @ 280.00 Ea = 5880.00	Pump Down Charge 3@		
8	20 Ton Crane			
9	5½" 5000# Lubricator a 1002 XO			
10	5½" 5000# Wireline BOPs			
11				

JOB TIME SUMMARY	DAY	24 HOUR TIME		
ARRIVE LOCATION	9/16	0700	1 FLUID Water/Gel	ENGINEER Caceres
START OPERATION		O/A	2 FLUID LEVEL Pumping	SERVICEMEN Dvorak, Winters 303
COMPLETE OPERATION			3 H.P.I. T.D. 17090	TRUCK NO. 111 DIST. Dickinson
START OPERATION			4 SIZE PIPE 4½/7"	I hereby acknowledge receipt of the service and/or material described
COMPLETE OPERATION		1830	5 PACKER AT 9726	CUSTOMER Continental Resour
RELEASED		19:00	6 REFERENCE LOG Swell	BY Jason Walters 9/19/08
			D. K. Booth	PRINT AGENT'S NAME

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AFE # D07485

SERVICE ORDER AND DELIVERY RECEIPT

TICKET NO: 23743

TERMS: NET 30 DAYS

High Plains, Inc.

Dickinson, ND: (701) 483-06
Williston, ND: (701) 572-276
Gillette, WY: (307) 682-914
Baker, MT: (406) 778-355

Remit to: P.O. Box 1483
Dickinson, ND 58602-1483

DATE 9-17-08

CUSTOMER Continental Resources Inc	CUSTOMER ORDER NO.
MAILING ADDRESS	WELL NAME Alice 3-21H
	SECTION/TOWNSHIP/RANGE
CITY STATE ZIP	COUNTY Richland
CUSTOMER AGENT Jason Walters	STATE MT FIELD NAME

TO HIGH PLAINS INC.

CONDITIONS OF THIS CONTRACT

You are hereby requested to furnish the services and materials and equipment herein set forth upon the following terms and conditions, to-wit:

The undersigned as customer, agrees to pay you for the service and/or materials ordered hereunder at the office of High Plains Incorporated. Should any account not be paid within the term fixed by the invoice, interest will be charged at the rate of eighteen (18) percent annum from the date of such invoice.

In the event you employ an attorney to enforce any claim of indebtedness against the undersigned customer, said customer agrees to pay all cost of collection and reasonable attorney's fees which in no event shall be less than the sum of $75.00.

Because of the uncertain and unknown conditions and the hazards existing in connection with the rendering of your field service, and because of physical conditions existing in an oil well which are not subject to your control, customer agrees that you do not guarantee the results of your service, and that you will not be held liable for injury to persons or property arising from any cause whatsoever in the performance of such filed service by you.

Should any of your instruments, tools or equipment be lost or destroyed in the rendition of your service, customer agrees to use all reasonable diligence and facilities available to recover the same and customer agrees to reimburse you for the reasonable value of any instruments, tools, or other personal property that cannot be recovered within 60 days, or for the cost of repairing any damage to the same recovered.

Customer agrees that all depth measurements shall be made by it or its employees, and shall be supervised by customer or employees.

Customer certifies that it is the owner of the well on which the work herein ordered is to be done; or that it has the full right and authority to order such work done on such wells; and that the well in which the work is to be done by you is in proper and suitable condition for the performance of said work.

Customer further agrees that the terms and conditions herein set forth constitute the entire agreement and that no employee of your company is authorized to alter the same hereof.

	DESCRIPTION		DEPTH SERVICED FROM	DEPTH SERVICED TO
	SERVICE CHARGE Set Baker Frac Plugs @ 14846		14072	13310
	PRESSURE CONTROL CHARGE 3100 PSI W/GIT			
1	Perforate 3½" Expendable	14786	14726	14667
2	6 JSPF 36 Shots - 10 = 26	14607	14548	14488
3	Perforate 3½" Expendable	14014	13955	13897
4	6 JSPF 36 Shots - 10 = 26	13838	13779	13721
5	Perforate 3½" Expendable	13248	13191	13133
6	6 JSPF 36 Shots - 10 = 26	13076	13019	12962
7	Select Fire Subs 2@	/ Pump Down	Charge	3@
8	30 Ton Crane			
9	5½" 5000# Lubricator + 1002 XO			
10	5½" 5000# Wireline BOPs			
11	Crew Expense 3@ Day =	X 3	Days	

JOB TIME SUMMARY	DAY	24 HOUR TIME
ARRIVE LOCATION	9/17	0700
START OPERATION		0/A
COMPLETE OPERATION		
START OPERATION		
COMPLETE OPERATION		
RELEASED		1830

1. FLUID Water/Gel
2. FLUID LEVEL Pumping
3. H.P.I. TO 14846
4. SIZE PIPE 2½/7"
5. PACKER AT 9726
6. REFERENCE LOG Swell Packer Depth

ENGINEER Gaines
SERVICEMEN Dvorak, Winters
303
TRUCK NO. 111 DIST. Dickinson

I hereby acknowledge receipt of the service and/or material described
CUSTOMER Continental Resour
BY Jason Walte 9/19/08
PRINT AGENT'S NAME

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P-0020927

AFE #D07485

SERVICE ORDER AND DELIVERY RECEIPT

TICKET NO: 23875 ✓

TERMS: NET 30 DAYS

(PO) High Plains, Inc.

Dickinson, ND: (701) 483-0679
Williston, ND: (701) 572-2766
Gillette, WY: (307) 682-9149
Baker, MT: (406) 778-3597

Remit to: P.O. Box 1483
Dickinson, ND 58602-1483

DATE 9-18-08

CUSTOMER Continental Resources Inc	CUSTOMER ORDER NO.
MAILING ADDRESS	WELL NAME Alice 3-21H
	SECTION/TOWNSHIP/RANGE
CITY STATE ZIP	COUNTY Richland
CUSTOMER AGENT Jason Walters	STATE MT FIELD NAME

TO HIGH PLAINS INC.

CONDITIONS OF THIS CONTRACT

You are hereby requested to furnish the services and materials and equipment herein set forth upon the following terms and conditions, to-wit:

The undersigned as customer, agrees to pay you for the service and/or materials ordered hereunder at the office of **High Plains Incorporated.** Should any account not be paid within the term fixed on the invoice, interest will be charged at the rate of eighteen (18) percent annum from the date of such invoice.

In the event you employ an attorney to enforce any claim of indebtedness against the undersigned customer, said customer agrees to pay all cost of collection and reasonable attorney's fees which in no event, shall be less than the sum of $75.00.

Because of the uncertain and unknown conditions and the hazards existing in connection with the rendering of your field service, and because of physical conditions existing in an oil well which are not subject to your control, customer agrees that you do not guarantee the results of your service, and that you will not be held liable for injury to persons or property arising from any cause whatsoever in the performance of such filled service by you.

Should any of your instruments, tools or equipment be lost or destroyed in the rendition of your service, customer agrees to use all reasonable diligence and facilities available to recover the same and customer agrees to reimburse you for the reasonable value of any instruments, tools, or other personal property that cannot be recovered within 60 days, or for the cost of repairing any damage to it so recovered.

Customer agrees that all depth measurements shall be made by it or its employees, and shall be supervised by customer or employees.

Customer certifies that it is the owner of the well on which the work herein ordered is to be done; or that it has the full right and authority to order such work done on such wells, and that the well in which the work is to be done by you is in proper and suitable condition for the performance of said work.

Customer further agrees that the terms and conditions herein set forth constitute the entire agreement and that no employee of your company is authori

	DESCRIPTION		DEPTH SERVICED FROM	DEPTH SERVICED TO
	SERVICE CHARGE Set Baker Frac Plugs @	12550	11778	11023
	PRESSURE CONTROL CHARGE 1900 PSI w/CIT			
1	Perforate 3⅛" Expendable	12487	12429	12370
2	6 JSPF 36 Shots - 10 = 26	12311	12252	12194
3	Perforate 3⅛" Expendable	11719	11660	11602
4	6 JSPF 36 Shots - 10 = 26	11543	11484	11425
5	Perforate 3⅛" Expendable	10956	10903	10849
6	6 JSPF 36 Shots - 10 = 26	10796	10742	10689
7	Select Fire Subs 21@280°°=5880°°/Pump		Down Charge 3@ 7	
8	20 Ton Crane			
9	5½" 5000# Lubricator & 1002XO			
10	5½" 5000# Wireline BOPs			
11	Baker #10 Slow Set Power Charge		9@	

JOB TIME SUMMARY	DAY	24 HOUR TIME
ARRIVE LOCATION	9/18	0700
START OPERATION		n/A
COMPLETE OPERATION		1600
START OPERATION	9/19	0600
COMPLETE OPERATION		
RELEASED		

1. FLUID Water/Gel
2. FLUID LEVEL Pumping
3. M.P.I.T.D. 12550
4. SIZE PIPE 4½/7"
5. PACKER AT 9726
6. REFERENCE LOG Swell

ENGINEER Groves
SERVICEMEN Dvorak, Winters
303
TRUCK NO. 111 DIST. Dickinson

I hereby acknowledge receipt of the service and/or material described a
CUSTOMER Continental Resour
BY Jason Walte 9/19/08
PRINT AGENT'S NAME

RECEIVED
OCT 21 2008
MONTANA BOARD OF OIL & GAS CONS. BILLINGS

P-0020928

SERVICE ORDER AND DELIVERY RECEIPT

TICKET NO: 24473 1/1

TERMS: NET 30 DAYS

High Plains, Inc.

Dickinson, ND: (701) 483-0679
Williston, ND: (701) 572-2766
Gillette, WY: (307) 682-9149
Baker, MT: (406) 778-3557

Remit to: P.O. Box 1483
Dickinson, ND 58602-1483

DATE 9-8-2008

CUSTOMER Continental Resources	CUSTOMER ORDER NO.
MAILING ADDRESS	WELL NAME Alice # 3-21H
	SECTION/TOWNSHIP/RANGE S21 T23N R56E
CITY STATE ZIP	COUNTY Richland
CUSTOMER AGENT	STATE MT FIELD NAME Wildcat

TO HIGH PLAINS INC.

CONDITIONS OF THIS CONTRACT

You are hereby requested to furnish the services and materials and equipment herein set forth upon the following terms and conditions, to-wit:

The undersigned as customer, agrees to pay you for the service and/or materials ordered hereunder at the office of **High Plains Incorporated.** Should any account not be paid within the term fixed by the invoice, interest will be charged at the rate of eighteen (18) percent annum from the date of such invoice.

In the event you employ an attorney to enforce any claim of indebtedness against the undersigned customer, said customer agrees to pay all cost of collection and reasonable attorney's fees which in no event, shall be less than the sum of $75.00.

Because of the uncertain and unknown conditions and the hazards existing in connection with the rendering of your field service, and because of physical conditions existing in an oil well which are not subject to your control, customer agrees that you do not guarantee the results of your service, and that you will not be held liable for injury to persons or property arising from any cause whatsoever in the performance of such field service by you.

Should any of your instruments, tools or equipment be lost or destroyed in the condition of your service, customer agrees to use all reasonable diligence and facilities available to recover the same, and customer agrees to reimburse you for the reasonable value of any instruments, tools, or other personal property that cannot be recovered within 60 days, or for the cost of repairing any damage to items recovered.

Customer agrees that all depth measurements shall be made by it or its employees, and shall be supervised by customer or employees.

Customer certifies that it is the owner of the well on which the work herein ordered is to be done, or that it has the full right and authority to order such work c[illegible] ... n the work is to be done by you is in proper and suitable condition for the performance of said work.

Customer further agrees that the terms and conditions herein set forth constitute the entire agreement and that no employee of your company is authorized

	DESCRIPTION	DEPTH SERVICED FROM	DEPTH SERVICED TO	
	SERVICE CHARGE 9-8-2008			
	PRESSURE CONTROL CHARGE 0-1000 psi			
1	CBL/GR/CCL/VDL Depth	9742	Surf.	@
2	9742' Operations			@[illegible]
3				
4				
5				Ba
6				D
7				Sa
8				
9	Non Discounted Items			
10	MAST Truck			
11	Bleed off hose			

JOB TIME SUMMARY	DAY	24 HOUR TIME		
ARRIVE LOCATION	9/8	1030	FLUID	5/W
START OPERATION	9/8	1100	FLUID LEVEL	850'
COMPLETE OPERATION			CHECKED	9742.'
START OPERATION			CASING SIZE	7"
COMPLETE OPERATION	9/8	1330	PACKER AT	—
RELEASED	9/8	1400	BOTTOM OF TUBING	—

ENGINEER R. Swallow

SERVICEMEN D. Swallow

S. Slingsby

TRUCK NO 123 DIST Williston, ND

I hereby acknowledge receipt of the service and/or material described above

CUSTOMER Continental Resour[illegible]

BY X

PRINT AGENT'S NAME

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STIMULATION TREATMENT REPORT

Date 19-SEP-08 District Dickinson F.Receipt 554510026 Customer Continental Resources, Inc.
Lease ALICE 3-21H (Stg 12) Well Name ALICE 3-21H (Stg 12)
Field ELM COULEE Location 21-23N-56E
County Richland State Montana Stage No 1 Well API - API 25083227660000

WELL DATA Well Type: NEW Well Class: OIL Depth TD/PB: 19554 Formation:

Geometry Type	Tubular Type	OD	Weight	ID	Grade	Top	Bottom
TUBULAR	CSG	7	26	6.276	J-55	0	10489
TUBULAR	CSG	4.5	11.6	4	H-40	9711	19554

Perf Intervals

Top	Bottom	SPF	Diameter
10589	11209	1	.35

Packer Type BAKER Packer Depth 13506 FT

TREATMENT DATA

Fluid Type	Fluid Desc	Pumped Volume(Gals)
PAD	LINEAR GEL	447
TREATMENT FLUID	XL PAD	12.875
TREATMENT FLUID	1#-5# 30/50 SAND STAGE	38.735
PAD	FLUSH	17.760

Prop. Description	Volume Pumped(Lbs)
Sand, White, 100 mesh, Winn Ba	4.243
Sand, White, 30/50	121.461
Total Prop Qty:	125,704

Previous Treatment _____ Previous Production _____
Hole Loaded With _____ Treat Via: Tubing ☐ Casing ☒ Anul. ☐ Tubing & Anul. ☐
Ball Sealers: 0 In 0 Stages Type _____
Auxiliary Materials GBW-5, NE-940, GW-3LDF, HIGH PERM CRB, INFLO-250, XLW-30A

LIQUID PUMPED AND CAPACITIES IN BBLS.

Tubing Cap.	0
Casing Cap.	387.2
Annular Cap.	0
Open Hole Cap.	0
Fluid to Load	50.1
Pad Volume	413.12
Treating Fluid	922.26
Flush	422.86
Overflush	0
Fluid to Recover	1808.34

PROCEDURE SUMMARY

Time AM/PM	Treating Pressure-Psi		Surface Slurry BBLS. Pumped		Slurry Rate BPM	Comments
	STP	Annulus	Stage	Total		
07:00	0	0	0	0	0	ARRIVE BACK ON LOCATION
07:40	107	0	24.5	24.5	3.1	START PUMPING ON PUMP DOWN
07:44	1009	0	50.1	50.1	0	SHUT DOWN CALL SET PLUG, SHOOT GUNS COME OUT OF HOLE
08:26	0	0	0	0	0	DROP BALL
08:36	0	0	0	0	0	PRIME PUMPS
09:00	0	0	0	0	0	SAFETY MEETING
10:58	0	0	0	0	0	OPEN WELL & START PUMPING
11:04	3246	0	107	108	21.6	START PAD
11:08	3337	0	100	208	21.6	100 MESH @ .5#
11:10	3739	0	54	262	32.8	INCREASE RATE
11:14	4079	0	210	419	50.4	30/50 @ 1#
11:17	3782	0	167	586	50.5	30/50 @ 2# & .5# 100 MESH ON PERFS
11:21	3697	0	174	760	50.4	30/50 @ 3#
11:22	3649	0	42	804	50.5	1# 30/50 ON PERFS
11:24	3482	0	165	925	50.6	30/50 @ 4#
11:25	3426	0	50	977	50.5	2# 30/50 ON PERFS
11:27	3367	0	170	1097	50.6	30/50 @ 5#
11:29	3312	0	55	1101	50.5	3# 30/50 ON PERFS
11:32	3164	0	220	1319	49.4	4# 30/50 ON PERFS
11:35	3220	0	373	1470	49.6	STAGE PRE-FLUSH & 5# 30/50 ON PERFS
11:36	3348	0	37	1508	49.5	STAGE FLUSH
11:45	3238	0	387.1	1895.4	0	SHUT DOWN ISIP 3238 PSI
11:50	2823	0	387.1	1895.4	0	5 MINUTE READING 2823 PSI F.G. .75 WELL BREAK @ 4599 PSI

Treating Pressure		Injection Rates		Shut In Pressures		Customer Rep.	JASON WALTER
Minimum	2971	Treating Fluid	50.1	ISDP	3238	BJ Rep.	Jamie Sprague
Maximum	4591	Flush	47.5	5 Min.	2823	Job Number	554510026
Average	3468	Average	48.8	10 Min.	0	Rec. ID No.	
Operators Max. Pressure				15 Min.	0	Distribution	
6800				Final 2823 In 5 Min.			
				Flush Dens. lb./gal.	8.34		

Report Printed on: October 1, 2008 3:36 PM

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P-0020930

STIMULATION TREATMENT REPORT

Date 16-SEP-08 District Dickinson F.Receipt 554510018 Customer Continental Resources, Inc.
Lease ALICE 3-21H (Stg 5) Well Name ALICE 3-21H (Stg 5)
Field ELM COULEE Location 21-23N-56E
County Richland State Montana Stage No 1 Well API - API 25083227660000

WELL DATA Well Type: NEW Well Class: OIL Depth TD/PB: 19554 Formation:

Geometry Type	Tubular Type	OD	Weight	ID	Grade	Top	Bottom
TUBULAR	CSG	7	26	6.276	J-55	0	10489
TUBULAR	CSG	4.5	11.6	4	H-40	9711	19554

Perf Intervals

Top	Bottom	SPF	Diameter
15809	16536	1	.35

Packer Type BAKER Packer Depth 18409 FT

TREATMENT DATA

Fluid Type	Fluid Desc	Pumped Volume(Gals)
PAD	LINEAR GEL	570
TREATMENT FLUID	XL PAD	13,508
TREATMENT FLUID	1#-5# 30/50 SAND STAGE	29,523
PAD	FLUSH	21,591

Prop. Description	Volume Pumped(Lbs)
Sand, White, 100 mesh, Winn Ba	4,293
Sand, White, 30/50	84,909
Total Prop Qty:	89,202

LIQUID PUMPED AND CAPACITIES IN BBLS.

Tubing Cap.	0
Casing Cap.	470.1
Annular Cap.	0
Open Hole Cap.	0
Fluid to Load	191.6
Pad Volume	335.2
Treating Fluid	702.9
Flush	470.6
Overflush	0
Fluid to Recover	1700.3

Previous Treatment N/A Previous Production N/A
Hole Loaded With WATER, GAS Treat Via: Tubing ☐ Casing ☒ Anul. ☐ Tubing & Anul. ☐
Ball Sealers: 0 In 0 Stages Type
Auxiliary Materials GW-3LDF, BF-7L, CLAYTREAT 3C, INFLO-150, GBW-5, HIGH PERM CRB, XLW-30A, NE-940,

PROCEDURE SUMMARY

Time AM/PM	Treating Pressure-Psi		Surface Slurry BBLS. Pumped		Slurry Rate BPM	Comments
	STP	Annulus	Stage	Total		
13:30	2132	0	0	0	0	OPEN GROUND VALVE
13:40	2154	0	2.1	2.1	4.1	ESTABLISH RATE ON PUMP DOWN
13:40	2227	0	3.8	3.8	6.1	INCREASE RATE ON PUMP DOWN
13:42	2319	0	10.3	10.3	7.1	INCREASE RATE ON PUMP DOWN
14:07	2416	0	191.6	191.6	0	SHUT DOWN SET PLUG, SHOOT GUNS ON WAY OUT
14:58	1674	0	0	0	0	OPEN WELL HEAD DROP BALL
15:31	1414	0	0	0	0	SAFTEY MEETING
15:40	1363	0	1.1	1.1	3.2	START DOWN HOLE WITH XL PAD
15:42	3150	0	5.8	17.9	20.2	ESTABLISH RATE ON XL PAD
15:45	3900	0	74.8	88.8	30.2	INCREASE RATE TO 30 BPM
15:46	4400	0	113.3	127.7	40.1	START .5# 100MESH SAND STAGE INCREASE RATE TO 40 BPM
15:51	5293	0	2.8	336.6	49.7	START 1# 30/50 SAND STAGE
15:53	4725	0	132.2	435.6	49.8	START 2# 30/0 SAND STAGE
15:56	5144	0	142.8	617.7	49.8	START 3# 30/50 SAND STAGE, .5# 100 MESH SAND STAGE ON PERFS
16:00	4979	0	148.7	767.3	49.9	START 4# 30/50 SAND STAGE
16:00	4903	0	67.4	805.9	49.8	1# 30/50 SAND STAGE ON PERFS
16:02	4727	0	23.8	923.4	49.9	START 5# 30/50 SAND STAGE
16:03	4714	0	15.3	937.8	50.1	2# 30/50 SAND STAGE ON PERFS
16:07	4685	0	3.8	1128.4	50.1	STAGE FLUSH
16:08	4883	0	1.2	1168.5	50.1	STAGE 2nd FLUSH
16:12	5490	0	224.4	1390.4	49.7	5# 30/50 SAND STAGE ON PERFS
16:15	5557	0	374.4	1546.3	49.5	PUMPING FLUSH 5# 30/50 SAND STAGE ON PERFS
16:17	3320	0	470.6	1637.1	0	SHUT DOWN CALL ISIP (3320 PSI) F.G .75
16:22	3045	0	470.6	1637.1	0	5 MINUTE READING 3045 PSI

Treatment Report-Supplement

Date 16-SEP-08 District Dickinson F.Receipt 554510018 Customer Continental Resources, Inc.
Lease ALICE 3-21H (Stg 5) Well Name ALICE 3-21H (Stg 5)
Field ELM COULEE Location Dickinson
County Richland State Montana Stage No 1 Well API - API 25083227660000

TIME	Treating Pressure-Psi		Surface Slurry BBLS. Pumped		Slurry Rate BPM	Comments
	STP	Annulus	Stage	Total		

Treating Pressure		Injection Rates		Shut In Pressures		Customer Rep.	JASON WALTER
Minimum	3897	Treating Fluid	49.9	ISDP	3320	BJ Rep.	Jamie Sprague
Maximum	5578	Flush	49.8	5 Min.	3045	Job Number	554510018
Average	4570	Average	35	10 Min.	0	Rec. ID No.	
Operators Max. Pressure				15 Min.	0	Distribution	
6800				Final 3045 In	Min. 5		
				Flush Dens. lb./gal.	8.34		

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STIMULATION TREATMENT REPORT

Date 16-SEP-08 District Dickinson F.Receipt 554510017 Customer Continental Resources, Inc.
Lease ALICE 3-21H (Stg 4) Well Name ALICE 3-21H (Stg 4)
Field ELM COULEE Location 21-23N-56E
County Richland State Montana Stage No 1 Well API - API 25083227660000

WELL DATA Well Type: NEW Well Class: OIL Depth TD/PB: 19554 Formation:

Geometry Type	Tubular Type	OD	Weight	ID	Grade	Top	Bottom
TUBULAR	CSG	7	26	6.276	J-55	0	10489
TUBULAR	CSG	4.5	11.6	4	H-40	9711	19554

Perf Intervals

Top	Bottom	SPF	Diameter
16552	17279	1	.35

Packer Type BAKER Packer Depth 18409 FT

TREATMENT DATA

Fluid Type	Fluid Desc	Pumped Volume(Gals)
PAD	LINEAR GEL	398
TREATMENT FLUID	XL PAD	12.351
TREATMENT FLUID	1#-5# 30/50 SAND STAGE	24.081
PAD	FLUSH	22.357

Prop. Description	Volume Pumped(Lbs)
Sand, White, 100 mesh, Winn Ba	4,050
Sand, White, 30/50	74,864
Total Prop Qty:	78,914

Previous Treatment N/A Previous Production N/A
Hole Loaded With WATER, OIL Treat Via: Tubing ☐ Casing ☒ Anul. ☐ Tubing & Anul. ☐
Ball Sealers: 0 In 0 Stages Type
Auxiliary Materials GBW-5,NE-940,GW-3LDF,BF-7L,CLAYTREAT3-C,HIGH PERM CRB,INFLO 250,XLW-30A

LIQUID PUMPED AND CAPACITIES IN BBLS.

Tubing Cap.	0
Casing Cap.	471.5
Annular Cap.	0
Open Hole Cap.	0
Fluid to Load	158.4
Pad Volume	303.5
Treating Fluid	573.35
Flush	481.5
Overflush	0
Fluid to Recover	1516.75

PROCEDURE SUMMARY

Time AM/PM	Treating Pressure-Psi		Surface Slurry BBLS. Pumped		Slurry Rate BPM	Comments
	STP	Annulus	Stage	Total		
09:42	1427	0	0	0	0	OPEN GROUND VALVE
09:16	2331	0	8.5	8.5	6.5	START PUMP DOWN ESTABLISH RATE
10:15	2578	0	158.4	158.4	0	SHUT DOWN
11:19	0	0	0	0	0	DROP BALL
11:30	0	0	0	0	0	SAFETY MEETING
12:05	1427	0	0	0	0	OPEN WELL START PUMPING
12:08	3100	0	13	21	21	ESTABLISH RATE
12:12	3896	0	100	110	30	START 100 MESH @ .5#
12:13	4358	0	50	160	35	INCREASE RATE
12:17	5845	0	209	319	45	START 30/50 @ 1.1#
12:19	5115	0	114	431	49.5	START 30/50 @ 2.2#
12:22	5132	0	120	550	49.9	START 30/50 @ 3.3#
12:22	5231	0	42	590	49.8	100 MESH .5# ON PERFS
12:24	5167	0	113	664	49.8	START 30/50 @ 4.4#
12:26	4923	0	118	783	50	START 30/50 @ 5.5#
12:26	4890	0	22	749	49.9	1.1# 30/50 ON PERFS
12:30	4839	0	165	949	50	START PRE-FLUSH & 2.2# 30/50 ON PERFS
12:30	4955	0	35	993	50	START FLUSH
12:37	5640	0	305	1295	49.5	5.5# 30/50 ON PERFS
12:40	3130	0	481.2	1473.2	0	SHUTDOWN ISIP 3130 PSI
12:45	2953	0	481.2	1473.2	0	5 MINUTE READING 2953 PSI

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Treating Pressure		Injection Rates		Shut In Pressures		Customer Rep.	JASON WALTER
Minimum	3360	Treating Fluid	49.9	ISDP	3130	BJ Rep.	Jamie Sprague
Maximum	5890	Flush	50	5 Min.	2953	Job Number	554510017
Average	4828	Average	37.1	10 Min.	0	Rec. ID No.	
Operators Max. Pressure				15 Min.	0	Distribution	
6800				Final 2953 In 5 Min.			
				Flush Dens. lb./gal.	8.34		

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P-0020933

STIMULATION TREATMENT REPORT

Date 16-SEP-08 District Dickinson F.Receipt 554510016 Customer Continental Resources, Inc.
Lease ALICE 3-21H (Stg 3) Well Name ALICE 3-21H (Stg 3)
Field ELM COULEE Location 21-23N-56E
County Richland State Montana Stage No 1 Well API - API 25083227660000

WELL DATA Well Type: NEW Well Class: OIL Depth TD/PB: 19554 Formation:

Geometry Type	Tubular Type	OD	Weight	ID	Grade	Top	Bottom
TUBULAR	CSG	7	26	6.276	J-55	0	10489
TUBULAR	CSG	4.5	11.6	4	H-40	9711	19554

Perf Intervals

Top	Bottom	SPF	Diameter
17294	18020	1	.35

Packer Type Packer Depth 18021 FT

TREATMENT DATA

Fluid Type	Fluid Desc	Pumped Volume(Gals)
PAD	LINEAR GEL	1,009
TREATMENT FLUID	XL PAD + .5# 100 MESH	7,293
TREATMENT FLUID	1#-5# 30/50 SAND STAGE	24,074
PAD	FLUSH	21,910

Prop. Description	Volume Pumped(Lbs)
Sand, White, 100 mesh, Winn Ba	4,101
Sand, White, 30/50	68,688
Total Prop Qty:	72,789

Previous Treatment N/A Previous Production N/A
Hole Loaded With WATER, OIL Treat Via: Tubing ☐ Casing X Anul. ☐ Tubing & Anul. ☐
Ball Sealers: 0 In 0 Stages Type
Auxiliary Materials GBW-5, NE-940, GW-3LDF, BF-7L, CALYTREAT 3C, HIGH PERM CRB INFLO-150, XLW-30A,

LIQUID PUMPED AND CAPACITIES IN BBLS.

Tubing Cap.	0
Casing Cap.	493
Annular Cap.	0
Open Hole Cap.	0
Fluid to Load	249.2
Pad Volume	435.7
Treating Fluid	574.1
Flush	521.6
Overflush	0
Fluid to Recover	1780.6

PROCEDURE SUMMARY

Time AM/PM	Treating Pressure-Psi		Surface Slurry BBLS. Pumped		Slurry Rate BPM	Comments
	STP	Annulus	Stage	Total		
15:15	0	0	0	0	0	OPEN GROUND VALVES READY FOR PUMP DOWN
15:28	2028	0	2.2	2.2	2.4	ESTABLISH RATE ON PUMP DOWN
15:29	2248	0	9.3	9.3	6.8	INCREASE RATE ON PUMP DOWN
16:05	2592	0	249.2	249.2	0	SHUT DOWN, SET PLUG, SHOOT GUNS
17:25	0	0	0	0	0	DROP BALL, SHUT DOWN FOR THE NIGHT
06:00	0	0	0	0	0	ARRIVE BACK ON LOCATION SEPTEMBER 16th 2008
07:30	0	0	0	0	0	SAFTEY MEETING
08:03	0	0	0	0	0	PIME UP AND RE-PRESSURE TEST LINES
08:05	403	0	0	0	0	OPEN WELL HEAD, WELL HEAD PRESSURE (430 PSI)
08:12	2633	0	4.4	34.8	20.8	ESTABLISH RATE ON XL FLUID
08:15	4445	0	71.2	101.7	29.7	ESTABLISH RATE ON XL PAD
08:16	5020	0	114.2	145.9	34.3	INCREASE RATE ON PAD
08:19	6199	0	8.1	254.9	41.1	START .5# 100 MESH SAND STAGE
08:21	6330	0	69.4	316.2	41.1	BREAK BACK PRESSURE (6330 PSI)
08:24	5163	0	16.3	475.6	46.1	START 1# 30/50 SAND STAGE
08:25	5067	0	67.8	527.1	49.9	XL PAD ON PERFS
08:28	5193	0	72.3	571.6	50.1	START 2# 30/50 SAND STAGE
08:29	5330	0	12.2	705.4	50.1	START 3# 30/50 SAND STAGE
08:30	5408	0	50.1	743.3	49.5	.5# 100 MESH SAND STAGE ON PERFS
08:32	5509	0	21.9	806.2	49.9	START 4# 30/50 SAND STAGE
08:33	5421	0	106.2	915.3	49.9	START 5# 30/50 SAND STAGE
08:34	5354	0	28.8	954.7	50.1	1# 30/50 SAND STAGE ON PERFS
08:37	5114	0	3.5	1096.8	49.1	STAGE FLUSH
08:37	5125	0	14.5	1108.2	49.2	2# 30/50 SAND STAGE ON PERFS
08:38	5224	0	12.1	1142.4	49.2	START 2nd FLUSH STAGE
08:39	5416	0	57.6	1189.9	49.1	3# 30/50 SAND STAGE ON PERFS
08:41	5649	0	174.7	1305.6	49.1	4# 30/50 SAND STAGE ON PERFS
08:44	5848	0	296.4	1428.3	48.8	5# 30/50 SAND STAGE ON PERFS
08:47	5239	0	461.7	1592.7	49.1	PUMPING FLUSH
08:48	3150	0	493.2	1622.5	0	SHUT DOWN, CALL ISIP (3150 PSI) F G .74
08:53	2945	0	493.2	1622.5	0	5 MIN BLEED OFF, 2945 PSI, CLOSE IN WELL BLEED OFF LINE, START WIRELINE

Treatment Report-Supplement

Date 16-SEP-08 District Dickinson F.Receipt 554510016 Customer Continental Resources, Inc.
Lease ALICE 3-21H (Stg 3) Well Name ALICE 3-21H (Stg 3)
Field ELM COULEE Location Dickinson
County Richland State Montana Stage No 1 Well API - API 25083227660000

TIME	Treating Pressure-Psi		Surface Slurry BBLS. Pumped		Slurry Rate BPM	Comments
	STP	Annulus	Stage	Total		

Treating Pressure		Injection Rates		Shut In Pressures		Customer Rep.	JASON WALTER
Minimum	4705	Treating Fluid	49.9	ISDP	3150	BJ Rep.	Jamie Sprague
Maximum	6330	Flush	49.1	5 Min.	2945	Job Number	554510016
Average	5320	Average	36.2	10 Min.	0	Rec. ID No.	
Operators Max. Pressure				15 Min.	0	Distribution	
6800				Final 2945 In	Min. 5		
				Flush Dens. lb./gal.	8.34		

STIMULATION TREATMENT REPORT

Date 17-SEP-08 District Dickinson F.Receipt 554510019 Customer Continental Resources, Inc.
Lease ALICE 3-21H (Stg 6) Well Name ALICE 3-21H (Stg 6)
Field ELM COULEE Location 21-23N-56E
County Richland State Montana Stage No 1 Well API - API 25083227660000

WELL DATA Well Type: NEW Well Class: OIL Depth TD/PB: 19554 Formation:

Geometry Type	Tubular Type	OD	Weight	ID	Grade	Top	Bottom
TUBULAR	CSG	7	26	6.276	J-55	0	10489
TUBULAR	CSG	4.5	11.6	4	H-40	9711	19554

Perf Intervals

Top	Bottom	SPF	Diameter
15061	15793	1	.35

Packer Type Packer Depth 15794 FT

TREATMENT DATA

Fluid Type	Fluid Desc	Pumped Volume(Gals)
PAD	LINEAR GEL	5,867
TREATMENT FLUID	XL PAD	12,975
TREATMENT FLUID	1#-5# 30/50 SAND STAGE	35,137
PAD	FLUSH	20,854

Prop. Description	Volume Pumped(Lbs)
Sand, White, 20/40 mesh, Winn E	4,195
Sand, White, 30/50	93,486
Total Prop Qty:	97,681

Previous Treatment N/A Previous Production N/A
Hole Loaded With WATER, OIL Treat Via: Tubing ☐ Casing ☒ Anul. ☐ Tubing & Anul. ☐
Ball Sealers: 0 In 0 Stages Type
Auxiliary Materials GBW-5, NE-940, GW-3LDF, BF-7L, CLAYTREAT 3C, INFLO-150, XLW-30A

LIQUID PUMPED AND CAPACITIES IN BBLS.

Tubing Cap.	0
Casing Cap.	458.4
Annular Cap.	0
Open Hole Cap.	0
Fluid to Load	217.3
Pad Volume	323.5
Treating Fluid	796.6
Flush	496.3
Overflush	0
Fluid to Recover	1832.8

PROCEDURE SUMMARY

Time AM/PM	Treating Pressure-Psi		Surface Slurry BBLS. Pumped		Slurry Rate BPM	Comments
	STP	Annulus	Stage	Total		
17:10	2109	0	0	0	0	OPEN GROUND VALVE
17:12	2309	0	4.6	4.6	6.1	ESTABLISH RATE ON PUMP DOWN
17:13	2465	0	12.9	12.9	7.1	INCREASE RATE ON PUMP DOWN
17:32	2547	0	145.5	145.5	0	SHUT DOWN SET PLUG, SHOOT GUNS COME OUT OF HOLE
18:30	2134	0	0	0	0	OPEN WELL DROP BALL, SHUT DOWN FOT THE NIGHT
06:11	0	0	0	0	0	ARRIVE BACK ON LOCATION SEPTEMBER 17TH 2008, START STAGE #6
06:45	0	0	0	0	0	SAFTEY MEETING
07:00	0	0	0	0	0	PRIME UP PUMPS AND RE-TEST LINES
07:08	390	0	0	0	0	OPEN WELL HEAD WELL HEAD PRESSURE (390 PSI)
07:09	500	0	1.2	1.2	2.8	START DOWN HOLE WITH PAD
07:10	3050	0	18.8	18.8	21.1	START XL PAD
07:15	2500	0	107.7	125.5	25.7	SHUT DOWN HAD HYDRAULIC LEAK ON BLENDER
07:28	1480	0	0	0	0	OPEN WELL HEAD BACK UP
07:29	2250	0	4.8	4.8	20.1	START DOWN HOLE AGAIN WITH XL PAD, RE-START JOB
07:30	4270	0	13.3	13.3	21.2	START XL PAD
07:34	5868	0	100.1	115.9	34.3	START .5# 100 MESH SAND STAGE
07:40	5721	0	20.4	324.4	39.1	START 30/50 1# SAND STAGE
07:44	5944	0	16.6	492.2	45.5	START 2# 30/50 SAND STAGE
07:46	6217	0	79.9	571.9	45.4	.5# 100 MESH SAND STAGE ON PERFS
07:48	6123	0	17.3	667.4	45.5	START 3# 30/50 SAND STAGE
07:50	5880	0	110.1	775.6	45.6	1# 30/50 SAND STAGE ON PERFS
07:52	5734	0	16.4	833.3	45.6	START 4# 30/50 SAND STAGE
07:54	5801	0	116.6	950.3	49.3	2# 30/50 SAND STAGE ON PERFS
07:56	5716	0	17.1	1004.4	49.4	START 5# 30/50 SAND STAGE
07:58	5593	0	121.9	1127.2	49.4	3# 30/50 SAND STAGE ON PERFS
07:59	5595	0	211.8	1217.7	49.5	START 1st FLUSH
08:00	5697	0	35.8	1257.9	49.4	START 2nd FLUSH
08:10	3486	0	460.1	1717.4	0	SHUT DOWN CALL ISIP(3486 PSI) F.G .77
08:15	3200	0	460.1	1717.4	0	5 MIN BLEED OFF (3200 PSI) CLOSE IN WELL BLEED OFF LINE, START WIRELINE

Treatment Report-Supplement

Date 17-SEP-08 District Dickinson F.Receipt 554510019 Customer Continental Resources, Inc.
Lease ALICE 3-21H (Stg 6) Well Name ALICE 3-21H (Stg 6)
Field ELM COULEE Location Dickinson
County Richland State Montana Stage No 1 Well API - API 25083227660000

TIME	Treating Pressure-Psi		Surface Slurry BBLS. Pumped		Slurry Rate BPM	Comments
	STP	Annulus	Stage	Total		

Treating Pressure		Injection Rates		Shut In Pressures		Customer Rep.	JASON WALTER
Minimum	4502	Treating Fluid	45.9	ISDP	3486	BJ Rep.	Jamie Sprague
Maximum	6482	Flush	49.9	5 Min.	3200	Job Number	554510019
Average	5650	Average	38.1	10 Min.	0	Rec. ID No.	
Operators Max. Pressure				15 Min.	0	Distribution	
6800				Final 3200 In	Min. 5		
				Flush Dens. lb./gal.	8.34		

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STIMULATION TREATMENT REPORT

Date 15-SEP-08 District Dickinson F.Receipt 554510015 Customer Continental Resources, Inc.
Lease ALICE 3-21H (Stg 2) Well Name ALICE 3-21H (Stg 2)
Field ELM COULEE Location 21-23N-56E
County Richland State Montana Stage No 1 Well API - API 25083227660000

WELL DATA Well Type: NEW Well Class: OIL Depth TD/PB: 19554 Formation:

Geometry Type	Tubular Type	OD	Weight	ID	Grade	Top	Bottom
TUBULAR	CSG	7	26	6.276	J-55	0	10489
TUBULAR	CSG	4.5	11.6	4	H-40	9711	19554

Perf Intervals

Top	Bottom	SPF	Diameter
18236	18777	1	.35

Packer Type Packer Depth 18409 FT

TREATMENT DATA

Fluid Type	Fluid Desc	Pumped Volume(Gals)
PAD	LINEAR GEL	3.153
TREATMENT FLUID	XL PAD	13.141
TREATMENT FLUID	1#-5# 30/50 SAND STAGE	24.595
PAD	FLUSH	22.908

Prop. Description	Volume Pumped(Lbs)
Sand, White, 100 mesh, Winn Ba	4,442
Sand, White, 30/50	68,259
Total Prop Qty:	72,701

Previous Treatment N/A Previous Production N/A
Hole Loaded With WATER, OIL Treat Via: Tubing ☐ Casing ☒ Anul. ☐ Tubing & Anul. ☐
Ball Sealers: 0 In 0 Stages Type
Auxiliary Materials GW-3LDF,CLAYTREAT3-C,INFLO250,HIGH PERM CRB,NE-940,GBW-5,BF-7L,XLW-30A

LIQUID PUMPED AND CAPACITIES IN BBLS.

Tubing Cap.	0
Casing Cap.	504.8
Annular Cap.	0
Open Hole Cap.	0
Fluid to Load	262.1
Pad Volume	387.9
Treating Fluid	585.6
Flush	545.4
Overflush	0
Fluid to Recover	1781.6

PROCEDURE SUMMARY

Time AM/PM	Treating Pressure-Psi STP	Annulus	Surface Slurry BBLS. Pumped Stage	Total	Slurry Rate BPM	Comments
12:00	0	0	0	0	0	ARRIVE ON LOCATION
13:50	0	0	0	0	0	SAFETY MEETING
13:41	1680	0	0	5	1.5	DROP BALL
13:50	1507	0	0	0	0	SAFETY MEETING
14:38	3838	0	0	0	0	START PUMPING
14:41	3838	0	74	74	23.7	START PAD
14:46	3999	0	99	173	30	START 100 MESH @ .5#
14:52	5385	0	203	376	39.1	START 30/50 @ 1#
14:54	4538	0	118	494	42.1	START 30/50 @ 2#
14:58	4688	0	18.9	621.3	39.1	START 3# 30/50 SAND STAGE
15:00	4786	0	9.7	738.3	41.9	START 4# 30/50SAND STAGE
15:02	4730	0	10.2	857.7	41.9	START 5# 20/40 SAND STAGE
15:07	4737	0	1.8	1020.2	41.9	STAGE FLUSH
15:08	4822	0	35.7	1059.6	41.9	STAGE 2nd FLUSH
15:21	3027	0	504.4	1563.3	0	SHUT DOWN CALL ISIP (3027 PSI)
15:26	2841	0	540.4	1563.3	0	5MIN BLEED OFF, 2841 PSI, CLOSE IN WELL START WIRELINE

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Treating Pressure		Injection Rates		Shut In Pressures		Customer Rep.	JASON WALTER
Minimum	3812	Treating Fluid	41.9	ISDP	3027	BJ Rep.	Jamie Sprague
Maximum	5502	Flush	41.9	5 Min.	2841	Job Number	554510015
Average	4497	Average	32.2	10 Min.	0	Rec. ID No.	
Operators Max. Pressure				15 Min.	0	Distribution	
6800				Final 2841 In 5 Min.			
				Flush Dens. lb./gal.	8.34		

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P-0020938

STIMULATION TREATMENT REPORT

Date 15-SEP-08 District Dickinson F.Receipt 554510014 Customer Continental Resources, Inc.
Lease ALICE 3-21H (Stg 1) Well Name ALICE 3-21H (Stg 1)
Field ELM COULEE Location 21-23N-56E
County Richland State Montana Stage No 1 Well API - API 25083227660000

WELL DATA Well Type: NEW Well Class: OIL Depth TD/PB: 19554 Formation:

Geometry Type	Tubular Type	OD	Weight	ID	Grade	Top	Bottom
TUBULAR	CSG	7	26	6.276	J-55	0	10489
TUBULAR	CSG	4.5	11.6	4	H-40	9711	19554

Perf Intervals

Top	Bottom	SPF	Diameter
18792	19554	1	.32

Packer Type _____ Packer Depth _____ FT

TREATMENT DATA

Fluid Type	Fluid Desc	Pumped Volume(Gals)
PAD	LINEAR GEL	6,649
TREATMENT FLUID	XL PAD	19,172
TREATMENT FLUID	1#-5# 30/50 SAND STAGE	25,053
PAD	FLUSH	22,815

Prop. Description	Volume Pumped(Lbs)
Sand, White, 30/50	72,976
Sand, White, 100 mesh	4,269
Total Prop Qty:	77,245

LIQUID PUMPED AND CAPACITIES IN BBLS.

Tubing Cap.	0
Casing Cap.	596.2
Annular Cap.	0
Open Hole Cap.	0
Fluid to Load	24.7
Pad Volume	614.7
Treating Fluid	596.5
Flush	543.2
Overflush	0
Fluid to Recover	1754.4

Previous Treatment N/A Previous Production N/A
Hole Loaded With WATER, OIL Treat Via: Tubing ☐ Casing ☒ Anul. ☐ Tubing & Anul. ☐
Ball Sealers: 0 In 0 Stages Type _____
Auxiliary Materials GW-3LDF, BF-7L, CALYTREAT 3C, INFLO 150, GBW-5, HIGH PERM CRB, XL 30A, NE-940,

PROCEDURE SUMMARY

Time AM/PM	Treating Pressure-Psi		Surface Slurry BBLS. Pumped		Slurry Rate BPM	Comments
	STP	Annulus	Stage	Total		
05:30	0	0	0	0	0	ARRIVE ON LOCATION
08:20	0	0	0	0	0	SAFTEY MEETING
08:39	0	0	0	0	0	PRIME UP PRESSURE TEST LINES
09:09	0	0	9.1	9.1	23.3	OPEN WELL HEAD, WELL HEAD PRESSURE (0 PSI) WELL ON SUCK
09:11	359	0	24.1	24.1	4.7	HOLE LOADED UP 24.1 BBLS
09:13	5733	0	82.3	82.3	25.1	ESTABLISH RATE ON SLICK-WATER PAD
09:15	6112	0	120.8	120.8	25.1	BREAK BACK PRESSURE, 6112 PSI @ 25 BPM
09:17	6221	0	10.1	172.7	26.8	START XL PAD
09:27	5881	0	9.1	426.2	27.1	START .5# 100 MESH SAND STAGE
09:31	5626	0	146.9	564.4	35.8	XL PAD ON PERFS
09:33	5333	0	213.4	631.4	39.1	XL PAD ON PERFS
09:33	5525	0	10.9	642.9	39.1	START 1# 30/50 SAND STAGE
09:37	5421	0	31.7	777.7	38.5	START 2# 30/50 SAND STAGE
09:39	5400	0	10.1	876.2	38.6	START 3# 30/50 SAND STAGE
09:42	5310	0	5.6	994.4	38.5	START 4# 30/50 SAND STAGE
09:43	5288	0	19.9	1011.3	38.7	.5# 100 MESH SAND STAGE ON PERFS
09:46	5195	0	67.2	1188.2	38.6	1# 30/50 SAND STAGE ON PERFS
09:47	5149	0	67.2	1188.2	38.6	1# 30/50 SAND STAGE ON PERFS
09:50	5166	0	9.9	1302.6	38.7	STAGE FLUSH
09:54	5405	0	109.5	1440.4	38.6	3# 30/50 SAND STAGE ON PERFS
09:57	5639	0	218.3	1547.7	38.6	4# 30/50 SAND STAGE ON PERFS
10:00	5629	0	335.5	1664.4	38.5	5# 30/50 SAND STAGE ON PERFS
10:05	3067	0	561.4	1844.5	0	SHUT DOWN CALL ISIP (3067 PSI)
10:11	2967	0	561.4	1844.5	0	5 MIN BLEED OFF (2967 PSI) CLOSE IN WELL START WIRELINE

Treatment Report-Supplement

Date 15-SEP-08 District Dickinson F.Receipt 554510014 Customer Continental Resources, Inc.
Lease ALICE 3-21H (Stg 1) Well Name ALICE 3-21H (Stg 1)
Field ELM COULEE Location Dickinson
County Richland State Montana Stage No 1 Well API - API 25083227660000

TIME	Treating Pressure-Psi		Surface Slurry BBLS. Pumped		Slurry Rate BPM	Comments
	STP	Annulus	Stage	Total		

Treating Pressure		Injection Rates		Shut In Pressures		Customer Rep.	JASON WALTER
Minimum	5092	Treating Fluid	39.9	ISDP	3067	BJ Rep.	Jamie Sprague
Maximum	6638	Flush	38.5	5 Min.	2967	Job Number	554510014
Average	5669	Average	25.5	10 Min.	0	Rec. ID No.	
Operators Max. Pressure				15 Min.	0	Distribution	
6800				Final 2967 In	Min. 5		
				Flush Dens. lb./gal.	8.34		

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STIMULATION TREATMENT REPORT

Date 18-SEP-08 District Dickinson F.Receipt 554510024 Customer Continental Resources, Inc.
Lease ALICE 3-21H (Stg 10) Well Name ALICE 3-21H (Stg 10)
Field ELM COULEE Location 21-23N-56E
County Richland State Montana Stage No 1 Well API - API 25083227660000

WELL DATA Well Type: NEW Well Class: OIL Depth TD/PB: 19554 Formation:

Geometry Type	Tubular Type	OD	Weight	ID	Grade	Top	Bottom
TUBULAR	CSG	7	26	6.276	J-55	0	10489
TUBULAR	CSG	4.5	11.6	4	H-40	9711	19554

Perf Intervals

Top	Bottom	SPF	Diameter
11994	12746	1	.35

Packer Type BAKER Packer Depth 12747 FT

TREATMENT DATA

Fluid Type	Fluid Desc	Pumped Volume(Gals)
PAD	LINEAR GEL	710
TREATMENT FLUID	XL PAD	12,799
TREATMENT FLUID	1#-5# 30/50 SAND STAGE	32,249
PAD	FLUSH	18,874

Prop. Description	Volume Pumped(Lbs)
Sand, White, 100 mesh, Winn Ba	4,227
Sand, White, 30/50	90,535
Total Prop Qty:	94,762

Previous Treatment N/A Previous Production N/A
Hole Loaded With WATER, OIL Treat Via: Tubing ☐ Casing ☒ Anul. ☐ Tubing & Anul. ☐
Ball Sealers: 0 In 0 Stages Type
Auxiliary Materials GBW-5, NE-940, GW-3LDF, BF-7L, CLAYTREAT 3-C, HIGH PERM CRB, INFLO-250, XLW-30A,

LIQUID PUMPED AND CAPACITIES IN BBLS.

Tubing Cap.	0
Casing Cap.	411.1
Annular Cap.	0
Open Hole Cap.	0
Fluid to Load	88.4
Pad Volume	321.64
Treating Fluid	767.83
Flush	449.38
Overflush	0
Fluid to Recover	1627.25

PROCEDURE SUMMARY

Time AM/PM	Treating Pressure-Psi		Surface Slurry BBLS. Pumped		Slurry Rate BPM	Comments
	STP	Annulus	Stage	Total		
09:36	217	0	0	0	0	OPEN GROUND VALVE
09:40	419	0	1.6	1.6	2.6	START PUMP DOWN
09:46	1256	0	22.1	22.1	7.1	INCREASE RATE
09:56	1171	0	88.4	88.4	0	SHUT DOWN FIRE GUNS
10:45	0	0	88.4	88.4	0	SAFETY MEETING
11:27	0	0	0	0	0	OPEN WELL & START PUMPING
11:30	3181	0	27	72	29.1	INCREASE RATE
11:31	3525	0	102	119	35	100 MESH @ .5#
11:33	4175	0	91	210	49.7	WELL BREAK 4175 PSI
11:36	4115	0	205	325	49.9	30/50 @ 1#
11:39	4152	0	166	492	49.9	30/50 @ 2#
11:40	4157	0	34	526	49.8	.5# 100 MESH ON PERFS
11:43	4126	0	173	667	49.8	30/50 @ 3#
11:44	4102	0	70	736	49.8	1# 30/50 ON PERFS
11:46	3995	0	165	831	49.9	30/50 @ 4#
11:47	3963	0	65	896	49.8	2# 30/50 ON PERFS
11:49	3911	0	171	1003	49.9	30/50 @ 5#
11:51	3874	0	66	1069	49.8	3# 30/50 ON PERFS
11:52	3880	0	183	1187	50	STAGE PRE-FLUSH
11:53	3946	0	37	1226	50	STAGE FLUSH
11:55	4156	0	62	1288	50.5	4# 30/50 ON PERFS
11:58	4536	0	204	1430	49.6	5# 30/50 ON PERFS
12:02	3193	0	410.6	1636.8	15	SHUT DOWN ISIP 3193 PSI
12:07	2667	0	410.6	1636.8	0	5 MINUTE READING 2667 PSI F.G. .74 WELL BREAK 4175 PSI

Treatment Report-Supplement

Date 18-SEP-08 District Dickinson F.Receipt 554510024 Customer Continental Resources, Inc.
Lease ALICE 3-21H (Stg 10) Well Name ALICE 3-21H (Stg 10)
Field ELM COULEE Location Dickinson
County Richland State Montana Stage No 1 Well API - API 25083227660000

TIME	Treating Pressure-Psi		Surface Slurry BBLS. Pumped		Slurry Rate BPM	Comments
	STP	Annulus	Stage	Total		

Treating Pressure		Injection Rates		Shut In Pressures		Customer Rep.	JASON WALTER
Minimum	2853	Treating Fluid	49.9	ISDP	3193	BJ Rep.	Jamie Sprague
Maximum	4776	Flush	50	5 Min.	2667	Job Number	554510024
Average	4171	Average	36.5	10 Min.	0	Rec. ID No.	
Operators Max. Pressure				15 Min.	0	Distribution	
6800				Final 2667 In Min. 5			
				Flush Dens. lb./gal.	8.34		

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STIMULATION TREATMENT REPORT

Date 17-SEP-08 District Dickinson F.Receipt 554510021 Customer Continental Resources, Inc.
Lease ALICE 3-21H (Stg 8) Well Name ALICE 3-21H (Stg 8)
Field ELM COULEE Location 21-23N-56E
County Richland State Montana Stage No 1 Well API - API 25083227660000

WELL DATA Well Type: NEW Well Class: OIL Depth TD/PB: 19554 Formation:

Geometry Type	Tubular Type	OD	Weight	ID	Grade	Top	Bottom
TUBULAR	CSG	7	26	6.276	J-55	0	10489
TUBULAR	CSG	4.5	11.6	4	H-40	9711	19554

Perf Intervals

Top	Bottom	SPF	Diameter
13521	14272	1	.35

Packer Type BAKER Packer Depth 14273 FT

TREATMENT DATA

Fluid Type	Fluid Desc	Pumped Volume(Gals)
PAD	LINEAR GEL	424
TREATMENT FLUID	XL PAD	12,812
TREATMENT FLUID	1#-5# 30/50 SAND STAGE	33,395
PAD	FLUSH	19,929

Prop. Description	Volume Pumped(Lbs)
Sand, White, 100 mesh, Winn Ba	4,309
Sand, White, 30/50	94,268
Total Prop Qty:	98,577

Previous Treatment N/A Previous Production N/A
Hole Loaded With WATER, OIL Treat Via: Tubing ☐ Casing ☒ Anul. ☐ Tubing & Anul. ☐
Ball Sealers: 0 In 0 Stages Type
Auxiliary Materials GW-3LDF, CLAYTREAT 3C, BF-7L, INFLO-250, GBW-5, HIGH PERM CRB, XLW-30A, NE-940,

LIQUID PUMPED AND CAPACITIES IN BBLS.

Tubing Cap.	0
Casing Cap.	434.8
Annular Cap.	0
Open Hole Cap.	0
Fluid to Load	103.8
Pad Volume	315.14
Treating Fluid	796.6
Flush	434.8
Overflush	0
Fluid to Recover	1650.34

PROCEDURE SUMMARY

Time AM/PM	Treating Pressure-Psi		Surface Slurry BBLS. Pumped		Slurry Rate BPM	Comments
	STP	Annulus	Stage	Total		
12:39	1731	0	0	0	0	OPEN GROUND VALVE GET READY FOR PUMP DOWN
12:41	2096	0	2.5	2.5	4.2	START PUMPING ON PUMP DOWN
12:41	2391	0	6.5	6.5	6.1	INCREAE RATE ON PUMP DOWN
12:42	2641	0	10.9	10.9	7.1	ESTABLISH RATE ON PUMP DOWN
12:56	3181	0	103.8	103.8	0	SHUT DOWN SET PLUG, SHOOT GUNS COME OUT OF HOLE WITH WIRELINE
13:43	1274	0	0	0	0	OEPN WELL HEAD DROP BALL
14:00	0	0	0	0	0	SAFETY MEETING
14:28	1023	0	0	0	0	OPEN WELL & START PUMPING
14:30	3306	0	20	20	21.3	START PAD
14:34	3742	0	101	112	32.9	INCREASE RATE @ START 100 MESH .5#
14:36	4680	0	204	321	50.1	START 30/50 @ 1#
14:42	4555	0	167	489	50.1	START 30/50 @2#
14:44	4638	0	86	574	50	100 MESH .5# ON PERF.
14:46	4592	0	174	663	50	START 30/50 @ 3#
14:48	4487	0	120	785	50.1	30/50 1# ON PERF.
14:49	4438	0	165	828	50.1	START 30/50 @ 4#
14:51	4359	0	91	921	50.2	30/50 2# ON PERF.
14:53	4343	0	172	1000	50.2	START 30/50 @ 5#
14:55	4264	0	99	1103	50.2	30/50 3# on erf.
14:56	4272	0	214	1214	50.2	START PRE-FLUSH
14:58	4434	0	41	1255	50.3	START FLUSH & 30/50 4# ON PERF.
15:01	4922	0	171	1430	50	30/50 5# ON PERF.
15:07	3259	0	434.2	1689.8	7	SHUT DOWN, ISIP 3259 PSI
15:12	2737	0	434.2	1689.8	0	5 MINUTE READING 2737 PSI, .75 F.G. WELL BREAK @ 3778 PSI

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Treatment Report-Supplement

Date 17-SEP-08 District Dickinson F.Receipt 554510021 Customer Continental Resources, Inc.
Lease ALICE 3-21H (Stg 8) Well Name ALICE 3-21H (Stg 8)
Field ELM COULEE Location Dickinson
County Richland State Montana Stage No 1 Well API - API 25083227660000

TIME	Treating Pressure-Psi		Surface Slurry BBLS. Pumped		Slurry Rate BPM	Comments
	STP	Annulus	Stage	Total		

Treating Pressure		Injection Rates		Shut In Pressures		Customer Rep.	JASON WALTER
Minimum	3244	Treating Fluid	50	ISDP	3259	BJ Rep.	Jamie Sprague
Maximum	5251	Flush	49	5 Min.	2737	Job Number	554510021
Average	4171	Average	35.3	10 Min.	0	Rec. ID No.	
Operators Max. Pressure				15 Min.	0	Distribution	
6800				Final 2737 In	Min. 5		
				Flush Dens. lb./gal.	8.34		

Report Printed on: September 29, 2008 11:33 AM

Jr8001

STIMULATION TREATMENT REPORT

Date 17-SEP-08 District Dickinson F.Receipt 554510019 Customer Continental Resources, Inc.
Lease ALICE 3-21H (Stg 6) Well Name ALICE 3-21H (Stg 6)
Field ELM COULEE Location 21-23N-56E
County Richland State Montana Stage No 1 Well API - API 25083227660000

WELL DATA Well Type: NEW Well Class: OIL Depth TD/PB: 19554 Formation:

Geometry Type	Tubular Type	OD	Weight	ID	Grade	Top	Bottom
TUBULAR	CSG	7	26	6.276	J-55	0	10489
TUBULAR	CSG	4.5	11.6	4	H-40	9711	19554

Perf Intervals

Top	Bottom	SPF	Diameter
15061	15793	1	.35

Packer Type Packer Depth 15794 FT

TREATMENT DATA

Fluid Type	Fluid Desc	Pumped Volume(Gals)
PAD	LINEAR GEL	5,867
TREATMENT FLUID	XL PAD	12,975
TREATMENT FLUID	1#-5# 30/50 SAND STAGE	35,137
PAD	FLUSH	20,854

Prop. Description	Volume Pumped(Lbs)
Sand, White, 20/40 mesh, Winn E	4,195
Sand, White, 30/50	93,486
Total Prop Qty:	97,681

LIQUID PUMPED AND CAPACITIES IN BBLS.

Tubing Cap.	0
Casing Cap.	458.4
Annular Cap.	0
Open Hole Cap.	0
Fluid to Load	217.3
Pad Volume	323.5
Treating Fluid	796.6
Flush	496.3
Overflush	0
Fluid to Recover	1832.8

Previous Treatment N/A Previous Production N/A
Hole Loaded With WATER, OIL Treat Via: Tubing ☐ Casing ☒ Anul. ☐ Tubing & Anul. ☐
Ball Sealers: 0 In 0 Stages Type
Auxiliary Materials GBW-5, NE-940, GW-3LDF, BF-7L, CLAYTREAT 3C, INFLO-150, XLW-30A

PROCEDURE SUMMARY

Time AM/PM	Treating Pressure-Psi		Surface Slurry BBLS. Pumped		Slurry Rate BPM	Comments
	STP	Annulus	Stage	Total		
17:10	2109	0	0	0	0	OPEN GROUND VALVE
17:12	2309	0	4.6	4.6	6.1	ESTABLISH RATE ON PUMP DOWN
17:13	2465	0	12.9	12.9	7.1	INCREASE RATE ON PUMP DOWN
17:32	2547	0	145.5	145.5	0	SHUT DOWN SET PLUG, SHOOT GUNS COME OUT OF HOLE
18:30	2134	0	0	0	0	OPEN WELL DROP BALL, SHUT DOWN FOT THE NIGHT
06:11	0	0	0	0	0	ARRIVE BACK ON LOCATION SEPTEMBER 17TH 2008, START STAGE #6
06:45	0	0	0	0	0	SAFTEY MEETING
07:00	0	0	0	0	0	PRIME UP PUMPS AND RE-TEST LINES
07:08	390	0	0	0	0	OPEN WELL HEAD WELL HEAD PRESSURE (390 PSI)
07:09	500	0	1.2	1.2	2.8	START DOWN HOLE WITH PAD
07:10	3050	0	18.8	18.8	21.1	START XL PAD
07:15	2500	0	107.7	125.5	25.7	SHUT DOWN HAD HYDRAULIC LEAK ON BLENDER
07:28	1480	0	0	0	0	OPEN WELL HEAD BACK UP
07:29	2250	0	4.8	4.8	20.1	START DOWN HOLE AGAIN WITH XL PAD, RE-START JOB
07:30	4270	0	13.3	13.3	21.2	START XL PAD
07:34	5868	0	100.1	115.9	34.3	START .5# 100 MESH SAND STAGE
07:40	5721	0	20.4	324.4	39.1	START 30/50 1# SAND STAGE
07:44	5944	0	16.6	492.2	45.5	START 2# 30/50 SAND STAGE
07:46	6217	0	79.9	571.9	45.4	.5# 100 MESH SAND STAGE ON PERFS
07:48	6123	0	17.3	667.4	45.5	START 3# 30/50 SAND STAGE
07:50	5880	0	110.1	775.6	45.6	1# 30/50 SAND STAGE ON PERFS
07:52	5734	0	16.4	833.3	45.6	START 4# 30/50 SAND STAGE
07:54	5801	0	116.6	950.3	49.3	2# 30/50 SAND STAGE ON PERFS
07:56	5716	0	17.1	1004.4	49.4	START 5# 30/50 SAND STAGE
07:58	5593	0	121.9	1127.2	49.4	3# 30/50 SAND STAGE ON PERFS
07:59	5595	0	211.8	1217.7	49.5	START 1st FLUSH
08:00	5697	0	35.8	1257.9	49.4	START 2nd FLUSH
08:10	3486	0	460.1	1717.4	0	SHUT DOWN CALL ISIP(3486 PSI) F.G .77
08:15	3200	0	460.1	1717.4	0	5 MIN BLEED OFF (3200 PSI) CLOSE IN WELL BLEED OFF LINE, START WIRELINE

Treatment Report-Supplement

Date 17-SEP-08 District Dickinson F.Receipt 554510019 Customer Continental Resources, Inc.
Lease ALICE 3-21H (Stg 6) Well Name ALICE 3-21H (Stg 6)
Field ELM COULEE Location Dickinson
County Richland State Montana Stage No 1 Well API - API 25083227660000

TIME	Treating Pressure-Psi		Surface Slurry BBLS. Pumped		Slurry Rate BPM	Comments
	STP	Annulus	Stage	Total		

Treating Pressure		Injection Rates		Shut In Pressures				Customer Rep.	JASON WALTER
Minimum	4502	Treating Fluid	45.9	ISDP	3486			BJ Rep.	Jamie Sprague
Maximum	6482	Flush	49.9	5 Min.	3200			Job Number	554510019
Average	5650	Average	38.1	10 Min.	0			Rec. ID No.	
Operators Max. Pressure				15 Min.	0			Distribution	
6800				Final	3200	In	Min. 5		
				Flush Dens. lb./gal.		8.34			

Report Printed on: September 29, 2008 11:07 AM

Jr8001

STIMULATION TREATMENT REPORT

Date 17-SEP-08 District Dickinson F.Receipt 554510020 Customer Continental Resources, Inc.
Lease ALICE 3-21H (Stg 7) Well Name ALICE 3-21H (Stg 7)
Field ELM COULEE Location 21-23N-56E
County Richland State Montana Stage No 1 Well API - API 25083227660000

WELL DATA Well Type: NEW Well Class: OIL Depth TD/PB: 19554 Formation:

Geometry Type	Tubular Type	OD	Weight	ID	Grade	Top	Bottom
TUBULAR	CSG	7	26	6.276	J-55	0	10489
TUBULAR	CSG	4.5	11.6	4	H-40	9711	19554

Perf Intervals

Top	Bottom	SPF	Diameter
14288	15046	1	.35

Packer Type BAKER Packer Depth 15047 FT

TREATMENT DATA

Fluid Type	Fluid Desc	Pumped Volume(Gals)
PAD	LINEAR GEL	512
TREATMENT FLUID	XL PAD	12,610
TREATMENT FLUID	1#-5# 30/50 SAND STAGE	33,010
PAD	FLUSH	20,502

Prop. Description	Volume Pumped(Lbs)
Sand, White, 100 mesh, Winn Ba	4,170
Sand, White, 30/50	91,080
Total Prop Qty:	95,250

LIQUID PUMPED AND CAPACITIES IN BBLS.

Tubing Cap.	0
Casing Cap.	446.8
Annular Cap.	0
Open Hole Cap.	0
Fluid to Load	158.2
Pad Volume	312.4
Treating Fluid	785.95
Flush	447
Overflush	0
Fluid to Recover	1703.55

Previous Treatment N/A Previous Production N/A
Hole Loaded With WATER, OIL Treat Via: Tubing ☐ Casing ☒ Anul. ☐ Tubing & Anul. ☐
Ball Sealers: 0 In 0 Stages Type
Auxiliary Materials GBW-5, NE-940, GW-3LDF, BF-7L, CLAYTREAT 3-C, HIGH PERM CRB, INFLO 250, XLW-30A

PROCEDURE SUMMARY

Time AM/PM	Treating Pressure-Psi STP	Annulus	Surface Slurry BBLS. Pumped Stage	Total	Slurry Rate BPM	Comments
09:13	1851	0	0	0	0	OPEN GROUND VALVE GET READY FOR PUMP DOWN
09:15	1994	0	2.7	2.7	4.4	START PUMPING ON PUMP DOWN
09:16	2180	0	5.9	5.9	6.3	INCREASE RATE ON PUMP DOWN
09:17	2499	0	19.3	19.3	6.9	ESATBLISH RATE ON PUMP DOWN
09:36	2914	0	145.9	145.9	0	SHUT DOWN SET PLUG , SHOOT GUNS, COME OUT OF HOLE WITH WIRELINE
10:25	1304	0	0	0	0	DROP BALL
10:30	1302	0	0	0	0	SAFTEY MEETING
11:11	1158	0	0	0	0	OPEN WELL
11:12	3317	0	13	13	20.9	START PAD
11:16	3991	0	94	94	28.3	INCREASE RATE
11:17	4152	0	114	115	33.7	START 100 MESH @ .5#
11:21	5413	0	166	321	49.8	START 30/50 @ 1#
11:25	5357	0	67	487	49.7	START 30/50 @ 2#
11:26	5523	0	106	554	49.5	100 MESH .5# ON PERFS
11:28	5539	0	150	660	49.6	START 30/50 @ 3#
11:31	5458	0	19	810	49.5	1# 30/50 ON PERFS
11:32	5409	0	102	829	49.5	START 30/50 @ 4#
11:34	5327	0	66	931	49.5	2# 30/50 ON PERFS
11:35	5349	0	113	997	49.5	START 30/50 @ 5#
11:37	5257	0	97	1110	49.6	3# 30/50 ON PERFS
11:39	5304	0	43	1207	49.8	START PRE-FLUSH
11:40	5428	0	28	1250	49.7	START FLUSH
11:41	5502	0	31	1278	49.6	4# 30/50 ON PERFS
11:50	3657	0	447	1696.1	49	SHUT DOWN ISIP
11:55	2950	0	447	1696.1	0	5 MINUTE READING 2950 PSI F.G. .79
00:00	0	0	0	0	0	WELL BREAKDOWN AT 5149 PSI

Treatment Report-Supplement

Date 17-SEP-08 District Dickinson F.Receipt 554510020 Customer Continental Resources, Inc.
Lease ALICE 3-21H (Stg 7) Well Name ALICE 3-21H (Stg 7)
Field ELM COULEE Location Dickinson
County Richland State Montana Stage No 1 Well API - API 25083227660000

TIME	Treating Pressure-Psi		Surface Slurry BBLS. Pumped		Slurry Rate BPM	Comments
	STP	Annulus	Stage	Total		

Treating Pressure		Injection Rates		Shut In Pressures		Customer Rep.	JASON WALTER
Minimum	3457	Treating Fluid	49.5	ISDP	3657	BJ Rep.	Jamie Sprague
Maximum	6243	Flush	49	5 Min.	3657	Job Number	554510020
Average	4734	Average	37.1	10 Min.	0	Rec. ID No.	
Operators Max. Pressure				15 Min.	0	Distribution	
6900				Final 3657 In Min. 5			
				Flush Dens. lb./gal.	8.34		

Report Printed on: September 29, 2008 11:12 AM

JR8001

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P-0020948

QUANTUM
DRILLING MOTORS
& DIRECTIONAL SERVICES

Survey Certification Sheet

Company: Continental Resources
Date: 9-30-08
Lease: Sec. 21, T23N, R56E
Well Name: Alice 3-21H
County/State: Richland County, Montana

Surveyed from a depth of: OH: 1827.00' MD to 13136.00' MD
Sidetrack1: 12144.00' MD to 14957.00' MD
Sidetrack2: 13588.00' MD to 14800.00' MD
Sidetrack3: 13588.00' MD to 19578.00' MD

Type of Survey: MWD Surveys

The data and calculations for this survey have been checked by me and conform to the standards and procedures set forth by Quantum Drilling Motors. This report represents a true and correct Directional Survey of this well based on the original data obtained at the well site. Wellbore Coordinates are calculated using minimum curvature.

Dusty Moyer
Quantum Drilling Motors - Well Planner

08322766

PO Box 427 • MILLS, WY 82644 • 63 CASPER VIEW COURT • MILLS, WY 82644
OFFICE (307) 472-7400 • FAX (307) 473-7200 • www.quantumdm.com

Continental Resources

Project: Richland County (M83)
Site: Sec 21-T23N-R56E alice 3-21H
Well: Alice 3-21H
Wellbore: Wellbore #1
Design: 06-24-08
Plan Version

Azimuths to True North
Magnetic North: 9.77°

Magnetic Field
Strength: 56905.1snT
Dip Angle: 72.89°
Date: 6/24/2008
Model: IGRF200510

WELL DETAILS: Alice 3-21H

Ground Level: 0.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1312775.77	3186326.16	47° 44' 43.010 N	104° 32' 39.500 W	

ANNOTATIONS

TVD	MD	Annotation
9809.5	9809.5	KOP - 12/100 @ 179.9 AZI
10287.0	10561.2	EOC - Hold to TD
10255.0	19588.7	TD at 19588.7

CASING DETAILS

TVD	MD	Name	Size
10287.0	10561.2	7" Casing Shoe	7

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	9809.5	0.00	0.00	9809.5	0.0	0.0	0.00	0.00	0.0	
3	10561.2	90.20	179.90	10287.0	-479.1	0.8	12.00	179.90	479.1	
4	19588.7	90.21	179.91	10255.0	-9506.6	15.7	0.00	62.75	9506.6	Alice 3-21H PBHL

WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
Alice 3-21H PBHL	10255.0	-9506.6	15.7	Point

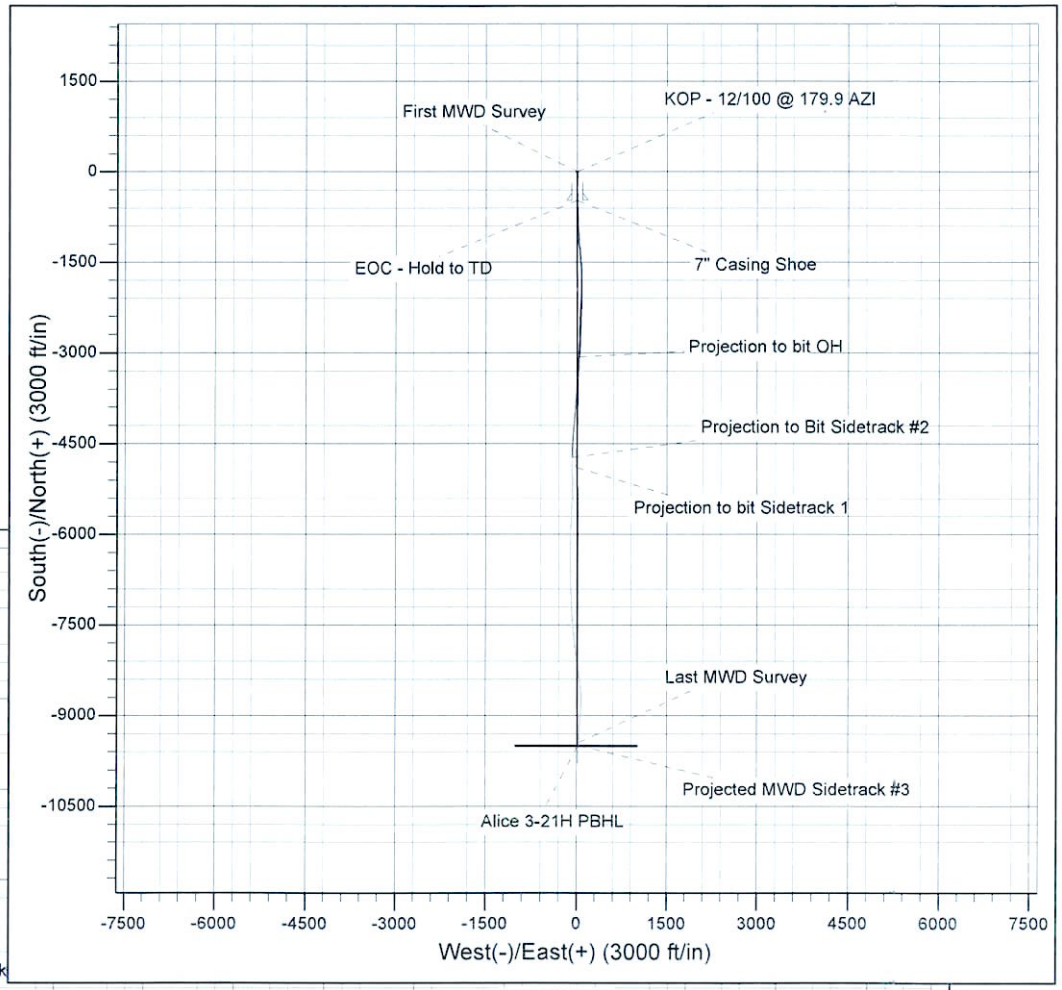
Plan: 06-24-08 (Alice 3-21H/Wellbore #1)

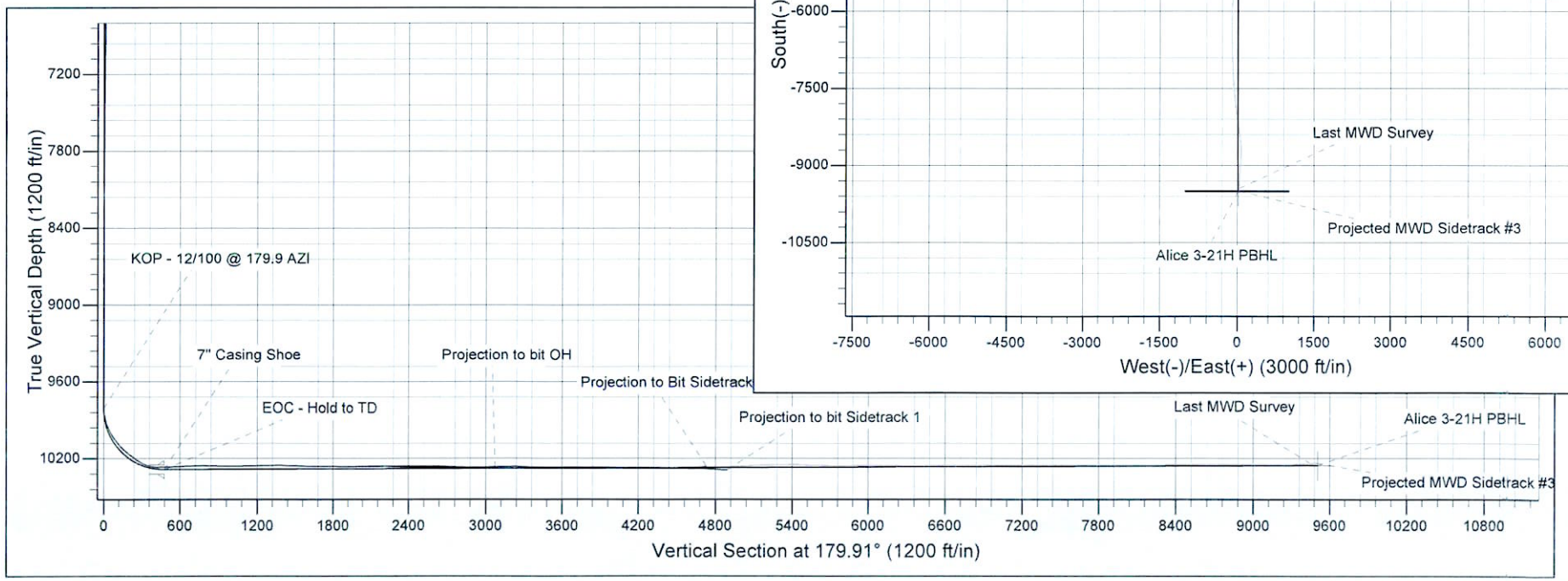
Created By: Dusty Moyer Date: 10:54, September 30 2008

Checked: _____ Date: _____

Reviewed: _____ Date: _____

Approved: _____ Date: _____





Continental Resources

Richland County (M83)
Sec 21-T23N-R56E alice 3-21H
Alice 3-21H
Wellbore #1

Survey: MWD Survey

Standard Survey Report

18 September, 2008

Quantum Drilling

Survey Report

Company:	Continental Resources	**Local Co-ordinate Reference:**	Well Alice 3-21H
Project:	Richland County (M83)	**TVD Reference:**	WELL @ 0.0ft (Original Well Elev)
Site:	Sec 21-T23N-R56E alice 3-21H	**MD Reference:**	WELL @ 0.0ft (Original Well Elev)
Well:	Alice 3-21H	**North Reference:**	True
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Wellbore #1	**Database:**	EDM 2003.16 Single User Db

Project Richland County (M83)

Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Montana		

Site Sec 21-T23N-R56E alice 3-21H

Site Position:		**Northing:**	400,134.85 m	**Latitude:**	47° 44' 43.010 N
From:	Lat/Long	**Easting:**	971,194.16 m	**Longitude:**	104° 32' 39.500 W
Position Uncertainty:	0.0 ft	**Slot Radius:**	in	**Grid Convergence:**	3.63 °

Well Alice 3-21H

Well Position	**+N/-S**	0.0 ft	**Northing:**	400,134.85 m	**Latitude:**	47° 44' 43.010 N
	+E/-W	0.0 ft	**Easting:**	971,194.16 m	**Longitude:**	104° 32' 39.500 W
Position Uncertainty		0.0 ft	**Wellhead Elevation:**	ft	**Ground Level:**	0.0 ft

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	6/24/2008	9.77	72.89	56,905

Design Wellbore #1

Audit Notes:

Version:	1.0	**Phase:**	ACTUAL	**Tie On Depth:**	0.0

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	185.58

Survey Program **Date** 9/18/2008

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
1,954.0	12,084.0	MWD Survey (Wellbore #1)	MWD	MWD - Standard
12,144.0	13,464.0	Sidetrack MWD Survey (Wellbore #1)	MWD	MWD - Standard
13,527.0	14,596.0	Sidetrack #2 pipe tally offf 31' (Wellbore #1	MWD	MWD - Standard

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)
1,827.0	0.26	56.88	1,827.0	2.3	3.5	-2.6	0.00	0.00	0.00
First MWD Survey									
1,954.0	0.13	87.99	1,954.0	2.4	3.9	-2.8	0.13	-0.10	24.50
2,239.0	0.44	214.12	2,239.0	1.5	3.6	-1.9	0.18	0.11	44.26
2,525.0	0.70	244.17	2,525.0	-0.1	1.4	0.0	0.14	0.09	10.51
2,810.0	1.23	280.29	2,809.9	-0.4	-3.2	0.7	0.27	0.19	12.67
3,096.0	1.76	300.95	3,095.8	2.5	-10.0	-1.5	0.26	0.19	7.22
3,381.0	1.76	319.41	3,380.7	8.0	-16.6	-6.4	0.20	0.00	6.48
3,475.0	1.63	327.90	3,474.7	10.3	-18.2	-8.4	0.30	-0.14	9.03
3,571.0	1.32	326.44	3,570.6	12.3	-19.6	-10.4	0.33	-0.32	-1.52
3,665.0	1.19	330.31	3,664.6	14.1	-20.7	-12.0	0.17	-0.14	4.12

Quantum Drilling

Survey Report

Company:	Continental Resources	**Local Co-ordinate Reference:**	Well Alice 3-21H
Project:	Richland County (M83)	**TVD Reference:**	WELL @ 0.0ft (Original Well Elev)
Site:	Sec 21-T23N-R56E alice 3-21H	**MD Reference:**	WELL @ 0.0ft (Original Well Elev)
Well:	Alice 3-21H	**North Reference:**	True
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Wellbore #1	**Database:**	EDM 2003.16 Single User Db

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)
3,856.0	0.62	334.00	3,855.6	16.7	-22.1	-14.5	0.30	-0.30	1.93
4,044.0	0.35	127.46	4,043.6	17.3	-22.1	-15.1	0.50	-0.14	81.63
4,231.0	0.35	166.65	4,230.6	16.4	-21.5	-14.2	0.13	0.00	20.96
4,420.0	0.22	163.93	4,419.6	15.5	-21.3	-13.3	0.07	-0.07	-1.44
4,607.0	0.40	145.56	4,606.6	14.6	-20.8	-12.5	0.11	0.10	-9.82
4,795.0	0.75	158.74	4,794.6	12.9	-20.0	-10.9	0.20	0.19	7.01
4,985.0	0.88	146.35	4,984.5	10.5	-18.7	-8.7	0.11	0.07	-6.52
5,171.0	1.36	144.86	5,170.5	7.5	-16.7	-5.9	0.26	0.26	-0.80
5,361.0	1.67	149.87	5,360.4	3.3	-14.0	-1.9	0.18	0.16	2.64
5,550.0	1.63	164.80	5,549.4	-1.7	-11.9	2.8	0.23	-0.02	7.90
5,739.0	0.79	149.16	5,738.3	-5.4	-10.5	6.4	0.47	-0.44	-8.28
5,928.0	1.45	110.32	5,927.3	-7.3	-7.6	8.0	0.51	0.35	-20.55
6,116.0	1.54	116.82	6,115.2	-9.3	-3.1	9.6	0.10	0.05	3.46
6,304.0	1.32	131.06	6,303.2	-11.9	0.8	11.7	0.22	-0.12	7.57
6,493.0	0.44	138.35	6,492.1	-13.8	2.9	13.5	0.47	-0.47	3.86
6,681.0	0.79	298.23	6,680.1	-13.8	2.2	13.5	0.65	0.19	85.04
6,868.0	1.41	308.86	6,867.1	-11.7	-0.7	11.7	0.35	0.33	5.68
7,056.0	0.57	6.52	7,055.1	-9.3	-2.4	9.5	0.64	-0.45	30.67
7,244.0	0.66	357.90	7,243.1	-7.3	-2.3	7.5	0.07	0.05	-4.59
7,432.0	0.79	8.98	7,431.0	-4.9	-2.2	5.1	0.10	0.07	5.89
7,620.0	0.53	30.78	7,619.0	-2.9	-1.5	3.1	0.19	-0.14	11.60
7,808.0	0.35	38.42	7,807.0	-1.7	-0.7	1.8	0.10	-0.10	4.06
8,090.0	0.04	51.52	8,089.0	-1.0	-0.1	1.0	0.11	-0.11	4.65
8,367.0	0.57	72.17	8,366.0	-0.5	1.3	0.4	0.19	0.19	7.45
8,651.0	0.79	133.52	8,650.0	-1.4	4.1	1.0	0.25	0.08	21.60
8,916.0	0.66	85.09	8,915.0	-2.5	6.9	1.9	0.23	-0.05	-18.28
9,189.0	0.53	89.31	9,188.0	-2.4	9.7	1.4	0.05	-0.05	1.55
9,467.0	0.53	70.94	9,466.0	-2.0	12.2	0.8	0.06	0.00	-6.61
9,750.0	0.40	43.70	9,749.0	-0.8	14.2	-0.6	0.09	-0.05	-9.63
9,786.0	0.40	128.42	9,785.0	-0.8	14.3	-0.6	1.50	0.00	235.33
9,817.0	2.95	177.52	9,815.9	-1.7	14.5	0.3	8.73	8.23	158.39
9,849.0	6.95	177.73	9,847.8	-4.4	14.6	3.0	12.50	12.50	0.66
9,880.0	11.30	178.52	9,878.4	-9.3	14.7	7.9	14.04	14.03	2.55
9,911.0	15.87	180.37	9,908.5	-16.6	14.8	15.1	14.81	14.74	5.97
9,943.0	20.75	182.21	9,938.9	-26.7	14.5	25.1	15.35	15.25	5.75
9,974.0	25.05	183.35	9,967.5	-38.7	13.9	37.2	13.94	13.87	3.68
10,005.0	29.10	183.97	9,995.1	-52.8	13.0	51.3	13.10	13.06	2.00
10,037.0	32.75	184.41	10,022.5	-69.2	11.8	67.7	11.43	11.41	1.37
10,068.0	35.91	184.94	10,048.1	-86.6	10.4	85.2	10.24	10.19	1.71
10,100.0	38.77	185.02	10,073.5	-105.9	8.7	104.6	8.94	8.94	0.25
10,131.0	41.63	184.85	10,097.2	-125.9	7.0	124.6	9.23	9.23	-0.55
10,162.0	44.62	183.53	10,119.8	-147.0	5.4	145.8	10.07	9.65	-4.26
10,194.0	47.91	182.30	10,142.0	-170.1	4.3	168.9	10.65	10.28	-3.84
10,225.0	51.21	181.68	10,162.1	-193.7	3.5	192.4	10.75	10.65	-2.00
10,256.0	54.07	181.68	10,180.9	-218.3	2.7	217.0	9.23	9.23	0.00
10,288.0	55.03	181.16	10,199.4	-244.4	2.1	243.0	3.28	3.00	-1.62
10,319.0	56.62	181.07	10,216.8	-270.0	1.6	268.6	5.13	5.13	-0.29
10,350.0	60.48	180.28	10,233.0	-296.4	1.3	294.9	12.64	12.45	-2.55
10,382.0	65.89	178.96	10,247.4	-325.0	1.5	323.3	17.30	16.91	-4.12
10,413.0	73.20	177.82	10,258.3	-354.0	2.3	352.1	23.83	23.58	-3.68
10,436.0	78.90	177.55	10,263.8	-376.3	3.2	374.2	24.81	24.78	-1.17
10,486.0	91.30	177.60	10,268.1	-426.0	5.3	423.4	24.80	24.80	0.10
10,513.0	89.54	178.52	10,267.9	-453.0	6.2	450.2	7.36	-6.52	3.41
10,576.0	91.34	179.05	10,267.4	-515.9	7.6	512.8	2.98	2.86	0.84
10,638.0	92.84	178.96	10,265.1	-577.9	8.6	574.3	2.42	2.42	-0.15

Quantum Drilling

Survey Report

Company:	Continental Resources	**Local Co-ordinate Reference:**	Well Alice 3-21H
Project:	Richland County (M83)	**TVD Reference:**	WELL @ 0.0ft (Original Well Elev)
Site:	Sec 21-T23N-R56E alice 3-21H	**MD Reference:**	WELL @ 0.0ft (Original Well Elev)
Well:	Alice 3-21H	**North Reference:**	True
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Wellbore #1	**Database:**	EDM 2003.16 Single User Db

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)
10,701.0	93.27	178.70	10,261.8	-640.8	9.9	636.8	0.80	0.68	-0.41
10,765.0	92.44	178.87	10,258.6	-704.7	11.3	700.2	1.32	-1.30	0.27
10,828.0	90.37	178.08	10,257.0	-767.6	13.0	762.7	3.52	-3.29	-1.25
10,890.0	88.44	177.73	10,257.7	-829.6	15.2	824.2	3.16	-3.11	-0.56
10,953.0	88.92	177.38	10,259.1	-892.5	17.9	886.5	0.94	0.76	-0.56
11,016.0	89.32	176.59	10,260.1	-955.4	21.2	948.8	1.41	0.63	-1.25
11,079.0	90.42	176.85	10,260.2	-1,018.3	24.8	1,011.1	1.79	1.75	0.41
11,142.0	90.95	177.03	10,259.5	-1,081.2	28.2	1,073.4	0.89	0.84	0.29
11,205.0	91.12	176.76	10,258.4	-1,144.1	31.6	1,135.6	0.51	0.27	-0.43
11,268.0	91.16	176.59	10,257.1	-1,207.0	35.3	1,197.8	0.28	0.06	-0.27
11,331.0	90.59	174.74	10,256.1	-1,269.8	40.0	1,259.9	3.07	-0.90	-2.94
11,393.0	90.07	173.86	10,255.8	-1,331.5	46.2	1,320.7	1.65	-0.84	-1.42
11,456.0	89.58	173.95	10,256.0	-1,394.1	52.9	1,382.4	0.79	-0.78	0.14
11,519.0	87.91	173.77	10,257.4	-1,456.8	59.6	1,444.1	2.67	-2.65	-0.29
11,582.0	88.09	175.09	10,259.6	-1,519.4	65.7	1,505.8	2.11	0.29	2.10
11,645.0	88.57	175.97	10,261.4	-1,582.2	70.6	1,567.8	1.59	0.76	1.40
11,707.0	88.92	177.38	10,262.8	-1,644.1	74.2	1,629.1	2.34	0.56	2.27
11,770.0	89.36	179.49	10,263.7	-1,707.1	75.9	1,691.6	3.42	0.70	3.35
11,833.0	89.76	179.84	10,264.2	-1,770.1	76.3	1,754.2	0.84	0.63	0.56
11,896.0	90.02	179.93	10,264.3	-1,833.1	76.4	1,816.9	0.44	0.41	0.14
11,958.0	89.32	180.01	10,264.7	-1,895.1	76.5	1,878.6	1.14	-1.13	0.13
12,021.0	90.51	180.81	10,264.8	-1,958.0	76.0	1,941.4	2.28	1.89	1.27
12,084.0	91.52	180.89	10,263.6	-2,021.0	75.1	2,004.1	1.61	1.60	0.13
12,147.0	91.69	180.37	10,261.9	-2,084.0	74.4	2,066.9	0.87	0.27	-0.83
12,210.0	90.73	181.07	10,260.5	-2,147.0	73.6	2,129.6	1.89	-1.52	1.11
12,272.0	88.70	180.81	10,260.8	-2,209.0	72.6	2,191.4	3.30	-3.27	-0.42
12,335.0	87.69	181.51	10,262.8	-2,271.9	71.3	2,254.2	1.95	-1.60	1.11
12,398.0	87.96	181.68	10,265.2	-2,334.9	69.5	2,317.0	0.51	0.43	0.27
12,461.0	88.18	181.68	10,267.3	-2,397.8	67.7	2,379.8	0.35	0.35	0.00
12,524.0	88.79	181.51	10,269.0	-2,460.7	65.9	2,442.7	1.01	0.97	-0.27
12,587.0	89.89	182.30	10,269.7	-2,523.7	63.8	2,505.5	2.15	1.75	1.25
12,650.0	90.02	181.86	10,269.8	-2,586.7	61.6	2,568.4	0.73	0.21	-0.70
12,712.0	90.02	181.77	10,269.8	-2,648.6	59.6	2,630.3	0.15	0.00	-0.15
12,775.0	89.80	181.51	10,269.9	-2,711.6	57.8	2,693.1	0.54	-0.35	-0.41
12,838.0	90.42	182.04	10,269.7	-2,774.6	55.8	2,756.0	1.29	0.98	0.84
12,896.0	90.20	182.65	10,269.4	-2,832.5	53.5	2,813.9	1.12	-0.38	1.05
12,964.0	89.85	183.09	10,269.4	-2,900.4	50.1	2,881.8	0.83	-0.51	0.65
13,027.0	89.45	183.27	10,269.8	-2,963.3	46.6	2,944.8	0.70	-0.63	0.29
13,090.0	88.97	183.35	10,270.7	-3,026.2	42.9	3,007.7	0.77	-0.76	0.13
Last MWD Survey									
13,136.0	88.97	183.35	10,271.5	-3,072.1	40.2	3,053.7	0.00	0.00	0.00
Projection to bit OH									

Quantum Drilling

Survey Report

Company:	Continental Resources	**Local Co-ordinate Reference:**	Well Alice 3-21H
Project:	Richland County (M83)	**TVD Reference:**	WELL @ 0.0ft (Original Well Elev)
Site:	Sec 21-T23N-R56E alice 3-21H	**MD Reference:**	WELL @ 0.0ft (Original Well Elev)
Well:	Alice 3-21H	**North Reference:**	True
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Wellbore #1	**Database:**	EDM 2003.16 Single User Db

Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (m)	Easting (m)	Latitude	Longitude
Alice 3-21H PBHL	0.00	0.00	10,255.0	-9,506.6	15.7	397,243.34	971,382.15	47° 43' 9.140 N	104° 32' 39.270 W
- survey misses by 6434.6ft at 13136.0ft MD (10271.5 TVD, -3072.1 N, 40.2 E)									
- Point									

Survey Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
1,827.0	1,827.0	2.3	3.5	First MWD Survey
13,090.0	10,270.7	-3,026.2	42.9	Last MWD Survey
13,136.0	10,271.5	-3,072.1	40.2	Projection to bit OH

Checked By: _____ Approved By: _____ Date: _____

Continental Resources

Richland County (M83)
Sec 21-T23N-R56E alice 3-21H
Alice 3-21H
Wellbore #1

Survey: Sidetrack MWD Survey

Standard Survey Report

18 September, 2008

Quantum Drilling

Survey Report

Company:	Continental Resources	**Local Co-ordinate Reference:**	Well Alice 3-21H
Project:	Richland County (M83)	**TVD Reference:**	WELL @ 0.0ft (Original Well Elev)
Site:	Sec 21-T23N-R56E alice 3-21H	**MD Reference:**	WELL @ 0.0ft (Original Well Elev)
Well:	Alice 3-21H	**North Reference:**	True
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Wellbore #1	**Database:**	EDM 2003.16 Single User Db

Project Richland County (M83)

Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Montana		

Site Sec 21-T23N-R56E alice 3-21H

Site Position:		**Northing:**	400,134.85 m	**Latitude:**	47° 44' 43.010 N
From:	Lat/Long	**Easting:**	971,194.16 m	**Longitude:**	104° 32' 39.500 W
Position Uncertainty:	0.0 ft	**Slot Radius:**	in	**Grid Convergence:**	3.63 °

Well Alice 3-21H

Well Position	**+N/-S**	0.0 ft	**Northing:**	400,134.85 m	**Latitude:**	47° 44' 43.010 N
	+E/-W	0.0 ft	**Easting:**	971,194.16 m	**Longitude:**	104° 32' 39.500 W
Position Uncertainty		0.0 ft	**Wellhead Elevation:**	ft	**Ground Level:**	0.0 ft

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	6/24/2008	9.77	72.89	56,905

Design Wellbore #1

Audit Notes:

Version:	1.0	**Phase:**	ACTUAL	**Tie On Depth:**	0.0

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	185.58

Survey Program **Date** 9/18/2008

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
1,954.0	12,084.0	MWD Survey (Wellbore #1)	MWD	MWD - Standard
12,144.0	13,464.0	Sidetrack MWD Survey (Wellbore #1)	MWD	MWD - Standard
13,527.0	14,596.0	Sidetrack #2 pipe tally offf 31' (Wellbore #1	MWD	MWD - Standard

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)
12,084.0	91.52	180.89	10,263.6	-2,021.0	75.1	2,004.1	0.00	0.00	0.00
First MWD Survey Sidetrack 1									
12,144.0	90.46	182.91	10,262.6	-2,081.0	73.1	2,064.0	3.80	-1.77	3.37
12,207.0	90.29	184.23	10,262.2	-2,143.9	69.2	2,127.0	2.11	-0.27	2.10
12,270.0	90.86	183.62	10,261.6	-2,206.7	64.8	2,189.9	1.33	0.90	-0.97
12,333.0	90.95	183.09	10,260.6	-2,269.6	61.2	2,252.9	0.85	0.14	-0.84
12,395.0	88.75	181.95	10,260.7	-2,331.5	58.4	2,314.8	4.00	-3.55	-1.84
12,458.0	89.63	182.21	10,261.6	-2,394.5	56.1	2,377.7	1.46	1.40	0.41
12,521.0	90.64	181.95	10,261.5	-2,457.4	53.9	2,440.5	1.66	1.60	-0.41
12,584.0	90.20	181.68	10,261.0	-2,520.4	51.9	2,503.4	0.82	-0.70	-0.43
12,647.0	89.32	181.16	10,261.3	-2,583.4	50.3	2,566.2	1.62	-1.40	-0.83

Quantum Drilling

Survey Report

Company:	Continental Resources	**Local Co-ordinate Reference:**	Well Alice 3-21H
Project:	Richland County (M83)	**TVD Reference:**	WELL @ 0.0ft (Original Well Elev)
Site:	Sec 21-T23N-R56E alice 3-21H	**MD Reference:**	WELL @ 0.0ft (Original Well Elev)
Well:	Alice 3-21H	**North Reference:**	True
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Wellbore #1	**Database:**	EDM 2003.16 Single User Db

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)
12,710.0	89.76	181.07	10,261.8	-2,646.4	49.1	2,629.0	0.71	0.70	-0.14
12,772.0	88.13	181.77	10,262.9	-2,708.3	47.5	2,690.9	2.86	-2.63	1.13
12,835.0	87.91	181.51	10,265.1	-2,771.3	45.7	2,753.7	0.54	-0.35	-0.41
12,898.0	88.48	181.95	10,267.1	-2,834.2	43.8	2,816.5	1.14	0.90	0.70
12,961.0	89.36	182.56	10,268.3	-2,897.1	41.4	2,879.4	1.70	1.40	0.97
13,024.0	90.20	182.30	10,268.5	-2,960.1	38.7	2,942.3	1.40	1.33	-0.41
13,087.0	90.73	182.48	10,268.0	-3,023.0	36.1	3,005.2	0.89	0.84	0.29
13,149.0	91.78	182.83	10,266.6	-3,085.0	33.2	3,067.1	1.79	1.69	0.56
13,212.0	90.77	181.68	10,265.2	-3,147.9	30.7	3,130.0	2.43	-1.60	-1.83
13,275.0	90.86	182.56	10,264.3	-3,210.8	28.4	3,192.8	1.40	0.14	1.40
13,338.0	87.69	182.64	10,265.1	-3,273.8	25.5	3,255.7	5.03	-5.03	0.13
13,401.0	87.96	182.91	10,267.5	-3,336.6	22.5	3,318.6	0.61	0.43	0.43
13,464.0	89.01	182.12	10,269.2	-3,399.6	19.7	3,381.5	2.09	1.67	-1.25
13,527.0	89.76	181.68	10,269.9	-3,462.5	17.6	3,444.4	1.38	1.19	-0.70
13,589.0	90.73	181.33	10,269.6	-3,524.5	16.0	3,506.2	1.66	1.56	-0.56
13,652.0	90.68	180.10	10,268.8	-3,587.5	15.2	3,569.0	1.95	-0.08	-1.95
13,715.0	90.25	179.20	10,268.3	-3,650.5	15.6	3,631.6	1.58	-0.68	-1.43
13,778.0	89.80	180.45	10,268.3	-3,713.5	15.8	3,694.3	2.11	-0.71	1.98
13,841.0	90.29	179.75	10,268.2	-3,776.5	15.7	3,757.0	1.36	0.78	-1.11
13,904.0	89.14	180.45	10,268.6	-3,839.5	15.6	3,819.7	2.14	-1.83	1.11
13,967.0	89.54	180.63	10,269.3	-3,902.5	15.0	3,882.5	0.70	0.63	0.29
14,030.0	88.60	180.72	10,270.3	-3,965.5	14.2	3,945.3	1.50	-1.49	0.14
14,092.0	87.96	181.33	10,272.2	-4,027.4	13.1	4,007.0	1.43	-1.03	0.98
14,155.0	88.40	181.68	10,274.2	-4,090.4	11.5	4,069.8	0.89	0.70	0.56
14,218.0	88.88	181.60	10,275.7	-4,153.3	9.7	4,132.7	0.77	0.76	-0.13
14,281.0	89.63	180.54	10,276.5	-4,216.3	8.5	4,195.5	2.06	1.19	-1.68
14,344.0	89.89	180.45	10,276.7	-4,279.3	7.9	4,258.2	0.44	0.41	-0.14
14,407.0	89.36	180.89	10,277.2	-4,342.3	7.2	4,321.0	1.09	-0.84	0.70
14,470.0	88.97	180.37	10,278.1	-4,405.3	6.5	4,383.8	1.03	-0.62	-0.83
14,533.0	90.59	180.89	10,278.3	-4,468.3	5.8	4,446.5	2.70	2.57	0.83
14,596.0	90.29	181.42	10,277.8	-4,531.3	4.6	4,509.3	0.97	-0.48	0.84
14,658.0	89.45	181.51	10,278.0	-4,593.2	3.0	4,571.2	1.36	-1.35	0.15
14,721.0	88.92	181.24	10,278.9	-4,656.2	1.5	4,634.0	0.94	-0.84	-0.43
14,784.0	87.12	181.77	10,281.0	-4,719.2	-0.2	4,696.8	2.98	-2.86	0.84
14,848.0	87.12	181.77	10,284.3	-4,783.0	-2.2	4,760.6	0.00	0.00	0.00
14,911.0	87.16	182.30	10,287.4	-4,845.9	-4.4	4,823.4	0.84	0.06	0.84
Last MWD Survey									
14,957.0	87.16	182.30	10,289.7	-4,891.8	-6.2	4,869.2	0.00	0.00	0.00
Projection to bit Sidetrack 1									

08322766

Quantum Drilling

Survey Report

Company:	Continental Resources	**Local Co-ordinate Reference:**	Well Alice 3-21H
Project:	Richland County (M83)	**TVD Reference:**	WELL @ 0.0ft (Original Well Elev)
Site:	Sec 21-T23N-R56E alice 3-21H	**MD Reference:**	WELL @ 0.0ft (Original Well Elev)
Well:	Alice 3-21H	**North Reference:**	True
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Wellbore #1	**Database:**	EDM 2003.16 Single User Db

Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (m)	Easting (m)	Latitude	Longitude
Alice 3-21H PBHL	0.00	0.00	10,255.0	-9,506.6	15.7	397,243.34	971,382.15	47° 43' 9.140 N	104° 32' 39.270 W
- survey misses by 4615.0ft at 14957.0ft MD (10289.7 TVD, -4891.8 N, -6.2 E)									
- Point									

Survey Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
12,084.0	10,263.6	-2,021.0	75.1	First MWD Survey Sidetrack 1
14,911.0	10,287.4	-4,845.9	-4.4	Last MWD Survey
14,957.0	10,289.7	-4,891.8	-6.2	Projection to bit Sidetrack 1

Checked By: _____ Approved By: _____ Date: _____

08322766

Continental Resources

Richland County (M83)
Sec 21-T23N-R56E alice 3-21H
Alice 3-21H
Wellbore #1

Survey: Sidetrack #2

Standard Survey Report

30 September, 2008

Quantum Drilling

Survey Report

Company:	Continental Resources	**Local Co-ordinate Reference:**	Well Alice 3-21H
Project:	Richland County (M83)	**TVD Reference:**	WELL @ 0.0ft (Original Well Elev)
Site:	Sec 21-T23N-R56E alice 3-21H	**MD Reference:**	WELL @ 0.0ft (Original Well Elev)
Well:	Alice 3-21H	**North Reference:**	True
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Wellbore #1	**Database:**	EDM 2003.16 Single User Db

Project Richland County (M83)

Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Montana		

Site Sec 21-T23N-R56E alice 3-21H

Site Position:		**Northing:**	400,134.85 m	**Latitude:**	47° 44' 43.010 N
From:	Lat/Long	**Easting:**	971,194.16 m	**Longitude:**	104° 32' 39.500 W
Position Uncertainty:	0.0 ft	**Slot Radius:**	in	**Grid Convergence:**	3.63 °

Well Alice 3-21H

Well Position	**+N/-S**	0.0 ft	**Northing:**	400,134.85 m	**Latitude:**	47° 44' 43.010 N
	+E/-W	0.0 ft	**Easting:**	971,194.16 m	**Longitude:**	104° 32' 39.500 W
Position Uncertainty		0.0 ft	**Wellhead Elevation:**	ft	**Ground Level:**	0.0 ft

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	6/24/2008	9.77	72.89	56,905

Design Wellbore #1

Audit Notes:

Version:	1.0	**Phase:**	ACTUAL	**Tie On Depth:**	0.0

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	185.58

Survey Program **Date** 9/30/2008

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
1,954.0	12,084.0	MWD Survey (Wellbore #1)	MWD	MWD - Standard
12,144.0	13,464.0	Sidetrack MWD Survey (Wellbore #1)	MWD	MWD - Standard
13,527.0	14,596.0	Sidetrack #2 pipe tally offf 31' (Wellbore #1	MWD	MWD - Standard

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
13,464.0	89.01	182.12	10,272.9	-3,399.3	19.3	3,381.3	0.00	0.00	0.00
First MWD Survey									
13,558.0	88.04	183.97	10,275.3	-3,493.2	14.3	3,475.2	2.22	-1.03	1.97
13,620.0	89.01	185.64	10,276.9	-3,554.9	9.1	3,537.2	3.11	1.56	2.69
13,683.0	88.70	185.90	10,278.2	-3,617.6	2.8	3,600.2	0.64	-0.49	0.41
13,746.0	89.98	185.55	10,278.9	-3,680.3	-3.5	3,663.2	2.11	2.03	-0.56
13,809.0	90.81	185.55	10,278.4	-3,743.0	-9.6	3,726.2	1.32	1.32	0.00
13,872.0	89.80	185.02	10,278.1	-3,805.7	-15.4	3,789.2	1.81	-1.60	-0.84
13,935.0	91.96	184.85	10,277.1	-3,868.5	-20.8	3,852.1	3.44	3.43	-0.27
13,998.0	91.52	184.85	10,275.2	-3,931.2	-26.1	3,915.1	0.70	-0.70	0.00
14,061.0	91.08	185.11	10,273.8	-3,994.0	-31.6	3,978.1	0.81	-0.70	0.41

Quantum Drilling

Survey Report

Company:	Continental Resources	**Local Co-ordinate Reference:**	Well Alice 3-21H
Project:	Richland County (M83)	**TVD Reference:**	WELL @ 0.0ft (Original Well Elev)
Site:	Sec 21-T23N-R56E alice 3-21H	**MD Reference:**	WELL @ 0.0ft (Original Well Elev)
Well:	Alice 3-21H	**North Reference:**	True
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Wellbore #1	**Database:**	EDM 2003.16 Single User Db

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)
14,123.0	90.20	185.11	10,273.1	-4,055.7	-37.1	4,040.1	1.42	-1.42	0.00
14,186.0	90.99	184.41	10,272.5	-4,118.5	-42.3	4,103.1	1.68	1.25	-1.11
14,249.0	90.42	184.41	10,271.7	-4,181.3	-47.2	4,166.1	0.90	-0.90	0.00
14,312.0	90.02	184.06	10,271.4	-4,244.1	-51.8	4,229.0	0.84	-0.63	-0.56
14,375.0	89.98	183.79	10,271.4	-4,307.0	-56.1	4,292.0	0.43	-0.06	-0.43
14,438.0	89.19	184.15	10,271.9	-4,369.8	-60.5	4,355.0	1.38	-1.25	0.57
14,501.0	88.44	184.32	10,273.2	-4,432.6	-65.2	4,417.9	1.22	-1.19	0.27
14,564.0	89.32	183.88	10,274.4	-4,495.5	-69.7	4,480.9	1.56	1.40	-0.70
14,627.0	88.48	183.18	10,275.6	-4,558.3	-73.5	4,543.9	1.74	-1.33	-1.11
14,691.0	91.56	181.51	10,275.6	-4,622.3	-76.2	4,607.8	5.47	4.81	-2.61
14,754.0	101.23	179.31	10,268.6	-4,684.8	-76.6	4,670.0	15.74	15.35	-3.49
Last MWD Survey Sidetrack #2									
14,800.0	101.23	179.31	10,259.7	-4,729.9	-76.1	4,714.9	0.01	0.01	0.00
Projection to Bit Sidetrack #2									

Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (m)	Easting (m)	Latitude	Longitude
Alice 3-21H PBHL	0.00	0.00	10,255.0	-9,506.6	15.7	397,243.34	971,382.15	47° 43' 9.140 N	104° 32' 39.270 W
- survey misses by 4777.6ft at 14800.0ft MD (10259.7 TVD, -4729.9 N, -76.1 E)									
- Point									

Survey Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
13,464.0	10,272.9	-3,399.3	19.3	First MWD Survey
14,754.0	10,268.6	-4,684.8	-76.6	Last MWD Survey Sidetrack #2
14,800.0	10,259.7	-4,729.9	-76.1	Projection to Bit Sidetrack #2

Checked By: _____ Approved By: _____ Date: _____

08322766

P-0020962

Continental Resources

Richland County (M83)
Sec 21-T23N-R56E alice 3-21H
Alice 3-21H
Wellbore #1

Survey: MWD Survey Sidetrack # 3

Standard Survey Report

18 September, 2008

Quantum Drilling

Survey Report

Company:	Continental Resources	**Local Co-ordinate Reference:**	Well Alice 3-21H
Project:	Richland County (M83)	**TVD Reference:**	WELL @ 0.0ft (Original Well Elev)
Site:	Sec 21-T23N-R56E alice 3-21H	**MD Reference:**	WELL @ 0.0ft (Original Well Elev)
Well:	Alice 3-21H	**North Reference:**	True
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Wellbore #1	**Database:**	EDM 2003.16 Single User Db

Project Richland County (M83)

Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Montana		

Site Sec 21-T23N-R56E alice 3-21H

Site Position:		**Northing:**	400,134.85 m	**Latitude:**	47° 44' 43.010 N
From:	Lat/Long	**Easting:**	971,194.16 m	**Longitude:**	104° 32' 39.500 W
Position Uncertainty:	0.0 ft	**Slot Radius:**	in	**Grid Convergence:**	3.63 °

Well Alice 3-21H

Well Position	**+N/-S**	0.0 ft	**Northing:**	400,134.85 m	**Latitude:**	47° 44' 43.010 N
	+E/-W	0.0 ft	**Easting:**	971,194.16 m	**Longitude:**	104° 32' 39.500 W
Position Uncertainty		0.0 ft	**Wellhead Elevation:**	ft	**Ground Level:**	0.0 ft

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	6/24/2008	9.77	72.89	56,905

Design Wellbore #1

Audit Notes:

Version:	1.0	**Phase:**	ACTUAL	**Tie On Depth:**	0.0

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	185.58

Survey Program **Date** 9/18/2008

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
1,954.0	12,084.0	MWD Survey (Wellbore #1)	MWD	MWD - Standard
12,144.0	13,464.0	Sidetrack MWD Survey (Wellbore #1)	MWD	MWD - Standard
13,527.0	14,596.0	Sidetrack #2 pipe tally offf 31' (Wellbore #1	MWD	MWD - Standard

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
13,464.0	89.01	182.12	10,272.9	-3,399.3	19.3	3,381.3	0.00	0.00	0.00
First MWD Survey									
13,558.0	88.04	183.97	10,275.3	-3,493.2	14.3	3,475.2	2.22	-1.03	1.97
13,620.0	89.01	185.64	10,276.9	-3,554.9	9.1	3,537.2	3.11	1.56	2.69
13,683.0	88.70	185.90	10,278.2	-3,617.6	2.8	3,600.2	0.64	-0.49	0.41
13,746.0	89.98	185.55	10,278.9	-3,680.3	-3.5	3,663.2	2.11	2.03	-0.56
13,809.0	90.81	185.55	10,278.4	-3,743.0	-9.6	3,726.2	1.32	1.32	0.00
13,872.0	89.80	185.02	10,278.1	-3,805.7	-15.4	3,789.2	1.81	-1.60	-0.84
13,935.0	91.96	184.85	10,277.1	-3,868.5	-20.8	3,852.1	3.44	3.43	-0.27
13,998.0	91.52	184.85	10,275.2	-3,931.2	-26.1	3,915.1	0.70	-0.70	0.00
14,061.0	91.08	185.11	10,273.8	-3,994.0	-31.6	3,978.1	0.81	-0.70	0.41

Quantum Drilling

Survey Report

Company:	Continental Resources	**Local Co-ordinate Reference:**	Well Alice 3-21H
Project:	Richland County (M83)	**TVD Reference:**	WELL @ 0.0ft (Original Well Elev)
Site:	Sec 21-T23N-R56E alice 3-21H	**MD Reference:**	WELL @ 0.0ft (Original Well Elev)
Well:	Alice 3-21H	**North Reference:**	True
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Wellbore #1	**Database:**	EDM 2003.16 Single User Db

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)
14,123.0	90.20	185.11	10,273.1	-4,055.7	-37.1	4,040.1	1.42	-1.42	0.00
14,186.0	90.99	184.41	10,272.5	-4,118.5	-42.3	4,103.1	1.68	1.25	-1.11
14,249.0	90.42	184.41	10,271.7	-4,181.3	-47.2	4,166.1	0.90	-0.90	0.00
14,312.0	90.02	184.06	10,271.4	-4,244.1	-51.8	4,229.0	0.84	-0.63	-0.56
14,375.0	89.98	183.79	10,271.4	-4,307.0	-56.1	4,292.0	0.43	-0.06	-0.43
14,438.0	89.19	184.15	10,271.9	-4,369.8	-60.5	4,355.0	1.38	-1.25	0.57
14,501.0	88.44	184.32	10,273.2	-4,432.6	-65.2	4,417.9	1.22	-1.19	0.27
14,564.0	89.32	183.88	10,274.4	-4,495.5	-69.7	4,480.9	1.56	1.40	-0.70
14,627.0	88.48	183.18	10,275.6	-4,558.3	-73.5	4,543.9	1.74	-1.33	-1.11
14,691.0	91.56	181.51	10,275.6	-4,622.3	-76.2	4,607.8	5.47	4.81	-2.61
14,754.0	90.24	181.60	10,274.6	-4,685.2	-77.9	4,670.6	2.10	-2.10	0.14
14,817.0	92.18	180.45	10,273.3	-4,748.2	-79.0	4,733.4	3.58	3.08	-1.83
14,881.0	92.09	180.19	10,270.9	-4,812.2	-79.3	4,797.1	0.43	-0.14	-0.41
14,944.0	91.91	180.01	10,268.7	-4,875.1	-79.5	4,859.7	0.40	-0.29	-0.29
15,007.0	94.07	179.49	10,265.4	-4,938.0	-79.2	4,922.3	3.53	3.43	-0.83
15,070.0	93.76	179.22	10,261.1	-5,000.9	-78.5	4,984.8	0.65	-0.49	-0.43
15,132.0	93.63	178.34	10,257.1	-5,062.7	-77.2	5,046.2	1.43	-0.21	-1.42
15,195.0	92.57	178.08	10,253.7	-5,125.6	-75.2	5,108.6	1.73	-1.68	-0.41
15,258.0	91.25	178.70	10,251.6	-5,188.5	-73.4	5,171.1	2.31	-2.10	0.98
15,321.0	89.89	180.28	10,251.0	-5,251.5	-72.9	5,233.7	3.31	-2.16	2.51
15,384.0	90.90	181.95	10,250.6	-5,314.5	-74.1	5,296.5	3.10	1.60	2.65
15,447.0	90.51	182.04	10,249.8	-5,377.5	-76.3	5,359.4	0.64	-0.62	0.14
15,510.0	89.80	183.44	10,249.6	-5,440.4	-79.3	5,422.3	2.49	-1.13	2.22
15,572.0	87.47	182.74	10,251.1	-5,502.3	-82.6	5,484.2	3.92	-3.76	-1.13
15,635.0	87.65	182.04	10,253.8	-5,565.2	-85.3	5,547.1	1.15	0.29	-1.11
15,698.0	89.36	182.30	10,255.4	-5,628.1	-87.6	5,609.9	2.75	2.71	0.41
15,760.0	88.48	181.95	10,256.6	-5,690.1	-89.9	5,671.8	1.53	-1.42	-0.56
15,823.0	89.67	181.60	10,257.6	-5,753.0	-91.9	5,734.7	1.97	1.89	-0.56
15,886.0	90.37	182.30	10,257.6	-5,816.0	-94.0	5,797.5	1.57	1.11	1.11
15,948.0	90.77	182.04	10,257.0	-5,877.9	-96.4	5,859.4	0.77	0.65	-0.42
16,012.0	90.59	182.48	10,256.2	-5,941.9	-98.9	5,923.3	0.74	-0.28	0.69
16,075.0	90.20	181.77	10,255.8	-6,004.8	-101.2	5,986.2	1.29	-0.62	-1.13
16,137.0	89.85	181.95	10,255.7	-6,066.8	-103.3	6,048.1	0.63	-0.56	0.29
16,200.0	89.36	182.30	10,256.2	-6,129.8	-105.6	6,111.0	0.96	-0.78	0.56
16,263.0	89.80	181.33	10,256.6	-6,192.7	-107.6	6,173.8	1.69	0.70	-1.54
16,326.0	89.80	181.33	10,256.9	-6,255.7	-109.1	6,236.6	0.00	0.00	0.00
16,389.0	89.05	180.37	10,257.5	-6,318.7	-110.0	6,299.4	1.93	-1.19	-1.52
16,451.0	90.46	179.49	10,257.8	-6,380.7	-109.9	6,361.1	2.68	2.27	-1.42
16,514.0	90.55	178.43	10,257.2	-6,443.7	-108.8	6,423.7	1.69	0.14	-1.68
16,577.0	90.99	178.43	10,256.4	-6,506.6	-107.0	6,486.2	0.70	0.70	0.00
16,640.0	90.33	178.34	10,255.6	-6,569.6	-105.3	6,548.7	1.06	-1.05	-0.14
16,706.0	90.33	178.34	10,255.2	-6,635.6	-103.4	6,614.2	0.00	0.00	0.00
16,766.0	90.33	178.17	10,254.9	-6,695.6	-101.5	6,673.7	0.28	0.00	-0.28
16,828.0	90.86	178.43	10,254.3	-6,757.5	-99.7	6,735.2	0.95	0.85	0.42
16,891.0	90.29	178.87	10,253.6	-6,820.5	-98.2	6,797.7	1.14	-0.90	0.70
16,954.0	90.55	178.70	10,253.2	-6,883.5	-96.9	6,860.3	0.49	0.41	-0.27
17,017.0	89.80	178.52	10,253.0	-6,946.5	-95.3	6,922.8	1.22	-1.19	-0.29
17,080.0	90.11	178.43	10,253.0	-7,009.5	-93.7	6,985.3	0.51	0.49	-0.14
17,143.0	90.46	178.52	10,252.7	-7,072.4	-92.0	7,047.8	0.57	0.56	0.14
17,206.0	90.02	177.99	10,252.4	-7,135.4	-90.1	7,110.3	1.09	-0.70	-0.84
17,269.0	90.15	177.29	10,252.4	-7,198.3	-87.5	7,172.7	1.13	0.21	-1.11
17,331.0	89.71	176.85	10,252.4	-7,260.3	-84.3	7,234.0	1.00	-0.71	-0.71
17,394.0	89.58	175.88	10,252.8	-7,323.1	-80.3	7,296.2	1.55	-0.21	-1.54
17,457.0	90.07	175.71	10,253.0	-7,386.0	-75.7	7,358.3	0.82	0.78	-0.27
17,520.0	90.11	175.71	10,252.9	-7,448.8	-71.0	7,420.4	0.06	0.06	0.00

Quantum Drilling

Survey Report

Company:	Continental Resources	**Local Co-ordinate Reference:**	Well Alice 3-21H
Project:	Richland County (M83)	**TVD Reference:**	WELL @ 0.0ft (Original Well Elev)
Site:	Sec 21-T23N-R56E alice 3-21H	**MD Reference:**	WELL @ 0.0ft (Original Well Elev)
Well:	Alice 3-21H	**North Reference:**	True
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Wellbore #1	**Database:**	EDM 2003.16 Single User Db

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)
17,583.0	89.85	175.44	10,252.9	-7,511.6	-66.1	7,482.4	0.59	-0.41	-0.43
17,646.0	89.89	175.18	10,253.1	-7,574.4	-61.0	7,544.4	0.42	0.06	-0.41
17,709.0	89.41	174.56	10,253.5	-7,637.1	-55.3	7,606.3	1.24	-0.76	-0.98
17,772.0	90.33	174.83	10,253.6	-7,699.9	-49.5	7,668.2	1.52	1.46	0.43
17,834.0	90.42	174.48	10,253.2	-7,761.6	-43.7	7,729.0	0.58	0.15	-0.56
17,897.0	89.93	172.90	10,253.0	-7,824.2	-36.8	7,790.7	2.63	-0.78	-2.51
17,960.0	90.02	172.63	10,253.0	-7,886.7	-28.9	7,852.1	0.45	0.14	-0.43
18,023.0	89.93	171.84	10,253.1	-7,949.1	-20.4	7,913.4	1.26	-0.14	-1.25
18,086.0	89.80	170.35	10,253.2	-8,011.4	-10.6	7,974.4	2.37	-0.21	-2.37
18,149.0	89.71	171.14	10,253.5	-8,073.5	-0.5	8,035.3	1.26	-0.14	1.25
18,212.0	91.12	172.54	10,253.0	-8,135.9	8.5	8,096.5	3.15	2.24	2.22
18,275.0	91.30	172.46	10,251.7	-8,198.3	16.7	8,157.8	0.31	0.29	-0.13
18,338.0	90.95	172.28	10,250.5	-8,260.8	25.0	8,219.2	0.62	-0.56	-0.29
18,400.0	90.51	171.66	10,249.7	-8,322.2	33.7	8,279.4	1.23	-0.71	-1.00
18,463.0	90.11	171.23	10,249.3	-8,384.5	43.1	8,340.5	0.93	-0.63	-0.68
18,526.0	90.51	170.87	10,249.0	-8,446.7	52.9	8,401.5	0.85	0.63	-0.57
18,589.0	90.68	172.63	10,248.3	-8,509.0	61.9	8,462.7	2.81	0.27	2.79
18,652.0	90.77	174.74	10,247.5	-8,571.6	68.8	8,524.3	3.35	0.14	3.35
18,715.0	90.15	177.46	10,247.0	-8,634.5	73.1	8,586.4	4.43	-0.98	4.32
18,777.0	90.11	179.57	10,246.9	-8,696.5	74.7	8,648.0	3.40	-0.06	3.40
18,840.0	89.05	181.33	10,247.3	-8,759.5	74.2	8,710.7	3.26	-1.68	2.79
18,903.0	88.88	181.77	10,248.5	-8,822.4	72.5	8,773.5	0.75	-0.27	0.70
18,966.0	89.58	183.09	10,249.3	-8,885.4	69.9	8,836.4	2.37	1.11	2.10
19,029.0	90.02	183.27	10,249.6	-8,948.3	66.4	8,899.4	0.75	0.70	0.29
19,092.0	89.85	183.62	10,249.6	-9,011.2	62.6	8,962.3	0.62	-0.27	0.56
19,154.0	90.20	182.83	10,249.6	-9,073.1	59.1	9,024.3	1.39	0.56	-1.27
19,217.0	91.65	183.18	10,248.6	-9,136.0	55.8	9,087.2	2.37	2.30	0.56
19,280.0	91.52	183.44	10,246.8	-9,198.8	52.2	9,150.1	0.46	-0.21	0.41
19,343.0	91.74	183.53	10,245.0	-9,261.7	48.3	9,213.1	0.38	0.35	0.14
19,406.0	92.04	184.15	10,243.0	-9,324.5	44.1	9,276.0	1.09	0.48	0.98
19,469.0	92.09	184.58	10,240.7	-9,387.3	39.3	9,338.9	0.69	0.08	0.68
19,532.0	92.57	184.76	10,238.1	-9,450.0	34.2	9,401.9	0.81	0.76	0.29
Last MWD Survey									
19,578.0	92.57	184.76	10,236.1	-9,495.8	30.4	9,447.8	0.00	0.00	0.00
Projected MWD Sidetrack #3									

Quantum Drilling

Survey Report

Company:	Continental Resources	**Local Co-ordinate Reference:**	Well Alice 3-21H
Project:	Richland County (M83)	**TVD Reference:**	WELL @ 0.0ft (Original Well Elev)
Site:	Sec 21-T23N-R56E alice 3-21H	**MD Reference:**	WELL @ 0.0ft (Original Well Elev)
Well:	Alice 3-21H	**North Reference:**	True
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Wellbore #1	**Database:**	EDM 2003.16 Single User Db

Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (m)	Easting (m)	Latitude	Longitude
Alice 3-21H PBHL	0.00	0.00	10,255.0	-9,506.6	15.7	397,243.34	971,382.15	47° 43' 9.140 N	104° 32' 39.270 W
- survey misses by 26.3ft at 19578.0ft MD (10236.1 TVD, -9495.8 N, 30.4 E)									
- Point									

Survey Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
13,464.0	10,272.9	-3,399.3	19.3	First MWD Survey
19,532.0	10,238.1	-9,450.0	34.2	Last MWD Survey
19,578.0	10,236.1	-9,495.8	30.4	Projected MWD Sidetrack #3

Checked By: _____ Approved By: _____ Date: _____

CONTINENTAL RESOURCES

FINAL REPORT

ALICE 3-21H

SEPTEMBER 11TH, 2008

SECTION 21, T23N, R56E
RICHLAND COUNTY, MONTANA

TOOKE ROCKIES, INC.
GEOLOGIST: JED D NELSON
307 W BROADWAY
BRIDGER, MT 59014

WELL SUMMARY

OPERATOR:	CONTINENTAL RESOURCES
LEASE:	ALICE 3-21H
LOCATION:	Wildcat **FIELD:** ~~SLEEPING GAINT~~ **FOOTAGE:** 400' FNL & 1700' FWL **LEGAL:** SECTION 21, T23N, R56E **COUNTY:** RICHLAND COUNTY, MONTANA
API NUMBER:	
ELEVATION:	**GROUND:** 2,491' **KELLY BUSHING:** 2,474'
SPUD DATE:	JUNE 30TH, 2008
CEASE DATE:	AUGUST 20TH, 2008
TARGET ZONE:	MIDDLE BAKKEN DOLOMITE
TARGET DEPTH:	SOUTH LATERAL 1: 19,588' MD; 10,255' TVD
CONTRACTOR:	PIONEER DRILLING RIG #42
MUD RECORD:	**COMPANY:** GEO DRILLING FLUIDS **INVERT-**VERTICAL & CURVE **SALT WATER-**SOUTH LATERAL
DIRECTIONAL COMPANY:	QUANTUM
MUDLOGGING COMPANY:	TOOKE ROCKIES, INC. **TOOKE DAQ-**TOTAL GAS & CHROMATOGRAPH
WELLSITE SUPERVISOR:	AL BERDAHL, JOHN WALSH, KIRBY
COMPANY ENGINEER:	SUZANNE MOORE
COMPANY GEOLOGIST:	STUART BARNES
SAMPLES:	**VERTICAL & CURVE:** 10'-50' SAMPLES **LATERALS #1:** 30'-100' SAMPLES
WELL STATUS:	**AWAITING COMPLETION**

GEOLOGICAL SUMMARY

The South Lateral of the Alice 3-21H was targeting the Middle Bakken Dolomite porosity zone. The location of the well is section 21NW, township 23N and range 54E, of Richland County, MT. with a surface location of 400' FNL, 1700' FWL, ground elevation of 2,491' and the kelly bushing elevation of 2,474'. This well was designed with one lateral to the South follow approximately the azimuth of 179 degrees. The bottom hole location (BHL) of the above lateral is -9,495.83' SWH and 30.57' EWH, in section 28SW, township 23N and range 56E.

The Alice was spud on June the30th of 2008. Geological supervision began on the 9th of July 2008 at the Charles Salt Formation. Tooke Rockies Inc. supplied the gas detection equipment (Tooke DAQ Chromatograph), geological consulting and mud logging services.

VERTICAL AND BUILD SECTIONS

Geological supervision began at 8,220' MD in the Charles Salt Formation. The base of the last salt (BLS) came in at 8,793' TVD, 15' high to the prognosis. The Mission Canyon formation came in at a TVD of 8,974', 26' high to the prognosis and the Lodgepole formation at a TVD of 9,490, 15' high to the prognosis. No gas or oil shows were observed in the anhydrite and limestone (occasionally dolomite) between the BLS and the top of the Mission Canyon formation. The limestone Mission Canyon formation top is associated with a light grey-brown, cream-tan, slightly soft, anhydritic and occasionally dolomitic limestone, and by the changes in drilling rate, pressure and differential pressure. There were no oil shows from the BLS to the Mission Canyon. The Lodgepole demonstrated no variation in the rate of penetration (ROP) or background gas, however, average of 50u, a clear change in lithology was used to pick the top of the formation at 9,490' TVD consistent with the BLS formation (15' high). The Total Gas remained a steady average of 50u until a trip was made to pick up the build assembly. The Vertical Section ended at 9,796' MD.

The curve was kicked off in the Lodgepole Formation at 9,796' MD with a magnetic direction of 179 degrees (south). The remaining Lodgepole lithology was mostly medium-dark grey, dark brown, firm, cryptocrystalline-very fine crystalline, slightly-very argillaceous, with some occasional calcite fragments. The Bakken Shale top came in at 10,247' TVD, 20' high to the prognosis. At this point the target TVD for landing in the Middle Bakken Dolomite member was adjusted to 10,264' TVD. The top the Middle Bakken Dolomite came in at 10,254' TVD. The Bakken Shale averaged 50-55 units of background gas. This gradually increased to 80-90 units when entering into the Middle Bakken Dolomite. The top of the Middle Bakken Porosity was picked at 10,400' MD with a slight increase in Total and no increase in rate of penetration. The lithology represented by the

Middle Bakken Dolomite was medium brown and grey-brown, friable, microcrystalline, and slightly-moderately argillaceous. Oil shows, hydrocarbon fluorescence and cuts were limited by the Invert Mud. The curve was landed in the Middle Bakken Porosity, providing a good gamma ray profile of the zone of interest. The Build Section ended at 10,486' MD with a projected inclination of 89.5 degrees.

South Lateral

Coming out casing at the bottom of the target zone, at an inclination of an average of 89.5 degrees, caused the well bore to get below the target porosity zone. This was illustrated by the samples and the gamma. The lithologic character was largely light-medium brown, microcrystalline, slightly-moderately calcareous, silty-sandy, and slightly-moderately argillaceous, occasionally with some more calcareous, speckled grey and white. The well-bore exited the bottom of the target zone at approximately 10,500' MD at an average inclination of 89.5 degrees. The formation ran at approximately 90.4 degrees from 9800' MD to approximately 10910' MD. The formation flattens at this point, briefly, before it began into a down dip at an average inclination of 89.8 degrees. The zone began the down dip at roughly 11,400' MD and continued at this inclination until approximately 13,960' MD. At which point the formation again began a slight up dip of approximately 90.4 to 90.2 degrees for the remainder of the well. There were a total of three sidetracks for this well. The first one was due to a motor the twisted off down hole and the retrieval attempts were on successful. The motor failed at 13,090' MD and the sidetrack started at 12,084' MD. The second sidetrack was after I thought we went through a falt and were above the target zone and we needed to let it come down in the formation. At 14,920 the sample showed that we were in the three forks formation at this point we stopped drilling and pulled back to 13,543' MD to start the second sidetrack. The final sidetrack came after we got low in formation and over compensated with our slides which gave us an inclination of 101 degrees, at the MD of 14,754'. We pulled back to 14,800 to low hole the well bore. The well bore exited the Bakken Dolomite and entered the upper Bakken Shale at approximately 15,250' MD and reentered the Bakken Dolomite at about 15,570' MD. With the exception of getting low in formation twice and in to the upper Shale once the majority of the Alice well was drilled in the target porosity zone. The South Lateral reached a total depth of 19,578' MD on the 20th of August, 2008.

Formation Tops

FORMATION	MUDLOG TOP	
1ST GAMMA MARKER:	ABSENT	ABSENT
FALSE BAKKEN:	ABSENT	ABSENT
BAKKEN SHALE:	10,380' MD	10,246.55' TVD
MIDDLE BAKKEN:	10,400' MD	10,253.74' TVD

Well History

SPUD DATE

Spud @ 14:00, 6/30/08

DRILLING

7/01/08
Operations: Drlg, Depth: 1055', Footage: 999', Rotating hrs. 13, hole size: 13 1/2, days from spud: 1, Cumulative hrs: 13, Formation: Surface, Mud Wt 8.4, Vis 27, DMC $0 CMC $0, Bit #1 BH GA115C (D17827), Jets 4/16, in @ 56', made 999' in 13 hrs, 76.8 FPH, WOB 14.2, RPM 140, Pressure 600, - GPM, Pump #1: Liner 5", stk 9", 104 SPM, Pump #2: Liner 5", stk 9", 105 SPM
DWC $339,190 CWC $339,190

7/02/08
Operations: WOC, Depth: 1813', Footage: 757', Rotating hrs. 12, hole size: 13 1/2, days from spud: 2, Cumulative hrs: 12, Formation: Surface, Mud Wt 8.9, Vis 30, DMC $2000 CMC $2000, Bit #1 BH GA115C (D17827), Jets 4/16, in @ 56', out @ 1813' made 1756' in 25 hrs, 70.24 FPH, WOB 16.1, RPM 143, Pressure 600, 459 GPM, Pump #1: Liner 5", stk 9", - SPM, Pump #2: Liner 5", stk 9", - SPM
DWC $72,264 CWC $411,454

7/03/08
Operations: Drlg, Depth: 1842', Footage: 29', Rotating hrs. 1.5, hole size: 8 3/4, days from spud: 3, Cumulative hrs: 13 1/2, Formation: Surface, Mud Wt 10.1, Vis 144, DMC $569 CMC $2569, Bit #2 Smith F30TPS (PK2653), Jets 3/19, in @ 1813' made 29' in 1.5 hrs, 19.33 FPH, WOB 7000, RPM 69/144, Pressure 1520, 480 GPM, Pump #1: Liner 5", stk 9", 110 SPM, Pump #2: Liner 5", stk 9", 110 SPM
DWC $88,723 CWC $500,177

7/04/08
Operations: Drlg, Depth: 3600', Footage: 1758', Rotating hrs. 17.5, hole size: 8 3/4, days from spud: 4, Cumulative hrs: 31, Formation: Surface, Mud Wt 9.9, Vis 88, DMC $158 CMC $2727, Bit #2 Smith F30TPS (PK2653), Jets 3/19, in @ 1813' out @ 1842' made 29' in 1.5 hrs, 19.33 FPH, Bit #3 PDC Logic T10252 (SO6495), Jets 1.178, in @ 1842' made 1758' in 17.5 hrs, 100 FPH, WOB 9000, RPM 63/138, Pressure 2000, 461 GPM, Pump #1: Liner 5", stk 9", 106 SPM, Pump #2: Liner 5", stk 9", 105 SPM
DWC $61,155 CWC $561,332

7/05/08
Operations: Drlg, Depth: 5250', Footage: 1650', Rotating hrs. 22, hole size: 8 3/4, days from spud: 5, Cumulative hrs: 53, Formation: Surface, Mud Wt 9.7, Vis 59, DMC $4667 CMC $7394, Bit #3 PDC Logic T10252 (SO6495), Jets 1.178, in @ 1842' made 3408' in 39.5 hrs, 86.27 FPH, WOB 5, RPM 62/138, Pressure 2100, 461 GPM, Pump #1: Liner 5", stk 9", 105 SPM, Pump #2: Liner 5", stk 9", 106 SPM
DWC $42,075 CWC $603,407

7/06/08
Operations: Drlg, Depth: 6250', Footage: 1000', Rotating hrs. 22, hole size: 8 3/4, days from spud: 6, Cumulative hrs: 75, Formation: Surface, Mud Wt 9.6, Vis 46, DMC $2521 CMC $9915, Bit #3 PDC Logic T10252 (SO6495), Jets 1.178, in @ 1842' made 4408' in 61.5 hrs, 71.7 FPH, WOB 8, RPM 53/103, Pressure 1520, 345 GPM, Pump #1: Liner 5", stk 9", 77 SPM, Pump #2: Liner 5", stk 9", 81 SPM

DWC $38,024 CWC $641,431

7/07/08
Operations: Drlg, Depth: 6900', Footage: 650', Rotating hrs. 15, hole size: 8 3/4, days from spud: 7, Cumulative hrs: 90, Formation: -, Mud Wt 9.7, Vis 51, DMC $3196 CMC $13,111, Bit #3 PDC Logic T10252 (SO6495), Jets 1.178, in @ 1842' out @ 6628' made 4786' in 70 hrs, 68.37 FPH, Bit #4 BHC HC505ZX (7119496), Jets 1.178, in @ 6628' made 272' in 8 hrs, 34 FPH, WOB 12.4, RPM 53/105, Pressure 1820, 352 GPM, Pump #1: Liner 5", stk 9", 79 SPM, Pump #2: Liner 5", stk 9", 82 SPM
DWC $85,743 CWC $727,174

7/08/08
Operations: Drlg, Depth: 7450', Footage: 550', Rotating hrs. 22, hole size: 8 3/4, days from spud: 8, Cumulative hrs: 116, Formation: -, Mud Wt 9.7, Vis 48, DMC $2,849 CMC $15,960, Bit #4 BHC HC505ZX (7119496), Jets 1.178, in @ 6628' made 822' in 30 hrs, 27.4 FPH, WOB 17.1, RPM 53/105, Pressure 1800, 352 GPM, Pump #1: Liner 5", stk 9", 82 SPM, Pump #2: Liner 5", stk 9", 79 SPM
DWC $37,027 CWC $764,201

7/09/08
Operations: Drlg & Sliding, Depth: 8050', Footage: 600', Rotating hrs. 22, hole size: 8 3/4,days from spud: 9, Cumulative hrs: 138, Formation: -, Mud Wt 9.6, Vis 49, DMC $2,685 CMC $18,645, Bit #4 BHC HC505ZX (7119496), Jets 1.178, in @ 6628' made 1422' in 52 hrs, 27.3 FPH, WOB 16.8, RPM 52/106, Pressure 1835, 354 GPM, Pump #1: Liner 5", stk 9", 82 SPM, Pump #2: Liner 5", stk 9", 81 SPM
DWC $38,468 CWC $802,669

7/10/08
Operations: Drlg, Depth: 8450', Footage: 400', Rotating hrs. 22, hole size: 8 3/4,days from spud: 10, Cumulative hrs: 160, Formation: Charles Salt, Mud Wt 9.6, Vis 47, DMC $2,310 CMC $20,955, Bit #4 BHC HC505ZX (7119496), Jets 1.178, in @ 6628' made 1822' in 74 hrs, 25 FPH, WOB 9.7, RPM 57/124, Pressure 2220, 354 GPM, Pump #1: Liner 5", stk 9", 94 SPM, Pump #2: Liner 5", stk 9", 95 SPM
DWC $95,446 CWC $898,115

7/11/08
Operations: Drlg, Depth: 8839', Footage: 389', Rotating hrs. 22, hole size: 8 3/4,days from spud: 11, Cumulative hrs: 183 1/2, Formation: Charles Salt, Mud Wt 9.6, Vis 46, DMC $2,166, CMC $23,121, Bit #4 BHC HC505ZX (7119496), Jets 1.178, in @ 6628' made 2211' in 97 1/2 hrs, 22.7 FPH, WOB 9.7, RPM 57/124, Pressure 2220, 412 GPM, Pump #1: Liner 5", stk 9", 94 SPM, Pump #2: Liner 5", stk 9", 95 SPM
DWC $36,913 CWC $935,028

7/12/08
Operations: Drlg, Depth: 9200', Footage: 361', Rotating hrs. 23 1/2, hole size: 8 3/4,days from spud: 12, Cumulative hrs: 207, Formation: Charles Salt, Mud Wt 9.7, Vis 46, DMC $2,649, CMC $25,770, Bit #4 BHC HC505ZX (7119496), Jets 1.178, in @ 6628' made 2572' in 121 hrs, 21.3 FPH, WOB 9.7, RPM 57/124, Pressure 2550, 414 GPM, Pump #1: Liner 5", stk 9", 94 SPM, Pump #2: Liner 5", stk 9", 95 SPM
DWC $80,586 CWC $1,015,614

7/13/08
Operations: Drlg, Depth: 9520', Footage: 320', Rotating hrs. 23 1/2, hole size: 8 3/4,days from spud: 13, Cumulative hrs: 230 1/2, Formation: Lodgepole, Mud Wt 9.7, Vis 47, DMC $1176, CMC $26,946, Bit #4 BHC HC505ZX (7119496), Jets 1.178, in @ 6628' made 2892' in 144 1/2 hrs,

20.01 FPH, WOB 9.7, RPM 57/124, Pressure 2550, 414 GPM, Pump #1: Liner 5", stk 9", 94 SPM, Pump #2: Liner 5", stk 9", 95 SPM
DWC $35,723 CWC $1,051,337

7/14/08
Operations: TOOH, Depth: 9796', Footage: 276', Rotating hrs. 19, hole size: 8 3/4,days from spud: 14, Cumulative hrs: 249 1/2, Formation: Lodgepole, Mud Wt 9.7, Vis 47, DMC $753, CMC $27,699, Bit #4 BHC HC505ZX (7119496), Jets 1.178, in @ 6628' made 3168' in 163 1/2 hrs, 19.4 FPH, WOB 9.7, RPM 57/124, Pressure 2550, 414 GPM, Pump #1: Liner 5", stk 9", 94 SPM, Pump #2: Liner 5", stk 9", 95 SPM
DWC $35,190 CWC $1,086,527

7/15/08
Operations: TIH, Depth: 9796', Footage: 0', Rotating hrs. 0, hole size: 8 3/4,days from spud: 15, Cumulative hrs: 249 1/2, Formation: Lodgepole, Mud Wt 9.7, Vis 54, DMC $2061, CMC $29,760, Bit #4 BHC HC505ZX (7119496), Jets 1.178, in @ 6628' out @ 9796' made 3168' in 163 1/2 hrs, 19.4 FPH,
DWC $87,841 CWC $1,174,368

7/16/08
Operations: Drlg, Depth: 10,047', Footage: 250', Rotating hrs. 23 1/2 hole size: 8 3/4, days from spud: 16, Cumulative hrs: 273, Formation: Lodgepole, Mud Wt 9.7, Vis 63, DMC $1446, CMC $31,206, Bit #5 STC F30TVPS (PK7520), Jets 1.178, in @ 9797' made 250' in 23 1/2 hrs, 10.6 FPH, WOB 9.7, RPM 57/124, Pressure 2400, 445 GPM, Pump #1: Liner 5", stk: 9", 100 SPM, Pump #2: Liner 5", stk: 9", 100 SPM
DWC $36,549 CWC $1,210,917

7/17/08
Operations: Build Curve, Depth: 10,250', Footage: 203', Rotating hrs. 23 1/2 hole size: 8 3/4, days from spud: 17, Cumulative hrs: 296 1/2, Formation: Lodgepole, Mud Wt 9.7, Vis 48, DMC $2,189, CMC $33,395, Bit #5 STC F30TVPS (PK7520), Jets 1.178, in @ 9797' made 253' in 47 hrs, 9.6 FPH, WOB 9.7, RPM 57/124, Pressure 2400, 445 GPM, Pump #1: Liner 5", stk: 9", 100 SPM, Pump #2: Liner 5", stk: 9", 100 SPM
DWC $61,042 CWC $1,271,959

7/18/08
Operations: TOOH, Depth: 10,379', Footage: 129', Rotating hrs. 17 1/2 hole size: 8 3/4, days from spud: 18, Cumulative hrs: 314, Formation: Lodgepole, Mud Wt 9.7, Vis 48, DMC $1,800, CMC $35,195, Bit #5 STC F30TVPS (PK7520), Jets 1.178, in @ 9797' made 582' in 64 1/2 hrs, 9.02 FPH, WOB 14/55, RPM 57/124, Pressure 2400, 445 GPM, Pump #1: Liner 5", stk: 9", 100 SPM, Pump #2: Liner 5", stk: 9", 100 SPM
DWC $36,903 CWC $1,308,862

7/19/08
Operations: Circ & cond for csg, Depth: 10,486', Footage: 107', Rotating hrs. 10, hole size: 8 3/4, days from spud: 19, Cumulative hrs: 324, Formation: Lodgepole, Mud Wt 9.8, Vis 48, DMC $1133, CMC $36,328, Bit #5 STC F30TVPS (PK7520), Jets 1.178, in @ 9797' made 689' in 74 1/2 hrs, 9.25 FPH, WOB 14/55, RPM 57/124, Pressure 2400, 445 GPM, Pump #1: Liner 5", stk: 9", 100 SPM, Pump #2: Liner 5", stk: 9", 100 SPM
DWC $36,236 CWC $1,345,098

7/20/08
Operations: Circ, WO cementers, Depth: 10,486', Footage: 0', Rotating hrs. 0, hole size: 8 3/4, days from spud: 20, Cumulative hrs: 324, Formation: Bakken, Mud Wt 9.8, Vis 48, DMC $709, CMC $37,037, Bit #5 STC F30TVPS (PK7520), Jets 1.178, in @ 9797' out @ 10,486' made 689' in 74 1/2 hrs, 9.25 FPH,

DWC $411,201 CWC $1,756,299

7/21/08
Operations: PU 4" DP, Depth: 10,486', Footage: 0', Rotating hrs. 0, hole size: 8 3/4, days from spud: 21, Cumulative hrs: 324, Formation: Bakken, Mud Wt 0, Vis 0, DMC $0, CMC $37,037, Bit #5 STC F30TVPS (PK7520), Jets 1.178, in @ 9797' out @ 10,486' made 689' in 74 1/2 hrs, 9.25 FPH,
DWC $71,199 CWC $1,827,498

7/22/08
Operations: TOH, Depth: 10,526', Footage: 40', Rotating hrs. 2, hole size: 6", days from spud: 22, Cumulative hrs: 326, Formation: Bakken, Mud Wt 0, Vis 0, DMC $0, CMC $37,037, Bit #6 HTC HC505ZX (7006839), Jets -, in @ 10,489' made 40' in 2 hrs, 18.5 FPH, WOB 8, RPM 50/240, Pressure 1600, 240 GPM, Pump #1: Liner 5", stk 9", 110 SPM
DWC $75,033 CWC $1,902,531

7/23/08
Operations: Drlg, Depth: 11,032', Footage: 506', Rotating hrs. 15, hole size: 6", days from spud: 23, Cumulative hrs: 341, Formation: Bakken, Mud Wt 9.5, Vis 26, DMC $0, CMC $37,037, Bit #6 HTC HC505ZX (7006839), Jets -, in @ 10,489' made 543' in 17 hrs, 31.9 FPH, WOB 10, RPM 45/240, Pressure 1780, 240 GPM, Pump #1: Liner 5", stk 9", 110 SPM
DWC $46,660 CWC $1,949,191

7/24/08
Operations: Drlg, Depth: 11,768', Footage: 736', Rotating hrs. 24, hole size: 6", days from spud: 24, Cumulative hrs: 365, Formation: Bakken, Mud Wt 9.5, Vis 26, DMC $0, CMC $37,037, Bit #6 HTC HC505ZX (7006839), Jets -, in @ 10,489' made 1279' in 41 hrs, 31.2 FPH, WOB 10, RPM 45/240, Pressure 1780, 240 GPM, Pump #1: Liner 5", stk 9", 110 SPM
DWC $74,994 CWC $2,024,185

7/25/08
Operations: Drlg, Depth: 12,508', Footage: 740', Rotating hrs. 23 1/2, hole size: 6", days from spud: 25, Cumulative hrs: 388 1/2, Formation: Bakken, Mud Wt 9.5, Vis 27, DMC $1,372, CMC $38,409, Bit #6 HTC HC505ZX (7006839), Jets -, in @ 10,489' made 2019' in 64 1/2 hrs, 31.3 FPH, WOB 10, RPM 45/240, Pressure 1950, 240 GPM, Pump #1: Liner 5", stk 9", 110 SPM
DWC $39,673 CWC $2,063,858

7/26/08
Operations: Tripping, Depth: 12,864', Footage: 356', Rotating hrs. 11 1/2, hole size: 6", days from spud: 26, Cumulative hrs: 400, Formation: Bakken, Mud Wt 9.5, Vis 27, DMC $1,372, CMC $39,781, Bit #6 HTC HC505ZX (7006839), Jets -, in @ 10,489' out @ 12864' made 2375' in 76 hrs, 31.25 FPH, WOB 10, RPM 45/240, Pressure 1950, 240 GPM, Pump #1: Liner 5", stk 9", 110 SPM
DWC $40,301 CWC $2,104,159

7/27/08
Operations: TOH, Depth: 13,146', Footage: 282', Rotating hrs. 10 1/2, hole size: 6", days from spud: 27, Cumulative hrs: 410 1/2, Formation: Bakken, Mud Wt 9.5, Vis 27, DMC $1,372, CMC $41,153, Bit #7 Sec FM3542 (1110476), Jets -, in @ 12,864' made 282' in 10 1/2 hrs, 26.9 FPH, WOB 10, RPM 45/240, Pressure 1950, 240 GPM, Pump #1: Liner 5", stk 9", 110 SPM
DWC $44,063 CWC $2,148,222

7/28/08

Operations: Ream, Depth: 13,146', Footage: 0, Rotating hrs. 0, hole size: 6", days from spud: 28, Cumulative hrs: 410 1/2, Formation: Bakken, Mud Wt 9.5, Vis 27, DMC $1,372, CMC $42,525, Bit #7 Sec FM3542 (1110476), Jets -, in @ 12,864' out @ 13146' made 282' in 10 1/2 hrs, 26.9 FPH, WOB 10, RPM 45/240, Pressure 1950, 240 GPM, Pump #1: Liner 5", stk 9", 110 SPM
DWC $41,833 CWC $2,190,055

7/29/08
Operations: Troughing, Depth: 12,084', Footage: 0, Rotating hrs. 0, hole size: 6", days from spud: 29, Cumulative hrs: 410 1/2, Formation: Bakken, Mud Wt 9.5, Vis 27, DMC $2,156, CMC $44,681, Bit #9 HTC HC505ZX (7007304), Jets -, in @ 12,084' made 0 in 0 hrs, 0 FPH, WOB 0, RPM 0, Pressure 1400, 240 GPM, Pump #1: Liner 5", stk 9", 110 SPM
DWC $66,009 CWC $2,256,064

7/30/08
Operations: Drlg, Depth: 12,260', Footage: 180', Rotating hrs. 24, hole size: 6", days from spud: 30, Cumulative hrs: 434 1/2, Formation: Bakken, Mud Wt 9.5, Vis 27, DMC $0, CMC $44,681, Bit #9 HTC HC505ZX (7007304), Jets -, in @ 12,080' made 180' in 24 hrs, 7.75 FPH, WOB 8, RPM 45, Pressure 1700, 240 GPM, Pump #1: Liner 5", stk 9", 110 SPM
DWC $35,808 CWC $2,291,872

7/31/08
Operations: Drlg ahead, Depth: 12913', Footage: 653', Rotating hrs. 23 1/2, hole size: 6", days from spud: 31, Cumulative hrs: 456 1/2, Formation: Bakken, Mud Wt 9.5, Vis 27, DMC $2,156, CMC $46,837, Bit #9 HTC HC505ZX (7007304), Jets -, in @ 12,080' made 833' in 47 1/2 hrs, 17.53 FPH, WOB 8, RPM 45, Pressure 1700, 240 GPM, Pump #1: Liner 5", stk 9", 110 SPM
DWC $35,808 CWC $2,327,680

08/01/08
Operations: Drlg ahead, Depth: 13,573', Footage: 660', Rotating hrs. 23 1/2, hole size: 6", days from spud: 32, Cumulative hrs: 480, Formation: Bakken, Mud Wt 9.5, Vis 27, DMC $0, CMC $46,837, Bit #9 HTC HC505ZX (7007304), Jets -, in @ 12,080' made 1493' in 71hrs, 21.03 FPH, WOB 8, RPM 45, Pressure 1700, 240 GPM, Pump #1: Liner 5", stk 9", 110 SPM
DWC $35,808 CWC $2,327,680

08/02/08
Operations: TOOH, Depth: 13995', Footage: 422', Rotating hrs. 24, hole size: 6", days from spud: 33, Cumulative hrs: 504, Formation: Bakken, Mud Wt 9.5, Vis 28, DMC $3,628, CMC $50,465, Bit #9 HTC HC505ZX (7007304), Jets -, in @ 12,080' , out @ 13995' made 422' in 17 hrs, 24.82 FPH, WOB 15, RPM 45, Pressure 1700, 240 GPM, Pump #1: Liner 5", stk 9", 0 SPM Pump #2: Liner 5", stk 9", 110 SPM
DWC $42,364 CWC $2,370,044

08/03/08
Operations: Drlg, Depth: 14,296', Footage: 301', Rotating hrs. 11, hole size: 6", days from spud: 34, Cumulative hrs: 515, Formation: Bakken, Mud Wt 9.5, Vis 28, DMC $0, CMC $50,465, Bit #10 HTC Q505X (7121016), Jets -, in @ 13,995', made 301' in 11 hrs, 27.36 FPH, WOB 15, RPM 45, Pressure 1700, 240 GPM, Pump #2: Liner 5", stk 9", 110 SPM
DWC $36,096 CWC $2,406,140

08/04/08
Operations: Drlg ahead, Depth: 14,799', Footage: 503', Rotating hrs. 21, hole size: 6", days from spud: 35, Cumulative hrs: 536, Formation: Bakken, Mud Wt 9.5, Vis 28, DMC $3,628, CMC $54,093, Bit #10 HTC Q505X (7121016), Jets -, in @ 13,995', made 503' in 21 hrs, 23.95 FPH, WOB 15, RPM 45, Pressure 1700, 240 GPM, Pump #2: Liner 5", stk 9", 110 SPM
DWC $36,951 CWC $2,443,091

08/05/08
Operations: Time drill, Depth: 13,219', Footage: 167', Rotating hrs. 17 1/2, hole size: 6", days from spud: 36, Cumulative hrs: 553 1/2, Formation: Bakken, Mud Wt 9.5, Vis 28, DMC $2854, CMC $56,947, Bit #10 HTC Q505X (7121016), Jets -, in @ 13,995', out @ 14,966' made 971' in 41 hrs, 23.68 FPH, WOB 15, RPM 45, Pressure 1700, 240 GPM, Pump #2: Liner 5", stk 9", 110 SPM
DWC $48,459 CWC $2,491,550

08/06/08
Operations: Drlg ahead, Depth: 13860', Footage: 340', Rotating hrs. 23, hole size: 6", days from spud: 37, Cumulative hrs: 575 1/2, Formation: Bakken, Mud Wt 9.5, Vis 28, DMC $3,628, CMC $60,575, Bit #10 HTC Q505X (7121016), Jets -, in @ 13,520', made 340' in 23 hrs, 14.78 FPH, WOB 15, RPM 45, Pressure 1700, 240 GPM, Pump #2: Liner 5", stk 9", 110 SPM
DWC $68,649 CWC $2,560,199

08/07/08
Operations: Drlg ahead, Depth: 14490', Footage: 630', Rotating hrs. 23 1/2, hole size: 6", days from spud: 38, Cumulative hrs: 599, Formation: Bakken, Mud Wt 9.5, Vis 28, DMC $3,628, CMC $64,203, Bit #10 HTC Q505X (7121016), Jets -, in @ 13,520', made 630' in 23 1/2 hrs, 26.81 FPH, WOB 15, RPM 45, Pressure 1700, 240 GPM, Pump #2: Liner 5", stk 9", 110 SPM
DWC $39,034 CWC $2,599,233

08/08/08
Operations: Drlg ahead, Depth: 14642', Footage: 152', Rotating hrs. 10 1/2, hole size: 6", days from spud: 39, Cumulative hrs: 609 1/2, Formation: Bakken, Mud Wt 9.5, Vis 28, DMC $3,628, CMC $67,831, Bit #10 HTC Q505X (7121016), Jets -, in @ 13,520',out @ 14642' made 152' in 10 1/2 hrs, 14.48 FPH, WOB 15, RPM 45, Pressure 1700, 240 GPM, Pump #2: Liner 5", stk 9", 110 SPM
DWC $35,723 CWC $2,634,956

08/09/08
Operations: Drlg ahead, Depth: 14769', Footage: 94', Rotating hrs. 13, hole size: 6", days from spud: 40, Cumulative hrs: 622 1/2, Formation: Bakken, Mud Wt 9.5, Vis 28, DMC $705, CMC $68,536, Bit #11 HTC HC505ZX (7006071), Jets -, in @ 14675', made 94' in 13 hrs, 7.23 FPH, WOB 15, RPM 45, Pressure 1700, 240 GPM, Pump #2: Liner 5", stk 9", 110 SPM
DWC $38,501 CWC $2,673,457

08/10/08
Operations: Drlg ahead, Depth: 14805', Footage: 2', Rotating hrs. 23, hole size: 6", days from spud: 41, Cumulative hrs: 645 1/2, Formation: Bakken, Mud Wt 9.5, Vis 28, DMC $705, CMC $69,241, Bit #11 HTC HC505ZX (7006071), Jets -, in @ 14675', made 96' in 36 hrs, 2.67 FPH, WOB 15, RPM 45, Pressure 1950, 240 GPM, Pump #2: Liner 5", stk 9", 110 SPM
DWC $35,103 CWC $2,708,560

08/11/08
Operations: Drlg ahead, Depth: 15,336', Footage: 531', Rotating hrs. 22, hole size: 6", days from spud: 42, Cumulative hrs: 667 1/2, Formation: Bakken, Mud Wt 9.5, Vis 28, DMC $0, CMC $69,241, Bit #11 HTC HC505ZX (7006071), Jets -, in @ 14,675', made 627' in 58 hrs, 10.81 FPH, WOB 12, RPM 45, Pressure 2045, 240 GPM, Pump #2: Liner 5", stk 9", 110 SPM
DWC $36,671 CWC $2,745,231

08/12/08
Operations: Drlg, Depth: 15,838', Footage: 502', Rotating hrs. 22, hole size: 6", days from spud: 43, Cumulative hrs: 689 1/2, Formation: Bakken, Mud Wt 9.6, Vis 28, DMC $2841, CMC $72,082, Bit #11 HTC HC505ZX (7006071), Jets -, in @ 14,675', made 1129' in 80 hrs, 14.1 FPH, WOB 15, RPM 45, Pressure 2045, 240 GPM, Pump #2: Liner 5", stk 9", 110 SPM

DWC $39,199 CWC $2,784,430

08/13/08
Operations: Drlg, Depth: 16,466', Footage: 628', Rotating hrs. 23 1/2, hole size: 6", days from spud: 44, Cumulative hrs: 713, Formation: Bakken, Mud Wt 9.6, Vis 28, DMC $0, CMC $72,082, Bit #11 HTC HC505ZX (7006071), Jets -, in @ 14,675', made 1757' in 103 1/2 hrs, 16.9 FPH, WOB 15, RPM 45, Pressure 2765, 240 GPM, Pump #2: Liner 5", stk 9", 110 SPM
DWC $36,673 CWC $2,821,103

08/14/08
Operations: Drlg, Depth: 17,111', Footage: 645', Rotating hrs. 23 1/2, hole size: 6", days from spud: 45, Cumulative hrs: 736 1/2, Formation: Bakken, Mud Wt 9.6, Vis 28, DMC $0, CMC $72,082, Bit #11 HTC HC505ZX (7006071), Jets -, in @ 14,675', made 2402' in 127 hrs, 18.9 FPH, WOB 15, RPM 45, Pressure 2765, 240 GPM, Pump #2: Liner 5", stk 9", 110 SPM
DWC $43,213 CWC $2,864,316

08/15/08
Operations: Drlg ahead, Depth: 17,708', Footage: 597', Rotating hrs. 23 1/2, hole size: 6", days from spud: 46, Cumulative hrs: 760, Formation: Bakken, Mud Wt 9.6, Vis 28, DMC $3,437, CMC $75,519, Bit #11 HTC HC505ZX (7006071), Jets -, in @ 14,675', made 2999' in 150 1/2 hrs, 19.9 FPH, WOB 15, RPM 45, Pressure 2765, 240 GPM, Pump #2: Liner 5", stk 9", 110 SPM
DWC $40,545 CWC $2,904,861

08/16/08
Operations: Drlg ahead, Depth: 18,201', Footage: 493', Rotating hrs. 23 1/2, hole size: 6", days from spud: 47, Cumulative hrs: 783 1/2, Formation: Bakken, Mud Wt 9.6, Vis 28, DMC $3,437, CMC $78,956, Bit #11 HTC HC505ZX (7006071), Jets -, in @ 14,675', made 3,492' in 174 hrs, 20 FPH, WOB 15, RPM 45, Pressure 2765, 240 GPM, Pump #2: Liner 5", stk 9", 110 SPM
DWC $67,740 CWC $2,972,601

08/17/08
Operations: TIH, Depth: 18,289', Footage: 88', Rotating hrs. 3, hole size: 6", days from spud: 48, Cumulative hrs: 786 1/2, Formation: Bakken, Mud Wt 9.6, Vis 28, DMC $3,437, CMC $82,393, Bit #11 HTC HC505ZX (7006071), Jets -, in @ 14,675', out @ 18,289' made 3,614' in 177 hrs, 20.4 FPH, WOB 15, RPM 45, Pressure 2765, 240 GPM, Pump #2: Liner 5", stk 9", 110 SPM
DWC $35,323 CWC $3,007,924

08/18/08
Operations: Drlg, Depth: 18,729', Footage: 440', Rotating hrs. 20, hole size: 6", days from spud: 49, Cumulative hrs: 806 1/2, Formation: Bakken, Mud Wt 9.6, Vis 28, DMC $3,437, CMC $85,830, Bit #12 STC JX4370 (FR25014), Jets -, in @ 18,289', made 440' in 20 hrs, 22 FPH, WOB 15, RPM 45, Pressure 2765, 240 GPM, Pump #2: Liner 5", stk 9", 110 SPM
DWC $35,323 CWC $3,043,247

08/19/08
Operations: Drlg, Depth: 19,155', Footage: 426', Rotating hrs. 23 1/2, hole size: 6", days from spud: 50, Cumulative hrs: 830, Formation: Bakken, Mud Wt 9.6, Vis 28, DMC $2938, CMC $88,768, Bit #12 STC JX4370 (FR25014), Jets -, in @ 18,289', made 866' in 43 1/2 hrs, 19.9 FPH, WOB 18, RPM 45, Pressure 2430, 240 GPM, Pump #2: Liner 5", stk 9", 110 SPM
DWC $38,906 CWC $3,082,153

08/20/08
Operations: TOH, Depth: 19,578', Footage: 423', Rotating hrs. 17 1/2, hole size: 6", days from spud: 51, Cumulative hrs: 847 1/2, Formation: Bakken, Mud Wt 9.7, Vis 28, DMC $2,938, CMC $91,706, Bit #12 STC JX4370 (FR25014), Jets -, in @ 18,289', out @ 19,578' made 1,289' in

81 hrs, 21.1 FPH, WOB 18, RPM 45, Pressure 2430, 240 GPM, Pump #2: Liner 5", stk 9", 110 SPM
DWC $38,745 CWC $3,120,898

08/21/08
Operations: TIH w/ reamer, Depth: 19,578', Footage: 0, Rotating hrs. 0, hole size: 6", days from spud: 52, Cumulative hrs: 847 1/2, Formation: Bakken, Mud Wt 9.7, Vis 28, DMC $2,938, CMC $94,644, Bit #12 STC JX4370 (FR25014), Jets -, in @ 18,289', out @ 19,578' made 1,289' in 81 hrs, 21.1 FPH, WOB -, RPM -, Pressure -, - GPM
DWC $59,351 CWC $3,180,249

08/22/08
Operations: Reaming, Depth: 19,578', Footage: 0, Rotating hrs. 0, hole size: 6", days from spud: 53, Cumulative hrs: 847 1/2, Formation: Bakken, Mud Wt 9.7, Vis 28, DMC $0, CMC $94,644, Bit #12 STC JX4370 (FR25014), Jets -, in @ 18,289', out @ 19,578' made 1289' in 81 hrs, 21.1 FPH,
DWC $35,251 CWC $3,215,500

08/23/08
Operations: Reaming, Depth: 19,578', Footage: 0, Rotating hrs. 0, hole size: 6", days from spud: 54, Cumulative hrs: 847 1/2, Formation: Bakken, Mud Wt 9.7, Vis 28, DMC $0, CMC $94,644, Bit #13 STC XR30TY (PF9446), Jets -, in @ 10,489', made 2,948' in 47 hrs, 62.7 FPH, WOB 2/3, RPM 45/50, Pressure 1188, 240 GPM, Pump #1: Liner 5", stk 9", 110 SPM
DWC $32,695 CWC $3,248,195

08/24/08
Operations: Reaming, Depth: 19,578', Footage: 0, Rotating hrs. 0, hole size: 6", days from spud: 55, Cumulative hrs: 847 1/2, Formation: Bakken, Mud Wt 9.7, Vis 28, DMC $0, CMC $94,644, Bit #13 STC XR30TY (PF9446), Jets -, in @ 10,489', made 2,948' in 47 hrs, 62.7 FPH, WOB 6/5, RPM 45/50, Pressure 1310, 240 GPM, Pump #1: Liner 5", stk 9", 110 SPM
DWC $24,403 CWC $3,272,598

08/25/08
Operations: Reaming, Depth: 19,578', Footage: 0, Rotating hrs. 0, hole size: 6", days from spud: 56, Cumulative hrs: 847 1/2, Formation: Bakken, Mud Wt 9.7, Vis 28, DMC $0, CMC $94,644, Bit #13 STC XR30TY (PF9446), Jets -, in @ 10,489', made 5,525' in 87 1/2 hrs, 63.1 FPH, WOB 3/5, RPM 45/50, Pressure 1505, 240 GPM, Pump #1: Liner 5", stk 9", 110 SPM
DWC $24,403 CWC $3,297,001

BIT RECORD

Bit Number	Make	Type	In Hole	Out Hole	Footage	Hours
#1	BH GA115C	D17827	56'	1813'	1756'	25.0
#2	Smith F30TPS	PK2653	1813'	1842'	29'	1.5
#3	PDC Logic	SO6495	1842'	6628'	4786'	70.0
#4	BHC HC505ZX	7119496	6628'	9796'	3168'	163.5
#5	STC F30TVPS	PK7520	10,486'	12864'	2375'	76.0
#6	HTC HC505ZX	7006839	10,489'	12864'	2375'	76.0
#7	Sec FM3542	1110476	12,864'	13146"	282'	10.0
#9	HTC HC505ZX	7007304	12,084'	13995'	422'	17.0
#10	HTC Q505X	7121016	13,995'	14642'	152'	10.0
#11	HTC HC505ZX	7006071	14675'	18,289'	3,614'	177.0
#12	STC JX4370	FR25014	18,289'	19,578'	1289'	81.0
#13	STC XR30TY	PF9446	10,489'			

SAMPLE DESCRIPTIONS

Vertical

8230-SALT: CLEAR-CLOUDY, VERY FIRM, FRAGMENTED, SANDSTONE: MEDIUM-DARK RED, LIMESTONE: LIGHT-MEDIUM GREY, SCATTERED TRACE ANHYDRITE.

8260-SALT: CLEAR-CLOUDY, VERY FIRM, FRAGMENTED, SCATTERED SANDSTONE: MEDIUM-DARK RED, SLIGHTLY FIRM-SOFT, TRACE ANHYDRITE.

8300-SALT: CLEAR-CLOUDY, VERY FIRM, FRAGMENTED, TRACE SANDSTONE: MEDIUM-DARK RED, TRACE ANHYDRITE.

8350-SALT: CLEAR-CLOUDY, VERY FIRM, FRAGMENTED, ANHYDRITE: WHITE-CREAM, SLIGHTLY FIRM-SLIGHTLY SOFT, LIMESTONE: LIGHT BROWN, MOTTLED WITH CREAM, DARK GREY IN PART, SLIGHTLY FIRM-FIRM IN PART, SLIGHTLY ARGILLACEOUS, DOLOMITIC IN PART, TRACE SANDSTONE: MEDIUM-DARK RED, SLIGHTLY FIRM SOFT.

8400-SALT: CLEAR-CLOUDY, VERY FIRM, FRAGMENTED, ANHYDRITE: WHITE-CREAM, SLIGHTLY FIRM-SLIGHTLY SOFT, LIMESTONE: LIGHT BROWN, MOTTLED WITH CREAM, DARK GREY IN PART, SLIGHTLY FIRM-FIRM IN PART, SLIGHTLY ARGILLACEOUS, DOLOMITIC IN PART, TRACE SANDSTONE: MEDIUM-DARK RED, SLIGHTLY FIRM SOFT.

8450-SALT: CLEAR-CLOUDY, VERY FIRM, FRAGMENTED, TRACE ANHYDRITE: WHITE-CREAM, SLIGHTLY FIRM-SLIGHTLY SOFT, TRACE LIMESTONE: LIGHT BROWN, MOTTLED WITH CREAM, DARK GREY IN PART, SLIGHTLY FIRM-FIRM IN PART, SLIGHTLY ARGILLACEOUS, DOLOMITIC IN PART.

8500-SALT: CLEAR-CLOUDY, VERY FIRM, FRAGMENTED, TRACE ANHYDRITE, TRACE LIMESTONE.

8550-80% LIMESTONE: LIGHT BROWN, MOTTLED WITH CREAM, DARK GREY IN PART, SLIGHTLY FIRM-FIRM IN PART, SLIGHTLY ARGILLACEOUS, DOLOMITIC IN PART, GRADING TO ANHYDRITE: WHITE-CREAM, SLIGHTLY FIRM-SLIGHTLY SOFT, 20% SALT: CLEAR-CLOUDY, VERY FIRM, FRAGMENTED.

8600 LIMESTONE: LIGHT-MEDIUM BROWN-GREY, SLIGHTLY FIRM-FIRM, CRYPTOCRYSTALLINE, CLEAN-SLIGHTLY ARGILLACEOUS, CREAM-WHITE, SOFT, AMORPHIC ANHYDRITE, SALT: CLEAR-CLOUDY, VERY FIRM, FRAGMENTED.

8650 LIMESTONE: LIGHT-MEDIUM BROWN-GREY, SLIGHTLY FIRM-FIRM, CRYPTOCRYSTALLINE, CLEAN-SLIGHTLY ARGILLACEOUS, SOME CREAM-WHITE, SOFT, AMORPHIC ANHYDRITE, SALT: CLEAR-CLOUDY, VERY FIRM, FRAGMENTED.
8700 LIMESTONE: MEDIUM-DARK BROWN AND GREY, FIRM, CRYPTOCRYSTALLINE, CLEAN-SLIGHTLY ARGILLACEOUS.

8750 LIMESTONE: LIGHT-MEDIUM BROWN-GREY, SLIGHTLY FIRM-FIRM, CRYPTOCRYSTALLINE, CLEAN-SLIGHTLY ARGILLACEOUS, SOME CREAM-WHITE, SOFT, AMORPHIC ANHYDRITE, SALT: CLEAR-CLOUDY, VERY FIRM, FRAGMENTED.

8800 LIMESTONE: LIGHT-MEDIUM BROWN-GREY, SLIGHTLY FIRM-FIRM, CRYPTOCRYSTALLINE, CLEAN-SLIGHTLY ARGILLACEOUS, SOME CREAM-WHITE, SOFT, AMORPHIC ANHYDRITE.

8850 NO SAMPLE

8900 LIMESTONE: DARK-MEDIUM GREY-BROWN, FIRM, CRYPTOCRYSTALLINE, MODERATELY ARGILLACEOUS, DOLOMITIC IN PART, ANHYDRITE: CREAM-WHITE, SOFT-VERY SOFT.

8950 LIMESTONE: DARK-MEDIUM GREY-BROWN, FIRM, CRYPTOCRYSTALLINE, MODERATELY ARGILLACEOUS, DOLOMITIC IN PART, TRACE AMOUNT CREAM-WHITE, SOFT-VERY SOFT, AMORPHIC ANHYDRITE.

9000 LIMESTONE: DARK-MEDIUM GREY-BROWN, FIRM, CRYPTOCRYSTALLINE, MODERATELY ARGILLACEOUS, DOLOMITIC IN PART, TRACE AMOUNT CREAM-WHITE, SOFT-VERY SOFT, AMORPHIC ANHYDRITE.

9050 LIMESTONE: DARK-MEDIUM GREY-BROWN, FIRM, CRYPTOCRYSTALLINE, MODERATELY ARGILLACEOUS.

9100 LIMESTONE: DARK-MEDIUM GREY-BROWN, FIRM, CRYPTOCRYSTALLINE, MODERATELY ARGILLACEOUS, DOLOMITIC IN PART, CREAM-WHITE, SOFT-VERY SOFT, AMORPHIC ANHYDRITE.

9150 LIMESTONE: DARK-MEDIUM GREY-BROWN, FIRM, CRYPTOCRYSTALLINE, MODERATELY ARGILLACEOUS,DOLOMITIC IN PART.

9200 LIMESTONE: DARK-MEDIUM GREY-BROWN, FIRM, CRYPTOCRYSTALLINE, MODERATELY ARGILLACEOUS,DOLOMITIC IN PART, TRACE, CREAM-WHITE, SOFT-VERY SOFT, AMORPHIC ANHYDRITE.

9250 LIMESTONE: DARK-MEDIUM GREY-BROWN, FIRM, CRYPTOCRYSTALLINE, MODERATELY ARGILLACEOUS,DOLOMITIC IN PART, TRACE, CREAM-WHITE, SOFT-VERY SOFT, AMORPHIC ANHYDRITE.

9300 LIMESTONE: DARK-MEDIUM GREY-BROWN, FIRM, CRYPTOCRYSTALLINE, MODERATELY ARGILLACEOUS,DOLOMITIC IN PART, TACE, CREAM-WHITE, SOFT-VERY SOFT, AMORPHIC ANHYDRITE.

9350 LIMESTONE: DARK-MEDIUM GREY-BROWN, FIRM, CRYPTOCRYSTALLINE, MODERATELY ARGILLACEOUS,DOLOMITIC IN PART, TRACE, CREAM-WHITE, SOFT-VERY SOFT, AMORPHIC ANHYDRITE.

9400 LIMESTONE: DARK-MEDIUM GREY-BROWN, FIRM, CRYPTOCRYSTALLINE, MODERATELY ARGILLACEOUS.

9450 LIMESTONE: DARK-MEDIUM GREY-BROWN, FIRM, CRYPTOCRYSTALLINE, MODERATELY ARGILLACEOUS.

9500 LIMESTONE: DARK-MEDIUM GREY-BROWN, FIRM, CRYPTOCRYSTALLINE, MODERATELY ARGILLACEOUS.

9550 LIMESTONE: DARK-MEDIUM GREY-BROWN, FIRM, CRYPTOCRYSTALLINE, MODERATELY ARGILLACEOUS.

9600 LIMESTONE: DARK-MEDIUM GREY-BROWN, FIRM, CRYPTOCRYSTALLINE, MODERATELY ARGILLACEOUS.

9650 LIMESTONE: DARK-MEDIUM GREY-BROWN, FIRM, CRYPTOCRYSTALLINE, MODERATELY ARGILLACEOUS.

9700 LIMESTONE: DARK-MEDIUM GREY-BROWN, FIRM, CRYPTOCRYSTALLINE, MODERATELY ARGILLACEOUS.

9750 LIMESTONE: DARK-MEDIUM GREY-BROWN, FIRM, CRYPTOCRYSTALLINE, MODERATELY ARGILLACEOUS.

SOUTH LATERAL

9800 Limestone: medium-dark grey-brown, firm, cryptocrystalline, moderately argillaceous, trace white, soft amorphic Anhydrite.

9850 Limestone: medium-dark grey-brown, firm, cryptocrystalline, moderately argillaceous, trace white, soft amorphic Anhydrite.

9900 Limestone: medium-dark grey-brown, firm, cryptocrystalline, moderately argillaceous, trace white, soft amorphic Anhydrite.

9950 Limestone: medium-dark grey-brown, firm, cryptocrystalline, moderately argillaceous, trace white, soft amorphic Anhydrite.

10000 Limestone: medium-dark grey-brown, firm, cryptocrystalline, moderately argillaceous, trace white, soft amorphic Anhydrite.

10050 Limestone: medium-dark grey-brown, firm, cryptocrystalline, moderately argillaceous, trace white, soft amorphic Anhydrite.

10100 Limestone: medium-dark grey-brown, firm, cryptocrystalline, moderately argillaceous, trace white, soft amorphic Anhydrite.

10150 Limestone: medium-dark grey-brown, firm, cryptocrystalline, moderately argillaceous, trace white, soft amorphic Anhydrite.

10200 Limestone: medium-dark grey-brown, firm, cryptocrystalline, moderately argillaceous, trace white, soft amorphic Anhydrite.

10250 Limestone: medium-dark grey-brown, firm, cryptocrystalline, moderately argillaceous, trace white, soft amorphic Anhydrite.

10300 Limestone: medium-dark grey-brown, firm, cryptocrystalline, moderately argillaceous, trace white, soft amorphic Anhydrite.

10350 Limestone: medium-dark grey-brown, firm, cryptocrystalline, moderately argillaceous, trace white, soft amorphic Anhydrite.

10400 Shale: black, carbinaceous, blky, firm to moderately hard, very slightly calcareous, silty, laminated in part.

10450 Dolomite: medium-some light brown-grey, translucent in part, firm-slightly friable, very fine crystalline-some microcrystalline, sandy-silty, slightly argillaceous, very slightly calcareous, sample contaminated with invert, scatteredShale: black, carbinaceous, blky, firm to moderately hard, calcareous, silty, laminated in part.

10500 80% cement-Dolomite: light brown-grey, trace translucent, firm-slightly friable, very fine crystalline-some microcrystalline, sandy-silty, slightly argillaceous, very slightly calcareous, trace pyrite.

10550 Dolomite: light brown-grey, trace translucent, firm-slightly friable, very fine crystalline-some microcrystalline, sandy-silty, slightly argillaceous, slightly calcareous, trace pyrite, trace hydrocarbon fluorescence, very slow, milky, light yellow/white diffuse cut.

10600 Dolomite: light brown-grey, trace translucent, moderately firm-friable, very fine crystalline-some microcrystalline, sandy-silty, argillaceous, very slightly calcareous, trace pyrite, trace hydrocarbon fluorescence, very slow, milky, light yellow/white diffuse cut.

10650 Dolomite: light brown-grey, translucent, rare translucent amber, rare dark brown, moderately firm-friable, very fine crystalline-some microcrystalline, trace microsucrosic, sandy-silty, moderately calcareous, trace pyrite, trace hydrocarbon fluorescence, moderate, milky, light yellow/white diffuse cut.

10700 Dolomite: light brown-grey, translucent, rare translucent amber, rare dark brown, moderately firm-friable, very fine crystalline-some microcrystalline, trace microsucrosic, sandy-silty, moderately calcareous, trace pyrite, trace hydrocarbon fluorescence, moderate, milky, light yellow/white diffuse cut.

10750 Dolomite: light grey, tan, cream, rare translucent amber, trace dark brown, moderately firm-friable, very fine crystalline-some microcrystalline, rare microsucrosic, sandy-silty, moderately calcareous, rare hydrocarbon fluorescence, moderate, milky, blue/white diffuse cut.

10800 Dolomite: light brown, tan, off white, cream, moderately firm, microcrystalline- microsucrosic, sandy, slightly calcareous, moderate yellow-green hydrocarbon fluorescence, moderately fast white diffuse cut,

10850 Dolomite: light brown, tan, off white, cream, rare gray, moderately firm, microcrystalline-microsucrosic, sandy, slightly calcareous, moderate yellow-green hydrocarbon fluorescence, moderately fast white diffuse cut.

10900 Dolomite: tan, off white, cream, rare gray, rare brown, moderately firm, microcrystalline-microsucrosic, sandy, very slightly calcareous, moderate yellow-green hydrocarbon fluorescence, moderately fast white diffuse cut.

11000 Dolomite: light-medium brown, tan, off white, some translucent, scattered grey-grey brown, slightly firm, microcrystalline- microsucrosic, very slightly calcareous, good intercrystalline porosity, even brown oil stain, bright even yellow-green hydrocarbon fluorescence, immediate bright blue-white flash-diffuse cut, good amount of oil in sample.

11100 Dolomite: light-medium brown, tan, off white, some translucent, scattered grey-grey brown, slightly firm, microcrystalline- microsucrosic, slightly calcareous, good intercrystalline porosity, even brown oil stain, some bright-some dull yellow-green hydrocarbon fluorescence, moderately fast light blue-white flash-diffuse cut, oil in sample.

11200 Dolomite: light-medium brown, tan, off white, some translucent, scattered grey-grey brown, slightly firm, microcrystalline- microsucrosic, very slightly calcareous, good intercrystalline porosity, even brown oil stain, bright even yellow-green hydrocarbon fluorescence, immediate light blue-white streaming-diffuse cut, oil in sample.

11300 Dolomite: light-medium brown, tan, off white, some translucent, scattered grey-grey brown, slightly firm, microcrystalline- microsucrosic, very slightly calcareous, good intercrystalline porosity, even brown oil stain, bright even yellow-green hydrocarbon fluorescence, immediate bright blue-white streaming-diffuse cut, oil in sample.

11400 Dolomite: light-medium brown, tan, off white, some translucent, scattered gray-gray brown, moderately firm, microcrystalline- microsucrosic, slightly calcareous, good intercrystalline porosity, even brown oil stain, even yellow-green hydrocarbon fluorescence, immediate bright blue-white streaming-diffuse cut, oil in sample.

11500 Dolomite: light-medium brown, tan, off white, some translucent, scattered gray-gray brown, moderately firm, microcrystalline- microsucrosic, moderately calcareous, good intercrystalline porosity, even yellow-green hydrocarbon fluorescence, fast white streaming-diffuse cut, oil in sample.

11600 Dolomite: light-medium brown, tan, off white, rare translucent, scattered gray-gray brown, trace dark brown, slightly firm, microcrystalline- microsucrosic, slightly calcareous, good intercrystalline porosity, brown oil stain, bright even yellow-green hydrocarbon fluorescence, immediate bright blue-white streaming-diffuse cut, oil in sample.

11700 Dolomite: light-medium brown, tan, off white, rare translucent, scattered gray-gray brown, slightly firm, microcrystalline- microsucrosic, argillaceous in part, slightly calcareous, fair-good intercrystalline porosity, brown oil stain, bright even yellow-green hydrocarbon fluorescence, immediate bright blue-white streaming-diffuse cut, oil in sample.

11800 Dolomite: light-medium brown, tan, off white, some translucent, scattered grey-grey brown, slightly firm, microcrystalline- microsucrosic, argillaceous in part, slightly calcareous, fair-good intercrystalline porosity, even brown oil stain, some bright-some dull yellow-green hydrocarbon fluorescence, slow light blue-white flash-diffuse cut, oil in sample.

11900 Dolomite: light-medium grey-grey brown, off white, some translucent, scattered dark grey-grey brown, slightly firm, microcrystalline- microsucrosic, slightly calcareous, argillaceous in part, fair-good intercrystalline porosity, some even brown oil stain, some bright-some dull yellow-green hydrocarbon fluorescence, slow light blue-white diffuse-streaming cut, oil in sample.

12000 Dolomite: light-medium brown, off white, grey-grey brown, some translucent, scattered dark grey-grey brown, slightly firm, microcrystalline- microsucrosic, slightly calcareous, argillaceous in part, fair-good intercrystalline porosity, some even brown oil stain, some bright-some dull yellow-green hydrocarbon fluorescence, slow light blue-white diffuse-streaming cut, oil in sample.

12100 Dolomite: light-medium grey-grey brown, off white, light-medium brown, some translucent, scattered dark grey-grey brown, slightly firm, microcrystalline- microsucrosic, slightly calcareous, argillaceous in part, fair-good intercrystalline porosity, some even brown oil stain, some bright-some dull yellow-green hydrocarbon fluorescence, slow weak blue-white diffuse-streaming cut, oil in sample.

12200 Dolomite: light-medium gray-gray brown, off white, light-medium brown, some translucent, scattered dark gray-gray brown, slightly firm, microcrystalline- microsucrosic, slightly calcareous, argillaceous in part, fair-good intercrystalline porosity, trace brown oil stain, trace dull yellow hydrocarbon fluorescence, slow milky white streaming cut, oil film on sample.

12300 Dolomite: light-medium gray-gray brown, off white, light-medium brown, rare translucent, trace dark gray-gray brown, slightly firm, microcrystalline- microsucrosic, slightly calcareous, argillaceous in part, fair-good intercrystalline porosity, trace brown oil stain, trace dull yellow hydrocarbon fluorescence, slow milky white streaming cut, oil film on sample.

12400 Dolomite: off white, light-medium brown, rare translucent, trace dark gray-gray brown, moderately firm, microcrystalline- microsucrosic, slightly calcareous, argillaceous in part, fair-good intercrystalline porosity, trace brown oil stain, trace dull yellow hydrocarbon fluorescence, slow milky white streaming cut, oil film on sample.

12500 Dolomite: light-medium brown-grey brown, off white, trace dark gray-gray brown, trace translucent, moderately firm, moderately argillaceous, microcrystalline-microsucrosic in part, calcareous, fair-good intercrystalline porosity, trace brown oil stain, dull yellow hydrocarbon fluorescence, slow milky white streaming cut, oil in sample.

12600 Dolomite: light-medium brown-grey brown, off white, trace dark gray-gray brown, trace translucent, moderately firm, moderately argillaceous, microcrystalline-microsucrosic in part, calcareous, fair-good intercrystalline porosity, trace brown oil stain, dull yellow hydrocarbon fluorescence, slow milky white streaming cut, oil in sample.

12700 Dolomite: medium brown-grey brown, dark gray-gray brown, scattered light-medium brown, moderately firm, moderately argillaceous, microcrystalline-microsucrosic in part, moderately calcareous, fair-good intercrystalline porosity, trace brown oil stain, dull yellow-trace bright hydrocarbon fluorescence, slow-weak milky blue-white diffuse cut, oil in sample.

12800 Dolomite: medium brown-grey brown, dark gray-gray brown, scattered light-medium brown, moderately firm, moderately argillaceous, microcrystalline-microsucrosic in part, moderately calcareous, fair-good intercrystalline porosity, trace brown oil stain, dull yellow-trace bright hydrocarbon fluorescence, slow-weak milky blue-white diffuse cut, oil in sample.

11600 Dolomite: medium- dark brown, greybrown, cream, slightly firm, microcrystalline- microsucrosic, moderately calcareous, good intercrystalline porosity, some even brown oil stain, some scattered dark gray shale laminae, faint dull yellow hydrocarbon fluorescence, very slow weak blue-white diffuse cut, oil in sample.

12900 Dolomite: light-medium brown-grey brown, dark gray-gray brown, off white, trace translucent, moderately firm, microcrystalline-microsucrosic, argillaceous in part, slightly calcareous, fair-good intercrystalline porosity, brown oil stain, dull-some bright yellow-green hydrocarbon fluorescence, immediate light blue-white diffuse cut, oil in sample.

13000 Dolomite: light-medium brown-grey brown, some dark gray-gray brown, off white, trace translucent, moderately firm, microcrystalline-microsucrosic, argillaceous in part, slightly calcareous, fair-good intercrystalline porosity, brown oil stain, dull-some bright yellow-green hydrocarbon fluorescence, immediate light blue-white diffuse cut, oil in sample.

13100 Dolomite: light-medium brown-grey brown, some dark gray-gray brown, off white, trace translucent, moderately firm, microcrystalline-microsucrosic, argillaceous in part, moderately calcareous, fair-good intercrystalline porosity, brown oil stain, dull yellow-green hydrocarbon fluorescence, moderately fast light blue-white diffuse cut, oil in sample.

13150 Dolomite: light-medium brown-grey brown, some dark gray-gray brown, off white, trace translucent, moderately firm, microcrystalline-microsucrosic, argillaceous in part, moderately calcareous, fair-good intercrystalline porosity, brown oil stain, dull yellow-green hydrocarbon fluorescence, moderately fast light blue-white diffuse cut, oil in sample.

South ST1

12200 Dolomite: light-medium gray-gray brown, off white, light-medium brown, some translucent, scattered dark gray-gray brown, slightly firm, microcrystalline- microsucrosic, slightly calcareous, argillaceous in part, fair-good intercrystalline porosity, trace brown oil stain, trace dull yellow hydrocarbon fluorescence, slow milky white streaming cut, oil film on sample.

12300 Dolomite: very poor, small sample, nothing coming over the shaker, oil in sample.

12400 Dolomite: very poor, small sample, nothing coming over the shaker, oil in sample.

12500 Dolomite: very poor, small sample, nothing coming over the shaker, oil in sample.

12600 Dolomite: very poor, small sample, nothing coming over the shaker, oil in sample.

12700 Dolomite: very poor, small sample, nothing coming over the shaker, oil in sample.

12800 Dolomite: light brown, tan, off white, translucent, scattered light-medium grey-grey brown, slightly firm, microcrystalline- microsucrosic, argillaceous in part, slightly calcareous, fair-good intercrystalline porosity, brown oil stain, bright even yellow-green hydrocarbon fluorescence, immediate light blue-white streaming-diffuse cut, oil in sample.

12900 Dolomite: light brown, tan, off white, translucent, scattered light-medium grey-grey brown, slightly firm, microcrystalline- microsucrosic, argillaceous in part, slightly calcareous, fair-good intercrystalline porosity, brown oil stain, bright even yellow-green hydrocarbon fluorescence, immediate light blue-white streaming-diffuse cut, oil in sample.

13000 Dolomite: light brown, tan, off white, translucent, scattered light-medium grey-grey brown, slightly firm, microcrystalline- microsucrosic, argillaceous in part, calcareous, fair-good intercrystalline porosity, brown oil stain, dull even yellow-green hydrocarbon fluorescence, immediate, moderately weak, light blue-white streaming-diffuse cut, oil in sample.

13100 Dolomite: light brown, tan, off white, translucent, scattered light-medium grey-grey brown, slightly firm, microcrystalline- microsucrosic, argillaceous in part, calcareous-very calcareous, fair-good intercrystalline porosity, brown oil stain, dull even yellow-green hydrocarbon fluorescence, immediate, moderately weak, light blue-white streaming-diffuse cut, oil in sample.

13200 Dolomite: light brown, tan, off white, translucent, scattered light-medium grey-grey brown, slightly firm, microcrystalline- microsucrosic, argillaceous in part, calcareous-moderately calcareous, fair-good intercrystalline porosity, brown oil stain, dull-moderately bright even yellow-green hydrocarbon fluorescence, immediate moderately bright blue-white diffuse cut, oil in sample.

13300 Dolomite: tan, light brown, off white, translucent, trace light-medium gray-gray brown, slightly firm, microcrystalline- microsucrosic, argillaceous in part, calcareous-moderately calcareous, fair-good

intercrystalline porosity, brown oil stain, dull even yellow-green hydrocarbon fluorescence, moderately fast, blue-white diffuse cut, oil in sample.

13400 Dolomite: tan, light brown, off white, translucent, rare light-medium gray-gray brown, slightly firm, microcrystalline- microsucrosic, argillaceous in part, calcareous-moderately calcareous, fair-good intercrystalline porosity, brown oil stain, dull even yellow-green hydrocarbon fluorescence, moderately fast, blue-white diffuse cut, oil in sample.

13500 Dolomite: tan, light brown, off white, translucent, rare light-medium gray-gray brown, slightly firm, microcrystalline- microsucrosic, argillaceous in part, calcareous-moderately calcareous, fair-good intercrystalline porosity, brown oil stain, dull even yellow-green hydrocarbon fluorescence, moderately fast, blue-white diffuse cut, oil in sample.

13600 Dolomite: tan, light brown, off white, translucent, rare light-medium gray-gray brown, slightly firm, microcrystalline- microsucrosic, argillaceous in part, calcareous-moderately calcareous, fair-good intercrystalline porosity, brown oil stain, dull even yellow-green hydrocarbon fluorescence, slow-moderately weak blue-white diffuse cut, oil in sample.

13700 Dolomite: light brown, tan, off white, translucent, some light-medium gray-gray brown, slightly firm, microcrystalline- microsucrosic, argillaceous in part, slightly calcareous, fair-good intercrystalline porosity, brown oil stain, dull even yellow-green hydrocarbon fluorescence, slow-moderately weak blue-white diffuse cut, oil in sample.

13800 Dolomite: light brown, tan, off white, translucent, some light-medium gray-gray brown, slightly firm, microcrystalline- microsucrosic, argillaceous in part, slightly calcareous, fair-good intercrystalline porosity, brown oil stain, dull even yellow-green hydrocarbon fluorescence, moderately bright blue-white streaming cut, oil in sample.

13900 Dolomite: light brown, tan, off white, translucent, rare light-medium gray-gray brown, slightly firm, microcrystalline- microsucrosic, argillaceous in part, moderately calcareous, fair-good intercrystalline porosity, brown oil stain, dull even yellow-green hydrocarbon fluorescence, moderately fast bright blue-white streaming cut, oil in sample.

14000 Dolomite: very poor, small sample, nothing coming over the shaker, oil in sample.

14100 Dolomite: very poor, small sample, nothing coming over the shaker, oil in sample.

14200 Dolomite: medium-light gray-gray brown, rare dark brown, moderately firm, microcrystalline-microsucrosic, argillaceous in part, very slightly calcareous, fair-good intercrystalline porosity, brown oil stain, dull even yellow-green hydrocarbon fluorescence, fast bright blue-white streaming cut, oil in sample.

14300 Dolomite: medium-light grey-grey brown, rare dark brown, moderately firm, microcrystalline, argillaceous, moderately-very calcareous, poor-fair intercrystalline porosity, very dull-very weak yellow-green hydrocarbon fluorescence, very slow, light blue-white diffuse cut, oil in sample.

14350 Dolomite: medium-light grey-grey brown, rare dark brown, moderately firm, microcrystalline, argillaceous, slightly calcareous, poor intercrystalline porosity, very dull-very weak yellow-green hydrocarbon fluorescence, very slow, light blue-white diffuse cut, oil in sample.

14400 Dolomite: medium-light grey-grey brown, rare dark brown, scattered tan-light brown, moderately firm, microcrystalline, argillaceous, microsucrosic in part, slightly calcareous, poor intercrystalline porosity, very dull-very weak yellow-green hydrocarbon fluorescence, very slow, light blue-white diffuse cut, oil in sample.

14500 Dolomite: medium-light grey-grey brown, rare dark brown, increasing tan-light brown, moderately firm, microcrystalline, argillaceous, microsucrosic in part, slightly calcareous, poor intercrystalline porosity, very dull-very weak yellow-green hydrocarbon fluorescence, very slow, light blue-white streaming cut, oil in sample.

14600 Dolomite: light grey-grey brown, trace dark brown, increasing tan-light brown, moderately firm, microcrystalline, argillaceous, microsucrosic in part, very slightly calcareous, poor intercrystalline porosity, very dull-very weak yellow-green hydrocarbon fluorescence, very slow, light yellow/white streaming cut, trace oil in sample.

14700 Dolomite: tan-light brown, off white, cream, rare gray/brown, moderately firm, microcrystalline, argillaceous, microsucrosic in part, very slightly calcareous, poor intercrystalline porosity, dull yellow/gold hydrocarbon fluorescence, very slow light yellow/white blooming cut, trace oil in sample.

14800 Dolomite: tan-light brown, off white, light grey, cream, rare medium grey grey-brown, moderately firm, microcrystalline- microsucrosic, argillaceous in part, very slightly calcareous, poor-fair intercrystalline porosity, dull yellow/green hydrocarbon fluorescence, very slow-weak light blue-white diffuse cut, trace oil in sample.

14900 Dolomite: tan-light brown, off white, light grey, cream, rare medium grey grey-brown, moderately firm, microcrystalline- microsucrosic, argillaceous in part, very slightly calcareous, poor-fair intercrystalline porosity, dull yellow/green hydrocarbon fluorescence, very slow-weak light blue-white diffuse cut, trace oil in sample.

14920 Shale: blue-green, carbonaceous, argillaceous, firm to moderately hard, very slightly calcareous, silty, laminated in part.

South ST2

13550 Dolomite: light-medium brown, translucent, off white, light-medium gray-gray brown, slightly firm, microcrystalline- microsucrosic, argillaceous in part, calcareous-moderately calcareous, fair-good intercrystalline porosity, brown oil stain, very dull even yellow-green hydrocarbon fluorescence, slow weak light blue-white diffuse cut, oil in sample.

13600 Dolomite: light-medium brown, translucent, off white, light-medium gray-gray brown, slightly firm, microcrystalline- microsucrosic, argillaceous in part, calcareous-moderately calcareous, fair-good intercrystalline porosity, brown oil stain, very dull even yellow-green hydrocarbon fluorescence, slow weak light blue-white diffuse cut, oil in sample.
13650 Dolomite: light brown, translucent, off white, light-medium gray-gray brown, slightly firm, microcrystalline- microsucrosic, argillaceous in part, calcareous-moderately calcareous, fair-good intercrystalline porosity, brown oil stain, very dull even yellow-green-gold hydrocarbon fluorescence, slow weak white milky cut, oil in sample.

13700 Dolomite: light brown, translucent, off white, light-medium gray-gray brown, moderately firm, microcrystalline- microsucrosic, argillaceous in part, calcareous-moderately calcareous, fair-good intercrystalline porosity, brown oil stain, very dull even yellow-gold hydrocarbon fluorescence, slow yellow/white milky cut, oil in sample.

13750 Dolomite: light brown, translucent, off white, light-medium gray-gray brown, moderately firm, microcrystalline- microsucrosic, argillaceous in part, calcareous-moderately calcareous, fair-good intercrystalline porosity, brown oil stain, very dull even yellow-gold hydrocarbon fluorescence, slow yellow/white milky cut, oil in sample.

13800 Dolomite: light brown, translucent, off white, light-medium gray-gray brown, moderately firm, microcrystalline- microsucrosic, argillaceous in part, calcareous-moderately calcareous, fair-good intercrystalline porosity, brown oil stain, very dull even yellow-gold hydrocarbon fluorescence, slow yellow/white milky cut, oil in sample.

13850 Dolomite: light-medium brown, tan, off white, light-medium grey-grey brown, trace dark brown-grey brown, moderately firm, microcrystalline- microsucrosic, argillaceous in part, very calcareous-calcareous, fair-good intercrystalline porosity, brown oil stain, very dull even yellow-green hydrocarbon fluorescence, slow, moderately bright blue-white diffuse cut, oil in sample.

13900 Dolomite: light-medium brown, tan, off white, light-medium grey-grey brown, trace dark brown-grey brown, moderately firm, microcrystalline- microsucrosic, argillaceous in part, very calcareous-calcareous, fair-good intercrystalline porosity, brown oil stain, very dull even yellow-green hydrocarbon fluorescence, slow moderately bright blue-white streaming cut, oil in sample.

14000 Dolomite: light-medium brown, tan, off white, light-medium grey-grey brown, trace dark brown-grey brown, moderately firm, microcrystalline- microsucrosic, argillaceous in part, moderately-slightly calcareous, fair-good intercrystalline porosity, brown oil stain, dull even yellow-green hydrocarbon fluorescence, immediate moderately bright blue-white streaming-diffuse cut, oil in sample.

14050 Dolomite: light-medium brown, tan, off white, light-medium grey-grey brown, trace dark brown-grey brown, moderately firm, microcrystalline- microsucrosic, argillaceous in part, moderately-slightly calcareous, fair-good intercrystalline porosity, brown oil stain, dull-moderately bright even yellow-green hydrocarbon fluorescence, blue-white streaming cut, oil in sample.

14100 Dolomite: light-medium brown, tan, off white, light-medium grey-grey brown, trace dark brown-grey brown, moderately firm, microcrystalline- microsucrosic, argillaceous in part, slightly-moderately calcareous, fair-good intercrystalline porosity, brown oil stain, moderately bright even yellow-green hydrocarbon fluorescence, blue-white streaming cut, oil in sample.

14150 Dolomite: light brown, tan, off white, light gray/gray brown, trace dark brown, moderately firm, microcrystalline- microsucrosic, argillaceous in part, slightly calcareous, fair-good intercrystalline porosity, brown oil stain, moderately bright even yellow-green hydrocarbon fluorescence, blue-white milky cut, oil in sample.

14200 Dolomite: tan, off white, light brown, rare light gray/gray brown, trace dark brown, moderately firm, microcrystalline- microsucrosic, argillaceous in part, slightly calcareous, fair-good intercrystalline porosity, brown oil stain, moderately bright even yellow-green hydrocarbon fluorescence, strong hydrocarbon odor, blue-white milky cut, oil in sample.

14250 Dolomite: tan, off white, light brown, rare light gray/gray brown, moderately firm, microcrystalline-microsucrosic, argillaceous in part, very slightly calcareous, fair-good intercrystalline porosity, rare pyrite nodules, brown oil stain, moderately bright even yellow-green hydrocarbon fluorescence, strong hydrocarbon odor, blue-white milky cut, oil in sample.

14300Dolomite: tan, off white, light brown, rare light gray/gray brown, moderately firm, microcrystalline-microsucrosic, argillaceous in part, very slightly calcareous, fair-good intercrystalline porosity, rare pyrite nodules, brown oil stain, moderately bright even yellow-green hydrocarbon fluorescence, strong hydrocarbon odor, blue-white milky cut, oil in sample.

14350 Dolomite: tan, off white, light brown, trace light gray/gray brown, moderately firm, microcrystalline-microsucrosic, argillaceous in part, slightly calcareous, fair-good intercrystalline porosity, rare pyrite nodules, brown oil stain, moderately bright even yellow-green hydrocarbon fluorescence, strong hydrocarbon odor, blue-white milky cut, oil in sample.

1440 Dolomite: tan, off white, light brown, trace light gray/gray brown, moderately firm, microcrystalline-microsucrosic, argillaceous in part, slightly calcareous, fair-good intercrystalline porosity, rare pyrite nodules, brown oil stain, moderately bright even yellow-green hydrocarbon fluorescence, strong hydrocarbon odor, blue-white milky cut, oil in sample.

14450 Dolomite: tan, off white, light-medium brown, increasing gray/gray brown, moderately firm, microcrystalline- microsucrosic, argillaceous in part, increasingly calcareous, fair-moderate intercrystalline porosity, brown oil stain, dull yellow-green hydrocarbon fluorescence, blue-white milky cut, oil in sample.

14500 Dolomite: light-medium brown, tan, off white, light-medium grey-grey brown, trace dark brown-grey brown, moderately firm, microcrystalline- microsucrosic, argillaceous in part, moderately-slightly calcareous, fair-good intercrystalline porosity, brown oil stain, dull even yellow-green hydrocarbon fluorescence, immediate moderately bright blue-white diffuse cut, oil in sample.

14550 Dolomite: light-medium brown, tan, off white, light-medium grey-grey brown, scattered dark brown-grey brown, moderately firm, microcrystalline- microsucrosic, argillaceous in part, moderately-slightly calcareous, fair-good intercrystalline porosity, brown oil stain, dull even yellow-green hydrocarbon fluorescence, immediate moderately bright blue-white diffuse cut, oil in sample.

14600 Dolomite: light-medium grey-grey brown, scattered dark brown-grey brown, moderately firm, microcrystalline- microsucrosic, argillaceous in part, moderately-slightly calcareous, fair-good intercrystalline porosity, brown oil stain, dull even yellow-green hydrocarbon fluorescence, weak slow light blue-white diffuse cut, oil in sample.

14650 Dolomite: very poor, small sample, nothing coming over the shaker.

14700 Dolomite: medium grey-grey brown, scattered dark brown-grey brown, moderately firm, microcrystalline, argillaceous in part, moderately calcareous, poor intercrystalline porosity, trace brown oil stain, dull yellow/gold hydrocarbon fluorescence, weak milky white cut.

14750 Dolomite: medium grey-grey brown, scattered dark brown-grey brown, moderately firm, microcrystalline, argillaceous in part, moderately calcareous, poor intercrystalline porosity, trace brown oil stain, dull yellow/gold hydrocarbon fluorescence, weak milky white cut.

14800 Dolomite: light-medium grey, some dark grey-grey brown, moderately firm, microcrystalline, argillaceous, microsucrosic, slightly-moderately calcareous, poor intercrystalline porosity, trace brown oil stain, dull yellow-green hydrocarbon fluorescence, slow light blue-white diffuse cut, trace amount of oil in sample.

14900 Dolomite: light-medium brown, tan, off white, light-medium grey-grey brown, trace drak brown-grey brown, moderately firm, microcrystalline- microsucrosic, argillaceous in part, moderately-slightly calcareous, fair-good intercrystalline porosity, brown oil stain, dull even yellow-green hydrocarbon fluorescence, immediate moderately bright blue-white slow-streaming-diffuse cut, oil in sample.

14950 Dolomite: light-medium brown, tan, off white, light-medium grey-grey brown, trace drak brown-grey brown, moderately firm, microcrystalline-microsucrosic, argillaceous in part, moderately-slightly calcareous, fair-good intercrystalline porosity, brown oil stain, dull even yellow-green hydrocarbon fluorescence, immediate moderately bright blue-white slow-streaming-diffuse cut, oil in sample.

15000 Dolomite: light-medium brown, tan, off white, decreasing light-medium grey-grey brown, trace drak brown-grey brown, moderately firm, microcrystalline-microsucrosic, slightly argillaceous in part, slightly calcareous, fair-good intercrystalline porosity, brown oil stain, moderately bright even yellow-green hydrocarbon fluorescence, immediate bright blue-white streaming-diffuse cut, oil in sample.

15050 Dolomite: light-medium brown, tan, off white, decreasing light-medium grey-grey brown, trace dark brown-grey brown, moderately firm, microcrystalline-microsucrosic, slightly argillaceous in part, slightly calcareous, fair-good intercrystalline porosity, brown oil stain, moderately bright even yellow-green hydrocarbon fluorescence, immediate bright blue-white streaming-diffuse cut, oil in sample.

15100 Dolomite: tan, light brown, off white, trace dark brown-grey brown, moderately firm, microcrystalline-microsucrosic, very slightly argillaceous, slightly calcareous, fair-good intercrystalline porosity, brown oil stain, moderately bright even yellow/gold hydrocarbon fluorescence, immediate bright blue-white streaming-diffuse cut, oil in sample.

15150 Dolomite: tan, light brown, off white, trace dark brown-grey brown, moderately firm, microcrystalline-microsucrosic, very slightly argillaceous, slightly calcareous, fair-good intercrystalline porosity, brown oil stain, moderately bright even yellow/gold hydrocarbon fluorescence, immediate bright blue-white streaming-diffuse cut, oil in sample.

15200 Dolomite: tan, light brown, off white, trace dark brown-grey brown, moderately firm, microcrystalline-microsucrosic, very slightly argillaceous, slightly calcareous, fair-good intercrystalline porosity, brown oil stain, moderately bright even yellow/gold hydrocarbon fluorescence, immediate bright blue-white streaming-diffuse cut, oil in sample.

15250 Dolomite: tan, light brown, off white, trace dark brown-grey brown, moderately firm, microcrystalline-microsucrosic, very slightly argillaceous, slightly calcareous, fair-good intercrystalline porosity, brown oil stain, moderately bright even yellow/gold hydrocarbon fluorescence, immediate bright blue-white streaming-diffuse cut, oil in sample.

15330 Shale: black, carbonaceous, blocky, firm to moderately hard, very slightly calcareous, silty, laminated in part, scattered Dolomite: tan, off white, light brown, oil coming over shaker.

15400 Shale: black, carbonaceous, blocky, firm to moderately hard, very slightly calcareous, silty, laminated in part, scattered Dolomite: tan, off white, light brown, good amount of oil in sample.

15450 Shale: black, carbonaceous, blocky, firm to moderately hard, very slightly calcareous, silty, laminated in part, scattered Dolomite: tan, off white, light brown, good amount of oil in sample.

15500 Shale: black, carbonaceous, blocky, firm to moderately hard, very slightly calcareous, silty, laminated in part, decreased scattered Dolomite: tan, off white, light brown, good amount of oil in sample.

15550 Shale: black, carbonaceous, blocky, firm to moderately hard, very slightly calcareous, silty, laminated in part, decreased scattered Dolomite: tan, off white, light brown, good amount of oil in sample.

15600 Dolomite: light brown, tan, translucent, off white, medium brown, trace dark brown-grey brown, moderately firm, microcrystalline- microsucrosic, argillaceous in part, slightly calcareous, fair-good intercrystalline porosity, brown oil stain, very bright even yellow-green hydrocarbon fluorescence, immediate bright blue-white flash cut, trace scattered Shale: black, carbonaceous, blocky, firm to moderately hard, very slightly calcareous, silty, laminated in part, oil in sample.

15650 Dolomite: tan, translucent, off white, light brown, moderately firm, microcrystalline- microsucrosic, very slightly calcareous, fair-good intercrystalline porosity, brown oil stain, very bright even yellow hydrocarbon fluorescence, very fast bright blue/white streaming cut, oil in sample, strong hydrocarbon odor.

15700 Dolomite: tan, translucent, off white, trace brown/dark brown, moderately firm, microcrystalline-microsucrosic, very slightly calcareous, fair-good intercrystalline porosity, brown oil stain, very bright even yellow hydrocarbon fluorescence, very fast bright blue/white streaming cut, oil in sample.

15750 Dolomite: tan, translucent, off white, trace brown/dark brown, moderately firm, microcrystalline-microsucrosic, very slightly calcareous, fair-good intercrystalline porosity, brown oil stain, very bright even yellow hydrocarbon fluorescence, very fast bright blue/white streaming cut, oil in sample.

15800 Dolomite: light brown, tan, translucent, off white, trace medium brown, moderately firm, microcrystalline- microsucrosic, slightly-moderately calcareous, fair-good intercrystalline porosity, good even brown oil stain, very bright even yellow-green hydrocarbon fluorescence, immediate bright blue-white streaming-diffuse cut, oil in sample.

15900 Dolomite: light brown, tan, translucent, off white, trace medium brown, moderately firm, microcrystalline- microsucrosic, slightly-moderately calcareous, fair-good intercrystalline porosity, good even brown oil stain, very bright even yellow-green hydrocarbon fluorescence, immediate bright blue-white streaming-diffuse cut, oil in sample.

16000 Dolomite: light brown, tan, translucent, off white, trace medium brown, moderately firm, microcrystalline- microsucrosic, slightly calcareous, fair-good intercrystalline porosity, good even brown oil stain, very bright even yellow-green hydrocarbon fluorescence, immediate bright blue-white flash cut, oil in sample.

16100 Dolomite: light brown, tan, translucent, off white, trace medium brown, moderately firm, microcrystalline- microsucrosic, slightly calcareous, fair-good intercrystalline porosity, good even brown oil stain, bright even yellow-green hydrocarbon fluorescence, immediate bright blue-white streaming-diffuse cut, oil in sample.

16200 Dolomite: tan, light brown, translucent, off white, trace medium brown, moderately firm, microcrystalline- microsucrosic, very slightly calcareous, fair-good intercrystalline porosity, good even brown oil stain, bright even yellow-green hydrocarbon fluorescence, immediate bright blue-white streaming cut, oil in sample.

16300 Dolomite: tan, light brown, translucent, off white, trace medium brown, moderately firm, microcrystalline- microsucrosic, very slightly calcareous, fair-good intercrystalline porosity, good even brown

oil stain, bright even yellow-green hydrocarbon fluorescence, immediate bright blue-white streaming cut, oil in sample.

16400 Dolomite: tan, translucent, off white, rare brown/dark brown, trace disseminated pyrite, moderately firm, microcrystalline- microsucrosic, very slightly calcareous, fair-good intercrystalline porosity, brown oil stain, very bright even yellow hydrocarbon fluorescence, very fast bright blue/white streaming cut, oil in sample.

16500 Dolomite: light brown, tan, translucent, off white, trace medium brown, moderately firm, microcrystalline- microsucrosic, slightly calcareous, fair-good intercrystalline porosity, good even brown oil stain, bright even yellow-green hydrocarbon fluorescence, immediate bright blue-white streaming-diffuse cut, oil in sample.

16600 Dolomite: light brown, tan, translucent, off white, trace medium brown, moderately firm, microcrystalline- microsucrosic, moderately calcareous, fair-good intercrystalline porosity, good even brown oil stain, bright even yellow-green hydrocarbon fluorescence, immediate light blue-white diffuse cut, oil in sample.

16700 Dolomite: light brown, tan, translucent, off white, trace medium brown, moderately firm, microcrystalline- microsucrosic, moderately calcareous, fair-good intercrystalline porosity, good even brown oil stain, bright even yellow-green hydrocarbon fluorescence, immediate light blue-white diffuse cut, oil in sample.

16800 Dolomite: tan, translucent, off white, light brown, moderately firm, microcrystalline- microsucrosic, slightly calcareous, fair-good intercrystalline porosity, good even brown oil stain, bright even yellow-green hydrocarbon fluorescence, immediate light blue-white diffuse cut, oil in sample.

16900 Dolomite: translucent, off white, tan, light brown, moderately firm, microcrystalline- microsucrosic, slightly calcareous, fair-good intercrystalline porosity, good even brown oil stain, bright even yellow-green hydrocarbon fluorescence, immediate light blue-white diffuse cut, oil in sample.

17000 Dolomite: translucent, off white, tan, light brown, moderately firm, microcrystalline- microsucrosic, slightly calcareous, fair-good intercrystalline porosity, good even brown oil stain, bright even yellow-green hydrocarbon fluorescence, immediate light blue-white diffuse cut, oil in sample.

17100 Dolomite: light brown, tan, translucent, off white, trace medium brown, moderately firm, microcrystalline- microsucrosic, slightly calcareous, fair-good intercrystalline porosity, good even brown oil stain, bright even yellow-green hydrocarbon fluorescence, immediate bright blue-white flash cut, oil in sample.

17200 Dolomite: light brown, tan, translucent, off white, trace medium brown, moderately firm, microcrystalline- microsucrosic, slightly calcareous, fair-good intercrystalline porosity, good even brown oil stain, bright even yellow-green hydrocarbon fluorescence, immediate bright blue-white flash cut, oil in sample.

17300 Dolomite: light brown, tan, translucent, off white, trace medium brown, moderately firm, microcrystalline- microsucrosic, slightly calcareous, fair-good intercrystalline porosity, good even brown oil stain, bright even yellow-green hydrocarbon fluorescence, immediate bright blue-white streaming-diffuse cut, oil in sample.

17400 Dolomite: tan, translucent, off white, trace light brown, moderately firm, microcrystalline-microsucrosic, slightly calcareous, fair-good intercrystalline porosity, good even brown oil stain, bright even yellow-green hydrocarbon fluorescence, immediate bright blue-white streaming-diffuse cut, oil in sample.

17500 Dolomite: tan, translucent, off white, trace light brown, moderately firm, microcrystalline-microsucrosic, slightly calcareous, fair-good intercrystalline porosity, good even brown oil stain, bright even yellow-green hydrocarbon fluorescence, immediate bright blue-white streaming-diffuse cut, oil in sample.

17600 Dolomite: light gray, off white, trace tan, moderately firm, microcrystalline- microsucrosic, slightly-moderately calcareous, fair-good intercrystalline porosity, good even brown oil stain, bright even yellow/gold hydrocarbon fluorescence, fast bright blue-white streaming-diffuse cut, oil in sample.

17700 Dolomite: light-medium brown, tan, translucent, off white, moderately firm, microcrystalline-microsucrosic, slightly calcareous, fair-good intercrystalline porosity, good even brown oil stain, moderately bright even yellow-green hydrocarbon fluorescence, moderately fast bright blue-white diffuse cut, good amount of oil in sample.

17800 Dolomite: light-medium brown, tan, translucent, off white, moderately firm, microcrystalline-microsucrosic, moderately calcareous, fair-good intercrystalline porosity, good even brown oil stain, moderately bright even yellow-green hydrocarbon fluorescence, moderately weak light blue-white diffuse cut, good amount of oil in sample.

17900 Dolomite: light-medium gray, translucent, off white, moderately firm, microcrystalline- microsucrosic, slightly calcareous, fair intercrystalline porosity, even brown oil stain, moderately bright even yellow/gold hydrocarbon fluorescence, slow weak light blue-white blooming cut, trace amount of oil in sample.

18000 Dolomite: cream, tan, translucent, off white-light gray, moderately firm, microcrystalline-microsucrosic, slightly calcareous, good intercrystalline porosity, even brown oil stain, bright even yellow/gold hydrocarbon fluorescence, fast light blue-white blooming cut, trace amount of oil in sample.

18100 Dolomite: off white-light gray, cream, tan, translucent, moderately firm, microcrystalline-microsucrosic, slightly calcareous, fair intercrystalline porosity, even brown oil stain, bright even yellow/gold hydrocarbon fluorescence, fast light blue-white blooming cut, trace amount of oil in sample.

18200 Dolomite: light brown, tan, translucent, off white, trace medium brown, moderately firm, microcrystalline- microsucrosic, slightly calcareous, fair-good intercrystalline porosity, good even brown oil stain, bright even yellow-green hydrocarbon fluorescence, immediate bright blue-white streaming-diffuse cut, oil in sample.

18300 Dolomite: light brown, tan, translucent, off white, trace medium brown, moderately firm, microcrystalline- microsucrosic, slightly calcareous, fair-good intercrystalline porosity, good even brown oil stain, bright even yellow-green hydrocarbon fluorescence, immediate bright blue-white streaming-diffuse cut, oil in sample.

18400 Dolomite: light brown, tan, translucent, off white, trace medium brown, moderately firm, microcrystalline- microsucrosic, slightly calcareous, fair-good intercrystalline porosity, good even brown oil stain, bright even yellow-green hydrocarbon fluorescence, immediate bright blue-white streaming-diffuse cut, oil in sample.

18500 Dolomite: light brown, tan, translucent, off white, trace medium brown, moderately firm, microcrystalline- microsucrosic, slightly calcareous, fair-good intercrystalline porosity, good even brown oil stain, bright even yellow-green hydrocarbon fluorescence, immediate bright blue-white streaming-diffuse cut, oil in sample.

18600 Dolomite: light brown, tan, translucent, off white, trace medium brown, moderately firm, microcrystalline- microsucrosic, slightly calcareous, fair-good intercrystalline porosity, good even brown oil stain, bright even yellow-green hydrocarbon fluorescence, immediate bright blue-white streaming-diffuse cut, oil in sample.

18700 Dolomite: light brown, tan, translucent, off white, trace medium brown, moderately firm, microcrystalline- microsucrosic, slightly calcareous, fair-good intercrystalline porosity, good even brown oil stain, bright even yellow-green hydrocarbon fluorescence, immediate bright blue-white streaming-diffuse cut, oil in sample.

18800 Dolomite: light brown, tan, translucent, off white, trace medium brown, moderately firm, microcrystalline- microsucrosic, slightly calcareous, fair-good intercrystalline porosity, good even brown oil stain, bright even yellow-green hydrocarbon fluorescence, immediate bright blue-white streaming-diffuse cut, oil in sample.

18900 Dolomite: light brown, tan, translucent, off white, trace medium brown, moderately firm, microcrystalline- microsucrosic, slightly calcareous, fair-good intercrystalline porosity, good even brown oil stain, bright even yellow-green hydrocarbon fluorescence, immediate bright blue-white streaming-diffuse cut, oil in sample.

18930 Dolomite: light-medium gray, off white, dark gray, moderately firm, microcrystalline, moderately calcareous, fair intercrystalline porosity, trace brown oil stain, dull even yellow/gold hydrocarbon fluorescence, slow yellow/white milky cut, trace oil in sample.

18960 Dolomite: light-medium gray, off white, dark gray, moderately firm, microcrystalline, moderately calcareous, fair intercrystalline porosity, trace brown oil stain, dull even yellow/gold hydrocarbon fluorescence, slow yellow/white milky cut, trace oil in sample.

18990 Dolomite: light tan, translucent, off white, trace dark gray, moderately firm, microcrystalline, slightly calcareous, fair intercrystalline porosity, trace brown oil stain, dull even yellow/gold hydrocarbon fluorescence, moderately fast yellow/white milky cut, trace oil in sample.

19020 Dolomite: off white, tan, light gray, trace dark gray, moderately firm, microcrystalline, argillaceous, moderately calcareous, fair intercrystalline porosity, trace brown oil stain, dull even yellow/gold hydrocarbon fluorescence, moderately fast yellow/white milky cut, trace oil in sample.

19050 Dolomite: off white, tan, light gray, trace dark gray, moderately firm, microcrystalline-microsucrosic, slightly argillaceous, moderately calcareous, fair intercrystalline porosity, trace brown oil stain, dull even yellow/gold hydrocarbon fluorescence, fast yellow/white milky cut, trace oil in sample.

19080 Dolomite: off white, tan, light gray, trace dark gray, moderately firm, microcrystalline-microsucrosic, slightly argillaceous, moderately calcareous, fair intercrystalline porosity, trace brown oil stain, dull even yellow/gold hydrocarbon fluorescence, fast yellow/white milky cut, trace oil in sample.

19110 Dolomite: off white, tan, light gray, trace dark gray, moderately firm, microcrystalline-microsucrosic, slightly argillaceous, slightly calcareous, fair intercrystalline porosity, trace brown oil stain, dull even yellow/gold hydrocarbon fluorescence, moderately fast yellow/white milky cut.

19140 Dolomite: light-medium brown-grey brown, scattered off white, moderately firm, microcrystalline, argillaceous, microsucrosic in part, moderately-very calcareous, fair-good intercrystalline porosity, brown oil stain, moderately bright-some dull yellow-green hydrocarbon fluorescence, immediate light blue-white diffuse cut, oil in sample.

19170 Dolomite: light-medium grey-grey brown, scattered off white, moderately firm, microcrystalline, argillaceous, microsucrosic in part, moderately-very calcareous, fair-poor intercrystalline porosity, brown oil stain, moderately bright-some dull yellow-green hydrocarbon fluorescence, immediate light blue-white diffuse cut, oil in sample.

19200 Dolomite: light-medium grey, some grey brown, scattered off white, moderately firm, microcrystalline, argillaceous, microsucrosic in part, very calcareous, fair-poor intercrystalline porosity, slight brown oil stain, dull yellow-green hydrocarbon fluorescence, slow very light blue-white diffuse cut, oil in sample.

19230 Dolomite: light-medium grey-grey brown, scattered off white, moderately firm, microcrystalline, argillaceous, microsucrosic in part, moderately-very calcareous, fair-poor intercrystalline porosity, brown oil stain, moderately bright-some dull yellow-green hydrocarbon fluorescence, immediate light blue-white diffuse cut, oil in sample.

19260 Dolomite: light-medium brown-grey brown, scattered off white, moderately firm, microcrystalline, argillaceous, microsucrosic in part, moderately-very calcareous, fair-good intercrystalline porosity, brown oil stain, moderately bright-some dull yellow-green hydrocarbon fluorescence, immediate light blue-white diffuse cut, oil in sample.

19290 Dolomite: light-medium brown, tan, off white, trace medium brown-brown grey, moderately firm, microcrystalline-microsucrosic, argillaceous in part, moderately calcareous, fair-good intercrystalline porosity, good even brown oil stain, moderately bright-some dull yellow-green hydrocarbon fluorescence, moderately bright blue-white diffuse cut, oil in sample.

19320 Dolomite: light-medium brown, tan, off white, trace medium brown-brown grey, moderately firm, microcrystalline-microsucrosic, argillaceous in part, moderately calcareous, fair-good intercrystalline porosity, good even brown oil stain, moderately bright-some dull yellow-green hydrocarbon fluorescence, moderately bright blue-white streaming-diffuse cut, oil in sample.

19350 Dolomite: light-medium brown, tan, translucent, off white, trace medium brown-brown grey, moderately firm, microcrystalline-microsucrosic, moderately calcareous, fair-good intercrystalline porosity, good even brown oil stain, moderately bright even yellow-green hydrocarbon fluorescence, bright blue-white diffuse cut, oil in sample.

19380 Dolomite: tan, translucent, off white, trace medium brown-brown grey, moderately firm, microcrystalline-microsucrosic, moderately calcareous, fair-good intercrystalline porosity, good even brown oil stain, moderately bright even yellow-green hydrocarbon fluorescence, immediate bright blue-white diffuse cut, oil in sample.

19410 Dolomite: light gray, off white, rare translucent, trace medium gray, moderately firm, microcrystalline, slightly calcareous, fair intercrystalline porosity, even brown oil stain, moderately brightly even yellow-green hydrocarbon fluorescence, immediate bright blue-white diffuse cut, oil in sample.

19440 Dolomite: light gray, off white, rare translucent, trace medium gray, moderately firm, microcrystalline, slightly calcareous, fair intercrystalline porosity, even brown oil stain, moderately brightly even yellow-green hydrocarbon fluorescence, immediate bright blue-white diffuse cut, oil in sample.

19470 Dolomite: tan, off white, rare translucent, trace light gray, moderately firm, microcrystalline, slightly calcareous, fair intercrystalline porosity, even brown oil stain, moderately bright yellow-green hydrocarbon fluorescence, immediate bright blue-white diffuse cut, oil in sample.

19500 Dolomite: tan, off white, rare translucent, trace light gray, moderately firm, microcrystalline-microsucrosic, slightly calcareous, fair intercrystalline porosity, even brown oil stain, bright yellow-green hydrocarbon fluorescence, immediate bright blue-white diffuse cut, oil in sample.

19530 Dolomite: tan, off white, rare translucent, trace light gray, moderately firm, microcrystalline-microsucrosic, slightly calcareous, fair intercrystalline porosity, even brown oil stain, bright yellow-green hydrocarbon fluorescence, immediate bright blue-white diffuse cut, oil in sample.

19560 Shale: black, carbonaceous, blocky, firm to moderately hard, very slightly calcareous, silty, laminated in part.

19578 Shale: black, carbonaceous, blocky, firm to moderately hard, very slightly calcareous, silty, laminated in part.

08322766

QUANTUM DRILLING MOTORS

JOB NO.:	00288-432-22
COMPANY:	Continental
LOCATION:	Lambert Mt.
RIG NAME:	Pioneer 42
STATE:	MT
COUNTY:	Country
WELL NAME:	Alice 3-21H

FIELD:	Sleeping Giant
Township:	Lambert
Range	

MOTOR INFORMATION

Desc: 4.75 PDM
Bent Hsg/Sub: 1.75 / 0 Bit to Bend: 4.06
PAD OD: 5 1/8 NB Stab:

Slide Report for BHA # 10

Note: Surveys listed are interpolated from the actual surveys

#	Date	Drill Mode	Start Time	End Time	Hours	Start MD	End MD	Depth Drilled	WOB	ROP	RPM	Surf. Torque	Flow Rate	SPP	TFO	INC	AZM	DLS	Note
10	17-Aug	Drilling	10:00	11:15	1.25	18289	18321	32	8	25.6	50	0	239			91.30	172.46	0.00	
10	17-Aug	Drilling	11:30	13:45	2.25	18321	18384	63	8	28.0	50	0	239			91.30	172.46	0.00	
10	17-Aug	Drilling	14:05	15:45	1.67	18384	18446	62	8	37.2	50	0	239			90.95	172.28	0.00	
10	17-Aug	Drilling	16:05	17:45	1.67	18446	18509	63	8	37.8	50	0	239			90.51	171.66	0.00	
10	17-Aug	Drilling	18:00	20:20	2.33	18509	18572	63	8	27.0	50	0	239			90.11	171.23	0.00	
10	17-Aug	Sliding	20:35	22:20	1.75	18572	18584	12	8	6.9	50	0	239		90	90.51	170.87	0.00	
10	17-Aug	Drilling	22:20	24:00	1.67	18584	18633	49	8	29.4	50	0	239			90.51	170.87	0.00	
10	18-Aug	Drilling	00:00	00:05	0.08	18633	18635	2	8	24.0	50	0	239			90.51	170.87	0.00	
10	18-Aug	Sliding	00:19	01:40	1.35	18635	18647	12	8	8.9	50	0	239		95	90.68	172.63	0.00	
10	18-Aug	Drilling	01:40	03:30	1.83	18647	18698	51	8	27.8	50	0	239			90.68	172.63	0.00	
10	18-Aug	Sliding	03:45	05:00	1.25	18698	18710	12	8	9.6	50	0	239		110	90.77	174.74	0.00	
10	18-Aug	Drilling	05:00	06:50	1.83	18710	18761	51	8	27.8	50	0	239			90.77	174.74	0.00	
10	18-Aug	Sliding	07:15	08:40	1.42	18761	18770	9	8	6.4	50	0	239		110	90.15	177.47	0.00	
10	18-Aug	Drilling	08:40	10:45	2.08	18770	18823	53	8	25.4	50	0	239			90.15	177.47	0.00	
10	18-Aug	Sliding	11:15	11:45	0.50	18823	18831	8	8	16.0	50	0	239		130	90.11	179.57	0.00	
10	18-Aug	Drilling	11:45	13:50	2.08	18831	18886	55	8	26.4	50	0	239			90.11	179.57	0.00	
10	18-Aug	Sliding	14:20	15:15	0.92	18886	18894	8	8	8.7	50	0	239		60	89.05	181.33	0.00	
10	18-Aug	Drilling	16:00	18:00	2.00	18894	18949	55	8	27.5	50	0	239			89.05	181.33	0.00	
10	18-Aug	Sliding	18:25	19:35	1.17	18949	18959	10	8	8.6	50	0	239		60	88.88	181.77	0.00	
10	18-Aug	Drilling	19:35	21:55	2.33	18959	19012	53	8	22.7	50	0	239			88.88	181.77	0.00	
10	18-Aug	Sliding	22:10	23:20	1.17	19012	19022	10	8	8.6	50	0	239		360	89.58	183.09	0.00	
10	18-Aug	Drilling	23:20	24:00	0.67	19022	19043	21	8	31.5	50	0	239			89.58	183.09	0.00	
10	19-Aug	Drilling	00:00	00:45	0.75	19043	19075	32	8	42.7	50	0	239			89.58	183.09	0.00	
10	19-Aug	Sliding	01:00	03:00	2.00	19075	19087	12	8	6.0	50	0	239		360	90.02	183.27	0.00	
10	19-Aug	Drilling	03:00	04:05	1.08	19087	19138	51	8	47.1	50	0	239			90.02	183.27	0.00	
10	19-Aug	Sliding	04:20	05:30	1.17	19138	19150	12	8	10.3	50	0	239		360	89.85	183.62	0.00	
10	19-Aug	Drilling	05:30	06:00	0.50	19150	19169	19	8	38.0	50	0	239			89.85	183.62	0.00	

Slide Report for BHA # 10

Note: Surveys listed are interpolated from the actual surveys

#	Date	Drill Mode	Start Time	End Time	Hours	Start MD	End MD	Depth Drilled	WOB	ROP	RPM	Surf. Torque	Flow Rate	SPP	TFO	INC	AZM	DLS	Note
10	19-Aug	Sliding	06:20	08:00	1.67	19169	19179	10	8	6.0	50	0	239		360	89.85	183.62	0.00	
10	19-Aug	Drilling	08:00	08:35	0.58	19179	19200	21	8	36.0	50	0	239			89.85	183.62	0.00	
10	19-Aug	Drilling	09:00	11:20	2.33	19200	19263	63	8	27.0	50	0	239			90.20	182.83	0.00	
10	19-Aug	Drilling	11:45	13:50	2.08	19263	19326	63	8	30.2	50	0	239			91.65	183.18	0.00	
10	19-Aug	Drilling	14:15	16:20	2.08	19326	19389	63	8	30.2	50	0	239			91.52	183.44	0.00	
10	19-Aug	Drilling	16:45	19:10	2.42	19389	19452	63	8	26.1	50	0	239			91.74	183.53	0.00	
10	19-Aug	Drilling	19:35	21:45	2.17	19452	19515	63	8	29.1	50	0	239			92.04	184.15	0.00	
10	19-Aug	Drilling	22:00	24:00	2.00	19515	19578	63	8	31.5	50	0	239			92.09	184.58	0.00	

Total Drilled:	1289	**Avg. Total ROP:**	23.83	**DEPTH% - TIME %**	
Total Rotary Drilled:	1174	**Avg. Rotary ROP:**	29.53	**Percent Rotary:**	91.08 - 73.48
Total Drilled Sliding:	115	**Avg. Slide ROP:**	8.01	**Percent Slide:**	8.92 - 26.52

QUANTUM DRILLING MOTORS

Job Number: 00288-432-22
Company: Continental Resources
Lease/Well: Alice 3-21H
Location: Sleeping Giant
Rig Name: Pioneer 42
RKB: □
G.L. or M.S.L.: □

State/Country: Montana
Declination: 9.77
Grid: N/A
File name: C:\WINSERVE\ALICE321.SVY
Date/Time: 20-Aug-08 / 00:13
Curve Name: ST2

Quantum Drilling

WINSERVE SURVEY CALCULATIONS
Minimum Curvature Method
Vertical Section Plane 179.90
Vertical Section Referenced to Wellhead
Rectangular Coordinates Referenced to Wellhead

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	Course Length FT	True Vertical Depth	Vertical Section FT	N-S FT	E-W FT	CLOSURE Distance FT	CLOSURE Direction Deg	Dogleg Severity Deg/100	BUILD RATE Deg/100
13464.00	89.01	182.12		10272.88	3399.40	-3399.37	19.32	3399.42	179.67	.00	.00
13558.00	88.04	183.97	94.00	10275.30	3493.22	-3493.20	14.33	3493.23	179.76	2.22	-1.03
13620.00	89.01	185.64	62.00	10276.90	3554.97	-3554.96	9.14	3554.97	179.85	3.11	1.56
13683.00	88.70	185.90	63.00	10278.15	3617.63	-3617.63	2.80	3617.63	179.96	.64	-.49
13746.00	89.98	185.55	63.00	10278.88	3680.30	-3680.31	-3.48	3680.31	180.05	2.11	2.03
13809.00	90.81	185.55	63.00	10278.45	3742.99	-3743.01	-9.57	3743.02	180.15	1.32	1.32
13872.00	89.80	185.02	63.00	10278.11	3805.71	-3805.74	-15.37	3805.77	180.23	1.81	-1.60
13935.00	91.96	184.85	63.00	10277.14	3868.45	-3868.50	-20.79	3868.55	180.31	3.44	3.43
13998.00	91.52	184.85	63.00	10275.23	3931.19	-3931.24	-26.12	3931.33	180.38	.70	-.70
14061.00	91.08	185.11	63.00	10273.80	3993.93	-3993.99	-31.58	3994.11	180.45	.81	-.70
14123.00	90.20	185.11	62.00	10273.11	4055.67	-4055.74	-37.11	4055.91	180.52	1.42	-1.42
14186.00	90.99	184.41	63.00	10272.45	4118.43	-4118.51	-42.33	4118.73	180.59	1.68	1.25
14249.00	90.42	184.41	63.00	10271.68	4181.23	-4181.32	-47.18	4181.59	180.65	.90	-.90
14312.00	90.02	184.06	63.00	10271.44	4244.05	-4244.15	-51.83	4244.47	180.70	.84	-.63
14375.00	89.98	183.79	63.00	10271.44	4306.90	-4307.00	-56.14	4307.37	180.75	.43	-.06
14438.00	89.19	184.15	63.00	10271.89	4369.74	-4369.85	-60.50	4370.27	180.79	1.38	-1.25
14501.00	88.44	184.32	63.00	10273.20	4432.54	-4432.66	-65.16	4433.14	180.84	1.22	-1.19
14564.00	89.32	183.88	63.00	10274.43	4495.36	-4495.49	-69.66	4496.03	180.89	1.56	1.40
14627.00	88.48	183.18	63.00	10275.64	4558.22	-4558.36	-73.54	4558.95	180.92	1.74	-1.33
14691.00	91.56	181.51	64.00	10275.61	4622.15	-4622.29	-76.16	4622.92	180.94	5.47	4.81
14754.00	90.24	181.60	63.00	10274.63	4685.12	-4685.26	-77.86	4685.91	180.95	2.10	-2.10
14817.00	92.18	180.45	63.00	10273.29	4748.09	-4748.23	-78.99	4748.89	180.95	3.58	3.08
14881.00	92.09	180.19	64.00	10270.91	4812.04	-4812.19	-79.35	4812.84	180.94	.43	-.14
14944.00	91.91	180.01	63.00	10268.71	4875.00	-4875.15	-79.46	4875.80	180.93	.40	-.29
15007.00	94.07	179.49	63.00	10265.43	4937.91	-4938.06	-79.18	4938.69	180.92	3.53	3.43

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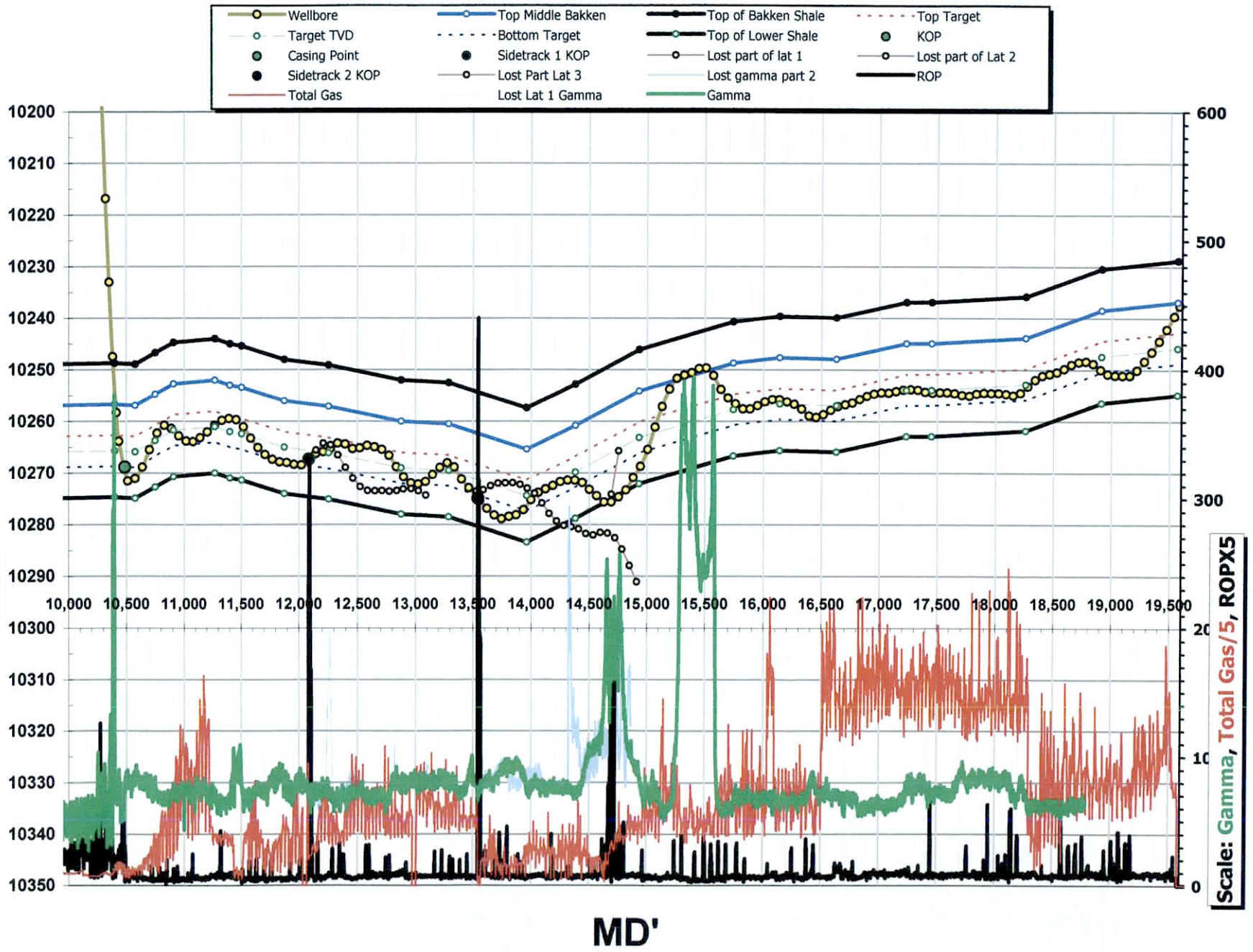
Measured Depth FT	Incl Angle Deg	Drift Direction Deg	Course Length FT	True Vertical Depth	Vertical Section FT	N-S FT	E-W FT	CLOSURE Distance FT	CLOSURE Direction Deg	Dogleg Severity Deg/100	BUILD RATE Deg/100
15070.00	93.76	179.22	63.00	10261.12	5000.76	-5000.91	-78.48	5001.52	180.90	.65	-.49
15132.00	93.63	178.34	62.00	10257.13	5062.62	-5062.76	-77.16	5063.35	180.87	1.43	-.21
15195.00	92.57	178.08	63.00	10253.72	5125.50	-5125.64	-75.19	5126.19	180.84	1.73	-1.68
15258.00	91.25	178.70	63.00	10251.62	5188.44	-5188.58	-73.43	5189.10	180.81	2.31	-2.10
15321.00	89.89	180.28	63.00	10251.00	5251.43	-5251.57	-72.87	5252.08	180.79	3.31	-2.16
15384.00	90.90	181.95	63.00	10250.56	5314.42	-5314.55	-74.09	5315.07	180.80	3.10	1.60
15447.00	90.51	182.04	63.00	10249.79	5377.37	-5377.51	-76.28	5378.05	180.81	.64	-.62
15510.00	89.80	183.44	63.00	10249.62	5440.29	-5440.44	-79.30	5441.01	180.84	2.49	-1.13
15572.00	87.47	182.74	62.00	10251.09	5502.17	-5502.32	-82.64	5502.94	180.86	3.92	-3.76
15635.00	87.65	182.04	63.00	10253.77	5565.05	-5565.21	-85.26	5565.86	180.88	1.15	.29
15698.00	89.36	182.30	63.00	10255.42	5627.98	-5628.14	-87.65	5628.82	180.89	2.75	2.71
15760.00	88.48	181.95	62.00	10256.59	5689.92	-5690.09	-89.94	5690.80	180.91	1.53	-1.42
15823.00	89.67	181.60	63.00	10257.60	5752.88	-5753.05	-91.90	5753.78	180.92	1.97	1.89
15886.00	90.37	182.30	63.00	10257.58	5815.84	-5816.01	-94.04	5816.77	180.93	1.57	1.11
15948.00	90.77	182.04	62.00	10256.96	5877.79	-5877.96	-96.39	5878.75	180.94	.77	.65
16012.00	90.59	182.48	64.00	10256.21	5941.73	-5941.91	-98.91	5942.73	180.95	.74	-.28
16075.00	90.20	181.77	63.00	10255.77	6004.68	-6004.86	-101.25	6005.72	180.97	1.29	-.62
16137.00	89.85	181.95	62.00	10255.74	6066.64	-6066.83	-103.26	6067.71	180.98	.63	-.56
16200.00	89.36	182.30	63.00	10256.18	6129.59	-6129.79	-105.59	6130.70	180.99	.96	-.78
16263.00	89.80	181.33	63.00	10256.64	6192.55	-6192.75	-107.59	6193.69	181.00	1.69	.70
16326.00	88.48	181.16	63.00	10257.59	6255.53	-6255.73	-108.96	6256.68	181.00	2.11	-2.10
16389.00	89.05	180.37	63.00	10258.94	6318.51	-6318.71	-109.80	6319.66	181.00	1.55	.90
16451.00	90.46	179.49	62.00	10259.21	6380.50	-6380.70	-109.72	6381.65	180.99	2.68	2.27
16514.00	90.55	178.43	63.00	10258.65	6443.49	-6443.69	-108.58	6444.61	180.97	1.69	.14
16577.00	90.99	178.43	63.00	10257.81	6506.46	-6506.66	-106.85	6507.54	180.94	.70	.70
16640.00	90.33	178.34	63.00	10257.08	6569.44	-6569.63	-105.08	6570.47	180.92	1.06	-1.05
16706.00	90.33	178.34	66.00	10256.70	6635.41	-6635.60	-103.17	6636.40	180.89	.00	.00
16766.00	90.33	178.17	60.00	10256.36	6695.39	-6695.57	-101.34	6696.34	180.87	.28	.00
16828.00	90.86	178.43	62.00	10255.71	6757.36	-6757.54	-99.50	6758.28	180.84	.95	.85
16891.00	90.29	178.87	63.00	10255.08	6820.34	-6820.52	-98.02	6821.23	180.82	1.14	-.90
16954.00	90.55	178.70	63.00	10254.62	6883.33	-6883.51	-96.68	6884.18	180.80	.49	.41
17017.00	89.80	178.52	63.00	10254.43	6946.31	-6946.49	-95.15	6947.14	180.78	1.22	-1.19
17080.00	90.11	178.43	63.00	10254.47	7009.29	-7009.46	-93.48	7010.09	180.76	.51	.49
17143.00	90.46	178.52	63.00	10254.16	7072.27	-7072.44	-91.80	7073.04	180.74	.57	.56
17206.00	90.02	177.99	63.00	10253.90	7135.24	-7135.41	-89.88	7135.98	180.72	1.09	-.70
17269.00	90.15	177.29	63.00	10253.80	7198.19	-7198.36	-87.29	7198.89	180.69	1.13	.21
17331.00	89.71	176.85	62.00	10253.88	7260.12	-7260.28	-84.12	7260.76	180.66	1.00	-.71
17394.00	89.58	175.88	63.00	10254.27	7323.00	-7323.15	-80.12	7323.59	180.63	1.55	-.21
17457.00	90.07	175.71	63.00	10254.46	7385.83	-7385.98	-75.50	7386.36	180.59	.82	.78
17520.00	90.11	175.71	63.00	10254.36	7448.67	-7448.80	-70.79	7449.14	180.54	.06	.06
17583.00	89.85	175.44	63.00	10254.39	7511.49	-7511.61	-65.93	7511.90	180.50	.59	-.41
17646.00	89.89	175.18	63.00	10254.53	7574.28	-7574.40	-60.78	7574.65	180.46	.42	.06
17709.00	89.41	174.56	63.00	10254.91	7637.04	-7637.15	-55.15	7637.35	180.41	1.24	-.76
17772.00	90.33	174.83	63.00	10255.06	7699.78	-7699.88	-49.32	7700.03	180.37	1.52	1.46
17834.00	90.42	174.48	62.00	10254.65	7761.52	-7761.61	-43.55	7761.73	180.32	.58	.15

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	Course Length FT	True Vertical Depth	Vertical Section FT	N-S FT	E-W FT	CLOSURE Distance FT	CLOSURE Direction Deg	Dogleg Severity Deg/100	BUILD RATE Deg/100
17897.00	89.93	172.90	63.00	10254.46	7824.15	-7824.22	-36.62	7824.31	180.27	2.63	-.78
17960.00	90.02	172.63	63.00	10254.49	7886.66	-7886.72	-28.69	7886.77	180.21	.45	.14
18023.00	89.93	171.84	63.00	10254.51	7949.09	-7949.14	-20.18	7949.17	180.15	1.26	-.14
18086.00	89.80	170.35	63.00	10254.66	8011.35	-8011.38	-10.42	8011.39	180.07	2.37	-.21
18149.00	89.71	171.14	63.00	10254.93	8073.55	-8073.56	-.29	8073.56	180.00	1.26	-.14
18212.00	91.12	172.54	63.00	10254.47	8135.92	-8135.92	8.65	8135.92	179.94	3.15	2.24
18275.00	91.30	172.46	63.00	10253.14	8198.38	-8198.36	16.87	8198.38	179.88	.31	.29
18338.00	90.95	172.28	63.00	10251.91	8260.82	-8260.79	25.23	8260.83	179.82	.62	-.56
18400.00	90.51	171.66	62.00	10251.12	8322.23	-8322.18	33.89	8322.25	179.77	1.23	-.71
18463.00	90.11	171.23	63.00	10250.78	8384.54	-8384.48	43.27	8384.59	179.70	.93	-.63
18526.00	90.51	170.87	63.00	10250.44	8446.79	-8446.71	53.07	8446.88	179.64	.85	.63
18589.00	90.68	172.63	63.00	10249.78	8509.15	-8509.05	62.11	8509.28	179.58	2.81	.27
18652.00	90.77	174.74	63.00	10248.98	8571.77	-8571.66	69.03	8571.94	179.54	3.35	.14
18715.00	90.15	177.46	63.00	10248.48	8634.62	-8634.51	73.32	8634.82	179.51	4.43	-.98
18777.00	90.11	179.57	62.00	10248.34	8696.60	-8696.48	74.93	8696.81	179.51	3.40	-.06
18840.00	89.05	181.33	63.00	10248.80	8759.59	-8759.48	74.43	8759.79	179.51	3.26	-1.68
18903.00	88.88	181.77	63.00	10249.94	8822.56	-8822.44	72.73	8822.74	179.53	.75	-.27
18966.00	89.58	183.09	63.00	10250.78	8885.49	-8885.38	70.06	8885.65	179.55	2.37	1.11
19029.00	90.02	183.27	63.00	10251.00	8948.38	-8948.28	66.56	8948.53	179.57	.75	.70
19092.00	89.85	183.62	63.00	10251.08	9011.26	-9011.17	62.78	9011.38	179.60	.62	-.27
19154.00	90.20	182.83	62.00	10251.05	9073.16	-9073.07	59.29	9073.26	179.63	1.39	.56
19217.00	91.65	183.18	63.00	10250.03	9136.05	-9135.97	55.99	9136.14	179.65	2.37	2.30
19280.00	91.52	183.44	63.00	10248.29	9198.92	-9198.84	52.35	9198.99	179.67	.46	-.21
19343.00	91.74	183.53	63.00	10246.50	9261.77	-9261.70	48.52	9261.83	179.70	.38	.35
19406.00	92.04	184.15	63.00	10244.42	9324.59	-9324.52	44.30	9324.63	179.73	1.09	.48
19469.00	92.09	184.58	63.00	10242.15	9387.35	-9387.30	39.51	9387.38	179.76	.69	.08
19532.00	92.57	184.76	63.00	10239.59	9450.08	-9450.04	34.39	9450.10	179.79	.81	.76
19578.00	92.57	184.76	46.00	10237.52	9495.87	-9495.83	30.57	9495.88	179.82	.00	.00

Alice 3-21H
SHL NW Sec 21 T23N R54E
BHL SW SEC 28 T23N R54E



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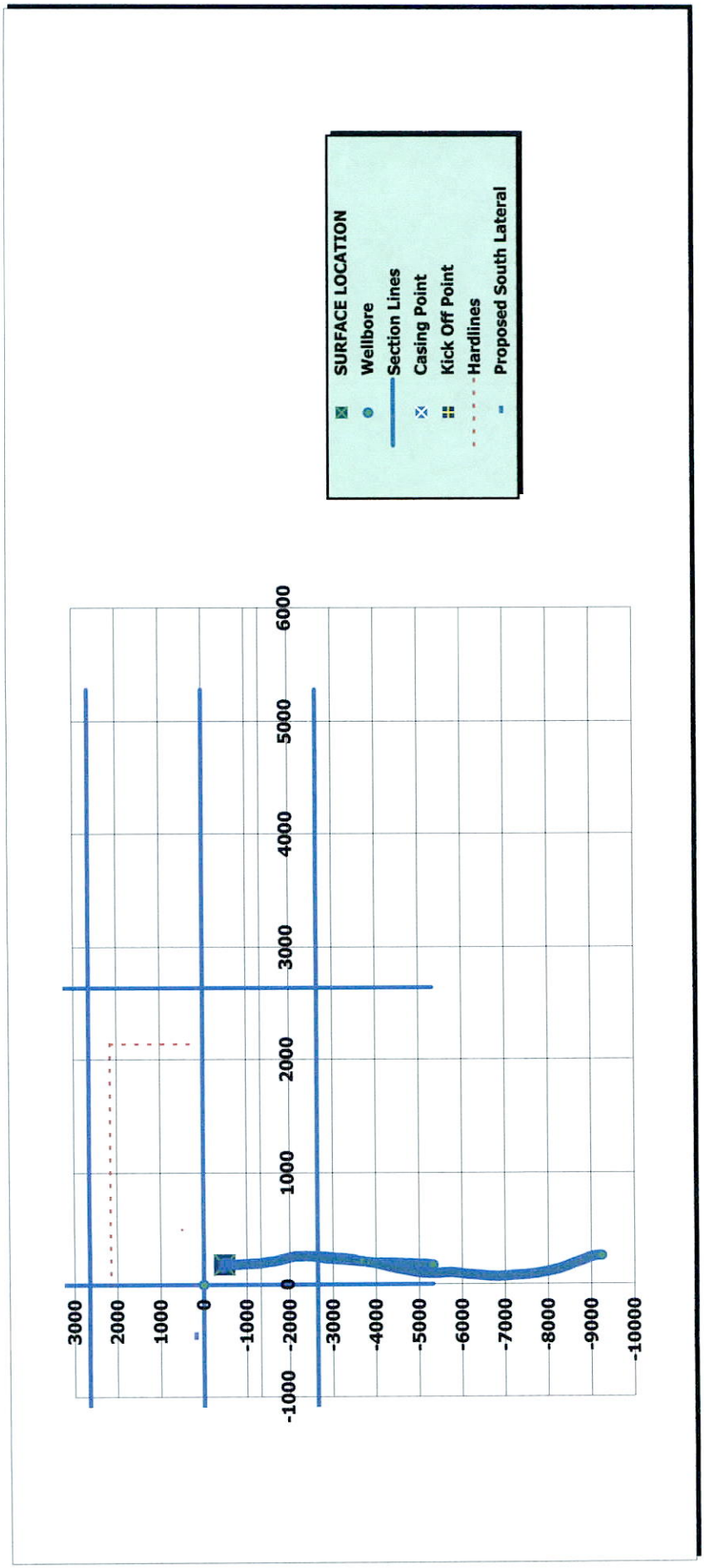

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