Confidentiality Requested:
☐ Yes ☐ No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1074698

Form ACO-1
August 2013
Form must be Typed
Form must be Signed
All blanks must be Filled

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # 34192
Name: SandRidge Exploration and Production LLC
Address 1: 123 ROBERT S. KERR AVE
Address 2:
City: OKLAHOMA CITY State: OK Zip: 73102 + 6406
Contact Person: Tiffany Golay
Phone: (405) 429-6543
CONTRACTOR: License # 34464
Name: Lariat Services, Inc.
Wellsite Geologist: Tammy Alcorn
Purchaser: Atlas (Gas) Plains Marketing, LP (Oil)

Designate Type of Completion:

☑ New Well ☐ Re-Entry ☐ Workover

☑ Oil ☐ WSW ☐ SWD ☐ SIOW
☐ Gas ☐ D&A ☐ ENHR ☐ SIGW
☐ OG ☐ GSW ☐ Temp. Abd.
☐ CM *(Coal Bed Methane)*
☐ Cathodic ☐ Other *(Core, Expl., etc.)*:

If Workover/Re-entry: Old Well Info as follows:

Operator:
Well Name:
Original Comp. Date: Original Total Depth:

☐ Deepening ☐ Re-perf. ☐ Conv. to ENHR ☐ Conv. to SWD
☐ Plug Back ☐ Conv. to GSW ☐ Conv. to Producer

☐ Commingled Permit #:
☐ Dual Completion Permit #:
☐ SWD Permit #:
☐ ENHR Permit #:
☐ GSW Permit #:

2/19/2012	3/13/2012	3/16/2012
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-077-21810-01-00
Spot Description:
SW SE SW SW Sec. 17 Twp. 35 S. R. 7 ☐ East ☑ West
300 Feet from ☐ North / ☑ South Line of Section
880 Feet from ☐ East / ☑ West Line of Section
Footages Calculated from Nearest Outside Section Corner:
☐ NE ☐ NW ☐ SE ☑ SW
GPS Location: Lat: *(e.g. xx.xxxxx)* , Long: *(e.g. -xxx.xxxxx)*
Datum: ☐ NAD27 ☐ NAD83 ☐ WGS84
County: Harper
Lease Name: Bernice Well #: 2-17H
Field Name:
Producing Formation: Mississippi
Elevation: Ground: 1293 Kelly Bushing: 1273
Total Vertical Depth: 9999 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 788 Feet
Multiple Stage Cementing Collar Used? ☐ Yes ☑ No
If yes, show depth set: Feet
If Alternate II completion, cement circulated from:
feet depth to: w/ sx cmt.

Drilling Fluid Management Plan
(Data must be collected from the Reserve Pit)

Chloride content: 10400 ppm Fluid volume: 6720 bbls
Dewatering method used: Haul Off Pit
Location of fluid disposal if hauled offsite:
Operator Name: Triple C Soil Farming
Lease Name: unknown License #: 99999
Quarter NE Sec. 23 Twp. 29 S. R. 10 ☐ East ☑ West
County: Alfalfa, OK Permit #: 11-19659

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

☑ **Confidentiality Requested**
Date: 06/07/2012
☑ **Confidential Release Date:** 06/07/2014
☐ **Wireline Log Received**
☐ **Geologist Report Received**
☐ **UIC Distribution**
ALT ☑ **I** ☐ **II** ☐ **III** **Approved by:** NAOMI JAMES **Date:** 06/18/2012

1074698

Operator Name: SandRidge Exploration and Production LLC Lease Name: Bernice Well #: 2-17H

Sec. 17 Twp. 35 S. R. 7 ☐ East ☑ West County: Harper

INSTRUCTIONS: Show important tops of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken ☐ Yes ☑ No
(Attach Additional Sheets)

Samples Sent to Geological Survey ☐ Yes ☑ No

Cores Taken ☐ Yes ☑ No

Electric Log Run ☐ Yes ☑ No

List All E. Logs Run:

☐ Log Formation (Top), Depth and Datum ☐ Sample

Name	Top	Datum
Base Heebner	3508	-2197
Cherokee Group	4704	-3289
Mississippi Lime	5046	-3499

CASING RECORD ☑ New ☐ Used
Report all strings set-conductor, surface, intermediate, production, etc.

Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
Attached	Attached	Attached	Attached	Attached	Attached	Attached	Attached

ADDITIONAL CEMENTING / SQUEEZE RECORD

Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
___ Perforate	-			
___ Protect Casing				
___ Plug Back TD	-			
___ Plug Off Zone				

Did you perform a hydraulic fracturing treatment on this well? ☐ Yes ☐ No *(If No, skip questions 2 and 3)*

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? ☐ Yes ☐ No *(If No, skip question 3)*

Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry? ☐ Yes ☐ No *(If No, fill out Page Three of the ACO-1)*

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record *(Amount and Kind of Material Used)*	Depth
Attached	Attached	Attached	Attached

TUBING RECORD: Size: Set At: Packer At: Liner Run: ☐ Yes ☐ No

Date of First, Resumed Production, SWD or ENHR. 4/9/2012

Producing Method: ☐ Flowing ☑ Pumping ☐ Gas Lift ☐ Other *(Explain)* _____

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

DISPOSITION OF GAS:
☐ Vented ☐ Sold ☐ Used on Lease
(If vented, Submit ACO-18.)

METHOD OF COMPLETION:
☐ Open Hole ☐ Perf. ☐ Dually Comp. *(Submit ACO-5)* ☐ Commingled *(Submit ACO-4)*
☐ Other *(Specify)* _____

PRODUCTION INTERVAL:
_____
_____

Mail to: KCC - Conservation Division, 130 S. Market - Room 2078, Wichita, Kansas 67202

Form	ACO1 - Well Completion
Operator	SandRidge Exploration and Production LLC
Well Name	Bernice 2-17H
Doc ID	1074698

Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
5	9384-9830	4341 bbls water, 36 bbls acid, 75M lbs sd, 4377 TLTR	
5	8828-9274	4304 bbls water, 36 bbls acid, 76M lbs sd, 8889 TLTR	
5	8272-8719	4241 bbls water, 36 bbls acid, 75M lbs sd, 13316 TLTR	
5	7717-8163	4319 bbls water, 36 bbls acid, 74M lbs sd, 17933 TLTR	
5	7161-7608	4357 bbls water, 36 bbls acid, 75M lbs 40/70 sd, 22458 TLTR	
5	6606-7052	4062 bbls water, 36 bbls acid, 75M lbs sd, 27479 TLTR	

Form	ACO1 - Well Completion
Operator	SandRidge Exploration and Production LLC
Well Name	Bernice 2-17H
Doc ID	1074698

Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement	Number of Sacks Used	Type and Percent Additives
Conductor	24	20	75	90	10 Sack Grout	10	none
Surface	12.25	9.63	36	788	HLC Standard w/ Extendacem	380	6% Bentonite, 3% Calcium Chloride, Pellet, .25 lbs Poly-E-Flake
Intermediate	8.75	7	26	5345	50/50 Poz Standard	200	2% gel, .4% Halad(R)-9, 2lbm Kol-Seal, 2% Bentonite
Liner	6.13	4.5	11.6	9950	50/50 Poz Standard	300	2% gel, .4% halad(R)-9, 2 lbm Kol-Seal, 2% Bentonite

Conservation Division
Finney State Office Building
130 S. Market, Rm. 2078
Wichita, KS 67202-3802

Kansas
Corporation Commission

Phone: 316-337-6200
Fax: 316-337-6211
http://kcc.ks.gov/

March 14, 2012

Tiffany Golay
SandRidge Exploration and Production LLC
123 ROBERT S. KERR AVE
OKLAHOMA CITY, OK 73102-6406

Re: ACO1
API 15-077-21810-01-00
Bernice 2-17H
SW/4 Sec.17-35S-07W
Harper County, Kansas

Dear Production Department:

We are herewith requesting that the Well Completion Form ACO-1 and attached information for the subject well be held confidential for a period of two years.

Should you have any questions or need additional information regarding subject well, please contact our office.

Respectfully,
Tiffany Golay

EDGE SERVICES
580-254-3216
Woodward, OK

INVOICE

DATE	INVOICE #
2/10/2012	2892

BILL TO
SANDRIDGE ENERGY, INC. ATTN: PURCHASING MANAGER 123 ROBERT S. KERR AVENUE OKLAHOMA CITY, OK 73102

REMIT TO
EDGE SERVICES, INC. BILLING DEPARTMENT PO BOX 14201 OKLAHOMA CITY, OK 73113

STARTING D...	WORK ORDER	RIG NUMBER	LEASE NAME	Terms
2/10/2012	WO #2461	LARIAT 46	BERNICE 2-17 H	Due on rec...

Description	Amount
DRILLED 100' OF 30" CONDUCTOR HOLE DRILLED 6' OF 76" HOLE & SET 6' x 6' TINHORN CELLAR FURNISHED 100' OF 20" CONDUCTOR PIPE FURNISHED MUD, WATER, AND TRUCKING FURNISHED 10 YARDS OF GRADE A 10 SACK GROUT DRILL MOUSE HOLE - 80' OF 16" FOR MOUSE HOLE	
TOTAL BID $	24,650.00
Thank you for your business.	TOTAL $24,650.00

I No.
OTC/OCC Operator No.

CEMENTING REPORT
To Accompany Completion Report

OKLAHOMA CORPORATION COMMISSION
Oil & Gas Conservation Division
Post Office Box 52000-2000
Oklahoma City, Oklahoma 73152-2000
OAC 165:10-3-4(h)

Form 1002C
Rev. 1996

ATTENTION: IMPORTANT REGULATORY DOCUMENT
retain for your records and file with appropriate agency.

All operators must include this form when submitting the Completion Report, (Form 1002A). The signature on this statement must be that of qualified employees of the cementing company and operator to demonstrate compliance with OAC 165:10-3-4(h). It may be advisable to take a copy of this form to location when cementing work is performed.

TYPE OR USE BLACK INK ONLY

*Field Name			OCC District
*Operator	SANDRIDGE ENERGY INC EBUSINESS		OCC/OTC Operator No
*Well Name/No.	Bernice 2-17H		County Harper
*Location 1/4 1/4 1/4 1/4	Sec 17	Twp 35S	Rge 7W

Cement Casing Data	Conductor Casing	Surface Casing	Alternative Casing	Intermediate Casing	Production String	Liner
Cementing Date		2/22/2012				
*Size of Drill Bit (Inches)		12 1/4				
*Estimated % wash or hole enlargement used in calculations		200				
*Size of Casing (inches O.D.)		9 5/8				
*Top of Liner (if liner used) (ft.)						
*Setting Depth of Casing (ft.) from ground level		788				
Type of Cement (API Class) In first (lead) or only slurry		EXTENDACEM				
In second slurry		SWIFTCEM				
In third slurry						
Sacks of Cement Used In first (lead) or only slurry		280				
In second slurry		100				
In third slurry						
Vol of slurry pumped (Cu ft)(14.X15.) in first (lead) or only slurry		588				
In second slurry		120				
In third slurry						
Calculated Annular Height of Cement behind Pipe (ft)		SURFACE				
Cement left in pipe (ft)		45				

*Amount of Surface Casing Required (from Form 1000) ft.

*Was cement circulated to Ground Surface? ☑ Yes ☐ No

*Was Cement Bond Log run? ☐ Yes ☑ No (If so, Attach Copy)

*Was Cement Staging Tool (DV Tool) used? ☐ Yes ☑ No

*If Yes, at what depth? ft

CEMENTING COMPANY AND OPERATOR MUST COMPLY WITH THE INSTRUCTIONS ON REVERSE SIDE OF FORM

* Designates items to be completed by Operator.
Items **not** so designated shall be completed by the Cementing Company.

Remarks

Stage #1/Slurry #1: HLC STANDARD w/ EXTENDACEM (TM) SYSTEM, 6 % Bentonite, 3 % Calcium Chloride, Pellet, 0.25 lbm Poly-E-Flake.

Stage #1/Slurry #2: STANDARD w/ SWIFTCEM (TM) SYSTEM, 2 % Calcium Chloride, Pellet, 0.125 lbm Poly-E-Flake.

*Remarks

CEMENTING COMPANY

I declare under applicable Corporation Commission rule, that I am authorized to make this certification, that the cementing of casing in this well as shown in the report was performed by me or under my supervision, and that the cementing data and facts presented on both sides of this form are true, correct and complete to the best of my knowledge. This certification covers cementing data only.

Signature of Cementer or Authorized Representative

Name & Title Printed or Typed

JOSE MANRIQUEZ, Service Supervisor

Halliburton Energy Services

Address

701 DISPENSARY RD

City

BURNS FLAT

State: **OK** | Zip: **73624**

Telephone (AC) Number

580-562-1500

Date

2/22/2012

OPERATOR

I declare under applicable Corporation Commission rule, that I am authorized to make this certification, that I have knowledge of the well data and information presented in this report, and that data and facts presented on both sides of this form are true, correct and complete to the best of my knowledge. This certification covers all well data and information presented herein.

Signature of Operator or Authorized Representative

*Name & Title Printed or Typed

*Operator

*Address

*City

*State | *Zip

*Telephone (AC) Number

*Date

INSTRUCTIONS

1. A) This form shall be filed by the operator, at the O.C.C. office in Oklahoma City, as an attachment to the Completion Report (Form 1002A) for a producing well or a dry hole.
   B) An original of this form shall be filed as an attachment to the Completion Report, (Form 1002A), for each cementing company used on a well.
   C) The cementing of different casing strings on a well by one cementing company may be consolidated on one form.
2. Cementing Company and Operator shall comply with the applicable portions of OAC 165:10-3-4(h).
3. Set surface casing 50 feet below depth of treatable water to be protected and cement from casing shoe to ground surface or as allowed by OAC 165:10-3-4(h).
4. **IF SETTING ANYTHING OTHER THAN THE FULL AMOUNT OF SURFACE CASING, BE SURE TO FOLLOW CORPORATION COMMISSION RULES.**

HALLIBURTON

Cementing Job Summary

The Road to Excellence Starts with Safety

Sold To #: 305021	**Ship To #:** 2910006	**Quote #:**	**Sales Order #:** 9313874
Customer: SANDRIDGE ENERGY INC EBUSINESS		**Customer Rep:** Thingelstad, Kara	
Well Name: Bernice	**Well #:** 2-17H		**API/UWI #:**
Field:	**City (SAP):** ANTHONY	**County/Parish:** Harper	**State:** Kansas
Legal Description: Section 17 Township 35S Range 7W			
Contractor: LARIAT	**Rig/Platform Name/Num:** Lariat 46		
Job Purpose: Cement Intermediate Casing			
Well Type: Development Well	**Job Type:** Cement Intermediate Casing		
Sales Person: CRAWFORD, ROBERT	**Srvc Supervisor:** SMITH, DUSTIN	**MBU ID Emp #:** 484672	

Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
SMITH, DUSTIN Shawn	4.5	484672						

Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way

Job Hours

Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours
TOTAL			*Total is the sum of each column separately*					

Job

Formation Name			
Formation Depth (MD)	**Top**		**Bottom**
Form Type		**BHST**	
Job depth MD	5345. ft	**Job Depth TVD**	4874. ft
Water Depth		**Wk Ht Above Floor**	5. ft
Perforation Depth (MD)	**From**		**To**

Job Times

	Date	Time	Time Zone
Called Out	26 - Feb - 2012	09:00	CST
On Location	26 - Feb - 2012	14:00	CST
Job Started	26 - Feb - 2012	16:40	CST
Job Completed	26 - Feb - 2012	17:40	GMT
Departed Loc	26 - Feb - 2012	18:30	CST

Well Data

Description	New / Used	Max pressure psig	Size in	ID in	Weight lbm/ft	Thread	Grade	Top MD ft	Bottom MD ft	Top TVD ft	Bottom TVD ft
Intermediate Open Hole				8.75				800.	5303.	800.	4874.
Intermediate Casing	Unknown		7.	6.276	26.	LTC	P-110	.	5303.	.	4874.
Surface Casing	Unknown		9.625	8.921	36.	8 RD	J-55	.	800.		

Tools and Accessories

Type	Size	Qty	Make	Depth	Type	Size	Qty	Make	Depth	Type	Size	Qty	Make
Guide Shoe					Packer					Top Plug			
Float Shoe					Bridge Plug					Bottom Plug			
Float Collar					Retainer					SSR plug set			
Insert Float										Plug Container			
Stage Tool										Centralizers			

Miscellaneous Materials

Gelling Agt		Conc		Surfactant		Conc		Acid Type		Qty		Conc	%
Treatment Fld		Conc		Inhibitor		Conc		Sand Type		Size		Qty	

Fluid Data

Stage/Plug #: 1

Fluid #	Stage Type	Fluid Name	Qty	Qty uom	Mixing Density lbm/gal	Yield ft3/sk	Mix Fluid Gal/sk	Rate bbl/min	Total Mix Fluid Gal/sk

HALLIBURTON

Cementing Job Summary

Stage/Plug #: 1									
Fluid #	Stage Type	Fluid Name	Qty	Qty uom	Mixing Density lbm/gal	Yield ft3/sk	Mix Fluid Gal/sk	Rate bbl/min	Total Mix Fluid Gal/sk
1	Water Spacer		10.00	bbl	8.33	.0	.0	.0	
2	50/50 POZ STANDARD (w/ 2% extra gel)	ECONOCEM (TM) SYSTEM (452992)	200.0	sacks	13.6	1.54	7.36		7.36
0.4 %		HALAD(R)-9, 50 LB (100001617)							
2 lbm		KOL-SEAL, BULK (100064233)							
2 %		BENTONITE, BULK (100003682)							
7.356 Gal		FRESH WATER							

Calculated Values		Pressures		Volumes					
Displacement		Shut In: Instant		Lost Returns		Cement Slurry		Pad	
Top Of Cement		5 Min		Cement Returns		Actual Displacement		Treatment	
Frac Gradient		15 Min		Spacers		Load and Breakdown		Total Job	

Rates							
Circulating		Mixing		Displacement		Avg. Job	
Cement Left In Pipe	Amount	40 ft	Reason	Shoe Joint			
Frac Ring # 1 @		ID		Frac ring # 2 @		ID	
Frac Ring # 3 @		ID		Frac Ring # 4 @		ID	

The Information Stated Herein Is Correct	Customer Representative Signature

ATTENTION: IMPORTANT REGULATORY DOCUMENT
retain for your records and file with
appropriate agency.

HALLIBURTON

Cementing Job Summary

The Road to Excellence Starts with Safety

Sold To #: 305021	**Ship To #:** 2910006	**Quote #:**	**Sales Order #:** 9358361
Customer: SANDRIDGE ENERGY INC EBUSINESS		**Customer Rep:** Thingelstad, Kara	
Well Name: Bernice	**Well #:** 2-17H		**API/UWI #:**
Field:	**City (SAP):** ANTHONY	**County/Parish:** Harper	**State:** Kansas
Legal Description: Section 17 Township 35S Range 7W			
Contractor: Lariat	**Rig/Platform Name/Num:** 46		
Job Purpose: Cement Production Liner			
Well Type: Development Well	**Job Type:** Cement Production Liner		
Sales Person: CRAWFORD, ROBERT	**Srvc Supervisor:** LEACH, CLIFFORD	**MBU ID Emp #:** 475738	

Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
LEACH, CLIFFORD Alfred	18.25	475738	TAVAI, MASON T	18.25	423521			

Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way

Job Hours

Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours
2-16-12	18.25							
TOTAL			*Total is the sum of each column separately*					

Job

Formation Name					
Formation Depth (MD)	**Top**		**Bottom**		
Form Type		**BHST**			
Job depth MD	12507. ft	**Job Depth TVD**	5042. ft		
Water Depth		**Wk Ht Above Floor**			
Perforation Depth (MD)	**From**		**To**		

Job Times

	Date	Time	Time Zone
Called Out	15 - Mar - 2012	01:00	CST
On Location	15 - Mar - 2012	07:00	CST
Job Started	15 - Mar - 2012	22:40	CST
Job Completed	15 - Mar - 2012	23:38	CST
Departed Loc	16 - Mar - 2012	01:15	CST

Well Data

Description	New / Used	Max pressure psig	Size in	ID in	Weight lbm/ft	Thread	Grade	Top MD ft	Bottom MD ft	Top TVD ft	Bottom TVD ft
Production Liner Open Hole				6.125				5303.	12507.	4874.	5042.
Intermediate Casing	Unknown		7.	6.276	26.	LTC	P-110	.	5303.	.	4874.
Production Liner	Unknown		4.5	4.	11.6		N-80	4899.	12507.	4899.	5042.
Drill Pipe	Unknown		4.	3.34	14.	Unknown		.	4899.		

Tools and Accessories

Type	Size	Qty	Make	Depth	Type	Size	Qty	Make	Depth	Type	Size	Qty	Make
Guide Shoe					**Packer**					**Top Plug**			
Float Shoe					**Bridge Plug**					**Bottom Plug**			
Float Collar					**Retainer**					**SSR plug set**			
Insert Float										**Plug Container**			
Stage Tool										**Centralizers**			

Miscellaneous Materials

Gelling Agt		**Conc**		**Surfactant**		**Conc**		**Acid Type**		**Qty**		**Conc**	%
Treatment Fld		**Conc**		**Inhibitor**		**Conc**		**Sand Type**		**Size**		**Qty**	

HALLIBURTON

Cementing Job Summary

Fluid Data

Stage/Plug #: 1

Fluid #	Stage Type	Fluid Name	Qty	Qty uom	Mixing Density lbm/gal	Yield ft3/sk	Mix Fluid Gal/sk	Rate bbl/min	Total Mix Fluid Gal/sk
1	Rig Caustic Water Spacer		10	bbl	8.5	.0	.0	.0	
2	50/50 POZ STANDARD (w/ 2% extra gel)	ECONOCEM (TM) SYSTEM (452992)	300	sacks	13.6	1.54	7.36		7.36
0.4 %		HALAD(R)-9, 50 LB (100001617)							
2 lbm		KOL-SEAL, BULK (100064233)							
2 %		BENTONITE, BULK (100003682)							
7.356 Gal		FRESH WATER							

Calculated Values		Pressures		Volumes					
Displacement	105	Shut In: Instant		Lost Returns		Cement Slurry		Pad	
Top Of Cement		5 Min		Cement Returns		Actual Displacement	104	Treatment	
Frac Gradient		15 Min		Spacers		Load and Breakdown		Total Job	

Rates

Circulating		Mixing	5	Displacement	5	Avg. Job	5

Cement Left In Pipe	Amount	79.61 ft	Reason	Shoe Joint

Frac Ring # 1 @	ID	Frac ring # 2 @	ID	Frac Ring # 3 @	ID	Frac Ring # 4 @	ID

The Information Stated Herein Is Correct	Customer Representative Signature Jaime V. Prieto

DIRECTIONAL SURVEY CALCULATION

MINIMUM CURVATURE METHOD

Well Name	Target Direction	Slot Coordinate	N / S	E / W	Hole Size	Calculation by	Date
Bernice 2-17H	357.89						4/18/12
Job Number	Type of Survey	Tie-in Point				Directional Co.	
0							

Meaured Depth	Hole Angle	Hole Direction	Course Length	True Vertical Depth	Vertical Section	Total Coordinate N + / S -	Total Coordinate E + / W -	Dogleg Severity	Build Up °/100 ft	Walk/ °/100 ft
0	0	0	0	0.00	0.00			<< TIE-IN POINT >>		
247	1	293	247	246.99	0.82	0.75	-1.79	0.36	0.36	118.54
465	3	293	218	464.86	3.86	3.55	-8.45	0.92	0.92	0.00
590	3	293	125	589.70	6.48	5.96	-14.18	0.08	-0.08	0.00
733	3	293	143	732.55	9.32	8.57	-20.39	0.14	-0.14	0.00
775	2	293	42	774.51	10.09	9.28	-22.08	0.48	-0.48	0.00
867	2	293	92	866.43	11.64	10.71	-25.48	0.22	-0.22	0.00
959	2	294	92	958.37	13.05	12.01	-28.51	0.33	-0.33	0.98
1050	2	286	91	1,049.32	14.20	13.05	-31.42	0.31	0.11	-8.57
1141	2	294	91	1,140.27	15.31	14.06	-34.25	0.36	-0.22	8.79
1413	2	281	272	1,412.14	18.10	16.57	-42.12	0.15	-0.04	-4.74
1890	1	308	477	1,889.01	22.36	20.45	-52.36	0.19	-0.15	5.56
2366	1	296	476	2,364.96	26.38	24.25	-58.27	0.07	-0.06	-2.42
2843	0	310	477	2,841.94	28.31	26.07	-61.53	0.11	-0.10	3.02
3319	0	70	476	3,317.94	29.26	27.04	-60.99	0.09	0.02	-50.55
3415	0	68	96	3,413.94	29.40	27.19	-60.60	0.10	-0.10	-1.77
3510	0	15	95	3,508.94	29.77	27.57	-60.36	0.34	0.21	-56.00
3605	0	298	95	3,603.94	30.17	27.97	-60.42	0.43	-0.21	298.21
3701	0	53	96	3,699.94	30.35	28.15	-60.43	0.35	0.00	-255.52
3796	1	69	95	3,794.94	30.64	28.46	-59.76	0.54	0.53	16.84
3891	0	66	95	3,889.93	30.95	28.80	-58.92	0.32	-0.32	-3.37
3923	1	45	32	3,921.93	31.11	28.97	-58.70	0.84	0.63	-66.25
3955	2	8	32	3,953.92	31.69	29.56	-58.51	3.95	3.44	-112.81
3987	4	8	32	3,985.89	33.15	31.02	-58.31	5.94	5.94	-2.50
4019	5	3	32	4,017.79	35.64	33.52	-58.10	5.73	5.63	-14.38
4050	7	4	31	4,048.60	39.02	36.92	-57.90	5.81	5.81	1.61
4082	9	3	32	4,080.27	43.54	41.45	-57.65	5.94	5.94	-1.56
4114	11	4	32	4,111.77	49.15	47.08	-57.31	6.58	6.56	2.50
4146	13	3	32	4,143.04	55.91	53.85	-56.92	6.59	6.56	-2.81
4177	15	3	31	4,173.07	63.56	61.53	-56.53	6.77	6.77	0.00
4209	17	2	32	4,203.77	72.57	70.55	-56.16	6.32	6.25	-3.44
4241	19	0	32	4,234.13	82.66	80.65	-55.99	6.45	6.25	-5.00
4273	22	359	32	4,264.02	94.06	92.07	-56.05	9.43	9.38	1,122.19
4304	26	1	31	4,292.29	106.76	104.77	-56.05	11.74	11.61	########
4336	29	1	32	4,320.69	121.49	119.52	-55.81	9.10	9.06	1.88
4368	31	3	32	4,348.44	137.37	135.43	-55.21	6.63	5.94	5.94
4400	33	5	32	4,375.59	154.21	152.32	-54.05	7.66	7.19	5.00
4432	36	5	32	4,402.03	172.12	170.30	-52.60	7.51	7.50	-0.63
4463	37	5	31	4,427.06	190.28	188.52	-51.14	4.21	4.19	0.65
4495	38	5	32	4,452.44	209.62	207.94	-49.54	4.38	4.38	0.00
4527	40	4	32	4,477.29	229.65	228.04	-48.03	5.54	5.31	-2.50
4559	42	4	32	4,501.48	250.50	248.95	-46.68	6.30	6.25	-1.25
4591	44	3	32	4,524.90	272.20	270.72	-45.47	6.69	6.56	-1.88
4622	46	2	31	4,546.84	294.03	292.59	-44.46	6.23	6.13	-1.61
4654	47	3	32	4,568.83	317.20	315.82	-43.42	4.43	4.38	0.94
4686	50	3	32	4,590.07	341.04	339.72	-42.23	6.91	6.88	0.94
4718	51	3	32	4,610.62	365.47	364.21	-40.88	3.51	3.44	0.94
4749	51	4	31	4,630.21	389.38	388.19	-39.44	1.49	1.29	0.97
4781	51	3	32	4,650.28	414.18	413.07	-37.94	1.19	0.94	-0.94
4813	51	3	32	4,670.38	438.98	437.93	-36.52	1.27	-1.25	-0.31
4845	50	4	32	4,690.71	463.57	462.60	-35.06	2.39	-2.19	1.25
4876	49	3	31	4,710.85	487.05	486.13	-33.80	5.26	-4.52	-3.55
4908	50	2	32	4,731.67	511.27	510.41	-32.79	3.78	3.75	-0.63
4940	52	3	32	4,751.81	536.05	535.25	-31.63	6.48	6.25	2.19
4972	55	5	32	4,770.95	561.55	560.83	-29.88	9.02	7.81	5.63
5004	58	4	32	4,788.80	587.93	587.30	-27.80	10.12	10.00	-1.88
5035	61	4	31	4,804.58	614.46	613.92	-25.99	11.09	10.97	-1.94
5067	65	3	32	4,819.18	642.81	642.35	-24.48	11.36	10.94	-3.44
5099	68	2	32	4,832.09	672.01	671.60	-23.41	10.26	10.00	-2.50
5131	71	1	32	4,843.45	701.86	701.50	-22.60	8.79	8.75	-0.94
5162	73	1	31	4,853.03	731.29	730.98	-21.98	9.12	9.03	-1.29
5194	78	1	32	4,861.07	762.21	761.94	-21.47	12.82	12.81	-0.31
5226	82	0	32	4,866.84	793.65	793.41	-21.17	13.30	13.13	-2.19
5258	84	359	32	4,870.71	825.39	825.17	-21.31	8.89	8.44	1,122.19
5289	87	359	31	4,873.17	856.29	856.06	-21.82	6.96	6.77	-1.61
5359	90	359	70	4,875.37	926.24	926.00	-23.47	4.88	4.86	-0.43
5391	91	359	32	4,875.15	958.23	957.99	-24.28	3.14	3.13	0.31
5423	92	358	32	4,874.45	990.22	989.97	-25.12	2.27	2.19	-0.63
5519	90	358	96	4,873.53	1,086.21	1,085.92	-27.97	2.20	-2.19	-0.21
5614	90	359	95	4,874.19	1,181.20	1,180.89	-30.20	0.97	0.21	0.95
5710	90	359	96	4,874.86	1,277.18	1,276.86	-32.13	0.56	-0.21	-0.52
5806	89	359	96	4,876.29	1,373.16	1,372.82	-34.48	0.73	-0.73	0.00
5901	90	359	95	4,877.53	1,468.15	1,467.79	-36.80	0.95	0.95	0.00
5997	89	358	96	4,878.54	1,564.14	1,563.74	-39.64	0.88	-0.63	-0.63
6093	90	356	96	4,879.29	1,660.12	1,659.59	-44.75	2.38	0.94	-2.19
6188	90	356	95	4,879.70	1,755.05	1,754.32	-51.87	0.67	-0.53	-0.42
6284	92	357	96	4,878.45	1,850.98	1,850.07	-58.57	2.80	2.60	1.04
6347	92	357	63	4,876.30	1,913.92	1,912.92	-62.41	0.16	-0.16	0.00
6379	92	357	32	4,875.19	1,945.89	1,944.85	-64.26	1.40	0.62	1.25
6443	92	357	64	4,872.90	2,009.84	2,008.71	-67.77	0.22	-0.16	-0.16
6477	92	357	34	4,871.80	2,043.82	2,042.64	-69.73	1.06	-0.88	-0.59
6572	94	357	95	4,867.16	2,138.68	2,137.36	-75.11	2.34	2.32	0.32
6668	95	357	96	4,859.71	2,234.37	2,232.91	-80.61	1.22	1.15	-0.42
6700	94	356	32	4,857.23	2,266.26	2,264.74	-82.78	4.25	-3.44	-2.50
6732	94	355	32	4,855.02	2,298.15	2,296.56	-85.37	2.20	0.31	-2.19
6764	94	354	32	4,852.76	2,330.01	2,328.34	-88.38	2.51	0.31	-2.50
6795	94	353	31	4,850.63	2,360.85	2,359.07	-91.88	4.61	-0.97	-4.52
6827	94	353	32	4,848.37	2,392.64	2,390.72	-95.96	1.82	1.56	-0.94
6859	93	353	32	4,846.44	2,424.44	2,422.40	-100.07	5.35	-5.31	0.62
6891	90	353	32	4,845.69	2,456.31	2,454.15	-104.00	7.97	-7.81	1.56
6934	89	354	43	4,845.99	2,499.19	2,496.88	-108.79	2.98	-2.33	1.86
6966	88	356	32	4,846.69	2,531.13	2,528.73	-111.72	5.17	-2.19	4.69

DIRECTIONAL SURVEY CALCULATION

MINIMUM CURVATURE METHOD

Well Name	Target Direction	Slot	N / S	E / W	Hole Size	Calculation by	Date
Bernice 2-17H	357.89	Coordinate					4/18/12
Job Number	Type of Survey	Tie-in Point				Directional Co.	
0							

Meaured Depth	Hole Angle	Hole Direction	Course Length	True Vertical Depth	Vertical Section	Total Coordinate N + / S -	E + / W -	Dogleg Severity	Build Up °/100 ft	Walk/ °/100 ft
0	0	0	0	0.00	0.00			<< TIE-IN POINT >>		
6998	87	357	32	4,847.86	2,563.09	2,560.64	-113.84	5.37	-3.13	4.37
7029	87	358	31	4,849.51	2,594.05	2,591.56	-115.27	4.10	-2.90	2.90
7061	87	357	32	4,851.32	2,626.00	2,623.48	-116.67	2.44	1.56	-1.88
7125	88	358	64	4,853.95	2,689.94	2,687.37	-119.29	2.47	2.03	1.41
7221	89	359	96	4,856.29	2,785.91	2,783.30	-122.13	0.75	0.63	0.42
7316	88	359	95	4,859.03	2,880.86	2,878.23	-124.45	1.18	-1.16	0.21
7412	91	359	96	4,860.37	2,976.82	2,974.20	-126.05	3.01	2.92	0.73
7475	91	360	63	4,859.32	3,039.78	3,037.19	-126.49	1.28	1.11	0.63
7507	91	1	32	4,858.60	3,071.75	3,069.18	-126.35	2.81	0.00	########
7603	92	359	96	4,856.17	3,167.65	3,165.14	-126.26	1.39	0.31	373.65
7699	90	359	96	4,855.16	3,263.62	3,261.12	-127.85	2.21	-2.08	-0.73
7794	91	359	95	4,855.08	3,358.60	3,356.10	-129.93	0.95	0.95	0.11
7841	90	359	47	4,854.83	3,405.60	3,403.09	-130.83	0.95	-0.85	0.43
7937	90	359	96	4,854.58	3,501.57	3,499.08	-132.17	0.43	0.10	0.42
8032	91	0	95	4,853.51	3,596.51	3,594.07	-132.50	1.27	0.95	-378.11
8128	91	360	96	4,851.91	3,692.43	3,690.06	-132.58	0.61	-0.31	374.48
8223	92	359	95	4,849.76	3,787.38	3,785.02	-133.83	1.42	1.05	-0.95
8319	91	358	96	4,847.75	3,883.35	3,880.96	-136.59	1.56	-1.25	-0.94
8415	92	358	96	4,845.49	3,979.33	3,976.86	-140.11	1.56	1.56	0.00
8513	90	358	98	4,843.35	4,077.30	4,074.78	-143.44	1.76	-1.73	0.31
8609	89	359	96	4,844.27	4,173.29	4,170.73	-146.20	2.00	-1.98	0.31
8705	90	359	96	4,845.28	4,269.27	4,266.69	-148.47	1.90	1.88	0.31
8800	89	359	95	4,846.02	4,364.24	4,361.68	-149.96	1.70	-1.58	0.63
8896	91	359	96	4,846.36	4,460.22	4,457.66	-151.63	2.24	2.08	-0.83
8991	90	359	95	4,845.69	4,555.21	4,552.62	-153.95	0.84	-0.84	0.00
9087	90	359	96	4,845.86	4,651.19	4,648.61	-155.63	0.86	-0.21	0.83
9183	90	359	96	4,846.20	4,747.16	4,744.60	-156.72	0.10	0.00	-0.10
9278	91	360	95	4,845.62	4,842.11	4,839.60	-157.30	1.37	1.16	0.74
9374	90	359	96	4,845.03	4,938.06	4,935.59	-157.80	1.31	-1.15	-0.63
9469	90	0	95	4,845.61	5,033.00	5,030.59	-158.22	0.80	-0.32	-378.21
9565	93	1	96	4,843.93	5,128.87	5,126.55	-157.13	3.33	3.13	1.15
9661	92	359	96	4,839.91	5,224.70	5,222.47	-156.71	1.99	-0.21	373.02
9756	91	358	95	4,837.34	5,319.65	5,317.40	-158.86	2.02	-1.58	-1.26
9852	89	357	96	4,837.18	5,415.64	5,413.30	-163.14	1.99	-1.46	-1.35
9947	91	357	95	4,837.09	5,510.63	5,508.17	-168.11	1.43	1.37	0.42
9979	89	356	32	4,837.12	5,542.62	5,540.11	-169.98	5.81	-4.69	-3.44
10011	92	357	32	4,836.90	5,574.60	5,572.05	-171.99	7.73	7.50	1.87
10043	91	357	32	4,836.20	5,606.59	5,603.99	-173.83	2.19	-2.19	0.00
10075	88	355	32	4,836.65	5,638.56	5,635.89	-176.14	11.88	-10.63	-5.31
10107	88	355	32	4,837.79	5,670.49	5,667.74	-179.07	3.22	2.81	-1.56
10139	89	355	32	4,838.43	5,702.43	5,699.60	-182.00	3.22	2.81	1.56
10171	90	354	32	4,838.71	5,734.38	5,731.45	-185.04	3.08	1.25	-2.81
10202	88	355	31	4,839.31	5,765.32	5,762.30	-187.98	5.92	-5.16	2.90
10234	88	355	32	4,840.48	5,797.26	5,794.16	-190.77	1.25	-1.25	0.00
10266	88	355	32	4,841.82	5,829.18	5,826.00	-193.64	1.13	-0.63	-0.94
10298	88	354	32	4,843.19	5,861.10	5,857.83	-196.67	0.99	0.31	-0.94
10330	87	356	32	4,844.64	5,893.03	5,889.68	-199.43	4.25	-1.25	4.06
10362	88	355	32	4,846.06	5,924.96	5,921.53	-202.11	3.49	1.56	-3.13
10394	87	354	32	4,847.49	5,956.87	5,953.35	-205.17	2.00	-1.56	-1.25
10426	87	354	32	4,849.25	5,988.75	5,985.14	-208.43	2.38	-2.19	-0.94
10490	86	355	64	4,853.21	6,052.53	6,048.74	-214.38	2.03	-0.16	2.03
10521	86	356	31	4,855.32	6,083.43	6,079.58	-216.70	3.22	-1.94	2.58
10553	87	356	32	4,857.47	6,115.34	6,111.43	-218.90	2.21	2.19	-0.31
10585	87	357	32	4,859.20	6,147.28	6,143.31	-220.99	2.95	2.50	1.56
10617	88	358	32	4,860.65	6,179.25	6,175.24	-222.64	3.49	0.63	3.44
10681	88	357	64	4,862.94	6,243.20	6,239.13	-225.54	1.54	1.41	-0.63
10712	89	358	31	4,863.64	6,274.19	6,270.09	-226.97	2.16	1.94	0.97
10744	89	357	32	4,864.20	6,306.19	6,302.05	-228.42	0.62	0.00	-0.62
10776	89	358	32	4,864.73	6,338.18	6,334.02	-229.65	3.14	0.31	3.13
10808	89	358	32	4,865.18	6,370.18	6,366.00	-230.65	0.88	0.63	-0.62
10840	89	357	32	4,865.54	6,402.18	6,397.97	-231.94	2.52	0.31	-2.50
10872	90	358	32	4,865.65	6,434.18	6,429.95	-233.14	4.25	2.50	3.44
10904	90	358	32	4,865.51	6,466.17	6,461.94	-234.09	0.70	0.31	-0.62
10935	90	358	31	4,865.38	6,497.17	6,492.92	-235.04	0.46	-0.32	0.32
10999	90	359	64	4,865.04	6,561.17	6,556.90	-236.82	0.44	0.31	0.31
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			

DIRECTIONAL SURVEY CALCULATION

MINIMUM CURVATURE METHOD

Well Name	Target Direction	Slot Coordinate	N / S	E / W	Hole Size	Calculation by	Date
Bernice 2-17H	357.89						4/18/12
Job Number	**Type of Survey**	**Tie-in Point**				**Directional Co.**	
0							

Meaured Depth	Hole Angle	Hole Direction	Course Length	True Vertical Depth	Vertical Section	Total Coordinate N + / S -	E + / W -	Dogleg Severity	Build Up °/100 ft	Walk/ °/100 ft
0	0	0	0	0.00	0.00			<< TIE-IN POINT >>		
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
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0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			

DIRECTIONAL SURVEY CALCULATION

MINIMUM CURVATURE METHOD

Well Name	*Target Direction*	*Slot Coordinate*	*N / S*	*E / W*	*Hole Size*	*Calculation by*	*Date*
Bernice 2-17H	357.89						4/18/12
Job Number	*Type of Survey*	*Tie-in Point*				*Directional Co.*	
0							

Meaured Depth	Hole Angle	Hole Direction	Course Length	True Vertical Depth	Vertical Section	Total Coordinate N + / S -	E + / W -	Dogleg Severity	Build Up °/100 ft	Walk/ °/100 ft
0	0	0	0	0.00	0.00			<< TIE-IN POINT >>		
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
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0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
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0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
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0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
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0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
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0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
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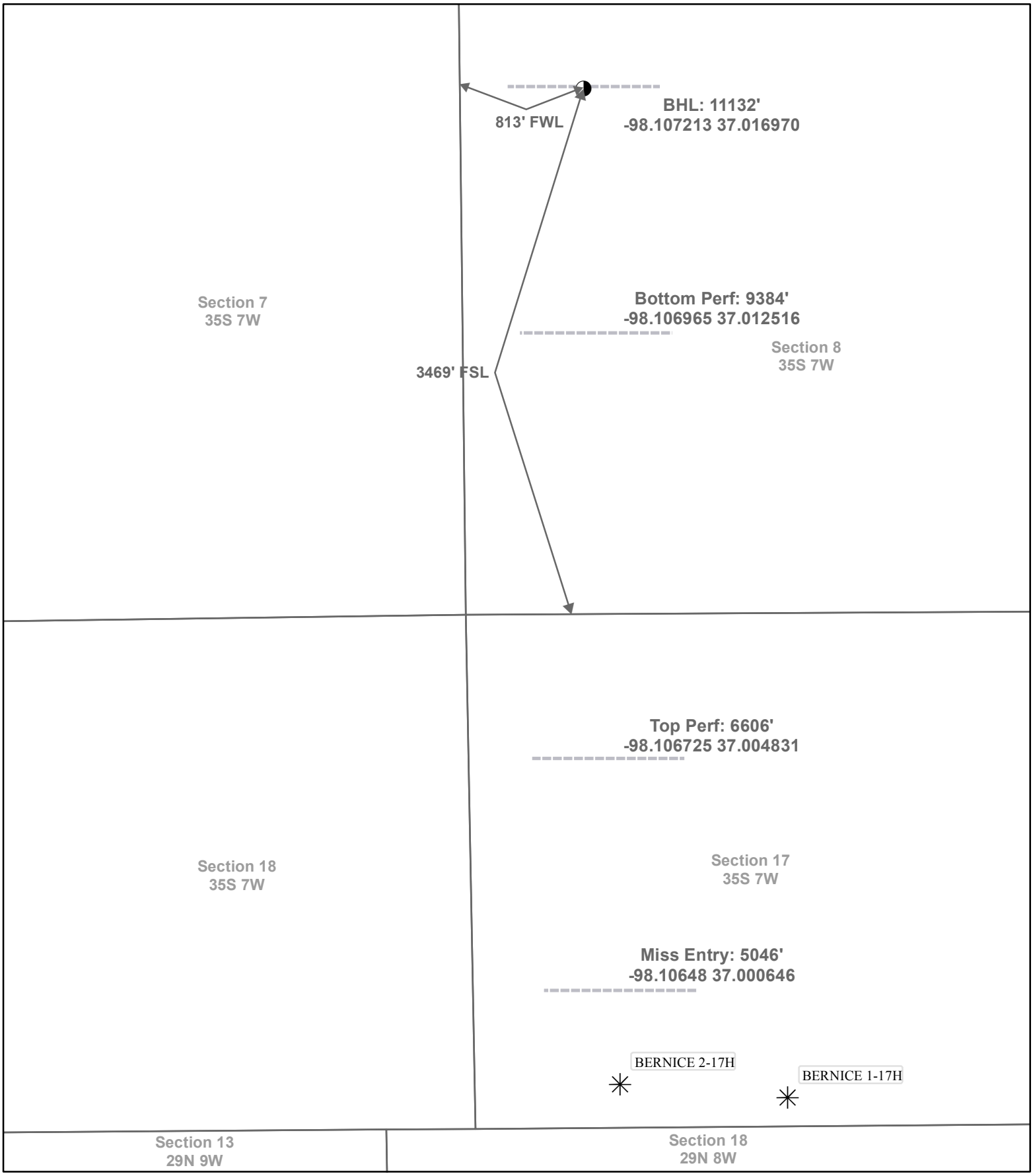
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			
0	0	0		4,865.04	6,561.17	6,556.90	-236.82			



SANDRIDGE
THE POWER OF US

Actual BH Location

SandRidge Wells

Perf

Sections

Actual Bottom-Hole Location of Bernice 2-17
Harper County, Kansas
T&R: 35S 7W
Section: 8, 813' FWL & 3469' FSL
Long/Lat:-98.107213 37.016970

1 in = 833 ft

0 625 1,250 2,500 Feet

N

Draftsman: Aaron Birk

Draft Date: 6/6/2012

Drawing Name/Number: Addendum_Bernice_2-17.mxd

Coordinate System: NAD 1927 State Plane Kansas South FIPS: 1502