



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1138267
OIL & GAS CONSERVATION DIVISION

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 # _____

Name: _____

Address 1: _____

Address 2: _____

City: _____ State: _____ Zip: _____ + _____

Contact Person: _____

Phone: (_____) _____

CONTRACTOR: License # _____

Name: _____

Wellsite Geologist: _____

Purchaser: _____

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 #: _____

Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date
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API No. 15 - _____

Spot Description: _____

_____ - _____ - _____ Sec. _____ Twp. _____ S. R. _____ East West

_____ Feet from North / South Line of Section

_____ Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE NW SE SW

GPS Location: Lat: _____, Long: _____
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum: NAD27 NAD83 WGS84

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Vertical Depth: _____ Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: _____ 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: _____ ppm Fluid volume: _____ bbls

Dewatering method used: _____

Location of fluid disposal if hauled offsite:

Operator Name: _____

Lease Name: _____ License #: _____

Quarter _____ Sec. _____ Twp. _____ S. R. _____ East West

County: _____ Permit #: _____

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: _____
- Confidential Release Date: _____
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT I II III Approved by: _____ Date: _____



1138267

Operator Name: _____ Lease Name: _____ Well #: _____

Sec. _____ Twp. _____ S. R. _____ East West County: _____

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 <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No List All E. Logs Run: _____	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample Name Top Datum
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CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> 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

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> 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 <i>(Amount and Kind of Material Used)</i>	Depth

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

Date of First, Resumed Production, SWD or ENHR: _____ 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: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____ <i>(Submit ACO-4)</i>	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	Nemaha Oil and Gas LLC
Well Name	Lampson 1A 23-32-9H
Doc ID	1138267

Tops

Name	Top	Datum
Penn LS	550	539
Penn SS A	895	194
Penn SS B	1178	-89
Penn SS C	1398	-309
Penn SS D	1448	-359
Kansas City Group	1541	-452
Pawnee LS	1824	-735
Cherokee (Penn) Shale	1910	-821
Mississippi Lime	2181	-1092

Form	ACO1 - Well Completion
Operator	Nemaha Oil and Gas LLC
Well Name	Lampson 1A 23-32-9H
Doc ID	1138267

Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
6	6545-5654,6470-6471,6395-6396	8,344 GW & 13,146 GW	2326' TVD
6	6320-6321,6245-6246,6170-6171	5,992 GW & 11,340 GW	2327' TVD
6	6095-6096,6020-6021,5945-5946	6,370 GW & 10,836 GW	2325' TVD
6	5870-5871,5797-5798,5724-5725,5651-5652,5578-5579	2,520 GW & 27,594 GW	2324' TVD
6	5505-5506,5432-5433,5359-5360,5286-5287,5213-5214	2,520 GW & 29,064 GW	2322' TVD
6	5140-5142,5067-5068,4994-4995,4921-4922,4848-4849	2,520 GW & 21,714 GW	2318' TVD
6	4775-4776,4702-4703,4629-4620,4556-4557,4483-4484	2,520 GW & 22,260 GW	2315' TVD
6	4410-4411,4337-4338,4264-4265,4191-4192,4118-4119	2,250 GW & 20,874 GW	2311' TVD
6	4045-4046,3972-3973,3899-3900,3826-3827,3753-3754	2,520 GW & 20,874 GW	2308' TVD

Form	ACO1 - Well Completion
Operator	Nemaha Oil and Gas LLC
Well Name	Lampson 1A 23-32-9H
Doc ID	1138267

Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
6	3680-3681,3607-3608,3534-3535,3461-3462,3388-3389	3,780 GW & 19,572 GW	2307' TVD
6	3315-3316,3242-3243,3169-3170,3096-3097,3023-3024	3,486 GW & 19,404 GW	2313' TVD

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



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

Mark Sievers, Chairman
Thomas E. Wright, Commissioner
Shari Feist Albrecht, Commissioner

Sam Brownback, Governor

May 07, 2013

Stephen Bennitt
Nemaha Oil and Gas LLC
110 W. 7TH ST., STE 1800
TULSA, OK 74119

Re: ACO1
API 15-019-27283-01-00
Lampson 1A 23-32-9H
NE/4 Sec.23-32S-09E
Chautauqua 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,
Stephen Bennitt

1/8/2013

255816



255000341

CEMENT FIELD TICKET AND TREATMENT REPORT

Cus. Order	Nemaha	State, County	Chautauqua, Kansas	Cement Type	CLASS A
Job Type	surface	Section	23	Excess (%)	50
Customer Acct #	5078	TWP	32	Density	13.6 14.5
Well No.	lampson -1A	RGE	9	Water Required	
Mailing Address		Formation		Yield	1.47 1.51
City & State		Hole Size	12 1/4	Slurry Weight	
Zip Code		Hole Depth	750	Slurry Volume	S.J. 37.8
Contact		Casing Size	9 5/8 INCH, 36	Displacement	55.4
Email		Casing Depth	755	Displacement PSI	
Cell		Drill Pipe		MIX PSI	
Dispatch Location	BARTLESVILLE	Tubing		Rate	
Code	Cement Pump Charges and Mileage	Quantity	Unit	Price per Unit	
5401S	CEMENT PUMP (SURFACE PIPE)	1	2 HRS MAX	\$825.00	\$ 825.00
5406	EQUIPMENT MILEAGE (ONE-WAY)	60	PER MILE	\$4.00	\$ 240.00
5407A	TON MILEAGE DELIVERY	400	PER MILE	\$1.34	\$ 536.00
0			0	\$0.00	\$ -
0			0	\$0.00	\$ -
0			0	\$0.00	\$ -
0			0	\$0.00	\$ -
0			0	\$0.00	\$ -
5402	FOOTAGE	755	PER FOOT	0.22	\$ 166.10
				EQUIPMENT TOTAL	\$ 1,767.10
Cement, Chemicals and Water					
1131	60/40 POZMIX CEMENT W/ NO ADDITIVES (40% POZ)	185	0	\$12.65	\$ 2,340.25
1107A	PHENOSEAL	120	0	\$1.29	\$ 154.80
1111	GRANULATED SALT (50#) SELL BY #	250	0	\$0.37	\$ 92.50
1118B	PREMIUM GEL/BENTONITE (50#)	450	0	\$0.21	\$ 94.50
3123	DIACEL FL, FLUID LOSS (50#/SX) sell by #	150	0	\$13.75	\$ 2,062.50
1126	OWC. CEMENT (CAL SEAL) 8%OWC. 2% CAL. CLORIDE 2% GE	50	0	\$18.80	\$ 940.00
1123	CITY WATER (PER 1000 GAL)	8,400	0	\$0.02	\$ 168.00
0			0	\$0.00	\$ -
0			0	\$0.00	\$ -
0			0	\$0.00	\$ -
0			0	\$0.00	\$ -
				CHEMICAL TOTAL	\$ 5,852.55
Water Transport					
5501C	WATER TRANSPORT (CEMENT)	10	TER TRANSPORT (CEME	\$112.00	\$ 1,120.00
5501C	WATER TRANSPORT (CEMENT)	10	TER TRANSPORT (CEME	\$112.00	\$ 1,120.00
0			0	\$0.00	\$ -
				TRANSPORT TOTAL	\$ 2,240.00
Cement Floating Equipment (TAXABLE)					
Cement Basket					
0			0	\$0.00	\$ -
Centralizer					
0			0	\$0.00	\$ -
0			0	\$0.00	\$ -
Float Shoe					
0			0	\$0.00	\$ -
Float Collars					
0			0	\$0.00	\$ -
Guide Shoes					
0			0	\$0.00	\$ -
Baffle and Flapper Plates					
0			0	\$0.00	\$ -
Packer Shoes					
0			0	\$0.00	\$ -
DV Tools					
0			0	\$0.00	\$ -
Ball Valves, Swedges, Clamps, Misc.					
0			0	\$0.00	\$ -
0			0	\$0.00	\$ -
0			0	\$0.00	\$ -
Plugs and Ball Sealers					
4415	9 5/8" RUBBER PLUG (TOP)	1	PER UNIT	\$152.00	\$ 152.00
Downhole Tools					
0			0	\$0.00	\$ -
				CEMENT FLOATING EQUIPMENT TOTAL	\$ 152.00
				SUB TOTAL	\$ 10,011.65
				SALES TAX	\$ 498.38
				TOTAL	\$ 10,510.03
				(-DISCOUNT)	\$ 1,051.00
				DISCOUNTED TOTAL	\$ 9,459.02
TRUCK#	DRIVER NAME				
536 t99	492 jake				
EARLS TP	harrison f				
T64	415 johnathan				

Nemaha Oil and Gas, LLC
 DRUG 1 COMP Date: 1/8/2013
 Well Name: Lampson 1A-23-32-9A
 AFE #: 101 DC12904 Cost Code: 1510.14
 Field Approval: [Signature]
 Supervisor: P.W.

AUTHORIZATION _____
 DATE _____

TITLE _____
 FOREMAN [Signature]

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I ACKNOWLEDGE THAT THE PAYMENT TERMS, UNLESS SPECIFICALLY AMENDED IN WRITING ON THE FRONT OF THE FORM OR IN THE CUSTOMER'S ACCOUNT RECORDS, AT OUR OFFICE, AND CONDITIONS OF SERVICE ON THE BACK OF THIS FORM ARE IN EFFECT FOR SERVICES IDENTIFIED ON THIS FORM.

CEMENT FIELD TICKET AND TREATMENT REPORT

Customer	Nemaha	State, County	Chautauqua , Kansas	Cement Type	CLASS A
Customer Acct #	surface	Section	0	Excess (%)	50
Well No.	0	TWP	0	Density	13.6 14.5
Mailing Address	lampson	RGE	0	Water Required	0
City & State	0	Formation	0	Yeild	1.47 1.51
Zip Code	0	Hole Size	12 1/4	Slurry Weight	0
Contact	0	Hole Depth	750	Slurry Volume	S.J. 37.8
Email	0	Casing Size	9 5/8INCH, 36	Displacement	55.4
Cell	0	Casing Depth	755	Displacement PSI	0
Office	0	Drill Pipe	0	MIX PSI	0
Dispatch Location	BARTLESVILLE	Tubing	0	Rate	0

REMARKS

Hooked upto well washed until company man said we were on bottom. Pulled up one foot and started cement. Ran 185sks60/40 poz with 2%gel and salt with .8 diacel fl and .4pheno lead and 50sks of class a owc mix tail with 2%calcium and gel 6%owc and .4pheno. Pumped cement at 4.5bpm. Shut down and dropped plug displaced plug at 4bpm for the first 45bbbs then slowed down to 2.5bpm until plug landed at 55bbbs gone at 1100psi. Released pressure and plug held. Shut head in and left on well. Cement was circulated to surface 10bbbs. Knocked loose and washed up. Plug landed at 1a.m.

SAFTY MEETING

257744

CEMENT FIELD TICKET AND TREATMENT REPORT

Customer	NEMAHA	State, County	Chautauqua, Kansas	Cement Type	CLASS A
Job Type	HORIZONTAL	Section		Excess (%)	20
Customer Acct #	5678	TWP		Density	13.6
Well No.	LAMPSON	RGE		Water Required	7.2
Mailing Address		Formation		Yield	1.47
City & State		Hole Size	8.75	Slurry Weight	
Zip Code		Hole Depth		Slurry Volume	
Contact		Casing Size	7" 23#	Displacement	258.8+15
Email		Casing Depth	6575	Displacement PSI	1100
Cell		Drill Pipe		MIX PSI	100
Dispatch Location	BARTLESVILLE	Tubing	6571 FC	Rate	3-5BPM
Code	Cement Pump Charges and Mileage	Quantity	Unit	Price per Unit	
5401D	DOUBLE PUMP (CASING JOB) 4001'-6000'	1	PER JOB	\$1,590.00	\$ 1,590.00
5406	EQUIPMENT MILEAGE (ONE-WAY)	60	PER MILE	\$4.00	\$ 240.00
5407A	TON MILEAGE DELIVERY	750	PER MILE	\$1.34	\$ 1,005.00
5619	7" CEMENT HEAD	1	0	\$215.00	\$ 215.00
0			0	\$0.00	\$ -
0	MISC PUMP (CEMENT TRUCK) 3/22/13	10	0	\$0.00	\$ -
0			0	\$0.00	\$ -
0			0	\$0.00	\$ -
5402	FOOTAGE	6,575	PER FOOT	0.22	\$ 1,446.50
				EQUIPMENT TOTAL	\$ 4,496.50
Cement, Chemicals and Water					
1131	60/40 POZMIX CEMENT W/ NO ADDITVES (40% POZ)	750	0	\$12.65	\$ 9,487.50
1107A	PHENOSEAL	280	0	\$1.29	\$ 361.20
1111	GRANULATED SALT (50#) SELL BY #	900	0	\$0.37	\$ 333.00
1118B	PREMIUM GEL/BENTONITE (50#)	1,300	0	\$0.21	\$ 273.00
3123	DIACEL FL, FLUID LOSS (50#/SX)sell by #	600	0	\$13.75	\$ 8,250.00
1123	CITY WATER (PER 1000 GAL)	6	0	\$16.54	\$ 99.00
0	OIL BASED MUD SPACER	25	0	\$162.76	\$ 4,069.00
0	SUGAR	250	0	\$0.00	\$ 200.00
0	DIACEL WBS-200	300 lbs.	0	5.00	\$ 1,500.00
0	DIACEL SF-1	25 gal.	0	102.76	\$ 2,569.00
				CHEMICAL TOTAL	\$ 23,064.67
Water Transport					
5501C	WATER TRANSPORT (CEMENT) 3-22	10	ATER TRANSPORT (CEME	\$112.00	\$ 1,120.00
5504B	FLATBED DELIVERY 3-22	10	FLATBED DELIVERY	\$100.00	\$ 1,000.00
5504B	FLATBED DELIVERY 3-29	5	FLATBED DELIVERY	\$100.00	\$ 500.00
				TRANSPORT TOTAL	\$ 2,620.00
Cement Floating Equipment (TAXABLE)					
Cement Basket					
0			0	\$0.00	\$ -
Centralizer					
0			0	\$0.00	\$ -
0			0	\$0.00	\$ -
Float Shoe					
4163	FLOAT SHOE 7" W/FLAPPER	1	PER UNIT	\$394.00	\$ 394.00
Float Collars					
4187	FLOAT COLLAR 7"	1	PER UNIT	\$525.00	\$ 525.00
Guide Shoes					
0				\$0.00	\$ -
Baffle and Flapper Plates					
0				\$0.00	\$ -
Packer Shoes					
0				\$0.00	\$ -
DV Tools					
0				\$0.00	\$ -
Ball Valves, Swedges, Clamps, Misc.					
0				\$0.00	\$ -
0				\$0.00	\$ -
0				\$0.00	\$ -
Plugs and Ball Sealers					
4409	7" RUBBER PLUG (TOP)	1	PER UNIT	\$82.00	\$ 82.00
Downhole Tools					
0			0	\$0.00	\$ -
				CEMENT FLOATING EQUIPMENT TOTAL	\$ 1,001.00
TRUCK#		DRIVER NAME			
700 T133	674	Donnie Tate		8.30%	SUB TOTAL \$ 3,190.20
	492	CASEY MARRS			SALES TAX \$ 178.32
	656	ANTHONY			TOTAL \$ 3,368.53
EARLS	JJ			10% (-DISCOUNT)	\$ 328.53
74	149				
699	219				
				DISCOUNTED TOTAL	\$ 29,909.50

Nemaha Oil and Gas, LLC

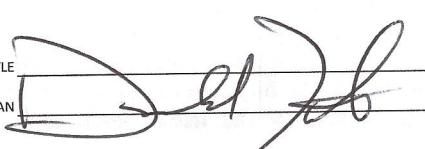
DRLG / COMP Date: 3/28/13

Well Name: LAMPSON 1A-203-32-9H

AFE #: 101DC12004 Cost Code: 1510-14

Field Approval: Bill Hensley

Supervisor: DW

TITLE _____
FOREMAN 

AUTHORIZATION _____
DATE _____

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CEMENT FIELD TICKET AND TREATMENT REPORT

Customer	NEMAHA	State, County	Chautauqua , Kansas	Cement Type	CLASS A
Customer Acct #	HORIZONTAL	Section	0	Excess (%)	20
Well No.	0	TWP	0	Density	13.6
Mailing Address	LAMPSON	RGE	0	Water Required	7.2
City & State	0	Formation	#REF!	Yeild	1.47
Zip Code	0	Hole Size	8.75	Slurry Weight	0
Contact	0	Hole Depth	0	Slurry Volume	0
Email	0	Casing Size	7" 23#	Displacement	258.8+15
Cell	0	Casing Depth	6575	Displacement PSI	1100
Office	0	Drill Pipe	0	MIX PSI	100
Dispatch Location	BARTLESVILLE	Tubing	6571 FC	Rate	3-5BPM

REMARKS

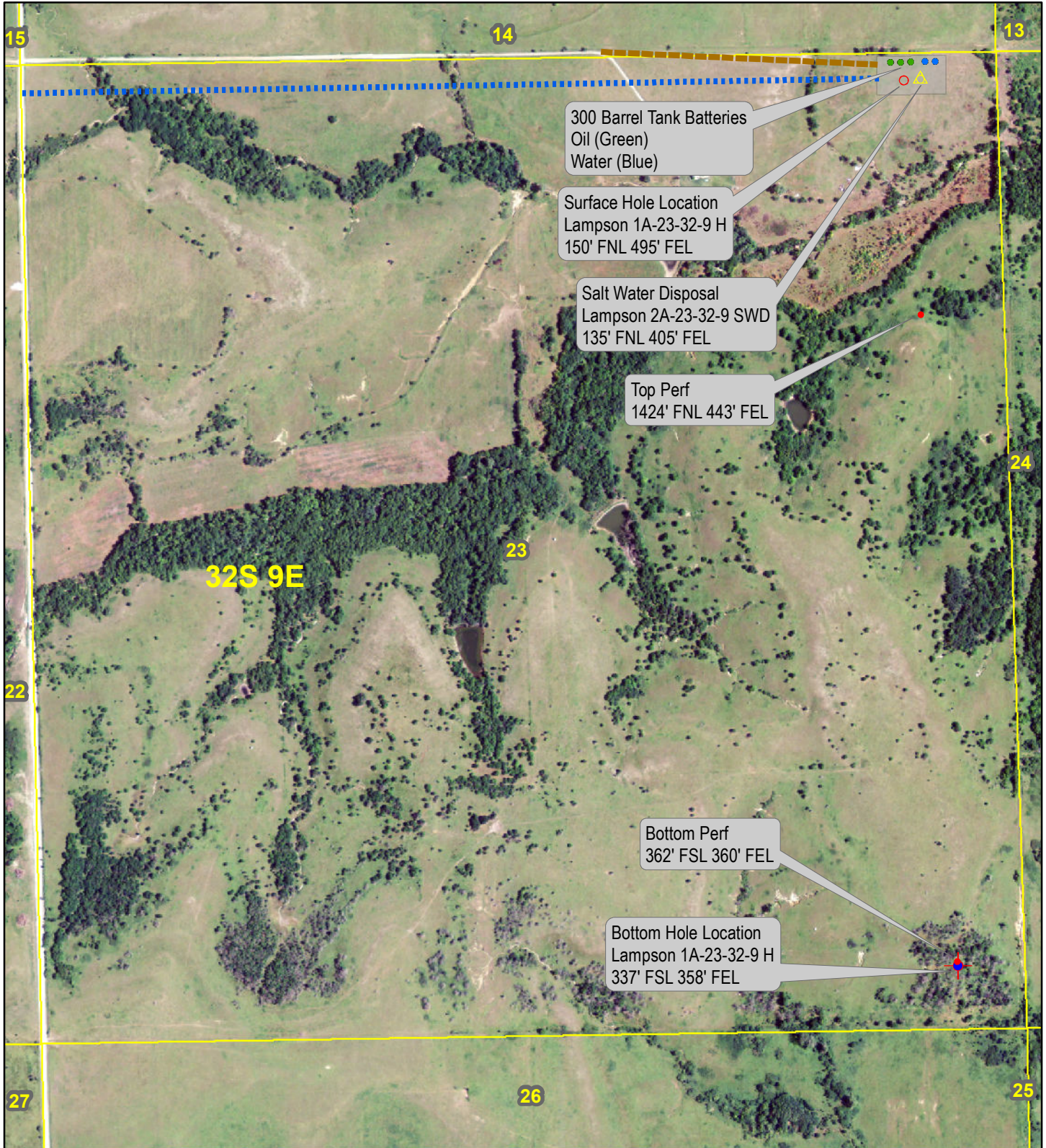
SAFTY MTG, RIG UP. RUN 25BBLS MUD SPACER FOLLOWED BY 185 BBLS H2O GO TO CMT.RUN 750SX 60/40 CLASS A AND POZ WITH PHENO, SALT, GEL AND DIACEL FL RAN AT 13.6# 1.47 YIELD AND 7.2 GPS. RAN TOTAL OF 213 BBLS SLURRY. SHUT DOWN AND WASH OUT PUMP AND LINES AND RELEASE PLUG. TAIL DID NOT DO SO WE KNOCKED HEAD OFF AND MADE SURE PLUG WENT. GO TO DISPL. RUN APPROX 65 BBLS DISP AND PUMP WENT DOWN SO WE BROUGHT 2ND PUMP ON AND 70 BBLS AND PUMP WENT DOWN WHILE PUMPING WITH BACK UP PUMP WE FIXED 1ST PUMP AND SWITCHED BACK TO IT TO FINISH DISP. WE RAN 258.8 BBLS AND STOP PLUG HAD NOT LANDED. DISCUSS WITH CO MAN HE SAID GO 15 OVER SO WE DID BUT PLUG NEVER HIT. CO MAN SAID SHUT IT IN. (PROBLEMS WITH BOTH PUMPS WE BELIEVE TO BE ROCKS FROM FRAC TANK THAT OUR SCREENS DID NOT CATCH. SHUT WELL IN AND LEAVE PC ON LOC. CMT TO SURF.

THANK YOU

Lampson 1A-23-32-9 H Lampson 2A-23-32-9 SWD

Chautauqua County, KS

Section 23 T32S R9E



May 13, 2013



N E M A H A
O I L A N D G A S

Lease Road
Electric Line



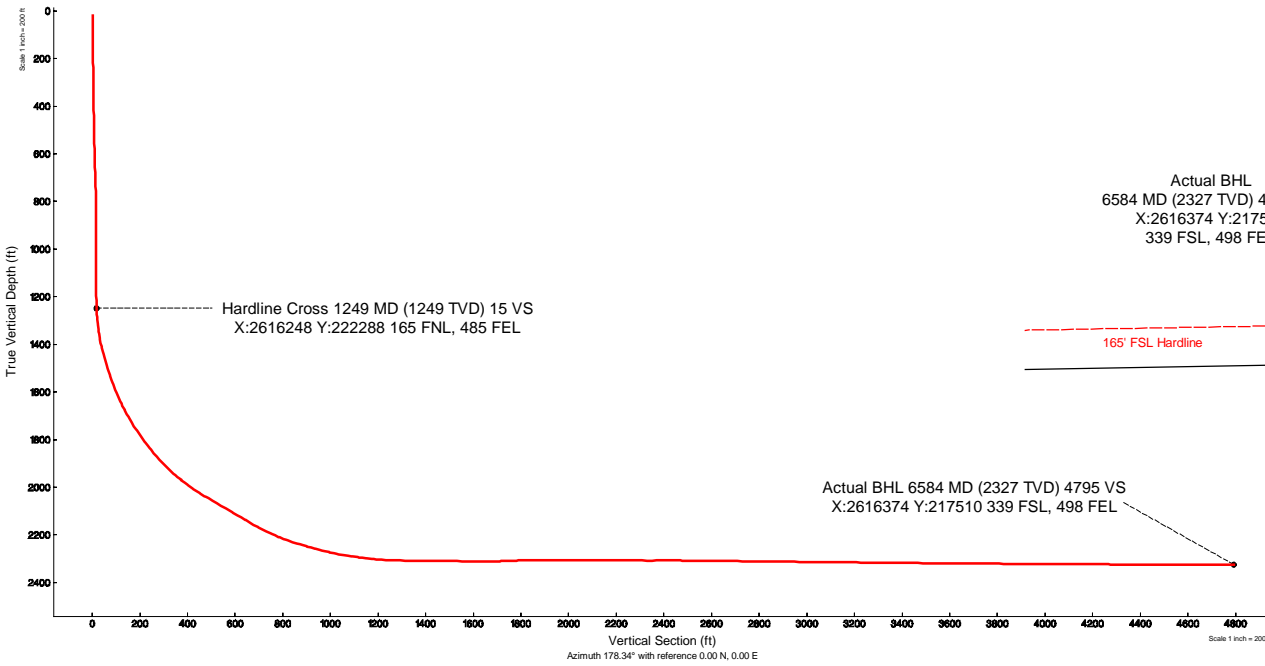
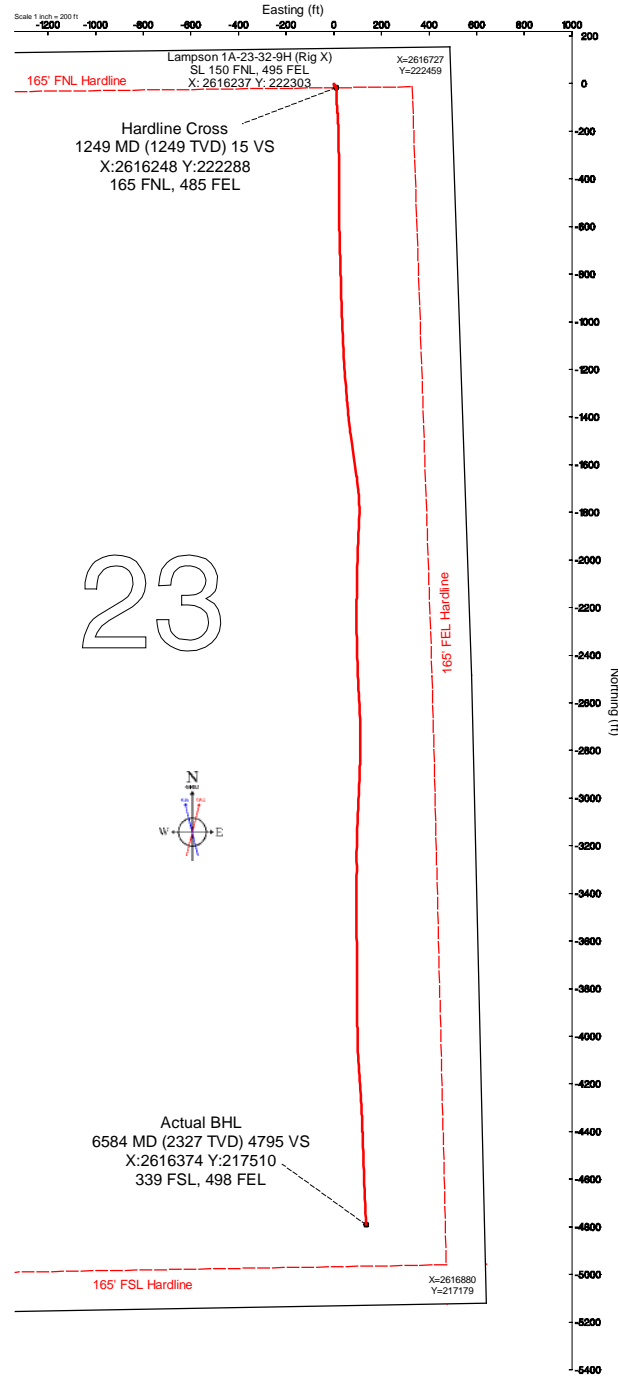
0 437.5 875 1,750 Feet

Nemaha Oil and Gas

Lampson 1A-23-32-9H (Nomac 23) (Final)
 Lampson 1A-23-32-9H (Nomac 23)
 Chautauqua County, KS

Plot reference wellpath is Plan 2		Grid System: NAD27 / Lambert Kansas SP, Southern Zone (1502), US feet				
True vertical depths are referenced to Nomac 23 (RKB)		North Reference: Grid north				
Measured depths are referenced to Nomac 23 (RKB)		Scale: True distance				
Nomac 23 (RKB) to Mean Sea Level: 1079 feet		Depths are in feet				
Mean Sea Level to Mud line (At Slot: Lampson 1A-23-32-9H (Nomac 23)): -1063 feet		Created by: fermikj on 3/7/2013				
Coordinates are in feet referenced to Slot						
Location Information						
Facility Name		Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	
Lampson 1A-23-32-9H Sec 23-32S-9E		2616237.000	222303.000	37°15'28.708"N	96°22'57.118"W	
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
Lampson 1A-23-32-9H (Nomac 23)	0.00	0.00	2616237.000	222303.000	37°15'28.708"N	96°22'57.118"W
Nomac 23 (RKB) to Mud line (At Slot: Lampson 1A-23-32-9H (Nomac 23))				16ft		
Mean Sea Level to Mud line (At Slot: Lampson 1A-23-32-9H (Nomac 23))				-1063ft		
Nomac 23 (RKB) to Mean Sea Level				1079ft		

Actual BHL
6584 MD (2327 TVD) 4795 VS
X:2616374 Y:217510
339 FSL, 498 FEL





Actual Wellpath Report

Nemaha Oil and Gas Lampson 1A-23-32-9H (Nomac 23)_Final Surveys.

Page 1 of 5

REFERENCE WELLPATH IDENTIFICATION			
Operator	Nemaha Oil and Gas	Slot	Lampson 1A-23-32-9H (Nomac 23)
Area	Kansas	Well	SL (150 FNL, 495 FEL)
Field	Chautauqua County, KS	Wellbore	Lampson 1A-23-32-9H (Nomac 23) Actual
Facility	Lampson 1A-23-32-9H Sec 23-32S-9E		

REPORT SETUP INFORMATION			
Projection System	NAD27 / Lambert Kansas SP, Southern Zone (1502), US feet		
North Reference	Grid	Software System	WellArchitect 3.0.0
Convergence at slot	1.30° East	User	Burnranj
Scale	1	Report Generated	3/25/2013 at 5:49:00 PM
Wellbore last revised	02-20-2013	Database/Source file	Oklahoma City

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	0.00	0.00	2616237.00	222303.00	37°15'28.708"N	96°22'57.118"W
Facility Reference Pt			2616237.00	222303.00	37°15'28.708"N	96°22'57.118"W
Field Reference Pt			2646856.10	192342.92	37°10'25.526"N	96°16'47.322"W

WELLPATH DATUM			
Calculation method	Minimum curvature	Nomac 23 (RKB) to Facility Vertical Datum	16.00ft
Horizontal Reference Pt	Slot	Nomac 23 (RKB) to Mean Sea Level	1079.00ft
Vertical Reference Pt	Nomac 23 (RKB)	Nomac 23 (RKB) to Mud Line at Slot (Lampson 1A-23-32-9H (Nomac 23))	16.00ft
MD Reference Pt	Nomac 23 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	178.34°



Actual Wellpath Report

BAKER HUGHES

Nemaha Oil and Gas Lampson 1A-23-32-9H (Nomac 23)_Final Surveys.

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REFERENCE WELLPATH IDENTIFICATION				
Operator	Nemaha Oil and Gas		Slot	Lampson 1A-23-32-9H (Nomac 23)
Area	Kansas		Well	SL (150 FNL, 495 FEL)
Field	Chautauqua County, KS		Wellbore	Lampson 1A-23-32-9H (Nomac 23) Actual
Facility	Lampson 1A-23-32-9H Sec 23-32S-9E			

WELLPATH DATA (126 stations) = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	DLS [°/100ft]	Comments
0.00	0.000	143.120	0.00	0.00	0.00	0.00	2616237.00	222303.00	0.00	
16.00	0.000	143.120	16.00	0.00	0.00	0.00	2616237.00	222303.00	0.00	
780.00	2.310	143.120	779.79	12.58	-12.32	9.24	2616246.24	222290.68	0.30	
843.00	0.510	121.710	842.77	13.77	-13.48	10.24	2616247.24	222289.52	2.93	
907.00	0.320	250.180	906.77	13.98	-13.69	10.32	2616247.32	222289.31	1.18	
970.00	0.410	152.910	969.77	14.24	-13.95	10.25	2616247.25	222289.05	0.87	
1033.00	0.110	87.080	1032.77	14.44	-14.15	10.42	2616247.42	222288.85	0.60	
1097.00	0.130	8.380	1096.77	14.37	-14.07	10.49	2616247.49	222288.93	0.24	
1159.00	0.070	174.110	1158.77	14.34	-14.04	10.50	2616247.50	222288.96	0.32	
1190.00	0.060	126.000	1189.77	14.37	-14.07	10.52	2616247.52	222288.93	0.17	
1222.00	0.520	177.250	1221.77	14.52	-14.23	10.54	2616247.54	222288.77	1.51	
1249.00	2.148	178.183	1248.76	15.15	-14.85	10.56	2616247.56	222288.15	6.03	Hardline Cross 1249 MD (1249 TVD) 15 VS X:2616248 Y:222288 165 FNL, 485 FEL
1254.00	2.450	178.220	1253.76	15.35	-15.05	10.57	2616247.57	222287.95	6.03	
1285.00	4.650	178.160	1284.70	17.27	-16.97	10.63	2616247.63	222286.03	7.10	
1317.00	6.600	178.780	1316.54	20.41	-20.11	10.71	2616247.71	222282.89	6.10	
1349.00	8.870	179.310	1348.25	24.72	-24.41	10.78	2616247.78	222278.59	7.10	
1381.00	10.850	179.200	1379.77	30.19	-29.89	10.85	2616247.85	222273.11	6.19	
1412.00	13.180	178.560	1410.09	36.65	-36.34	10.98	2616247.98	222266.66	7.53	
1444.00	14.870	178.250	1441.14	44.40	-44.10	11.20	2616248.20	222258.90	5.29	
1476.00	16.740	178.330	1471.92	53.12	-52.81	11.46	2616248.46	222250.19	5.84	
1507.00	17.740	177.570	1501.53	62.30	-61.99	11.79	2616248.79	222241.01	3.31	
1539.00	18.810	176.700	1531.92	72.34	-72.01	12.29	2616249.29	222230.99	3.45	
1571.00	20.350	175.890	1562.07	83.05	-82.71	12.99	2616249.99	222220.29	4.89	
1603.00	22.330	175.290	1591.87	94.68	-94.32	13.88	2616250.88	222208.68	6.22	
1635.00	23.740	175.100	1621.32	107.19	-106.80	14.93	2616251.93	222196.20	4.41	
1666.00	25.220	175.230	1649.53	120.01	-119.60	16.01	2616253.01	222183.40	4.78	
1698.00	27.340	176.240	1678.22	134.16	-133.72	17.06	2616254.06	222169.28	6.77	
1730.00	29.630	177.060	1706.35	149.42	-148.96	17.95	2616254.95	222154.04	7.26	
1762.00	31.640	177.690	1733.88	165.72	-165.25	18.70	2616255.70	222137.75	6.36	
1793.00	33.400	177.830	1760.02	182.38	-181.90	19.35	2616256.35	222121.10	5.68	
1825.00	35.150	178.340	1786.46	200.40	-199.91	19.95	2616256.95	222103.09	5.54	
1857.00	37.020	178.950	1812.32	219.25	-218.75	20.39	2616257.39	222084.25	5.95	
1888.00	38.840	179.130	1836.77	238.30	-237.80	20.71	2616257.71	222065.20	5.88	
1920.00	40.380	179.330	1861.42	258.70	-258.20	20.98	2616257.98	222044.80	4.83	
1952.00	42.650	179.220	1885.38	279.91	-279.41	21.25	2616258.25	222023.59	7.10	
1984.00	44.580	179.140	1908.55	301.98	-301.48	21.57	2616258.57	222001.52	6.03	
2015.00	46.590	179.210	1930.24	324.12	-323.62	21.89	2616258.89	221979.38	6.49	
2047.00	49.020	179.370	1951.73	347.82	-347.32	22.18	2616259.18	221955.68	7.60	
2078.00	51.050	179.400	1971.64	371.58	-371.08	22.43	2616259.43	221931.92	6.55	
2110.00	53.660	179.480	1991.19	396.91	-396.42	22.68	2616259.68	221906.58	8.16	
2142.00	55.780	179.500	2009.67	423.02	-422.54	22.91	2616259.91	221880.46	6.63	
2173.00	58.340	179.870	2026.52	449.03	-448.55	23.06	2616260.06	221854.45	8.32	
2205.00	59.740	180.080	2042.98	476.46	-475.99	23.07	2616260.07	221827.01	4.41	
2236.00	59.730	179.820	2058.61	503.22	-502.76	23.09	2616260.09	221800.24	0.73	
2268.00	59.840	179.730	2074.71	530.87	-530.42	23.20	2616260.20	221772.58	0.42	



Actual Wellpath Report

BAKER HUGHES

Nemaha Oil and Gas Lampson 1A-23-32-9H (Nomac 23)_Final Surveys.

Page 3 of 5

REFERENCE WELLPATH IDENTIFICATION			
Operator	Nemaha Oil and Gas	Slot	Lampson 1A-23-32-9H (Nomac 23)
Area	Kansas	Well	SL (150 FNL, 495 FEL)
Field	Chautauqua County, KS	Wellbore	Lampson 1A-23-32-9H (Nomac 23) Actual
Facility	Lampson 1A-23-32-9H Sec 23-32S-9E		

WELLPATH DATA (126 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	DLS [°/100ft]	Comments
2300.00	59.810	179.570	2090.80	558.52	-558.08	23.37	2616260.37	221744.92	0.44	
2331.00	59.810	179.280	2106.39	585.31	-584.87	23.64	2616260.64	221718.13	0.81	
2363.00	59.780	178.890	2122.49	612.97	-612.53	24.08	2616261.08	221690.47	1.06	
2395.00	59.800	178.670	2138.59	640.62	-640.17	24.67	2616261.67	221662.83	0.60	
2426.00	59.870	178.500	2154.16	667.42	-666.97	25.33	2616262.33	221636.03	0.53	
2458.00	61.360	178.300	2169.87	695.30	-694.84	26.11	2616263.11	221608.16	4.69	
2490.00	63.270	178.220	2184.73	723.64	-723.16	26.97	2616263.97	221579.84	5.97	
2521.00	65.770	178.320	2198.07	751.62	-751.13	27.81	2616264.81	221551.87	8.07	
2553.00	67.810	178.240	2210.68	781.03	-780.53	28.70	2616265.70	221522.47	6.38	
2585.00	69.390	178.540	2222.35	810.82	-810.31	29.53	2616266.53	221492.69	5.01	
2616.00	71.550	178.500	2232.72	840.04	-839.51	30.29	2616267.29	221463.49	6.97	
2648.00	73.000	178.500	2242.46	870.52	-869.98	31.09	2616268.09	221433.02	4.53	
2680.00	74.190	178.190	2251.50	901.21	-900.67	31.97	2616268.97	221402.33	3.83	
2712.00	75.310	178.040	2259.91	932.09	-931.52	32.99	2616269.99	221371.48	3.53	
2743.00	76.360	177.940	2267.50	962.14	-961.56	34.04	2616271.04	221341.44	3.40	
2775.00	77.430	177.600	2274.75	993.31	-992.70	35.25	2616272.25	221310.30	3.50	
2807.00	78.910	177.340	2281.31	1024.62	-1023.99	36.64	2616273.64	221279.01	4.69	
2838.00	80.010	177.370	2286.98	1055.10	-1054.44	38.04	2616275.04	221248.56	3.55	
2870.00	81.530	177.250	2292.12	1086.67	-1085.99	39.53	2616276.53	221217.01	4.76	
2902.00	82.410	177.530	2296.59	1118.36	-1117.64	40.97	2616277.97	221185.36	2.88	
2933.00	83.020	176.770	2300.52	1149.10	-1148.35	42.50	2616279.50	221154.65	3.13	
2965.00	84.420	176.020	2304.02	1180.89	-1180.09	44.50	2616281.50	221122.91	4.96	
2996.00	85.990	175.510	2306.61	1211.75	-1210.90	46.78	2616283.78	221092.10	5.32	
3059.00	89.080	175.910	2309.32	1274.61	-1273.66	51.49	2616288.49	221029.34	4.95	
3123.00	88.830	175.090	2310.49	1338.52	-1337.45	56.51	2616293.51	220965.55	1.34	
3186.00	89.570	173.820	2311.37	1401.37	-1400.15	62.59	2616299.59	220902.85	2.33	
3249.00	89.850	173.140	2311.68	1464.14	-1462.74	69.75	2616306.75	220840.26	1.17	
3313.00	89.050	171.760	2312.30	1527.80	-1526.18	78.16	2616315.16	220776.82	2.49	
3376.00	88.340	171.340	2313.73	1590.34	-1588.48	87.41	2616324.41	220714.52	1.31	
3440.00	90.400	171.710	2314.44	1653.88	-1651.77	96.84	2616333.84	220651.23	3.27	
3503.00	93.020	174.550	2312.56	1716.58	-1714.28	104.37	2616341.37	220588.72	6.13	
3567.00	91.690	179.380	2309.93	1780.49	-1778.11	107.76	2616344.76	220524.89	7.82	
3630.00	90.340	182.310	2308.81	1843.41	-1841.09	106.83	2616343.83	220461.91	5.12	
3694.00	91.200	182.980	2307.95	1907.22	-1905.01	103.88	2616340.88	220397.99	1.70	
3757.00	89.510	182.340	2307.56	1970.04	-1967.94	100.95	2616337.95	220335.06	2.87	
3821.00	90.180	181.010	2307.73	2033.93	-2031.91	99.08	2616336.08	220271.09	2.33	
3884.00	89.350	180.920	2307.99	2096.86	-2094.90	98.02	2616335.02	220208.10	1.33	
3947.00	90.000	181.210	2308.35	2159.79	-2157.89	96.85	2616333.85	220145.11	1.13	
4011.00	89.540	180.610	2308.61	2223.73	-2221.88	95.83	2616332.83	220081.12	1.18	
4074.00	88.830	179.020	2309.50	2286.70	-2284.87	96.04	2616333.04	220018.13	2.76	
4137.00	90.430	178.220	2309.91	2349.69	-2347.85	97.55	2616334.55	219955.15	2.84	
4201.00	90.180	178.320	2309.57	2413.69	-2411.82	99.49	2616336.49	219891.18	0.42	
4264.00	89.260	177.630	2309.88	2476.69	-2474.78	101.71	2616338.71	219828.22	1.83	
4313.00	89.510	177.830	2310.40	2525.68	-2523.74	103.65	2616340.65	219779.26	0.65	
4348.00	89.380	177.270	2310.74	2560.68	-2558.70	105.15	2616342.15	219744.30	1.64	



Actual Wellpath Report

Nemaha Oil and Gas Lampson 1A-23-32-9H (Nomac 23)_Final Surveys.

REFERENCE WELLPATH IDENTIFICATION			
Operator	Nemaha Oil and Gas	Slot	Lampson 1A-23-32-9H (Nomac 23)
Area	Kansas	Well	SL (150 FNL, 495 FEL)
Field	Chautauqua County, KS	Wellbore	Lampson 1A-23-32-9H (Nomac 23) Actual
Facility	Lampson 1A-23-32-9H Sec 23-32S-9E		

WELLPATH DATA (126 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	DLS [°/100ft]	Comments
4407.00	89.350	176.660	2311.39	2619.66	-2617.62	108.27	2616345.27	219685.38	1.04	
4467.00	89.350	177.750	2312.08	2679.64	-2677.54	111.20	2616348.20	219625.46	1.82	
4526.00	89.350	179.800	2312.74	2738.63	-2736.52	112.46	2616349.46	219566.48	3.47	
4586.00	89.380	181.010	2313.41	2798.59	-2796.52	112.03	2616349.03	219506.49	2.02	
4647.00	89.410	181.740	2314.05	2859.50	-2857.49	110.57	2616347.57	219445.51	1.20	
4710.00	89.350	182.580	2314.74	2922.35	-2920.44	108.20	2616345.20	219382.56	1.34	
4773.00	89.320	182.590	2315.47	2985.18	-2983.38	105.36	2616342.36	219319.62	0.05	
4862.00	89.380	182.210	2316.48	3073.95	-3072.29	101.63	2616338.63	219230.71	0.43	
4925.00	89.480	182.470	2317.10	3136.79	-3135.24	99.06	2616336.06	219167.76	0.44	
4989.00	89.450	180.950	2317.70	3200.68	-3199.20	97.15	2616334.15	219103.80	2.38	
5052.00	89.380	179.690	2318.34	3263.63	-3262.20	96.80	2616333.80	219040.80	2.00	
5116.00	89.410	180.290	2319.02	3327.60	-3326.19	96.81	2616333.81	218976.81	0.94	
5179.00	89.450	180.930	2319.65	3390.55	-3389.19	96.14	2616333.14	218913.81	1.02	
5242.00	89.380	180.720	2320.29	3453.49	-3452.18	95.23	2616332.23	218850.82	0.35	
5305.00	89.080	179.590	2321.14	3516.45	-3515.17	95.06	2616332.06	218787.83	1.86	
5369.00	89.660	178.060	2321.84	3580.44	-3579.15	96.37	2616333.37	218723.85	2.56	
5433.00	89.450	178.600	2322.34	3644.44	-3643.12	98.24	2616335.24	218659.88	0.91	
5496.00	90.030	180.470	2322.62	3707.42	-3706.12	98.75	2616335.75	218596.89	3.11	
5559.00	89.480	180.940	2322.89	3770.37	-3769.11	97.97	2616334.97	218533.89	1.15	
5623.00	89.450	179.340	2323.49	3834.33	-3833.10	97.82	2616334.82	218469.90	2.50	
5686.00	89.450	179.070	2324.09	3897.32	-3896.10	98.69	2616335.69	218406.91	0.43	
5749.00	89.820	179.530	2324.50	3960.31	-3959.09	99.46	2616336.46	218343.91	0.94	
5812.00	89.820	178.650	2324.69	4023.30	-4022.08	100.46	2616337.46	218280.92	1.40	
5875.00	89.630	176.750	2325.00	4086.30	-4085.03	102.99	2616339.99	218217.97	3.03	
5939.00	90.060	176.380	2325.17	4150.26	-4148.91	106.82	2616343.82	218154.09	0.89	
6002.00	89.380	175.570	2325.48	4213.21	-4211.75	111.24	2616348.24	218091.25	1.68	
6065.00	89.540	176.780	2326.07	4276.16	-4274.61	115.45	2616352.45	218028.39	1.94	
6129.00	89.690	177.720	2326.50	4340.15	-4338.53	118.52	2616355.52	217964.47	1.49	
6192.00	89.540	177.650	2326.92	4403.14	-4401.48	121.06	2616358.06	217901.52	0.26	
6255.00	89.480	177.940	2327.46	4466.14	-4464.43	123.49	2616360.49	217838.57	0.47	
6319.00	89.720	178.360	2327.91	4530.13	-4528.40	125.55	2616362.55	217774.60	0.76	
6382.00	89.510	177.770	2328.33	4593.13	-4591.36	127.68	2616364.68	217711.64	0.99	
6444.00	91.970	177.530	2327.53	4655.12	-4653.30	130.22	2616367.22	217649.70	3.99	
6508.00	89.660	177.520	2326.62	4719.10	-4717.23	132.98	2616369.98	217585.78	3.61	
6559.00	89.750	176.590	2326.89	4770.08	-4768.16	135.60	2616372.60	217534.84	1.83	
6584.00	89.750	176.590	2326.99	4795.07	-4793.11	137.09	2616374.09	217509.89	0.00	Actual BHL 6584 MD (2327 TVD) 4795 VS X:2616374 Y:217510 339 FSL, 498 FEL



Actual Wellpath Report

Nemaha Oil and Gas Lampson 1A-23-32-9H (Nomac 23)_Final Surveys.

REFERENCE WELLPATH IDENTIFICATION			
Operator	Nemaha Oil and Gas	Slot	Lampson 1A-23-32-9H (Nomac 23)
Area	Kansas	Well	SL (150 FNL, 495 FEL)
Field	Chautauqua County, KS	Wellbore	Lampson 1A-23-32-9H (Nomac 23) Actual
Facility	Lampson 1A-23-32-9H Sec 23-32S-9E		

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Lampson 1A-23-32-9H PBHL 165 FSL 495 FEL Sec 23		2283.35	-4967.00	144.00	2616381.00	217336.00	37°14'39.578"N	96°22'56.733"W	point

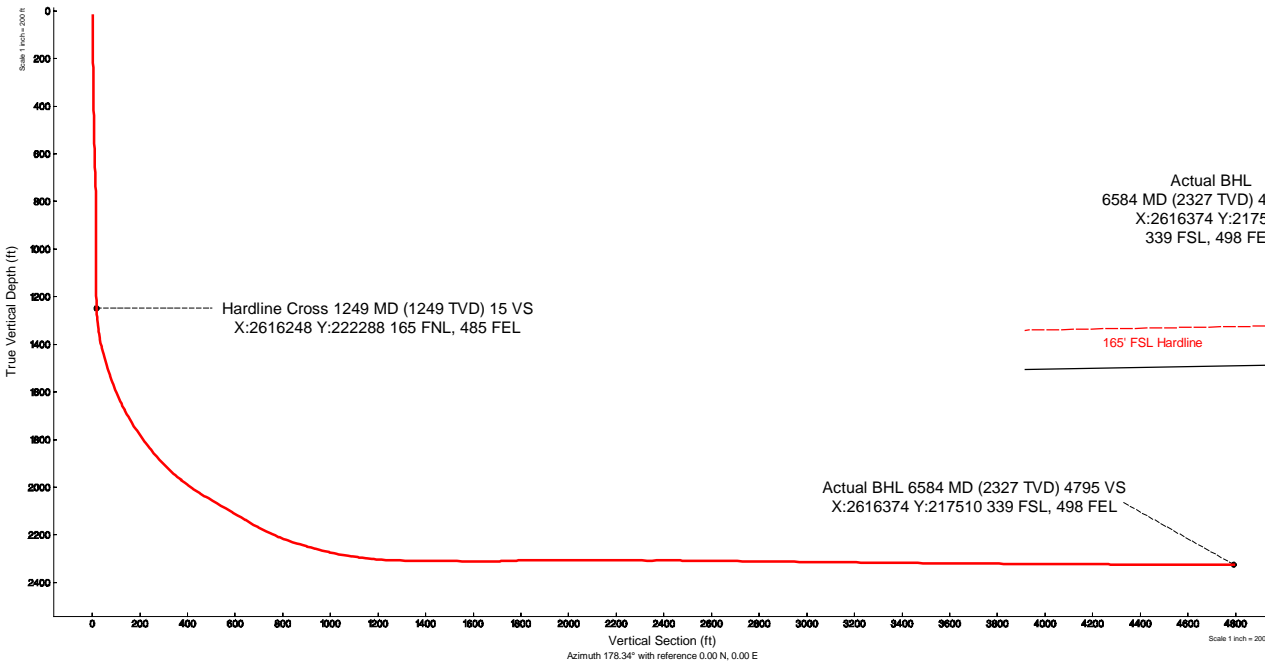
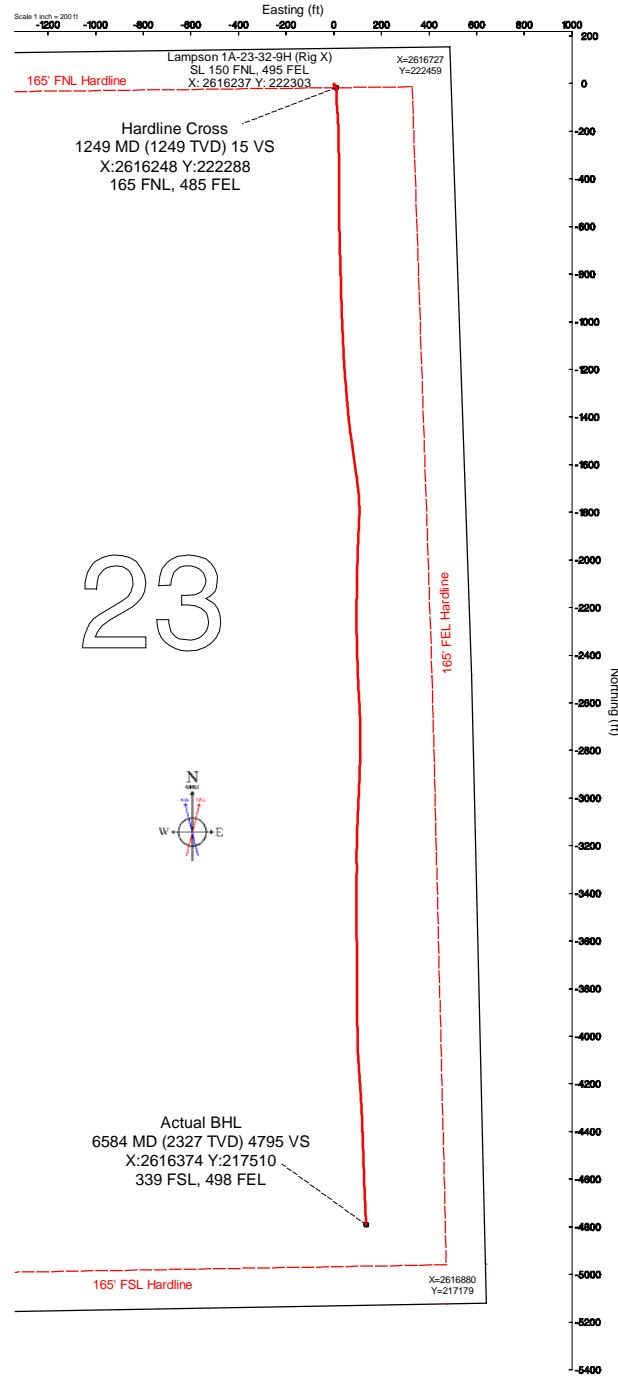
WELLPATH COMPOSITION - Ref Wellbore: Lampson 1A-23-32-9H (Nomac 23) Actual Ref Wellpath: AWP - Final					
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore	
16.00	6559.00	Autotrak Short (Magcorr)	INTEQ MWD	Lampson 1A-23-32-9H (Nomac 23) Actual	
6559.00	6584.00	Blind Drilling (std)	Projection to bit	Lampson 1A-23-32-9H (Nomac 23) Actual	

Nemaha Oil and Gas

Lampson 1A-23-32-9H (Nomac 23) (Final)
 Lampson 1A-23-32-9H (Nomac 23)
 Chautauqua County, KS

Plot reference wellpath is Plan 2		Grid System: NAD27 / Lambert Kansas SP, Southern Zone (1502), US feet				
True vertical depths are referenced to Nomac 23 (RKB)		North Reference: Grid north				
Measured depths are referenced to Nomac 23 (RKB)		Scale: True distance				
Nomac 23 (RKB) to Mean Sea Level: 1079 feet		Depths are in feet				
Mean Sea Level to Mud line (At Slot: Lampson 1A-23-32-9H (Nomac 23)): -1063 feet		Created by: fermikj on 3/7/2013				
Coordinates are in feet referenced to Slot						
Location Information						
Facility Name		Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	
Lampson 1A-23-32-9H Sec 23-32S-9E		2616237.000	222303.000	37°15'28.708"N	96°22'57.118"W	
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
Lampson 1A-23-32-9H (Nomac 23)	0.00	0.00	2616237.000	222303.000	37°15'28.708"N	96°22'57.118"W
Nomac 23 (RKB) to Mud line (At Slot: Lampson 1A-23-32-9H (Nomac 23))				16ft		
Mean Sea Level to Mud line (At Slot: Lampson 1A-23-32-9H (Nomac 23))				-1063ft		
Nomac 23 (RKB) to Mean Sea Level				1079ft		

Actual BHL
6584 MD (2327 TVD) 4795 VS
X:2616374 Y:217510
339 FSL, 498 FEL





Actual Wellpath Report

Nemaha Oil and Gas Lampson 1A-23-32-9H (Nomac 23)_Final Surveys.

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REFERENCE WELLPATH IDENTIFICATION

Operator	Nemaha Oil and Gas	Slot	Lampson 1A-23-32-9H (Nomac 23)
Area	Kansas	Well	SL (150 FNL, 495 FEL)
Field	Chautauqua County, KS	Wellbore	Lampson 1A-23-32-9H (Nomac 23) Actual
Facility	Lampson 1A-23-32-9H Sec 23-32S-9E		

REPORT SETUP INFORMATION

Projection System	NAD27 / Lambert Kansas SP, Southern Zone (1502), US feet		
North Reference	Grid	Software System	WellArchitect 3.0.0
Convergence at slot	1.30° East	User	Burnranj
Scale	1	Report Generated	3/25/2013 at 5:49:00 PM
Wellbore last revised	02-20-2013	Database/Source file	Oklahoma City

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	0.00	0.00	2616237.00	222303.00	37°15'28.708"N	96°22'57.118"W
Facility Reference Pt			2616237.00	222303.00	37°15'28.708"N	96°22'57.118"W
Field Reference Pt			2646856.10	192342.92	37°10'25.526"N	96°16'47.322"W

WELLPATH DATUM

Calculation method	Minimum curvature	Nomac 23 (RKB) to Facility Vertical Datum	16.00ft
Horizontal Reference Pt	Slot	Nomac 23 (RKB) to Mean Sea Level	1079.00ft
Vertical Reference Pt	Nomac 23 (RKB)	Nomac 23 (RKB) to Mud Line at Slot (Lampson 1A-23-32-9H (Nomac 23))	16.00ft
MD Reference Pt	Nomac 23 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	178.34°



Actual Wellpath Report

BAKER HUGHES

Nemaha Oil and Gas Lampson 1A-23-32-9H (Nomac 23)_Final Surveys.

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REFERENCE WELLPATH IDENTIFICATION				
Operator	Nemaha Oil and Gas		Slot	Lampson 1A-23-32-9H (Nomac 23)
Area	Kansas		Well	SL (150 FNL, 495 FEL)
Field	Chautauqua County, KS		Wellbore	Lampson 1A-23-32-9H (Nomac 23) Actual
Facility	Lampson 1A-23-32-9H Sec 23-32S-9E			

WELLPATH DATA (126 stations) = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	DLS [°/100ft]	Comments
0.00	0.000	143.120	0.00	0.00	0.00	0.00	2616237.00	222303.00	0.00	
16.00	0.000	143.120	16.00	0.00	0.00	0.00	2616237.00	222303.00	0.00	
780.00	2.310	143.120	779.79	12.58	-12.32	9.24	2616246.24	222290.68	0.30	
843.00	0.510	121.710	842.77	13.77	-13.48	10.24	2616247.24	222289.52	2.93	
907.00	0.320	250.180	906.77	13.98	-13.69	10.32	2616247.32	222289.31	1.18	
970.00	0.410	152.910	969.77	14.24	-13.95	10.25	2616247.25	222289.05	0.87	
1033.00	0.110	87.080	1032.77	14.44	-14.15	10.42	2616247.42	222288.85	0.60	
1097.00	0.130	8.380	1096.77	14.37	-14.07	10.49	2616247.49	222288.93	0.24	
1159.00	0.070	174.110	1158.77	14.34	-14.04	10.50	2616247.50	222288.96	0.32	
1190.00	0.060	126.000	1189.77	14.37	-14.07	10.52	2616247.52	222288.93	0.17	
1222.00	0.520	177.250	1221.77	14.52	-14.23	10.54	2616247.54	222288.77	1.51	
1249.00	2.148	178.183	1248.76	15.15	-14.85	10.56	2616247.56	222288.15	6.03	Hardline Cross 1249 MD (1249 TVD) 15 VS X:2616248 Y:222288 165 FNL, 485 FEL
1254.00	2.450	178.220	1253.76	15.35	-15.05	10.57	2616247.57	222287.95	6.03	
1285.00	4.650	178.160	1284.70	17.27	-16.97	10.63	2616247.63	222286.03	7.10	
1317.00	6.600	178.780	1316.54	20.41	-20.11	10.71	2616247.71	222282.89	6.10	
1349.00	8.870	179.310	1348.25	24.72	-24.41	10.78	2616247.78	222278.59	7.10	
1381.00	10.850	179.200	1379.77	30.19	-29.89	10.85	2616247.85	222273.11	6.19	
1412.00	13.180	178.560	1410.09	36.65	-36.34	10.98	2616247.98	222266.66	7.53	
1444.00	14.870	178.250	1441.14	44.40	-44.10	11.20	2616248.20	222258.90	5.29	
1476.00	16.740	178.330	1471.92	53.12	-52.81	11.46	2616248.46	222250.19	5.84	
1507.00	17.740	177.570	1501.53	62.30	-61.99	11.79	2616248.79	222241.01	3.31	
1539.00	18.810	176.700	1531.92	72.34	-72.01	12.29	2616249.29	222230.99	3.45	
1571.00	20.350	175.890	1562.07	83.05	-82.71	12.99	2616249.99	222220.29	4.89	
1603.00	22.330	175.290	1591.87	94.68	-94.32	13.88	2616250.88	222208.68	6.22	
1635.00	23.740	175.100	1621.32	107.19	-106.80	14.93	2616251.93	222196.20	4.41	
1666.00	25.220	175.230	1649.53	120.01	-119.60	16.01	2616253.01	222183.40	4.78	
1698.00	27.340	176.240	1678.22	134.16	-133.72	17.06	2616254.06	222169.28	6.77	
1730.00	29.630	177.060	1706.35	149.42	-148.96	17.95	2616254.95	222154.04	7.26	
1762.00	31.640	177.690	1733.88	165.72	-165.25	18.70	2616255.70	222137.75	6.36	
1793.00	33.400	177.830	1760.02	182.38	-181.90	19.35	2616256.35	222121.10	5.68	
1825.00	35.150	178.340	1786.46	200.40	-199.91	19.95	2616256.95	222103.09	5.54	
1857.00	37.020	178.950	1812.32	219.25	-218.75	20.39	2616257.39	222084.25	5.95	
1888.00	38.840	179.130	1836.77	238.30	-237.80	20.71	2616257.71	222065.20	5.88	
1920.00	40.380	179.330	1861.42	258.70	-258.20	20.98	2616257.98	222044.80	4.83	
1952.00	42.650	179.220	1885.38	279.91	-279.41	21.25	2616258.25	222023.59	7.10	
1984.00	44.580	179.140	1908.55	301.98	-301.48	21.57	2616258.57	222001.52	6.03	
2015.00	46.590	179.210	1930.24	324.12	-323.62	21.89	2616258.89	221979.38	6.49	
2047.00	49.020	179.370	1951.73	347.82	-347.32	22.18	2616259.18	221955.68	7.60	
2078.00	51.050	179.400	1971.64	371.58	-371.08	22.43	2616259.43	221931.92	6.55	
2110.00	53.660	179.480	1991.19	396.91	-396.42	22.68	2616259.68	221906.58	8.16	
2142.00	55.780	179.500	2009.67	423.02	-422.54	22.91	2616259.91	221880.46	6.63	
2173.00	58.340	179.870	2026.52	449.03	-448.55	23.06	2616260.06	221854.45	8.32	
2205.00	59.740	180.080	2042.98	476.46	-475.99	23.07	2616260.07	221827.01	4.41	
2236.00	59.730	179.820	2058.61	503.22	-502.76	23.09	2616260.09	221800.24	0.73	
2268.00	59.840	179.730	2074.71	530.87	-530.42	23.20	2616260.20	221772.58	0.42	



Actual Wellpath Report

BAKER HUGHES

Nemaha Oil and Gas Lampson 1A-23-32-9H (Nomac 23)_Final Surveys.

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REFERENCE WELLPATH IDENTIFICATION			
Operator	Nemaha Oil and Gas	Slot	Lampson 1A-23-32-9H (Nomac 23)
Area	Kansas	Well	SL (150 FNL, 495 FEL)
Field	Chautauqua County, KS	Wellbore	Lampson 1A-23-32-9H (Nomac 23) Actual
Facility	Lampson 1A-23-32-9H Sec 23-32S-9E		

WELLPATH DATA (126 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	DLS [°/100ft]	Comments
2300.00	59.810	179.570	2090.80	558.52	-558.08	23.37	2616260.37	221744.92	0.44	
2331.00	59.810	179.280	2106.39	585.31	-584.87	23.64	2616260.64	221718.13	0.81	
2363.00	59.780	178.890	2122.49	612.97	-612.53	24.08	2616261.08	221690.47	1.06	
2395.00	59.800	178.670	2138.59	640.62	-640.17	24.67	2616261.67	221662.83	0.60	
2426.00	59.870	178.500	2154.16	667.42	-666.97	25.33	2616262.33	221636.03	0.53	
2458.00	61.360	178.300	2169.87	695.30	-694.84	26.11	2616263.11	221608.16	4.69	
2490.00	63.270	178.220	2184.73	723.64	-723.16	26.97	2616263.97	221579.84	5.97	
2521.00	65.770	178.320	2198.07	751.62	-751.13	27.81	2616264.81	221551.87	8.07	
2553.00	67.810	178.240	2210.68	781.03	-780.53	28.70	2616265.70	221522.47	6.38	
2585.00	69.390	178.540	2222.35	810.82	-810.31	29.53	2616266.53	221492.69	5.01	
2616.00	71.550	178.500	2232.72	840.04	-839.51	30.29	2616267.29	221463.49	6.97	
2648.00	73.000	178.500	2242.46	870.52	-869.98	31.09	2616268.09	221433.02	4.53	
2680.00	74.190	178.190	2251.50	901.21	-900.67	31.97	2616268.97	221402.33	3.83	
2712.00	75.310	178.040	2259.91	932.09	-931.52	32.99	2616269.99	221371.48	3.53	
2743.00	76.360	177.940	2267.50	962.14	-961.56	34.04	2616271.04	221341.44	3.40	
2775.00	77.430	177.600	2274.75	993.31	-992.70	35.25	2616272.25	221310.30	3.50	
2807.00	78.910	177.340	2281.31	1024.62	-1023.99	36.64	2616273.64	221279.01	4.69	
2838.00	80.010	177.370	2286.98	1055.10	-1054.44	38.04	2616275.04	221248.56	3.55	
2870.00	81.530	177.250	2292.12	1086.67	-1085.99	39.53	2616276.53	221217.01	4.76	
2902.00	82.410	177.530	2296.59	1118.36	-1117.64	40.97	2616277.97	221185.36	2.88	
2933.00	83.020	176.770	2300.52	1149.10	-1148.35	42.50	2616279.50	221154.65	3.13	
2965.00	84.420	176.020	2304.02	1180.89	-1180.09	44.50	2616281.50	221122.91	4.96	
2996.00	85.990	175.510	2306.61	1211.75	-1210.90	46.78	2616283.78	221092.10	5.32	
3059.00	89.080	175.910	2309.32	1274.61	-1273.66	51.49	2616288.49	221029.34	4.95	
3123.00	88.830	175.090	2310.49	1338.52	-1337.45	56.51	2616293.51	220965.55	1.34	
3186.00	89.570	173.820	2311.37	1401.37	-1400.15	62.59	2616299.59	220902.85	2.33	
3249.00	89.850	173.140	2311.68	1464.14	-1462.74	69.75	2616306.75	220840.26	1.17	
3313.00	89.050	171.760	2312.30	1527.80	-1526.18	78.16	2616315.16	220776.82	2.49	
3376.00	88.340	171.340	2313.73	1590.34	-1588.48	87.41	2616324.41	220714.52	1.31	
3440.00	90.400	171.710	2314.44	1653.88	-1651.77	96.84	2616333.84	220651.23	3.27	
3503.00	93.020	174.550	2312.56	1716.58	-1714.28	104.37	2616341.37	220588.72	6.13	
3567.00	91.690	179.380	2309.93	1780.49	-1778.11	107.76	2616344.76	220524.89	7.82	
3630.00	90.340	182.310	2308.81	1843.41	-1841.09	106.83	2616343.83	220461.91	5.12	
3694.00	91.200	182.980	2307.95	1907.22	-1905.01	103.88	2616340.88	220397.99	1.70	
3757.00	89.510	182.340	2307.56	1970.04	-1967.94	100.95	2616337.95	220335.06	2.87	
3821.00	90.180	181.010	2307.73	2033.93	-2031.91	99.08	2616336.08	220271.09	2.33	
3884.00	89.350	180.920	2307.99	2096.86	-2094.90	98.02	2616335.02	220208.10	1.33	
3947.00	90.000	181.210	2308.35	2159.79	-2157.89	96.85	2616333.85	220145.11	1.13	
4011.00	89.540	180.610	2308.61	2223.73	-2221.88	95.83	2616332.83	220081.12	1.18	
4074.00	88.830	179.020	2309.50	2286.70	-2284.87	96.04	2616333.04	220018.13	2.76	
4137.00	90.430	178.220	2309.91	2349.69	-2347.85	97.55	2616334.55	219955.15	2.84	
4201.00	90.180	178.320	2309.57	2413.69	-2411.82	99.49	2616336.49	219891.18	0.42	
4264.00	89.260	177.630	2309.88	2476.69	-2474.78	101.71	2616338.71	219828.22	1.83	
4313.00	89.510	177.830	2310.40	2525.68	-2523.74	103.65	2616340.65	219779.26	0.65	
4348.00	89.380	177.270	2310.74	2560.68	-2558.70	105.15	2616342.15	219744.30	1.64	



Actual Wellpath Report

BAKER HUGHES

Nemaha Oil and Gas Lampson 1A-23-32-9H (Nomac 23)_Final Surveys.

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REFERENCE WELLPATH IDENTIFICATION				
Operator	Nemaha Oil and Gas		Slot	Lampson 1A-23-32-9H (Nomac 23)
Area	Kansas		Well	SL (150 FNL, 495 FEL)
Field	Chautauqua County, KS		Wellbore	Lampson 1A-23-32-9H (Nomac 23) Actual
Facility	Lampson 1A-23-32-9H Sec 23-32S-9E			

WELLPATH DATA (126 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	DLS [°/100ft]	Comments
4407.00	89.350	176.660	2311.39	2619.66	-2617.62	108.27	2616345.27	219685.38	1.04	
4467.00	89.350	177.750	2312.08	2679.64	-2677.54	111.20	2616348.20	219625.46	1.82	
4526.00	89.350	179.800	2312.74	2738.63	-2736.52	112.46	2616349.46	219566.48	3.47	
4586.00	89.380	181.010	2313.41	2798.59	-2796.52	112.03	2616349.03	219506.49	2.02	
4647.00	89.410	181.740	2314.05	2859.50	-2857.49	110.57	2616347.57	219445.51	1.20	
4710.00	89.350	182.580	2314.74	2922.35	-2920.44	108.20	2616345.20	219382.56	1.34	
4773.00	89.320	182.590	2315.47	2985.18	-2983.38	105.36	2616342.36	219319.62	0.05	
4862.00	89.380	182.210	2316.48	3073.95	-3072.29	101.63	2616338.63	219230.71	0.43	
4925.00	89.480	182.470	2317.10	3136.79	-3135.24	99.06	2616336.06	219167.76	0.44	
4989.00	89.450	180.950	2317.70	3200.68	-3199.20	97.15	2616334.15	219103.80	2.38	
5052.00	89.380	179.690	2318.34	3263.63	-3262.20	96.80	2616333.80	219040.80	2.00	
5116.00	89.410	180.290	2319.02	3327.60	-3326.19	96.81	2616333.81	218976.81	0.94	
5179.00	89.450	180.930	2319.65	3390.55	-3389.19	96.14	2616333.14	218913.81	1.02	
5242.00	89.380	180.720	2320.29	3453.49	-3452.18	95.23	2616332.23	218850.82	0.35	
5305.00	89.080	179.590	2321.14	3516.45	-3515.17	95.06	2616332.06	218787.83	1.86	
5369.00	89.660	178.060	2321.84	3580.44	-3579.15	96.37	2616333.37	218723.85	2.56	
5433.00	89.450	178.600	2322.34	3644.44	-3643.12	98.24	2616335.24	218659.88	0.91	
5496.00	90.030	180.470	2322.62	3707.42	-3706.12	98.75	2616335.75	218596.89	3.11	
5559.00	89.480	180.940	2322.89	3770.37	-3769.11	97.97	2616334.97	218533.89	1.15	
5623.00	89.450	179.340	2323.49	3834.33	-3833.10	97.82	2616334.82	218469.90	2.50	
5686.00	89.450	179.070	2324.09	3897.32	-3896.10	98.69	2616335.69	218406.91	0.43	
5749.00	89.820	179.530	2324.50	3960.31	-3959.09	99.46	2616336.46	218343.91	0.94	
5812.00	89.820	178.650	2324.69	4023.30	-4022.08	100.46	2616337.46	218280.92	1.40	
5875.00	89.630	176.750	2325.00	4086.30	-4085.03	102.99	2616339.99	218217.97	3.03	
5939.00	90.060	176.380	2325.17	4150.26	-4148.91	106.82	2616343.82	218154.09	0.89	
6002.00	89.380	175.570	2325.48	4213.21	-4211.75	111.24	2616348.24	218091.25	1.68	
6065.00	89.540	176.780	2326.07	4276.16	-4274.61	115.45	2616352.45	218028.39	1.94	
6129.00	89.690	177.720	2326.50	4340.15	-4338.53	118.52	2616355.52	217964.47	1.49	
6192.00	89.540	177.650	2326.92	4403.14	-4401.48	121.06	2616358.06	217901.52	0.26	
6255.00	89.480	177.940	2327.46	4466.14	-4464.43	123.49	2616360.49	217838.57	0.47	
6319.00	89.720	178.360	2327.91	4530.13	-4528.40	125.55	2616362.55	217774.60	0.76	
6382.00	89.510	177.770	2328.33	4593.13	-4591.36	127.68	2616364.68	217711.64	0.99	
6444.00	91.970	177.530	2327.53	4655.12	-4653.30	130.22	2616367.22	217649.70	3.99	
6508.00	89.660	177.520	2326.62	4719.10	-4717.23	132.98	2616369.98	217585.78	3.61	
6559.00	89.750	176.590	2326.89	4770.08	-4768.16	135.60	2616372.60	217534.84	1.83	
6584.00	89.750	176.590	2326.99	4795.07	-4793.11	137.09	2616374.09	217509.89	0.00	Actual BHL 6584 MD (2327 TVD) 4795 VS X:2616374 Y:217510 339 FSL, 498 FEL



Actual Wellpath Report

Nemaha Oil and Gas Lampson 1A-23-32-9H (Nomac 23)_Final Surveys.

REFERENCE WELLPATH IDENTIFICATION			
Operator	Nemaha Oil and Gas	Slot	Lampson 1A-23-32-9H (Nomac 23)
Area	Kansas	Well	SL (150 FNL, 495 FEL)
Field	Chautauqua County, KS	Wellbore	Lampson 1A-23-32-9H (Nomac 23) Actual
Facility	Lampson 1A-23-32-9H Sec 23-32S-9E		

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Lampson 1A-23-32-9H PBHL 165 FSL 495 FEL Sec 23		2283.35	-4967.00	144.00	2616381.00	217336.00	37°14'39.578"N	96°22'56.733"W	point

WELLPATH COMPOSITION - Ref Wellbore: Lampson 1A-23-32-9H (Nomac 23) Actual Ref Wellpath: AWP - Final					
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore	
16.00	6559.00	Autotrak Short (Magcorr)	INTEQ MWD	Lampson 1A-23-32-9H (Nomac 23) Actual	
6559.00	6584.00	Blind Drilling (std)	Projection to bit	Lampson 1A-23-32-9H (Nomac 23) Actual	