

Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1247142
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: _____

1247142

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: <input type="checkbox"/> Yes <input type="checkbox"/> No
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Date of First, Resumed Production, SWD or ENHR.	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____
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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> _____	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	SandRidge Exploration and Production LLC
Well Name	Theis W 3525 01-8H
Doc ID	1247142

Tops

Name	Top	Datum
Base Anhydrite	2526	
Base Heebner Shale Marker	4640	
Top Lansing Limestone Group	4796	
Top Cherokee Shale Marker (OK)	5796	
Top Fort Scott Limestone	5802	
Top Cherokee Shale Marker (KS)	5823	
Top Morrow Unconformity	6322	
Top Upper Mississippi Chester Unconformity	6423	



INVOICE

DATE	INVOICE #
12/5/2014	5322

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

REMIT TO
EDGE SERVICES, INC. PO BOX 609 WOODWARD, OK 73802

COUNTY	Start Date	End Date	Work Order	Rig Number	LEASE NAME	Terms
CLARK, KS	12/4/2014		3875	NOMAC 52	THEIS W 3525 1-8H	Due on rec...

Description

DRILLED 120' OF 30" CONDUCTOR HOLE
 DRILLED 6' OF 76" HOLE
 FURNISHED AND SET 6' X 6' TINHORN CELLAR
 FURNISHED 120' OF 20" CONDUCTOR PIPE
 FURNISHED MUD, WATER, AND TRUCKING
 FURNISHED WELDER AND MATERIALS
 FURNISHED 12 YARDS OF 10 SACK GROUT FOR CONDUCTOR HOLE
 FURNISHED 4 YARDS OF 10 SACK GROUT FOR MOUSE HOLE
 FURNISHED GROUT PUMP
 DRILL MOUSE HOLE
 FURNISHED 50' OF 16" CONDUCTOR PIPE

TOTAL BID \$23,000.00

AFE Number: DC 14342
 Well Name: Theis W 3525 1-8H
 Code: 850.010
 Amount: \$23,289.79
 Co. Man: Becky Smith for John Fortune
 Co. Man Sig.: _____
 Notes: _____

Sales Tax (6.15%) \$289.79

TOTAL \$23,289.79



SandRidge Energy
Theis W#3525 1-8H
Harper County, KS.

1.0 Executive Summary

Allied Oil & Gas Services would like to thank you, for the award of the provision of cementing products and services on the well Theis W #3525 1-8H Surface Casing.

A pre-job meeting was held to discuss job details, review the safety hazards, potential environmental impact and established emergency procedures.

Allied started the job testing lines to 2000 psi. After a successful test we began the job by pumping 20 Bbls bbls of StopLoss Spacer . We then mixed and pumped the following cements:

105.5 Bbls (320 sacks) of 13.2 ppg Lead slurry
Class A Yield 1.85
2% Gypseal
2% SMS
2% CC
¼# Floseal

45 Bbls (185 sacks) of Tail slurry
Class A Yield 1.37
2% CC
2% Gel
¼# Floseal

The top plug was then released and displaced with 61 Bbls of fresh water. The plug bumped and pressured up to 680 psi. Pressure was released and floats held. Cement did not circulate to surface. The rig waited 6 Hours then a temperature survey was ran, Top of cement @ 470' 220' 1" tubing ran in hole, in eleven attempts of mixing cement of various quantities, an additional 1350 sacks Class A + 3% cc top out cement was pumped, cement did circulate to surface.

All real time data is shown on the graph in the attachment section.

Allied Oil & Gas Services remains committed to provide operational excellence and superior product performance. All comments and suggestions are greatly appreciated and help us to continue to provide this level of service.

Again we want to thank you for the opportunity to perform these and your future cementing & acidizing service needs.



SandRidge Energy
Theis #3525 1-8H
Clark County, KS.

1.0 Executive Summary

Allied Oil & Gas Services would like to thank you, for the award of the provision of cementing products and services on the well Theis #3525 1-8H Casing.

A pre-job meeting was held to discuss job details, review the safety hazards, potential environmental impact and established emergency procedures.

Allied started the job testing lines to 3500 psi. After a successful test we began the job by pumping 30 bbls of preflush spacer. We then mixed and pumped the following cements:

63.5 Bbls (255 sacks) of 13.6 ppg Lead slurry:
50:50 Class A:Poz Blend - 1.4 Yield
2.0% Gel
0.4% FL-160
0.1% SA-51

11 Bbls (50 sacks) of 15.6 ppg Tail slurry:
Class A - 1.18 Yield
0.8% FL-160
0.2% CD-31

While mixing tail cement Allied encountered problems with cement pump, pumps were stopped and the plug was then released, Moved iron back to rig, and displaced and bumped plug 500 psi over lift pressure, pressure was released and floats held.

All real time data is shown on the graph in the attachment section.

Allied Oil & Gas Services remains committed to provide operational excellence and superior product performance. All comments and suggestions are greatly appreciated and help us to continue to provide this level of service.

Again we want to thank you for the opportunity to perform these and your future cementing & acidizing service needs.

STAGE 1								
Port @ 10,725 '								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	500	12					0.6
Low pH SW	96	13800	329					3.4
Low pH SW	96	14400	343	40/70	0.25	Genoa	3600	3.6
Low pH SW	96	7200	171					1.8
Low pH SW	96	14200	338	40/70	0.50	Genoa	7100	3.5
Low pH SW	96	7100	169					1.8
Low pH SW	96	14133	337	40/70	0.75	Genoa	10600	3.5
Low pH SW	96	7067	168					1.8
Low pH SW	96	14100	336	40/70	1.00	Genoa	14100	3.5
Slickwater	96	15701	374					3.9
TOTAL		108,201	2,576				35,400	27.3

Frac the MISSISSIPPI (Chester) (Stage 2) as follows:
 Drop 2.313" ball. Reduce rate to 5-10bpm as +/- 270 bbls (50 bbls before ball seats).
 320.3 bbls to sleeve

STAGE 2								
Port @ 10,495 '								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	500	12					0.6
Low pH SW	96	11300	268					2.8
Low pH SW	96	11600	276	40/70	0.25	Genoa	2900	2.9
Low pH SW	96	5800	138					1.4
Low pH SW	96	11600	276	40/70	0.50	Genoa	5800	2.9
Low pH SW	96	5800	138					1.4
Low pH SW	96	11600	276	40/70	0.75	Genoa	8700	2.9
Low pH SW	96	5800	138					1.4
Low pH SW	96	11500	274	40/70	1.00	Genoa	11500	2.9
Slickwater	96	15551	370					3.9
TOTAL		91,051	2,166				28,900	23.0

Frac the MISSISSIPPI (Chester) (Stage 3) as follows:
 Drop 2.375" ball. Reduce rate to 5-10bpm as +/- 268 bbls (50 bbls before ball seats).
 318.0

STAGE 3								
Port @ 10,351 '								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	500	12					0.6
Low pH SW	96	15000	357					3.7
Low pH SW	96	15600	371	40/70	0.25	Genoa	3900	3.9
Low pH SW	96	7800	186					1.9
Low pH SW	96	15400	367	40/70	0.50	Genoa	7700	3.8
Low pH SW	96	7700	183					1.9
Low pH SW	96	15333	365	40/70	0.75	Genoa	11500	3.8
Low pH SW	96	7667	183					1.9
Low pH SW	96	15400	367	40/70	1.00	Genoa	15400	3.8
Slickwater	96	15457	368					3.8
TOTAL		115,857	2,758				38,500	29.2

Frac the MISSISSIPPI (Chester) (Stage 4) as follows:
 Drop 2.438" ball. Reduce rate to 5-10bpm as +/- 264 bbls (50 bbls before ball seats).
 314.4

STAGE 4								
Port @ 10,120 '								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	500	12					0.6
Low pH SW	96	17900	424					4.4
Low pH SW	96	18400	438	40/70	0.25	Genoa	4600	4.6
Low pH SW	96	9200	219					2.3
Low pH SW	96	18400	438	40/70	0.50	Genoa	9200	4.6
Low pH SW	96	9200	219					2.3
Low pH SW	96	18267	435	40/70	0.75	Genoa	13700	4.5
Low pH SW	96	9133	217					2.3
Low pH SW	96	18300	436	40/70	1.00	Genoa	18300	4.5
Slickwater	96	15306	364					3.8
TOTAL		134,606	3,203				45,800	33.8

Frac the MISSISSIPPI (Chester) (Stage 5) as follows:
 Drop 2.500" ball. Reduce rate to 5-10bpm as +/- 261 bbls (50 bbls before ball seats).
 311.6

STAGE 5								
Port @ 9,938 '								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	500	12					0.6
Low pH SW	96	13900	329					3.4
Low pH SW	96	14400	343	40/70	0.25	Genoa	3600	3.6
Low pH SW	96	7200	171					1.8
Low pH SW	96	14200	338	40/70	0.50	Genoa	7100	3.5
Low pH SW	96	7100	169					1.8
Low pH SW	96	14133	337	40/70	0.75	Genoa	10600	3.5
Low pH SW	96	7067	168					1.8
Low pH SW	96	14200	338	40/70	1.00	Genoa	14200	3.5
Slickwater	96	15188	362					3.8
TOTAL		107,888	2,567				35,500	27.2

Frac the MISSISSIPPI (Chester) (Stage 6) as follows:
 Drop 2.563" ball. Reduce rate to 5-10bpm as +/- 259 bbls (50 bbls before ball seats).
 309.5

STAGE 6								
Port @ 9,800 '								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	500	12					0.6
Low pH SW	96	11300	267					2.8
Low pH SW	96	11600	276	40/70	0.25	Genoa	2900	2.9
Low pH SW	96	5800	138					1.4
Low pH SW	96	11600	276	40/70	0.50	Genoa	5800	2.9
Low pH SW	96	5800	138					1.4
Low pH SW	96	11467	273	40/70	0.75	Genoa	8600	2.8
Low pH SW	96	5733	137					1.4
Low pH SW	96	11500	274	40/70	1.00	Genoa	11500	2.9
Slickwater	96	15098	359					3.7
TOTAL		90,398	2,150				28,800	22.9

Frac the MISSISSIPPI (Chester) (Stage 7) as follows:
 Drop 2.625" ball. Reduce rate to 5-10bpm as +/- 256 bbls (50 bbls before ball seats).
 306.7

STAGE 7								
Port @ 9,618 '								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	500	12					0.6
Low pH SW	96	10500	249					2.6
Low pH SW	96	10800	257	40/70	0.25	Genoa	2700	2.7
Low pH SW	96	5400	129					1.3
Low pH SW	96	10800	257	40/70	0.50	Genoa	5400	2.7
Low pH SW	96	5400	129					1.3
Low pH SW	96	10800	257	40/70	0.75	Genoa	8100	2.7
Low pH SW	96	5400	129					1.3
Low pH SW	96	10700	255	40/70	1.00	Genoa	10700	2.7
Slickwater	96	14980	357					3.7
TOTAL		85,280	2,030				26,900	21.6

Frac the MISSISSIPPI (Chester) (Stage 8) as follows:
 Drop 2.688" ball. Reduce rate to 5-10bpm as +/- 253 bbls (50 bbls before ball seats).
 303.7

STAGE 8								
Port @ 9,430 '								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	500	12					0.6
Low pH SW	96	18300	434					4.5
Low pH SW	96	18800	448	40/70	0.25	Genoa	4700	4.7
Low pH SW	96	9400	224					2.3
Low pH SW	96	18800	448	40/70	0.50	Genoa	9400	4.7
Low pH SW	96	9400	224					2.3
Low pH SW	96	18800	448	40/70	0.75	Genoa	14100	4.7
Low pH SW	96	9400	224					2.3
Low pH SW	96	18800	448	40/70	1.00	Genoa	18800	4.7
Slickwater	96	14857	354					3.7
TOTAL		137,057	3,262				47,000	34.5

Frac the MISSISSIPPI (Chester) (Stage 9) as follows:
 Drop 2.750" ball. Reduce rate to 5-10bpm as +/- 250 bbls (50 bbls before ball seats).
 301.0

STAGE 9								
Port @ 9,250 '								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	500	12					0.6
Low pH SW	96	10800	256					2.7
Low pH SW	96	11200	267	40/70	0.25	Genoa	2800	2.8
Low pH SW	96	5600	133					1.4
Low pH SW	96	11000	262	40/70	0.50	Genoa	5500	2.7
Low pH SW	96	5500	131					1.4
Low pH SW	96	11067	263	40/70	0.75	Genoa	8300	2.7
Low pH SW	96	5533	132					1.4
Low pH SW	96	11000	262	40/70	1.00	Genoa	11000	2.7
Slickwater	96	14740	351					3.7
TOTAL		86,940	2,069				27,600	22.0

Frac the MISSISSIPPI (Chester) (Stage 10) as follows:
 Drop 2.813" ball. Reduce rate to 5-10bpm as +/- 248 bbls (50 bbls before ball seats).
 298.7

STAGE 10								
Port @ 9,106 '								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	500	12					0.6
Low pH SW	96	10700	255					2.7
Low pH SW	96	11200	267	40/70	0.25	Genoa	2800	2.8
Low pH SW	96	5600	133					1.4
Low pH SW	96	11000	262	40/70	0.50	Genoa	5500	2.7
Low pH SW	96	5500	131					1.4
Low pH SW	96	10933	260	40/70	0.75	Genoa	8200	2.7
Low pH SW	96	5467	130					1.4
Low pH SW	96	10900	260	40/70	1.00	Genoa	10900	2.7
Slickwater	96	14647	349					3.6
TOTAL		86,447	2,058				27,400	21.9

Frac the MISSISSIPPI (Chester) (Stage 11) as follows:
 Drop 2.875" ball. Reduce rate to 5-10bpm as +/- 246 bbls (50 bbls before ball seats).
 296.6

STAGE 11								
Port @ 8,970 '								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	500	12					0.6
Low pH SW	96	11500	274					2.8
Low pH SW	96	12000	286	40/70	0.25	Genoa	3000	3.0
Low pH SW	96	6000	143					1.5
Low pH SW	96	11800	281	40/70	0.50	Genoa	5900	2.9
Low pH SW	96	5900	140					1.5
Low pH SW	96	11733	279	40/70	0.75	Genoa	8800	2.9
Low pH SW	96	5867	140					1.5
Low pH SW	96	11800	281	40/70	1.00	Genoa	11800	2.9
Slickwater	96	14558	347					3.6
TOTAL		91,658	2,182				29,500	23.2

Frac the MISSISSIPPI (Chester) (Stage 12) as follows:
 Drop 2.938" ball. Reduce rate to 5-10bpm as +/- 244 bbls (50 bbls before ball seats).
 294.4

STAGE 12								
Port @ 8,827 '								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	500	12					0.6
Low pH SW	96	11100	264					2.8
Low pH SW	96	11600	276	40/70	0.25	Genoa	2900	2.9
Low pH SW	96	5800	138					1.4
Low pH SW	96	11400	271	40/70	0.50	Genoa	5700	2.8
Low pH SW	96	5700	136					1.4
Low pH SW	96	11333	270	40/70	0.75	Genoa	8500	2.8
Low pH SW	96	5667	135					1.4
Low pH SW	96	11400	271	40/70	1.00	Genoa	11400	2.8
Slickwater	96	14465	344					3.6
TOTAL		88,965	2,118				28,500	22.5

Frac the MISSISSIPPI (Chester) (Stage 13) as follows:
 Drop 3.000" ball. Reduce rate to 5-10bpm as +/- 242 bbls (50 bbls before ball seats).
 292.3

STAGE 13								
Port @ 8,688 '								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	500	12					0.6
Low pH SW	96	14400	342					3.6
Low pH SW	96	14800	352	40/70	0.25	Genoa	3700	3.7
Low pH SW	96	7400	176					1.8
Low pH SW	96	14800	352	40/70	0.50	Genoa	7400	3.7
Low pH SW	96	7400	176					1.8
Low pH SW	96	14800	352	40/70	0.75	Genoa	11100	3.7
Low pH SW	96	7400	176					1.8
Low pH SW	96	14800	352	40/70	1.00	Genoa	14800	3.7
Slickwater	96	14375	342					3.6
TOTAL		110,675	2,634				37,000	27.9

Frac the MISSISSIPPI (Chester) (Stage 14) as follows:
 Drop 3.063" ball. Reduce rate to 5-10bpm as +/- 239 bbls (50 bbls before ball seats).
 289.4

STAGE 14								
Port @ 8,502 '								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	500	12					0.6
Low pH SW	96	11100	264					2.7
Low pH SW	96	11600	276	40/70	0.25	Genoa	2900	2.9
Low pH SW	96	5800	138					1.4
Low pH SW	96	11400	271	40/70	0.50	Genoa	5700	2.8
Low pH SW	96	5700	136					1.4
Low pH SW	96	11333	270	40/70	0.75	Genoa	8500	2.8
Low pH SW	96	5667	135					1.4
Low pH SW	96	11300	269	40/70	1.00	Genoa	11300	2.8
Slickwater	96	14253	339					3.5
TOTAL		88,653	2,110				28,400	22.5

Frac the MISSISSIPPI (Chester) (Stage 15) as follows:
 Drop 3.125" ball. Reduce rate to 5-10bpm as +/- 237 bbls (50 bbls before ball seats).
 287.8

STAGE 15								
Port @ 8,401 '								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	500	12					0.6
Low pH SW	96	8000	190					2.0
Low pH SW	96	8400	200	40/70	0.25	Genoa	2100	2.1
Low pH SW	96	4200	100					1.0
Low pH SW	96	8200	195	40/70	0.50	Genoa	4100	2.0
Low pH SW	96	4100	98					1.0
Low pH SW	96	8133	194	40/70	0.75	Genoa	6100	2.0
Low pH SW	96	4067	97					1.0
Low pH SW	96	8100	193	40/70	1.00	Genoa	8100	2.0
Slickwater	96	14188	338					3.5
TOTAL		67,888	1,616				20,400	17.3



Frac the MISSISSIPPI (Chester) (Stage 16) as follows:
 Drop 3.188" ball. Reduce rate to 5-10bpm as +/- 235 bbls (50 bbls before ball seats).
 285.5

STAGE 16								
Port @ 8,255'								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	500	12					0.6
Low pH SW	96	11500	274					2.8
Low pH SW	96	12000	286	40/70	0.25	Genoa	3000	3.0
Low pH SW	96	6000	143					1.5
Low pH SW	96	11800	281	40/70	0.50	Genoa	5900	2.9
Low pH SW	96	5900	140					1.5
Low pH SW	96	11733	279	40/70	0.75	Genoa	8800	2.9
Low pH SW	96	5867	140					1.5
Low pH SW	96	11800	281	40/70	1.00	Genoa	11800	2.9
Slickwater	96	14092	336					3.5
TOTAL		91,192	2,171				29,500	23.1

Frac the MISSISSIPPI (Chester) (Stage 17) as follows:
 Drop 3.250" ball. Reduce rate to 5-10bpm as +/- 233 bbls (50 bbls before ball seats).
 283.5

STAGE 17								
Port @ 8,124'								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	500	12					0.6
Low pH SW	96	10400	246					2.6
Low pH SW	96	10800	257	40/70	0.25	Genoa	2700	2.7
Low pH SW	96	5400	129					1.3
Low pH SW	96	10600	252	40/70	0.50	Genoa	5300	2.6
Low pH SW	96	5300	126					1.3
Low pH SW	96	10533	251	40/70	0.75	Genoa	7900	2.6
Low pH SW	96	5267	125					1.3
Low pH SW	96	10600	252	40/70	1.00	Genoa	10600	2.6
Slickwater	96	14007	334					3.5
TOTAL		83,407	1,984				26,500	21.1

Frac the MISSISSIPPI (Chester) (Stage 18) as follows:
 Drop 3.313" ball. Reduce rate to 5-10bpm as +/- 231 bbls (50 bbls before ball seats).
 281.4

STAGE 18								
Port @ 7,987'								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	500	12					0.6
Low pH SW	96	10800	256					2.7
Low pH SW	96	11200	267	40/70	0.25	Genoa	2800	2.8
Low pH SW	96	5600	133					1.4
Low pH SW	96	11000	262	40/70	0.50	Genoa	5500	2.7
Low pH SW	96	5500	131					1.4
Low pH SW	96	11067	263	40/70	0.75	Genoa	8300	2.7
Low pH SW	96	5533	132					1.4
Low pH SW	96	11000	262	40/70	1.00	Genoa	11000	2.7
Slickwater	96	13918	331					3.5
TOTAL		86,118	2,049				27,600	21.8

Frac the MISSISSIPPI (Chester) (Stage 19) as follows:
 Drop 3.375" ball. Reduce rate to 5-10bpm as +/- 229 bbls (50 bbls before ball seats).
 279.3

STAGE 19								
Port @ 7,850 '								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	500	12					0.6
Low pH SW	96	10800	255					2.7
Low pH SW	96	11200	267	40/70	0.25	Genoa	2800	2.8
Low pH SW	96	5600	133					1.4
Low pH SW	96	11000	262	40/70	0.50	Genoa	5500	2.7
Low pH SW	96	5500	131					1.4
Low pH SW	96	10933	260	40/70	0.75	Genoa	8200	2.7
Low pH SW	96	5467	130					1.4
Low pH SW	96	11000	262	40/70	1.00	Genoa	11000	2.7
Slickwater	96	13829	329					3.4
TOTAL		85,829	2,041				27,500	21.7

Frac the MISSISSIPPI (Chester) (Stage 20) as follows:
 Drop 3.438" ball. Reduce rate to 5-10bpm as +/- 227 bbls (50 bbls before ball seats).
 277.1

STAGE 20								
Port @ 7,710 '								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	500	12					0.6
Low pH SW	96	10900	258					2.7
Low pH SW	96	11200	267	40/70	0.25	Genoa	2800	2.8
Low pH SW	96	5600	133					1.4
Low pH SW	96	11200	267	40/70	0.50	Genoa	5600	2.8
Low pH SW	96	5600	133					1.4
Low pH SW	96	11067	263	40/70	0.75	Genoa	8300	2.7
Low pH SW	96	5533	132					1.4
Low pH SW	96	11100	264	40/70	1.00	Genoa	11100	2.8
Slickwater	96	13738	327					3.4
TOTAL		86,438	2,056				27,800	21.9

Frac the MISSISSIPPI (Chester) (Stage 21) as follows:
 Drop 3.500" ball. Reduce rate to 5-10bpm as +/- 224 bbls (50 bbls before ball seats).
 275.0

STAGE 21								
Port @ 7,575 '								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	500	12					0.6
Low pH SW	96	10800	256					2.7
Low pH SW	96	11200	267	40/70	0.25	Genoa	2800	2.8
Low pH SW	96	5600	133					1.4
Low pH SW	96	11000	262	40/70	0.50	Genoa	5500	2.7
Low pH SW	96	5500	131					1.4
Low pH SW	96	11067	263	40/70	0.75	Genoa	8300	2.7
Low pH SW	96	5533	132					1.4
Low pH SW	96	11000	262	40/70	1.00	Genoa	11000	2.7
Slickwater	96	13650	325					3.4
TOTAL		85,850	2,043				27,600	21.8



Frac the MISSISSIPPI (Chester) (Stage 22) as follows:
 Drop 3.563" ball. Reduce rate to 5-10bpm as +/- 222 bbls (50 bbls before ball seats).
 272.8

STAGE 22								
Port @ 7,433 '								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	500	12					0.6
Low pH SW	96	11100	264					2.8
Low pH SW	96	11600	276	40/70	0.25	Genoa	2900	2.9
Low pH SW	96	5800	138					1.4
Low pH SW	96	11400	271	40/70	0.50	Genoa	5700	2.8
Low pH SW	96	5700	136					1.4
Low pH SW	96	11333	270	40/70	0.75	Genoa	8500	2.8
Low pH SW	96	5667	135					1.4
Low pH SW	96	11400	271	40/70	1.00	Genoa	11400	2.8
Slickwater	96	13558	323					3.4
TOTAL		88,058	2,097				28,500	22.3

Frac the MISSISSIPPI (Chester) (Stage 23) as follows:
 Drop 3.625" ball. Reduce rate to 5-10bpm as +/- 220 bbls (50 bbls before ball seats).
 270.6

STAGE 23								
Port @ 7,289 '								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	500	12					0.6
Low pH SW	96	11300	268					2.8
Low pH SW	96	11600	276	40/70	0.25	Genoa	2900	2.9
Low pH SW	96	5800	138					1.4
Low pH SW	96	11600	276	40/70	0.50	Genoa	5800	2.9
Low pH SW	96	5800	138					1.4
Low pH SW	96	11600	276	40/70	0.75	Genoa	8700	2.9
Low pH SW	96	5800	138					1.4
Low pH SW	96	11600	276	40/70	1.00	Genoa	11600	2.9
Slickwater	96	13464	321					3.3
TOTAL		89,064	2,120				29,000	22.6

Frac the MISSISSIPPI (Chester) (Stage 24) as follows:
 Drop 3.688" ball. Reduce rate to 5-10bpm as +/- 219 bbls (50 bbls before ball seats).
 269.0

STAGE 24								
Port @ 7,188 '								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	500	12					0.6
Low pH SW	96	7700	182					1.9
Low pH SW	96	8000	190	40/70	0.25	Genoa	2000	2.0
Low pH SW	96	4000	95					1.0
Low pH SW	96	7800	186	40/70	0.50	Genoa	3900	1.9
Low pH SW	96	3900	93					1.0
Low pH SW	96	7867	187	40/70	0.75	Genoa	5900	2.0
Low pH SW	96	3933	94					1.0
Low pH SW	96	7800	186	40/70	1.00	Genoa	7800	1.9
Slickwater	96	13398	319					3.3
TOTAL		64,898	1,544				19,600	16.6



AFE #: DC14342

Frac the MISSISSIPPI (Chester) (Stage 25) as follows:
 Drop 3,750" ball. Reduce rate to 5-10bpm as +/- 217 bbls (50 bbls before ball seats).
 267.5

STAGE 25								
Port @ 7,092'								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	500	12					0.6
Low pH SW	96	10000	237					2.5
Low pH SW	96	10400	248	40/70	0.25	Genoa	2600	2.6
Low pH SW	96	5200	124					1.3
Low pH SW	96	10200	243	40/70	0.50	Genoa	5100	2.5
Low pH SW	96	5100	121					1.3
Low pH SW	96	10267	244	40/70	0.75	Genoa	7700	2.5
Low pH SW	96	5133	122					1.3
Low pH SW	96	10200	243	40/70	1.00	Genoa	10200	2.5
Slickwater	96	13335	318					3.3
TOTAL		80,335	1,912				25,600	20.4

TOTAL FRAC JOB VOLUMES: 55,516 bbls 754,800 lbs, Prop
 TOTAL VOLUMES w/ ball displacement: 62,522 bbls



Weatherford[®]

Drilling Services

Final Survey Report



Theis W 3525 1-8H

CLARK COUNTY, KS

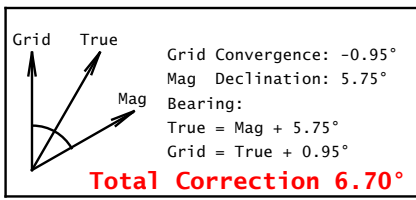
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JAN 05, 2015

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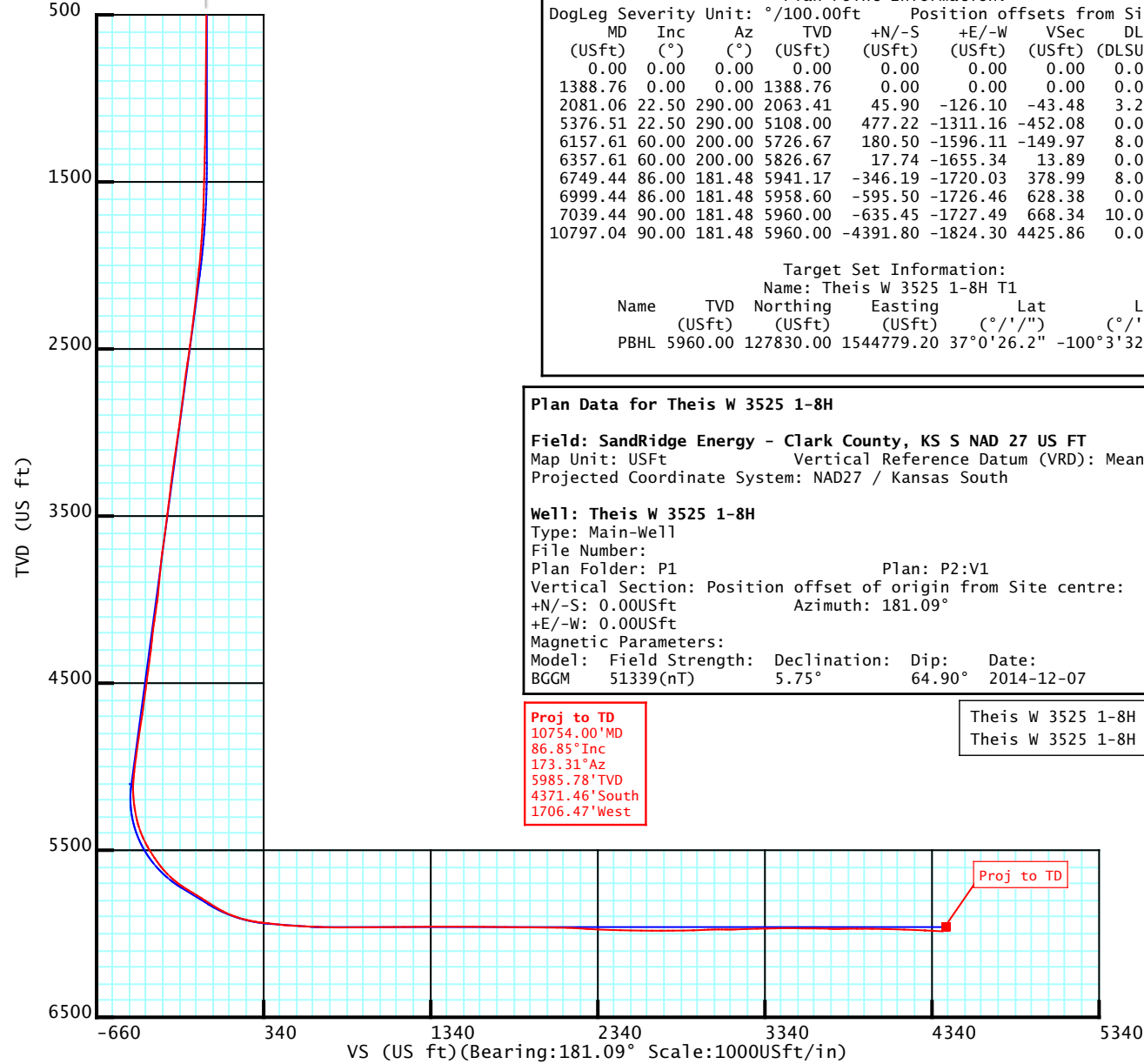
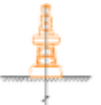


This W 3525 1-8H
 Nomac 52
 Clark County, KS
 X= 1546603.50'
 Y= 132221.80'
 Plan 2 vs Actual



SHL
 X= 1546603.50'
 Y= 132221.80'
 480' FNL
 260' FEL

KB: 2107'
 GL: 2088'



Plan Data for This W 3525 1-8H

Plan Point Information:
 DogLeg Severity Unit: °/100.00ft Position offsets from Site centre

MD (USft)	Inc (°)	Az (°)	TVD (USft)	+N/-S (USft)	+E/-W (USft)	VSec (USft)	DLS (DLSU)	Toolface (°)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
1388.76	0.00	0.00	1388.76	0.00	0.00	0.00	0.00	0.0
2081.06	22.50	290.00	2063.41	45.90	-126.10	-43.48	3.25	290.0
5376.51	22.50	290.00	5108.00	477.22	-1311.16	-452.08	0.00	0.0
6157.61	60.00	200.00	5726.67	180.50	-1596.11	-149.97	8.00	257.5
6357.61	60.00	200.00	5826.67	17.74	-1655.34	13.89	0.00	0.0
6749.44	86.00	181.48	5941.17	-346.19	-1720.03	378.99	8.00	322.5
6999.44	86.00	181.48	5958.60	-595.50	-1726.46	628.38	0.00	0.0
7039.44	90.00	181.48	5960.00	-635.45	-1727.49	668.34	10.00	360.0
10797.04	90.00	181.48	5960.00	-4391.80	-1824.30	4425.86	0.00	0.0

Target Set Information:
 Name: This W 3525 1-8H T1

Name	TVD (USft)	Northing (USft)	Easting (USft)	Lat (°/'/")	Long (°/'/")
PBHL	5960.00	127830.00	1544779.20	37°0'26.2"	-100°3'32.0"

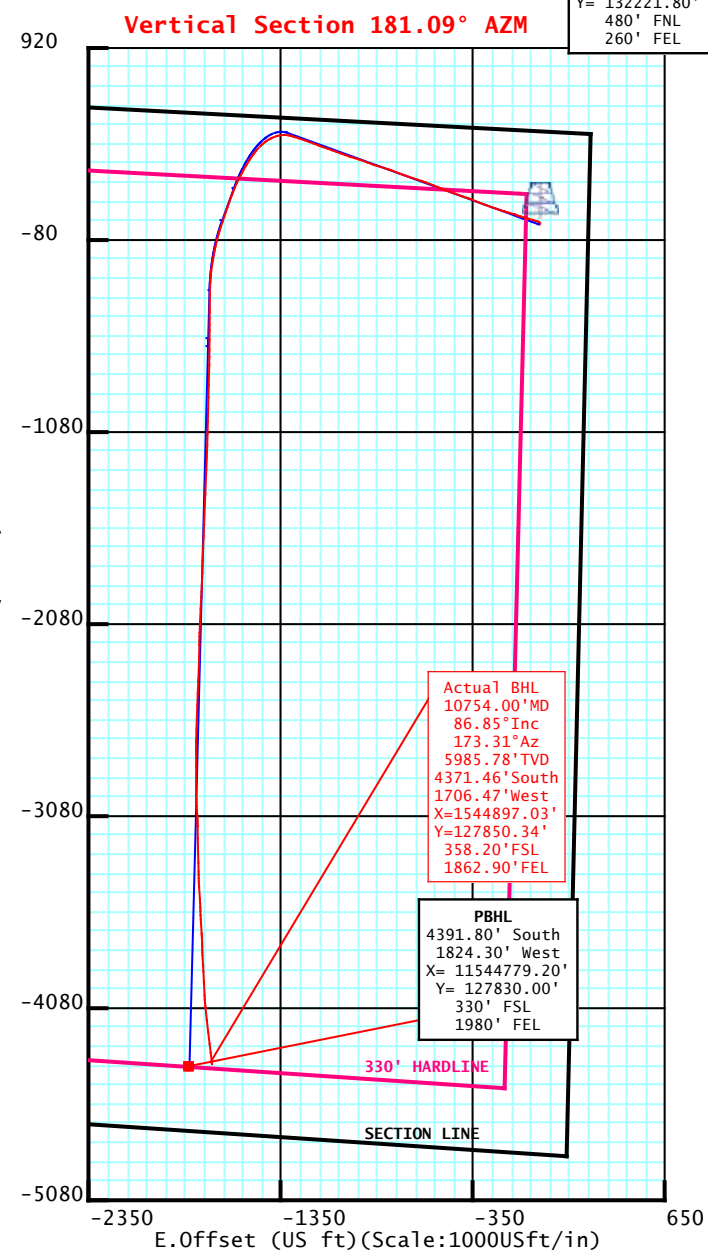
Plan Data for This W 3525 1-8H

Field: SandRidge Energy - Clark County, KS S NAD 27 US FT
 Map Unit: USFt Vertical Reference Datum (VRD): Mean Sea Level
 Projected Coordinate System: NAD27 / Kansas South

Well: This W 3525 1-8H
 Type: Main-Well
 File Number:
 Plan Folder: P1 Plan: P2:V1
 Vertical Section: Position offset of origin from Site centre:
 +N/-S: 0.00USft Azimuth: 181.09°
 +E/-W: 0.00USft
 Magnetic Parameters:
 Model: Field Strength: Declination: Dip: Date:
 BGGM 51339(nT) 5.75° 64.90° 2014-12-07

Proj to TD
 10754.00' MD
 86.85° Inc
 173.31° Az
 5985.78' TVD
 4371.46' South
 1706.47' West

This W 3525 1-8H ————
 This W 3525 1-8H ————



Actual BHL
 10754.00' MD
 86.85° Inc
 173.31° Az
 5985.78' TVD
 4371.46' South
 1706.47' West
 X=1544897.03'
 Y=127850.34'
 358.20' FSL
 1862.90' FEL

PBHL
 4391.80' South
 1824.30' West
 X= 11544779.20'
 Y= 127830.00'
 330' FSL
 1980' FEL

Planned By: Lando Hilser Date: 12/09/2014
 Weatherford Drilling Services
 6525 N. Meridian Ste. #201
 Oklahoma City, OK 73116
 +1.405.773.1100 Main
 +1.405.773.1887 Fax



5D Survey Report**SandRidge Energy**

Field Name: *SandRidge Energy - Clark County, KS S NAD 27 US FT*
Site Name: *Theis W 3525 1-8H*
Well Name: *Theis W 3525 1-8H*
Survey: *Definitive Survey*

05 January 2015



Theis W 3525 1-8H

Field Name SandRidge Energy - Clark County, KS S NAD 27 US FT	Map Units : US ft	Company Name : SandRidge Energy	
	Vertical Reference Datum (VRD) : Mean Sea Level		
	Projected Coordinate System : NAD27 / Kansas South		
	Comment :		
Site Name Theis W 3525 1-8H	Units : US ft	North Reference : Grid	Convergence Angle : -0.95
	Position	Northing : 132221.80 US ft	Latitude : 37° 1' 9.92"
		Easting : 1546603.50 US ft	Longitude : -100° 3' 10.42"
	Site TVD Reference : GL		
	Elevation above Mean Sea Level: 2088.00 US ft		
	Comment :		
Slot Name Theis W 3525 1-8H	Position (Offsets relative to Site Centre)		
	+N / -S : 0.00 US ft	Northing : 132221.80 US ft	Latitude : 37°1'9.92"
	+E / -W : 0.00 US ft	Easting : 1546603.50 US ft	Longitude : -100°3'10.42"
	Slot TVD Reference : Ground Elevation		
	Elevation above Mean Sea Level : 2088.00 US ft		
	Comment :		
Well Name Theis W 3525 1-8H	Type : Main well	UWI :	
	Rig Height <i>Drill Floor</i> : 19.00 US ft	Comment :	
	Relative to Mean Sea Level: 2107.00 US ft		
	Closure Distance : 4692.73 US ft	Closure Azimuth : 201.324°	
	Vertical Section (Position of Origin Relative to Site)		
	+N / -S : 0.00 US ft	+E / -W : 0.00 US ft	Az : 181.09°

5D Survey Report

Target Set

Name : Theis W 3525 1-8H T1

Number of Targets : 1

Comment :

TargetName: PBHL	Position (Relative to Site centre)		
	+N / -S : -4391.80US ft +E / -W : -1824.30 US ft	Northing : 127830.00 US ft Easting : 1544779.20US ft	Latitude : 37°0'26.20" Longitude : -100°3'32.00"
Shape: Cuboid	TVD (Drill Floor) : 5960.00 US ft SS : -3853.00 US ft Orientation Azimuth : 0.00° Inclination : 0.00° Dimensions Length : 20.00 US ft Breadth : 20.00 US ft Height : 20.00 US ft		

Survey Name :Definitive Survey

Date : 07/Dec/2014

Survey Tool :

Comment :

Company :

Magnetic Model

Model Name: BGGM

Date: 07/Dec/2014

Field Strength: 51339.1 nT

Declination: 5.75°

Dip: 64.90°

Survey Tool Ranges

Name	Start MD (US ft)	End MD (US ft)	Source Survey
Inc Only 3deg_WFTR	0.00	483.00	SRE Rig Svys
MWD	483.00	10754.00	WFT MWD Svys

Well path created using minimum curvature

Survey Points (Relative to Site centre, TVD relative to Drill Floor)									
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	VS (US ft)	DLS (°/100 US ft)	Comment	
0.00	0.00	0.00	0.00	0.00	0.00	-0.00	0.00	2	
249.00	0.50	20.21	249.00	1.02	0.38	-1.03	0.20	First SRE/Rig Svy	
483.00	0.50	20.21	482.99	2.94	1.08	-2.96	0.00	Last SRE/Rig Svy	
913.00	0.50	20.21	912.97	6.46	2.38	-6.50	0.00	First WFT/MWD Svy	
1105.00	0.64	27.41	1104.96	8.20	3.16	-8.25	0.08		
1230.00	1.75	321.27	1229.94	10.30	2.29	-10.35	1.28		
1293.00	2.37	302.25	1292.90	11.75	0.58	-11.76	1.45		
1356.00	3.19	294.30	1355.82	13.17	-2.12	-13.12	1.44		
1420.00	3.72	292.58	1419.71	14.70	-5.66	-14.59	0.84		
1483.00	4.11	292.50	1482.56	16.34	-9.63	-16.16	0.62		
1546.00	4.73	288.22	1545.37	18.02	-14.18	-17.75	1.11		
1577.00	5.26	287.26	1576.25	18.84	-16.75	-18.52	1.73		

5D Survey Report

Survey Points (Relative to Site centre, TVD relative to Drill Floor)								
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	VS (US ft)	DLS (°/100 US ft)	Comment
1608.00	6.47	286.40	1607.09	19.76	-19.79	-19.38	3.91	
1640.00	7.43	286.93	1638.86	20.87	-23.49	-20.42	3.01	
1672.00	8.35	285.68	1670.55	22.10	-27.71	-21.57	2.92	
1703.00	9.48	287.08	1701.18	23.46	-32.32	-22.84	3.71	
1735.00	10.90	286.04	1732.67	25.07	-37.75	-24.34	4.47	
1765.00	12.35	286.21	1762.06	26.75	-43.55	-25.91	4.83	
1796.00	13.94	286.01	1792.24	28.70	-50.33	-27.74	5.13	
1827.00	15.25	286.97	1822.24	30.92	-57.81	-29.81	4.30	
1858.00	15.72	286.90	1852.12	33.33	-65.73	-32.07	1.52	
1888.00	15.94	285.69	1880.98	35.63	-73.59	-34.22	1.32	
1918.00	17.09	284.61	1909.74	37.85	-81.82	-36.28	3.97	
1949.00	18.79	285.09	1939.23	40.30	-91.05	-38.56	5.50	
1979.00	20.52	287.50	1967.48	43.14	-100.73	-41.21	6.37	
2040.00	21.57	288.67	2024.41	49.95	-121.55	-47.62	1.85	
2101.00	20.99	286.89	2081.25	56.71	-142.63	-53.98	1.42	
2162.00	20.85	286.19	2138.23	62.91	-163.50	-59.78	0.47	
2223.00	21.71	288.10	2195.07	69.44	-184.65	-65.90	1.81	
2284.00	22.04	287.66	2251.68	76.42	-206.28	-72.47	0.60	
2345.00	22.19	288.64	2308.20	83.58	-228.10	-79.20	0.65	
2405.00	21.95	288.33	2363.80	90.72	-249.49	-85.94	0.44	
2466.00	22.38	291.01	2420.29	98.47	-271.15	-93.27	1.80	
2526.00	21.93	289.44	2475.86	106.30	-292.38	-100.69	1.24	
2586.00	22.23	291.05	2531.46	114.10	-313.54	-108.09	1.13	
2648.00	22.88	293.70	2588.72	123.16	-335.52	-116.73	1.95	
2709.00	22.53	291.18	2645.00	132.15	-357.28	-125.30	1.69	
2770.00	22.12	287.49	2701.43	139.82	-379.13	-132.55	2.39	
2832.00	22.16	288.57	2758.85	147.06	-401.34	-139.36	0.66	
2893.00	22.10	290.45	2815.36	154.73	-423.00	-146.62	1.17	
2953.00	21.76	289.46	2871.02	162.38	-444.06	-153.86	0.84	
3012.00	21.98	289.66	2925.77	169.74	-464.77	-160.82	0.39	
3074.00	22.49	291.90	2983.16	178.06	-486.70	-168.73	1.60	
3137.00	22.47	291.72	3041.38	187.01	-509.07	-177.25	0.11	
3197.00	22.38	291.70	3096.84	195.48	-530.33	-185.31	0.15	
3257.00	22.13	291.41	3152.37	203.83	-551.47	-193.25	0.46	
3318.00	21.67	291.20	3208.97	212.09	-572.66	-201.11	0.76	
3379.00	21.71	290.27	3265.65	220.08	-593.75	-208.69	0.57	
3440.00	22.75	288.17	3322.12	227.66	-615.54	-215.86	2.15	
3501.00	22.48	287.77	3378.43	234.90	-637.85	-222.67	0.51	
3562.00	22.63	288.01	3434.76	242.09	-660.12	-229.43	0.29	
3622.00	22.95	289.72	3490.08	249.60	-682.11	-236.52	1.23	
3683.00	21.95	288.84	3546.45	257.30	-704.09	-243.80	1.73	

5D Survey Report

Survey Points (Relative to Site centre, TVD relative to Drill Floor)								
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	VS (US ft)	DLS (°/100 US ft)	Comment
3746.00	22.31	289.86	3604.81	265.16	-726.48	-251.23	0.84	
3809.00	22.91	291.28	3662.97	273.68	-749.16	-259.31	1.29	
3872.00	21.80	290.46	3721.23	282.22	-771.54	-267.42	1.83	
3934.00	19.72	288.23	3779.21	289.51	-792.27	-274.32	3.59	
3997.00	18.56	286.43	3838.72	295.67	-811.98	-280.11	2.07	
4060.00	19.29	286.78	3898.32	301.51	-831.56	-285.57	1.17	
4123.00	20.10	287.09	3957.63	307.70	-851.87	-291.37	1.30	
4186.00	23.29	290.05	4016.16	315.15	-873.93	-298.40	5.35	
4249.00	23.40	290.12	4074.01	323.73	-897.37	-306.52	0.18	
4312.00	24.53	291.16	4131.57	332.75	-921.32	-315.09	1.91	
4375.00	22.56	287.30	4189.33	341.07	-945.05	-322.95	3.97	
4438.00	21.40	285.73	4247.75	347.78	-967.66	-329.22	2.06	
4502.00	22.38	288.49	4307.14	354.81	-990.45	-335.82	2.22	
4565.00	22.66	289.80	4365.33	362.72	-1013.24	-343.29	0.91	
4628.00	22.86	290.31	4423.43	371.08	-1036.14	-351.21	0.45	
4691.00	22.20	289.47	4481.62	379.29	-1058.84	-358.99	1.17	
4753.00	22.81	290.15	4538.90	387.34	-1081.16	-366.61	1.07	
4817.00	22.79	289.34	4597.90	395.72	-1104.51	-374.54	0.49	
4880.00	23.34	289.29	4655.86	403.88	-1127.80	-382.26	0.87	
4943.00	25.03	290.91	4713.33	412.76	-1152.03	-390.67	2.88	
5007.00	24.70	290.63	4771.40	422.30	-1177.19	-399.73	0.55	
5070.00	24.39	289.47	4828.70	431.28	-1201.77	-408.24	0.91	
5132.00	24.19	289.34	4885.21	439.75	-1225.83	-416.25	0.33	
5196.00	23.69	288.54	4943.71	448.18	-1250.39	-424.21	0.93	
5258.00	23.25	287.01	5000.58	455.72	-1273.90	-431.30	1.21	
5290.00	23.13	286.91	5029.99	459.40	-1285.96	-434.74	0.39	
5321.00	22.88	284.94	5058.53	462.72	-1297.60	-437.84	2.61	
5353.00	22.90	279.77	5088.01	465.38	-1309.75	-440.27	6.28	
5384.00	23.62	273.87	5116.50	466.83	-1321.89	-441.48	7.86	
5416.00	24.13	267.80	5145.76	467.01	-1334.83	-441.42	7.84	
5448.00	23.41	263.20	5175.05	466.00	-1347.68	-440.17	6.21	
5479.00	22.76	257.34	5203.57	463.96	-1359.64	-437.90	7.70	
5511.00	23.04	252.48	5233.05	460.72	-1371.66	-434.42	5.97	
5542.00	23.74	248.33	5261.51	456.59	-1383.24	-430.07	5.77	
5574.00	24.58	245.48	5290.70	451.45	-1395.28	-424.70	4.49	
5605.00	25.67	241.72	5318.77	445.59	-1407.06	-418.62	6.23	
5637.00	26.95	236.85	5347.46	438.34	-1419.24	-411.14	7.84	
5668.00	29.14	232.03	5374.82	429.85	-1431.07	-402.43	10.16	
5700.00	30.98	228.79	5402.52	419.63	-1443.41	-391.97	7.67	
5731.00	32.66	226.02	5428.86	408.56	-1455.44	-380.68	7.18	
5763.00	34.48	222.07	5455.53	395.84	-1467.72	-367.72	8.88	

5D Survey Report

Survey Points (Relative to Site centre, TVD relative to Drill Floor)									
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	VS (US ft)	DLS (°/100 US ft)	Comment	
5794.00	36.01	219.19	5480.84	382.26	-1479.36	-353.93	7.29		
5826.00	36.95	216.02	5506.58	367.19	-1490.96	-338.64	6.58		
5857.00	37.72	214.38	5531.23	351.83	-1501.80	-323.07	4.06		
5888.00	39.10	212.68	5555.52	335.77	-1512.43	-306.81	5.61		
5919.00	40.53	211.25	5579.33	318.93	-1522.94	-289.77	5.48		
5951.00	42.85	210.13	5603.22	300.63	-1533.79	-271.27	7.61		
5983.00	45.61	208.86	5626.15	281.20	-1544.78	-251.63	9.06		
6014.00	48.44	207.20	5647.28	261.18	-1555.43	-231.41	9.93		
6046.00	51.15	206.90	5667.94	239.42	-1566.54	-209.44	8.50		
6077.00	53.71	205.53	5686.84	217.37	-1577.39	-187.19	8.97		
6109.00	55.92	202.99	5705.28	193.53	-1588.12	-163.15	9.47		
6141.00	59.02	200.75	5722.48	168.50	-1598.16	-137.93	11.34		
6173.00	60.62	199.92	5738.57	142.56	-1607.77	-111.81	5.48		
6204.00	60.36	199.62	5753.84	117.17	-1616.90	-86.25	1.19		
6236.00	59.71	199.14	5769.82	91.02	-1626.10	-59.93	2.41		
6267.00	59.14	198.93	5785.59	65.79	-1634.80	-34.54	1.93		
6299.00	58.82	198.49	5802.08	39.81	-1643.60	-8.40	1.55		
6330.00	58.37	199.05	5818.24	14.76	-1652.11	16.81	2.12		
6362.00	58.76	198.51	5834.93	-11.09	-1660.90	42.82	1.89		
6393.00	60.38	197.00	5850.63	-36.54	-1669.05	68.43	6.70		
6425.00	63.21	194.99	5865.75	-63.65	-1676.81	95.68	10.43		
6456.00	66.48	193.52	5878.93	-90.84	-1683.72	123.00	11.39		
6487.00	69.29	191.80	5890.60	-118.86	-1690.01	151.13	10.42		
6519.00	72.10	191.04	5901.17	-148.46	-1695.98	180.84	9.06		
6551.00	74.35	190.07	5910.41	-178.58	-1701.59	211.06	7.61		
6582.00	76.75	188.81	5918.14	-208.19	-1706.52	240.76	8.68		
6613.00	79.32	186.82	5924.57	-238.23	-1710.64	270.87	10.40		
6645.00	81.50	184.80	5929.90	-269.62	-1713.83	302.31	9.23		
6677.00	83.55	182.88	5934.07	-301.27	-1715.95	334.00	8.74		
6708.00	83.91	181.89	5937.45	-332.06	-1717.23	364.81	3.38		
6740.00	83.56	180.87	5940.94	-363.86	-1718.00	396.62	3.35		
6771.00	83.42	180.79	5944.46	-394.65	-1718.45	427.42	0.52		
6802.00	83.91	180.40	5947.88	-425.46	-1718.77	458.23	2.02		
6834.00	86.08	180.16	5950.67	-457.34	-1718.92	490.10	6.82		
6865.00	87.13	180.34	5952.51	-488.28	-1719.06	521.04	3.44		
6897.00	87.13	180.19	5954.11	-520.24	-1719.20	553.00	0.47		
6928.00	87.48	180.24	5955.57	-551.21	-1719.32	583.96	1.14		
6976.00	87.48	180.64	5957.68	-599.16	-1719.69	631.91	0.83		
7028.00	87.48	180.32	5959.96	-651.11	-1720.12	683.86	0.61		
7149.00	90.28	181.52	5962.33	-772.05	-1722.07	804.82	2.52		
7212.00	90.35	181.81	5961.98	-835.03	-1723.90	867.81	0.47		

5D Survey Report

Survey Points (Relative to Site centre, TVD relative to Drill Floor)								
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	VS (US ft)	DLS (°/100 US ft)	Comment
7275.00	90.35	181.20	5961.60	-898.00	-1725.55	930.81	0.97	
7338.00	90.49	181.50	5961.14	-960.98	-1727.04	993.81	0.53	
7401.00	90.56	181.30	5960.56	-1023.96	-1728.58	1056.81	0.34	
7464.00	90.56	181.17	5959.94	-1086.94	-1729.93	1119.80	0.21	
7526.00	90.49	181.84	5959.37	-1148.92	-1731.56	1181.80	1.09	
7590.00	90.49	182.32	5958.83	-1212.88	-1733.88	1245.79	0.75	
7653.00	90.91	182.46	5958.06	-1275.82	-1736.51	1308.77	0.70	
7716.00	89.79	182.33	5957.67	-1338.76	-1739.14	1371.75	1.79	
7779.00	90.07	182.10	5957.75	-1401.71	-1741.58	1434.73	0.58	
7842.00	90.07	182.70	5957.67	-1464.66	-1744.22	1497.72	0.95	
7938.00	89.58	181.99	5957.97	-1560.57	-1748.14	1593.69	0.90	
8001.00	89.23	182.21	5958.62	-1623.53	-1750.45	1656.68	0.66	
8063.00	89.37	182.21	5959.38	-1685.48	-1752.84	1718.66	0.23	
8127.00	89.09	181.90	5960.24	-1749.43	-1755.14	1782.65	0.65	
8190.00	89.37	182.19	5961.08	-1812.38	-1757.39	1845.63	0.64	
8252.00	89.65	181.82	5961.61	-1874.34	-1759.56	1907.62	0.75	
8315.00	89.30	183.53	5962.19	-1937.27	-1762.50	1970.60	2.77	
8378.00	89.37	182.99	5962.92	-2000.16	-1766.08	2033.55	0.86	
8441.00	89.51	182.19	5963.54	-2063.10	-1768.92	2096.52	1.29	
8504.00	88.60	182.34	5964.58	-2126.04	-1771.41	2159.50	1.46	
8567.00	85.94	180.33	5967.58	-2188.94	-1772.88	2222.42	5.29	
8629.00	86.86	181.25	5971.47	-2250.81	-1773.73	2284.29	2.10	
8693.00	87.27	182.25	5974.75	-2314.70	-1775.69	2348.20	1.69	
8757.00	88.39	182.49	5977.17	-2378.59	-1778.33	2412.14	1.79	
8819.00	88.53	182.52	5978.84	-2440.51	-1781.04	2474.10	0.23	
8882.00	89.02	181.90	5980.18	-2503.45	-1783.47	2537.07	1.25	
8945.00	89.16	181.90	5981.19	-2566.41	-1785.56	2600.06	0.22	
9008.00	89.79	182.18	5981.76	-2629.37	-1787.80	2663.05	1.09	
9070.00	90.28	181.09	5981.72	-2691.34	-1789.57	2725.04	1.93	
9134.00	90.35	179.36	5981.37	-2755.34	-1789.82	2789.03	2.71	
9197.00	90.70	179.88	5980.80	-2818.33	-1789.40	2852.01	0.99	
9260.00	91.75	180.27	5979.45	-2881.32	-1789.48	2914.98	1.78	
9323.00	93.15	179.43	5976.76	-2944.26	-1789.32	2977.91	2.59	
9386.00	90.98	177.77	5974.49	-3007.19	-1787.78	3040.80	4.34	
9449.00	88.88	175.67	5974.56	-3070.08	-1784.18	3103.61	4.71	
9512.00	92.24	179.58	5973.95	-3133.00	-1781.57	3166.47	8.18	
9575.00	91.68	179.05	5971.79	-3195.96	-1780.81	3229.40	1.22	
9638.00	91.40	178.68	5970.10	-3258.92	-1779.57	3292.33	0.74	
9701.00	90.84	178.20	5968.87	-3321.89	-1777.85	3355.25	1.17	
9764.00	91.75	179.18	5967.44	-3384.85	-1776.41	3418.18	2.12	
9826.00	89.58	176.44	5966.72	-3446.80	-1774.04	3480.06	5.64	

5D Survey Report

Survey Points (Relative to Site centre, TVD relative to Drill Floor)								
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	VS (US ft)	DLS (°/100 US ft)	Comment
9889.00	88.74	176.24	5967.65	-3509.66	-1770.02	3542.84	1.37	
9952.00	90.28	178.53	5968.19	-3572.59	-1767.15	3605.70	4.38	
10016.00	88.95	176.09	5968.62	-3636.51	-1764.14	3669.55	4.34	
10080.00	87.83	176.46	5970.41	-3700.35	-1759.99	3733.30	1.84	
10142.00	91.96	179.46	5970.53	-3762.29	-1757.78	3795.19	8.23	
10206.00	89.30	175.88	5969.82	-3826.21	-1755.18	3859.05	6.97	
10269.00	90.14	177.61	5970.13	-3889.11	-1751.60	3921.87	3.05	
10333.00	89.30	176.75	5970.44	-3953.03	-1748.46	3985.72	1.88	
10395.00	88.67	177.48	5971.54	-4014.94	-1745.34	4047.56	1.56	
10458.00	88.39	173.94	5973.16	-4077.73	-1740.62	4110.25	5.63	
10521.00	88.11	173.89	5975.08	-4140.35	-1733.95	4172.72	0.45	
10585.00	87.76	173.38	5977.39	-4203.91	-1726.86	4236.14	0.97	
10648.00	87.27	172.50	5980.12	-4266.37	-1719.12	4298.44	1.60	
10694.00	86.85	173.31	5982.48	-4311.96	-1713.45	4343.92	1.98	Last WFT/MWD Svy
10754.00	86.85	173.31	5985.78	-4371.46	-1706.47	4403.27	0.00	Proj to TD

5D Survey Report**SandRidge Energy**

Field Name: *SandRidge Energy - Clark County, KS S NAD 27 US FT*
Site Name: *Theis W 3525 1-8H*
Well Name: *Theis W 3525 1-8H*
Survey: *Definitive Survey(Geographic)*

05 January 2015



Theis W 3525 1-8H

Field Name SandRidge Energy - Clark County, KS S NAD 27 US FT	Map Units : US ft	Company Name : SandRidge Energy	
	Vertical Reference Datum (VRD) : Mean Sea Level		
	Projected Coordinate System : NAD27 / Kansas South		
	Comment :		
Site Name Theis W 3525 1-8H	Units : US ft	North Reference : Grid	Convergence Angle : -0.95
	Position	Northing : 132221.80 US ft	Latitude : 37° 1' 9.92"
		Easting : 1546603.50 US ft	Longitude : -100° 3' 10.42"
	Site TVD Reference : GL		
	Elevation above Mean Sea Level: 2088.00 US ft		
	Comment :		
Slot Name Theis W 3525 1-8H	Position (Offsets relative to Site Centre)		
	+N / -S : 0.00 US ft	Northing : 132221.80 US ft	Latitude : 37°1'9.92"
	+E / -W : 0.00 US ft	Easting : 1546603.50 US ft	Longitude : -100°3'10.42"
	Slot TVD Reference : Ground Elevation		
	Elevation above Mean Sea Level : 2088.00 US ft		
	Comment :		
Well Name Theis W 3525 1-8H	Type : Main well	UWI :	
	Rig Height <i>Drill Floor</i> : 19.00 US ft	Comment :	
	Relative to Mean Sea Level: 2107.00 US ft		
	Closure Distance : 4692.73 US ft	Closure Azimuth : 201.324°	
	Vertical Section (Position of Origin Relative to Site)		
	+N / -S : 0.00 US ft	+E / -W : 0.00 US ft	Az : 181.09°

5D Survey Report

Target Set**Name :** Theis W 3525 1-8H T1**Number of Targets :** 1**Comment :**

TargetName:	Position (Relative to Site centre)		
PBHL	+N / -S : -4391.80US ft	Northing : 127830.00 US ft	Latitude : 37°0'26.20"
Shape:	+E / -W : -1824.30 US ft	Easting : 1544779.20US ft	Longitude : -100°3'32.00"
Cuboid	TVD (Drill Floor) : 5960.00 US ft		
	SS : -3853.00 US ft		
Orientation	Azimuth : 0.00°	Inclination : 0.00°	
Dimensions	Length : 20.00 US ft	Breadth : 20.00 US ft	Height : 20.00 US ft

Survey Name :Definitive Survey**Date :** 07/Dec/2014**Survey Tool :****Comment :****Company :****Magnetic Model****Model Name:** BGGM**Date:** 07/Dec/2014**Field Strength:** 51339.1 nT**Declination:** 5.75°**Dip:** 64.90°**Survey Tool Ranges**

Name	Start MD (US ft)	End MD (US ft)	Source Survey
Inc Only 3deg_WFTR	0.00	483.00	SRE Rig Svys
MWD	483.00	10754.00	WFT MWD Svys

Well path created using minimum curvature

Survey Points (Relative to Site centre, TVD relative to Drill Floor)										
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	Northing (US ft)	Easting (US ft)	Latitude (° ' ")	Longitude (° ' ")	
0.00	0.00	0.00	0.00	0.00	0.00	132221.80	1546603.50	37°1'9.92"	-100°3'10.42"	
249.00	0.50	20.21	249.00	1.02	0.38	132222.82	1546603.88	37°1'9.93"	-100°3'10.42"	
483.00	0.50	20.21	482.99	2.94	1.08	132224.74	1546604.58	37°1'9.95"	-100°3'10.41"	
913.00	0.50	20.21	912.97	6.46	2.38	132228.26	1546605.88	37°1'9.98"	-100°3'10.39"	
1105.00	0.64	27.41	1104.96	8.20	3.16	132230.00	1546606.66	37°1'10.00"	-100°3'10.38"	
1230.00	1.75	321.27	1229.94	10.30	2.29	132232.10	1546605.79	37°1'10.02"	-100°3'10.39"	
1293.00	2.37	302.25	1292.90	11.75	0.58	132233.55	1546604.08	37°1'10.04"	-100°3'10.42"	
1356.00	3.19	294.30	1355.82	13.17	-2.12	132234.97	1546601.38	37°1'10.05"	-100°3'10.45"	
1420.00	3.72	292.58	1419.71	14.70	-5.66	132236.50	1546597.84	37°1'10.06"	-100°3'10.49"	
1483.00	4.11	292.50	1482.56	16.34	-9.63	132238.14	1546593.87	37°1'10.08"	-100°3'10.54"	
1546.00	4.73	288.22	1545.37	18.02	-14.18	132239.82	1546589.32	37°1'10.10"	-100°3'10.60"	
1577.00	5.26	287.26	1576.25	18.84	-16.75	132240.64	1546586.75	37°1'10.10"	-100°3'10.63"	

5D Survey Report

Survey Points (Relative to Site centre, TVD relative to Drill Floor)										
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	Northing (US ft)	Easting (US ft)	Latitude (° ' ")	Longitude (° ' ")	
1608.00	6.47	286.40	1607.09	19.76	-19.79	132241.56	1546583.71	37°1'10.11"	-100°3'10.67"	
1640.00	7.43	286.93	1638.86	20.87	-23.49	132242.67	1546580.01	37°1'10.12"	-100°3'10.71"	
1672.00	8.35	285.68	1670.55	22.10	-27.71	132243.90	1546575.79	37°1'10.13"	-100°3'10.77"	
1703.00	9.48	287.08	1701.18	23.46	-32.32	132245.26	1546571.18	37°1'10.15"	-100°3'10.82"	
1735.00	10.90	286.04	1732.67	25.07	-37.75	132246.87	1546565.75	37°1'10.16"	-100°3'10.89"	
1765.00	12.35	286.21	1762.06	26.75	-43.55	132248.55	1546559.95	37°1'10.18"	-100°3'10.96"	
1796.00	13.94	286.01	1792.24	28.70	-50.33	132250.50	1546553.17	37°1'10.20"	-100°3'11.05"	
1827.00	15.25	286.97	1822.24	30.92	-57.81	132252.72	1546545.69	37°1'10.22"	-100°3'11.14"	
1858.00	15.72	286.90	1852.12	33.33	-65.73	132255.13	1546537.77	37°1'10.24"	-100°3'11.24"	
1888.00	15.94	285.69	1880.98	35.63	-73.59	132257.43	1546529.91	37°1'10.26"	-100°3'11.33"	
1918.00	17.09	284.61	1909.74	37.85	-81.82	132259.65	1546521.68	37°1'10.28"	-100°3'11.44"	
1949.00	18.79	285.09	1939.23	40.30	-91.05	132262.10	1546512.45	37°1'10.30"	-100°3'11.55"	
1979.00	20.52	287.50	1967.48	43.14	-100.73	132264.94	1546502.77	37°1'10.33"	-100°3'11.67"	
2040.00	21.57	288.67	2024.41	49.95	-121.55	132271.75	1546481.95	37°1'10.39"	-100°3'11.93"	
2101.00	20.99	286.89	2081.25	56.71	-142.63	132278.51	1546460.87	37°1'10.46"	-100°3'12.19"	
2162.00	20.85	286.19	2138.23	62.91	-163.50	132284.71	1546440.00	37°1'10.52"	-100°3'12.45"	
2223.00	21.71	288.10	2195.07	69.44	-184.65	132291.24	1546418.85	37°1'10.58"	-100°3'12.71"	
2284.00	22.04	287.66	2251.68	76.42	-206.28	132298.22	1546397.22	37°1'10.64"	-100°3'12.98"	
2345.00	22.19	288.64	2308.20	83.58	-228.10	132305.38	1546375.40	37°1'10.71"	-100°3'13.25"	
2405.00	21.95	288.33	2363.80	90.72	-249.49	132312.52	1546354.01	37°1'10.78"	-100°3'13.51"	
2466.00	22.38	291.01	2420.29	98.47	-271.15	132320.27	1546332.35	37°1'10.85"	-100°3'13.78"	
2526.00	21.93	289.44	2475.86	106.30	-292.38	132328.10	1546311.12	37°1'10.92"	-100°3'14.05"	
2586.00	22.23	291.05	2531.46	114.10	-313.54	132335.90	1546289.96	37°1'11.00"	-100°3'14.31"	
2648.00	22.88	293.70	2588.72	123.16	-335.52	132344.96	1546267.98	37°1'11.08"	-100°3'14.58"	
2709.00	22.53	291.18	2645.00	132.15	-357.28	132353.95	1546246.22	37°1'11.17"	-100°3'14.85"	
2770.00	22.12	287.49	2701.43	139.82	-379.13	132361.62	1546224.37	37°1'11.24"	-100°3'15.12"	
2832.00	22.16	288.57	2758.85	147.06	-401.34	132368.86	1546202.16	37°1'11.31"	-100°3'15.40"	
2893.00	22.10	290.45	2815.36	154.73	-423.00	132376.53	1546180.50	37°1'11.38"	-100°3'15.67"	
2953.00	21.76	289.46	2871.02	162.38	-444.06	132384.18	1546159.44	37°1'11.45"	-100°3'15.93"	
3012.00	21.98	289.66	2925.77	169.74	-464.77	132391.54	1546138.73	37°1'11.52"	-100°3'16.18"	
3074.00	22.49	291.90	2983.16	178.06	-486.70	132399.86	1546116.80	37°1'11.60"	-100°3'16.46"	
3137.00	22.47	291.72	3041.38	187.01	-509.07	132408.81	1546094.43	37°1'11.68"	-100°3'16.73"	
3197.00	22.38	291.70	3096.84	195.48	-530.33	132417.28	1546073.17	37°1'11.77"	-100°3'17.00"	
3257.00	22.13	291.41	3152.37	203.83	-551.47	132425.63	1546052.03	37°1'11.84"	-100°3'17.26"	
3318.00	21.67	291.20	3208.97	212.09	-572.66	132433.89	1546030.84	37°1'11.92"	-100°3'17.52"	
3379.00	21.71	290.27	3265.65	220.08	-593.75	132441.88	1546009.75	37°1'12.00"	-100°3'17.78"	
3440.00	22.75	288.17	3322.12	227.66	-615.54	132449.46	1545987.96	37°1'12.07"	-100°3'18.06"	
3501.00	22.48	287.77	3378.43	234.90	-637.85	132456.70	1545965.65	37°1'12.14"	-100°3'18.33"	
3562.00	22.63	288.01	3434.76	242.09	-660.12	132463.89	1545943.38	37°1'12.20"	-100°3'18.61"	
3622.00	22.95	289.72	3490.08	249.60	-682.11	132471.40	1545921.39	37°1'12.28"	-100°3'18.88"	
3683.00	21.95	288.84	3546.45	257.30	-704.09	132479.10	1545899.41	37°1'12.35"	-100°3'19.15"	

5D Survey Report

Survey Points (Relative to Site centre, TVD relative to Drill Floor)										
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	Northing (US ft)	Easting (US ft)	Latitude (° ' ")	Longitude (° ' ")	
3746.00	22.31	289.86	3604.81	265.16	-726.48	132486.96	1545877.02	37°1'12.42"	-100°3'19.43"	
3809.00	22.91	291.28	3662.97	273.68	-749.16	132495.48	1545854.34	37°1'12.50"	-100°3'19.71"	
3872.00	21.80	290.46	3721.23	282.22	-771.54	132504.02	1545831.96	37°1'12.58"	-100°3'19.99"	
3934.00	19.72	288.23	3779.21	289.51	-792.27	132511.31	1545811.23	37°1'12.65"	-100°3'20.25"	
3997.00	18.56	286.43	3838.72	295.67	-811.98	132517.47	1545791.52	37°1'12.71"	-100°3'20.49"	
4060.00	19.29	286.78	3898.32	301.51	-831.56	132523.31	1545771.94	37°1'12.76"	-100°3'20.73"	
4123.00	20.10	287.09	3957.63	307.70	-851.87	132529.50	1545751.63	37°1'12.82"	-100°3'20.99"	
4186.00	23.29	290.05	4016.16	315.15	-873.93	132536.95	1545729.57	37°1'12.89"	-100°3'21.26"	
4249.00	23.40	290.12	4074.01	323.73	-897.37	132545.53	1545706.13	37°1'12.97"	-100°3'21.55"	
4312.00	24.53	291.16	4131.57	332.75	-921.32	132554.55	1545682.18	37°1'13.06"	-100°3'21.85"	
4375.00	22.56	287.30	4189.33	341.07	-945.05	132562.87	1545658.45	37°1'13.14"	-100°3'22.14"	
4438.00	21.40	285.73	4247.75	347.78	-967.66	132569.58	1545635.84	37°1'13.20"	-100°3'22.42"	
4502.00	22.38	288.49	4307.14	354.81	-990.45	132576.61	1545613.05	37°1'13.26"	-100°3'22.70"	
4565.00	22.66	289.80	4365.33	362.72	-1013.24	132584.52	1545590.26	37°1'13.34"	-100°3'22.99"	
4628.00	22.86	290.31	4423.43	371.08	-1036.14	132592.88	1545567.36	37°1'13.42"	-100°3'23.27"	
4691.00	22.20	289.47	4481.62	379.29	-1058.84	132601.09	1545544.66	37°1'13.50"	-100°3'23.55"	
4753.00	22.81	290.15	4538.90	387.34	-1081.16	132609.14	1545522.34	37°1'13.57"	-100°3'23.83"	
4817.00	22.79	289.34	4597.90	395.72	-1104.51	132617.52	1545498.99	37°1'13.65"	-100°3'24.12"	
4880.00	23.34	289.29	4655.86	403.88	-1127.80	132625.68	1545475.70	37°1'13.73"	-100°3'24.41"	
4943.00	25.03	290.91	4713.33	412.76	-1152.03	132634.56	1545451.47	37°1'13.81"	-100°3'24.71"	
5007.00	24.70	290.63	4771.40	422.30	-1177.19	132644.10	1545426.31	37°1'13.90"	-100°3'25.02"	
5070.00	24.39	289.47	4828.70	431.28	-1201.77	132653.08	1545401.73	37°1'13.99"	-100°3'25.32"	
5132.00	24.19	289.34	4885.21	439.75	-1225.83	132661.55	1545377.67	37°1'14.07"	-100°3'25.62"	
5196.00	23.69	288.54	4943.71	448.18	-1250.39	132669.98	1545353.11	37°1'14.14"	-100°3'25.93"	
5258.00	23.25	287.01	5000.58	455.72	-1273.90	132677.52	1545329.60	37°1'14.22"	-100°3'26.22"	
5290.00	23.13	286.91	5029.99	459.40	-1285.96	132681.20	1545317.54	37°1'14.25"	-100°3'26.37"	
5321.00	22.88	284.94	5058.53	462.72	-1297.60	132684.52	1545305.90	37°1'14.28"	-100°3'26.51"	
5353.00	22.90	279.77	5088.01	465.38	-1309.75	132687.18	1545293.75	37°1'14.30"	-100°3'26.66"	
5384.00	23.62	273.87	5116.50	466.83	-1321.89	132688.63	1545281.61	37°1'14.32"	-100°3'26.81"	
5416.00	24.13	267.80	5145.76	467.01	-1334.83	132688.81	1545268.67	37°1'14.32"	-100°3'26.97"	
5448.00	23.41	263.20	5175.05	466.00	-1347.68	132687.80	1545255.82	37°1'14.30"	-100°3'27.13"	
5479.00	22.76	257.34	5203.57	463.96	-1359.64	132685.76	1545243.86	37°1'14.28"	-100°3'27.28"	
5511.00	23.04	252.48	5233.05	460.72	-1371.66	132682.52	1545231.84	37°1'14.25"	-100°3'27.42"	
5542.00	23.74	248.33	5261.51	456.59	-1383.24	132678.39	1545220.26	37°1'14.21"	-100°3'27.57"	
5574.00	24.58	245.48	5290.70	451.45	-1395.28	132673.25	1545208.22	37°1'14.15"	-100°3'27.71"	
5605.00	25.67	241.72	5318.77	445.59	-1407.06	132667.39	1545196.44	37°1'14.09"	-100°3'27.86"	
5637.00	26.95	236.85	5347.46	438.34	-1419.24	132660.14	1545184.26	37°1'14.02"	-100°3'28.01"	
5668.00	29.14	232.03	5374.82	429.85	-1431.07	132651.65	1545172.43	37°1'13.93"	-100°3'28.15"	
5700.00	30.98	228.79	5402.52	419.63	-1443.41	132641.43	1545160.09	37°1'13.83"	-100°3'28.30"	
5731.00	32.66	226.02	5428.86	408.56	-1455.44	132630.36	1545148.06	37°1'13.72"	-100°3'28.45"	
5763.00	34.48	222.07	5455.53	395.84	-1467.72	132617.64	1545135.78	37°1'13.59"	-100°3'28.60"	

5D Survey Report

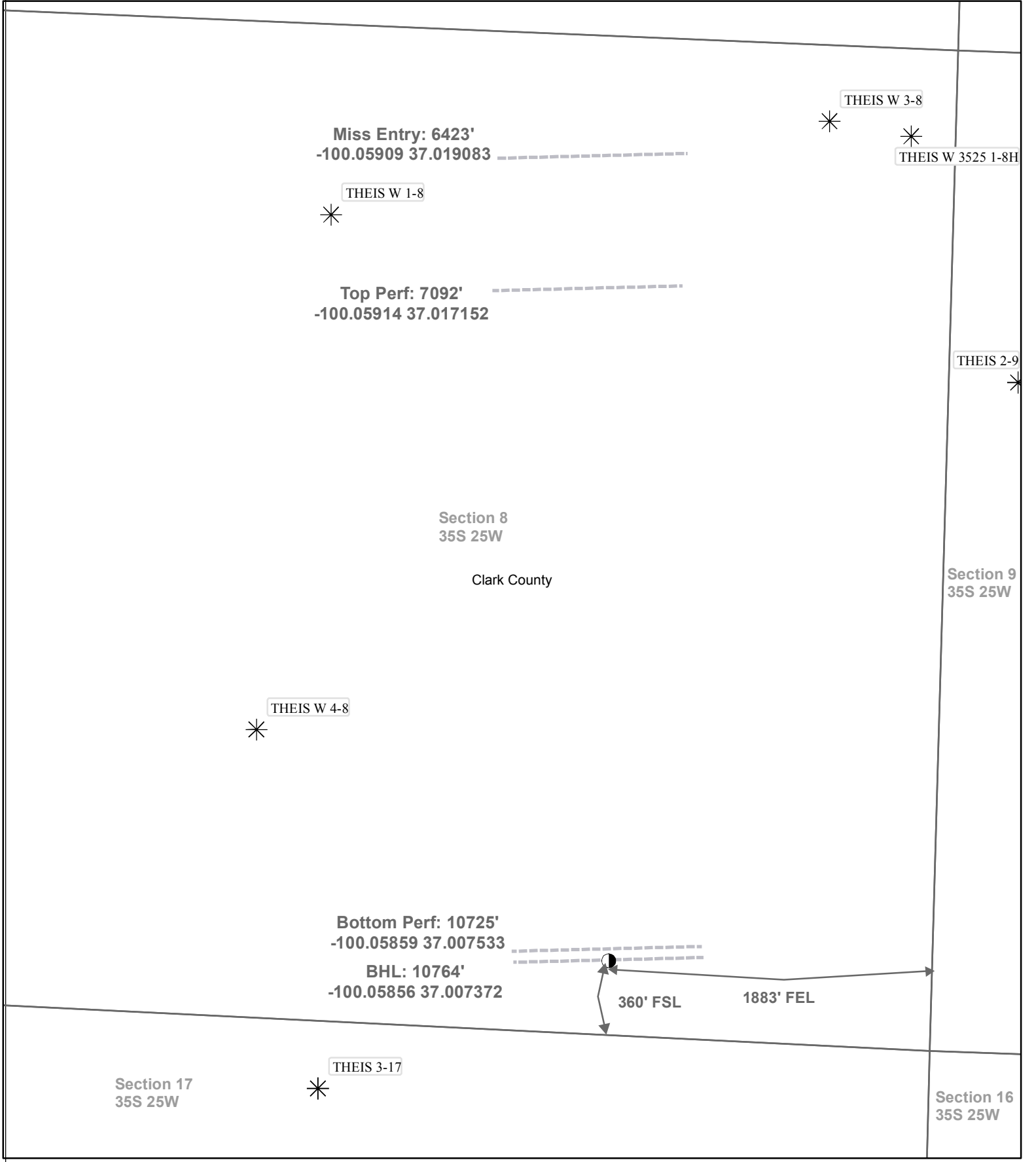
Survey Points (Relative to Site centre, TVD relative to Drill Floor)										
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	Northing (US ft)	Easting (US ft)	Latitude (° ' ")	Longitude (° ' ")	
5794.00	36.01	219.19	5480.84	382.26	-1479.36	132604.06	1545124.14	37°1'13.46"	-100°3'28.74"	
5826.00	36.95	216.02	5506.58	367.19	-1490.96	132588.99	1545112.54	37°1'13.30"	-100°3'28.88"	
5857.00	37.72	214.38	5531.23	351.83	-1501.80	132573.63	1545101.70	37°1'13.15"	-100°3'29.01"	
5888.00	39.10	212.68	5555.52	335.77	-1512.43	132557.57	1545091.07	37°1'12.99"	-100°3'29.13"	
5919.00	40.53	211.25	5579.33	318.93	-1522.94	132540.73	1545080.56	37°1'12.82"	-100°3'29.26"	
5951.00	42.85	210.13	5603.22	300.63	-1533.79	132522.43	1545069.71	37°1'12.64"	-100°3'29.39"	
5983.00	45.61	208.86	5626.15	281.20	-1544.78	132503.00	1545058.72	37°1'12.45"	-100°3'29.52"	
6014.00	48.44	207.20	5647.28	261.18	-1555.43	132482.98	1545048.07	37°1'12.25"	-100°3'29.65"	
6046.00	51.15	206.90	5667.94	239.42	-1566.54	132461.22	1545036.96	37°1'12.03"	-100°3'29.78"	
6077.00	53.71	205.53	5686.84	217.37	-1577.39	132439.17	1545026.11	37°1'11.81"	-100°3'29.91"	
6109.00	55.92	202.99	5705.28	193.53	-1588.12	132415.33	1545015.38	37°1'11.57"	-100°3'30.04"	
6141.00	59.02	200.75	5722.48	168.50	-1598.16	132390.30	1545005.34	37°1'11.32"	-100°3'30.16"	
6173.00	60.62	199.92	5738.57	142.56	-1607.77	132364.36	1544995.73	37°1'11.06"	-100°3'30.27"	
6204.00	60.36	199.62	5753.84	117.17	-1616.90	132338.97	1544986.60	37°1'10.81"	-100°3'30.38"	
6236.00	59.71	199.14	5769.82	91.02	-1626.10	132312.82	1544977.40	37°1'10.55"	-100°3'30.48"	
6267.00	59.14	198.93	5785.59	65.79	-1634.80	132287.59	1544968.70	37°1'10.30"	-100°3'30.59"	
6299.00	58.82	198.49	5802.08	39.81	-1643.60	132261.61	1544959.90	37°1'10.04"	-100°3'30.69"	
6330.00	58.37	199.05	5818.24	14.76	-1652.11	132236.56	1544951.39	37°1'9.79"	-100°3'30.79"	
6362.00	58.76	198.51	5834.93	-11.09	-1660.90	132210.71	1544942.60	37°1'9.54"	-100°3'30.89"	
6393.00	60.38	197.00	5850.63	-36.54	-1669.05	132185.26	1544934.45	37°1'9.28"	-100°3'30.99"	
6425.00	63.21	194.99	5865.75	-63.65	-1676.81	132158.15	1544926.69	37°1'9.01"	-100°3'31.08"	
6456.00	66.48	193.52	5878.93	-90.84	-1683.72	132130.96	1544919.78	37°1'8.74"	-100°3'31.16"	
6487.00	69.29	191.80	5890.60	-118.86	-1690.01	132102.94	1544913.49	37°1'8.47"	-100°3'31.23"	
6519.00	72.10	191.04	5901.17	-148.46	-1695.98	132073.34	1544907.52	37°1'8.17"	-100°3'31.30"	
6551.00	74.35	190.07	5910.41	-178.58	-1701.59	132043.22	1544901.91	37°1'7.87"	-100°3'31.36"	
6582.00	76.75	188.81	5918.14	-208.19	-1706.52	132013.61	1544896.98	37°1'7.58"	-100°3'31.41"	
6613.00	79.32	186.82	5924.57	-238.23	-1710.64	131983.57	1544892.86	37°1'7.28"	-100°3'31.46"	
6645.00	81.50	184.80	5929.90	-269.62	-1713.83	131952.18	1544889.67	37°1'6.97"	-100°3'31.49"	
6677.00	83.55	182.88	5934.07	-301.27	-1715.95	131920.53	1544887.55	37°1'6.66"	-100°3'31.51"	
6708.00	83.91	181.89	5937.45	-332.06	-1717.23	131889.74	1544886.27	37°1'6.35"	-100°3'31.52"	
6740.00	83.56	180.87	5940.94	-363.86	-1718.00	131857.94	1544885.50	37°1'6.04"	-100°3'31.52"	
6771.00	83.42	180.79	5944.46	-394.65	-1718.45	131827.15	1544885.05	37°1'5.74"	-100°3'31.52"	
6802.00	83.91	180.40	5947.88	-425.46	-1718.77	131796.34	1544884.73	37°1'5.43"	-100°3'31.52"	
6834.00	86.08	180.16	5950.67	-457.34	-1718.92	131764.46	1544884.58	37°1'5.12"	-100°3'31.52"	
6865.00	87.13	180.34	5952.51	-488.28	-1719.06	131733.52	1544884.44	37°1'4.81"	-100°3'31.51"	
6897.00	87.13	180.19	5954.11	-520.24	-1719.20	131701.56	1544884.30	37°1'4.49"	-100°3'31.51"	
6928.00	87.48	180.24	5955.57	-551.21	-1719.32	131670.59	1544884.18	37°1'4.19"	-100°3'31.50"	
6976.00	87.48	180.64	5957.68	-599.16	-1719.69	131622.64	1544883.81	37°1'3.71"	-100°3'31.50"	
7028.00	87.48	180.32	5959.96	-651.11	-1720.12	131570.69	1544883.38	37°1'3.20"	-100°3'31.49"	
7149.00	90.28	181.52	5962.33	-772.05	-1722.07	131449.75	1544881.43	37°1'2.00"	-100°3'31.49"	
7212.00	90.35	181.81	5961.98	-835.03	-1723.90	131386.77	1544879.60	37°1'1.38"	-100°3'31.50"	

5D Survey Report

Survey Points (Relative to Site centre, TVD relative to Drill Floor)										
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	Northing (US ft)	Easting (US ft)	Latitude (° ' ")	Longitude (° ' ")	
7275.00	90.35	181.20	5961.60	-898.00	-1725.55	131323.80	1544877.95	37°1'0.76"	-100°3'31.51"	
7338.00	90.49	181.50	5961.14	-960.98	-1727.04	131260.82	1544876.46	37°1'0.14"	-100°3'31.51"	
7401.00	90.56	181.30	5960.56	-1023.96	-1728.58	131197.84	1544874.92	37°0'59.51"	-100°3'31.52"	
7464.00	90.56	181.17	5959.94	-1086.94	-1729.93	131134.86	1544873.57	37°0'58.89"	-100°3'31.52"	
7526.00	90.49	181.84	5959.37	-1148.92	-1731.56	131072.88	1544871.94	37°0'58.28"	-100°3'31.53"	
7590.00	90.49	182.32	5958.83	-1212.88	-1733.88	131008.92	1544869.62	37°0'57.64"	-100°3'31.54"	
7653.00	90.91	182.46	5958.06	-1275.82	-1736.51	130945.98	1544866.99	37°0'57.02"	-100°3'31.56"	
7716.00	89.79	182.33	5957.67	-1338.76	-1739.14	130883.04	1544864.36	37°0'56.40"	-100°3'31.58"	
7779.00	90.07	182.10	5957.75	-1401.71	-1741.58	130820.09	1544861.92	37°0'55.78"	-100°3'31.60"	
7842.00	90.07	182.70	5957.67	-1464.66	-1744.22	130757.14	1544859.28	37°0'55.15"	-100°3'31.62"	
7938.00	89.58	181.99	5957.97	-1560.57	-1748.14	130661.23	1544855.36	37°0'54.20"	-100°3'31.65"	
8001.00	89.23	182.21	5958.62	-1623.53	-1750.45	130598.27	1544853.05	37°0'53.58"	-100°3'31.66"	
8063.00	89.37	182.21	5959.38	-1685.48	-1752.84	130536.32	1544850.66	37°0'52.97"	-100°3'31.68"	
8127.00	89.09	181.90	5960.24	-1749.43	-1755.14	130472.37	1544848.36	37°0'52.34"	-100°3'31.70"	
8190.00	89.37	182.19	5961.08	-1812.38	-1757.39	130409.42	1544846.11	37°0'51.71"	-100°3'31.71"	
8252.00	89.65	181.82	5961.61	-1874.34	-1759.56	130347.46	1544843.94	37°0'51.10"	-100°3'31.73"	
8315.00	89.30	183.53	5962.19	-1937.27	-1762.50	130284.53	1544841.00	37°0'50.48"	-100°3'31.75"	
8378.00	89.37	182.99	5962.92	-2000.16	-1766.08	130221.64	1544837.42	37°0'49.86"	-100°3'31.78"	
8441.00	89.51	182.19	5963.54	-2063.10	-1768.92	130158.70	1544834.58	37°0'49.23"	-100°3'31.80"	
8504.00	88.60	182.34	5964.58	-2126.04	-1771.41	130095.76	1544832.09	37°0'48.61"	-100°3'31.82"	
8567.00	85.94	180.33	5967.58	-2188.94	-1772.88	130032.86	1544830.62	37°0'47.99"	-100°3'31.82"	
8629.00	86.86	181.25	5971.47	-2250.81	-1773.73	129970.99	1544829.77	37°0'47.38"	-100°3'31.82"	
8693.00	87.27	182.25	5974.75	-2314.70	-1775.69	129907.10	1544827.81	37°0'46.74"	-100°3'31.83"	
8757.00	88.39	182.49	5977.17	-2378.59	-1778.33	129843.21	1544825.17	37°0'46.11"	-100°3'31.85"	
8819.00	88.53	182.52	5978.84	-2440.51	-1781.04	129781.29	1544822.46	37°0'45.50"	-100°3'31.87"	
8882.00	89.02	181.90	5980.18	-2503.45	-1783.47	129718.35	1544820.03	37°0'44.88"	-100°3'31.89"	
8945.00	89.16	181.90	5981.19	-2566.41	-1785.56	129655.39	1544817.94	37°0'44.25"	-100°3'31.90"	
9008.00	89.79	182.18	5981.76	-2629.37	-1787.80	129592.43	1544815.70	37°0'43.63"	-100°3'31.92"	
9070.00	90.28	181.09	5981.72	-2691.34	-1789.57	129530.46	1544813.93	37°0'43.02"	-100°3'31.93"	
9134.00	90.35	179.36	5981.37	-2755.34	-1789.82	129466.46	1544813.68	37°0'42.39"	-100°3'31.92"	
9197.00	90.70	179.88	5980.80	-2818.33	-1789.40	129403.47	1544814.10	37°0'41.76"	-100°3'31.90"	
9260.00	91.75	180.27	5979.45	-2881.32	-1789.48	129340.48	1544814.02	37°0'41.14"	-100°3'31.89"	
9323.00	93.15	179.43	5976.76	-2944.26	-1789.32	129277.54	1544814.18	37°0'40.52"	-100°3'31.87"	
9386.00	90.98	177.77	5974.49	-3007.19	-1787.78	129214.61	1544815.72	37°0'39.90"	-100°3'31.84"	
9449.00	88.88	175.67	5974.56	-3070.08	-1784.18	129151.72	1544819.32	37°0'39.28"	-100°3'31.78"	
9512.00	92.24	179.58	5973.95	-3133.00	-1781.57	129088.80	1544821.93	37°0'38.65"	-100°3'31.74"	
9575.00	91.68	179.05	5971.79	-3195.96	-1780.81	129025.84	1544822.69	37°0'38.03"	-100°3'31.71"	
9638.00	91.40	178.68	5970.10	-3258.92	-1779.57	128962.88	1544823.93	37°0'37.41"	-100°3'31.69"	
9701.00	90.84	178.20	5968.87	-3321.89	-1777.85	128899.91	1544825.65	37°0'36.79"	-100°3'31.65"	
9764.00	91.75	179.18	5967.44	-3384.85	-1776.41	128836.95	1544827.09	37°0'36.17"	-100°3'31.62"	
9826.00	89.58	176.44	5966.72	-3446.80	-1774.04	128775.00	1544829.46	37°0'35.55"	-100°3'31.58"	

5D Survey Report

Survey Points (Relative to Site centre, TVD relative to Drill Floor)											
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	Northing (US ft)	Easting (US ft)	Latitude (° ' ")	Longitude (° ' ")		
9889.00	88.74	176.24	5967.65	-3509.66	-1770.02	128712.14	1544833.48	37°0'34.93"	-100°3'31.52"		
9952.00	90.28	178.53	5968.19	-3572.59	-1767.15	128649.21	1544836.35	37°0'34.31"	-100°3'31.47"		
10016.00	88.95	176.09	5968.62	-3636.51	-1764.14	128585.29	1544839.36	37°0'33.68"	-100°3'31.42"		
10080.00	87.83	176.46	5970.41	-3700.35	-1759.99	128521.45	1544843.51	37°0'33.05"	-100°3'31.35"		
10142.00	91.96	179.46	5970.53	-3762.29	-1757.78	128459.51	1544845.72	37°0'32.44"	-100°3'31.31"		
10206.00	89.30	175.88	5969.82	-3826.21	-1755.18	128395.59	1544848.32	37°0'31.81"	-100°3'31.27"		
10269.00	90.14	177.61	5970.13	-3889.11	-1751.60	128332.69	1544851.90	37°0'31.18"	-100°3'31.21"		
10333.00	89.30	176.75	5970.44	-3953.03	-1748.46	128268.77	1544855.04	37°0'30.55"	-100°3'31.16"		
10395.00	88.67	177.48	5971.54	-4014.94	-1745.34	128206.86	1544858.16	37°0'29.94"	-100°3'31.11"		
10458.00	88.39	173.94	5973.16	-4077.73	-1740.62	128144.07	1544862.88	37°0'29.32"	-100°3'31.04"		
10521.00	88.11	173.89	5975.08	-4140.35	-1733.95	128081.45	1544869.55	37°0'28.70"	-100°3'30.94"		
10585.00	87.76	173.38	5977.39	-4203.91	-1726.86	128017.89	1544876.64	37°0'28.08"	-100°3'30.84"		
10648.00	87.27	172.50	5980.12	-4266.37	-1719.12	127955.43	1544884.38	37°0'27.46"	-100°3'30.73"		
10694.00	86.85	173.31	5982.48	-4311.96	-1713.45	127909.84	1544890.05	37°0'27.01"	-100°3'30.65"		
10754.00	86.85	173.31	5985.78	-4371.46	-1706.47	127850.34	1544897.03	37°0'26.42"	-100°3'30.56"		



Miss Entry: 6423'
 -100.05909 37.019083

THEIS W 1-8

THEIS W 3-8

THEIS W 3525 1-8H

Top Perf: 7092'
 -100.05914 37.017152

THEIS 2-9

Section 8
 35S 25W

Clark County

Section 9
 35S 25W

THEIS W 4-8

Bottom Perf: 10725'
 -100.05859 37.007533

BHL: 10764'
 -100.05856 37.007372

360' FSL 1883' FEL

Section 17
 35S 25W

THEIS 3-17

Section 16
 35S 25W



Actual Bottom-Hole Location of Theis W 3525 1-8H
 T&R: 35S 25W
 Section: 8, 1883' FEL & 360' FSL
 -100.05856 37.007372

1 in = 667 ft

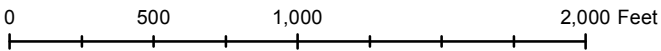


● Actual BH Location

* SandRidge Wells

--- Perf

□ Sections



Draftsman: Dory Deines	Draft Date: 3/25/2015
Drawing Name/Number: Addendum_Theis W 3525 1-8H.mxd	
Coordinate System: NAD 1927 State Plane Kansas South FIPS: 1502	