

Confidentiality Requested:

Yes No

Kansas Corporation Commission Oil & Gas Conservation Division

1217556

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 #			API No. 15		
Name:			Spot Description:		
Address 1:			Sec	TwpS. R	East West
Address 2:			F6	eet from North /	South Line of Section
City:	State: Z	ip:+	Fe	eet from East /	West Line of Section
Contact Person:			Footages Calculated from I	Nearest Outside Section C	Corner:
Phone: ()			□ NE □ NW	V □SE □SW	
CONTRACTOR: License #			GPS Location: Lat:	, Long: _	
Name:				(e.g. xx.xxxxx)	(e.gxxx.xxxxx)
Wellsite Geologist:			Datum: NAD27	NAD83 WGS84	
Purchaser:			County:		
Designate Type of Completion:			Lease Name:	W	/ell #:
	e-Entry	Workover	Field Name:		
	_		Producing Formation:		
☐ Oil ☐ WSW ☐ D&A	☐ SWD	∐ SIOW □ SIGW	Elevation: Ground:	Kelly Bushing:	:
	GSW	Temp. Abd.	Total Vertical Depth:	Plug Back Total C	Depth:
CM (Coal Bed Methane)	dow	Temp. Abd.	Amount of Surface Pipe Se	et and Cemented at:	Feet
☐ Cathodic ☐ Other (Co	ore, Expl., etc.):		Multiple Stage Cementing	Collar Used? Yes	No
If Workover/Re-entry: Old Well I			If yes, show depth set:		Feet
Operator:			If Alternate II completion, c	cement circulated from:	
Well Name:			feet depth to:	w/	sx cmt.
Original Comp. Date:					
Deepening Re-perf	•	NHR Conv. to SWD	Drilling Fluid Managemer	nt Plan	
☐ Plug Back	Conv. to G		(Data must be collected from the		
Commingled	Pormit #:		Chloride content:	ppm Fluid volume	e: bbls
Dual Completion			Dewatering method used: _		
SWD			Location of fluid disposal if	hauled offsite	
☐ ENHR			1		
GSW	Permit #:		Operator Name:		
_ _			Lease Name:	License #:_	
Spud Date or Date R	eached TD	Completion Date or	Quarter Sec	TwpS. R	East _ West
Recompletion Date		Recompletion Date	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 Approved by: Date:				

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 too open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recover and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed.							
		tain Geophysical Data a r newer AND an image f		gs must be ema	iled to kcc-well-lo	gs@kcc.ks.gov	v. Digital electronic log
Drill Stem Tests Taker (Attach Additional S		Yes No			on (Top), Depth an		Sample
Samples Sent to Geological Survey			9		Тор	Datum	
Cores Taken Electric Log Run		Yes No					
List All E. Logs Run:							
		0.0000					
		CASING Report all strings set-o	RECORD Ne onductor, surface, inte		ion, 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
Durnaga	Depth		CEMENTING / SQU	EEZE RECORD			
Purpose: Perforate	Top Bottom	Type of Cement	# Sacks Used		Type and P	ercent Additives	
Protect Casing Plug Back TD							
Plug Off Zone							
Did you perform a hydrou	ulia fracturing tractment or	a this well?		Yes	No (If No, ski	n quantiana 2 an	(d 2)
	ulic fracturing treatment or otal base fluid of the hydra	aulic fracturing treatment ex	ceed 350,000 gallons?	= =	= ' '	p questions 2 an p question 3)	u 3)
Was the hydraulic fractur	ring treatment information	submitted to the chemical o	disclosure registry?	Yes	No (If No, fill	out Page Three	of the ACO-1)
Shots Per Foot		N RECORD - Bridge Plug			cture, Shot, Cement		
	Specify Fo	ootage of Each Interval Perf	orated	(Ai	mount and Kind of Ma	terial Used)	Depth
TUBING RECORD:	Size:	Set At:	Packer At:	Liner Run:	Yes No		l
Date of First, Resumed	Production, SWD or ENH	R. Producing Meth		Gas Lift C	Other <i>(Explain)</i>		
Estimated Production Per 24 Hours	Oil B		Mcf Wate			as-Oil Ratio	Gravity
DISPOSITIO	ON OF GAS:		METHOD OF COMPLE	TION:		PRODUCTIO	DN INTERVAL:
Vented Sold		Open Hole	Perf. Dually	Comp. Cor	mmingled	1110000110	TO THE LEVILLE
	bmit ACO-18.)	Other (Specify)	(Submit A	ACO-5) (Sub	mit ACO-4)		

Form	ACO1 - Well Completion		
Operator	SandRidge Exploration and Production LLC		
Well Name	George 3406 2-4H		
Doc ID	1217556		

Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
5	9033-9137	1500 gals 15% HCl Acid, 2977 bbls Fresh Slickwater, Running TLTR 3007 bbls	
5	8847-9033	1500 gals 15% HCl Acid, 2568 bbls Fresh Slickwater, Running TLTR 5575 bbls	
5	8666-8847	1500 gals 15% HCl Acid, 2453 bbls Fresh Slickwater, Running TLTR 8028 bbls	
5	8483-8666	1500 gals 15% HCl Acid, 2420 bbls Fresh Slickwater, Running TLTR 10448 bbls	
5	8296-8483	1500 gals 15% HCl Acid, 2427 bbls Fresh Slickwater, Running TLTR 12875 bbls	
5	8112-8296	1500 gals 15% HCl Acid, 2452 bbls Fresh Slickwater, Running TLTR 15327 bbls	
5	7929-8112	1500 gals 15% HCl Acid, 2389 bbls Fresh Slickwater, Running TLTR 17716 bbls	
5	7745-7929	1500 gals 15% HCl Acid, 2464 bbls Fresh Slickwater, Running TLTR 20180 bbls	

Form	ACO1 - Well Completion		
Operator	SandRidge Exploration and Production LLC		
Well Name	George 3406 2-4H		
Doc ID	1217556		

Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
5	7564-7745	1500 gals 15% HCl Acid, 2548 bbls Fresh Slickwater, Running TLTR 22728 bbls	
5	7381-7564	1500 gals 15% HCl Acid, 2390 bbls Fresh Slickwater, Running TLTR 25118 bbls	
5	7194-7381	1500 gals 15% HCl Acid, 2525 bbls Fresh Slickwater, Running TLTR 27643 bbls	
5	7004-7194	1500 gals 15% HCl Acid, 2675 bbls Fresh Slickwater, Running TLTR 30318 bbls	
5	6820-7004	1500 gals 15% HCl Acid, 2490 bbls Fresh Slickwater, Running TLTR 32808 bbls	
5	6630-6820	1500 gals 15% HCl Acid, 2474 bbls Fresh Slickwater, Running TLTR 35282 bbls	
5	6444-6630	1500 gals 15% HCl Acid, 2476 bbls Fresh Slickwater, Running TLTR 37758 bbls	
5	6253-6444	1500 gals 15% HCl Acid, 2526 bbls Fresh Slickwater, Running TLTR 40284 bbls	

Form	ACO1 - Well Completion		
Operator	SandRidge Exploration and Production LLC		
Well Name	George 3406 2-4H		
Doc ID	1217556		

Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
5	6067-6253	1500 gals 15% HCl Acid, 2323 bbls Fresh Slickwater, Running TLTR 42607 bbls	
5	5877-6067	1500 gals 15% HCl Acid, 2290 bbls Fresh Slickwater, Running TLTR 44897 bbls	
5	5688-5877	1500 gals 15% HCl Acid, 2105 bbls Fresh Slickwater, Running TLTR 47002 bbls	
5	5581-5688	1500 gals 15% HCl Acid, 2197 bbls Fresh Slickwater, Running TLTR 49199 bbls	
5	5124-5412	1500 gals 15% HCl Acid, 4095 bbls Fresh Slickwater, Running TLTR 53295 bbls	

Form	ACO1 - Well Completion		
Operator	SandRidge Exploration and Production LLC		
Well Name	George 3406 2-4H		
Doc ID	1217556		

Casing

C C C C C C C C C C	Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement	Number of Sacks Used	Type and Percent Additives
C C C C C C C C C C	Conductor	30	20	75	80	Services 10 Sack	4	N/A
te Premium .2% Fl & 17, .19 Premium 51, .29 Fl 20, .19 37, .49	Surface	12.25	9.625	36	606	65/35 Poz: C/ Premium Plus	310	Calcium Chloride, .4% C- 41P, 1/4 pps Cello-
41P		8.75	7	26	5581	Premium &	370	4% Gel, .2% FL- 17, .1% C- 51, .2% C- 20, .1% C- 37, .4% C- 41P

INVOICE

DATE	INVOICE#
4/24/2014	4727

SE	-15.17	ICI	=5
50	0-254	J=\$21	\mathcal{B}
	Woodware	1. OK	

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	STARTING D	WORK ORDER	RIG NUMBER	LEASE NAME	Terms
HARPER, KS	4/23/2014	3584	LARIAT 40	GEORGE 3406 2-4H	Due on rec

Description

DRILLED 80' OF 30" CONDUCTOR HOLE
DRILLED 6' OF 76" HOLE
FURNISHED AND SET 6' X 6' TINHORN CELLAR
FURNISHED 80' OF 20" CONDUCTOR PIPE
FURNISHED MUD, WATER, AND TRUCKING
FURNISHED WELDER AND MATERIALS
FURNISHED 8 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 80' OF 16" CONDUCTOR PIPE

TOTAL BID \$19,000.00

Sales Tax (6.15%)

\$158.79

TOTAL

\$19,158.79

COUNTY STATE			3676	TICKET DATE	05/03/14	5/03/14			
Harper Kansas	ıc	CUSTOMER REP Jackie Kennedy							
George 3406 Well No.	Surfac	е			EMPLOYEE NAM	E Barry B	arkley		
EMP NAME									
Barry Barkley 0			Ш						
Louis Arney			\vdash						
Ron Derry			-		_				
0.00									
Form. NameType			Called	Out	On Location	on I	Job Started	Lloh C	ompleted
Packer Type Set A Bottom Hole Temp. 80 Press		Date		2/2014	5/2/20	514	5/2/2014		/2/2014
	Depth 611	Time	1	8:00	20:00 Well [7:07	8	:30
Type and Size Qty	Make			New/Used			de From	To	Max. Allow
Auto Fill Tube 0	IR	Casing			36#	95%"	Surface	611	1,500
Insert Float Va 0	IR	Liner							
Centralizers 0	<u>IR</u>	Liner							
Top Plug 0	IR IR	Tubing				0			
HEAD 0 Limit clamp 0	IR IR	Drill Pi Open I			L	121/4"	Surface	605	Chota/Et
Weld-A 0	IR I	Perfora				12/4	Surface	605	Shots/Ft.
Texas Pattern Guide Shoe 0	İR	Perfora					,		†
Cement Basket 0	İR	Perfora	tions						
Materials	A 11/6-1	Hours	On Loc		Operating	Hours	Descri	otion of Jol	b
Mud Type WBM Density Disp. Fluid Fresh Water Density	9 Lb/Gal 8.33 Lb/Gal	5/2		Hours 4.0	Date 5/2	Hours 0.0	Surface	<u> </u>	
Spacer type resh Wate BBL, 10	8.33	5/3		8.5	5/3	1.5			
Spacer type BBL.		5,0			- 0,0				
Acid Type Gal	%								
Acid Type Gal.	%								
Surfactant Gal. NE Agent Gal.	_ln		-						
Fluid Loss Gal/Lb	- <u>'''</u>	-							
Gelling Agent Gal/Lb	-in		-						
Fric. RedGal/Lb_	In								
MISC. Gal/Lb	_In	Total		12.5	Total	1.5			
Perfpac BallsQty.					Pre	essures			
Other		MAX		750	AVG.	300			
Other					Average		BPM		
Other		MAX		5.5		4			
OtherOther		F		43		Left in P			
Other		Feet		43	Reason	SHUE J	OINI		
			ment	Data					
Stage Sacks Cement 1 180 O-Tex Lite 65/35 Poz; C	6% Total Cal 20/	Additive	Shlorid	0 0 40/ 0 4	(D 1/222	alla Flate	W/Ro		Lbs/Gal
2 130 Premium Plus (Class C)	2% Calcium Chlor	ide - 1/nn	s Cello	-Flake	17 - 74pps C	eno-riake	6.32		12.40 14.80
3 0 Premium Plus (Class C)		ide - /app	3 00110	-r iane			0 0.00		0.00
							3,170	- 0.00	0.00
		Cum			~~~~				
Preflush Type:		Sul	nmary Pre	eflush:	вві	10,0	Type:	Fresh	Water
Breakdown MAXII		,500 PSI	- Lo	ad & Bkdn:		N/A			N/A
		O/FULL	Ex	cess /Retur	n BBI	20	Calc.Di	sp Bbl	44
Actua Average Bump	Plug PSI:	JRFACE 750	— Ca	lc. TOC; al Circ.	DCI.	SURFA 250		Disp.	43.90
EP5 Min10 Mir				ment Slurry	PSI: BBI	95.0		,	43.90
		~		tal Volume		148.9			
			/						
	///	1	15	//					
CUSTOMER REPRESENTATI	y for	16.62	/	Carrie	SIGNATURE				
					/				
				/					
	/								

COUNTY Stat		3708	TICKET DATE	05/11/14	1							
Harper K	on		Jackie Kennedy									
George 3406	Well No. 2-4H	JOB TYPE Intermed	iate				EMPLOYEE NAME John Hall					
EMP NAME							JOHN	Hall				
John Hall	0			П			T	T				
Joseph Klemm												
Roy Morris												
Randall Irvin												
Form. Name	Type:									1		
Packer Type	Set At	<u> </u>	Date	Calle	d Out /10/2014	On Location 5/10/2	on J	ob Started 5/11/2014	Job C	ompleted		
Bottom Hole Temp. 155	Pressu		Date	3	10/2014	3/10/2	.014	5/11/2014	5/	11/2014		
Retainer Depth	Total D	Depth 0	Time	8	30pm	1030	om	200am	4	00am		
Tools and A						Well I	Data					
Type and Size Auto Fill Tube	Qty	Make			New/Used				To	Max. Allow		
Insert Float Va	0	IR IR	Casing			26#	7"	Surface	5,581	5,000		
Centralizers	0	IR IR	Liner			_						
Top Plug	0	IR	Tubing				0					
HEAD	0	IR	Drill Pip	ne.		 	- U	 		 		
Limit clamp	0	IR	Open I				83/4"	Surface	5,581	Shots/Ft.		
Weld-A	0	IR	Perfora							Choton t.		
Texas Pattern Guide Shoe Cement Basket	0	IR	Perfora									
Materia		IR	Perfora Hours 0	tions	notion	Onesetten	1		L			
Mud Type WBM D	ensity	9 Lb/Gal	Date	T	Hours	Operating Date	Hours		ption of Job)		
Disp. Fluid Fresh Water	ensity	8.33 Lb/Gal	5/10		1.5	5/11	2.0	Interme	ediate	1		
Spacer type GEL BBL. Spacer type BBL.	30	10.00	5/11		4.0							
Spacer typeBBL. Acid TypeBal.		% ——										
Acid Type Gal.		%		\dashv		-						
Surfactant Gal		In		\neg				1				
NE Agent Gal.	. ——	In]				
Fluid Loss Gal/L Gelling Agent Gal/L		ln		-								
Gelling Agent Gal/L Fric. Red Gal/L		In		+								
MISC. Gal/L		In	Total	+	5.5	Total	2.0					
						rotar	2.10	J		-		
Perfpac Balls	Qty						ssures					
Other			MAX	5,	000 PSI	AVG.	5-1 T B					
Other			MAX	8	BPM	Average I AVG	Rates in B	РМ		1		
Other			140.04				Left in Pir	ne				
Other			Feet		94		SHOE JO					
01				ment	Data					- 1		
Stage Sacks Cemen 1 270 50/50 POZ PR		47/ 0 1 0 00/ 51 4	Additives					W/Ro		Lbs/Gal		
2 100 Premiur		4% Gel - 0.2% FL-1 0.2% FL-17 - 0.1%	7 - 0.1% C	-51 - 0	.2% C-20 - 0	.1% C-37 - 0.4	1% C-41P	6.93		13.60		
3 0 0		U.2781 L-17 - U.176	G-31 - 0.17	6 G-20	-0.4% 6-41	<u> </u>		0 0.00		15.60		
								0.00	0.00	0.00		
									_			
			Sum	mary								
Preflush Breakdown	Type:			Pre	eflush:	BBI	30.00	Type:	Gel S	pacer		
DI EARGOWII	_MAXIM Lost Re		000 PSI O/FULL		ad & Bkdn: cess /Retur		N/A	Pad:Bb		N/A		
-	Actual 7	roc	2,361		lc. TOC:	11 BBI -	N/A 2,361	Calc.Di		210.10		
Average		Plug PSI:	750	Fin	al Circ.	PSI:	750	Disp:Bb		210.10		
ISIP 5 Min	_ 10 Min_	15 Mir	1		ment Slurry		89.8					
			/	10	lal Volume	BBI	329.90)				
		//	/-/					1				
OUDTONED DEDDES		Mich	,c/	12. 1	/1							
CUSTOMER REPRESE	NIATIV	- form	1/1/	me	4	0000						
		///			/	SIGNATURE						
			1			11	/	, 13				
		Es la		/ .	, ,	10	100	10				
		1 1	101	' /,	101		UN					
		- 10	(V [N	10/1		-					
		10			•							

Hydraulic Fracturing Fluid Product Component Information Disclosure

5/28/2014
5/29/2014
Kansas
Harper
15-077-22043-01-00
SandRidge Energy
George 3406 2-4H
-97.98085960
37.10994200
NAD27
NO
4,514
2,320,710
0







Hydraulic Fracturing Fluid Composition:

Trade Name	Supplier	Purpose	Ingredients	Chemical Abstract Service Number (CAS #)	Maximum Ingredient Concentration in Additive (% by mass)**	Maximum Ingredient Concentration in HF Fluid (% by mass)**	Comments
Water	Archer	Carrier/Base Fluid					
			Water	7732-18-5	100.00000	93.75881	None
Sand (Proppant)	Archer	Proppant					
			Silica Substrate	NA	100.00000	4.84704	None
Hydrochloric Acid (15%)	Archer	Acidizing					
			Hydrochloric Acid	7647-01-0	15.00000	0.10699	None
			NONYL PHENOL, 4 MOL	104-40-5	10.00000	0.00508	None
			Methyl Alcohol	67-56-1	80.00000	0.00089	None
			thiourea-formaldehyde copolymer	68527-49-1	15.00000	0.00017	None
AIC	Archer	Liquid Acid Iron Control					
			Acetic Acid	64-19-7	50.00000		
			Citric Acid	77-92-9	30.00000	0.00119	None
Chemflush	Archer	Enviro-Friendly Chemical Flush					
			Hydrotreated Petroleum Distillate	64742-47-8	99.00000		
			Alcohol Ethoxylate Surfactants	NA	10.00000	0.00018	None
DiKlor	Sabre Energy Services	sOxidizer					
			Chlorine Dioxide	10069-04-4	0.40000	0.00030	

	Water	7732-18-5	99.90000		
Ingredients shown above are subject to 29 CFR 1910	.1200(i) and appear on Material Safety Data She	eets (MSDS). Ingre	dients shown below are No	on-MSDS.	
Other C	Chemicals				
	Water	7732-18-5		0.04716	
	WATER	7732-18-5		0.03050	
	Anionic Polymer	N/A		0.02358	
	Aliphatic Hydrocarbon	64742-47-8		0.02358	
	TRADE SECRET	N/A		0.02033	
	Water	7732-18-5		0.00913	
	METHANOL	67-56-1		0.00508	
	ISOPROPANOL	67-63-0		0.00508	
	Polyol Ester	N/A		0.00393	
	Oxyalkylated Alcohol	68002-97-1		0.00393	
	Acrylic Polymer	28205-96-1		0.00152	
	Sodium Salt of Phosphate Ester	⁻ 68131-72-6		0.00152	
	Water	7732-18-5		0.00138	
	Polyglycol Ester	N/A		0.00079	
	Alcohol Ethoxylate Surfactants	N/A		0.00017	
	n-olefins	N/A		0.00009	
	Tetrasodium Ethylenediaminetetraacetate	64-02-8		0.00008	
	Propargyl Alcohol	107-19-7		0.00007	
	Acetic Acid	64-19-7			
	Buffer	N/A			
	Surfactant	N/A			
	Cinnamic Aldehyde	104-55-2			
	Water	7732-18-5			

Note: For Field Development Products (products that begin with FDP), MSDS level only information has been provided.
Ingredient information for chemicals subject to 29 CFR 1910.1200(i) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS)

^{*} Total Water Volume sources may include fresh water, produced water, and/or recycled water ** Information is based on the maximum potential for concentration and thus the total may be over 100%

Directional	Measured	Sub-Sea	Vertical	True Vert	Northings (+)	Eastings (+)	Vert	DLS				
Survey	Depth	Incl.	Azim.	Depth	Southings (-)	Westings (-)	Section	deg/100'				
Calculations	(ft)	(deg)	(ft)	(ft)	(ft)	(ft)	(ft)	(deg)	FNL	FSL	FWL	FEL
SHL	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4953	290	850	4453
BHL	9140	90.00	359.30	4513.96	4630.99	751.37	4691.50	0.00	334	4908	1669	3628
Miss Entry	5076	75.39	16.37	4496.86	577.38	790.33	693.54	8.10	4388	854	1649	3653
Top Port	5640	91.44	358.57	4547.82	1133.91	807.93	1246.01	1.14	3832	1410	1675	3627
Bottom Port	9121	90.00	359.30	4513.96	4611.99	751.60	4672.77	0.02	353	4889	1669	3628

Survey Points

X Y
NW Corner XY Coord 2150473 166766
SW Corner XY Coord 2150549 161523
NE Corner XY Coord 2155768 166848
SE Corner XY Coord 2155851 161612

X Y Surface XY 2151395 161827 M North Line slope 0.0154863 East Line slope -0.0158518 South Line slope -0.0167861 West Line slope -0.0144955

Measured	Sub-Sea	Vertical	True Vert	Northings (+)	Eastings (+)	Vert	DLS				
Depth (ft)	Incl. (deg)	Azim. (ft)	Depth (ft)	Southings (-)	Westings (-)	Section (ft)	deg/100'	FNL	FSL	FWL	FEL
(11)	0.0	(11)	(11)	(ft) 0	(ft)	(11)	(deg)	4953	290	850	4453
250	0.66	347.30	249.99	1.40	-0.32	1.34	0.26	4952	291	850	4453
552	0.75	347.30	551.97	5.03	-1.13	4.79	0.03	4948	295	849	4454
689	0.30	347.30	688.97	6.25	-1.41	5.96	0.33	4947	296	849	4454
965	0.40	95.00	964.96	6.88	-0.61	6.70	0.21	4946	297	850	4453
1421 1895	0.30 0.50	123.70	1420.95	6.07	1.97	6.31	0.04	4947	296	852	4451
2371	0.50	127.10 101.00	1894.94 2370.92	4.14 2.49	4.65 8.35	4.81 3.76	0.04 0.05	4949 4951	294 292	855 859	4448 4444
2844	0.10	131.20	2843.92	1.82	10.68	3.47	0.09	4952	291	861	4442
3319	0.40	292.30	3318.91	2.18	9.46	3.63	0.10	4951	292	860	4443
3510	1.00	220.70	3509.90	1.17	7.76	2.36	0.50	4952	291	858	4445
3542	1.00	217.80	3541.90	0.74	7.40	1.88	0.16	4953	290	858	4445
3573	0.80	221.90	3572.89	0.36	7.09	1.46	0.68	4953	290	858	4445
3605 3636	1.70 4.70	66.70 61.40	3604.89 3635.84	0.38 1.17	7.38	1.53	7.65	4953 4952	290	858	4445
3668	7.70	58.60	3667.65	2.92	8.92 11.90	2.55 4.74	9.71 9.42	4952	291 293	859 862	4444 4441
3699	9.50	56.90	3698,30	5.40	15.82	7.80	5.86	4948	295	866	4437
3731	11.50	59.20	3729.76	8.47	20.77	11.61	6.38	4945	298	871	4432
3762	13.50	65.50	3760.02	11.56	26.72	15.58	7.80	4942	301	877	4426
3793	15.60	70.40	3790.03	14.46	33.94	19.57	7.85	4939	304	885	4418
3825	17.60	70.50	3820.69	17.51	42.55	23.93	6.25	4936	307	893	4410
3856 3887	19.60 22.10	71.10 72.30	3850.07 3879.04	20.76 24.22	51.89 62.37	28.60 33.65	6.48 8.18	4933 4930	310 313	903	4400 4390
3919	25.30	72.10	3908.34	28.15	74.61	39.44	10.00	4926	317	913 925	4378
3951	27.60	73.30	3936.99	32.39	88.22	45.74	7.38	4922	321	939	4364
3982	29.50	74.00	3964.22	36.55	102.44	52.08	6.22	4918	325	953	4350
4014	32.70	73.10	3991.61	41.24	118.28	59.18	10.10	4914	329	969	4334
4045	34.40	73.20	4017.45	46.21	134.68	66.64	5.49	4909	334	986	4317
4077 4108	35.50	72.20	4043.68 4068.59	51.66	152.18	74.75	3.88	4904	339	1003	4300
4140	37.50 40.20	71.10 69.90	4093.51	57.47 64.17	169.68 188.60	83,22 92,79	6.79 8.76	4898 4892	344 351	1021 1040	4282 4263
4172	42.40	69.30	4117.55	71.54	208.39	103,15	6.99	4885	358	1060	4243
4203	44.00	68.70	4140.15	79.14	228.20	113.75	5.33	4878	365	1080	4223
4235	46.20	69,90	4162.74	87.15	249.40	124.97	7.37	4870	373	1101	4202
4266	48.40	70.40	4183.76	94.88	270.83	135.95	7.20	4863	380	1123	4180
4298	50.90	70.60	4204.48	103.02	293.82	147.57	7.83	4855	388	1146	4157
4330 4362	53,30 55,00	70.00 68.50	4224.13 4242.87	111.54 120.73	317.59 341.84	159.69	7.64	4847	396	1170	4133
4394	57.20	66.20	4260.72	130.96	366.35	172.55 186.48	6.53 9.10	4838 4828	405 415	1194 1219	4109 4084
4426	59.80	64.50	4277.44	142.34	391.14	201.59	9.30	4817	426	1244	4059
4457	61.70	63.70	4292.59	154.16	415.47	217.05	6.53	4806	437	1268	4035
4489	62.60	61.10	4307.54	167,27	440.54	233.91	7.71	4793	450	1293	4009
4520	63.30	59.10	4321.64	181.03	464.47	251.24	6.17	4779	463	1317	3985
4552	64.50	57.60	4335.72	196.11	488.93	269.94	5.64	4765	478	1342	3961
4583 4615	65.80 66.60	56.10 54.70	4348.74 4361.66	211.49 228.12	512.48 536.58	288.81 308.99	6.07 4.72	4750 4733	493 509	1366 1390	3937 3912
4646	67.70	52.60	4373.70	245.05	559,58	329.30	7.18	4717	525	1414	3889
4678	69.70	50.40	4385.32	263.61	582.91	351.27	8.95	4699	544	1437	3866
4709	71.00	47.80	4395.75	282,73	604.97	373.59	8.94	4680	562	1459	3843
4741	71.90	45.50	4405.93	303.55	627,03	397.60	7.37	4659	583	1482	3821
4773	72.00	42.20	4415.85	325.49	648.10	422.56	9.81	4638	604	1503	3799
4804 4836	72.30 72.50	40.10 37.00	4425.35 4435.03	347.71 371.56	667.52	447.53	6.52	4616	626	1523	3780
4867	73.60	34.70	4444.07	395.59	686.52 703.89	474.06 500.50	9.26 7.93	4592	650 674	1542	3760
4900	74.90	31.80	4453.03	422.15	721.30	529.45	9.33	4569 4542	674 700	1560 1578	3742 3725
4931	75.80	29.20	4460.87	447.99	736.52	557.35	8.62	4517	725	1593	3709
4963	75.30	26.60	4468.85	475.37	751.02	586.66	8.02	4490	753	1608	3694
4995	75.60	23.20	4476.89	503.46	764.05	616.44	10.33	4462	780	1622	3681
5026 5058	76.10	20.30	4484.47	531.38	775.19	645.75	9.21	4434	808	1633	3669
5058 5090	75.50 75.30	18.00 15.10	4492.33 4500.39	560.68 590.36	785.37 794.19	676.28 706.97	7.22 8.79	4405 4375	837 867	1644 1653	3658 3649
5122	75.50	12.30	4508.46	620.45	801.52	737.83	8.49	4375	867 897	1661	3641
5154	76.40	9.00	4516.23	650.95	807.25	768.85	10.39	4315	927	1667	3635
5185	77.30	5.80	4523.29	680.88	811.14	799.03	10.46	4285	957	1671	3631
5217	78.90	3.10	4529.88	712.10	813.57	830.24	9.65	4254	988	1674	3628

	Measured	Sub-Sea	Vertical	True Vert	Northings (+)	Eastings (+)	Vert	DLS				
	Depth	Incl.	Azim.	Depth	Southings (-)	Westings (-)	Section	deg/100'				
	(ft)	(deg)	(ft)	(ft)	(ft)	(ft)	(ft)	(deg)	FNL	FSL	FWL	FEL
	5248	81.50	0.90	4535.16	742.62	814.63	860.55	10.92	4223	1019	1676	3626
Top of Tangent		85.00	359.70	4540.45	787.30	814.86	904.72	8.22	4179	1063	1677	3625
@ 5310'	5357	86.40	359.40	4545.25	851.12	814.36	967.68	2.24	4115	1127	1677	3625
	5407	87.60	359.00	4547.87	901.04	813.67	1016.89	2.53	4065	1177	1677	3625
	5452	88.50	358.60	4549.40	946.00	812.72	1061.15	2.19	4020	1222	1677	3625
Btm of Tangent		89.80	358.50	4550.12	994.98	811.48	1109.34	2.66	3971	1271	1676	3625
@ 5606'	5545	90.80	358.50	4549.89	1038.97	810.33	1152.60	2.27	3927	1315	1676	3626
	5678	91.70	358.60	4546.99	1171.89	806.97	1283.38	0.68	3794	1448	1674	3627
	5769	88.20	358.50	4547.07	1262.85	804.66	1372.86	3.85	3703	1539	1673	3628
	5860 5952	88.60 90.50	357.80	4549.61	1353.76	801.73	1462.21	0.89	3612	1630	1672	3629
	6044	90.50	358.80 358.60	4550.33	1445.72 1537.67	799.00	1552.61	2.33	3520	1722	1670	3631
	6135	92.80	359.10	4548.49 4544.84	1628.58	796.91 795.09	1643.12 1732.63	1.43 1.23	3428 3337	1814 1905	1670 1669	3631 3632
	6227	92.00	359.30	4540.98	1720.49	793.80	1823.21	0.90	3245	1905	1669	3632
	6319	92.70	359.80	4537.21	1812.41	793.08	1913.90	0.93	3153	2089	1670	3631
	6410	90.60	358.50	4534.59	1903.35	791.73	2003.52	2.71	3062	2180	1670	3631
	6502	87.70	358.30	4535.96	1995.30	789.16	2093.94	3.16	2970	2272	1668	3632
	6593	89.30	357.00	4538.34	2086.18	785.43	2183.13	2.27	2879	2363	1666	3634
	6684	90.60	357.80	4538.42	2177.09	781.31	2272.28	1.68	2788	2454	1663	3637
	6775	91.40	356.90	4536.83	2267.97	777.10	2361.40	1.32	2697	2545	1660	3640
	6870	91.20	356,60	4534.67	2362.80	771.71	2454.22	0.38	2602	2640	1656	3643
	6964	91.60	357.50	4532.38	2456.64	766.88	2546.17	1.05	2509	2734	1653	3647
	7058	91.00	358,20	4530.24	2550.55	763.35	2638.38	0.98	2415	2828	1651	3649
	7153	89.90	359.10	4529.50	2645.52	761.12	2731.84	1.50	2320	2923	1650	3650
	7248	91.90	357.70	4528.01	2740.46	758.46	2825.21	2.57	2225	3018	1649	3651
	7342	90.90	354.90	4525.71	2834.23	752.40	2916.88	3.16	2131	3111	1644	3655
	7438	91.40	357.40	4523.78	2929.99	745.96	3010.46	2.66	2035	3207	1639	3660
	7533	92.80	357.70	4520,30	3024.83	741.90	3103.51	1.51	1940	3302	1636	3663
	7628	91.60	0.40	4516.65	3119.74	740.32	3197.01	3.11	1845	3397	1636	3663
	7722	92.60	1.10	4513.21	3213.67	741.55	3289.98	1.30	1751	3491	1639	3660
	7816	92.90	0.50	4508.70	3307.55	742.86	3382.92	0.71	1657	3585	1641	3657
	7912	90.80	0.80	4505.60	3403.49	743.95	3477.86	2.21	1561	3681	1644	3655
	8007	90.90	3.40	4504.19	3498.40	747.43	3572.16	2.74	1466	3776	1649	3650
	8102	89.00	2.40	4504.27	3593.28	752.24	3666.62	2.26	1372	3870	1655	3643
	8196	88.50	2.30	4506.32	3687.17	756.09	3759.97	0.54	1278	3964	1660	3638
	8290	88.80	1.10	4508.54	3781.11	758.88	3853.19	1.32	1184	4058	1664	3634
	8385	89.00	0.40	4510.36	3876.08	760.12	3947.19	0.77	1089	4153	1667	3631
	8480 8575	89.60	0.00	4511.52	3971.07	760.46	4041.07	0.76	994	4248	1668	3629
	8669	88.90 89.80	358.50	4512.77	4066.05	759.21	4134.70	1.74	899	4343	1669	3629
	8740	90.00	359.10 359.30	4513.83	4160.02	757.24	4227.21	1.15	805	4437	1668	3629
	9140	90.00	359.30	4513.96 4513.96	4231.02 4630.99	756.25 751.37	4297.18 4691.50	0.40 0.00	734 334	4508 4908	1668 1669	3629 3628

