

Confidentiality Requested:

Yes No

Kansas Corporation Commission Oil & Gas Conservation Division

1231706

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:								
Address 2:			Feet from North / South Line of Section					
City:	State: Z	ip:+	Feet from East / West Line of Section					
Contact Person:			Footages Calculated from Nearest Outside Section 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:							

1231706

Operator Name:			Lease Name:	Well #:					
Sec Twp	S. R	East West	County:						
open and closed, flow	ring and shut-in pressu	ormations penetrated. Dres, whether shut-in preith final chart(s). Attach	ssure reached stati	c level, hydrosta	tic pressures, bott				
		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 Geo	logical Survey	☐ Yes ☐ No	Nam	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		
Durmaga	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	nmingled	1110000110	TO THE LANGE.		
	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	Alice 3306 1-12H
Doc ID	1231706

Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement	Number of Sacks Used	Type and Percent Additives
Conductor	24	20	75	80	Edge 10 sack grout	8	none
Surface	12.25	9.63	36	645	O-Tex Class A	325	6% Bentonite, .4% C-41, 2% CaCl2, .25 pps Cellophan e Flakes
Intermedia te	8.75	7	26	5451	O-Tex 50/50 POZ Premium	385	4% gel, .2% FL- 17, .1% C- 51, .2% C- 20, .1% C- 37, .4% C- 41P
							41P

TELL STATE OF THE STATE OF THE

INVOICE

DATE	INVOCACE M
7/31/2014	toos

BILL TO

SANDRIDGE ENTRGY, INC. ATTN: PURCHASING MANAGER 121 ROBERT S. KERR AVENUE OKLAHOMA CITY, OK. 13102 PEMIT TO

EDGE SERVICES, INC. PO BOX 609 WOODWARD, OK 75802

COUNTY	STARTING D	WORK ORDER	AIG NUMBER	LEASE NAME	Terra
HARPER, KS	7/31/30/14	1912	LATSHAW 29	ALICE 3308 1-12FF	Die on rec.

DRILLIED BY OF 30" CONSERCTOR BOLE
DRILLIED 6" OF 16" HOLE
FURNISHED AND SET 6" X 6" TINBORN CELLAR
FURNISHED BY OF 20" CONDUCTOR PIPE
FURNISHED MUD, WATER, AND TRUCKING
FURNISHED WELDER AND MATERIALS
FURNISHED & YARDS OF 16 SACK GROUT FOR CONDUCTOR HOLE
FURNISHED 4 VARDS OF 16 SACK GROUT FOR MOUSE BOLE
FURNISHED GROUT PUMP
DRILL MOUSE NOLE
FURNISHED BY OF 16" CONDUCTOR PIPE

TOTAL BID \$19,000.00

AFE Number	DC 1	3088	
Well Name:	PALIFIC	3306	1-1214
Code:		(1)	
Amount 1	9158	119	
Co. Man:	to the cut	for hu	ul
Co. Man Sig.:	Alan .	There !	
Notes	' / C		

Sales Tax (6.15%)

\$138.79

TOTAL

\$19,158.79

Invoice

7303 N. Highway 81 Duncan, OK 73533

Date:	Invoice #:
8/7/2014	0000015246

Phone # (580) 255-3111

Bill To

Sandridge Exploration & Production 123 Robert S Kerr Ave Oklahoma City, OK 73102-6406

Description of Work	
HARPER,COUNTY KS AFE DC13088	

Job Type: Surface (New Well Only)

Field Re	ceipt	Terms	Service Date	Due Date	;	AFE No				Lease/Well Name			
SOK40)31	Net 30	8/6/2014	9/6/2014		AFE DC13088				ALICE 3306 1-12H			
Item		De	scription		U/M	Qty	Price Each	Amount	Disc %	Disc Amt	Net Amount		
ML001	Picku	p Mileage			UNTMIL	100	4.26	426.00	60.00%	-255.60	170.4		
ML002	Pump Truck/Heavy Vehicle Mileage		UNTMIL	100	7.32	732.00		-439.20	292.8				
ML003	Bulk	Cement Deli	ivery/Return		MILE	775	2.95	2,286.25	60.00%	-1,371.75	914.5		
MX001	Bulk	Material Mi	xing Service Ch	arge	SCF	357	3.27	1,167.39	60.00%	-700,43	466.9		
CC001	Pump	Charge 0-1	000'		4-HRS	1	2,038.61	2,038.61	60.00%	-1,223.17	815.4		
CC015	Pump	Charge Add	litional Hours		UNTHRS	3	588.06	1,764.18	35.00%	-617.46	1,146.7		
ML014	Fuel 8	Surcharge *			JOB	1	653.40	653.40	100.00%	-653.40	0.0		
AE014	Envir	onmental Fe	e*		JOB	1	228.69	228.69	100.00%	-228.69	0.0		
PC003	Empl	oyee/Superv	isor Retention/p	erdiem	JOB	5	1,306.80	6,534.00	90.00%	-5,880.60	653,4		
ЛМ001	Data A	Acquisition S	System		JOB	1	1,437.48	1,437.48	60.00%	-862.49	574.9		
AE003	Circu	lation Equip	ment(40' of equ	ipment)	JOB	1	1,633.50	1,633.50	60.00%	-980.10	653,4		
AE002	Ceme	nt Head with	n manifold		JOB	1	1,176.12	1,176.12	60.00%	-705.67	470.4		
CL017	9 5/8"	Top Rubber	r Plug		EACH	1	338.80	338.80	35.00%	-118.58	220.2		
CSB006	O-Tex	Lite Premiu	ım Plus		SACK	160	29.81	4,769.60	53,00%	-2,527.89	2,241.7		
CP001	C (Pre	emium Plus (Cement) (94 lbs/	/ft3)	94SACK	165	30.80	5,082.01	53.00%	-2,693.47	2,388.54		
CP010	Cello	Flake		"	LBS	81	4.20	340.20	53,00%	-180.31	159.89		
CP018	Calciu	ım Chloride			LBS	589	1.22	718.58	53.00%	-380.85	337,73		
CP009	CF-41	(Foam Prev	venter)		GAL	4	86.06	344.24	53.00%	-182.45	161.79		
CP033	CF-41	P (Powder I	Defoamer)		LBS	58	5.42	314.36	53.00%	-166.61	147.75		
CP031	Sugar				LBS	100	3.39	339.00	0.00%	0.00	339.00		

Subtotal Amount Sales Tax Discount Amount

Payment/Credit Amount

Total Net Amount

Contact: Sandridge Exploration & Production

Page: 1

COUNTY	State J	OB SUMI	MARY			4059	TICKET DATE	08/13/14	
Harper	Kansas	Sandridge Explore	ation & Produ	ction		ince Bro	wn	7	
LEASE NAME Alice 3306	Well No. 1-12H	JOB TYPE Intermed	iate		EMPLOYEE NAM	Arthur Se	etzer		
EMP NAME									
Arthur Setzer Jared Green	0								9 8 10 5 3
Frank Reeves									control (See Ed. See
David Settlemier							 		
Form. Name	Type:								
roini. Name	Type.			alled Out	On Location	on Ho	b Started	Hob C	ompleted
Packer Type	Set At	0	Date	8/12/2014	8/12/2	014	8/13/2014	8/	3/2014
Bottom Hole Temp.	155 Pressi			7.2.2.					on position a
Retainer Depth	Total I and Accessorie		Time	1800	2200		0642	09	900
Type and Size	Qty	Make		New/Used	Well (Weight				In An
Auto Fill Tube	0	IR	Casing	Newlosed	26#	7"	From Surface	To 5,449	Max. Allow 5,000
Insert Float Va	0	IR	Liner		 	 	Gariage	0,440	3,000
Centralizers	0	IR	Liner				0 = 0		
Top Plug	0	IR	Tubing			0			
HEAD Limit clamp	0	IR IB	Drill Pipe			83736			
Weld-A	10	IR IR	Open Hol Perforation			83/4"	Surface	5,532	Shots/Ft.
Texas Pattern Guide SI		İR	Perforatio			 			
Cement Basket	0	ÍŘ	Perforatio	ns			 		
Mud Type WBM	laterials	9 Ib/Gall	Hours On	Location	Operating		Descrip	tion of Job	
		9 Lb/Gal 8.33 Lb/Gal	Date 8/12	Hours 2.0	Date 8/13	Hours 2.0	Interme	diate	
Spacer type resh Water	eRRI 20	8.33	8/13	9.0	0/13	2.0	-		
Spacer type Caustic	BBL. 10	8.40							
Acid Type Acid Type	Gal.	%							
Surfactant	Gal	%							
NE Agent	Gal.	in							
Fluid Loss	Gal/Lb	ln							
Gelling Agent	Gal/Lb	ln							
Fric. Red. MISC.	Gal/Lb	ln	Total	44.6	T. (1)	0.0		100	
VIIGO	Gal/Lb	In	Total	11.0	Total	2.0			
Perfpac Balls	Qtv.				Pre	ssures			
Other			MAX	5.000 PSI	AVG.	1250			
Other		7-1-1-1-1	1111	0.000	Average	Rates in BF	M		
Other			MAX	8 BPM		8			
Other			Feet	85		Left in Pipe SHOE JOI			
			1 001		Reason	OHOL JOI	101		
			Ceme	ent Data					
	ement		Additives				W/Rq.	Yield	Lbs/Gal
	OZ PREMIUM	4% Gel - 0.2% FL-	17 - 0.1% C-5	1 - 0.2% C-20 - 0	.1% C-37 - 0	.4% C-41P	6.93	1.43	13.60
2 120 Pi	remium 0	0.2% FL-17 - 0.1%	G-51 - 0.1%	C-20 - 0.4% C-41	Р		5.19	1.19	15.60
<u> </u>	<u>, , , , , , , , , , , , , , , , , , , </u>						0 0.00	0.00	0.00
							-		
			Summ	ary					
Preflush	Type:			Preflush:	BBI [30.00	Type:	Gel Si	oacer
Breakdown	MAXIM	UM 5,	000 PSI O/FULL	Load & Bkdn:		N/A	Pad:Bbl	-Gal	N/A
	Lost Re		2,125	Excess /Return Calc. TOC:	וממו	N/A 2,125	Calc.Dis Actual D	ion Bol	205 205.00
Average	Bump F	Plug PSI:	1,900	Final Circ.	PSI:	1,250	— Actual L Disp:Bbl		205.00
sip5 Min	10 Min	15 Mir	1	Cement Slurry	BBI	92.0			-
· · · · · · · · · · · · · · · · · · ·		A		Total Volume	RBI	327.00			
		// /	711						
OUOTOMED DES		_ ///	1151	-7					
CUSTOMER REPI	KESENTATIV	= ///h	1 val		OLONIASTRA	×			
		11			SIGNATURE				
		1/							
		V							

				STAGE 1				
		P-S	leeve @	9,089			***************************************	
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, Ibs	Time, min
15% HCI acid	20	750	18	1 0				0.9
Slickwater	70	12189	290					4.1
Slickwater	70	9200	219	40/70	0.25	Garnet	2300	3.1
Slickwater	70	2300	55	40/70	0.50	Garnet	1150	0.8
Slickwater	70	3150	75					1.1
Slickwater	70	6900	164	40/70	0.50	Genoa	3450	2.3
Slickwater	70	3150	75					1.1
Slickwater	70	9067	216	40/70	0.75	Genoa	6800	3.1
Slickwater	70	3150	75					1.1
Slickwater	70	5700	136	40/70	1.00	Genoa	5700	1.9
Slickwater	70	3150	75					1.1
Slickwater	70	3400	81	40/70	1.00	Garnet	3400	1.2
Slickwater	70	8017	191					2.7
TOTAL		70,123	1,670				22,800	24.5

į.				STAGE 2	2 12			
			Port @	8,989				
Fluid	Rate	Vol. gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	750	18					0.9
Slickwater	70	15389	366	-				5.2
Slickwater	70	11600	276	40/70	0.25	Garnet	2900	3.9
Slickwater	70	2900	69	40/70	0.50	Garnet	1450	1.0
Slickwater	70	3150	75					1.1
Slickwater	70	8700	207	40/70	0.50	Genoa	4350	3,0
Slickwater	70	3150	75					1.1
Slickwater	70	11467	273	40/70	0.75	Genoa	8600	3.9
Slickwater	70	3150	75	(1)				1.1
Slickwater	70	7200	171	40/70	1.00	Genoa	7200	2.4
Slickwater	70	3150	75					1.1
Slickwater	70	4300	102	40/70	1.00	Garnet	4300	1.5
Slickwater	70	7952	189					2.7

TOTAL 82,858 1,973 28,800 28.8

	STAGE 3										
			Port @	8,845 '		.1					
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min			
15% HCI acid	20	750	18					0.9			
Slickwater	80	10667	254					3.2			
Slickwater	80	8000	190	40/70	0.25	Garnet	2000	2.4			
Slickwater	80	2000	48	40/70	0.50	Garnet	1000	0.6			
Slickwater	80	3150	75					0.9			
Slickwater	80	6000	143	40/70	0.50	Genoa	3000	1.8			
Slickwater	80	3150	75					0.9			
Slickwater	80	8000	190	40/70	0.75	Genoa	6000	2.4			
Slickwater	80	3150	75					0.9			
Slickwater	80	5000	119	40/70	1.00	Genoa	5000	1.5			
Slickwater	80	3150	75		,			0.9			
Slickwater	80	3000	71	40/70	1.00	Garnet	3000	0.9			
Slickwater	80	7858	187					2.3			
TOTAL		63,875	1,521				20,000	19.7			

				STAGE 4				
			Port @	8,749 '				
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	750	18					0.9
Slickwater	80	15111	360			-		4.5
Slickwater	80	11200	267	40/70	0.25	Garnet	2800	3.3
Slickwater	80	2850	68	40/70	0.50	Garnet	1425	0.8
Slickwater	80	3150	75					0.9
Slickwater	80	8550	204	40/70	0.50	Genoa	4275	2.5
Slickwater	80	3150	75					0.9
Slickwater	80	11333	270	40/70	0.75	Genoa	8500	3.4
Slickwater	80	3150	75					0.9
Slickwater	80	7100	169	40/70	1.00	Genoa	7100	2.1
Slickwater	80	3150	75					0.9
Slickwater	80	4300	102	40/70	1.00	Garnet	4300	1.3
Slickwater	80	7796	186					2.3
TOTAL		81,590	1,943				28,400	25.0

			· · · · · · · · · · · · · · · · · · ·	STAGE 5		***************************************		
			Port @	8,603)			
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	750	18				10	0,9
Slickwater	90	10489	250					2.8
Slickwater	90	8000	190	40/70	0.25	Garnet	2000	2.1
Slickwater	90	1950	46	40/70	0.50	Garnet	975	0.5
Slickwater	90	3150	75					0.8
Slickwater	90	5850	139	40/70	0.50	Genoa	2925	1.5
Slickwater	90	3150	75					0.8
Slickwater	90	7867	187	40/70	0.75	Genoa	5900	2.1
Slickwater	90	3150	75					0.8
Slickwater	90	4900	117	40/70	1.00	Genoa	4900	1.3
Slickwater	90	3150	75					0,8
Slickwater	90	2900	69	40/70	1.00	Garnet	2900	0.8
Slickwater	90	7701	183					2.0
TOTAL		63,007	1,500		*********** *	1	19,600	17.4

				STAGE 7				
		8	Port @	8,404				
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	750	18					0.9
Slickwater	100	10667	254					2.5
Slickwater	100	8000	190	40/70	0.25	Garnet	2000	1.9
Slickwater	100	2000	48	40/70	0.50	Garnet	1000	0.5
Slickwater	100	3150	75		× JB		90 - AU	0.8
Slickwater	100	6000	143	40/70	0.50	Genoa	3000	1.4
Slickwater	100	3150	75					0.8
Slickwater	100	8000	190	40/70	0.75	Genoa	6000	1.9
Slickwater	100	3150	75				1	0.8
Slickwater	100	5000	119	40/70	1.00	Genoa	5000	1.2
Slickwater	100	3150	75					0.8
Slickwater	100	3000	71	40/70	1.00	Garnet	3000	0.7
Slickwater	100	7571	180					1.8
TOTAL	1	63,588	1,514				20,000	15.9

0	STAGE 6										
			Port @	8,504							
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min			
15% HCl acid	20	750	18					0.9			
Slickwater	90	10667	254					2.8			
Slickwater	90	8000	190	40/70	0.25	Garnet	2000	2.1			
Slickwater	90	2000	48	40/70	0.50	Garnet	1000	0.5			
Slickwater	90	3150	75				,	0.8			
Slickwater	90	6000	143	40/70	0.50	Genoa	3000	1.6			
Slickwater	90	3150	75					0.8			
Slickwater	90	8000	190	40/70	0.75	Genoa	6000	2.1			
Slickwater	90	3150	75					0.8			
Slickwater	90	5000	119	40/70	1.00	Genoa	5000	1.3			
Slickwater	90	3150	75					0.8			
Slickwater	90	3000	71	40/70	1.00	Garnet	3000	0.8			
Slickwater	90	7636	182					2.0			
TOTAL		63,653	1,516				20,000	17.5			

		***************************************		STAGE 8				
			Port @	8,305				
Fluld	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, Ibs	Time, min
15% HCl acid	20	750	18					0,9
Slickwater	100	15544	370	,				3.7
Slickwater	100	11600	276	40/70	0.25	Garnet	2900	2.8
Slickwater	100	2900	69	40/70	0.50	Garnet	1450	0.7
Slickwater	100	3150	75				λ.	0.8
Slickwater	100	8700	207	40/70	0.50	Genoa	4350	2,1
Slickwater	100	3150	75					0.8
Slickwater	100	11733	279	40/70	0.75	Genoa	8800	2.8
Slickwater	100	3150	75					0.8
Slickwater	100	7300	174	40/70	1.00	Genoa	7300	1.7
Slickwater	100	3150	75					0.8
Slickwater	100	4400	105	40/70	1.00	Garnet	4400	1.0
Slickwater	100	7507	179					1.8
TOTAL		83,034	1,977				29,200	20.5

PLAT	Rate		Port @	0 450 1									
PI. 1 I	Rate	Port @ 8,159 '											
Fluid	11410	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min					
15% HCl acid	20	750	18		1			0.9					
Slickwater	100	10667	254					2.5					
Slickwater	100	8000	190	40/70	0.25	Garnet	2000	1.9					
Slickwater	100	2000	48	40/70	0.50	Garnet	1000	0.5					
Slickwater	100	3150	75					0.8					
Slickwater	100	6000	143	40/70	0.50	Genoa	3000	1.4					
Slickwater	100	3150	75					0.8					
Slickwater	100	8000	190	40/70	0.75	Genoa	6000	1.9					
Slickwater	100	3150	75					0.8					
Slickwater	100	5000	119	40/70	1.00	Genoa	5000	1.2					
Slickwater	100	3150	75					0.8					
Slickwater	100	3000	71	40/70	1.00	Garnet	3000	0.7					
Slickwater	100	7412	176					1.8					

TOTAL 63,429 1,510 20,000 15.8

				STAGE 1	0		-	
			Port @	8,063	I			
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, Ibs	Time, min
15% HCl acid	20	750	18	- Annual				0.9
Slickwater	100	10167	242					2.4
Slickwater	100	7600	181	40/70	0.25	Garnet	1900	1.8
Slickwater	100	1900	45	40/70	0.50	Garnet	950	0.5
Slickwater	100	3150	75					0.8
Slickwater	100	5700	136	40/70	0.50	Genoa	2850	1.4
Slickwater	100	3150	75	5)				8.0
Slickwater	100	7600	181	40/70	0.75	Genoa	5700	1.8
Slickwater	100	3150	75.			-		0.8
Slickwater	100	4800	114	40/70	1.00	Genoa	4800	1.1
Slickwater	100	3150	75					0.8
Slickwater	100	2900	69	40/70	1.00	Garnet	2900	0.7
Slickwater	100	7349	175				6.0	1.7
TO THE A L		01.000	1 101				10 100	150

TOTAL 61,366 1,461 19,100 15.3

				STAGE 1				
	0		Port @	7,963 '				/
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, Ibs	Time, min
15% HCl acid	20	750	18					0.9
Slickwater	100	10667	254					2.5
Slickwater	100	8000	190	40/70	0.25	Garnet	2000	1.9
Slickwater	100	2000	48	40/70	0.50	Garnet	1000	0.5
Slickwater	100	3150	75					0.8
Slickwater	100	6000	143	40/70	0.50	Genoa	3000	1.4
Slickwater	100	3150	75					0.8
Slickwater	100	8000	190	40/70	0.75	Genoa	6000	1.9
Slickwater	100	3150	75					0.8
Slickwater	100	5000	119	40/70	1.00	Genoa	5000	1.2
Slickwater	100	3150	75					0.8
Slickwater	100	3000	71	40/70	1.00	Garnet	3000	0.7
Slickwater	100	7284	173					1.7
TOTAL		63,301	1,507				20,000	15.8

				STAGE 1	2	*****		
			Port @	7,868				
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	750	18		144 S			0.9
Slickwater	100	15111	360					3.6
Slickwater	100	11200	267	40/70	0.25	Garnet	2800	2.7
Slickwater	100	2850	68	40/70	0.50	Garnet	1425	0.7
Slickwater	100	3150	75					0.8
Slickwater	100	8550	204	40/70	0.50	Genoa	4275	2.0
Slickwater	100	3150	75					8.0
Slickwater	100	11333	270	40/70	0.75	Genoa	8500	2.7
Slickwater	100	3150	75		A.			0.8
Slickwater	100	7100	169	40/70	1.00	Genoa	7100	1.7
Slickwater	100	3150	75					0.8
Slickwater	100	4300	102	40/70	1.00	Garnet	4300	1.0
Slickwater	100	7222	172			7		1.7
TOTAL		81,016	1,929				28,400	20.0

			(STAGE 1	3			
			Port @	7,722				
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, Ibs	Time, min
15% HCI acid	20	750	18					0.9
Slickwater	100	10667	254					2.5
Slickwater	100	8000	190	40/70	0.25	Garnet	2000	1.9
Slickwater	100	2000	48	40/70	0.50	Garnet	1000	0.5
Slickwater	100	3150	75					0.8
Slickwater	100	6000	143	40/70	0.50	Genoa	3000	1.4
Slickwater	100	3150	75					0.8
Slickwater	100	8000	190	40/70	0.75	Genoa	6000	1.9
Slickwater	100	3150	75					0.8
Slickwater	100	5000	119	40/70	1.00	Genoa	5000	1.2
Slickwater	100	3150	75					0.8
Slickwater	100	3000	71	40/70	1.00	Garnet	3000	0.7
Slickwater	100	7127	170		_			1.7
TOTAL		63.144	1.503				20.000	15.7

			,	STAGE 1	1			
			Port @	7,625				
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	750	18					0.9
Slickwater	100	10211	243			0		2.4
Slickwater	100	7600	181	40/70	0.25	Garnet	1900	1.8
Slickwater	100	1900	45	40/70	0.50	Garnet	950	0.5
Slickwater	100	3150	75		_			0.8
Slickwater	100	5700	136	40/70	0.50	Genoa	2850	1.4
Slickwater	100	3150	75					8.0
Slickwater	100	7733	184	40/70	0.75	Genoa	5800	1.8
Slickwater	100	3150	75					0.8
Slickwater	100	4800	114	40/70	1.00	Genoa	4800	1.1
Slickwater	100	3150	75					0.8
Slickwater	100	2900	69	40/70	1.00	Garnet	2900	0.7
Slickwater	100	7064	168					1.7
TO TAL		01000	4 450				40 000	450

TOTAL 61,258 1,459 19,200 15.3

			,	STAGE 1	5			eranning eta Standard avent
			Port @	7,525				
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	750	18					0.9
Slickwater	100	10667	254					2.5
Slickwater	100	8000	190	40/70	0.25	Garnet	2000	1.9
Slickwater	100	2000	48	40/70	0.50	Garnet	1000	0.5
Slickwater	100	3150	75					0.8
Slickwater	100	6000	143	40/70	0.50	Genoa	3000	1.4
Slickwater	100	3150	75					0.8
Slickwater	100	8000	190	40/70	0.75	Genoa	6000	1.9
Slickwater	100	3150	75					0.8
Slickwater	100	5000	119	40/70	1.00	Genoa	5000	1.2
Slickwater	100	3150	75					0.8
Slickwater	100	3000	71	40/70	1.00	Garnet	3000	0.7
Slickwater	100	6999	167					1.7
TOTAL		63,016	1,500				20,000	15.7

			1	STAGE 16	3		The second secon	MK
			Port @	7,426 '		3		
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	750	18					0.9
Slickwater	100	10622	253					2.5
Slickwater	100	8000	190	40/70	0.25	Garnet	2000	1.9
Slickwater	100	2000	48	40/70	0.50	Garnet	1000	0.5
Slickwater	100	3150	75				<u> </u>	8.0
Slickwater	100	6000	143	40/70	0.50	Genoa	3000	1.4
Slickwater	100	3150	75					0,8
Slickwater	100	7867	187	40/70	0.75	Genoa	5900	1.9
Slickwater	100	3150	75					0.8
Slickwater	100	5000	119	40/70	1.00	Genoa	5000	1.2
Slickwater	100	3150	75				5.0 × 1000 500 00	8.0
Slickwater	100	3000	71	40/70	1.00	Garnet	3000	0.7
Slickwater	100	6934	165					1.7
TOTAL		62,773	1,495				19,900	15.7

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			Port @	7,328				
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	750	18					0.9
Slickwater	100	10311	246		1			2.5
Slickwater	100	7600	181	40/70	0.25	Garnet	1900	1.8
Slickwater	100	1950	46	40/70	0.50	Garnet	975	0.5
Slickwater	100	3150	75					0.8
Slickwater	100	5850	139	40/70	0.50	Genoa	2925	1.4
Slickwater	100	3150	75		0			0.8
Slickwater	100	7733	184	40/70	0.75	Genoa	5800	1.8
Slickwater	100	3150	75					0.8
Slickwater	100	4900	117	40/70	1.00	Genoa	4900	1.2
Slickwater	100	3150	75	The state of the s				0.8
Slickwater	100	2900	69	40/70	1.00	Garnet	2900	0.7
Slickwater	100	6871	164					1.6
TOTAL		CAACE	4 400				10 100	35.0

TOTAL 61,465 1,463 19,400 15.3

			_	STAGE 1	8			
			Port @	7,235	•			
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	750	18					0.9
Slickwater	100	9678	230					2.3
Slickwater	100	7200	171	40/70	0.25	Garnet	1800	1.7
Slickwater	100	1800	43	40/70	0.50	Garnet	900	0.4
Slickwater	100	3150	75					0.8
Slickwater	100	5400	129	40/70	0.50	Genoa	2700	1.3
Slickwater	100	3150	75	ж				0.8
Slickwater	100	7333	175	40/70	0.75	Genoa	5500	1.7
Slickwater	100	3150	75					0.8
Slickwater	100	4600	110	40/70	1.00	Genoa	4600	1.1
Slickwater	100	3150	75					0.8
Slickwater	100	2700	64	40/70	1.00	Garnet	2700	0.6
Slickwater	100	6810	162					1.6
TOTAL		50 074	4.402				40 200	447

TOTAL 58,871 1,402 18,200 14.7

Name Alaboti Printing and a supply of the latest the supply of the suppl				STAGE 1	9	2.5		
			Port @	7,139				
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	750	18					0.9
Slickwater	100	10167	242	L				2.4
Slickwater	100	7600	181	40/70	0.25	Garnet	1900	1.8
Slickwater	100	1900	45	40/70	0.50	Garnet	950	0.5
Slickwater	100	3150	75	71	N. A.	_		0.8
Slickwater	100	5700	136	40/70	0.50	Genoa	2850	1.4
Slickwater	100	3150	75					0,8
Slickwater	100	7600	181	40/70	0.75	Genoa	5700	1.8
Slickwater	100	3150	75			TI.		0.8
Slickwater	100	4800	114	40/70	1.00	Genoa	4800	1.1
Slickwater	100	3150	75			-		0.8
Slickwater	100	2900	69	40/70	1.00	Garnet	2900	0.7
Slickwater	100	6747	161					1.6
TOTAL		60,764	1,447				19,100	15.2

				STAGE 20)			
			Port @	7,044 '				
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	750	18					0.9
Slickwater	100	15544	370					3.7
Slickwater	100	11600	276	40/70	0.25	Garnet	2900	2.8
Slickwater	100	2900	69	40/70	0.50	Garnet	1450	0.7
Slickwater	100	4500	107					1.1
Slickwater	100	8700	207	40/70	0.50	Genoa	4350	2.1
Slickwater	100	4500	107			40		1.1
Slickwater	100	11733	279	40/70	0.75	Genoa	8800	2.8
Slickwater	100	4500	107					1.1
Slickwater	100	7300	174	40/70	1.00	Genoa	7300	1.7
Slickwater	100	4500	107					1.1
Slickwater	100	4400	105	40/70	1.00	Garnet	4400	1.0
Slickwater	100	6686	159					1.6
TOTAL		87,613	2,086				29,200	21.6

				STAGE 2	1		28 r - 2	
			Port @	6,898				
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	750	18		X			0.9
Slickwater	100	10667	254					2.5
Slickwater	100	8000	190	40/70	0.25	Garnet	2000	1.9
Slickwater	100	2000	48	40/70	0.50	Garnet	1000	0,5
Slickwater	100	3150	75				,	0.8
Slickwater	100	6000	143	40/70	0.50	Genoa	3000	1.4
Slickwater	100	3150	75					0.8
Slickwater	100	8000	190	40/70	0.75	Genoa	6000	1.9
Slickwater	100	3150	75					0,8
Slickwater	100	5000	119	40/70	1.00	Genoa	5000	1.2
Slickwater	100	3150	75					0.8
Slickwater	100	3000	71	40/70	1.00	Garnet	3000	0.7
Slickwater	100	6591	157					1.6

TOTAL 62,608 1,491 20,000 15.6

				STAGE 2	2			
			Port @	6,803				
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	750	18					0.9
Slickwater	100	10167	242					2.4
Slickwater	100	7600	181	40/70	0.25	Garnet	1900	1.8
Slickwater	100	1900	45	40/70	0.50	Garnet	950	0.5
Slickwater	100	3150	75					8.0
Slickwater	100	5700	136	40/70	0.50	Genoa	2850	1.4
Slickwater	100	3150	75					0.8
Slickwater	100	7600	181	40/70	0.75	Genoa	5700	1.8
Slickwater	100	3150	75					0.8
Slickwater	100	4800	114	40/70	1.00	Genoa	4800	1.1
Slickwater	100	3150	75					0.8
Slickwater	100	2900	69	40/70	1.00	Garnet	2900	0.7
Slickwater	100	6529	155					1.6

TOTAL 60,546 1,442 19,100 15.1

	-			STAGE 2	3			
		991 3 1	Port @	6,703				
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	750	18					0,9
Slickwater	100	10667	254					2.5
Slickwater	100	8000	190	40/70	0.25	Garnet	2000	1.9
Slickwater	100	2000	48	40/70	0.50	Garnet	1000	0.5
Slickwater	100	3150	75					0.8
Slickwater	100	6000	143	40/70	0.50	Genoa	3000	1.4
Slickwater	100	3150	75					0.8
Slickwater	100	8000	190	40/70	0.75	Genoa	6000	1.9
Slickwater	100	3150	75					0.8
Slickwater	100	5000	119	40/70	1.00	Genoa	5000	1.2
Slickwater	100	3150	75					8,0
Slickwater	100	3000	71	40/70	1.00	Garnet	3000	0.7
Slickwater	100	6464	154					1.5
TOTAL		62,481	1,488				20,000	15.6

	STAGE 24										
		- 1	Port @	6,603 '							
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min			
15% HCl acid	20	750	18					0.9			
Slickwater	100	10311	246					2.5			
Slickwater	100	7600	181	40/70	0.25	Garnet	1900	1.8			
Slickwater	100	1950	46	40/70	0.50	Garnet	975	0,5			
Slickwater	100	3150	75					0.8			
Slickwater	100	5850	139	40/70	0.50	Genoa	2925	1.4			
Slickwater	100	3150	75					0.8			
Slickwater	100	7733	184	40/70	0.75	Genoa	5800	1.8			
Slickwater	100	3150	75				4	0.8			
Slickwater	100	4900	117	40/70	1.00	Genoa	4900	1.2			
Slickwater	100	3150	75					0.8			
Slickwater	100	2900	69	40/70	1.00	Garnet	2900	0.7			
Slickwater	100	6399	152					1.5			
TOTAL		60,993	1,452				19,400	15.2			

,			,	STAGE 2	5			
			Port @	6,509 '				
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	750	18					0.9
Slickwater	100	10211	243					2.4
Slickwater	100	7600	181	40/70	0.25	Garnet	1900	1.8
Slickwater	100	1900	45	40/70	0.50	Garnet	950	0.5
Slickwater	100	3150	75					0.8
Slickwater	100	5700	136	40/70	0.50	Genoa	2850	1.4
Slickwater	100	3150	75			,		8.0
Slickwater	100	7733	184	40/70	0.75	Genoa	5800	1.8
Slickwater	100	3150	75					0.8
Slickwater	100	4800	114	40/70	1.00	Genoa	4800	1.1
Slickwater	100	3150	75				100	0,8
Slickwater	100	2900	69	40/70	1.00	Garnet	2900	0.7
Slickwater	100	6337	151					1.5

TOTAL 60,531 1,441 19,200 15.1

			5	STAGE 2	6			
	aryan dilin cynyland dan en b la Bylline.	~~~	Port @	6,409				
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, Ibs	Time, min
15% HCl acid	20	750	18			·		0,9
Slickwater	100	10744	256					2.6
Slickwater	100	8000	190	40/70	0.25	Garnet	2000	1.9
Slickwater	100	2000	48	40/70	0.50	Garnet	1000	0.5
Slickwater	100	3150	75					0.8
Slickwater	100	6000	143	40/70	0.50	Genoa	3000	1.4
Slickwater	100	3150	75					0.8
Slickwater	100	8133	194	40/70	0.75	Genoa	6100	1.9
Slickwater	100	3150	75					0.8
Slickwater	100	5100	121	40/70	1.00	Genoa	5100	1.2
Slickwater	100	3150	75				11	8,0
Slickwater	100	3000	71	40/70	1.00	Garnet	3000	0.7
Slickwater	100	6272	149				***************************************	1.5

TOTAL 62,599 1,490 20,200 15.6

				STAGE 2	7			
			Port @	6,309				
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, Ibs	Time, min
15% HCl acid	20	750	18					0.9
Slickwater	100	10667	254					2.5
Slickwater	100	8000	190	40/70	0.25	Garnet	2000	1.9
Slickwater	100	2000	48	40/70	0.50	Garnet	1000	0.5
Slickwater	100	3150	75		-			0.8
Slickwater	100	6000	143	40/70	0.50	Genoa	3000	1.4
Slickwater	100	3150	75					0.8
Slickwater	100	8000	190	40/70	0.75	Genoa	6000	1.9
Slickwater	100	3150	75				No.	0.8
Slickwater	100	5000	119	40/70	1.00	Genoa	5000	1.2
Slickwater	100	3150	75				0	0.8
Slickwater	100	3000	71	40/70	1.00	Garnet	3000	0.7
Slickwater	100	6207	148					1.5

TOTAL 62,224 1,482 20,000 15.5

				STAGE 2	8			
			Port @	6,208				
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, Ibs	Time, min
15% HCl acid	20	750	18			- (0.9
Slickwater	100	10744	256			(1)		2.6
Slickwater	100	8000	190	40/70	0.25	Garnet	2000	1.9
Slickwater	100	2000	48	40/70	0.50	Garnet	1000	0.5
Slickwater	100	3150	75				2.72	8.0
Slickwater	100	6000	143	40/70	0.50	Genoa	3000	1.4
Slickwater	100	3150	75					0.8
Slickwater	100	8133	194	40/70	0.75	Genoa	6100	1.9
Slickwater	100	3150	75					8.0
Slickwater	100	5100	121	40/70	1.00	Genoa	5100	1.2
Slickwater	100	3150	75					0.8
Slickwater	100	3000	71	40/70	1.00	Garnet	3000	0.7
Slickwater	100	6141	146					1.5
TOTAL		62,468	1,487				20,200	15.6

				STAGE 2	9			
			Port @	6,107)			
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, Ibs	Time, min
15% HCI acid	20	750	18					0.9
Slickwater	100	10744	256					2.6
Slickwater	100	8000	190	40/70	0.25	Garnet	2000	1.9
Slickwater	100	2000	48	40/70	0.50	Garnet	1000	0.5
Slickwater	100	3150	75					0.8
Slickwater	100	6000	143	40/70	0.50	Genoa	3000	1.4
Slickwater	100	3150	75					0.8
Slickwater	100	8133	194	40/70	0.75	Genoa	6100	1.9
Slickwater	100	3150	75			=	п	0.8
Slickwater	100	5100	121	40/70	1.00	Genoa	5100	1.2
Slickwater	100	3150	75					0.8
Slickwater	100	3000	71	40/70	1.00	Garnet	3000	0.7
Slickwater	100	6076	145					1.4
TOTAL		62,403	1,486				20,200	15.6

			(STAGE 3	0			
			Port @	6,006				
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, Ibs	Time, min
15% HCI acid	20	750	18	7			0 100	0.9
Slickwater	100	10744	256			2 100		2.6
Slickwater	100	8000	190	40/70	0.25	Garnet	2000	1.9
Slickwater	100	2000	48	40/70	0.50	Garnet	1000	0.5
Slickwater	100	3150	75					0.8
Slickwater	100	6000	143	40/70	0.50	Genoa	3000	1.4
Slickwater	100	3150	75					0.8
Slickwater	100	8133	194	40/70	0.75	Genoa	6100	1.9
Slickwater	100	3150	75					0.8
Slickwater	100	5100	121	40/70	1.00	Genoa	5100	1,2
Slickwater	100	3150	75					0.8
Slickwater	100	3000	71	40/70	1.00	Garnet	3000	0.7
Slickwater	100	6010	143			-		1.4
TOTAL		62,337	1,484				20,200	15,6

	 		20,200	1010
	STAGE 3) d		
	SIAGE)]		

				STAGE 3	1			
			Port @	5,906				
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, Ibs	Time, min
15% HCI acid	20	750	18					0.9
Slickwater	100	10744	256				1,	2.6
Slickwater	100	8000	190	40/70	0.25	Garnet	2000	1.9
Slickwater	100	2000	48	40/70	0.50	Garnet	1000	0.5
Slickwater	100	3150	75					0.8
Slickwater	100	6000	143	40/70	0.50	Genoa	3000	1.4
Slickwater	100	3150	75					0.8
Slickwater	100	8133	194	40/70	0.75	Genoa	6100	1.9
Slickwater	100	3150	75					0.8
Slickwater	100	5100	121	40/70	1.00	Genoa	5100	1.2
Slickwater	100	3150	75					0.8
Slickwater	100	3000	71	40/70	1.00	Garnet	3000	0.7
Slickwater	100	5945	142					1.4

TOTAL 62,272 1,483 20,200 15.5

				STAGE 3	2			
			Port @	5,805				
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCI acid	20	750	18				•	0.9
Slickwater	100	10667	254					2.5
Slickwater	100	8000	190	40/70	0.25	Garnet	2000	1.9
Slickwater	100	2000	48	40/70	0.50	Garnet	1000	0.5
Slickwater	100	3150	75					0,8
Slickwater	100	6000	143	40/70	0.50	Genoa	3000	1,4
Slickwater	100	3150	75					0.8
Slickwater	100	8000	190	40/70	0.75	Genoa	6000	1.9
Slickwater	100	3150	75					0.8
Slickwater	100	5000	119	40/70	1.00	Genoa	5000	1.2
Slickwater	100	3150	75					0,8
Slickwater	100	3000	71	40/70	1.00	Garnet	3000	0.7
Slickwater	100	5879	140					1.4
TOTAL		61,896	1,474				20,000	15.5

				STAGE 3	3		5	
			Port @	5,711				
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	750	18			7		0.9
Slickwater	100	10056	239					2.4
Slickwater	100	7600	181	40/70	0.25	Garnet	1900	1.8
Slickwater	100	1900	45	40/70	0.50	Garnet	950	0.5
Slickwater	100	3150	75					0.8
Slickwater	100	5700	136	40/70	0.50	Genoa	2850	1.4
Slickwater	100	3150	75					0.8
Slickwater	100	7467	178	40/70	0.75	Genoa	5600	1,8
Slickwater	100	3150	75					0.8
Slickwater	100	4700	112	40/70	1.00	Genoa	4700	1.1
Slickwater	100	3150	75					0.8
Slickwater	100	2800	67	40/70	1.00	Garnet	2800	0.7
Slickwater	100	5818	139					1.4
TOTAL		59,391	1,414				18,800	14.9

				STAGE 3	3			
			Port @	5,711				
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	750	18				**************************************	0,9
Slickwater	100	10056	239					2.4
Slickwater	100	7600	181	40/70	0.25	Garnet	1900	1.8
Slickwater	100	1900	45	40/70	0.50	Garnet	950	0.5
Slickwater	100	3150	75					0.8
Slickwater	100	5700	136	40/70	0.50	Genoa	2850	1.4
Slickwater	100	3150	75					0.8
Slickwater	100	7467	178	40/70	0.75	Genoa	5600	1.8
Slickwater	100	3150	75					0.8
Slickwater	100	4700	112	40/70	1.00	Genoa	4700	1.1
Slickwater	100	3150	75					0.8
Slickwater	100	2800	67	40/70	1.00	Garnet	2800	0.7
Slickwater	100	5818	139					1.4
TOTAL		59,391	1,414				18,800	14.9

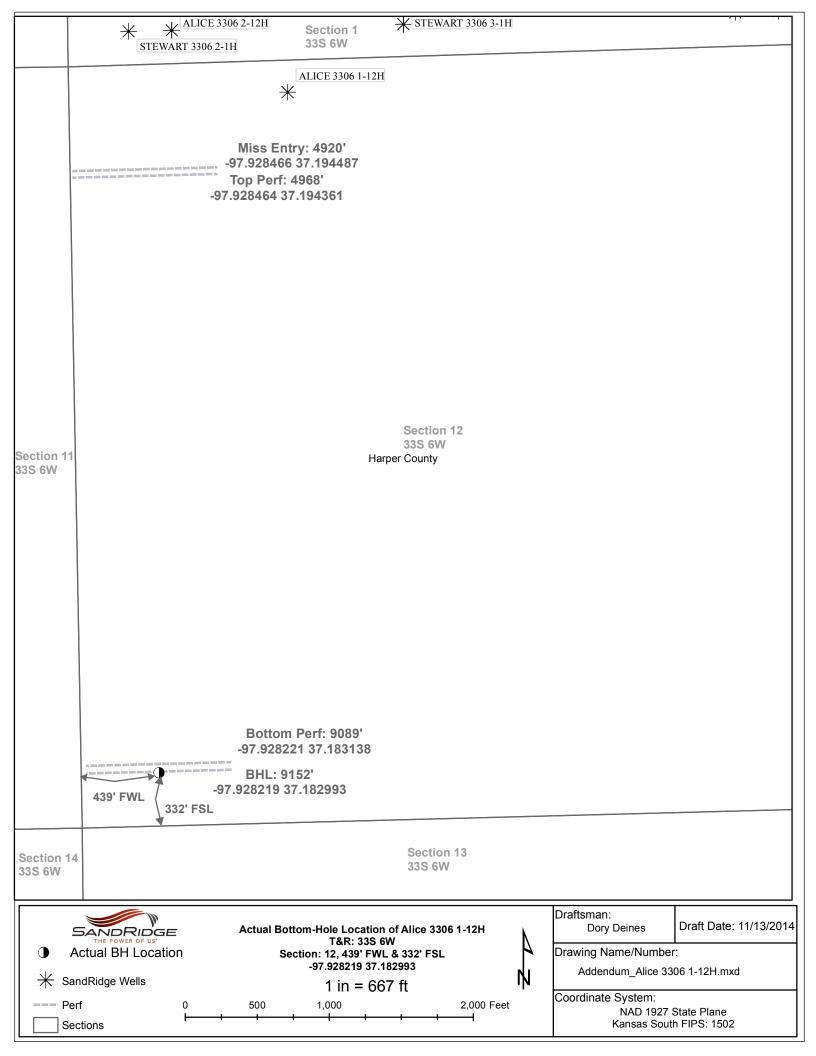
"				STAGE 3	5			
			Port @	5,510				
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	750	18			, , ,		0.9
Slickwater	100	11556	275					2.8
Slickwater	100	8800	210	40/70	0.25	Garnet	2200	2.1
Slickwater	100	2150	51	40/70	0.50	Garnet	1075	0.5
Slickwater	100	3150	75					0.8
Slickwater	100	6450	154	40/70	0.50	Genoa	3225	1,5
Slickwater	100	3150	75	-				0.8
Slickwater	100	8667	206	40/70	0.75	Genoa	6500	2.1
Slickwater	100	3150	75					0.8
Slickwater	100	5400	129	40/70	1.00	Genoa	5400	1.3
Slickwater	100	3150	75					0.8
Slickwater	100	3200	76	40/70	1,00	Garnet	3200	0.8
Slickwater	100	5687	135					1.4
TOTAL	9	65,260	1,554		<u> </u>		21,600	16.3

1			STAGE	36						
Top perf @ 4,968 '										
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop. lbs	Time, min			
15% HCI acid	20	1500	36				1.8			
Slickwater	60	168000	4000				66.7			
TOTAL		169.500	4.036				60 F			

TOTAL 169,500 4,036 68.5

	Measured	Sub-Sea	Vertical	True Vert	Northings (+)	Eastings (+)	Vert	DLS				
Directional Survey Calculations	Depth (ft)	Incl. (deg)	Azim. (ft)	Depth (ft)	Southings (-)	Westings (-)	Section	deg/100'	ENII I	FOI 1	E.W. T	
SHL	0	0.00	0.00	0.00	(ft) 0.00	(ft) 0.00	(ft) 0.00	(deg) 0.00	FNL 250	FSL 5046	FWL 1500	FEL 3768
BHL Miss Entry	9152	90.30	180.80	4405.58	-4742.27	-1011.52	4848.93	0.00	4967	332	439	4848
Top Perf	4920 4968	72.25 76.06	180.89 180.09	4369.63 4382.57	-516.04 -562.24	-997.03 -997.49	710.54 755.84	7.63 8.29	741 787	4558 4512	497 496	4772 4774
Boltom Perf	9152	90.30	180.80	4405.58	-4742.27	-1011.52	4848.93	0.00	4967	332	439	4848
Survey Points	NE Corner SE Corner	XY Coord XY Coord XY Coord XY Coord	X 2166074 2166129 2171339 2171415	Y 193442 188143 193575 188292		Surface XY	X 2167576	Y 193230	East South	Line slope Line slope	m 0.0252612 -0.0143858 0.0281877 -0.0103793	
	Measured Depth	Sub-Sea Incl.	Vertical Azim.	True Vert Depth	Northings (+) Southings (-)	Eastings (+) Westings (-)	Vert Section	DLS deg/100'				
Ļ	(ft) 0	(deg) 0.0	(deg)	(ft)	(ft)	(ft)	(ft)	(deg)	FNL	FSL	FWL	FEL
ı	685	0.0	51.9	684.97	3,32	0 4.23	-4.12	0 0.13	250 247	5046 5049	1500 1504	3768 3764
	1138	1.2	137.4	1137,92	2.02	10.24	-4.09	0.32	248	5048	1510	3758
	1229 1324	1.9 5.4	274.1 287.7	1228.90 1323.70	1.43 2.90	9.38	-3.33	3.18	249	5047	1509	3759
	1418	5.4	284.8	1417.28	5.38	3.55 -4.94	-3.57 -4.24	3.77 0.29	247 244	5049 5052	1503 1495	3764 3773
	1512	5.2	281.8	1510.88	7.38	-13.38	-4.46	0.36	242	5054	1486	3781
	1606 1701	4.8 7.5	278.1 283.3	1604.52 1698.97	8.80 10.79	-21.45	-4.19	0.55	241	5056	1478	3789
	1796	10.1	288	1792.84	14.79	-31.42 -45.38	-4.08 -5.12	2.90 2.84	238 234	5058 5062	1468 1455	3799 3813
	1890	13.1	289.6	1884.91	20.91	-63.25	-7.42	3.21	227	5069	1437	3831
	1984 2079	15.3 18	286.5 282.3	1976.03 2067.05	28.01 34.70	-85.18	-9.84	2.48	220	5077	1415	3853
	2173	18.6	283.2	2156.29	41.21	-111.55 -140.33	-10.95 -11.39	3.11 0.71	212 205	5084 5091	1389 1360	3879 3908
	2268	20	285.2	2245.95	48.93	-170.76	-12.67	1.63	197	5100	1330	3938
	2363 2457	21.5 22.4	286.4 284.5	2334.79 2421.97	58.11 67.46	-203.14 -237.01	-14.97 -17.14	1.64 1.22	187 176	5110	1297	3970
	2552	25.2	284.3	2508.89	76.99	-274.14	-18.80	2.95	166	5120 5131	1263 1226	4004 4041
	2646	28.1	284.7	2592.89	87,55	-314.95	-20.72	3.09	154	5143	1186	4082
	2741 2836	26 25.1	283.2 283.3	2677.49 2763.20	97.98 107.37	-356.87 -396.75	-22.29 -23.25	2.32 0.95	143 133	5154 5165	1144	4123
	2931	25.1	283.7	2849,23	116.78	-435.94	-24.38	0.33	122	5175	1104 1065	4163 4202
	3026 3121	27.2	288.9	2934.52	128.59	-476.07	-27.66	3.27	109	5188	1025	4242
	3216	29.1 24.8	286 283.2	3018.28 3102.95	141.99 152.91	-518.82 -560.44	-31.96 -34.06	2.46 4.72	95 83	5203 5215	982 941	4285 4326
	3311	25.6	281.3	3188.90	161.49	-599.97	-34.30	1.20	73	5225	902	4366
	3406 3501	27.7 26	281.3 283.7	3273.81	169.83	-641.75	-33.85	2.21	64	5234	860	4407
	3564	24.9	279.6	3358.56 3415.45	179.09 184.58	-683.64 -710.13	-34.28 -34.18	2.12 3.30	54 47	5245 5251	818 792	4449 4475
	3596	24.6	278,6	3444.52	186.70	-723.36	-33.52	1.61	45	5253	778	4489
	3627 3659	23,6 25	277.1 276.7	3472.81 3501.98	188.43	-735.90	-32.63	3.78	43	5255	766	4501
	3691	27.2	275.9	3530.71	190.01 191.55	-748.97 -762.97	-31.48 -30.11	4.41 6.96	41 39	5257 5259	753 739	4514 4528
Top of Upr Tang	3723	28.9	274.6	3558.95	192.92	-777.95	-28.36	5.65	37	5261	724	4543
@ 4529'	3754 3786	29.9 30.3	270.3 265	3585.96 3613.65	193.56	-793.14	-25.85	7.53	36	5262	709	4558
	3817	30.7	259.5	3640.37	192.90 190.78	-809.17 -824.74	-21.90 -16.61	8.40 9.09	37 38	5262 5260	693 677	4574 4590
Disc 611 7	3849	30.2	253.7	3667.96	187.03	-840.50	-9.69	9.31	42	5257	661	4606
Btm of Upr Tang @ 4729'	3881 3912	29.7 29.4	248.2 242.3	3695.69 3722.67	181.82 175.43	-855,59 -869,46	-1.49 7.62	8.72	47	5252	646	4621
N. MANUALS	3944	28.8	236.8	3750.63	167,56	-882.87	18.09	9.43 8.56	53 60	5246 5239	632 619	4635 4648
	3975 4007	29	231.5	3777.78	158.79	-895.00	29.17	8.29	69	5230	606	4661
Top of Lwr Tang	4007	29.9 30.8	225.8 219.7	3805.65 3832.40	148.40 136.91	-906.79 -917.40	41.77 55,21	9.19 10.35	79 90	5220 5209	595 584	4673 4683
@ 5135'	4070	31	217.9	3859.86	124.10	-927.69	69.86	2.96	102	5196	573	4694
	4101 4133	30.5 30.5	212.9	3886.51 3914.09	111.19 97,20	-936.87	84.38	8.40	115	5184	564	4703
	4164	31.3	203.5	3940.69	82.86	-945,09 -951.98	99.77 115.23	7.93 7.73	129 143	5170 5156	556 549	4712 4719
Btm of Lwr Tang	4196	33.1	199.2	3967.77	66.98	-958.17	132.04	9.10	159	5140	542	4725
@ 5443'	4228 4260	34.8 35.8	196.2 193.3	3994.32 4020.43	49.95 32.08	-963.59	149.81	7.46	176	5123	537	4731
	4291	38	192.5	4045.22	13.93	-968.29 -972.44	168.28 186.89	6.10 7.26	193 211	5106 5088	532 528	4736 4740
	4323	41.1	191.7	4069.89	-5.99	-976.71	207.26	9.82	231	5068	523	4745
	4354 4386	44.8 49	191 189.1	4092.58 4114.44	-26.69 -49.70	-980.86 -984.92	228.38	12.03	252	5047	519	4749
	4418	52.3	186.3	4134.73	-74.21	-988.22	251.72 276.39	13.82 12.33	275 299	5024 5000	514 511	4754 4757
	4450	55.6	184.8	4153.56	-99.96	-990.72	302.10	10.99	325	4974	508	4760
	4481 4513	59 61.1	183.5 182.1	4170.31 4186.28	-125.97 -153.66	-992.60 -993.95	327.94	11.52	351	4948	506	4762
	4544	61.4	181.7	4201.19	-180.83	-993,95 -994.85	355.32 382.08	7.58 1.49	378 406	4921 4893	504 503	4764 4765
	4639	60.4	180.4	4247.39	-263.82	-996.38	463.61	1.59	489	4810	501	4768
	4670 4702	60.2 59.8	180.1 179.5	4262.75 4278.75	-290.75 -318.46	-996.50 -996.40	489.98 517.08	1.06	516	4784	500	4769
	4733	59.8	179.1	4294.35	-345.25	-996.07	517.08 543.22	2.05 1.12	543 570	4756 4729	500 500	4769 4769
	4765	61.9	179.8	4309.93	-373.19	-995.81	570.51	6.83	598	4701	500	4769
	4796 4828	64.7 66.9	180.1 180.6	4323.86 4336.98	-400.88 -430.07	-995.78 -995.96	597.60 626.20	9.07	626	4673	500	4770
		50.0	. 50.5	,,,,,,,,,	100.07	-000,00	020,20	7.02	655	4644	499	4770

Depth Incl. Adm. Depth Southings (-) Section Gegritor Gegrito	Measured	Sub-Sea	Vertical	True Vert	Northings (+)	Eastings (+)	Vert	DLS				
(10							W 400,00					
4891 70							(fl)		FNL	FSL	FWL	FEL
4922 72.4 180.9 4370.27 517.39 597.06 712.40 7.75 743 4558 467 7473 4858 7474 4858 7474 4858 7474 4858 7474 4858 7474 4858 7474 4858 7474 4858 7474 7473 7488 7474 7475 7488 7474 7475 7488 7474 7475 7488 7474 7475 7488 7474 7475 7488 7474 7475 7488 7474 7475 7488 7474 7475 7488 7474 7475 7488 7474 7475 7488 7474 7475 7488 7474 7475 7488 7474 7475 7488 7474 7475 7488 7474 7475 7478					-458.71			3.87		4616	499	4771
4954 75.1 180.7 4379.23 5-810.85 997.49 742.54 8.40 773 4328 807 4777.85 4778 4779 4789.85 5017 70.9 179.5 4398.65 5-70.72 5-907.49 772.95 6.0 80.4 4405 4405 4774 5019 81.6 1779.8 4398.25 6-10.05 997.17 802.56 5.20 835 4404 496 4774 4774 4774 4789.85 4774 4789.85 4774 4789.85 4774 4789.85 4774 4789.85 4774 4789.85 4774 4789.85 4774 4789.85 4774 4789.85 478												
\$4986 \$77.3 \$19.3 \$4386.86 \$579.72 \$-907.49 \$772.95 \$0.00 \$0.04 \$4465 \$466 \$4777.												
5017 79.9 179.5 4393.25 -610.05 -907.17 802.65 5.20 0.35 4484 498 4775 5081 84.4 179.6 4402.57 -641.65 -966.88 863.33 8.48 866 4403 4408 4775 5081 84.4 179.6 4402.57 -707.34 -968.81 864.42 8.77 898 4401 490 4775 4775 4775 478												
5049 81.6 179.6 409.67 -041.58 -998.89 833.38 8.49 886 4433 448 4774												
5081 84.4 179.6 4402.57 -673.34 -986.81 804.42 8.77 898 4401 490 4774 5103 86.5 191.4 4405.61 -705.24 -986.81 895.63 7.02 390 4401 490 4775 5207 87.7 181.9 4409.86 -799.10 -988.70 997.86 2.04 1024 4275 493 4778 5207 88.5 181.5 4418.34 -893.89 -1001.51 1081.29 0.60 1119 4110 489 4782 5397 88.6 181.2 4417.16 -986.82 -1003.92 1174.86 0.43 1213 4060 485 4780 5437 88.8 182.2 4417.16 -1068.85 -1006.56 1250.50 0.38 1220 4009 482 4780 5544 89.9 182.1 4417.85 -1065.85 -1006.56 1250.50 0.38 1220 4009 482 4780 5565 89.7 181.4 4418.69 -1156.81 -1009.05 1340.02 0.37 1381 3918 479 4790 5566 89.7 181.4 4418.80 -1247.79 -1010.87 1429.42 1.33 1472 3827 476 4799 5748 89.4 180 4418.30 -1247.79 -1010.87 1429.42 1.33 1472 3827 476 4799 5899 89.7 180.4 4418.85 -1430.78 -1011.80 159.59 1.81 1584 3735 474 4790 6902 89.9 180.2 4421.88 -1613.75 -1012.07 1607.75 1.67 179 139 3461 471 4802 6022 89.9 180.2 4421.88 -1613.75 -1012.07 1607.75 1.67 179 139 340 440 440 6204 89.9 177.6 4423.47 -1006.39 2052.65 0.57 2110 3189 474 4801 6204 89.9 177.6 4423.47 -1086.56 -1000.63 2236.49 1.53 2292 3007 476 4801 6204 89.9 177.6 4423.47 -1010.87 -1000.77 1807.75 1.67 179 139 3401 471 4803 6375 89.7 180.6 4423.47 -1006.39 2052.65 0.57 2110 3189 474 4801 6386 89.9 177.6 4423.47 -1006.39 2052.65 0.57 2110 3189 474 4801 6396 89.9 177.6 4423.47 -1006.39 2052.65 0.57 2110 3189 474 4801 6396 89.9 177.6 4423.63 -1613.65 -1000.63 2236.49 1.53 2232 3007 476 4790 6470 90.4 179.3 4423.63 -1613.65 -1000.63 2236.49 1.50 2232.23 2007 476	5049	81.6										
5113 86.5 180.4 4405.11 - 705.24 - 998.81 895.63 7.02 930 4399 490 4775 6302 80.1 181.9 4408.96 - 7991.0 - 998.70 97.86 2.04 1024 4275 439 4778 6302 80.1 181.5 4418.34 - 893.99 - 1001.51 1001.29 0.80 1119 4100 489 4782 6307 88.5 181.4 4416.16 - 908.92 - 1003.92 1174.68 0.43 1213 4100 489 4782 6307 88.6 181.4 4416.16 - 908.92 - 1003.92 1174.68 0.43 1213 4100 489 4782 6307 89.5 181.5 4417.11 - 1008.89 - 1005.17 1214.04 2.14 1253 406 484 4788 4788 678 678 678 678 678 678 678 678 678			179.6									
5507 87.7 181.9 4409.86 -799.10 -998.70 987.86 2.04 1024 4275 493 4778 5397 88.5 181.4 4416.16 -998.92 -1003.51 1181.48 0.43 1213 4006 486 4780 5437 88.8 182.2 4417.11 -1028.99 -1005.51 1214.04 223 4006 484 4780 5474 88.9 182.1 4417.85 -1005.65 -1006.66 1250.50 0.38 1290 4009 482 4790 5504 89.7 181.4 4418.69 -1166.81 -1009.05 1340.02 0.37 1881 3918 479 4794 5685 89.0 181.0 9418.30 -127.79 1010.87 1429.42 1.33 1472 3827 476 4797 5748 89.4 180 4418.13 -1339.79 -1011.00 1519.59 1.81 1594 473 4800 <						-996,81						
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Hydraulic Fracturing Fluid Product Component Information Disclosure

9/12/2014
9/13/2014
Kansas
Harper
15-077-22081-01-00
SandRidge Energy
Alice 3306 #1-12H
-97.92471089
37.19592436
NAD27
NO
4,429
2,625,504
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	Well Operator	Carrier/Base Fluid					
			Water	7732-18-5	100.00000	95.21242	None
40/70 Premium Preferred Sand	CAF	Proppant, Scouring, Fill					
			Crystalline Silica (quartz)	14808-60-7	100.00000	2.25522	None
15% Unihibited HCI Acid	CAF	Etching, Dissolving, Cleaning					
			Water	7732-18-5	85.00000	0.96096	None
			Hydrochloric Acid	7647-01-0	15.00000	0.16958	None
			Water	7732-18-5	24.00000	0.00022	None
			Methanol	67-56-1	9.00000	0.00008	None
			Triethyl Phosphate	78-40-0	8.40000	0.00008	None
			Isopropyl Alchohol	67-63-0	8.40000	0.00008	None
			N-Dimethyformamide	68-12-2	8.40000	0.00008	None
			Tar Bases-quinoline derivs- benzyl chloride/quaternized	72480-70-7	8.40000	0.00008	None
			Ethylene Glycol	107-21-1	8.40000	0.00008	None
			2-Butoxyethanol	111-76-2	8.40000	0.00008	None
			Ethoxylated Nonylphenol	68412-54-4	8.40000	0.00008	None
			Cinnamaldehyde	104-55-2	8.40000	0.00008	None

40/70 Resin Coated Sand	CAF	Proppant, Scouring, Fill					
			Crystalline Silica (quartz)	14808-60-7	97.00000	0.97997	None
C102	Bosque Disposal Systems, LLC	Oxidizer					
			Chlorine Dioxide	10049-04-4	15.00000	0.26648	
Iron Control, Sodium Erythorbate	CAF	Iron Control					
			Water	7732-18-5	55.50000	0.02382	None
			Methanol	67-56-1	12.70000	0.00547	None
			Poly(ethlene Oxide)	25322-68-3	9.10000	0.00391	None
			Dinanylphenyl Polyoxyethylene	201602-88-2	9.10000	0.00391	None
			Nonylphenal Polyethylene Glycol Ether	127087-87-0	9.10000	0.00391	
			Isopropanol	67-63-0	4.60000	0.00195	None
			Sodium Erythorbate	6381-77-7	100.00000	0.00038	None
			Water	7732-18-5	54.50000	0.00028	None
			Polyglycol Ethers	52624-57-4	13.60000	0.00007	None
			Isopropanol	67-63-0	13.60000	0.00007	None
			Glycol Ether EB	111-76-2	9.00000	0.00005	None
			Methanol	67-56-1	9.00000	0.00005	None
FR-986, Cationic Friction Reducer	CAF	Friction Reducer					
			Water	7732-18-5	50.00000	0.00448	None
			Petroleum Hydrotreated Light Distillate	64742-47-8	2.50000	0.00178	
			Phosphoric Acid	7664-38-2	16.80000	0.00151	None
			Hydrochloric Acid	7647-01-0	16.80000	0.00151	None
			Ethylene Glycol	107-21-1	12.70000	0.00114	None
			Methanol	67-56-1	3.60000	0.00033	None

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%