	Date Depth Activity 7-27-11 Ru Spud Set SP 7-28-11 7-28-11 7-39-11 1930' Dala 7-31-11 3250' Dala 8-01-11 3250' Dala 8-01-11 3250' Dala 8-03-11 3250' Bala 8-03-11		DUNTY <u>Ellis</u> STATE <u>Kawsas</u> CATION: 780 FSL + 3550 FWL SW/4 H TWP 15s RGE 19w GL 2045' Log 6. Log 6. Log 6. Log 6. Log 6. Log 70	DENES ULTING GEOLOGIST PH. 785-625-3380 HAYS, KS 67601 ABWELL-GBOSS UNIT # 1
		og De 1304 1341 3046 3318	atum * Formation Sar + 75 + 714 - 99 - 1363 - 1282 - 1309 - 1549 - 1621 - 1625	mple Log Datum *
			*Structural Position to:	
901	Anhydrite Salt Ology Drilling time in minutes 1 2 3 4 5 6 7 8 9	Sandstone SC DEPTH		Chert Dolomite Remarks, drill stem tests, etc. Mud GysTem-Gel Chemical Mud Ca
	HukyaniTe Top	90 1300 10 20		Slope Sumuey 423' 1/4°
	Aunyda: a Base	30 40 50		
		2400 10 20 30	Sh Rediban, Sli Red Wash Lm CAM-TAN FNX/N Sli Chalk in PART Lm CAM-TAN FN-UFX/N Sli Chalk Lm CAM-TAN FNX/N Chalk in PART Lm CAM-TAN FNX/N GARNNIA in PART Sli Chalk	
		40 50 60 70	Lm CRM-TAN - LT BAN FNX/N SI; Chalk Lm CAM - TAN FNX/N Chalk in part Lm CAM-TAN FNX/N Some Red Shalay FNX/NLm Lm LTBRN FNX/N SIi Chalk in part SI: Fass	
		90 2500 10	Lm CAM-JAN-LTBAN FNXIN- GRANNIAR Chalk in PART NS No WAT CAT LT - Med hav colitics comoldic w Chalk in PART NS Lm LT-Mad ban Some colitics comoldic w Chalk Lm LT-Med ban FNXIN Bli Chalk	
		30 40 50 60	Lm CAM - TAN - LTDAN FNXN - GRANNIGA W Chalk Lm LT - Med DAN FNXN Sli Foss - Fusilinids Lm CAM - TAN - LTDAN FNXN - colifica comoldic in paat W Chalk in paat Lm med - dk DAN TRAShy	
		70 80 90 2600	Lm med-dk bau FNX/N TAMShy Sli FOSS Lm Cam-med ban FNX/N Sh Limegan, Red, ban SOST Lm LT-med ban Gannulagin port Some gany him sholey in gary mottling	
		10 20 30 40	Lm CAM-LT BAN GARNULER w Chalk Slifess Lm offwht - TAN - LTBAN GARNULER w Chalk Lm Lt-Med ban Fnxlu-garnuler w Chalk Sh gary Calc Lm CRM-LTBAN FNXN-GARNULER	
		50 60 70 80	Lm CRM-LT BRN GAANULER w Chalk Lm LTgmay FNX/N Shaley SI: Fase Lm LT BRN-GABY wgaay mattling GAANULEA wechalk	
		90 2700 10 20	I'm gany FNX/N Sheley & TANSAY Sli Foss Sti Chalk I'm gany gannular Sli Foss TANSAY I'm cam FNX/N Sli Chalk Sh Linegan, dovegany Red Soft Lim ban FNX/N Foss Sh Aeds, dovegany soft	
		30 40 50 60	Lm CAM-LT DAN FNX/N SII Chalk SII Foss Sh LT- Med GRAY FISSILE IN PORT SOLT + STICKY IN PORT Lm CAM- LT DAN FNX/N FOSS Sh LT- Med GRAY	
		80 90 2800 IP	Lm CAM-TAN FNX/N-GAANULAR Lm CAM-TAN FNX/N-GRANULAR FOSS IN POAT Lm mad gary FNX/N shaley Sh rad dove gary 505T - Fissile in put hm offwht gaanulaa w Chalk	
	Doven Lime	20 30 40 50	Sh LT-med gary Fissile Lm OffmhT JANNALAR w Chalk Sh JARY Fissile No Sandstanc found 2 and TARKIOSAND SS GRILY FU GARINED, FORNING SORTED NS Sh LT-med GARY SOFT	
		60 70 80 90	Lm Cam-grayish ban Fuxlar Chalk in part Lm Cam- LT ban Fuxlar Fossingsat Chalk in part	
		2900 10 20 30	Lm CAM-TON FWX/N SI: Foss 3 Ad SOND GRITTY & POORLY Developed ALS Sh LT-Med GAMY MYRITIS Lm CAM-LTDAN FUX/N FOSS Sli Chold in poat Lm CAM-TAN-DAN FUX/N	
		40 50 60 70	Lm CAM-TAM- DRN FNX/N Chalk in PART Lm Cff wht- ban-grayish ban Sli Fors Lm gany-ban FNX/N Sli Fors hm Offwht-Cam-han FNX/N Chalk IN PART	
		80 90 3000 10	LM LT BAN - LIGARY FUXIN Sh med gray LM BAN - GRAY FUXIN Sli Foss LM LT BAN - LIJARY FUXIN Sli Foss - Fusilimits LM LTBAN - JRAY: Sh BAN FUXIN Foss a cholky	1
		30 40 50 60	Lm dkbar Frxle Sh foss Sh gary Th mrd gary Lm cam-bar-gary Frxle Sli Chelky Lm cam-bar-gary Frxle	
		70 80 90 3100	LM CAM-LIBAN GARY FUXIN FOSS IN PORT LM LI-WEDBAN FUXIN FOSS IN PORT Sh GARY PYPITIC LM CAM-BAN FUXIN LM LI-WED BAN GARNYTAR NS	
7-11-11-11-11-11-11-11-11-11-11-11-11-11		10 20 30 40	Lm cam-ban FNXIN Sheley + Tanshy in part Foss Lm LT-med ban FNXIN Foss Lm med ban Garnular wchalk Lm ban-gary FNXIN GARNULAR w Chalk 51: Foss	
		50 60 70 80	Lm ban gannular Lm ban-gany Gannular w Chilk Sh gany-blkCarb Lm ban-gany Fnx/N w chalk	
		90 3200 10 20	Sh LIGHAY SOFT LM OFFWHT VFX/N LM LI BRN GRANNIGR NS LM CAM-LT BRN FN-VFX/N Sli Fass 31: Chalk LM LI-Med BRN FNX/N Sh GABY Calc	
		30 40 50 60 70	Sh blk Camb. Lm OffwM - gary FNXIN FOSS Sli Chalk Some VFXW in prat 2 pcs md XIN VLT Odor & Truck FO on bak Remainder of sample chalky Lm CAm-Tan FNXIN - grannlar Chalky	
		80 90 3300 10	Lm CAM-OFFWAT-LIBAN FNX/N Chalky Sh Dove gray SoST Lm TAN-LIBAN FNX/N Chalk in PAMI Lm CAM-TAN-LIBAN FNX/N Chalk in PART Lm LT-Med BAN FNX/N Chalk in PAMI Lm LT-Med BAN FNX/N Chalk in PAMI	
	Heebser Shale 3321-12-6 3321-12-6 334-12-6 1 334-2 287	20 30 40 50	Sh bik carb. Lm bru UFX/N pyritic Sli Foss Sh Lime green 50ft Lm wht-crm FN-UFX/N brittle Sli Chalk NS	
	c c	60 70 80 90	Lm wht- LTBAN FN-UFX/N NS Sh Red, BAN Lm LT-med BAN-LTGARY FNX/N Sh Red, BAN Lm CAM- LTBAN FN-UFX/N Sh gary Calc TAAShy Lm LTBAN FNX/N-DOLITIC-COMORDIC TRACE OF LT STAIN IN LTDGAR ON BASAGE Chalk in muchaf Sample	
		3400 10 20 30	Lm hi- med ban FNX/N Sli Fors IN part Lm cam - Ltban Mostly FNX/N W scattened ringt on LT Scatt Stain VLT Odar w vmsto an bacek Sh gray - blh carb Lm med ban FNX/N Foss Sh gray, gasen Lm med ban FNX/N	
		40 ° 50 60 70	Lmwht-CRM Mostly Faxlor w Saw ges dolomitic w scat pinptg Scat Strin w Vht oder Lm offwht-CRM FNX/No baitlle or bak Chalk in part 51: Fors NS Lm offwht-CRM-TAN FN-UFX/N Lm offwht-Ltbru FN-UFX/N Sli Chalk	1 DST#1 3470'- 3557' 30-45-45-60 Rec: 50'046CM-10%6,10%0,80%M
		90	Lm off wht - Libra Fu-UFX/N Chalk in part Sh gray-grayishgreen Calc Lm Cam-Tan Mootly FNX/N w scattered pinpt of Scat Stain, whioder NFO Lm cam-Ltdan FN-VFX/N Sh gray hm offwht-cam-Lttan	60' HO46cm-50%6,20%0,30%m 620' GIP ISTP: 1157# FSIP: 1158# FP: 20-30, 32-57 BHT: 113° 1ST Open: FAIR blow BOB 20.5mw No blow back 2nd Open: STRONG Blow BOB3 min No blow back
		30 40 50	Lm offwht-cam-Litten MOSTLY FNX/N W SCOT PINDT VYG OF SCOT STAIN NFO LITTLESAND ODOR Lm CRM-TAN FN-VFX/N Lm CRM FN-VFX/N Sli Cholk Few Scs w PINDT VYG O VMSFO W BAK Little Sayo odor Lm CRM FN-VFX/N Cholk in papt	Slope Syruey 3557 1°
		70 0 80 90 3600		
		10 20 30 40	Sh Red wash Shvarai Color Low Clastic mix Sh Red wash brus, greens	
	Cow/bmen + Te	50 60 70 80	55 subaugulaa - subamaded, Frat, Pelished, Satstain Vhtodoa	DST#2 3674'-3686' 2 30-45-45-45 Rec: 25'GIP 15'GEY O:1 20' OCM-10%0, 90%m
		90 3700 10 20 30	Dol LTBAN - TUDRY FNYAN WENSACHOSIC W LT SEO ON BAME. SCOT-SOT STAIN FAIR INTERNAL FN-MOXIN W CXIN IN POINT DOL WHT-CAM - LITBAN CHEM CAMAGE	ISIP: 1175# FSIP: 1177 FP: 18-22, 23-33 BHT: 115° GRAVITY 31 1ST Open: Weak building blow built To 1/2" No blow back 2Nd Open: No blow, Flushed Tool weak Surface blow No blow back
	ATD 5 HORM	40 - 50 60 70	Cheft OAAWge Dol CAM-TAW - LitbAW FW: Md X/W Dol whi - CAM - TAW FW: Md X/W - Suchesic in peat	
	5+02+2011			

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025 Cell 785-324-1041 Home Office P.O. Box 32 Russell, KS 67665

 $N_0 = 5319$

Sec. Range Finish Twp. County State On Location 4.001.m 15 Location Antaino 13 7/200 Well No. Owner To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed. Hole Size Charge Depth Tbg. Size Depth Street Tool DV Toul #58 Depth City State Cement Left in Csg. 4343 Shoe Joint 43.43 The above was done to satisfaction and supervision of owner agent or contractor. Displace Cement Amount Ordered 150 am 10% Solt Meas Line EQUIPMENT 10BL KCL 500 aal muldear Cementer Common Pumptrk Helper Driver Bulktrk Poz. Mix Driver No. Driver CON Bulktrk Gel. Driver **JOB SERVICES & REMARKS** Calcium Remarks: Hulls Rat Hole Salt Mouse Hole Flowseal Centralizers Kol-Seal Baskets Mud CLR 48 D/V or Port Collar CFL-117 or CD110 CAF 38 Handling Mileage **FLOAT EQUIPMENT** Guide Shoe Centralizer Baskets AFU Inserts Float Shoe Latch Down Pumptrk Charge Mileage Trulk 5 Tax Discount Signature An Wenney Total Charge

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025 Cell 785-324-1041 Home Office P.O. Box 32 Russell, KS 67665

No. 5320

Sec. Twp. Range County State On Location Finish Date 18) 30 A.M Well No. Owner To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish T.D. cementer and helper to assist owner or contractor to do work as listed. Hole Size Charge To Depth Csg Depth Tbg. Size Street Depth Tool City State Cement Left in Csg Shoe Joint The above was done to satisfaction and supervision of owner agent or contractor. Displace Cement Amount Ordered 200 QMBC KIT Meas Line EQUIPMENT Cemente Pumptrk Common Helper Driver Bulktrk Poz. Mix Driver Driver Bulktrk 7 Gel. Driver I JOB SERVICES & REMARKS Calcium Remarks: Hulis Rat Hole Salt Mouse Hole Flowseal Centralizers Kol-Seal Baskets Mud CLR 48 D/V or Port Colla CFL-117 or CD110 CAF 38 Sand Handling Mileage FLOAT EQUIPMENT Guide Shoe Centralizer Baskets AFU Inserts Float Shoe Latch Down Pumptrk Charge Mileage Tax Discount **X** Signature Total Charge

QUALITY OILWELL CEMENTING, INC. Federal Tax I.D.# 20-2886107

Phone 785-483-2025 Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 5256

Date 7/27/11	Sec.	Twp.	Range		County	State	On Location	Finish PM			
Lease Yernell & Cross Well No. Unit # Location Antoniw, 15, 2/2W, Ninto											
Contractor Southw					Owner 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2						
Type Job Swrfue		7 77		To Quality Oilwell Cementing, Inc.							
Hole Size 124" T.D. 425				You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.							
Csg. 85kr 23	Depth (122)			Charge TOI							
Tbg. Size	Depth			Street							
Tool		Depth			City State						
Cement Left in Csg. 15		Shoe Joint			The above was done to satisfaction and supervision of owner agent or contractor.						
Meas Line		Displace 2534Bbk.		Cement Amount Ordered 200 x Com 3 /2 CL 2/2 eN							
EQUIPMENT					4						
Pumptrk 4 No. Cemen	iter (ul_			Common 2	00					
Bulktrk & No. Driver Driver	Ma	++			Poz. Mix						
Bulktrk No. Driver	Ric	Jk			Gel. 4/						
JOB SER	VICES 8	REMA	RKS		Calcium 17						
Remarks:					Hulis						
Rat Hole					Salt						
Mouse Hole					Flowseal						
Centralizers		****			Kol-Seal						
Baskets					Mud CLR 48						
D/V or Port Collar				CFL-117 or CD110 CAF 38							
Est. Circ.				Sand							
Wix goosx	· · · · · · · · · · · · · · · · · · ·			Handling 2 //							
Displace				Mileage							
Combrat Cin	d			FLOAT EQUIPMENT							
		St. je s			Guide Shoe	55K					
					Centralizer	818					
					Baskets						
					AFU Inserts Swugt						
					Float Shoe						
\and an'					Latch Down						
2/1	<u>'</u>										
Jon				5.0							
					Pumptrk Charge Supfice						
					Mileage / 2						
							Tax				
IV (1	0						Discount				
X Signature Maych	. Wo	me					Total Charge				