KOLAR Document ID: 1351897

Confidentiality Requested:

Yes No

Kansas Corporation Commission Oil & Gas Conservation Division

Form ACO-1
January 2018
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.:
Name:		Spot Description:
Address 1:		SecTwpS. R East West
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 □SE □SW
CONTRACTOR: License #		GPS Location: Lat:, Long:
Name:		(e.g. xxx.xxxxx) (e.gxxx.xxxxxx)
Wellsite Geologist:		Datum: NAD27 NAD83 WGS84
Purchaser:		County:
Designate Type of Completion:		Lease Name: Well #:
New Well Re-Entry	Workover	Field Name:
		Producing Formation:
Oil WSW SWD		Elevation: Ground: Kelly Bushing:
☐ Gas ☐ DH ☐ EOR ☐ GSW		Total Vertical Depth: Plug Back Total Depth:
CM (Coal Bed Methane)		Amount of Surface Pipe Set and Cemented at: Feet
Cathodic Other (Core, Expl., etc.):		Multiple Stage Cementing Collar Used?
If Workover/Re-entry: Old Well Info as follows:		If yes, show depth set: Feet
Operator:		If Alternate II completion, cement circulated from:
Well Name:		feet depth to:w/sx cmt.
Original Comp. Date: Original 7	Fotal Depth:	
Deepening Re-perf. Conv. to E	EOR Conv. to SWD	Drilling Fluid Management Plan
Plug Back Liner Conv. to 0	GSW Conv. to Producer	(Data must be collected from the Reserve Pit)
		Chloride content: ppm Fluid volume: bbls
_		Dewatering method used:
		Location of fluid disposal if bouled office.
		Location of fluid disposal if hauled offsite:
		Operator Name:
GOVV		Lease Name: License #:
Spud Date or Date Reached TD	Completion Date or	Quarter Sec TwpS. R
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 Drill Stem Tests Received
Geologist Report / Mud Logs Received
UIC Distribution
ALT I III Approved by: Date:

KOLAR Document ID: 1351897

Page Two

Operator Name: _				Lease Name:			Well #:	
Sec Twp.	S. R.	E	ast West	County:				
	flowing and shu	ut-in pressures, v	vhether shut-in pre	ssure reached st	atic level, hydrosta	tic pressures, bot		val tested, time tool erature, fluid recovery,
Final Radioactivity files must be subm						iled to kcc-well-lo	gs@kcc.ks.gov	v. Digital electronic log
Drill Stem Tests Ta			Yes No			on (Top), Depth ar		Sample
Samples Sent to 0	Geological Surv	/ey	Yes No	Na	me		Тор	Datum
Cores Taken Ye Electric Log Run Ye			Yes No Yes No Yes No					
		B	CASING eport all strings set-c		New Used	ion, etc.		
Purpose of Strir		Hole illed	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
			ADDITIONAL	CEMENTING / SO	UEEZE RECORD			
Purpose:		epth T Bottom	Type of Cement # Sacks Used		d Type and Percent Additives			
Perforate Protect Casi Plug Back T								
Plug Off Zor								
1. Did you perform a hydraulic fracturing treatment on this well? 2. Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? 3. Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry? Yes No (If No, skip questions 2 and 3) No (If No, skip question 3) No (If No, fill out Page Three of the ACO-1)					,			
Date of first Product Injection:	tion/Injection or R	esumed Production	Producing Meth	nod:	Gas Lift 0	Other (Explain)		
Estimated Production Per 24 Hours	on	Oil Bbls.					Gas-Oil Ratio	Gravity
DISPOS	SITION OF GAS:		N	METHOD OF COMP	LETION:			DN INTERVAL: Bottom
	Sold Used	I on Lease	Open Hole			mmingled mit ACO-4)	Тор	BOROTT
,	,			B.11 B1				
Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid,	Fracture, Shot, Cer (Amount and Kind	menting Squeeze I of Material Used)	Record
TUBING RECORD:	: Size:	Set	Δ+-	Packer At:				
TODING RECORD:	. 3126.	Set	n.	i donei Al.				

Form	ACO1 - Well Completion
Operator	Mai Oil Operations, Inc.
Well Name	TIEPERMAN 2
Doc ID	1351897

Tops

Name	Тор	Datum
Anhydrite	665	+1203
Heebner	3114	-1246
Toronto	3132	-1264
Douglas	3147	-1279
Brown Lime	3246	-1378
Lansing	3259	-1391
Base Kansas City	3482	-1614
Viola	3490	-1622
Arbuckle	3590	-1722

Form	ACO1 - Well Completion
Operator	Mai Oil Operations, Inc.
Well Name	TIEPERMAN 2
Doc ID	1351897

Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight		Type Of Cement		Type and Percent Additives
Surface	12.25	8.625	23	663	60-40POZ		2%gel, 3%CC
Production	7.875	5.5	14	3671	60-40 POZ	160	2 % gel

JAMES C. MUSGROVE

Petroleum Geologist, LLC 212 Main Street P.O. Box 215 Claflin, KS 67525

Office (620) 588-4250

Res. Claflin (620) 587-3444

Mai Oil Operations Tieperman #2 w/2 NE-SE-SW (990' FSL & 2200' FEL) Section 29-21s-12w Stafford County, Kansas

Page 1

5 1/2" Production Casing Set

.Contractor:

Southwind Drilling Co. (rig #3)

Commenced:

January 1, 2017

Completed:

January 6, 2017

Elevation:

1868' K.B., 1866' D.F., 1860' G.L.

Casing program: Surface; 8 5/8" @ 663"

Production, 5 1/2" @ 3670'

Sample:

Samples saved and examined 2900' to the Rotary Total Depth.

Drilling time:

One (1) foot drilling time recorded and kept 2900' to the Rotary Total Depth.

Measurements:

All depths measured from the Kelly Bushing.

Drill Stem Tests:

There were one (1) Drill Stem Tests ran by Trilobite Testing Co.

Electric Log:

By Eli Wireline Services, Dual Induction, Compensated Density/Neutron

Log and Micro Log

Log Depth	Sub-Sea Datum
665	+1203
688	+1180
3114	-1246
3132	-1264
3147	-1279
3246	-1378
3259	-1391
3482	-1614
3490	-1622
3534	-1666
3590	-1722
3670	-1802
3672	-1804
	688 3114 3132 3147 3246 3259 3482 3490 3534 3590 3670

(All tops and zones corrected to Electric Log Measurement)

SAMPLE ANALYSIS, SHOWS OF OIL, TESTING DATA, ETC.

TOPEKA SECTION

2900-3114'

No shows of oil and/or gas was noted in drilling of the Topeka Section

(See attached Sample Log/Geologist Report).

Mai Oil Operations Tieperman #2 w/2 NE-SE-SW (990' FSL & 2200' FEL) Section 29-21s-12w Stafford County, Kansas

Page 2

TORONTO SECTION

3132-3146' Limestone, tan, buff, finely crystalline, poor scattered porosity, chalky,

black spotty stain, no show of free oil and questionable odor in fresh

samples.

LANSING SECTION

, ,,	TONITO OLO ITON	
	3260-3268'	Limestone, cream, tan, fossiliferous, chalky, poor visible porosity, no shows; no odor.
	3276-3280'	Limestone, tan, buff, fossiliferous, chalky, poor visible porosity, trace black stain, trace of free oil and questionable odor in fresh samples.
	3286-3290'	Limestone, tan, buff, fossiliferous/oolitic, granular in part, poor to fair porosity, chalky, light brown stain, show of free oil and faint odor in fresh samples.
	3298-3302'	Limestone, cream tan, few with vuggy type porosity, black and brown stain, show of free oil and fair odor in fresh samples.
	3315-3320'	Limestone, tan, gray, finely crystalline, poor scattered pinpoint type porosity, light black stain, show of free oil and faint odor.
	3324-3334'	Limestone, cream, white, fossiliferous in part, oomoldic in part, fair oomoldic and vuggy type porosity, chalky, light black stain, show of free oil and faint odor in fresh samples.
	3339-3349'	Limestone, cream fossiliferous, oomoldic, poorly developed porosity, no shows and questionable odor in fresh samples.
	3350-3364'	Limestone, tan, fossiliferous in part, dense.
	3383-3387'	Limestone, cream, white, oolmoldic, good oolmoldic and vuggy type porosity, black stain, show of free oil and faint odor.
	3398-3406'	Limestone, cream, tan, oolitic, fair vuggy type porosity, chalky in part, black to brown stain, show of free oil and faint odor in fresh samples.
	3418-3424'	Limestone, cream, tan, oolitic, poorly developed porosity, poor visible, black stain, show of free oil, faint odor in fresh samples.

VIOLA SECTION

3488-3494'	Limestone, white, cream, cherty, dense.
3494-3520'	Chert, white, gray, boney, opaque, no shows.
3520-3536'	Varied colored boney, chert, poor visible porosity, black stain, no show of free oil and no odor in fresh samples.

Mai Oil Operations Tieperman #2 w/2 NE-SE-SW (990' FSL & 2200' FEL) Section 29-21s-12w Stafford County, Kansas

Page 3

SIMPSON SECTION

3588-3590'

Sand, gray, very fined grained, well sorted, friable, no shows.

ARBUCKLE SECTION

3590-3596'

Dolomite, tan, finely crystalline, sucrosic, scattered pinpoint porosity, good stain and saturation, show of free oil and strong odor in fresh samples.

3596-3606'

Dolomite, tan, sucrosic, finely crystalline, good vuggy type porosity, fair to good stain and saturation, good show of free oil and good odor in fresh samples.

3608-3615'

Dolomite, tan, finely crystalline, fair to good inter-crystalline type porosity, fair stain and saturation, show of free oil strong odor in fresh samples.

Drill Stem Test #1		3534-3615
	(Log Measurements	3536-3617)

Times:

30-30-45-45

Blow:

Strong

Recovery:

820' oil and gas cut watery mud

(10% oil; 30% gas; 15% water; 45% mud) 700' slightly oil and gas cut muddy water (40% gas; 5% oil; 40% water; 15% mud)

1072' slightly oil cut muddy water

(10% gas; 5% oil; 65% water; 20% mud)

180' water 50' muddy water

Pressures: ISIP 1207

psi psi **FSIP 1209** psi IFP 630-1148 FFP 1159-1209 psi HSH 1782-1695 psi

3617-3630'	Dolomite, tan, finely crystalline, few oolitic, poor visible porosity, light brown stain, show of free oil and strong odor in fresh samples.
3630-3650'	Dolomite, tan, finely crystalline, sucrosic, poor to fair pinpoint porosity, brown stain, and show of free oil and strong odor in fresh samples.
3650-3660'	Dolomite, cream, tan, fine and medium crystalline, sucrosic in part trace stain, trace of free oil and strong odor in fresh samples.
3660-3672	Dolomite, cream, finely crystalline, dense, chert, no shows.

Mai Oil Operations Tieperman #2 w/2 NE-SE-SW (990' FSL & 2200' FEL) Section 29-21s-12w Stafford County, Kansas

Page 4

Rotary Total Depth

3670

Log Total Depth

3672

Recommendations:

The 5 ½" production casing was set and cemented on Mai Oil Operations Inc., Tieperman #2.

Respectfully yours,

Wyatt Urban

Petroleum Geologist



Prepared For: Mai Oil Operations, Inc.

8411 Preston Rd STE 800 Dallas TX 75225+5520

ATTN: Wyatt Urban

Tieperman #2

S29-21s-12w Stafford,KS

Start Date: 2017.01.06 @ 06:32:00

End Date:

2017.01.06 @ 14:35:45

Job Ticket #: 61873

DST#: 1

Trilobite Testing, Inc PO Box 362 Hays, KS 67601 ph: 785-625-4778 fax: 785-625-5620

Printed: 2017.01.09 @ 11:25:47



Mai Oil Operations, Inc.

S29-21s-12w Stafford,KS

8411 Preston Rd STE 800 Dallas TX 75225+5520

Tieperman #2 Job Ticket: 61873

Test Start: 2017.01.06 @ 06:32:00

ATTN: Wyatt Urban

GENERAL INFORMATION:

Arbuckle

Whipstock: ft (KB) Deviated: No

Test Type: Conventional Bottom Hole (Initial) Tester: Spencer J. Staab

Time Tool Opened: 08:30:00 Time Test Ended: 14:35:45

Unit No:

3534.00 ft (KB) To 3615.00 ft (KB) (TVD) Interval:

Reference Bevations: 1868.00 ft (KB) 1860.00 ft (CF)

DST#: 1

3615.00 ft (KB) (TVD) Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8368 Press@RunDepth:

1209.52 psig @

3535.00 ft (KB)

Capacity: Last Calib.: 8000.00 psig

Start Date:

Total Depth:

2017.01.06

End Date:

2017.01.06 14:35:45

Time On Btm:

2017.01.06

Start Time:

06:32:15

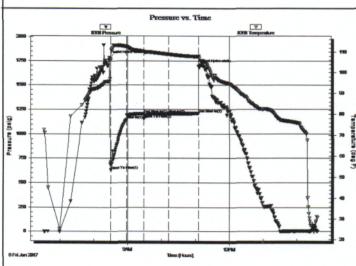
End Time:

Time Off Btm:

2017.01.06 @ 08:28:00 2017.01.06 @ 11:05:45

TEST COMMENT: 30-IF-BOB in 20 seconds

30-ISI-Weak Blow Back; Built to 1" 45-FF-BOB in 30 seconds 45-FSI-No Blow Back



	PRESSURE SUMMARY									
	Time	Pressure	Temp	Annotation						
	(Min.)	(psig)	(deg F)							
	0	1782.92	95.60	Initial Hydro-static						
	2	630.91	106.75	Open To Flow (1)						
	30	1148.90	112.59	Shut-In(1)						
	61	1207.75	110.21	End Shut-In(1)						
-	62	1159.66	110.13	Open To Flow (2)	(2)					
	105	1209.52	108.86	Shut-In(2)						
	158	1210.95	107.80	End Shut-In(2)						
9	158	1695.38	107.90	Final Hydro-static						

Recovery

Length (ft)	Description	Volume (bbl)
820.00	OWGCM 10% O 15% W 30 % G 45%M	11.50
700.00	OMGCW 5% O 15%M 40%G 40%W	9.82
1072.00	OGMCW 5%O 20% M 10% G 65% W	15.04
180.00	Water 100% W	2.52
50.00	WM 40%W 60%M	0.70

	Gas Ra	tes		
T	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)	

Trilobite Testing, Inc Printed: 2017.01.09 @ 11:25:47 Ref. No: 61873



TOOL DIAGRAM

Mai Oil Operations, Inc.

S29-21s-12w Stafford,KS

Test Start: 2017.01.06 @ 06:32:00

8411 Preston Rd STE 800 Dallas TX 75225+5520

Tieperman #2 Job Ticket: 61873

ATTN: Wyatt Urban

DST#: 1

Tool Information

Drill Pipe:

Length: 3524.00 ft Diameter: 3.80 inches Volume: 49.43 bbl Heavy Wt. Pipe: Length: 0.00 ft Diameter: 2.50 inches Volume: 0.00 bbl
Drill Collar: Length: 0.00 ft Diameter: 2.25 inches Volume: 0.00 bbl

Total Volume: 49.43 bbl

Tool Weight:

2200.00 lb Weight set on Packer: 25000.00 lb

Weight to Pull Loose: 51000.00 lb

Tool Chased

String Weight: Initial 40000.00 lb

Final 50000.00 lb

Drill Pipe Above KB: Depth to Top Packer: 3534.00 ft

10.00 ft

ft

Interval between Packers: 81.00 ft

Number of Packers: 1
Tool Comments: 1

Depth to Bottom Packer:

1 Diameter: 6.75 inches

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			3515.00		
Shut In Tool	5.00			3520.00		
Hydraulic tool	5.00			3525.00		
Packer	5.00			3530.00	20.00	Bottom Of Top Packer
Packer	4.00			3534.00		
Stubb	1.00			3535.00		
Recorder	0.00	9120	Outside	3535.00		
Recorder	0.00	8368	Inside	3535.00		
Perforations	11.00			3546.00		
Change Over Sub	1.00			3547.00		
Drill Pipe	63.00			3610.00		
Change Over Sub	1.00			3611.00		
Bullnose	4.00			3615.00	81.00	Bottom Packers & Anchor

Total Tool Length: 101.00

Trilobite Testing, Inc

Ref. No: 61873

Printed: 2017.01.09 @ 11:25:47



FLUID SUMMARY

Mai Oil Operations, Inc.

S29-21s-12w Stafford,KS

8411 Preston Rd STE 800 Dallas TX 75225+5520

Tieperman #2 Job Ticket: 61873

DST#: 1

ATTN: Wyatt Urban

Test Start: 2017.01.06 @ 06:32:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight:

9.00 lb/gal

Viscosity: Water Loss: 57.00 sec/qt 7.99 in³

Resistivity: Salinity: Filter Cake:

ohm.m 4500.00 ppm inches

Cushion Type:

Cushion Length:

ft

Oil API: Water Salinity:

deg API 39000 ppm

bbl

Cushion Volume: Gas Cushion Type:

Gas Cushion Pressure:

psig

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
820.00	OWGCM 10% O 15% W 30 % G 45%M	11.502
700.00	OMGCW 5% O 15%M 40%G 40%W	9.819
1072.00	OGMCW 5%O 20% M 10% G 65% W	15.037
180.00	Water 100% W	2.525
50.00	WM 40%W 60%M	0.701

Total Length:

2822.00 ft

Total Volume:

39.584 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0 Laboratory Location:

Serial #:

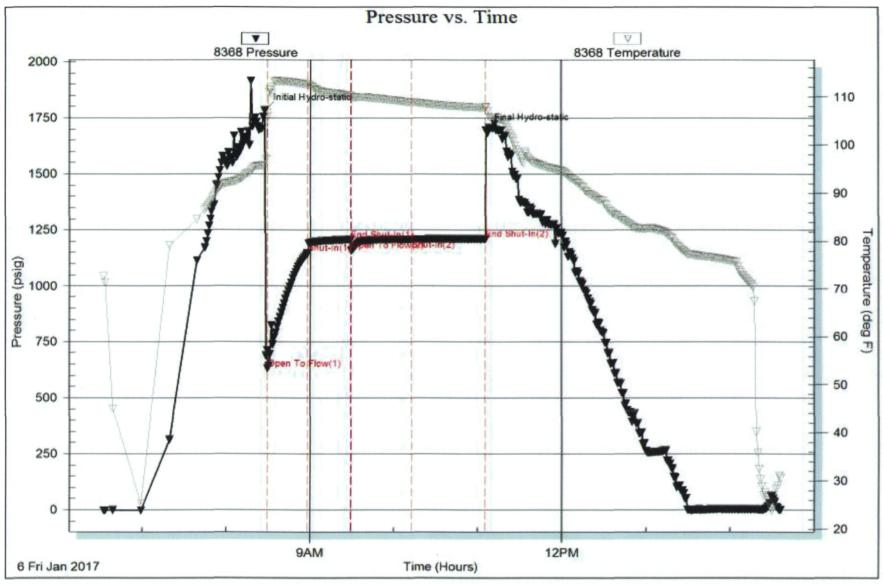
Laboratory Name:

Recovery Comments:

Trilobite Testing, Inc

Ref. No: 61873

Printed: 2017.01.09 @ 11:25:47



QUALITY OILWELL CEMENTING, INC.

				I.D.# 20-2			
Phone 785-483-2025 Cell 785-324-1041	Н	ome Office	P.O. B	ox 32 Rus	ssell, KS 67665	No.	3113
Sec.	Twp.	Range		County	State	On Location	Finish
Date 1 2 - 17 29	21	12	85	Lullat	Ke		19:15 PM
			Locati	on	Il elevation	- 124 5	Els
Lease Te services	V	Vell No.	2	Owner	TOWN CHANGE		/
Contractor	9 .	3		To Quality O	ilwell Cementing, Inc.	cementing equipment	and furnish
Type Job Suface	1			cementer an	d helper to assist owr	ner or contractor to do	work as listed.
Hole Size 121/411	T.D.	6631		Charge To	na° ol	000000	
Csg. 8 5/8"	Depth	6631		Street	,,,,,	0)70 0 70	7
Tbg. Size	Depth			City		State	
Tool	Depth			The above wa	s done to satisfaction ar	nd supervision of owner	agent or contractor.
Cement Left in Csg.	Shoe Jo	int)	01	Cement Amo	ount Ordered	60/10 34	(c) 9/6el
Meas Line	Displace	41	RIS	VETI-	seal	No. of the latest	
EQUIPM	MENT		13.3	Common			
Pumptrk 5 No. Cementer Helper	-011			Poz. Mix			
Bulktrk / No. Driver Driver	~			Gel.			
Bulktrk No. Driver Driver	1			Calcium			
JOB SERVICES	& REMAR	RKS		Hulls			
Remarks: O	1	1	1,	Salt			
Rat Hole		-		Flowseal	建筑工业中心工业	PLANTE CONTRACTOR OF THE	4. 计图如文字
Mouse Hole				Kol-Seal			
Centralizers				Mud CLR 48			
Baskets				CFL-117 or (CD110 CAF 38		
D/V or Port Collar	ARREAS TO SERVICE STATE OF THE PARTY OF THE			Sand	and the same of th		
			À	Handling			
			Do //3	Mileage			
					FLOAT EQUIPM	ENT	
				Guide Shoe	R. Herry	1	
	200000			Centralizer	no- p	7	
				Baskets			
	green, and		15	AFU Inserts		11 1000	
	page 1			Float Shoe	ABBYA	A Commence of	
	30,000,000		7	Latch Down			
		16			- W		
	20000000	400 AND STORY AND STORY	No	and the control of th	WITCHES SER SELECTIONS	20,450,00	

Pumptrk Charge

Tax

Discount

Total Charge

Mileage

X Signature

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

Phone 785-483-2025 Cell 785-324-1041		н	ome Office	P.O. B	30x 32 Russell, KS 67665 No. 3116					
Manual States of the States	Sec.	Twp.	Range	(County	State	On Location	Finish		
Date - 8 - 17	29	21	12	Sta	1,22	Ks		12.30PM		
	,	_	10	Location	on	V	124. 5	FILL		
Lease Tie Decmi	20	1	Well Not 2		Owner					
Contractor	The	ind	12		To Quality Oi	ilwell Cementing, Inc	c. cementing equipmen	at and furnish		
Type Job			3		cementer and	d helper to assist ow	ner or contractor to d	o work as listed.		
Hole Size	7	T.D. 3	013		Charge M	0 01	population	5		
Csg. New 54" 1	Н	Depth	758 A	4	Street		Show and			
Tbg. Size		Depth	36	71	City		State			
Tool	200 /	Depth			The above wa	s done to satisfaction a	and supervision of owne	r agent or contractor.		
Cement Left in Csg.	89'	Shoe Jo	oint 21,8	91	Cement Amo	ount Ordered	60/40 100/5	1 27 Gel		
Meas Line		Displac	e 59 m	B15	Vyl Flo	sal - 100	burn lop or	Clearus		
	EQUIPM	IENT			Common		2.			
Pumptrk 10 No. Cemen Helper	ter	110			Poz. Mix		School of the second			
Bulktrk O No. Driver	NOV				Gel.					
Bulktrk Du No. Driver	20,1				Calcium		Marie Carlotte Al			
JOB SER	VICES	& REMA	RKS		Hulls					
Remarks:					Salt					
Rat Hole					Flowseal					
Mouse Hole					Kol-Seal					
Centralizers -					Mud CLR 48	500 0	1			
Baskets	b.H		mak O	الإلما	CFL-117 or C	CD110 CAF 38	N			
D/V or Port Collar	10		al Mud	1 0	Sand	Allen.				
4× DIA PRIL			3051 II	VÀ	Handling					
1 0		7	5.00		Mileage					
S			100		49	FLOAT EQUIPM	IENT			
Rolland Dun			1115	es litta	Guide Shoe					
Bee of Who	20	lo corre	1 + held		Centralizer					
TO O HOO	. K.	1000			Baskets					
1:50000	10 4	LX	1 1 2 2	18	AFU Inserts					
	1		5 b 5		Float Shoe	A B BYA	7.6 mm. 1			
Land alus -		180	D H		Latch Down					
P. 0	TO THE REAL PROPERTY.	, ,,								
	***	1	MAY	No.	A BOTTON		7			
							Pumptrk Charge			
	A P				Mileage		And Control of	NEWS TENSOR		
							Tax			
							Discount			
X Signature	1200						Total Charge			
The state of the s	F. S. S.	15 18 18 AS								