

Operator Name: Hughes Drilling CO. Lease Name: North Hughes Well #: 1
 Sec. 6 Twp. 17 S. R. 21 East West County: Franklin

INSTRUCTIONS: Show important tops and base of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed. Attach copy of all Electric Wireline Logs surveyed. Attach final geological well site report.

Drill Stem Tests Taken <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Cores Taken <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>(Submit Copy)</i> List All E. Logs Run: <u>GAMMA RAY-NEUTRON</u>	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input checked="" type="checkbox"/> Sample <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:60%;">Name</th> <th style="width:20%;">Top</th> <th style="width:20%;">Datum</th> </tr> </thead> <tbody> <tr> <td>HERTHA</td> <td>335</td> <td>341</td> </tr> <tr> <td>#2 Squirrel</td> <td>660</td> <td>668</td> </tr> <tr> <td>#3 Squirrel</td> <td>676</td> <td>683</td> </tr> </tbody> </table>	Name	Top	Datum	HERTHA	335	341	#2 Squirrel	660	668	#3 Squirrel	676	683
Name	Top	Datum											
HERTHA	335	341											
#2 Squirrel	660	668											
#3 Squirrel	676	683											

CASING RECORD <input checked="" type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
Surface	9 7/8	7	18	20	portland	5	none
production	5 1/2	2 1/2	7	712	50/50poz	93	2% gel

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	#Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> Plug Off Zone				

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record (Amount and Kind of Material Used)	Depth
	(delayed Completion)		

TUBING RECORD	Size	Set At	Packer At	Liner Run <input type="checkbox"/> Yes <input type="checkbox"/> No
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Date of First, Resumerd Production, SWD or Enhr. <u>delayed completion</u>	Producing Method <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other (Explain)
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Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
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Disposition of Gas Vented Sold Used on Lease *(If vented, Sumit ACO-18.)*

METHOD OF COMPLETION

Open Hole
 Perf.
 Dually Comp.
 Commingled
 Other (Specify) _____

Production Interval

ORIGINAL

CONSOLIDATED INDUSTRIAL SERVICES, INC.
211 W. 14TH STREET, CHANUTE, KS 66720
316-431-9210 OR 800-467-8676

TICKET NUMBER **14245**
LOCATION Ottawa
FOREMAN Alan Mader

TREATMENT REPORT

DATE	CUSTOMER ACCT #	WELL NAME	QTR/QTR	SECTION	TWP	RGE	COUNTY	FORMATION
12-1-00	3925	N. Hughes #1		6	17	21	Fr	
CHARGE TO <u>Hughes Drilling</u>				OWNER				
MAILING ADDRESS <u>122 Main</u>				OPERATOR				
CITY <u>Wellsville</u>				CONTRACTOR <u>company Tools</u>				
STATE <u>KS</u>		ZIP CODE <u>66092</u>		DISTANCE TO LOCATION <u>15</u>				
TIME ARRIVED ON LOCATION <u>3:00</u>				TIME LEFT LOCATION <u>4:00</u>				

WELL DATA

HOLE SIZE	<u>5 1/2"</u>
TOTAL DEPTH	<u>725"</u>
CASING SIZE	<u>2 7/8"</u>
CASING DEPTH	<u>711"</u>
CASING WEIGHT	
CASING CONDITION	
TUBING SIZE	
TUBING DEPTH	
TUBING WEIGHT	
TUBING CONDITION	
PACKER DEPTH	
PERFORATIONS	
SHOTS/FT	
OPEN HOLE	
TREATMENT VIA	

TYPE OF TREATMENT

<input type="checkbox"/> SURFACE PIPE	<input type="checkbox"/> ACID BREAKDOWN
<input checked="" type="checkbox"/> PRODUCTION CASING	<input type="checkbox"/> ACID STIMULATION
<input type="checkbox"/> SQUEEZE CEMENT	<input type="checkbox"/> ACID SPOTTING
<input type="checkbox"/> PLUG & ABANDON	<input type="checkbox"/> FRAC
<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> FRAC + NITROGEN
<input type="checkbox"/> MISC PUMP	<input type="checkbox"/> FOAM FRAC
<input type="checkbox"/> OTHER	<input type="checkbox"/> NITROGEN

PRESSURE LIMITATIONS

	THEORETICAL	INSTRUCTED
SURFACE PIPE		
ANNULUS LONG STRING		
TUBING		

INSTRUCTIONS PRIOR TO JOB

JOB SUMMARY

DESCRIPTION OF JOB EVENTS Established circulation. Mixed + pumped 2 sx gel. Pumped app 5651 clean water. Mixed + pumped 935x 50/50 po2, 2% gel. Circulated cement to surface. Flushed pump clean. Pumped 2 1/2 rubber plug to pin at 711'. Well held 800 PSI. Closed valve.

Alan Mader

PRESSURE SUMMARY

BREAKDOWN or CIRCULATING	psi
FINAL DISPLACEMENT	psi
ANNULUS	psi
MAXIMUM	psi
MINIMUM	psi
AVERAGE	psi
ISIP	psi
5 MIN SIP	psi
15 MIN SIP	psi

TREATMENT RATE

BREAKDOWN BPM
INITIAL BPM
FINAL BPM
MINIMUM BPM
MAXIMUM BPM
AVERAGE BPM
HYD HHP = RATE X PRESSURE X 40.8

AUTHORIZATION TO PROCEED TITLE DATE

TERMS

In consideration of the prices to be charged for our services, equipment and products as set forth in Consolidated Industrial Services, Inc's (CIS) current Price Schedule, and for the performance of services and supplying of materials; customer agrees to the following terms and conditions.

Terms. Cash in advance unless satisfactory credit is established. On credit sales, invoices payable to P.O. Box 884, Chanute, KS 66720. Invoices payable within 30 days of invoice date. Charges subjected to interest after 30 days from invoice date. Interest will be charged at Maximum rate allowed by law. In the event it is necessary to employ an attorney to enforce collection of such account, customer agrees pay all collection costs and attorney's fees in the amount of 20% of said amount.

Any applicable federal, state or local sales, use, occupation, consumer's or emergency taxes shall be added to the quoted price.

A sales tax reimbursement of 2% is applied to chemical and product charges for all services performed on oil and gas wells in the State of Texas.

All process license fees required to be paid to others will be added to the scheduled prices.

All prices are subject to change without notice.

SERVICE CONDITIONS

Customer warrants that the well is in proper condition to receive the services, equipment, products, and materials to be supplied by CIS.

"The customer shall at all time have complete care, custody, and control of the well, the drilling and production equipment at the well, and the premises about the well. A responsible representative of the customer shall be present to specify depths, pressures, or materials used for any service which is to be performed."

- (a) CIS shall not be responsible for, and customer shall secure CIS against any liability for damage to property of customer and of the well owner (if different from customer), unless caused by the willful misconduct or gross negligence of CIS, this provision applying to but not limited to sub-surface damage and surface damage arising from subsurface damage.
- (b) Customer shall be responsible for and secure CIS against any liability for reservoir loss or damage, or property damage resulting from sub-surface pressure, losing control of the well and/or a well blowout, unless such loss or damage is caused by the willful misconduct of gross negligence of CIS.

- (c) Customer shall be responsible for and secure CIS against any and all liability of whatsoever nature for damages as a result of a subsurface trespass, or an action in the nature thereof, arising from a service operation performed by CIS hereunder.
- (d) Customer shall be responsible for and secure CIS against any liability for injury to or death of persons, other than employees of CIS, or damage to property (including, but not limited to, injury to the well), or any damages whatsoever, irrespective of cause, growing out of or in any way connected with the use of radioactive material in the well hole, unless such damage shall be caused by the willful misconduct or gross negligence of CIS.
- (e) CIS makes no guarantee of the effectiveness of the products, supplies or materials, nor of the results of any treatment or services.
- (f) Because of the uncertainty of variable well conditions and the necessity of relying on facts and supporting services furnished by others, CIS is unable to guarantee the accuracy of any chart interpretation, research analysis, job recommendation or other data furnished by CIS. CIS personnel will use their best efforts in gathering such information and their best judgment in interpreting it, but customer agrees that CIS shall not be responsible for any damage arising from the use of such information except where due to CIS gross negligence or willful misconduct in the preparation or furnishing of it.

WARRANTIES – LIMITATION OF LIABILITY

IS warrants only title to the products, supplies and materials and that the same are free from defects in workmanship and materials. THERE ARE NO WARRANTIES, EXPRESS OR IMPLIED OR MERCHANTABILITY, FITNESS OR OTHERWISE WHICH EXTEND BEYOND THOSE STATED IN THE IMMEDIATELY PRECEDING SENTENCE. CIS's liability and customer's exclusive remedy in any cause of action (whether in contract, tort, breach of warranty or otherwise) arising out of the sale or use of any products, supplies or materials is expressly limited to the replacement of such products, supplies or materials on their return to CIS or, at CIS's option, to the allowance to the customer of credit for the cost of such items. In no event, shall CIS be liable for special, incidental, indirect, punitive or consequential damages.

CIS personnel will use their best efforts in gathering such information and their best judgement in interpreting it, but Customer agrees that CIS shall not be liable for and CUSTOMER SHALL INDEMNIFY AGAINST ANY DAMAGED ARISING FROM THE USE OF SUCH INFORMATION, even if such is contributed by the CIS negligence or fault.

HUGHES DRILLING REPORT ORIGINAL

56, T17, A 21c 19-2
1550 = SL
1920 = EL

O.P. Hughes Drilling Co.
SET IN PIPE

PERMANENT CSG. TUBING

FORMATION DRILLED
APR 15-059-24, 891

Well No. 1 Size 7 1/2" Size _____ Size _____
 Farm N. Hughes Feet 20' Feet _____ Feet _____
 Water Streak @ _____ Cond. New Cond. _____ Cond. _____
 Water Level @ _____ Top Sand _____ T. D. at Completion 725
 Approved _____ Contractor **HUGHES DRILLING CO.**
 Superintendent _____

(5 5/8 cement pipe to surface)

DATE	HOURS OF TOUR	DRILLED		REMARKS - TYPE, WORK -- BILLING REF.	PIPE TALLY
		FROM	TO		
1/28/00		0	3	Soil	1 22.0 - 22.0
		3	12	LIME (Brk 3-6)	2 22.5 - 44.5
20'		12	43	Shale (sdg 25-29)	3 22.5 - 67.0
1/29	5/4 Bottom Bit	43	60	Lime	4 22.5 - 89.5
		60	62	Shale	5 22.5 - 112.0
		62	65	Shale Sand	6 22.5 - 134.5
		65	81	Shale	7 22.5 - 157.0
		81	85	Sand	8 22.5 - 179.5
		85	152	Shale	9 22.5 - 202.0
		152	172	Lime	10 22.5 - 224.5
		172	199	Shale	11 22.5 - 247.0
		199	203	Lime	12 22.5 - 269.5
		203	241	Shale	13 22.5 - 292.0
		241	249	Lime	14 22.5 - 314.5
		249	270	Shale (Brk 252-256)	15 22.5 - 337.0
30'		270	297	Lime	16 22.5 - 359.5
		297	301	Shale	17 22.5 - 382.0
20'		301	325	Lime	18 22.5 - 404.5
		325	328	Shale (slate 327-328)	19 22.5 - 427.0
		328	333	Lime	20 22.5 - 449.5
		333	335	Shale	21 22.5 - 472.0
		335	341	Lime	22 22.5 - 494.5
		341	491	Shale (Brk 345-350) (sandy shale 360-370) (Gray sand 446-451)	23 22.5 - 512.0
1/29	Full Trip 350	491	500	Lime	24 22.5 - 539.5
	5/4 Pipe	500	502	Shale	25 22.5 - 562.0
		502	505	Lime	26 22.5 - 584.5
		505	547	Shale	27 22.5 - 607.0

STRATA THICKNESS	FORMATION DRILLED	T.O.
3	Soil	3
9	Lime	12
31	Shale	43
17	Lime	60
2	Shale	62
3	Sand	65
16	Shale	81
4	Sand	85
67	Shale	152
20	Lime	172
27	Shale	199
4	Lime	203
38	Shale	241
8	Lime	249
21	Shale	270
30'	27	Lime 297
	4	Shale 301
20'	24	Lime 325
	3	Shale 328
	5	Lime 333
	2	Shale 335
14 1/2	6	Lime 341
150	Shale	491
8	Lime	500
2	Shale	502
3	Lime	505
42	Shale	547
3	Lime	550
17	Shale	567
3	Lime	570
18	Shale	588
2	Lime	590
5	Shale	595
2	Lime	597
2	Shale	599
5	Lime	604
6	Shale	610
#1 sq	2	Sand 612
	38	Shale 650
	2	Lime 652
	7	Shale 659

HUGHES DRILLING REPORT

ORIGINAL

192

SET IN PIPE

PERMANENT CSG.

TUBING

FORMATION DRILLED

Well No. #1 Size.....
 Farm N. Hughes Feet.....
 Water Streak @..... Cond.....
 Water Level @..... Top Sand.....
 Approved..... Superintendent

Size..... Size.....
 Feet..... Feet.....
 Cond..... Cond.....
 T. D. at Completion 725
 Contractor HUGHES DRILLING CO.

STRATA THICKNESS	FORMATION DRILLED	T. D.
1	Lime	660
#2 sq. 8	sand	668
8	shale	676
#3 sq. 7	sand	683
14	shale	697
3	slate	700
25	shale	725
		To

DATE	HOURS OF TOUR	DRILLED		REMARKS - TYPE WORK - BILLING REF.	PIPE TALLY
		FROM	TO		
		547	550	Lime	(28) 22.5-629.5
		550	567	shale	(29) 22.5-652.0
		567	570	Lime	(30) 22.5-674.9
		570	588	shale (570-572 slate)	(31) 22.5-697.2
		588	590	Lime (Baker)	(32) 22.5-719.5
		590	595	shale	
		595	597	Lime	
		597	599	shale	
		599	604	Lime (Bleeding Oil 599-602)	
6/11		604	610	shale (Lime 607-608)	
11/30	#1 sq.	610	612	sand - core time pg. 3	
		612	650	shale	
		650	652	Lime	
		652	659	shale	
		659	660	Lime	
	#2 sq.	660	668	sand	
		668	676	shale	core time pg. 4
6/82	#3 sq.	676	683	sand	
12/1		683	697	shale	
		697	700	SLATE	
		700	725	shale	
				To	
12/1/00 - set 7.52' of 2 1/2" prod upset pipe Bolt in bottom used 3 centralizers					

#1 sq.
 START CORE 611
 NO 4
 2/ JTS left

#2 sq.
 NO. 10.5'
 19 JTS left

(321)

HUGHES DRILLING CO.

(Pg 3)

Wellsville, Kansas 66092

ORIGINAL

Roger 913-883-2235
Darrel 913-883-4027

CORE TIME

Ron 913-883-4655
Clay 913-883-4383

LEASE N. Hughes #1

FORMATION Ft Squirrel

DATE: 11-30-00

(RPM Shave Bit)

FROM	FEET TO	TIME	MINUTES	REMARKS	
610	611	- C 4 1/2 Sample	-	} sand very lamin. w/ shale (little bleeding oil)	
① 611	612	10:55:00 - 10:55:30	:30		
② 612	613	10:55:30 - 10:56:30	1:00	} No good CCH SHALE	
③ 613	614	10:56:30 - 10:57:30	1:00		
④ 614	615	10:57:30 - 10:58:30	1:00		
⑤ 615	616	10:58:30 - 10:59:45	1:15		
⑥ 616	617	10:59:45 - 11:01:00	1:15		
⑦ 617	618	11:01:00 - 11:02:15	1:15		
⑧ 618	619	11:02:15 - 11:03:30	1:15		
⑨ 619	620	11:03:30 - 11:05:00	1:30		
⑩ 620	621	11:05:00 - 11:06:15	1:15		
⑪ 621	622	11:06:15 - 11:08:00	1:45		
⑫ 622	623	11:08:00 - 11:09:15	1:15		
⑬ 623	624	11:09:15 - 11:11:00	1:45		
⑭ 624	625	11:11:00 - 11:12:45	1:45		
⑮ 625	626	11:12:45 - 11:14:30	1:45		
⑯ 626	627	11:14:30 - 11:16:00	1:30		
⑰ 627	628	11:16:00 - 11:17:45	1:45		
⑱ 628	629	11:17:45 - 11:19:15	1:30		
⑲ 629	630	11:19:15 - 11:21:00	1:45		
⑳ 630	631				

HUGHES DRILLING CO.

Pg 4

Wellsville, Kansas 66092

ORIGINAL

Roger 913-883-2235
Darrel 913-883-4027

CORE TIME

Ron 913-883-4655
Clay 913-883-4383

LEASE N Hughes #1
FORMATION #2 Squirrel & #3 Squirrel
DATE: 11-30-00

(RPM Shave Bit)

FROM	FEET TO	TIME	MINUTES	REMARKS	
660	661	Chip Sample	-	Sandy shale	
661	662	Chip Sample	-	Sand very lamin. w/shale (Some Bleeding)	
662	663	Chip Sample	-	} Sand lamin. w/shale (some Bleeding)	
1) 663	664	2:41:00-2:42:15	1:15		
2) 664	665	2:42:15-2:43:45	1:30	Sdy shale	
3) 665	666	2:43:45-2:44:30	.45	} Solid Sand (some Bleeding)	
4) 666	667	2:44:30-2:45:00	.30		
5) 667	668	2:45:00-2:46:00	1:00	Sand slightly lamin (some Bleeding)	
6) 668	669	2:46:00-2:47:45	1:45	} SHALE CCH	
7) 669	670	2:47:45-2:49:15	1:30		
8) 670	671	2:49:15-2:51:00	1:45		
9) 671	672	2:51:00-2:52:30	1:30		
10) 672	673	2:52:30-2:53:45	1:15		
11) 673	674	2:53:45-2:55:15	1:30		
12) 674	675	2:55:15-2:57:00	1:45		
13) 675	676	2:57:00-2:58:15	1:15		
14) 676	677	2:58:15-2:59:30	1:15		Sand lamin. w/shale (some bleed)
15) 677	678	2:59:30-3:00:30	1:00		Sand slightly lamin (some bleed)
16) 678	679	3:00:30-3:01:45	1:15	Solid Sand - (some Bleeding)	
17) 679	680	3:01:45-3:02:45	1:00	Sdy Lime 678-679.5	
18) 680	681	3:02:45-3:04:15	1:30	Sand lamin. w/shale 679.5-680.5 some Bleeding	
19) 681	682	3:04:15-3:05:45	1:30	} Scattered strips of Sand 680.5-683 (some Bleeding)	
682	683	Chip Sample	-		

Best Perf Zone
662-668 +
676-683

682-683
683-684

Chip Sample - Shale