

BATCH ACID TREATMENT

REC'D - GREAT BEND
PROD. DIV.

FEB 29 1968

Well No. PEIN A #5

Date 2-14-68

Quantity acid 250 GAL.

Type acid NAWCO. M&D. 202 w/ADAPTIVES

CRUDE OIL
~~Salt water~~ flush 44 BBL'S

Production, before: 25 oil, 0 water, 24 hrs.

Production, after: 27 oil, 0 water, 24 hrs. TEST TAKEN

2-26-68

BATCH ACID TREATMENT

REC'D — GREAT BEND
PROD. DIV.

JUN 23 1969

Well No. BEINA #5

Date 6-11-69

Quantity acid 300 GALS

Type acid XL-33

Salt water flush 40 BBL

Production, before: 14 oil, 5 water, 24 hrs.

Production, after: 8 oil, 4 water, 24 hrs.

BATCH ACID TREATMENT

Well No. Blow A #5

Date 10-8-69

Quantity acid 250 gals. 15%

Type acid Med. 202

Salt water flush 46 bbls.

Production, before: 11 oil, 5 water, 24 hrs. TEST 9-10-

Production, after: 19 oil, 5 water, 24 hrs.

BATCH ACID TREATMENT

Well No. REIN A#5

Date 2-17-70

Quantity acid 250 gal.

Type acid M.O.D. 202

Salt water flush 40 BBL

Production, before: 2.00 oil, 3.00 water, 24 hrs.

Production, after: 10.50 oil, 350 water, 24 hrs.

+ 3.5

BATCH ACID TREATMENT

Well No. Reim A# 5

Date 6-16-71

Quantity 250 gal.

Type Acid 20% Mad.

Salt Water Flush 50 bbls

Production, Before: 5 Oil, 4 Water, 24 Hrs.

Production, After: 5 Oil, 5 Water, 24 Hrs.

BATCH ACID TREATMENT

REC'D - GREAT PLAINS
PROP.
AUG 22 1972

Well No. Rein "A" #5

Date 8-15-72

Quantity 250 gal 15%

Type Acid Dowall DAD

Salt Water Flush 45 bbl's

Production, Before: 4 Oil, 6 Water, 24 Hrs.

Production, After: 10 Oil, 9 Water, 24 Hrs.

BATCH ACID TREATMENT

Lease Name Rein A

Well No. 5

Date 5-15-73

Quantity 250 gals

Type Acid 20% Mod

Salt Water Flush 42 bbls

Production - Before: Oil 4 Water - 24 Hrs. 6

Production - After: Oil 4 Water - 24 Hrs. 8

PATCH ACID TREATMENT

Lease Name Rein A

Well No. 5

Date 11-5-73

Quantity 250 gals

Type Acid 502 Mod

Salt Water Flush _____

Production - Before: Oil 4 Water - 24 Hrs. 10

Production - After: Oil 4 Water - 24 Hrs. 12

BATCH AND TREATMENT

FORM NO. RAIN - A DATE: 9-18-79
ROLL NO. 5
QUANTITY 350 gal.
TSP. HELD 502 MSP.
RATIO WATER FLOW 40 BPL.
WATER - 3 WASTE - 26 HRS. 11
ALUMINUM - 5 WASTE - 26 HRS. 11

BATCH ACID TREATMENT

LEASE NAME Lein A WELL NO. 5

DATE 8-7-84

QUANTITY 250 gal 15%

TYPE ACID Mod 202

SALT WATER FLUSH 45 bbl

PRODUCTION - BEFORE: OIL 2 WATER - 24 HRS. 46 4-17-84

PRODUCTION - AFTER: OIL 2 WATER - 24 HRS. 46 9-20-84

WORK ORDER CONTRACT AND PRE-TREATMENT DATA

ATTACH TO INVOICE & TICKET NO. **947358**

DISTRICT Ness City, Ks.

DATE 9-3-80

TO: HALLIBURTON SERVICES YOU ARE HEREBY REQUESTED TO FURNISH EQUIPMENT AND SERVICEMEN TO DELIVER AND OPERATE

THE SAME AS AN INDEPENDENT CONTRACTOR TO: Cities Service Co.

AND DELIVER AND SELL PRODUCTS, SUPPLIES, AND MATERIALS FOR THE PURPOSE OF SERVICING (CUSTOMER)

WELL NO. 5 LEASE Rein A SEC. 29 TWP. 19 RANGE 21

FIELD _____ COUNTY Ness STATE Kansas OWNED BY C. S. Co.

THE FOLLOWING INFORMATION WAS FURNISHED BY THE CUSTOMER OR HIS AGENT

FORMATION NAME Miss. Osage TYPE _____
FORMATION THICKNESS _____ FROM _____ TO _____
PACKER: TYPE RTTS SET AT 4418
TOTAL DEPTH _____ MUD WEIGHT _____
BORE HOLE _____
INITIAL PROD: OIL _____ BPD, H₂O _____ BPD, GAS _____ MCF
PRESENT PROD: OIL _____ BPD, H₂O _____ BPD, GAS _____ MCF

	NEW USED	WEIGHT	SIZE	FROM	TO	MAX. ALLOW. P.S.I.
CASING	U		4 1/2			
LINER						
TUBING	U	4.7	2 3/8			
OPEN HOLE		PBTD			4455	SHOTS/FT.
PERFORATIONS				4448	4454	
PERFORATIONS		Tail Pipe			4453	
PERFORATIONS						

PREVIOUS TREATMENT: DATE _____ TYPE _____ MATERIALS _____

TREATMENT INSTRUCTIONS: TREAT THRU TUBING ANNULUS CASING TUBING/ANNULUS HYDRAULIC HORSEPOWER ORDERED _____

Treat Miss. - Osage Form, down Tbg.
RTTS w/ Tail Pipe w/ 1500 gal. 15% Non-F

CUSTOMER OR HIS AGENT STATES THE WELL IS IN PROPER CONDITION TO RECEIVE THE PRODUCTS, SUPPLIES, MATERIALS, AND SERVICES

THIS CONTRACT MUST BE SIGNED BEFORE WORK IS COMMENCED

As consideration, the above-named Customer agrees:

- To pay Halliburton in accord with the rates and terms stated in Halliburton's current price lists.
- Halliburton shall not be responsible for and Customer shall secure Halliburton 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 Halliburton, this provision applying to but not limited to subsurface damage and surface damage arising from subsurface damage.
- Customer shall be responsible for and secure Halliburton against any liability for reservoir loss or damage, or property damage resulting from subsurface pressure losing control of the well and/or a well blowout, unless such loss or damage is caused by the willful misconduct or gross negligence of Halliburton.
- Customer shall be responsible for and secure Halliburton against any and all liability of whatsoever nature for damages as a result of subsurface trespass, or a action in the nature thereof, arising from a service operation performed by Halliburton hereunder.
- Customer shall be responsible for and secure Halliburton against any liability for injury to or death of persons, other than employees of Halliburton, 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 Halliburton.
- Halliburton makes no guarantee of the effectiveness of the products, supplies or materials, nor of the results of any treatment or service.
- Customer shall, at its risk and expense, attempt to recover any Halliburton equipment, tools or instruments which are lost in the well and if such equipment, tools or instruments are not recovered, Customer shall pay Halliburton its replacement cost unless such loss is due to the sole negligence of Halliburton. If Halliburton's equipment, tools or instruments are damaged in the well, Customer shall pay Halliburton the lesser of its replacement cost or the cost of repairs unless such damage is caused by the sole negligence of Halliburton. In the case of equipment, tools or instruments for marine operations, Customer shall, in addition to the foregoing, be fully responsible for loss of or damage to any of Halliburton's equipment, tools or instruments which occurs at any time after delivery to Customer at the landing until returned to the landing, unless such loss or damage is caused by the sole negligence of Halliburton.
- Because of the uncertainty of variable well conditions and the necessity of relying on facts and supporting services furnished by others, Halliburton is unable to guarantee the accuracy of any chart interpretation, research analysis, job recommendation or other data furnished by Halliburton. Halliburton personnel will use their best efforts in gathering such information and their best judgment in interpreting it, but Customer agrees that Halliburton shall not be responsible for any damages arising from the use of such information except where due to Halliburton's gross negligence or willful misconduct in the preparation or furnishing of it.
- Halliburton 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, OF MERCHANTABILITY, FITNESS OR OTHERWISE WHICH EXTEND BEYOND THOSE STATED IN THE IMMEDIATELY PRECEDING SENTENCE. Halliburton'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 in their return to Halliburton or, at Halliburton's option, to the allowance to the Customer of credit for the cost of such items. In no event shall Halliburton be liable for special, incidental, indirect, punitive or consequential damages.
- Upon Customer's default in the payment of Customer's account 60 days after date of invoice, such account will thereafter be subject to interest until paid. In the event it becomes necessary to employ an attorney to enforce collection of such account, Customer agrees to pay all collection costs and attorney fees in the amount of 20 percent of the amount of the unpaid account.
- Halliburton shall not be bound by any changes or modifications in this contract, except where such change or modification is made in writing by a duly authorized executive officer of Halliburton.

I HAVE READ AND UNDERSTAND THIS CONTRACT AND REPRESENT THAT I AM AUTHORIZED TO SIGN THE SAME AS CUSTOMER'S AGENT

SIGNED [Signature] CUSTOMER

DATE 9-3-80

TIME 0930 A.M. P.M.

WELL TREATMENT REPORT



DOWELL DIVISION OF DOW CHEMICAL U.S.A.

DATE 2-2-81

DWL-494-N PRINTED IN U.S.A.

WELL-NAME AND NUMBER <u>REIN A-5</u>		LOCATION (LEGAL) <u>SEC 29-19S-21W</u>	DOWELL LOCATION <u>GREAT BLAND</u>	TREATMENT NUMBER
POOL / FIELD		FORMATION <u>MISSISSIPPI</u>	JOB DONE DOWN TUBING <input type="checkbox"/> CASING <input checked="" type="checkbox"/> ANNULUS <input type="checkbox"/>	PAGE <u>1</u> OF <u>1</u> PAGES
COUNTY / PARISH <u>NESS</u>	STATE <u>KANSAS</u>	SERVICE NAME <u>WF 30</u>	AGE OF WELL OIL <input type="checkbox"/> GAS <input type="checkbox"/> WATER <input type="checkbox"/> INJ. <input type="checkbox"/>	ALLOWABLE PRESSURE TBG: CSG: <u>2200</u>
TYPE OF SERVICE <input checked="" type="checkbox"/> Acidizing <input checked="" type="checkbox"/> Fracturing		SAND CONTROL <input type="checkbox"/> Sand Control <input type="checkbox"/> Other		OIL API GRAVITY VAPOR PSI
CUST. NAME <u>CRIES SERVICE COMPANY</u>		NEW WELL <input type="checkbox"/> REWORK <input checked="" type="checkbox"/>		TOTAL DEPTH <u>4459</u>
ADDRESS <u>800 SOUTH PLAZA BLDG 209 EAST WILLIAM</u>		CASING SIZE <u>4 1/2</u>	DEPTH	BHT. (LOG) / E <u>117°F</u>
CITY, STATE <u>WILLIAM, KANSAS 67202</u>		LINEAR SIZE	WT.	PACKER TYPE
SERVICE INSTRUCTIONS: <u>FRAC WELL DOWN 4 1/2 CASING</u> <u>IN 5000 LB 20/40 SAND FLUSH WITH</u> <u>REINTE</u>		OPEN HOLE	CASING VOL <u>71</u>	PACKER DEPTH
FOR CONVERSION PURPOSES 24 BBLs EQUALS 1000 GALLONS		PERFORATED INTERVALS		TUBING VOL
ARRIVED ON LOCATION: <u>4900</u>		LEFT LOCATION:		ANNULAR VOL

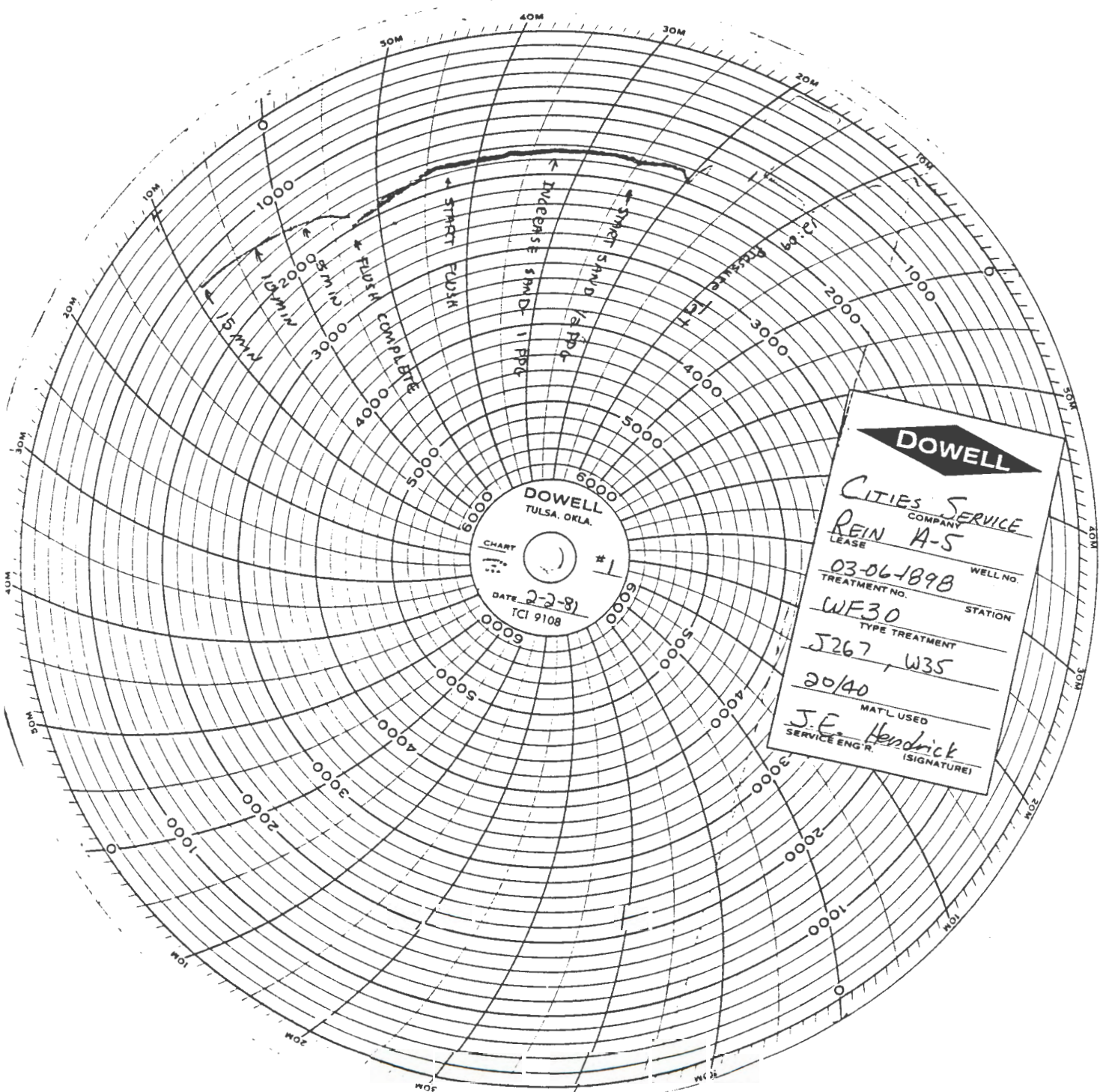
TIME (0001 to 2400)	RATE BPM	TYPE OF FLUID	DENSITY	INCREMENT VOL. BBLs	CUM. VOL. BBLs	PROP. TYPE	PROP. #/GAL	CSG.	TBG.	NOTATIONS
0700										Pre-Job Safety Meeting
1209										Pre-Job Pressure Test To 1900 psi
1216	12	WF 30		72						START PAD
1219	3	"			36			1800		HOPE LOADED
1231		"						1650		PRESSURE CHECK
1234		"		72	72	20/40	1/2	1700		START SAND
1238		"		84	144		1	1700		INCREASE SAND TO 1
1243		"		24	228			1700		FINISH SAND / START FLU
1248		"			312			2000		FLUSH COMPLETE
								1800		ESIP
								1550		5 MIN PRESSURE DROP
								1400		10 "
								1250		15 "
										CLOSE WELL IN

DIAMETER OF PERFORATIONS =

INJECTION RECORD								PRESSURE		NOTATIONS
TIME	RATE BPM	TYPE OF FLUID	DENSITY	INCREMENT VOL. BBLs	CUM. VOL. BBLs	PROP. TYPE	PROP. #/GAL	CSG.	TBG.	
0700										Pre-Job Safety Meeting
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1216	12	WF 30		72						START PAD
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1234		"		72	72	20/40	1/2	1700		START SAND
1238		"		84	144		1	1700		INCREASE SAND TO 1
1243		"		24	228			1700		FINISH SAND / START FLU
1248		"			312			2000		FLUSH COMPLETE
								1800		ESIP
								1550		5 MIN PRESSURE DROP
								1400		10 "
								1250		15 "
										CLOSE WELL IN

FRAC. GRADIENT	AVG. INJECTION RATES LIQ. <u>8 BPM</u> W/PROP <u>8.5 BPM</u>	MATERIALS CHARGED FOR:	
TOTAL FLUID <u>312</u> BBLs	TOTAL PROP <u>5000</u> LBS	MTRL	QUANTITY
		<u>7267</u>	<u>500 LB</u>
		<u>W35</u>	<u>10 GAL</u>
TREATING PRESSURE SUMMARY			
MAX. <u>3000</u>	FINAL <u>2000</u> AVG. <u>1750</u>		
	IMMED. S.D.P. <u>1800</u>		
	15 MIN. SIP <u>1250</u>		

PRODUCTION PRIOR TO THIS TR. <u>3 2090</u> <u>4 2000</u>	<input type="checkbox"/> Test <input type="checkbox"/> Stabilized
CUSTOMER REPRESENTATIVE	DOWELL SERVICE SUPERVISOR



DOWELL	
CITIES SERVICE COMPANY	
REIN A-5 LEASE	
03-06-1898	WELL NO.
TREATMENT NO.	
WF30	STATION
TYPE TREATMENT	
J267, W35	
20/40	
MATERIAL USED	
J.E. Hendrick SERVICE ENGR. (SIGNATURE)	

