

ORIGINAL

SIDE ONE

STATE CORPORATION COMMISSION OF KANSAS
OIL & GAS CONSERVATION DIVISION
WELL COMPLETION FORM
ACO-1 WELL HISTORY
DESCRIPTION OF WELL AND LEASE

Operator: License # 04680
Name: American Exploration Co.
Address 2100 NCNB Center
Houston, Texas 77002
City/State/Zip _____

Purchaser: KN Energy
Operator Contact Person: Marty B. McClanahan
Phone (713) 220-8251

Contractor: Name: Cheyenne Drilling Co.
License: 05382
Wellsite Geologist: Gary Oliver

Designate Type of Completion
 New Well Re-Entry Workover
 Oil SWD Temp. Abd.
 Gas SI Inj Delayed Comp.
 Dry Other (Core, Water Supply, etc.)

If **OWO**: old well info as follows:
Operator: _____
Well Name: _____
Comp. Date _____ Old Total Depth _____

Drilling Method:
 Mud Rotary Air Rotary Cable
7/17/90 7/20/90 11/11/90
Spud Date Date Reached TD Completion Date

API NO. 15- 075-20,471-0000

County Hamilton

C SW/4 Sec. 18 Twp. 22 Rge. 41 East West

1320 Ft. North from Southeast Corner of Section

3960 Ft. West from Southeast Corner of Section
(NOTE: Locate well in section plat below.)

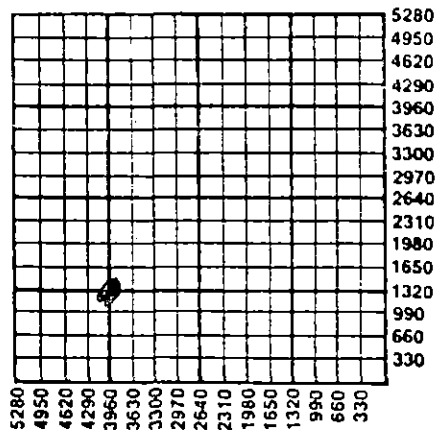
Lease Name HCU Well # 1821-E

Field Name Bradshaw

Producing Formation Winfield

Elevation: Ground 3605 KB _____

Total Depth 2850 PBTD 2779



12-3-90

Amount of Surface Pipe Set and Cemented at 360 Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set _____ Feet

If Alternate II completion, cement circulated from 2850

feet depth to Surface w/ 625 855 sx cmt.

INSTRUCTIONS: This form shall be completed in triplicate and filed with the Kansas Corporation Commission, 200 Colorado Derby Building, Wichita, Kansas 67202, within 120 days of the spud date of any well. Rule 82-3-130, 82-3-107 and 82-3-106 apply. Information on side two of this form will be held confidential for a period of 12 months if requested in writing and submitted with the form. See rule 82-3-107 for confidentiality in excess of 12 months. One copy of all wireline logs and drillers time log shall be attached with this form. ALL CEMENTING TICKETS MUST BE ATTACHED. Submit CP-4 form with all plugged wells. Submit CP-111 form with all temporarily abandoned wells. Any recompletion, workover or conversion of a well requires filing of ACO-2 within 120 days from commencement date of such work.

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.

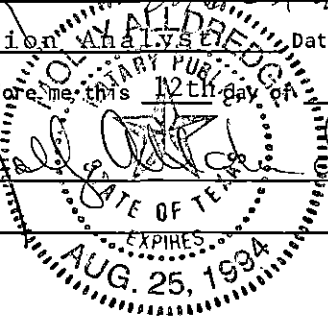
Signature Marty B. McClanahan

Title Sr. Production Analyst Date 9/12/90

Subscribed and sworn to before me this 12th day of September, 19 90.

Notary Public _____

Date Commission Expires _____



RECEIVED
STATE CORPORATION COMMISSION
DEC 3 1990
K.C.C. OFFICE USE ONLY
F _____ Letter of Confidentiality Attached
C _____ Wireline Log Received
C _____ Drillers Time Log Received
Distribution
 KCC SWD/Rep NGPA
 KGS Plug Other
(Specify)

PI

SIDE TWO

Operator Name American Exploration Co Lease Name HCU Well # 1821-E

Sec. 18 Twp. 22 Rge. 41 East West County Hamilton

INSTRUCTIONS: Show important tops and base of formations penetrated. Detail all cores. Report all drill stem 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 during test. Attach extra sheet if more space is needed. Attach copy of log.

<p>Drill Stem Tests Taken <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (Attach Additional Sheets.)</p> <p>Samples Sent to Geological Survey <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>Cores Taken <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No (Submit Copy.)</p>	<p align="center">Formation Description</p> <p><input checked="" type="checkbox"/> Log <input type="checkbox"/> Sample</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:60%;">Name</th> <th style="width:20%;">Top</th> <th style="width:20%;">Bottom</th> </tr> </thead> <tbody> <tr> <td>Stone Corral Anhy.</td> <td>-----</td> <td>2204 (+1412)</td> </tr> <tr> <td>Winfield</td> <td>2668 (+948)</td> <td></td> </tr> <tr> <td>Ft. Riley</td> <td>2770 (+846)</td> <td></td> </tr> </tbody> </table>	Name	Top	Bottom	Stone Corral Anhy.	-----	2204 (+1412)	Winfield	2668 (+948)		Ft. Riley	2770 (+846)	
Name	Top	Bottom											
Stone Corral Anhy.	-----	2204 (+1412)											
Winfield	2668 (+948)												
Ft. Riley	2770 (+846)												

CASING RECORD New 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	12-1/4	8-5/8	20#	360	65/35 Poz	130	8% gel 3% CC
Production	7-7/8	4-1/2	9.5	2850	Class "H" 35/65 poz	425	+1/4#/sk, 10% Flake 6% D-20, 10% D-44 3% CC

PERFORATION RECORD		Acid, Fracture, Shot, Cement Squeeze Record	
Shots Per Foot	Specify Footage of Each Interval Perforated	(Amount and Kind of Material Used)	Depth
1 SPF	2686-90' 2784-87'	Treated each perf. w/40 gal. MCA	
	2715-16'	Displ. w/480 gal. 2% KCL	wtr.
	2720-31'		
	2740-45'		
	2752-64'		

TUBING RECORD Size 2-3/8" Set At 2776' Packer At 2646 Liner Run Yes No

Date of First Production SI WOPL Producing Method Flowing Pumping Gas Lift Other (Explain)

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

Disposition of Gas: Vented Sold Used on Lease (If vented, submit ACO-18.)

METHOD OF COMPLETION

Open Hole Perforation Dually Completed Commingled

Other (Specify) _____

Production Interval _____

CASING & CEMENTING REPORT ORIGINAL

Well Name HCU 1821 E Location 18-22-41 W
Casing 4 1/2 Date 7-20-90

Jts. On	m On	Size	Wt.				Jts	Depth	m Run		
Locat.	Locat.	mm	kg/m	Cr.	Rge.	THD	T&C	Make	In Well		
69	2935.92					8 1/2	5		67	m	2850.91
										m	1.80
										m	1.35
										m	
Shoe Make <u>Weatherford</u> Type <u>Reg. Pattern</u> Length <u>1.80</u> m										2853.06	
Collar Make <u>Weatherford</u> Type <u>Auto. Lock</u> Length <u>1.35</u> m										3.00	
Landing Jt. (When Used) Length										m	2850.06
Overall Length of Casing String										m	
m Up From K.B. (subtract)										m	
Setting Depth By Driller <u>2850</u> m By Tally <u>2850</u> m										m	

CENTRALIZERS

SCRATCHERS

Make & No. Weatherford - 4 Make & No. -
Position 2835, 2790, 2684, 2595 Position -
Remarks (Thread Lock, Weld, Mill) Thread Lock, Floor Cotton, 2 5/8 dia.

Hole Size 7 7/8 mm Casing In Hole Size 4 1/2 mm
Depth 2852 m Setting Depth - m
Mud Type Starch Wt. 10.5 kg/m Visc. 4.6 S/LWL - cm
BOP's 8" 3000
Power Tong Co Francis Torque Max. 1200 Min. 750
Casing String Wt. 30000 daN Remarks -

Cementing Co. Dowell Operator MILK

TYPES & QUANTITIES OF CEMENT

Date -

Filler Volume Amount 425 m³ Type 35/65 Wt. 12.4 kg/m³
Additives 6% D-20 + 3% CC + 10% D-44 + 14% SK D-29
Tail In Volume Amount 200 m³ Type H Wt. 15.6 kg/m³
Additives 0.3% D-60 + 14% SK D-29
HT. Cemented - Water Ahead 10 m³ Start Mix 180 @ 5.5 BR m³
Finish Mix 600 @ 4.2 m³ Pumping Press 860 kPa Bump Press 1350 kPa
Float Held YES Cement Returns 5/800 m³
Plug Down 6.00 Date 7-20-90
Wt. Landed in Slips 30,000 daN Make of Bowl -
Size - mm Series - Slip & Seal Esembly -
Remarks (Wellhead - Make, Type, Size) Lockin - Threads 10 1/4 x 4 1/2
Rotate Pipe to Displacement. Pipe Torquing Stop Rotate.

Co. Rep. RECEIVED
DATA CORP. CONSERVATION COMMISSION

DEC 3 1990
CONSERVATION DIVISION
Wichita, Kansas

CEMENTING SERVICE REPORT

15-075-20471.0000

DS-498 PRINTED IN U.S.A.

DOWEL SCHLUMBERGER INCORPORATED

TREATMENT NUMBER	0312 2866	DATE	7/20/90
STAGE	DS	DISTRICT	0312

WELL NAME AND NO. **HCU 1821-B** LOCATION (LEGAL) **S&L 18-225-41W**

FIELD-POOL **BRADSHAW** FORMATION

COUNTY/PARISH **HAMILTON** STATE **KS** API. NO.

RIG NAME: **CHEYENNE #5**

WELL DATA:	BOTTOM	TOP
BIT SIZE 7 7/8	CSG/Liner Size 4 1/2	
TOTAL DEPTH 2854	WEIGHT 9.5	
<input checked="" type="checkbox"/> ROT <input type="checkbox"/> CABLE	FOOTAGE 2854	
MUD TYPE	GRADE	
<input type="checkbox"/> BHST <input type="checkbox"/> BHCT	THREAD 8RD	
MUD DENSITY	LESS FOOTAGE SHOE JOINT(S) 2811	TOTAL
MUD VISC.	Disp. Capacity 45.5	

NAME **AMERICAN Exploration**

AND

ADDRESS

ZIP CODE

NOTE: Include Footage From Ground Level To Head In Disp Capacity

Float	TYPE Auto Fill Insert	DEPTH 2811	TYPE	DEPTH
Shoe	TYPE Guide Cmt	DEPTH 2854	TYPE	DEPTH

SPECIAL INSTRUCTIONS **EQUIPMENT & MATERIALS TO DO 4 1/2 4 1/2**

IS CASING/TUBING SECURED? YES NO

LIFT PRESSURE **1705** PSI CASING WEIGHT - SURFACE AREA (3.14 x R²)

PRESSURE LIMIT PSI BUMP PLUG TO **500 OVER** PSI

ROTATE RPM RECIPROCATATE FT No. of Centralizers **12**

Head & Plugs TBG DP

Double WEIGHT SQUEEZE JOB

Single GRADE TOOL TYPE

Swage THREAD TAIL PIPE: SIZE DEPTH

Knockoff NEW USED TUBING VOLUME Bbls

BOT OW DEPTH CASING VOL BELOW TOOL Bbls

ANNUAL VOLUME Bbls

JOB SCHEDULED FOR TIME **15:00** DATE **7/20/90** ARRIVE ON LOCATION TIME **01:30** DATE **7/20/90** LEFT LOCATION TIME **07:30** DATE **7/20/90**

TIME	PRESSURE LINES		VOLUME PUMPED RRI		INJECT RATE	FLUID TYPE	FLUID DENSITY	SERVICE LOG DETAIL
	TBG OR D.P.	CASING	INCREMENT	CUM				
04:44	2390					H2O 8.34	PRE-JOB SAFETY MEETING PSI TEST LINES	
04:46		80	10		2	H2O 8.34	START H2O AHEAD	
04:49		260	10	10	5.6	H2O 8.34	START 5.433	
04:50		250	15	20	5.5	CMT 10.0	START SCAVENGER SLURRY	
04:54		180	52	35	5.5	CMT 12.4	START LEAD CMT	
05:29		60	42	187	4.2	CMT 15.6	START TAIL CMT	
05:39		30		229	0		SHUT DOWN & WASH LINES	
05:45		10			0		DROP PLUG	
05:46		30	45.5	229	4.3	H2O 8.34	START DISPLACEMENT	
05:53		670		274.5	2.1	H2O 8.34	LOWER RATE	
05:55		780			1.1	H2O 8.34	LOWER RATE	
05:58		860			1.1	CMT 12.4	CMT TO SURFACE	
06:00		1350		274.5	0	H2O 8.34	Bump Plug	
06:02		30					BLEED OFF PSI	
06:02							CHECK FLOAT - FLOAT HOLDING	
06:03							END JOB	

REMARKS

SYSTEM CODE	NO OF SACKS	YIELD CU FT/SK	COMPOSITION OF CEMENTING SYSTEMS				SLURRY MIXED	
							BBLs	DENSITY
1	425	2.21	35/65 PORTLAND CEMENT + 6% D90 + 3% SI + 10% D44 + 1/4" SK D29				167	12.4
2	200	1.18	CLASS H + 0.3% D60 + 1/4" SK D29				42	15.6
3								
4								
5								
6								

STATE CORPORATION COMMISSION

DEC 5 1990

BREAKDOWN FLUID TYPE

HESITATION SO RUNNING SO

CIRCULATION LOST YES NO

DISPLACEMENT VOL **45.5** Bbls

MEASURED DISPLACEMENT WIRELINE

Washed Thru Perfs YES NO TO FT

PERFORATIONS TO TO

CUSTOMER REPRESENTATIVE **Don Rodgin**

OS SUPERVISOR **Phil Edwards**

DENSITY DIVISION MAX MIN: **45.5 5.5** Bbls

Pressure Circulated To Surf. YES NO

TYPE OF WELL OIL GAS STORAGE INJECTION BRINE WATER WILDCAT

ORIGINAL

OILFIELD SERVICES
 INDUSTRIAL SERVICES

DSI SERVICE ORDER
 RECEIPT AND INVOICE NO.
 03 12 2866

DSI SERVICE LOCATION NAME AND NUMBER
 03 12
 TYPE SERVICE CODE
 285
 BUSINESS CODES

CUSTOMER'S NAME
 AMEX
 ADDRESS
 CITY, STATE AND ZIP CODE

WORKOVER W
 NEW WELL N
 OTHER O
 API OR IC NUMBER

IMPORTANT!
 SEE OTHER SIDE FOR TERMS & CONDITIONS
 ARRIVE LOCATION MO. DAY YR. TIME
 7 20 90 0100

SERVICE ORDER RECEIPT
 I certify that the materials and services listed were authorized and received and all services performed in a workmanlike manner and that I have the authority to accept and execute this document.

JOB COMPLETION MO. DAY YR. TIME
 7 20 90 0600

SIGNATURE OF CUSTOMER OR AUTHORIZED REPRESENTATIVE
 [Signature]

DSI will furnish and Customer shall purchase materials and services required in the performance of the following SERVICE INSTRUCTIONS or DSI INDUSTRIAL SERVICE CONTRACT NO. _____ in accordance with the terms and conditions as printed on the reverse side of this form.

EQUIPMENT & MATERIAL TO DO 4 1/2 4/5

STATE CODE COUNTY / PARISH CODE CITY
 KS HAMILTON

WELL NAME AND NUMBER / JOB SITE LOCATION AND POOL / PLANT ADDRESS SHIPPED VIA
 HCU 1271-B SEC 18-225-41W DS

ITEM/PRICE REF. NO.	MATERIAL, EQUIPMENT AND SERVICES USED	UNIT	QUANTITY	UNIT PRICE	\$ AMOUNT
059200-000	MILEAGE CHG.	M.1	66	2.40	158.40
048215-000	PUMP CHG.	EA	1	1026.00	1026.00
048600-000	CASING SWIVEL	EA	1	205.00	205.00
049109-000	DELIVERY CHG.	T/M	2112	0.80	1689.60
049100-000	SERVICE CHG.	FT.3	662	1.08	714.96
059697-000	PACR CHG.	EA	1	110.00	110.00
040003-000	D 903 CLASS C	SK	276	7.00	1932.00
040015-000	D 909 CLASS H	SK	200	6.85	1370.00
045008-000	D 35 LITE P23	SK	149	2.30	342.70
045004-050	044 SALT	#	4352	0.10	435.20
045014-050	090 BENTONITE	#	2218	0.13	288.34
067005-100	SI CACIA	#	1109	0.32	354.88
044003-025	D99 CELLULOSE FLAKE	#	156	1.37	213.72
044002-050	D60 FLUID LOSS ADDITIVE	#	56	6.70	375.20
101094-000	J433 POLYMER	#	42.5	1.77	75.22
050101-044	GUIDE SHOE	EA	1	105.00	105.00
053003-044	AUTO FILL COLLAR	EA	1	180.00	180.00
056011-044	CENTRALIZERS	EA	4	48.00	192.00
056711-044	TURBOLIZERS	EA	8	50.00	400.00
056019-044	STOP RINGS	EA	1	14.00	14.00
057499-001	THREAD LOCK KIT	EA	2	22.00	44.00
056704-044	TOP RUBBER PLUG	EA	1	70.00	70.00

Field Est # 10 296, 22

SUB TOTAL RECEIVED STATE CORPORATION COMMISSION

REMARKS: THANKS FOR USING DS !!
 LICENSE/REIMBURSEMENT FEE
 STATE COUNTY CITY
 SIGNATURE OF DSI REPRESENTATIVE: [Signature]
 TOTAL \$ -

CASING & CEMENTING REPORT

Well Name H.C.G. 14-21-E Location S.W. 1/4 Sec 18 T2-S 41-W
 Casing 8 5/8 Date 7-17-90

Jts. On	m On	Size	Wt.					Jts. Depth	m Run
Locat.	Locat.	mm	kg/m	Cr.	Rge.	THD	T&C	Make	In Well
8		8 5/8	201		3	10	5		347.22

Shoe Make WEA Type Pexus Length 1.0 m
 Collar Make WEA Type INSULT Length _____ m
 Landing Jt. (When Used) Length 15.00 m
 Overall Length of Casing String 359.62 m
 m Up From K.B. (subtract) 4.00 m
 Setting Depth By Driller _____ m By Tally _____ m
359.62

CENTRALIZERS _____ SCRATCHERS _____
 Make & No. WEA _____ Make & No. _____
 Position 10' - 80' _____ Position _____
 Remarks (Thread Lock, Weld, Mill) Bottom 3 Collars

Hole Size 12 1/4 mm Casing In Hole Size 11 1/2 mm
 Depth 363 m Setting Depth _____ m
 Mud Type ERASH Gel Wt. 9.5 kg/m³ Visc. 36 S/LWL cm²
 BOP's N.A.
 Power Tong Co _____ Torque Max. _____ Min. _____
 Casing String Wt. 7,600 daN Remarks _____

Cementing Co. Dowell Operator JAMES ES

TYPES & QUANTITIES OF CEMENT Date 7-17-90

Filler Volume Amount 130 S.X. m³ Type 65/35 P2 Wt. 12.5 kg/m³
 Additives 6% Gel 3% C.C. 1/4" Flake
 Tail In Volume Amount 100 S.X. m³ Type 14 Wt. 15.5 kg/m³
 Additives 3% 1/4" Flake
 HT. Cemented SURKAL Water Ahead 10 BBL m³ Start Mix 7:55 m³
 Finish Mix 8:15 m³ Pumping Press 110 kPa Bump Press 450 kPa
 Float Held Yes Cement Returns Yes 7 BBL m³
 Plug Down 8:20 P.M. Date 7-17-90
 Wt. Landed in Slips _____ daN Make of Bowl _____
 Size _____ mm Series _____ Slip & Seal Esembly _____
 Remarks (Wellhead - Make, Type, Size) _____

RECEIVED
 STATE CORPORATION COMMISSION

Co. Rep. H.A.M. DEC 3 1990
 CONSERVATION DIVISION
 Wichita, Kansas

DOWELL SCHLUMBERGER INCORPORATED

P.O. BOX 4378 HOUSTON, TEXAS 77210

CUSTOMER

15-075-20471-0000

OILFIELD SERVICES
INDUSTRIAL SERVICES

DSI SERVICE ORDER
RECEIPT AND INVOICE NO.
03-12-2845

DSI SERVICE LOCATION NAME AND NUMBER
CORRELATIVE 03-10
1145500

CUSTOMER NUMBER _____ CUSTOMER P.O. NUMBER _____
TYPE SERVICE CODE 271 BUSINESS CODES _____

CUSTOMER'S NAME *American Exploration*
ADDRESS _____
CITY, STATE AND ZIP CODE _____

WORKOVER NEW WELL OTHER N W API OR IC NUMBER _____

ARRIVE LOCATION MO. DAY YR. TIME
7 17 90 1630

SERVICE ORDER RECEIPT
I certify that the materials and services listed were authorized and received and all services performed in a workmanlike manner and that I have the authority to accept and execute this document.

JOB COMPLETION MO. DAY YR. TIME
7 17 90 7021

DSI will furnish and Customer shall purchase materials and services required in the performance of the following SERVICE INSTRUCTIONS or DSI INDUSTRIAL SERVICE CONTRACT NO. _____ in accordance with the terms and conditions as printed on the reverse side of this form.

C.M.I. casing with 130sk 65' 3/4" 202 + 10% D20E
3/4" scale + 1/4" D29
100sk class H + 3/4" scale + 1/4" D29

STATE *Ks* CODE _____ COUNTY/PARISH *Hamilton* CODE _____ CITY _____

SIGNATURE OF CUSTOMER OR AUTHORIZED REPRESENTATIVE _____

WELL NAME AND NUMBER / JOB SITE *H-111 1821-E* LOCATION AND POOL / PLANT ADDRESS *Sec 18-22c-41u* SHIPPED VIA *DS*

ITEM/PRICE REF. NO.	MATERIAL, EQUIPMENT AND SERVICES USED	UNIT	QUANTITY	UNIT PRICE	\$ AMOUNT
048209-000	PUMP chg	EA	1	433.00	433.00
048209-001	additional footage	FT.	63	41	2583
059697-000	DRG chg	EA	1	110.00	110.00
049200-002	mil chg	mi.	68	2.40	163.20
049102-000	hooking 22x68" x 68"	hook	1	160.80	160.80
049100-000	service chg	chrg	254	1.08	274.32
040003-000	D903 class C	sk	85	7.00	595.00
040015-000	D409 class H	sk	100	6.85	685.00
045008-000	D35 1/2" pipe	sk	45	2.30	103.50
045014-050	D30 1/2" pipe	lb	679	13	8827
067005-100	scale	lb	621	32	19872
044003-025	D29 calliphones FLAKES	lb	58	1.34	77.72
050001-085	Transpation	EA	1	200.00	200.00
053003-085	apifice fill	EA	1	300.00	300.00
056011-085	cont rollers	EA	2	68.00	136.00
048501-085	Tool joint	EA	1	86.00	86.00
057444-001	Thread	EA	12	22.00	264.00
056014-085	stop	EA	1	21.00	21.00

MARKS: *Make for using*

LICENSE/REIMBURSEMENT FEE	LICENSE/REIMBURSEMENT FEE	DEC
STATE	% TAX ON \$	
COUNTY	% TAX ON \$	CONSERVATION COMMISSION
CITY	% TAX ON \$	WICHITA, KANSAS
SIGNATURE OF DSI REPRESENTATIVE	TOTAL \$	

CEMENTING SERVICE REPORT

DS-496 PRINTED IN U.S.A.

DOWELL SCHLUMBERGER INCORPORATED

ORIGINAL

15-075-20471-0000
 TREATMENT NUMBER 03-17-2845 DATE 7-17-90
 STAGE DS DISTRICT 41555075

WELL NAME AND NO. **HCY-1821-E** LOCATION (LEGAL) **Sec. 18-22c-41w**
 FIELD-POOL **Bradshaw** FORMATION **Winn Field**
 COUNTY/PARISH **Hamilton** STATE **KS** API. NO. _____
 NAME **American Exploration**
 AND _____
 ADDRESS _____
 ZIP CODE _____

RIG NAME: **CONCRETE #5**
 WELL DATA: BIT SIZE **2 1/4** CSG/Liner Size **2 1/2** BOTTOM TOP
 TOTAL DEPTH **303** WEIGHT **20**
 ROT CABLE FOOTAGE **303**
 MUD TYPE GRADE **S.S.**
 BHST THREAD **820**
 BHCT
 MUD DENSITY LESS FOOTAGE SHOE JOINT(S) **11.5** TOTAL
 MUD VISC. Disp. Capacity **20**

SPECIAL INSTRUCTIONS
CMT 85 casing
 IS CASING/TUBING SECURED? YES NO
 LIFT PRESSURE **123** PSI CASING WEIGHT - SURFACE AREA (3.14 x R²)
 PRESSURE LIMIT PSI BUMP PLUG TO **1000** PSI
 ROTATE RPM RECIPROCATE FT No. of Centralizers **2**

NOTE: Include Footage From Ground Level To Head In Disp. Capacity
 Float TYPE **open fill** DEPTH **320**
 Shoe TYPE **Temp. 820** DEPTH **302.62**
 Head & Plugs TBG D P SQUEEZE JOB
 Double SIZE WEIGHT TOOL TYPE
 Single WEIGHT DEPTH
 Swage GRADE TAIL PIPE: SIZE DEPTH
 Knockoff THREAD TUBING VOLUME Bbls
 NEW USED CASING VOL BELOW TOOL Bbls
 BOT OR CW DEPTH TOTAL Bbls
 ANNUAL VOLUME Bbls

TIME	PRESSURE		VOLUME PUMPED BBL		JOB SCHEDULED FOR			ARRIVE ON LOCATION	LEFT LOCATION
	TBG OR D.P.	CASING	INCREMENT	CUW	TIME	DATE	TIME	DATE	
0001 to 2400									
1951		1200							
1959		10	10		6	H10			
2001		140	49		6	CMT. 12.4			
2004		160	21		6	CMT. 15.6			
2012		50							
2014		20	20.8		6	H20			
2017		250		13		"			
2017		270		14		"			
2020		1000							

REMARKS

SYSTEM CODE	NO. OF SACKS	YIELD CU FT/SK	COMPOSITION OF CEMENTING SYSTEMS			SLURRY MIXED	
			1	2	3	BBLs	DENSITY
1	130	2.7	35% sp. + 2% O20 + 3% crack + 4#1029			49	12.4
2							
3	100	1.18	class H + 3% crack + 4#1029			21	15.6
4							
5							
6							

BREAKDOWN FLUID TYPE VOLUME DENSITY PRESSURE MAINTENANCE
 HESITATION SO RUNNING SO CIRCULATION LOST YES NO Cement Circulated To Surface YES NO Bbls
 BREAKDOWN PSI FINAL PSI DISPLACEMENT VOL **20.8** Bbls TYPE OF WELL OIL STORAGE BRINE WATER
 GAS INJECTION WILLOCAT
 Washed Thru Perfs YES NO TO FT MEASURED DISPLACEMENT WIRELINE
 PERFORMATIONS TO TO CUSTOMER REPRESENTATIVE **H. Hart De Moss** DS SUPERVISOR **J. Adams Esquivel**