JPLICATE*	EXPLES	TION AND SERIAL	
(Secother in- structions on side)	5. LEASE DESIGN	ATION AND SERIAL	
structions reverse side)	5. SF-0780	LI.OTTEE OR TRIBE	A.A.
	6. IF INDIAN. A		
OG*	1	NAME	

			DUPLICATE*	E-KUALIE	N AND SERIAL
		SUBMIT	(Neo other in- structions on	5. LEASE DESIGNATION	
	UNITED		struc(lints reverse side)	SF-078046	TEE OR TRIBE NAME
2160-4	UNITED	THE PREPER		6. IF INDIAN. ASS.	
Form 3160-4 (stovember 1983) (stovember 9-330)	MENT OF	D MANAGEMENT	ND LOG/	T. UNIT AGREEMENT	NAME
(November 12330) DEPART	REAU OF LAN	STATES THE INTERIOR TO MANAGEMENT MPLETION REPORT	110	7. UNIT AU	
	OD DECO	MPLETION REPORT		S. FARM OR LEASE	NAME
COMPLETION	OK KES	TO STATUS OTTOM	N.M.	HUGHES "I	B"
WELL COMPLET	ELL WELL	or Ger All Other -		1-0 WELL	
11. TYPE OF WELL:	PUTG	Other Other		1 17	ool, OR WILDCAT
OF COM! WORK	DEED: BACK			10. FIELD AND F	itland Coal Gas
	R. R. Helde	nbrand		Basin Fru	itland Coal GOAN, OR BLOCK AND BURVEY
2. NAME OF OPERATOR	R. R. Her	ahoma City, OK 73112 ahoma City, OK 73112 d in accordance with any State re FWL (SE SW)	quirements)*	11. SEC., T., R.,	PRW TO
Conoco	Okla	ahoma CIE with any State	•	Sec.	20-T29N-R8W
3. ADDRESS OF OPERATOR 3. ADDRESS OF OPERATOR	vay	d in accordance FWL (SE SW)		1	12 STATE
381/ NW WELL (Report	1400'	FWL (SI		12. COUNTY	or NM
At surface 1170' F	2T ~		DATE ISSUED	San Ju	AII CASINGHEAD
At surface LL70 At top prod. interval repo	orted below	**0	8-31-90	CR. ETC.)*	T19. ELL.
At top prod.		14. PERMIT NO. 30-045-2820	8	DF, RKB, N-	CABLE TOOLS
At total depth		Ready to prod	18. ELEVATIVE KE		1
	STACHED	30-045-2021 17. DATE CONTL. (Ready to prod 1-11-91	COMPlete DE DE	TERVALS	25. WAS DIRECTIONAL SURVEY MADE
16. D	ATE T.D. REAC	1-11-91	SOMP. E	->	No
15. DATE SPUDDED 16. DA	2-17-90 21. PLUG. BACK	T.D., MD & TVD	ND TVD)		CORED
20. TOTAL DEPTH. MD & TVD	2/68 2335	PBTD BOTTOM, NAME (MD	- 1001		27. WAS WELL CORED
20. TOTAL DEL	THIS COMPL	FEBL	9 1991		No
3209 INTERVAL	2942-3	040	TAL DIV.		AMOUNT PULLED
3209 TD 24. PRODUCING INTERVAL: Fruitland Co	oai	OIL C	ON. DIV.	(I) CEMENTING RECORD	AMOUNT G
I I I	OTHER LOGS RUN	CNL-FDC	FOR APPINOS	CEMENTING	
Fruit Ture ELECTRIC AND CP-CCL	DIL-SP	24 SING 1.	JE SIZE 250	sx Cl. G/Lite sx Cl. G/Lite	Poz - 1st Stage
CBL-GR-CCL		OEPTH SET	1/4" 250	sx Cl. G/Lite sx Cl. G/Lite	POZ
29.	WEIGHT, LB./FT.	759	OC 170		
8 5/8"	24 PPF K-	55 3209' -55 DV @ 2315'		TUBI	NG RECORD PACKER SET (MD)
8 5/9	א יועט יי ייייו.				
	24 PPF K 15.5 PPF K	DV @ 2322		SIZE	029'
<u> </u>	15.5 PFF			2 3/8" 20	939'
5 1/2"	15.5 PFF	INER RECORD		2 3/8" 20	939'
5 1/2	15.5 PFF		• SCREEN (MD)	2 3/8" 20 CID. SHOT. FRACTUR	939' RE. CEMENT SQUEEZE, ETC.
5 1/2 29.	15.5 PFF 2	LINER RECORD BOTTOM (MD) SACKS CEMENT	• SCREEN (MD) 32. A'	2 3/8" 20 2 3/8" 20 CID. SHOT. FRACTUR AMOU AL (MD) SEE	RE. CEMENT SQUEEZE, ETC. ONT AND KIND OF MATERIAL USE ATTACHED
5 1/2 29.	15.5 PFF 2	LINER RECORD BOTTOM (MD) SACKS CEMENT	• SCREEN (MD) 32. A'	2 3/8" 20 2 3/8" 20 CID. SHOT. FRACTUR AMOU AL (MD) SEE	939'
29	TOP (MD)	LINER RECORD BOTTOM (MD) SACKS CEMENT SACKS CEMENT SACKS CEMENT SACKS CEMENT SACKS CEMENT SACKS CEMENT	• SCREEN (MD)	2 3/8" 20 2 3/8" 20 CID. SHOT. FRACTUR AMOU AL (MD) SEE	RE. CEMENT SQUEEZE, ETC. ONT AND KIND OF MATERIAL USE ATTACHED
29. SIZE 31. PERFORATION 20.4.2-2946	TOP (MD) RECORD (Interval. 4	LINER RECORD BOTTOM (MD) SACKS CEMENT	• SCREEN (MD) 32. A'	2 3/8" 20 2 3/8" 20 CID. SHOT. FRACTUR AMOU AL (MD) SEE	RE. CEMENT SQUEEZE, ETC. INT AND KIND OF MATERIAL USE ATTACHED
31. PERFORATION 2942-2946	TOP (MD) RECORD (Interval. 4) 4 12	LINER RECORD BOTTOM (MD) SACKS CEMENT SIZE and number) 8 shots 24 shots 20 shots	32. A. DEPTH INTERV 2942-304	2 3/8" 20 2 3/8" 20 CID. SHOT. FRACTUR AMOU O' SEE Frac	RE. CEMENT SQUEEZE, ETC. INT AND KIND OF MATERIAL USE ATTACHED Refer WELL STATUS (Produce
29. SIZE 31. PERFORATION 2942-2946 2952-2966	TOP (MD) RECORD (Interval. 4) 4 12	LINER RECORD BOTTOM (MD) SACKS CEMENT SIZE and number) 8 shots 24 shots 20 shots	32. A. DEPTH INTERV 2942-304	2 3/8" 20 2 3/8" 20 CID. SHOT. FRACTUR AMOU O' SEE Frac	RE. CEMENT SQUEEZE, ETC. INT AND KIND OF MATERIAL USE ATTACHED Refra WELL STATUS (Production) Shut-in) S. I.
29. SIZE 31. PERFORATION 2942-2946 2952-2966	TOP (MD) RECORD (Interval. 4) 4 12	LINER RECORD BOTTOM (MD) SACKS CEMENT SIZE and number) 8 shots 24 shots 20 shots 48 shots 100 shots total	SCREEN (MD) 32. DEFTH INTERV 2942-304 PRODUCTION Is lift, pumping—size of	2 3/8" 20 2 3/8" 20 CID. SHOT. FRACTUR AMOU O' SEE Frac	RE. CEMENT SQUEZE, ETC. ENT AND KIND OF MATERIAL USE ATTACHED REFERENCE WELL STATUS (Production) S. I. WATER—BBL. GAS-OIL
31. PERFORATION 2942-2946	TOP (MD) RECORD (Interval. 4) 4 12	LINER RECORD BOTTOM (MD) SACKS CEMENT SIZE and number) 8 shots 24 shots 20 shots 48 shots 100 shots total	SCREEN (MD) 32. DEFTH INTERV 2942-304 PRODUCTION Is lift, pumping—size of	2 3/8" 20 2 3/8" 20 CID. SHOT. FRACTUR AMOU O' SEE Frac	RE. CEMENT SQUEZE, ETC. ENT AND KIND OF MATERIAL USE ATTACHED REFERENCE WELL STATUS (Production) S. I. WATER—BBL. GAS-OIL
29. SIZE 31. PERFORATION 2942-2946 2952-2966 2968-297 3016-304	TOP (MD) RECORD (Interval. 4 4 12' 8 10' 40 24' 50'	LINER RECORD BOTTOM (MD) SACKS CEMENT SACK	PRODUCTION Brift, pumping—size of wing) N. For Oil—BBL.	CID. SHOT. FRACTUR AL (MD) O' Frac Frac GAS—MCF. 98	WELL STATUS (Produce shut-in) WATER—BBL. O DIL GRAVITY-
29. SIZE 31. PERFORATION 2942-2946 2952-2966	TOP (MD) RECORD (Interval. 4) 4 12' 8 10' 40 24' 50'	LINER RECORD BOTTOM (MD) SACKS CEMENT SACK	PRODUCTION Sift, pumping = size of the control o	2 3/8" 2 3/8" 20 CID. SHOT. FRACTUR AMOU O' SEE Frac GAS—MCF. 98	RE. CEMENT SQUEEZE, ETC. RE. CEMENT SQUEEZE, ETC. ATTACHED REFFA WELL STATUS (Production) S. I. WATER—BBL. OIL GRAVITY-
31. PERFORATION 2942-2946 2952-296 2968-297 3016-304	TOP (MD) TOP (MD) RECORD (Interval. 4) 4 12' 8 10' 40 24' 50' RODUCTION	LINER RECORD BOTTOM (MD) SACKS CEMENT 8 Shots 24 Shots 20 Shots 48 Shots 100 Shots total PRODUCTION METHOD (Flowing, game) plunger lift (flowing) plunger lift (flowing) 3/4" 3/4"	PRODUCTION Is lift, pumping—size of wing) N. FOR OIL—BBL. PBBI GAS—	2 3/811 20 2 3/811 20 CID. SHOT. FRACTUR AMOU O' SEE Frac GAS—MCF. 98	RE. CEMENT SQUEEZE, ETC. RE. CEMENT SQUEEZE, ETC. ATTACHED REFFA WELL STATUS (Production) S. I. WATER—BBL. OIL GRAVITY-
29. SIZE 31. PERFORATION 2942-2946 2952-2966 2968-297 3016-304	TOP (MD) RECORD (Interval. 4 12' 8 10' 40 24' 50' RODUCTION T HOURS TO 24	LINER RECORD BOTTOM (MD) SACKS CEMENT SACK	PRODUCTION Be lift, pumping—eize of wing) N. FOR PERIOD O GAS-	GID. SHOT. FRACTUR AL (MD) O' Frac Frac GAS—MCF. 98	WELL STATUS (Production of Material Uses abut-in) Water—BBL. OIL GRAVITY-INCESSED BY Richard GATTER Richard GATTER Richard GATTER Richard GATTER
29. SIZE 31. PERFORATION 2942-2946 2952-2966 2968-297 3016-304	TOP (MD) RECORD (Interval. 4 12' 8 10' 40 24' 50' RODUCTION T HOURS TO 24	LINER RECORD BOTTOM (MD) SACKS CEMENT SACK	PRODUCTION Be lift, pumping—eize of wing) N. FOR PERIOD O GAS-	GID. SHOT. FRACTUR AL (MD) O' Frac Frac GAS—MCF. 98	WELL STATUS (Production of Material Uses abut-in) Water—BBL. OIL GRAVITY-INCESSED BY Richard GATTER Richard GATTER Richard GATTER Richard GATTER
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29. SIZE 31. PERFORATION 2942-2946 2952-2966 2968-297 3016-304	TOP (MD) RECORD (Interval. 4 12' 8 10' 40 24' 50' RODUCTION T HOURS TO 24	LINER RECORD BOTTOM (MD) SACKS CEMENT SACK	PRODUCTION Be lift, pumping—eize of wing) N. FOR PERIOD O GAS-	GID. SHOT. FRACTUR AL (MD) O' Frac Frac GAS—MCF. 98	WELL STATUS (Production of Material Uses abut-in) Water—BBL. OIL GRAVITY-INCESSED BY Richard GATTER Richard GATTER Richard GATTER Richard GATTER
29. SIZE 31. PERFORATION 2942-2946 2952-2966 2968-297 3016-304	TOP (MD) RECORD (Interval. 4 12' 8 10' 40 24' 50' RODUCTION T HOURS TO 24	LINER RECORD BOTTOM (MD) SACKS CEMENT SACK	PRODUCTION Be lift, pumping—eize of wing) N. FOR PERIOD O GAS-	GID. SHOT. FRACTUR AL (MD) O' Frac Frac GAS—MCF. 98	WELL STATUS (Production of Material Uses abut-in) Water—BBL. OIL GRAVITY-INCESSED BY Richard GATTER Richard GATTER Richard GATTER Richard GATTER
29. SIZE 31. PERFORATION 2942-2946 2952-2966 2968-297 3016-304	TOP (MD) RECORD (Interval. 4 12' 8 10' 40 24' 50' RODUCTION T HOURS TO 24	LINER RECORD BOTTOM (MD) SACKS CEMENT SACK	PRODUCTION Be lift, pumping—eize of wing) N. FOR PERIOD O GAS-	GID. SHOT. FRACTUR AL (MD) O' Frac Frac GAS—MCF. 98	WELL STATUS (Production of Material Uses abut-in) Water—BBL. OIL GRAVITY-INCESSED BY Richard GATTER Richard GATTER Richard GATTER Richard GATTER
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29. SIZE 31. PERFORATION 2942-2946 2952-2966 2968-297 3016-304	TOP (MD) RECORD (Interval. 4 12' 8 10' 40 24' 50' RODUCTION T HOURS TO 24	LINER RECORD BOTTOM (MD) SACKS CEMENT 8 shots 24 shots 20 shots 48 shots 100 shots total PRODUCTION METHOD (Flowing, game) plunger lift (flowing) problem lift (flowing) problem lift (flowing) plunger lif	PRODUCTION Be lift, pumping—eize of wing) N. FOR PERIOD O GAS-	GID. SHOT. FRACTUR AL (MD) O' Frac Frac GAS—MCF. 98	WELL STATUS (Production of Material Uses abut-in) Water—BBL. OIL GRAVITY-INCESSED BY Richard GATTER Richard GATTER Richard GATTER Richard GATTER

*(See Instructions and Spaces for Additional Data on Reverse Side)

VERT. DEPT GEOLOGIC MARKERS MEAS, DEPTH 2150' 2654' 2858' 3052' $egin{pmatrix} ext{Ojo Alamo} & ext{(Base)} \ ext{Fruitland} & ext{} \end{pmatrix}$ Fruitland Pay Picture Cliffs NAME 38. s we put interval tested, cushion used, time tool open, flowing and shut-in pressures, and all DESCRIPTION, CONTENTS, ETC. Black Coal 3040 TOP 2942 Fruitland coalFORMA TION

HUGHES B NO. 17

Jan.300

Location: 1170' FSL & 1400' FWL of Section 20-T29N-R8W

Objective: 3,250' Fruitland Coal

AFE No. 55-61-5814 API No: 30-045-28208

Lease Code: 7112467

MI & RU Halliburton Ser. Started fracing well down csg. Pumped 5,040 gals dummy pad, pumped 11,076 gals 30# Lin/70 quality w/ 5,000# 40/70 Brady sand in two stages when fluid rate was lost. Flushed to perfs w/ N₂. Shut down & repaired fluid pump at blender. Last injectin rate was 1,950#. Total downtime was 1-1/2 hrs. Started fracing well down csg. Pumped 4,500 gals 30# lin/70 quality pad, 5,986 gals 30# Lin/70 quality 16/30 sand from 1/2 ppg to 3 ppg stage. Pump 3 ppg stg of 4,778 gals. Press immediately going up to max treating press of 3,000#. Only got 3 bbls flush behind sand before Sl. Pumped a total of 67,000# 16/30 sand into formation. Left 8,000 lbs in csg. Avg rate 45 BPM. Avg press 1,950#. Total fluid pumpéd 812 bbls. RD Halliburton. Started flowing well to pit through 1/8 choke nipple at 1,500#. Monitoring flow & clean up. Daily Cost: \$42,636. Cum. Drilling Cost: \$132,285. Cum. Well Cost: \$212,106. (1-03-91)

HUGHES B NO. 17

Jan-10th Refrac Location: 1170' FSL & 1400' FWL of Section 20-T29N-R8W

Objective: 3,250' Fruitland Coal

AFE No. 55-61-5814

API No: 30-045-28208

Lease Code: 7112467

Fill & heat frac tanks - RU Halliburton Svs. Held pre-job safety mtg. Frac well down csg as follows. Pumped 12,667 gals 30# lin pad at 47 BPM/ 2,960#. Broke back to 2,397# - ISIP 1,800#. Pumped 18,742 gals gel slurry, 3,593 gals slurry w/ 1 ppg 16/30 Brady sand, 6,283 gals w/ 2 ppg sand, 5,734 gals w/ 3 ppg sand, 2,700 gals w/ 4 ppg sand & 3,612 gals w/ 5 ppg sand. Press increased to 2,900#. Went to flush (2,846 gals). ISIP 2,350#. Avg rate 45 BPM. Max treating press 2,960#. Total sand pumped 140,000# (designed for 176,000#). BLW to recover 1,347 bbls. Total N_2 1,068,850. RD Halliburton & started flowing well to pit. Daily Cost: \$1,739. Cum. Drilling Cost: \$132,285. Cum. Well Cost: \$224,464. (1-10-91)

NEW MEXICO SUNDRY NOTICE HUGHES B-17

SPUD @ 1100	HRS; <u>II-30</u> -40	RIG RELEASED @ 1800 HRS; 12-16-90
		250 SX (288 FT³) CLASS G + 3% CaCl₂ + 1/4 LB/SK CELLO FLAKE
		CEMENT TO SURFACE: YES NO ESTIMATED TOC: SURFACE
		PRESSURE TEST: 1000 PSI FOR 5 MIN.
		W/ S PSI BLEED-OFF
		6 JTS. 8-5/8, 24 PPF, K-55, ST&C @ 259 FT.
TOTCO SURVEYS: DEPTH ANGLE		nd STAGE
3210	4	nd. STAGE LEAD w/ 400 SX (924 FT³) CLASS G'/LITE POZ (65/35) + 10% GEL + 10% SALT + 6-1/4 LB/SK GILSONITE +1/4 LS/SK CELLO FLAKE + 1/4 LB/SK ANTIFOAM
5210	TA	AIL WI 80 SX (92 FT3) CLASS G'+ 1/4 LB/SK CELLO FLAKE
		CEMENT TO SURFACE: YES NO NO ESTIMATED TOC: SURFACE
DV TOOL @ 2315FT.	NA NA	
54 1002 @ <u>- 313</u> F1.		st. STAGE
		LEAD W <u>80</u> SX (165 FT ³) CLASS 'G' /LITE POZ (65/35) + 10% GEL + 10% SALT + 6-1/4 LB/SK GILSONITE +1/4 LS/SK CELLO FLAKE + 1/4 LB/SK ANTIFOAM
	Т.	AIL W/ 90 SX (104 FT3) CLASS 'G' + 1/4 LB/SK CELLO FLAKE
FLOAT COLLAR @3168FT.	X X	CEMENT TO SURFACE: YES NO STIMATED TOC: 23 5' NO STIMATED TOC: 23 5' NO MIN.
		W/No PSI BLEED-OFF
SHOE @ 3209_FT.	X X 78	JTS. 5-1/\$. 15.5 PPF, K-55, LT&C
DATE: 12-17-90	•	CC: P. BOWSER
		B. BALE E. BIELAMOWICZ
		D. GRIFFIN