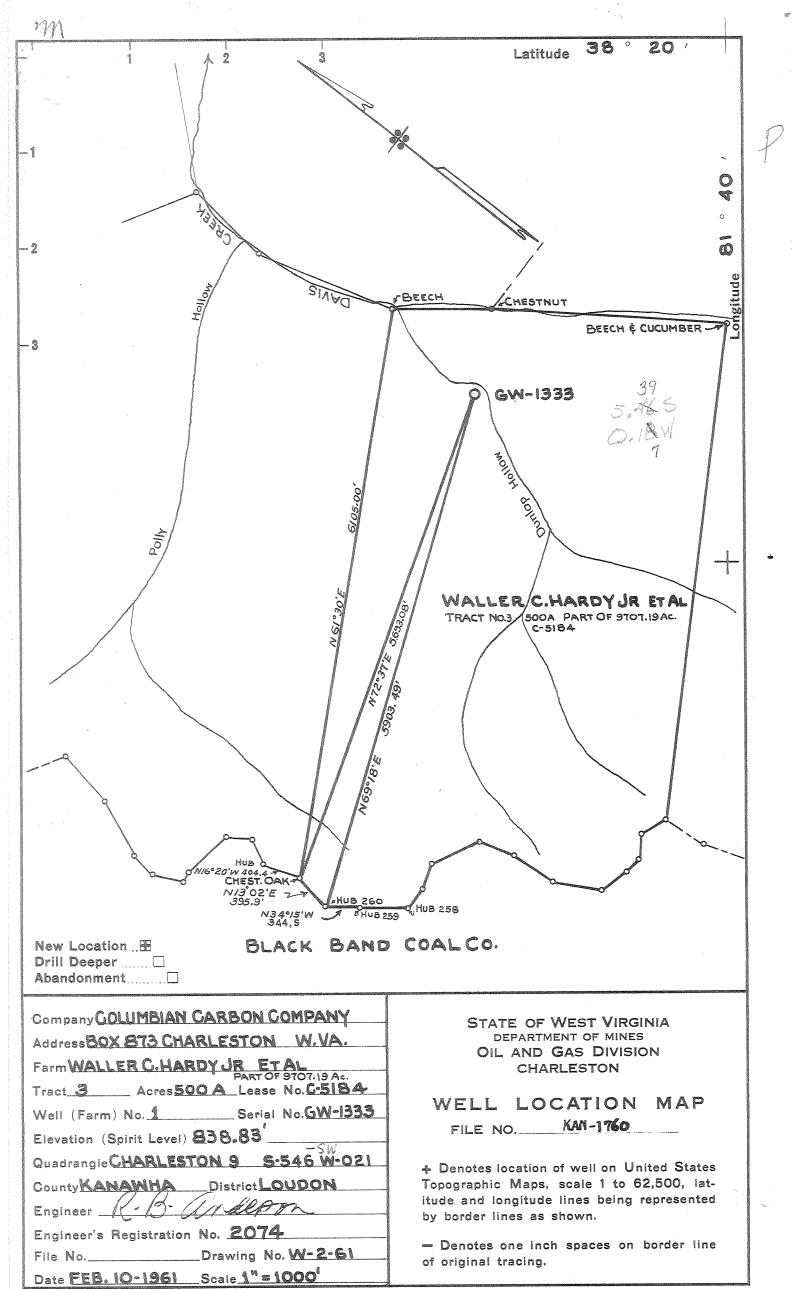
38 20 ' Latitude - 1 - 2 CHESTNUT BEECH & CUCUMBER . 3 38 15 20 GW-1333 814010 WALLER/C.HARDY JR ET AL TRACT NO.3 500A PART OF 9107.19AC. GES 15 ZHUB 259 38"17"30" 2.57 5.455 BLACK BAND COALCO. New Location .. E 81040 2.360 Drill Deeper Company GOLUMBIAN CARBON COMPANY STATE OF WEST VIRGINIA DEPARTMENT OF MINES Address BOX 873 CHARLESTON W.VA. OIL AND GAS DIVISION Farm WALLER C. HARDY JR ET AL PART OF 9707.19 As CHARLESTON Tract 3 Acres 500 A Lease No. C-5184 WELL LOCATION Well (Farm) No. 1 ____ Serial No.GW-1333 KAN-1760 FILE NO._ Elevation (Spirit Level) 838.83 Quadrangle CHARLESTON 9 S-546 W-021 + Denotes location of well on United States District LOUDON Topographic Maps, scale 1 to 62,500, lat-County KANAWHA Engineer K. B. Willow itude and longitude lines being represented by border lines as shown. Engineer's Registration No. 2074 Denotes one inch spaces on border line Drawing No. W-2-61 of original tracing. __Scale <u>1" = 1000'</u>

Date FEB. 10-1961 Scale 1"=1000'

K-E 156 IMPERIAL POSOGE
TRACING CLOTH T. # PARA : Well 5 9WDD 3-6 Hern show-bull Creek & 18 PR 1 3 1981



156 IMPERIAL TRACING CLOTH T.M

6008

Company COLUMBIAN CARBON COMPANY

Address BOX 873 CHARLESTON

Farm WALLER C. HARDY JR ET AL.

Tract 3 Acres 500 A Lease No. G-5184

Well (Farm) No. 1 Serial No.GW-1333 Elevation (Spirit Level) 838.83

Quadrangle CHARLESTON 9 5-546 M-02

CountyKANAMHA District LOUDON

Engineer C. B. 1 Aktion Engineer's Registration No. 2074

Drawing No. W-2-61

Date **EEB. 10-196**1 Scale 1" = 1000"

WAS 156 IMPERIAL

STATE OF WEST VIRGINIA DEPARTMENT OF MINES OIL AND GAS DIVISION CHARLESTON

WELL LOCATION MAP FILE NO. 1860 -

4 Denotes location of well on United States Topographic Maps, scale 1 to 62,500, latitude and longitude lines being represented by border lines as shown.

- Denotes one inch spaces on border line of original tracing.

SEP 25 1980



STATE OF WEST VIRGINIA DEPARTMENT OF MINES

Oil and Gas Division

WELL RECORD

Charleston Parait No. 47-039-1760-DD	WELL	RECORD		Cable Recycling_	Comb 1_ Storage
Company Cities Service Company Box 873, Charleston, WV		Casing and Tubing	Used in Drilling	Left in Well	Cement fill up
Waller C. Hardy, Jr., et al Acr Location (waters) Dunlap Hollow	500A	s womg	·	In wen	Cu. ft. (Sks.)
Well No. #1, GW-1333 Electrication Loudon County Kana	838.83'	Size 20-16 Cond.	The second secon		
The surface of tract is owned in fee by Dept.		13-19X-3/8"	201	201	none
Natural Resources, 1800 Wash. St.		10\$-5/8	348'	348'	none
Address Charleston, W. Va. 2530		8 5/8	1334'	1334'	
Mineral rights are owned by W. C. Hardy,	Jr. et	7	1334	1334	none
al Address 5100 2nd Ave., Vic	enna, WV	5 1/2			
Drilling Commenced 12-7-80	26105	4 1/2		2186	350sx *
Drilling Completed 12-13-80		3			
Initial open flow 30M cu. ft	bbls.	2-3/8"	1533'	1533'	
Final production 35M cu. ft. per day		Liners Used			
Well open 120 hrs. before test	18 RP		7.10 (2.11)		**************************************
Coal was encountered at none Feet Producing Send Big Injun	F 60	Sait W		es 5152' 454'-1506'	- Feet
Furnation Color Hard or Soft	Top Feet	Bottom Feet	Oil, Gas o	w Water	Remarks
Sand Shale Shaly Sand	1553 2126 3199	2126 3199 3412		55	@ 1588-1-1/4° @ 2089 - 1/2°
Orishany Line Revburg Line Helder being Band & Shale	4479 4844 5092 5280	4844 5092 5280 5\$374 Mokenzie @ D.	1355 3821 new foot	SS SS SS SS SS SS SS SS	@ 2591 - 3/4° @ 3090 - 3/4° @ 3588 - 1-3/4 @ 4086 - 2° @ 4584 - 3-3/4 @ 5090 - 3°
4597 1707-expl ftg.		a Lu		<i>1</i> U1	1 8 1981
				OIL &	GAS DIVISION
5/15/			· ii, engamentan	Company and the com-	OF MINES
	••		JUN	1 5 1981	-

Red Rock

Sand



STATE OF WEST VIRGINIA DEPARTMENT OF MINES OIL AND GAS DIVISION /0

Quadrangle Chas. 9 SW

Permit No. Ka	an-1760		WELL	RECORD)	Oil or G	as Well Gas
Col	umbian Ca	arbon Co mpa	anv				, (KIND)
		rleston 23,	····	Casing and	Used in	Left in	VD 1-
i i	•	7, Jr., etal A		Tubing	Drilling	Well	Packers
Location (water			cres_500				
Well No. 1			Elev. 838. 83'(Size		:	
District Lou		***	E _{lev.} 030.03 (Lanawha		1 301	201	Kind of Packer
		County		13 3/8"48#		201	M. B. H.
The surface of t	cract is owned i	n fee by <mark>State of</mark> Address Chas. 5	W Va	10 3/4"32#	13341311	348 ¹	Size of 8-5/8"
Soliber varior	TAT	Address C Hard	yr Tr atal	81/4 24#	1334.3.	1334.3.	
Mineral rights a P. O. Box 35	are owned by	aller C. Hard Parkers	shura W Va	65/8	'		Depth set 1322'SLM
***************************************		Address 3-4-61	5, 11, 10	5 3/16			
Drilling commer	1cea2	31-61		3			Perf. top
Drilling complet	cea			23/811 4#		15371	Perf. bottom
Date Shot not	Fro	mTo_			// cage on		Perf. top
With		1			s syphon st	ring	Perf. bottom
Open Flow	/10ths Water	in1	Inch				
W-11-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-	_/10ths Merc.	in	Inch	CASING CEM	ENTED	CITY TO	No. FtDate
Volume					see revers		No. FtDate
Rock Pressure_		lbs	hrs.				
Oil			.bbls., 1st 24 hrs.	COAL WAS E	NCOUNTERED	AT 120	FEET 36 INCHES
WELL ACIDIZ	ED not aci	dized		FEE	TINC	HES	FEETINCHES
				FEE	TINC	HES	FEETINCHES
WELL FRACTU	JRED see re	everse side	***		-		
		mai o			5,		
RESULT AFTE	R TREATMEN	·	6,000 cubic				
ROCK PRESSU			2# 68 hours	5 ′			
Fresh Water 30	669-679	Feet	1 (1.00 A) A	Salt Water	727-734'	Feet	
Formation	Color	Hard or Soft	Тор	Bottom	Oil, Gas	Depth	Remarks
Top Soil		3011	0	16	or Water	1	
Slate			16	50	F. Water	301	
Sand			50	72	r. Water	30	
Slate	S 194 PP-14		72	111			
Sand	. Tygy us umi	\$ 97 De C	111	116	지 그들이 생각 1점의 역		
Slate		nes els par Amilia	- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	120			
Coal	ries ai il		116		হ' কুৰ্ম্মেনিক		
Slate -		r Marandaro, da V	120 123	123 125		Treated by	
Sand	Same and the same and the same		125	152	•	-	
Slate and Sl		ic baran kili	152	350			
Sand	terra		350	394	Can	385-3	04 show orb
Slate	P4 8 939.	constant or A	394	440	Gas	303=3	94 show-exh.
Sand -	~		440	518	1	and the second	
Slate and Sl			518	567		Les surges	
Sand	iems		567	i i	TO Western	660 6	79 1-10"blr/hr.
			1	679	F. Water	009=0	19 1-10 DIF/IIF.
Slate and Sl Sand	FCTT9		679 706	706 748	F. Water	727-7	34 hole full
				dual da de profesionale (Septimental)	r. water	121-1	of note full
Slate	The end of the second of		748 760-	760 771		-	
Sand			771	804		1 241 44 31	AND THE STREET,
Slate and Sl	TCTTR		804			物 数 身	(到外的)
Sand	-11-		819	819	- Ord Bright		
Slate and Sl	1 1 2 1 2 2 1		868	868	; (910 ⁷ 1 ; 1 1;		A 19 10 TA
Sand Lime			1071	1071		1 / 100	
HITTLE	1	and the second second second second	TUIT	1078	frequency	T where the	大路,整定到海 网络海河 网络马克斯克

1098

1221

1285 DI M=1294 SLW

1078

1098 1221

Formation	Color	Hard or Soft	Top /0	Bottom	Oil, Gas or Water	Depth Found	Remarks
Big Lime		California California (California California	1294'SL	A 1454,	Gas		show
Big Injun Sa	nd 1478'I	LM=1478'S	LM 1454	1496	Gas		44/10 N. 1" = 70M⊶exh.
Slate and Sh	ells		1496	1538	Oil	14711	smell
		· .			Gas Pays: 1471-78' 2		14,900 cu. ft.
						\$.	W. 1"= 27MCF
Total depth-		<u> </u>	*****	1538¹ {XXX¥XXX;	17 D 1 9X		
				1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			
CASING RE	CORD				eji jakarok		
3-9-61 F	lan 10-3/	4" casing at	345'DLM w	ith shoe-fill	ed 30' with 1	ed mud befo	re running cas
3-25-61- Ra	in 8-5/8"	casing at 13	13'DLM=13	22'SLM with	Midget bott	om hole pac	ker-did not ge
FRACTURE	D THE B	G INJUN SA	ND-4-461	2		e.	
Before frac	turing go	anuand 27	MCF. Pump	od in 350 as	11 a a	-: 1 750 11	
acid - displa	aced at 13	00#-broke d	own formati	on at 2, 200	#. Started s	and 1/2#/ga.	lon-increased
to 2# maxim	um. Pre	ssure 2100#	to 2200# ~ e	ntire treate	nent time 18	minutes - 2	0 bbls. flush
20 minutes	after shut	down 1, 300	0gallons wa #. Final ope	n flow after	# 20-40 sand blowing 8 h	i, 1/2 drum ours thru 2-	TMN- 2" openings:
					a we "	-	Ť
	The state of the sta	ez ene et en en et i telet		2'' = 353N 2'' = 353N		a energy of a record	
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			Total	706N	2		
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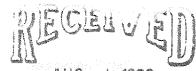
	Date	April I	<u> </u>	, 19 <u>61</u>
APPROVED	Columbia	an Carbon	Company	Owner
	Wood	ــــ		, 0
В⊽	V.S. M	oore, Mgr.	of Prod.	
	•	(Titl	le)	

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DEPARTMENT OF MINES

Oil and Gas Division



OIL AND GAS WELL PERMIT APPLICATION - 4 1980

OIL & GAS DIVISION
DEPT. OF MINES

THE PARTY OF THE P	DEPT. OF MINES
TO THE DEPARTMENT OF MINES,	71 21 1020
Charleston, W. Va.	DATE July 31, 1980
Surface Owner Dept of Natural Resources tn: John Marra, Asst. State Forester	Company Cities Service Company
th: John Marra, Asst. State forester Address 1800 Wash. Street East, Charleston,	Address Box 873, Charleston, WV 25323
Vineral Owner W. C. Hardy, Jr., et al 2530	5 Farm Waller C. Hardy, Jr. Acres 500A
Address 5100 2nd Ave., Vienna, WV 26105	Location (waters) Dunlap Hollow
Frank A. Hardy	
Rt. 5 Box 33, Lewisburg, WV 2490	O plus
Coal Operator	District Loudon County Kantwha
···	
OPERMIT MUST BE POSTED AT THE WELL SITE	novembers
provisions being in accordance with Chapter 22,	
w. Va. Code, the location is hereby approved	
deepening . This permit shall expire if	INSPECTOR
	TO BE NOTIFIED Martin Nichols
rations have not commenced by 5-11-81	
Frequence South Same	ADDRESS P. O. Box 554, Clendenin, WV
Deputy Director - Oil & Gas Division	PHONE 548-6993
entlemen:	
The undersigned well operator is entitled to drill upon	the above named farm or tract of land for oil and gas, having fee
	e datedApril 2219 59 by W. C.
	ow Cities Service) and recorded on the day of
9 in Kanawha County, Book 147	
•	REDRILL FRACTURE OR STIMULATE
OIL AND GAS WELL ORIGINALLY DRILL	ED BEFORE JUNE 5, 1969.
The enclosed plat was prepared by a registered engineer	or licensed land surveyor and all coal owners and/or operators
ave been notified as of the above date.	or meetised taind surveyor and an coar owners and/or operators
The above named coal owners and/or operator are hereb	by notified that any objection they wish to make, or are required
make by Section 3 of the Code, must be received by, or	r filed with the Department of Mines within ten (10) days. *
Copies of this notice and the enclosed plat were mailed !	by registered mail, or delivered to the above named coal operators
coal owners at their above shown respective address	day before, or on the
me day with the mailing or delivery of this copy to the I	Department of Mines at Charleston, West Virginia.
	Very truly yours, Cities Service Company
LEASE SUBMIT COPIES OF ALL	(Sign Name) Paul D. Phillips
EOPHYSICAL LOGS DIRECTLY TO:	P. D. Phillips Well Operato Region Postcoleum Engin
EST VIRGINIA GEOLOGICAL AND	Box 873
CONOMIC SURVEY Add	ress Street
a a company and a company a	
. O. DOA O/2	70 Y 25 O Y
organtown, west virginia 26505 Well Op	perator Charleston City or Town
ORGANTOWN, WEST VIRGINIA 26505 Well Op	City or Town
ORGANTOWN, WEST VIRGINIA 26505 Well Op	City or Town W. Va. 25323
ORGANTOWN, WEST VIRGINIA 26505 Well Op	City or Town
ORGANTOWN, WEST VIRGINIA 26505 Well Op C-304 - 292-6331	City or Town W. Va. 25323 State
ORGANTOWN, WEST VIRGINIA 26505 Well Op C-304 - 292-6331 *SECTION 3 If no objections are filed or found by the	City or Town W. Va. 25323 State Department of mines, within said period of ten days from the receipt of
*SECTION 3 If no objections are filed or found by the tice and plat by the department of mines, to said proposed location filing of such plat, that no objections have been made by the coal	City or Town W. Va. 25323 State
*SECTION 3 If no objections are filed or found by the tice and plat by the department of mines, to said proposed location	City or Town W. Va. 25323 State Department of mines, within said period of ten days from the receipt of on, the department shall forthwith issue to the well operator a permit reciting

"I have read and understand the reclamation requirements as set forth in Chapter 22, Article 4, Section 12-b and will carry out the specified requirements."

BLANKET BOND

Signed by _

Sowey

47-039

THIS IS AN ESTIMATE ONLY ACTUAL INFORMATION WILL BE SUBMITTED ON OG-10 UPON COMPLETION

PROPOSED WORK ORDER TO_	DRILL	X DEEPEN	FRACTURE-STIMULATE
DRILLING CONTRACTOR: (If K		RESPONSIBLE AGEI	
NAME Ray Resources		NAME STLIS S	atthews Stylce Company
ADDRESS Charleston, W. Va	1 •		, Charleston, WV 25323
TELEPHONE		TELEPHONE	
ESTIMATED DEPTH OF COMPLE			
PROPOSED GEOLOGICAL FORMA	ATION: Newhure		CABLE 100E

TYPE OF WELL: OIL			
. Settle to the Edit		LING WATER F	LOOD OTHER
TENTATIVE CASING PROGRAM:			
IDMINITE CABING INCGRAM.			
*CASING AND TUBING	USED FOR	от при	принятильного различить полиментородительного объектородительного
	DRILLING	WELL	OR SACKS - CUBIC FT.
20 - 16 13-3/8" 48 #	20	20	None
13 - 10 10-3/4" 32 #	348	348	None
9 - 5/8		a control of the cont	
8 - 5/8 : 24#	1334	1334	None
7	TREATMENT AND THE PROPERTY OF		
5 ½		The state of the s	
4 ½ " 11.6# N-80	5360	5360	118 sacks
3		THE RESIDENCE AND ADDRESS OF THE PROPERTY OF T	Perf. Top
	mys y filled Albahan salahannan gasi i sasa, ata asarang simbor nyi pinga talahahan nyi pip ringan talahahan simbo anasan at		Perf. Bottom
Liners		THE POTENTIAL SECTION AND ADMINISTRATION OF THE POTENTIAL SECTION AND ADMINISTRATION OF THE POTENTIAL SECTION ASSESSMENT	Perf. Top
			Perf. Bottom
WELLS DRILLED PRIOR TO MUST ALSO BE SUBMITTED. TO FRACTURE - STIMULATE: OIL AND/OR GAS WELL ORIGINAL PERMIT NUMBER OIL AND/OR GAS WELL ORIGINAL PERMIT NUMBER OIL ORIGINAL PERMIT NUMBER OIL STATE OF THE STATE OF TH	OG - 1, SHOWING ORI 1929, A PERMANENT GINALLY DRILLED BEF ND ORIGINAL WELL R GINALLY DRILLED ON BER, AND PERFORMANC	GINAL PERMIT NUMBER A COPY OF THE PLAT AND ORE JUNE 5, 1929, FIVE (5 ECORD. AND/OR AFTER JUNE 5, 1 DE BOND.	AND PERFORMANCE BOND. ON THE ORIGINAL WELL RECORD O) COPIES OG - 1, PERFORMANCE 929, FIVE COPIES OG - 1, SHOW- e. Inspector to be notified twenty-
four (24) hours in advance.	The first of the first of	completion for bond releas	e. Inspector to be nothled twenty-
			en de la companya de
		emperorable and property of a 17 hours of some garden garden and some some some some some some some some	And the second s
The following waiver must be hereof.	completed by the coal o	perator if the permit is to b	e issued within ten days of receipt
WAIVER: I the undersigned, Agent	for	Coal Comnany Own	er or Operator of the goal under
this lease have examined	and place on our mine	maps this proposed well loc	ation.
			well being drilled at this location,
providing operator has con Code.	aplied with all rules and re	egulations in Articles 4, 5, and	d 7, Chapter 22 of the West Virginia
			For Coal Company
			For Coal Company
			Official Title

STATE OF WEST VIRGINIA DEPARTMENT OF MINES



OIL AND GAS WELLS DIVISION

AFFIDAVIT OF PLUGGING AND FILLING WELDEPT. OF MINES

AFFIDAVIT SHOULD BE MADE IN TRIPLICATE, ONE COPY MAILED TO THE DEPARTMENT, ONE COPY TO BE RETAINED BY THE WELL OPERATOR AND THE THIRD COPY (AND EXTRA COPIES IF REQUIRED) SHOULD BE MAILED TO EACH COAL OPERATOR AT THEIR RESPECTIVE ADDRESSES.

Well I Martin Nich FIDAVIT and M cose and say to be employed by plugging and	April 27, WELL AND Loudon	LOCATION 33 , Jr. et al x 554, Clender erienced in the	District County Farm enin, WV
Well I Wartin Nich FFIDAVIT and M cose and say to the employed by the plugging and the property of the plugging and the p	April 27, WELL AND Loudon Kanawha No. #1, GW-13 aller C. Hardy hols, P. O. Bo	LOCATION 33 , Jr. et al x 554, Clender erienced in the	District County Farm enin, WV
Well I Martin Nich FFIDAVIT and M cose and say to the employed by the plugging and april	April 27, WELL AND Loudon Kanawha No. #1, GW-13 aller C. Hardy hols, P. O. Box Morris Belcher that they are exp oy d filling the abox	Jr. et al x 554, Clende	District County Farm enin, WV work of
Well I Wartin Nich FFIDAVIT and M cose and say to the employed by plugging and april	MELC AND Loudon Kanawha No. #1, GW-13 aller C. Hardy hols, P. O. Bo	33 , Jr. et al x 554, Clende	District County Farm enin, WV work of
Well I Martin Nich FFIDAVIT and M cose and say to the employed by plugging and april	Kanawha No. #1, GW-13 aller C. Hardy hols, P. O. Bo forris Belcher that they are exp od filling the above	, Jr. et al x 554, Clende erienced in the	Farm enin, WV
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f plugging and	id filling the abov	ve well, that sa	id work plugged
	$\frac{81}{19}$, and th	at the well was	plugged
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	PLUGB USED	CA	SING
	SIZE & KIND	CSG PULLED	CSG LEFT IN
ng		FULLED	Larite
lug at 5190) 1		
el to 1500'			
071 (6 sx R	REC)		
9-2959 (22	sx RFC)		
590 PBTD			
The second secon			
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	DESCRI	PTION OF MONUME	NT
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			J
aid well was	Temoth	Butte	_day of
day	y of april		19 8/
	V	X Ban	7-1
	Toward)		ub lic.
() ()	el lug at 5190 el to 1500 071 (6 sx 1 4' and pull 9-2959 (22 590 PBTD)	aid well was completed on the	ng el lug at 5190' el to 1500' 071 (6 sx RFC) 4' and pulled 9=2959 (22 sx RFC)