

*Stirling*

Company \_\_\_\_\_ LEASE State of Colo "B" Well No. 2  
 SURVEY Sec. 16 T. 8N R. 53W  
 STATE Colorado County }  
 Parish } Logan  
 DISTRICT Springdale Field

**COMPLETION REPORT**

13' FEL SE/4

Csg. Hd. Fig. 4171 Kelly Bushing 4184 Measurement Datum KB  
 Begun \_\_\_\_\_ Compl. \_\_\_\_\_ Contractor \_\_\_\_\_  
 \_\_\_\_\_ Compl. \_\_\_\_\_ Contractor \_\_\_\_\_  
 \_\_\_\_\_ Compl. \_\_\_\_\_ Contractor \_\_\_\_\_  
 Official Completion Date 6/14/60 Total Depth 7755 P. B. T. D. 4820

STRATA OPEN TO PRODUCTION				PERFORATION RECORD				
TOP	BOTTOM	NAME	HOW PRODUCED	FROM	TO	NUMBER SHOTS	SIZE	DATE
4767	4776	Muddy	Flow	4768	4776	32	jets	4/22/60
				4767	4775	32	bullets	4/25/60

ACID TREATMENT RECORD					SHOT RECORD				
DATE	AMOUNT OF ACID	KIND	FROM	TO	DATE	FROM	TO	AMOUNT SHOT	KIND
6/8/60	5,000 gal 5,000#	Black Gold Sand	4767	4776					

CASING AND TUBING RECORD												
SIDE (O.D.)	WEIGHT	TYPE	Threads	GRADE	NEW OR S.H.	MAKE	BOTTOM	CEMENT		TUBING PACKER		Apparent Wt. Csg. Hanging Free Before Cmts.
								SACKS	TYPE	TYPE	DEPTH	
						No change						

SCREEN AND LINER RECORD											
SIZE (O.D.)	WEIGHT	TYPE	Threads	GRADE	NEW OR S.H.	MAKE	TOP OF LINER	BOTTOM OF LINER	SCREEN GAUGE	SCREENED INTERVAL	TYPE AND MAKE OF PACKER
						---					

OFFICIAL POTENTIAL TEST RECORD									
DATE	OIL BARRELS	WATER BARRELS	GAS M. CU. FT.	G.O.R.	HOURS	SIZE CHOKE	METHOD	PRESSURES	
								CASING	TUBING
6/14/60			Production prior to workover - 0 Production after workover 830		24		Flow		
<u>SI GAS WELL</u>									
GRAVITY	STATIC B. H. P.			DATUM			DATE		

CORRECT G. E. Tinker EXPLOITATION ENGINEER APPROVED I. W. Elderkin SUPERINTENDENT



### WEEKLY DRILLING REPORT

<u>Shell Oil Company</u> (COMPANY)		LEASE <u>State of Colorado "B"</u>	WELL <u>2</u>
		DISTRICT <u>Springdale Field</u>	ELEV. <u>4184 KB</u>
FROM _____	TO _____	IS _____	COUNTY } <u>Logan</u> PARISH }
			STATE <u>Colorado</u>

#### WELL DATA

DATE	DEPTH		FORMATION (FROM SAMPLES)	REMARKS
	FROM	TO		
6/4	PBTD	4840		Drilled cement 2704-2745 feet. Shut down overnight.
6/5	PBTD	4840		Drilled cement 2745-2790 feet (tight place in pipe at approximately 2777-2777.5'). Shut down overnight.
6/6	PBTD	4840		Drilled cement 2790-2800 feet, which is top of bridge plug. Tested squeeze job at 800 psi. Pressure held. Knocked bridge plug down to 4807 feet. Shut down overnight.
6/7	PBTD	4820		Knocked bridge plug down to 4820. Bailed hole dry. Let set additional one hour. Swabbed five gallons rusty colored water. Swabbed dry. Let set additional one half hour. Swabbed three gallons rusty colored water. Swabbed dry. Unable to knock bridge plug below 4820 feet. Ran casing scraper. Ran tubing with Halliburton RTTS tool. Pressure tested tubing and casing; held ok. Pumped into Muddy sandstone through casing perforations 4767 to 4776 feet - 4 barrels of crude per minute at 2600 psi. Shut down overnight.
6/8	PBTD	4820		Pressure fraced Muddy sandstone perforations 4767-4776 with 5,000 gallons Black Gold plus 4,000# 20-40 mesh and 1,000# 10-20 mesh sand. Maximum pressure 4650 psi, minimum pressure 2600 psi. Bled to 0 in 5 minutes. Ran sand pump. Hole clean. Ran tubing. 315 ELO to recover.
6/9 - 6/4	PBTD	4820		Put well on pump. Pumped and flowed 52 ELO in 8 hours; went to

CORRECT G. E. Tinker  
EXPLOITATION ENGINEER

APPROVED L. W. Eldarkin  
SUPERINTENDENT

### WEEKLY DRILLING REPORT

<u>Shell Oil Company</u> (COMPANY)		LEASE <u>State of Colorado "B"</u>	WELL <u>2</u>
		DISTRICT <u>Springdale Field</u>	ELEV. <u>4184 KB</u>
FROM _____	TO _____	COUNTY } <u>Logan</u>	STATE <u>Colorado</u>
		PARISH }	

#### WELL DATA

DATE	DEPTH		FORMATION (FROM SAMPLES)	REMARKS
	FROM	TO		
6/1/60	PBTD	4840		<p>Shell Oil Company State of Colorado "B" No. 2 Location: 2003' FSL, 2013' FEL SE/4 Sec 16-8N-53W Springdale Field Logan County, Colorado Elevation: 4171 Csg. Hd. Flg., 4184 KB (Old Well Workover)</p> <p>Purpose of workover: To squeeze and reperforate Muddy sandstone.</p> <p>Moved in and rigged up pulling unit (Local Drilling and Service Company). Cleaned out 15 feet heavy mud. Ran tubing with Halliburton packer.</p>
6/2	PBTD	4840		<p>Loaded hole with water. Set Halliburton RTTS packer at 4668 feet. Pressured up on casing; would not hold. Started out of hole testing casing for leaks. Found leak from 2777-2783. Tested tubing to 4000 psi. Came out of hole and set Baker cast iron bridge plug at 2800 feet. Ran tubing with Halliburton RTTS packer set at 2670 feet. Mixed 100 sacks 50-50 Pozmix with 0.3% HR-4. Pumped 90 sacks through casing leak from 2777-2783. Unable to obtain any squeeze pressures. Picked up packer and reset at 2650 feet. Closed in overnight with 500 psi. Ten sacks cement below tool in casing.</p>
6/3	PBTD	4840		<p>Pulled tubing and packer. Checked top of cement at 2704 feet. Swabbed hole down. Rigged up to drill cement. Waited for cement to set.</p>

CORRECT G. E. Tinker  
EXPLOITATION ENGINEER

APPROVED L. W. Elderkin  
SUPERINTENDENT

*Steering*

FORM 62087-1 (7-44) FORMERLY FORM R-10-14

<b>Shell Oil Company</b> <small>(COMPANY)</small>				LEASE State of Colorado Well No. 2 SURVEY Sec. 16 T. 8N R. 53W STATE Colorado County } Logan Parish } DISTRICT Springdale Field								
<b>WELL COMPLETION REPORT</b>												
Date of Report <u>8/4/60</u> LOCATION <u>2003' FSL, 2013' FEL SE/4</u>				Elevation Derrick Floor _____ Csg. Hd. Flg. <u>4171</u> Type of Rig _____ Begun _____ Rotary Tools from _____ to _____ Begun _____ Cable Tools from _____ to _____ Begun _____ Official Completion Date <u>4/26/60</u>								
Kelly Bushing <u>4184</u> Measurement Datum <u>KB</u> Compl. _____ Contractor _____ Compl. _____ Contractor _____ Total Depth <u>7755</u> P. B. T.D. <u>4840</u>												
<b>STRATA OPEN TO PRODUCTION</b>				<b>PERFORATION RECORD</b>								
TOP	BOTTOM	NAME	HOW PRODUCED	FROM	TO	NUMBER SHOTS	SIZE	DATE				
4767	4776	Muddy	—	4870	4882	48 bullets	15/32"	7/29/54				
				4850	CIBP			4/21/60				
				4768	4776	32	jets	4/22/60				
				4767	4775	32	bullets	4/25/60				
<b>ACID TREATMENT RECORD</b>				<b>SHOT RECORD</b>								
DATE	AMOUNT OF ACID	KIND	FROM	TO	DATE	FROM	TO	AMOUNT SHOT	KIND			
4/23/60	50 gal	Control Flow	4768	4776								
4/25/60	Standard	Acid Versene	4767	4776								
<b>CASING AND TUBING RECORD</b>												
SIDE (O.D.)	WEIGHT	TYPE	Threads	GRADE	NEW OR S.H.	MAKE	BOTTOM	CEMENT SACKS	CEMENT TYPE	TUBING PACKER TYPE	TUBING PACKER DEPTH	Apparent Wt. Csg. Hanging Free Before Cmtg.
						No change						
<b>SCREEN AND LINER RECORD</b>												
SIZE (O.D.)	WEIGHT	TYPE	Threads	GRADE	NEW OR S.H.	MAKE	TOP OF LINER	BOTTOM OF LINER	SCREEN GAUGE	SCREENED INTERVAL	TYPE AND MAKE OF PACKER	
						—						
<b>OFFICIAL POTENTIAL TEST RECORD</b>												
DATE	OIL BARRELS	WATER BARRELS	GAS M. CU. FT.	G. O. R.	HOURS	SIZE CHOKE	METHOD	PRESSURES				
								CASING		TUBING		
4/26/60								Production prior to workover - 0				
								Production after workover - 0				
GRAVITY			STATIC B.H.P.			DATUM			DATE			

CORRECT G. E. Tinker EXPLOITATION ENGINEER APPROVED L. W. Elderkin SUPERINTENDENT

### WEEKLY DRILLING REPORT

<u>Shell Oil Company</u> <small>(COMPANY)</small>		LEASE <u>State of Colorado "B"</u>	WELL <u>2</u>
FROM _____ TO _____ 19____		DISTRICT <u>Springdale Field</u>	ELEV. <u>4184</u> KB
		COUNTY } <u>Logan</u>	STATE <u>Colorado</u>
		PARISH }	

#### WELL DATA

DATE	DEPTH		FORMATION <small>(FROM SAMPLES)</small>	REMARKS
	FROM	TO		
4/24 (Cont'd)				No fluid. Ran bailer and bailed hole dry in two runs. Recovered muddy water. Shut in overnight.
4/25	PBD	4840		Loaded hole with 40 barrels crude. Perforated 4767-4768 and reperforated 4768-4775 (Schlum meas) by McCullough with four bullets per foot. Swabbed 40 barrels load oil back. Treated with standard acid versene. Overflushed treatment with 60 barrels crude. Maximum and final pressure 1200 psi. Bled to 1000 psi in five minutes. Shut in overnight. 176 barrels load oil to recover.
4/26	PBD	4840		Swabbed 115 barrels load oil and swabbed dry. Swabbed two hours; recovered 1 barrel mud. Bailed hole dry in one hour. Recovered drilling mud. Laid down tubing, capped well and released rig at 19:00 MST.

OWWO COMPLETE 4-26-60

CORRECT G. E. Tinker  
EXPLOITATION ENGINEER

APPROVED I. W. Elderkin  
SUPERINTENDENT

### WEEKLY DRILLING REPORT

<u>Shell Oil Company</u> (COMPANY)		LEASE <u>State of Colorado "B"</u> WELL <u>2</u>
		DISTRICT <u>Springdale Field</u> ELEV. <u>4184 KB</u>
FROM _____ TO _____ 19____	COUNTY } <u>Logan</u>	STATE <u>Colorado</u>
		PARISH } _____

#### WELL DATA

DATE	DEPTH		FORMATION (FROM SAMPLES)	REMARKS
	FROM	TO		
				<p>Shell Oil Company State of Colorado "B" No. 2 Location: 2003' FSL, 2013' FEL SE/4 Section 16-8N-53W Springdale Field Logan County, Colorado Elevation: 4171 Csg. Hd. Flg., 4184 KB (Old Well Workover)</p> <p>Purpose of Workover: To plug off Dakota perforations and test Muddy sandstone.</p>
4/20/60	PBTD	4897		Moved in and rigged up pulling unit (Local Drilling Company).
4/21	PBTD	4840		Pulled tubing. Ran junk basket. Set bridge plug at 4850 feet. Capped with 1 sack cement.
4/22	PBTD	4840		Ran swab, no recovery. Ran bailer. Bailed 8 gallons muddy water. Bailed dry. Loaded hole with 65 barrels crude. Ran Correlation Gamma Ray log and perforated (McCullough) opposite Muddy sandstone 4768-4776 (Schlum meas) with four jets per foot. Swabbed load oil and swabbed dry. Tested three hours with swab. Last run found mud on swab cup. Shut in overnight.
4/23	PBTD	4840		Vacuum on casing after being shut in overnight. Ran swab, no fluid in hole. Some mud on swab cup. Treated with 50 gallons of Control Flow. Maximum and final pressure 950 psi. Average injection rate - 1/2 barrel per minute. Bled off to 850 psi in three minutes. Shut in overnight.
4/24	PBTD	4840		Swabbed all load oil and swabbed dry. Tested four hours with swab.

CORRECT. G. E. Tinker  
EXPLOITATION ENGINEER

APPROVED L. W. Elderkin  
SUPERINTENDENT

FORM R-10-14—FORMERLY FORM 02037-1 (7-44)

*Stirling*

<b>Shell Oil Company</b> <small>(COMPANY)</small>	LEASE State of Colo "B" SURVEY Sec. 16 STATE Colorado DISTRICT Springdale	Well No. Unit #2 T. 8N R. 53W County } Logan Parish }
<b>WELL COMPLETION REPORT</b>		
Date of Report <u>8/2/54</u> LOCATION <u>2003 SL 2013 EL SE/4</u>		

Elevation Derrick Floor <u>---</u> Csg. Hd. Flg. <u>4171</u>	Kelly Bushing <u>4184</u> Measurement Datum <u>KB 13</u>
Type of Rig <u>Rotary</u> Begun <u>6/18/54</u>	Compl. <u>7/25/54</u> Contractor <u>Co. Tools PDU #17</u>
Rotary Tools from <u>0</u> to <u>7755</u> Begun <u>6/18/54</u>	Compl. <u>7/25/54</u> Contractor <u>Co. Tools PDU #17</u>
Cable Tools from <u>---</u> to <u>---</u> Begun <u>---</u>	Compl. <u>---</u> Contractor <u>---</u>
Official Completion Date <u>7/30/54</u>	Total Depth <u>7755</u> P. B. T. D. <u>4897</u>

STRATA OPEN TO PRODUCTION				PERFORATION RECORD				
TOP	BOTTOM	NAME	HOW PRODUCED	FROM	TO	NUMBER SHOTS	SIZE	DATE
4870	4882	Dakota	F	4870	4882	48	15/32	7/29/54

ACID TREATMENT RECORD					SHOT RECORD				
DATE	AMOUNT OF ACID	KIND	FROM	TO	DATE	FROM	TO	AMOUNT SHOT	KIND
	None								

CASING AND TUBING RECORD												
SIZE (O. D.)	WEIGHT	TYPE	Threads	GRADE	NEW OR S.H.	MAKE	BOTTOM	CEMENT		TUBING PACKER		APPARENT WT. CEG. HANGING FREE BEFORE CMTG
								SACKS	TYPE	TYPE	DEPTH	
8 5/8	28	SS	8 rd	LP	New	Republic	592	275	reg A	5% gal		
5 1/2	14	SS	8 rd	J-55	New		4933	100	reg A	4% gal		
2"	4.7	SS	8 rd	J-55	New		4886			(155 jts)		

SCREEN AND LINER RECORD												
SIZE (O. D.)	WEIGHT	TYPE	Threads	GRADE	NEW OR S.H.	MAKE	TOP OF LINER	BOTTOM OF LINER	SCREEN GAUGE	SCREENED INTERVAL	TYPE AND MAKE OF PACKER	
		None										

OFFICIAL POTENTIAL TEST RECORD									
DATE	OIL BARRELS	WATER BARRELS	GAS M. CU. FT.	G. O. R.	HOURS	SIZE CHOKE	METHOD	PRESSURES	
								CASING	TUBING
7/30/54	---	---	Per day 1300	---	1 hr test	18/64	Flow	725	625

GRAVITY                      STATIC B. H. P.                      DATUM                      DATE

CORRECT N. S. French EXPLOITATION ENGINEER                      APPROVED A. H. Curry SUPERINTENDENT

*Stirling*

WEEKLY DRILLING REPORT

<u>Shell Oil Company</u> (COMPANY)		LEASE <u>State of Colorado</u> "WELL" <u>2</u>
		DISTRICT <u>Springdale</u>
FROM _____ TO _____ 19____	COUNTY <u>Logan</u>	ELEV _____
	PARISH _____	STATE <u>Colorado</u>

WELL DATA

DATE	DEPTH		FORMATION (FROM SAMPLES)	REMARKS
	FROM	TO		
			<u>FIRST REPORT</u> (Corrected Copy)	
			DATE AUTHORITY TO DRILL RECEIVED IN DIVISION OFFICE: 6-11-54	
			DATE LOCATION STAKED: 6-15-54	
			LOCATION FOOTAGE DESCRIPTION: 2003' SL 2013' EL SE/4 Section 16-8N-53W	
			LEASE NO: Co-2095	
			NUMBER OF ACRES IN TRACT BEING DRILLED: 320	
			DESCRIPTION OF TRACT BEING DRILLED: E/2 Section 16-8N-53W	
			SHELL'S INTEREST IN DRILL SITE: 100%	
			OUTSIDE INTEREST IN DRILL SITE: None	
			CONTRACTOR: P. D. U. #17	
			OTHER ACREAGE IN BASE LEASE: SE/4, E/2 NE/4, E/2 SW/4, Lot R, Section 19; SE/4, E/2 SW/4, Section 35; E/2, Section 16-8N-53W SE/4, Section 18-8N-53W E/2 SE/4, Section 20; SW/4 Section 21-7N-53W SE/4, Section 24-8N-54W	

CORRECT M. M. Durham  
EXPLOITATION ENGINEER

APPROVED A. H. Curry  
SUPERINTENDENT

*Harling*

WEEKLY DRILLING REPORT

<u>Shell Oil Company</u> (COMPANY)		LEASE <u>State "B"</u>	WELL <u>2</u>
		DISTRICT <u>Springdale</u>	ELEV. <u>4184</u>
FROM <u>7/22</u>	TO <u>7/28</u>	COUNTY <u>Logan</u>	STATE <u>Colorado</u>
	19 <u>54</u>	COUNTY PARISH	

WELL DATA

DATE	DEPTH		FORMATION (FROM SAMPLES)	REMARKS
	FROM	TO		
7/25/54				<u>CONTINUED</u> Mud: 9.5#, 61 sec, 35 cps, 24-29 gel, 5.2 cc, 2/32, chloride-10,000 calcium-heavy. No mud added.
7/26/54	TD	7755	Granite	Ran Schlumberger ES, Microlog, Laterolog, Gamma Ray and neutron logs. Started running velocity survey.
7/27/54	TD	7755		Schlumberger Tops: Muddy 4768 (-584) Dakota 4868 (-684) Lakota 5153 (-969) Morrison 5346 (-1162) Permian 5694 (-1510) Big Blue 6163 (-1979) Pennsylvanian 6595 (-2411) Topeka 6646 (-2462) Lansing-Kansas City 6754 (-2570) Marmaton 6984 (-2800) Pre Cambrian 7666 (-3482) Finished running velocity survey. Ran drill pipe to bottom. Pulled out laying down 140, jts drill pipe. Waited on orders. 7 hours. Layed down remaining drill pipe and rigged up to run casing.
7/28/54	TD	7755	Granite	Ran 5 1/2" casing to 4933. Started reciprocating casing, lost partial returns after 15 min, (EST 50%). Landed casing. Shut down 1 1/2 hours. Commenced cementing operations with returns estimated at 100%. Cemented 5 1/2" casing at 4933 with 100 sx reg plus 4% gel. Plug down 0718 7/28/54. WOC 10 hrs. Ran temperature survey. Full hole at 4741 with channeling from 4795-4850. Ran tubing with bit and displaced mud with water. Tested casing 1000# for 30 min. Test ok.

CORRECT M. S. French  
EXPLOITATION ENGINEER

APPROVED A. H. Curry  
SUPERINTENDENT

## WEEKLY DRILLING REPORT

Shell Oil Company (COMPANY)		LEASE	State "B"	WELL	2
FROM	7/22 TO 7/28 19 54	DISTRICT	Springdale	ELEV.	4184
		COUNTY PARISH	Logan	STATE	Colorado

## WELL DATA

DATE	DEPTH		FORMATION (FROM SAMPLES)	REMARKS
	FROM	TO		
7/22/54	7640	7650	Sand, as 7630-40 with granite wash.	Bit #33 7 7/8 Hughes W7J in at 7636, 1/2 hr. Bit #34 7 7/8 Hughes W7J in at 7670. Mud: 9.9#, 79 sec, 48 cps, 35-38 gel, pH-7.5, 4.8 cc, 2/32", chloride-11,500, sulfate-heavy. Added: 5 sacks salt gel 9 sacks Mylogel 5 sacks Magcogel 25# preservative.
	7650	7660	Sand, medium to coarse grained, N.S., interbedded with shale, light gray, soapy with scattered sand grains.	
	7660	7675	Pink granite wash, with abundant chlorite.	
7/23/54	7675	7736	Pink granite wash, with much biotite, becomes more quartzose from 7715-36.	Bit #35 7 7/8 Hughes W7RJ in at 7696. Bit #36 7 7/8 Hughes W7RJ in at 7710. Reamed tight hole 7700-7710. Started losing mud while drilling at 7722. Drilled to 7723. Picked up off bottom and mixed mud 1 hr. Mud: 9.9#, 77 sec, 37 cps, 28-33 gel, 4.4 cc, 2/32", chloride-12,000. Calcium-heavy. Added: 11 sacks Magcogel 11 sacks salt gel 8 sacks mylogel 5 sacks celloseal
7/24/54	7736	7738	Granite	Drilled to 7724. Mixed mud 6 hrs. Regained full returns. Bit #37 7 7/8 Hughes W7RJ in at 7724. Reamed 7715-24, 1/2 hr. Pulled bit at 7738 and picked up core barrel. Ran core barrel, with 6 1/8 x 3 1/2, Truco diamond bit. Mud: 9.6#, 86 sec, 41 cps, 32-35 gel, pH 5.5, 8.4 cc, 2/32, chloride-8,000, calcium-heavy. Added: 25 sacks Magcogel 20 sacks salt gel 10 sacks Mylogel 50# preservative 20 sacks Mud Fiber
7/25/54	7738	7755	Core #1 7736-7755 Granite	Pulled core #1 7738-7757. Recovered 17'. Measured out of hole SLC 7757=7755. Rigged up and started running Schlumberger.

CORRECT

M. S. Branch  
EXPLOITATION ENGINEER

APPROVED

A. H. Curry  
SUPERINTENDENT

JULY 30, 1954

SHELL OIL COMPANY  
P.O. BOX 1672  
STERLING, COLORADO

GENTLEMEN:

THE FOLLOWING INFORMATION CONCERNING THE DRILLING MUD SAMPLE  
#A-5607 FROM THE STATE B #2, LOGAN COUNTY, COLORADO IS FORTHARDED.

REACTIVITY: 0.587 OHMS @ 60°

YOURS VERY TRULY,

UNITED CORE, INC.

JAMES L. ROYER

JLR/jo  
ENC. 6

WEEKLY DRILLING REPORT

*Heeling*

<u>Shell Oil Company</u> (COMPANY)	LEASE <u>State "B"</u>	WELL <u>2</u>
	DISTRICT <u>Springdale</u>	ELEV <u>4174</u>
FROM <u>7/15</u> <u>7/21</u> <u>54</u>	COUNTY <u>Logan</u>	STATE <u>Colorado</u>
	PARISH	

WELL DATA

DATE	DEPTH		FORMATION (FROM SAMPLES)	REMARKS
	FROM	TO		
			<u>CONTINUED</u>	
7/21/54	7620	7625	Interbedded limestone and dolomite, light tan, dense to finely crystalline, fossiliferous.	
	7625	7630	Dolomite, light brown, sucrose, no visible porosity.	
	7630	7640	Sand, white, medium grained, sub angular, clean, trace pinpoint porosity, N.S.	

CORRECT M. S. French  
EXPLOITATION ENGINEER

APPROVED A. H. Curry  
SUPERINTENDENT

WEEKLY DRILLING REPORT

Shell Oil Company (COMPANY)		LEASE <u>State "B"</u>	WELL <u>2</u>
FROM <u>7/15</u> TO <u>7/21</u> 19 <u>54</u>		DISTRICT <u>Springdale</u>	ELEV. <u>4174</u>
		COUNTY ] <u>Logan</u>	STATE <u>Colorado</u>
		PARISH }	

WELL DATA

DATE	DEPTH		FORMATION (FROM SAMPLES)	REMARKS
	FROM	TO		
			<u>CONTINUED</u>	
7/19/54			with streaks of coal.	
7/20/54	7495	7500	Shale, variegated, with interbedded limestone, dense to argillaceous, tight.	Bit #31 7 7/8 Hughes W 7J in at 7511. Mud: 9.8#, 78 sec, 5.2 cc, 2/32, 29-33 gel, chloride 16,000. Added: 11 sacks Mylogel 35# preservative
	7500	7511	Sand and quartzite, dark green, very glauconitic, tight, N.S.	
	7511	7527	Shale, variegated, soapy, non-calcareous.	
	7527	7543	Shale, variegated, limy, with thin coal beds and white calcite.	
	7543	7554	Shale, as above, with trace sand, cream, glauconitic, fine to coarse grained, calcareous bond, grading to sandy limestone.	
	7554	7557	Shale, variegated, limey in part, sandy in part.	
	7557	7567	Shale, as above, with sand, cream, glauconitic, fine to coarse grained.	
7/21/54	7567	7584	Sand, fine to coarse, calcareous, tight, N.S.	Bit #32 7 7/8 Hughes W 7J in at 7595. Mud: 9.9#, 63 sec, 42 cps, 30-35 gel, pH 7.5, 5.2 cc, 2/32, chloride-12,000, calcium-heavy. Added: 11 sacks Mylogel 35# preservative
	7584	7587	Quartzite, light pink to light purple, trace good porosity, glauconitic, shaley in part.	
	7587	7603	Sh and sandy shale, variegated, trace limestone white to light brown, finely crystalline with trace quartzite as above.	
	7603	7610	Sandy shale, variegated with trace granite wash, not-weathered, pink.	
	7610	7620	Sandy shale, with dolomite, finely crystalline, thin fractures, and trace brown finely crystalline limestone.	

CORRECT M. S. French EXPLOITATION ENGINEER APPROVED A. H. Curry SUPERINTENDENT

## WEEKLY DRILLING REPORT

Shell Oil Company (COMPANY)		LEASE	State "B"	WELL	2
FROM 7/15 TO 7/21 1954		DISTRICT	Springdale	ELEV.	4174
		COUNTY PARISH	Logan	STATE	Colorado

## WELL DATA

DATE	DEPTH		FORMATION (FROM SAMPLES)	REMARKS
	FROM	TO		
			<u>CONTINUED</u>	
7/16/54	7190	7195	Shale, gray, calcareous with limestone, as above.	
7/17/54	7195	7210	Limestone, tan, dense to microcrystalline to chalky, scattered fossil fragments.	Bit #28 7 7/8 Hughes OWJ in at 7205. Down 1 1/2 hours. Severe storm. Mud: 9.9#, 61 sec, 31 cps, 24-27 gel, 6 cc, 2/32, chloride 20,000, calcium-heavy. Added: 15 sacks Mylogel
	7210	7225	Shale, olive, calcareous with interbedded limestone, tan marly, tight.	
	7225	7240	Sand, very fine grained, calcareous, tight, with limestone, sandy and interbedded shale.	
	7240	7285	Shale, variegated, calcareous, with thin streaks of limestone, tan, argillaceous, tight.	
7/18/54	7285	7330	Marl, pink to buff, with shale, variegated, calcareous, containing sand and chert grains.	Bit #29 7 7/8 Hughes OWJ in at 7333. Mud: 10.1#, 72 sec, and Added: 6 sacks Magcogel 12 sacks salt gel 10 sacks Mylogel 35# preservative
	7330	7400	Shale, variegated with thin streaks limestone, dense to microcrystalline, fossil fragments, tight.	
7/19/54	7400	7410	Limestone, tan, scattered traces pinpoint vuggy porosity, N.S.	Bit #30 7 7/8 Hughes OWJ in at 7417. Down 1 hr. Severe storm. Mud: 10.0#, 70 sec, 38 cps, 30-32, chloride 10,900, calcium-heavy sulfate-heavy. Added: 3 sacks Magcogel 4 sacks salt gel 13 sacks Mylogel 35# preservative
	7410	7440	Shale, variegated, fossiliferous with streaks limestone, dark brown, dense, tight.	
	7440	7460	Limestone, black-buff, dense, tight.	
	7460	7470	Shale, variegated with interbedded streaks of limestone.	
	7470	7475	Sand, very coarse grained, granite wash with shale as above.	
	7475	7495	Limestone, brown-black, dense to argillaceous, tight, fossil fragments	

CORRECT M. S. French  
EXPLOITATION ENGINEER

APPROVED A. H. Curry  
SUPERINTENDENT

WEEKLY DRILLING REPORT

Shell Oil Company <small>(COMPANY)</small>		LEASE <u>State "B"</u>	WELL <u>2</u>
FROM <u>7/15</u>	TO <u>7/21</u>	DISTRICT <u>Springdale</u>	ELEV. <u>4174</u>
	<u>54</u>	COUNTY ] <u>Logan</u>	STATE <u>Colorado</u>
		PARISH ]	

WELL DATA

DATE	DEPTH		FORMATION (FROM SAMPLES)	REMARKS
	FROM	TO		
7/15/54	7060	7095	Limestone, buff to tan, oolitic to sandy, with chert inclusions, and streaks of dolomite, buff, silty to sandy, tight, N.S.	Cut off drilling line-2 hours. Bit #26 7 7/8 Hughes OWJ in at 7060. Down 2 hours working on hydromatic brake. Mud: 9.9#, 65 sec, 34 cps, 26-29 gel, 7.2 cc, 2/32, chloride 12,350, calcium-heavy. Added: 8 sacks Mylogel 50# preservative
	7095	7102	Limestone, tan, oolitic, dolomitic, tight to scattered pinpoint porosity, trace light brown O.S., faint SF & ECF.	
	7102	7108	Limestone, oolitic, tan to buff, scattered poor to good meta-oolitic porosity, weak spotty O.S., faint SF & ECF.	
	7108	7112	Limestone, oolitic, scattered poor meta-oolitic porosity, very slight intercrystalline porosity, weak spotty OS, no SF, faint ECF.	
	7112	7114	Limestone and dolomite as above, poor meta-oolitic porosity, weak to fair spotty O.S., fair SF & ECF.	
	7114	7135	Limestone, oolitic, buff, with tan chert inclusions, tight, N.S.	
	7/16/54	7135	7140	
7140		7157	Shale, as above, with limestone, silty to sandy, traces light brown O.S., tight.	
7157		7162	Dolomite, micro sucrose, tight to trace intercrystalline porosity, good even brown O.S., fair to good SF, good ECF.	
7162		7190	Limestone, tan, dolomitic, dense to microcrystalline, tight.	

CORRECT M. S. French  
EXPLOITATION ENGINEER

APPROVED A. H. Curry  
SUPERINTENDENT

*Sterling*

WEEKLY DRILLING REPORT

Shell Oil Company <small>(COMPANY)</small>		LEASE _____	State _____	WELL _____
		DISTRICT _____	Springdale	B-2 4184
FROM 7/8	TO 7/14	19 54	COUNTY PARISH } Logan	ELEV. Colorado
			STATE _____	

WELL DATA

DATE	DEPTH		FORMATION (FROM SAMPLES)	REMARKS
	FROM	TO		
7/14/54			<u>CONTINUED</u>	
	7020	7035	Limestone, buff, oolitic, fossiliferous, tight to pinpoint vuggy porosity, fetid odor, N.S.	H <sub>2</sub> S?
	7035	7050	Siltstone, red-brown, calcareous, with shale, red-brown, and orange chert.	
	7050	7060	Limestone, buff to cream, oolitic, fossiliferous, tight, with tan and amber chert inclusions.	

CORRECT M. S. French EXPLOITATION ENGINEER      APPROVED A. H. Curry SUPERINTENDENT

R100 TRW-10110115

## WEEKLY DRILLING REPORT

Shell Oil Company (COMPANY)		LEASE	Shell	WELL	B-2
FROM	7/8	TO	7/14	19	54
		DISTRICT	Springdale	ELEV.	4184
		COUNTY PARISH	Logan	STATE	Colorado

## WELL DATA

DATE	DEPTH		FORMATION (FROM SAMPLES)	REMARKS
	FROM	TO		
			<u>CONTINUED</u>	
7/12/54	6895	6920	Limestone, tan, dense to microcrystalline, tight, N.S.	
	6920	6940	Shale, green, dolomitic, with streaks of siltstone, red-brown, calcareous.	
	6940	6946	Limestone, gray-brown, dolomitic, dense to chalky, calcite veining.	
7/13/54	6946	6951	Limestone, dense, with calcite veining and fractures, brown OS in fractures.	Circulated to condition hole-2½ hrs. Ran DST #6 6935-70. Open 1 hr., very weak blow died in 9 min. Rec: 5' Mud: IFP 0 FFP 0, SIP/
	6951	6955	Limestone, dolomite, microcrystalline to micro sucrose, poor to slight porosity, with spotted brown OS. Faint gel, 6.0 cc, chloride 12,650.	30: 0 for 25 min, built up to 200# at 30 min. Still building. Bit # 25 7 7/8 Hughes OWJ in at 6970. Mud: 9.8#, 69 sec, 24-26
	6955	6959	Limestone, dolomitic, poor to slight inter-crystalline porosity, good even brown OS, faint to fair SF, good ECF, good acid reaction.	Added: 4 sacks Mylogel
	6959	6970	Limestone, tan-gray, dense with stain along fractures, faint SF along fractures, faint ECF.	
7/14/54	6970	6990	Limestone, dolomitic, with streaks of limy sand, very fine grained, tight, N.S. chert inclusions.	Mud: 10.0#, 81 sec, 38 cps, 28-32 gel, pH-8, 4.4 cc, 1/32, chloride 12,100, calcium-heavy, sulfate-heavy.
	6990	6995	Sand, tan to purple, silty to very fine grained, tight, N.S.	Added: 2 sacks Magcogel 4 sacks salt gel 11 sacks Mylogel 25# preservative.
	6995	7015	Limestone, gray to tan, dense to chalky, fossiliferous, tight, with chert inclusions.	
	7015	7020	Limestone, sandy, buff	

CORRECT M. S. French  
EXPLOITATION ENGINEER

APPROVED A. H. Curry  
SUPERINTENDENT

## WEEKLY DRILLING REPORT

Shell Oil Company (COMPANY)		LEASE	Shell	WELL	B-2
FROM 7/8 TO 7/14 1954		DISTRICT	Springdale	ELEV	4184
		COUNTY PARISH	Logan	STATE	Colorado
WELL DATA					
DATE	DEPTH		FORMATION (FROM SAMPLES)	REMARKS	
	FROM	TO			
			<u>CONTINUED</u>		
7/10/54			to chalky, scattered traces of vuggy porosity, N.S.		
	6758	6770	Dolomite, cream, micro-sucrose to rhombic, poor to fair vuggy porosity, N.S.		
	6770	6775	Limestone, tan, dolomitic, dense, tight, N.S.		
	6775	6780	Limestone, buff, oolitic, sandy, fair meta oolitic porosity, N.S.		
	6780	6790	Limestone, tan, dense, dolomitic, tight.		
7/11/54	6790	6815	Limestone, cream, chalky to dense, scattered anhydrite inclusions.	Bit #23 7 7/8 Hughes OWJ in at 6810. SIC: 5860-5862 Circulated to condition hole 2 hours. DST	
	6815	6825	Limestone, tan, dense, to microcrystalline.	#5 6849-62. Open 1 hr. Weak blow	
	6825	6845	Sand, and siltstone, very fine grained, calcareous, tight, N.S. with streaks of limestone and anhydrite.	Increasing to strong blow in 8 min and decreasing to medium blow in 30 min. Rec: 1530' (18 bbls) muddy salt water, 90' mud. IFP 200, FFP 800, SIP/30 2440. MCP 3760. Mud: 9.8#, 67 sec, 5.8 cc, 2/32, chloride 13,600.	
	6845	6849	Limestone, buff to brown, chalky to crystalline, tight, N.S.	Added: 1 sack Magcogel 4 sacks salt gel 6 sacks Mylogel	
	6849	6862	Limestone, as above, fossil fragments, scattered fair vuggy porosity, scattered dark brown O.S. some scattered dead OS.	25# preservative	
7/12/54	6862	6875	Limestone, cream to buff, microcrystalline to chalky, fossil fragments none to scattered fair vuggy porosity, trace dead OS.	Bit #24 7 7/8 Hughes OWJ in at 6862. Mud' 10#, 57 sec, 28 cps, 24-26 gel, pH-8, 8.6 cc, 2/32, chloride-12,650, calcium-heavy, sulfate-heavy.	
	6875	6895	Siltstone, calcareous, with thin streaks limestone, silty, fossiliferous, trace sand, fine to coarse grained, tight, N.S.	Added: 6 sacks Magcogel 10 sacks salt gel 7 sacks Mylogel 25# preservative	

CORRECT

M. S. French

EXPLOITATION ENGINEER

APPROVED

A. H. Curry

SUPERINTENDENT

## WEEKLY DRILLING REPORT

Shell Oil Company (COMPANY)		LEASE	State	WELL	B-2
FROM 7/8 TO 7/14 19 54		DISTRICT	Springdale	ELEV.	4184
		COUNTY PARISH	Logan	STATE	Colorado
WELL DATA					
DATE	DEPTH		FORMATION (FROM SAMPLES)	REMARKS	
	FROM	TO			
			<u>CONTINUED</u>		
7/9/54	6638	6644	Limestone, as above, with stain, as above, grades to sand, gray, very fine grained, tight, poor acid reaction.		
	6644	6652	Limestone gray to buff, oolitic, dense to finely crystalline, dolomitic, fair to good meta oolitic, and vuggy porosity, poor light brown OS with abundant dead black OS.		
	6652	6658	Limestone, buff, chalky, dense to very finely crystalline, anhydrite inclusions, scattered vuggy porosity, with brown to black O.S.		
	6658	6665	Limestone, as above, tight, N.S.		
7/10/54	6665	6680	Limestone, dense to micro crystalline, tight, N.S.	Bit #22 7 7/8 Hughes O&W in at 6665. Mud: 10.0#, 68 sec, 35 cps, 29-31 gel strength, pH-8, 5.8 cc, 2/32, chloride-13,600, calcium-heavy, sulfate-heavy. Added: 9 sacks Mylogel 25# preservative	
	6680	6690	Dolomite, buff, micro-sucrose, scattered poor to fair pinpoint porosity.		
	6690	6710	Limestone, buff, dense to chalky, dolomitic, fossil fragments, with chert, white to blue.		
	6710	6730	Dolomite, cream, microsucrose to rhombic, scattered poor vuggy porosity, N.S.		
	6730	6740	Dolomite, as above, with streaks of limestone, light gray, dense to finely crystalline, with thin streaks of green shale.		
	6740	6745	Dolomite, buff, sandy to sucrose, scattered vuggy porosity, N.S.		
	6745	6758	Limestone, buff, dense		

CORRECT

M. S. French

EXPLOITATION ENGINEER

APPROVED

A. H. Curry

SUPERINTENDENT

WEEKLY DRILLING REPORT

Shell Oil Company (COMPANY) LEASE State WELL B-2  
 FROM 7/8 TO 7/14 1954 DISTRICT Springdale ELEV. 4184  
 COUNTY PARISH Logan STATE Colorado

WELL DATA

DATE	DEPTH		FORMATION (FROM SAMPLES)	REMARKS
	FROM	TO		
7/8/54	6557	6573	Anhydrite, white to brown, with dolomite, brown, sucrose, very scattered brown oil stain.	Circulated for samples 6585-1 1/2 hrs, DST #3 run 6530-6585. Open 1 1/2 hrs, weak blow died in 25 min. Rec 50' very slightly oil cut mud. IFP 0, FFP 0, SIP/30 445, MCP 3406. Cut off drill line. Bit #21, 7 7/8 Hughes OWJ in at 6585. Mud: 9.9# 74 sec, 36 cps, 30-31 gel, 6.1 cc, 2/32, chloride 13,100, sulfate-heavy, calcium-heavy. Added: 8 sacks Mylogel 25# preservative.
	6573	6580	Dolomite, brown, finely rhombic, fair light brown to dark brown oil stain, fair ECF, scattered poor to fair intercrystalline and pinpoint vuggy porosity.	
	6580	6585	Dolomite, gray, sucrose, with anhydrite inclusions white, crystalline, scattered brown OS, scattered poor pinpoint, vuggy and intercrystalline porosity, faint ECF, grades to anhydrite, gray, white, crystalline.	
7/9/54	6585	6620	Dolomite, as above, scattered poor to fair porosity, scattered dark brown OS, with interbedded shale, green mud to gray.	Circulated to condition hole at 6665-2 1/2 hrs. Ran DST #4 6635-65. Open 1 1/2 hrs with weak blow, died in 14 min. Rec: 25' water cut in 14 min. IFP 0, FFP 0, SIP/30 480. Shut in tool leaked. Pressure bled back to 200#. SLM-No correction. Mud: 9.8#, 80 sec, 6.1 cc, 2/32, 13,100 chloride. Added: 3 sacks Mylogel 25# preservative
	6620	6625	Anhydrite, white, crystalline, with limestone, brown-gray, dense, scattered pinpoint vuggy porosity, scattered brown to black O.S. Traces of free black oil in vugs and fractures.	
	6625	6635	Dolomite, buff, micro-sucrose, scattered poor porosity, spotty brown to black O.S.	
	6635	6638	Limestone, gray brown, dense to microcrystalline traces pinpoint vuggy porosity, scattered brown to black O.S., some dead O.S.	

CORRECT H. S. French EXPLOITATION ENGINEER APPROVED A. H. Curry SUPERINTENDENT

## WEEKLY DRILLING REPORT

Shell Oil Company (COMPANY)		LEASE	State	WELL	R-2
FROM 7/1 TO 7/7 19 54		DISTRICT	Springdale	ELEV.	4104
		COUNTY PARISH	Logan	STATE	Colorado
WELL DATA					
DATE	DEPTH		FORMATION (FROM SAMPLES)	REMARKS	
	FROM	TO			
7/6/54	6500	6515	<p align="center">BIG BLUE CONTINUED</p> <p>Dolomite, tan, sucrose to rhombic, poor to fair pinpoint, vuggy, and intercrystalline porosity, scattered traces light brown oil stain, traces dead oil, poor ECF and acid reaction.</p>		
7/7/54	6515	6520	Sand, white to light gray, fine to very fine grained, dolomitic, poor pinpoint porosity, NS.	<p>Circulated for samples 6520-1 hr, ran DST #2 6485-6520. Open 1½ hrs Weak blow decreased to very weak blow in 12 min. Died in 85 min. Rec 220 (1.9 bbls) water cut mid. IFP AND FFP 0. SIP/30 1975 MCP 3600 Mud: 9.8#, 69 sec, 6 cc 2/32, chloride 12,050. Added: 8 sacks Magcogel 16 sacks salt gel 4 sacks Mylogel</p>	
	6520	6530	Shale, gray, slightly dolomitic, with anhydrite white to gray, crystalline.		
	6530	6540	Dolomite, tan, micro-sucrose to rhombic, scattered poor intercrystalline porosity.		
	6540	6545	Shale, gray, very dolomitic.		
	6545	6557	Dolomite, brown, sucrose to rhombic, poor intercrystalline and scattered poor to fair vuggy porosity, good even brown OS, with interbedded dolomite and calcareous shale and shaley dolomite, black, scattered brown OS in fractures, very strong fetid odor, very good ECF, good acid reaction.		

CORRECT

M. S. French  
EXPLOITATION ENGINEER

APPROVED

A. H. Curry  
SUPERINTENDENT

## WEEKLY DRILLING REPORT

Shell Oil Company (COMPANY)		LEASE _____	State _____	WELL _____	B-2
FROM 7/1	TO 7/7	19 54	DISTRICT Springdale	ELEV. 4184	
			COUNTY Logan	STATE Colorado	
			PARISH _____		

## WELL DATA

DATE	DEPTH		FORMATION (FROM SAMPLES)	REMARKS
	FROM	TO		
			<u>CONTINUED</u>	
7/3/54			dense, argillaceous, tight.	
7/4/54	6165	6200	Anhydrite, pink to brown, dense to crystalline.	Bit #17 7 7/8 Hughes OWJ in at 6167. Circulated for samples 6230-1 hr, 6290, 1/2 hr. Mud: 9.6#, 53 sec, 30 cps, 24-24 gel, pH-8, 10 cc, 2/32, chloride 10,100, calcium heavy, sulfate-heavy. Added: 12 sacks Mylogel.
	6200	6220	Dolomite, tan, dense with inclusions of anhydrite.	
	6220	6260	Dolomite, tan, micro-sucrose to sucrose, scattered poor to fair pinpoint porosity, with inclusions of anhydrite.	
	6260	6310	Limestone, buff, dense to chalky, slightly dolomitic, with anhydrite inclusions.	
7/5/54	6310	6380	Dolomite, buff, micro-sucrose to rhombic, hard, tight, with inclusions of anhydrite.	Bit #18, 7 7/8 Hughes OWJ in at 6301. Checked BOP's. ok. Mud: 9.7#, 56 sec, 34 cps, 26-28 gel, pH-8, 7.2 cc, 2/32, chloride 11,300, calcium-heavy, sulfate-heavy. Added: 5 sacks Magcogel 16 sacks salt gel 12 sacks Mylogel 25# preservative
	6380	6400	Anhydrite, white to blue gray, with inclusions of dolomite.	
7/6/54	6400	6460	Shale, greengray, interbedded with anhydrite, white to brown, dolomitic.	Bit #19 7 7/8 Hughes OWJ in at 6402. Checked BOP's. ok. Circulated for sample 6510-1 hr. Mud: 9.7#, 54 sec, 29 cps, 26-29 gel, pH-8, 6 cc, 2/32, chloride 12,050, calcium heavy, sulfate-heavy. Added: 12 sacks Mylogel 25# preservative
	6460	6480	Anhydrite, white to brown dolomitic, tan, micro-sucrose, trace pinpoint vuggy porosity.	
	6480	6490	Dolomite, dense to micro-sucrose, with sand grains and thin brown shale partings, trace pinpoint porosity.	
	6490	6500	Dolomite, as above, scattered glauconite, trace O.S. in fractures.	

CORRECT

M. S. French  
EXPLOITATION ENGINEER

APPROVED

A. H. Curry  
SUPERINTENDENT

## WEEKLY DRILLING REPORT

Shell Oil Company (COMPANY)		LEASE	State	WELL	R-2
FROM 7/1 TO 7/7 19 54		DISTRICT	Springdale	ELEV.	4184
		COUNTY PARISH	Logan	STATE	Colorado
WELL DATA					
DATE	DEPTH		FORMATION (FROM SAMPLES)	REMARKS	
	FROM	TO			
7/1/54	5740	5760	Sand, white, coarse to medium grained, trace poor to fair porosity, N.S. anhydrite inclusions.	Bit #15, 7 7/8 Hughes OWJ in at 5820. Cut off drilling line. Mud: 9.5#, 54 sec, 32 cps, 24-28 gel, pH-8, 8.4 cc, chloride 6800, calcium-heavy, sulphate-heavy. Added: 8 sacks Mylogel 25# preservative.	
	5760	5790	Siltstone, salmon red, anhydrite.		
	5790	5810	Anhydrite, white and dolomite, cream, dense to microsugrosic, tight.		
	5810	5840	Shale, red, with varicolored anhydrite matting.		
7/2/54	5840	5910	Anhydrite, white to pink, with shale and siltstone, gray, dolomitic.	Mud: 9.5#, 54 sec, 35 cps, 24-29 gel, 8.4 cc, chloride 6,000, calcium-heavy. Added: 3 sacks Magcogel 7 sacks salt gel 12 sacks Mylogel 25# preservative	
	5910	5940	Shale, red and anhydrite, white with salt hoppers.		
	5940	5960	Anhydrite, white to pink, granular.		
	5960	6020	Sand, and siltstone, very fine grained, salmon-red, dolomitic bond with interbedded red shale.		
	6020	6032	Shale, cherry red, green matting, silty in places, with intercalated anhydrite.		
7/3/54	6032	6070	Shale, cherry red, green matting, silty in places, with intercalated anhydrite.	Bit #16 7 7/8 Hughes OWJ in at 6032. Mud: 9.7#, 58 sec, 34 cps, 26-29 gel, pH-8, 7.8 cc, chloride-8460, calcium-heavy, sulfate-heavy. Added: 4 sacks Magcogel 10 sacks salt gel 12 sacks Mylogel 25# preservative	
	6070	6120	Sand, silty to fine grained, with inclusions of anhydrite.		
	6120	6150	Shale, siltstone and sand, very fine grained, dolomitic, anhydrite inclusions.		
	6150	6160	Shale, blue green, dolomitic, interbedded with shale, red, anhydritic. SAMPLE TOP BIG BLUE 6160 (-1976)		
	6160	6165	Dolomite, gray-buff,		

CORRECT M. S. French  
EXPLOITATION ENGINEERAPPROVED A. H. Curry  
SUPERINTENDENT

## WEEKLY DRILLING REPORT

Shell Oil Company (COMPANY)		LEASE	State	WELL	R-2
FROM 6/24 TO 6/30 1954		DISTRICT	Springdale	ELEV.	4184
		COUNTY PARISH	Logan	STATE	Colorado
WELL DATA					
DATE	DEPTH		FORMATION (FROM SAMPLES)	REMARKS	
	FROM	TO			
6/29/54	5540	5550	Shale, green-gray, calcareous. Bit #13 7 7/8 Hughes OWJ in at 5603. Incl: 5500-1 <sup>o</sup> Sand, brown to pink iron stone, fine grained, tight, N.S. Sand, white, fine to coarse grained, scattered fair porosity, N.S. Limestone, tan to green, dense, with shale, green calcareous. Shale, green, waxy, calcareous. Limestone, tan to gray, dense to marly with shale, as above.	Mud: 9.3#, 55 sec, and Added: 12 sacks Magcogel 24 sacks salt gel 20 sacks Mylogel 25# preservative	
	5550	5560			
	5560	5570			
	5570	5610			
	5610	5630			
6/30/54	5630	5650	Limestone, gray, oolitic, sandy, with black chert, silicious in part, with intercalated green shale. Shale, variegated, red, olive green, silty, waxy. Limestone, gray-brown, argillaceous. Shale, pale green, with shale purple, calcareous, <u>SAMPLE TOP PERMIAN</u> 5715 (-1531) Sand, white, fine to medium grained, calcareous bond with red chert grains and white anhydrite inclusions.	Bit #14 7 7/8 Hughes OWJ in at 5704. Mud: 9#, 54 sec, 33 cps, 22-28 gel, 7.6 cc, calcium heavy. Added: 8 sacks Mylogel 25# preservative	
	5650	5670			
	5670	5690			
	5690	5700			
	5700	5715			
	5715	5740			

CORRECT

M. S. French  
EXPLOITATION ENGINEER

APPROVED

A. H. Curry  
SUPERINTENDENT

## WEEKLY DRILLING REPORT

Shell Oil Company (COMPANY)		LEASE _____	State _____	WELL B-2
FROM 6/24 TO 6/30 19 _____		DISTRICT Springdale	ELEV. 4184	
		COUNTY PARISH Logan	STATE Colorado	

## WELL DATA

DATE	DEPTH		FORMATION (FROM SAMPLES)	REMARKS
	FROM	TO		
			<u>CONTINUED</u>	
6/27/54	5329	5341	Sand, v. fine grained, white, very glauconitic, hard, silicious bond, tight, N. S. w/streaks shale, gray. SAMPLE TOP MORRISON	Greenhorn 4531 (-347) Marker Bed 4676 (-492) Muddy 4768 (-584) Dakota 4868 (-684) Lakota 5153 (-969) Morrison 5346 (-1162)
	5341	5366	5341 (-967) Interbedded shale, limestone and sand, shale gray, and blue green, LS, tan, dense to very finely crystalline, sand, white, glassy, hard, trace pinpoint porosity, N. S.	Mud: 9.7#, 61 sec, 42 cps, 1-10 gel, pH 9, 6.8 cc, and Added: 37 sacks Magcogel 50# Alkatan 15# Magcophos
	5366	5369	Sand, white with red bonding material, loosely friable, N.S.	
	5369	5376	Limestone, tan, very sandy, dense, dolomitic,	
	5376	5388	Sand, greenish-white, glauconitic, clay bond, tight, N.S.	
	5388	5394	Shale, black, with streaks limestone as 5369-76.	
	5394	5400	Sand, white, fine grained, friable, trace visible porosity, N.S.	
	5400	5405	Shale, black.	
6/28/54	5405	5425	Sand, white, fine grained, glauconitic, calcareous bond, poor to fair porosity, N.S. with streaks of shale, black.	Bit #11 7 7/8 Hughes OhJ in at 5403. Started converting mud. Bit #12 7 7/8 Hughes OhJ in at 5495. Mud: 8.9#, 47 sec, 31 cps, 23-27 gel, 8.4 cc, calcium saturated.
	5425	5445	Sand, buff, very fine to coarse grained, trace pinpoint porosity, N.S. Grades to very sandy dolomite.	Added: 7 sacks Magcogel 69 sacks Mylogel 33 sacks Gypsum 400# preservative
	5445	5540	Sand, white, fine to coarse grained, fair to good porosity, N.S. with streaks of shale, green waxy and black.	13 sacks salt gel.

CORRECT

M. S. French  
EXPLOITATION ENGINEER

APPROVED

A. H. Curry  
SUPERINTENDENT

## WEEKLY DRILLING REPORT

Shell Oil Company (COMPANY)		LEASE	State	WELL	B-2
FROM 6/24 TO 6/30 19		DISTRICT	Springdale	ELEV.	4184
		COUNTY PARISH	Logan	STATE	Colorado

## WELL DATA

DATE	DEPTH		FORMATION (FROM SAMPLES)	REMARKS
	FROM	TO		
6/26/54			<u>CONTINUED</u>	
	5201	5215	porosity, N. S. Sand, gray-white, fine grained, silicious bond in part, glauconitic, tight, N.S. with streaks siltstone, gray, silicious.	
	5215	5222	Sand, white, fine grained glauconitic, clay bonded in part, trace pinpoint porosity, N.S.	
	5222	5237	Shale, gray-black with streaks siltstone and sand, white-gray, tight to trace pinpoint porosity, N.S.	
	5237	5242	Sand, white, very fine-fine grained, clay bonded in part, trace to fair visible porosity, dead OS, dull reddish SF, faint ECF.	
	5242	5266	Shale, gray-black, siltstone, gray, silicious and sand, fine grained, white-gray, friable in part, tight to trace visible porosity, N.S.	
	5266	5270	Sand, fine grained, white, glauconitic, glassy, silicious bond in part, trace pinpoint porosity, N.S.	
	5270	5281	Shale, gray-black, sandy, bentonitic.	
	5281	5289	Sand, white, fine grained, clay bonded, tight, N. S.	
	5289	5293	Shale, gray-black sandy, bentonitic.	
6/27/54	5293	5307	Sand, white, fine grained, friable to hard, silicious bond, trace pinpoint porosity, N.S.	Bit #10 7 7/8 Hughes OWJ in at 5318. Circulated for samples at 5403-3/4 hr. Ran Schlumberger IB and microlog. Schlumberger Tops: Niobrara 3947 (-237) Base Codell 4361 (-177)
	5307	5329	Shale, gray black, siltstone, gray and sand as above.	

CORRECT

M. S. French  
EXPLOITATION ENGINEER

APPROVED

A. H. Curry  
SUPERINTENDENT

## WEEKLY DRILLING REPORT

Shell Oil Company (COMPANY)		LEASE	State	WELL	B-2
FROM	6/24	TO	6/30	19	54
		DISTRICT	Springdale	ELEV.	4184
		COUNTY PARISH	Logan	STATE	Colorado

## WELL DATA

DATE	DEPTH		FORMATION (FROM SAMPLES)	REMARKS
	FROM	TO		
6/24/54	4894 4970	4970 5020	Sand ?? Shale, gray-black with streaks of sand, gray, fine grained, glauconitic, hard, silicious bond, tight, N.S.	Changed drilling line, 1½ hrs. Bit #6 7 7/8 Hughes OWJ in at 4894. Bit #7 7 7/8 Hughes OWJ in at 4973. Mud: 9.8#, 209 sec, 105 cps, 2-22 gel, pH 9.0, 7.6 cc. Added: 55 sacks Magcogel 100# Alkatan 5 sacks Gel Flakes 4 sacks Floseal 2 sacks Mud Fiber
6/25/54	5020 5110	5110 5144	Shale, gray, black-tan with streaks siltstone, gray, hard, silicious, and sand, as above. Shale, gray-black, sandy with streaks siltstone and sand as above.	Bit #8 7 7/8 Hughes OWJ in at 5087. Incl: 5025-1½°. Circulated for samples at 5135-½ hr. Mud: 9.7#, 51 sec, Added: 9 sacks gel 150# Alkatan 45# Magcophos
6/26/54	5144 5151 5151 5159 5159 5163 5163 5180 5186 5186	5151 5159 5159 5163 5180 5186 5201	Siltstone, gray, hard, tite. SAMPLE TOP LAKOTA 5151 (-967) Sand, white-gray, medium grained, clay bonded in part, glauconitic, carbonaceous specks, tight to trace pinpoint porosity, N.S. Sand, light brown, very fine grained, hard, silicious bond in part, tight N.S. Sand, white, fine grained clean, carbonaceous specks, tight to trace pinpoint porosity, N.S. Siltstone, hard, silicious, with streaks sand, gray, very fine grained, silicious bond, tight, N.S. Sand, very fine-fine grained, gray-white, glauconitic, slightly friable, trace pinpoint	Bit #9 7 7/8 Hughes OWJ in at 5224. Circulated for samples at 5224-½ hr. Mud: 9.6#, 69 sec, 51 cps, 1-9 gel, 6.8 cc. Added: 32 sacks gel 100# Alkatan 30# Magcophos 1 sack Gel Flakes 1 sack Mud Fiber

CORRECT M. S. French  
EXPLOITATION ENGINEERAPPROVED A. H. Curry  
SUPERINTENDENT

*Sterling*

WEEKLY DRILLING REPORT

Shell Oil Company (COMPANY) State "B" LEASE Springdale Field WELL 4184 KB DISTRICT Logan COUNTY PARISH STATE COLORADO  
 FROM 6/17 TO 6/23 19 54 FLEV. Colorado

WELL DATA

DATE	DEPTH		FORMATION (FROM SAMPLES)	REMARKS
	FROM	TO		
			<u>CONTINUED</u>	
6/23/54	4892	4894	Sand, white, fine to medium grained, clay bonded, visible porosity in part, scattered sample fluorescence, fair ether cut fluorescence.	Ran DST #1 4869-4894 Johnson testers. 2 packers open 14 minutes. Shut in 30 minutes. Strong blow, immediately gas to surface in 2 minutes flowed at a measured rate of 4200 MCF/d Recovered 30' oily, gasy, muddy water IFP 1240 FFP 1250 SIP (30 min) 1265 Stabilized HP 2580 Bottom choke 3/4" 3/4" chicken openings at top. Mud mixed: Alkatan 50# Gel 15 sacks Mud properties at 4880 Weight 9.8 Gel Strength 0 Viscosity 98 10 min 7 CPS 62 Water Loss 7.6 PH 9.5 Cake 2/32

CORRECT D. J. Lee  
 EXPLOSION ENGINEER

APPROVED A. H. Curry  
 SUPERINTENDENT

*Stuling*

WEEKLY DRILLING REPORT

Shell Oil Company <small>(COMPANY)</small>		LEASE <u>State "B"</u>	WELL <u>2</u>
FROM <u>6/17</u> TO <u>6/23</u> 19 <u>54</u>		DISTRICT <u>Springdale Field</u>	ELEV. <u>4184 KB</u>
		COUNTY <u>Logan</u>	STATE <u>Colorado</u>
		PARISH	

WELL DATA

DATE	DEPTH		FORMATION (FROM SAMPLES)	REMARKS
	FROM	TO		
			<u>CONTINUED</u>	
6/22/54	4785	4790	hard, clay bonded, trace pinpoint porosity, fair sample fluorescence, faint ether cut fluorescence.	Bit #4 7 7/8" HFC OWJ in at 4797.
	4790	4796	Sand, gray, fine-grained hard, clay bonded, pinpoint porosity, fair sample fluorescence and faint ether cut fluorescence.	
	4796	4868	Shale and siltstone <u>SAMPLE TOP DAKOTA</u> 4868 (-684)	
	4868	4871	Sand, light gray, fine to medium grained, dirty, clay bonded, slightly friable, tight, no visible porosity, no show.	
	4871	4875	Sand, white, medium grained, clean, friable, good visible porosity, no sample fluorescence, very faint ether cut fluorescence.	
	4875	4878	Sand, white, fine to medium grained, clay bonded, tight, no visible porosity, no sample fluorescence and faint ether cut fluorescence.	
	4878	4889	Sand, white, medium grained, clean, friable to hard, no sample fluorescence, faint ether cut fluorescence, fair visible porosity.	
	4889	4892	Sand, white, medium grained, friable, clean to slightly clay bonded good visible porosity, good sample fluorescence and ether cut fluorescence, light oil stain	

CORRECT D. I. Lee  
EXPLOITATION ENGINEER

APPROVED A. H. Curry  
SUPERINTENDENT

*Sterling 8*

WEEKLY DRILLING REPORT

<u>Shell Oil Company</u> <small>(COMPANY)</small>	LEASE <u>State</u> <u>NRW</u>	WELL <u>2</u>
FROM <u>6/17</u> TO <u>6/23</u> 19 <u>54</u>	DISTRICT <u>Springdale field</u>	ELEV. <u>4184</u> KB
	COUNTY <u>Logan</u>	STATE <u>Colorado</u>
	PARISH	

WELL DATA

DATE	DEPTH		FORMATION (FROM SAMPLES)	REMARKS
	FROM	TO		
			<u>CONTINUED</u>	
6/22/54			<u>SAMPLE TOP MUDDY</u>	
	4767	4770	4767 (-583) Sand, white, medium grained, friable, hard, clay bonded, dirty pinpoint porosity, scattered sample fluorescence, fair ether cut fluorescence.	
	4770	4773	Sand, white, medium grained, friable, clean to clay bonded, visible porosity in part, light oil, fair sample fluorescences and ether cut fluorescence.	
	4773	4777	Sand and shale, sand, light tan to white, medium grained, clean to clay bonded, none to fair visible porosity, light oil stain, good sample fluorescence and ether cut fluorescence.	
	4777	4778	Shale	Mud mixed:
	4778	4780	Shale	Alkatan 50#
	4780	4782	Sand, light gray, very fine grained, hard clay bonded, dirty, no visible porosity, no visible oil stain, good sample fluorescence and ether cut fluorescence.	Gel 68 sacks
	4782	4785	Sand, light gray, very fine grained, hard clay bonded, dirty, no visible porosity, scattered sample fluorescence and fair ether cut fluorescence.	
	4785	4790	Sand and shale, light gray, fine grained,	

CORRECT D. I. Lee  
EXPLOITATION ENGINEER

APPROVED A. H. Curry  
SUPERINTENDENT

*Sterling*

WEEKLY DRILLING REPORT

Shell Oil Company (COMPANY) LEASE State "B" WELL B 2  
 DISTRICT Springdale Field ELEV. KB 4184  
 FROM 6/17 TO 6/23 1954 COUNTY Logan STATE Colorado  
 PARISH

WELL DATA

DATE	DEPTH		FORMATION (FROM SAMPLES)	REMARKS
	FROM	TO		
6/18/54	0	595	Surface hole	Shell Oil Co. State "B" 2 Springdale Field Location: 2003' SL 2013 EL SE/4 Section 16-8N-53W Logan County, Colorado PDU #17 Production Granite Test Elevation: KB 4814  Rigging up. Spudded 2:00 p.m. 6-18-54. Drilled 11" surface hole to 595'. Ran and cemented 8 5/8" 28# surface pipe set at 579' with 275 sacks of regular cement plus 5% Jel W.O.C.
6/19/54	595	1978	Shale	Bit #1 7 7/8" HTC OSC 3J in at 595'. W. O. C. Deflection survey at 1500' - 1/2° Mud mixed: Alkatan 100# Hexameto 50#
6/20/54	1978	3582	Shale	Deflection surveys at 2000- 3/4° 3276- 3/4° 2500- 1/2° 3350- 3/4° 3000- 1 3/4° Mud mixed: Alkatan 125# Hexameto 50#
6/21/54	3582	4443	Shale and sand	Bit #2 7 7/8" HTC OSC 3J in at 3582. Deflection survey at 3700- 3/4° Mud mixed: Magcophos 25# Alkatan 100# Gel 37 sacks Mud properties at 4172 Weight 9.0 Gel Strength 0 Viscosity 29 10 min 0 CPS 7 Water Loss 16.6 PH 9 Cake 3/32
6/22/54	4443	4767	Shale and lime	Bit #4 7 7/8" HTC OSCJ in at 4509. Deflection survey at 4500- 3/4°

CORRECT D. I. Lee  
EXPLOITATION ENGINEER

APPROVED A. H. Curry  
SUPERINTENDENT

## WEEKLY DRILLING REPORT

<u>Shell Oil Company</u> (COMPANY)		LEASE <u>State of Colo "B"</u>	WELL <u>Unit #2</u>
FROM <u>7/29</u> TO <u>8/4</u> 19 <u>54</u>		DISTRICT <u>Springdale</u>	ELEV. <u>4184</u>
		COUNTY <u>Logan</u>	STATE <u>Colorado</u>

## WELL DATA

DATE	DEPTH		FORMATION (FROM SAMPLES)	REMARKS
	FROM	TO		
7/29/54	PBTD	4897	Float	Displaced water with oil. Pulled tubing and rigged up McCullough to perforate. Checked collars 2' high. Corrected to engineers collar at 4867 and perforated 4870-82 w/4 bullets/ft. Ran tubing to 4886. Rigged up and started swabbing load oil.
7/30/54	PBTD	4897	Float	Moved out rotary rig. Flowed for 1 hr through 18/64" choke at daily rate of 1300 MCF/D. FTP 625, CP 725 (During first half hour, recovered 20 BLO; last half hour flowed dry gas. Load oil to recover: 32 bbls.) After 15 min, SITP 1200, SICP 1250.  <u>COMPLETED AS SHUT IN GAS WELL</u>

CORRECT H. S. French  
EXPLOITATION ENGINEERAPPROVED A. H. Currey  
SUPERINTENDENT