

J-18-69 Letter to Deepen well  
to 11,900' (Mississippian)

12-25-69 Notified P.W.B. to plug back  
to original depth & pipe.

FILE NOTATIONS

Entered in NID File	_____	Checked by Chief	_____
Entered On S R Sheet	_____	Copy NID to Field Office	_____
Location Map Pinned	_____	Approval Letter	_____
Card Indexed	<u>  /  </u>	Disapproval Letter	_____
IWR for State or Fee Land	_____		

COMPLETION DATA:

Date Well Completed	<u>  7-2347  </u>	Location Inspected	_____	
OW _____	WW _____	TA _____	Bond released	_____
GW <u>  /  </u>	OS _____	PA _____	State of Fee Land	_____

LOGS FILED

Driller's Log	<u>  /  </u>					
Electric Logs (No. )	<u>  /  </u>					
E <u>  /  </u>	I _____	E-I _____	GR _____	GR-N _____	Micro _____	
Lat _____	Mi-L _____	Sonic _____	Others _____			

(SUBMIT IN TRIPLICATE)

Land Office .....

Lease No. ....

Unit .....

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL.....	SUBSEQUENT REPORT OF WATER SHUT-OFF.....
NOTICE OF INTENTION TO CHANGE PLANS.....	SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING.....
NOTICE OF INTENTION TO TEST WATER SHUT-OFF.....	SUBSEQUENT REPORT OF ALTERING CASING.....
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL.....	SUBSEQUENT REPORT OF REDRILLING OR REPAIR.....
NOTICE OF INTENTION TO SHOOT OR ACIDIZE.....	SUBSEQUENT REPORT OF ABANDONMENT.....
NOTICE OF INTENTION TO PULL OR ALTER CASING.....	SUPPLEMENTARY WELL HISTORY.....
NOTICE OF INTENTION TO ABANDON WELL.....	

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

Well No. \_\_\_\_\_ is located \_\_\_\_\_ ft. from  $\left\{ \begin{matrix} N \\ S \end{matrix} \right\}$  line and \_\_\_\_\_ ft. from  $\left\{ \begin{matrix} E \\ W \end{matrix} \right\}$  line of sec. \_\_\_\_\_, 19\_\_\_\_

\_\_\_\_\_ (4 Sec. and Sec. No.) \_\_\_\_\_ (Twp.) \_\_\_\_\_ (Range) \_\_\_\_\_ (Meridian)  
 \_\_\_\_\_ (Field) \_\_\_\_\_ (County or Subdivision) \_\_\_\_\_ (State or Territory)

The elevation of the derrick floor above sea level is \_\_\_\_\_ ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

We would like permission to drill this well to an approximate depth of 13,000'. We would run and cement to the surface 3,000' of 13 3/8" casing, and if production is encountered in the Weber sand, we would then run and cement a string of 6 5/8" casing, using sufficient cement to protect all known productive horizons. We expect to encounter the Weber sand at approximately 9,000'.

N.B. The name of the well has been changed from the W. H. Murphy Weber Well #1 to W. H. Murphy Well #6-W. Because of surface topography, the location above has been placed rather low. The tentative location in the 2007 Sec. 29, as stated in copy in our letter of May 23, 1946.

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company Mountain States Lumber Company

Address Box 1139, Fort Collins, Colorado

By W. E. Suedenborg

Approved: June 20, 1946  
W. E. Suedenborg, District Engineer

Title \_\_\_\_\_

101 E. G. Suedenborg, District Engineer

(SUBMIT IN TRIPPLICATE)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

Land Office \_\_\_\_\_

Lease No. \_\_\_\_\_

Unit \_\_\_\_\_

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL.....	SUBSEQUENT REPORT OF WATER SHUT-OFF.....
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NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL.....	SUBSEQUENT REPORT OF REDRILLING OR REPAIR.....
NOTICE OF INTENTION TO SHOOT OR ACIDIZE.....	SUBSEQUENT REPORT OF ABANDONMENT.....
NOTICE OF INTENTION TO PULL OR ALTER CASING.....	SUPPLEMENTARY WELL HISTORY.....
NOTICE OF INTENTION TO ABANDON WELL.....	

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

R. D. Murphy Well #6-W June 17, 1946, 19

Well No. 6-W is located 127 ft. from N line and 1410 ft. from W line of sec. 22

30 N 22 (1/4 Sec. and Sec. No.) W (Twp.) 10 (Range) S 22 W (Meridian)  
Clark Basin (Field) W (County or Subdivision) Wyo (State or Territory)

The elevation of the derrick floor above sea level is 6000 ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

We would like permission to drill this well to an approximate depth of 11,000'. We would set and cement to the surface 1,000' of 13 3/8" 61# casing and if production is encountered in the Weber sand, we would then run and cement a string of 6 5/8" OD casing, using sufficient cement to protect all known productive horizons. We expect to encounter the Weber sand at approximately 9,500'.

N.B. The name of the well has been changed from the R. D. Murphy Water Well #1 to R. D. Murphy Well #6-W. Because of surface topography, the location above has been chosen rather than the tentative location in the NW 1/4 Sec. 22, as stated further in our letter of May 29, 1946.

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company Mountain Fuel Supply Company

Address P. O. Box 1129  
Rock Springs, Wyoming

By [Signature]

Title Vice-President

Approved June 20, 1946  
[Signature]  
District Engineer

(SUBMIT IN TRIPLICATE)

Land Office Clay Basin

Lease No. 41951

Unit Clay Basin

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SUNDRY NOTICES AND REPORTS ON WELLS

*Approved  
Oct. 27, 1946  
F. A. Sweeney  
Dist. Engr.*

NOTICE OF INTENTION TO DRILL.....	SUBSEQUENT REPORT OF WATER SHUT-OFF.....
NOTICE OF INTENTION TO CHANGE PLANS.....	SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING.....
NOTICE OF INTENTION TO TEST WATER SHUT-OFF.....	SUBSEQUENT REPORT OF ALTERING CASING.....
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL.....	SUBSEQUENT REPORT OF REDRILLING OR REPAIR.....
NOTICE OF INTENTION TO SHOOT OR ACIDIZE.....	SUBSEQUENT REPORT OF ABANDONMENT.....
NOTICE OF INTENTION TO PULL OR ALTER CASING.....	SUPPLEMENTARY WELL HISTORY.....
NOTICE OF INTENTION TO ABANDON WELL.....	

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

R. D. Murray 6-27 October 21, 1946, 1946

Well No. 6-27 is located 2513 ft. from [N] line and 500 ft. from [E] line of sec. 22

41951 2135 2135 P. M.  
(4 Sec. and Sec. No.) (Twp.) (Range) (Meridian)  
Clay Basin Monte Monte  
(Field) (County or Subdivision) (State or Territory)

The elevation of the derrick floor above sea level is 657 ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

Run 33 joints of 13 3/8" IS, 5105 and 614 casing, measuring 979.88' net, landed at 924.75', 14.87' below top of the belly bushings. Cemented with 610 sacks of M. Lith and Ideal cement (regular). Cement returns were obtained when the plug was at 611'; bumped plug at 979'. The first 4 joints were welded solid above and below the collars, the next 6 joints were spot welded. A Baker gate shoe was run on the bottom and a Halliburton float collar was on top of the first joint, and were also welded. Cementing was done by Halliburton Oil Well Cementing Company. The cement will be allowed to set 48 hours, after which time a pressure test will be made on the casing.

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company Mountain Fuel Supply Company  
Address P. O. Box 3129  
Rock Springs,  
Wyoming  
By [Signature]  
Title Vice-President

(SUBMIT IN TRIPLICATE)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

Land Office \_\_\_\_\_  
Lease No. \_\_\_\_\_  
Unit \_\_\_\_\_

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL.....	SUBSEQUENT REPORT OF WATER SHUT-OFF.....
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NOTICE OF INTENTION TO SHOOT OR ACIDIZE.....	SUBSEQUENT REPORT OF ABANDONMENT.....
NOTICE OF INTENTION TO PULL OR ALTER CASING.....	SUPPLEMENTARY WELL HISTORY.....
NOTICE OF INTENTION TO ABANDON WELL.....	

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

8. J. Murphy & W. \_\_\_\_\_, 19\_\_\_\_

Well No. \_\_\_\_\_ is located \_\_\_\_\_ ft. from  $\left\{ \begin{matrix} N \\ S \end{matrix} \right\}$  line and \_\_\_\_\_ ft. from  $\left\{ \begin{matrix} E \\ W \end{matrix} \right\}$  line of sec. \_\_\_\_\_

\_\_\_\_\_ (4 Sec. and Sec. No.) \_\_\_\_\_ (Twp.) \_\_\_\_\_ (Range) \_\_\_\_\_ (Meridian)  
 \_\_\_\_\_ (Field) \_\_\_\_\_ (County or Subdivision) \_\_\_\_\_ (State or Territory)

The elevation of the derrick floor above sea level is \_\_\_\_\_ ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudging jobs, cementing points, and all other important proposed work)

(SEE ATTACHED DRAWING)

*Approved.  
E.A. Suedenberg  
November 6, 1946*

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company Mountain Fuel Supply Company  
 Address P. O. Box 110  
Rock Springs,  
Wyoming  
 By *[Signature]*  
 Title \_\_\_\_\_

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State Utah FEDERAL & LABORATORY REPORT County Garrott

Well R. D. NEWMAN Sec. 22 T. 3N R. 24W

Field Clay Basin Stratigraphic Position of Sand Dakota Sand, Upper Cretaceous

Depth of Well to Sand 5340 Sand Thickness 115 Rook Pressure 1365

Date Well Completed 7-10-17 Daily capacity of Well 5000 LBS Of Field

Date of Sampling Sample Cylinder No. Pressure in Cylinder

Sample Taken by J. L. Liscock Address

Well Owned by Mountain Fuel Supply Company

Address 102 1122 Rock Springs Wyoming

Lab. Sample No. 4351 Date Analyzed 9-24-17 He. Anal. by Greathouse

Orsat Anal. by Greathouse Fract. Dist. by

Orsat Anal.	CO <sub>2</sub>	O <sub>2</sub>	CH <sub>4</sub>	C <sub>2</sub> H <sub>6</sub>	N <sub>2</sub> & He.	Total	He. Anal.
	3.1	5.1	85.7%	12.2%	1.3%	100.0%	.030%

Fract. Dist.	CO <sub>2</sub>	O <sub>2</sub>	CH <sub>4</sub>	C <sub>2</sub> H <sub>6</sub>	C <sub>3</sub> H <sub>8</sub>	C <sub>4</sub> H <sub>10</sub> +	N <sub>2</sub> & He.	Total

Remarks:

R. D. Murphy 6-W  
Sec. 22, 3 N., E. 24 E.  
Daggett County, Utah

October 26, 1946:

Placed 1900# pressure on 13 3/8" casing (see our Notice dated 10/21/46 for running and cementing) and casing failed. Pumped Halliburton plug down and found pipe failure at 651'; squeezed 100 sacks of cement leaving 25 sacks in pipe. Will put pressure test on casing after 72 hours.

October 29, 1946:

Found top of cement at 620', drilled out of cement at 665'. Placed 900# pressure on the casing and found that it would take fluid at this pressure. Casing was shut in at 900# pressure and after standing for 5 minutes pressure had dropped to 550#; at the end of 30 minutes pressure dropped to 400#; at the end of 40 minutes pressure dropped to 350#. We are of the opinion that this will give us sufficient protection to drill through the Dakota formation; we would then run a string of 9 5/8" casing using sufficient cement to protect all known producing horizons. This is in agreement with our Mr. D. K. Bowen's conversation with Mr. E. A. Swendenborg, 10/29/46.

(SUBMIT IN TRIPLICATE)

Land Office Salt Lake  
Lease No. 045051  
Unit Clay Basin

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL.....	SUBSEQUENT REPORT OF WATER SHUT-OFF.....
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NOTICE OF INTENTION TO SHOOT OR ACIDIZE.....	SUBSEQUENT REPORT OF ABANDONMENT.....
NOTICE OF INTENTION TO PULL OR ALTER CASING.....	SUPPLEMENTARY WELL HISTORY.....
NOTICE OF INTENTION TO ABANDON WELL.....	
NOTICE OF RUNNING & CEMENTING 9 5/8" CASING	

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

R. D. Murphy 6-W January 12 & 13, 1947, 19

Well No. 6-W is located 1575 ft. from N line and 1540 ft. from W line of sec. 22  
SE NW 22 3 N. 24 E. S.L.M.  
(1/4 Sec. and Sec. No.) (Twp.) (Range) (Meridian)  
Clay Basin Daggett Utah  
(Field) (County or Subdivision) (State or Territory)

The elevation of the ~~driveway~~ <sup>ground</sup> floor above sea level is 6507 ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

Ran and cemented 9 5/8" casing as follows:

1 - Halliburton guide shoe	1.98' net	2.29 gross	
1 - Halliburton float collar	1.73' "	2.14 "	
36 jts. 40# LT&C N-80 casing	1131.92' "	1146.50 "	
37 jts. 40# LT&C J-55 casing	1187.92' "	1200.41 "	
116 jts. 36# ST&C J-55 casing	3542.41' "	3562.32 "	
189 jts.	5862.25' "	5921.84 "	landed at 5875.42';

13.17' below top of Kelly bushings in a Shaffer spool type casing head. Halliburton guide shoe and float collar were run on the bottom and top of first joint, and were spot welded as were the next six joints of casing above and below the collars. Cemented with 400 sax of Monolith Ideal regular cement. One rubber and one wood top plug were run to displace the cement. Bumped plugs at 1050# pressure, and a maximum pressure of 750# was reached while displacing cement. The cementing was done by Halliburton. Cement will be allowed to set for 48 hours.

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company Mountain Fuel Supply Company  
 Address P. O. Box 1129  
Rock Springs,  
Wyoming  
 By [Signature]  
 Title Vice-President

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

Budget Bureau No. 42-R366.1  
Approval expires 3-31-47.

LAND OFFICE Salt Lake City  
LEASE NUMBER 045051-A  
UNIT Clay Basin

**LESSEE'S MONTHLY REPORT OF OPERATIONS**

State Utah County DeWitt Field Clay Basin

The following is a correct report of operations and production (including drilling and producing wells) for the month of October, 1946

Agent's address P. O. Box 1129 Company Mountain Fuel Supply Company

Rock Springs, Wyoming Signed W. L. Williams  
Phone \_\_\_\_\_ Agent's title Office Manager

SEC. AND 1/4 OF 1/4	TWP.	RANGE	WELL NO.	DAYS PRODUCED	BARRELS OF OIL	GRAVITY	CU. FT. OF GAS (in thousands)	GALLONS OF GASOLINE RECOVERED	BARRELS OF WATER (if none, so state)	REMARKS (If drilling, depth; if shut down, cause; date and result of test for gasoline content of gas)
SE NW 22	3N	24E	6-W		October 31,		1946			Drilling: 1116' Location: 1575'FWL 1540'FWL

NOTE.—There were \_\_\_\_\_ runs or sales of oil; \_\_\_\_\_ M. cu. ft. of gas sold;

\_\_\_\_\_ runs or sales of gasoline during the month. (Write "no" where applicable.)

NOTE.—Report on this form is required for each calendar month, regardless of the status of operations, and must be filed in duplicate with the supervisor by the 6th of the succeeding month, unless otherwise directed by the supervisor.

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

Budget Bureau No. 42-R356.1  
Approval expires 3-31-47.

LAND OFFICE Salt Lake City  
LEASE NUMBER 0-5051-A  
UNIT Clay Basin

**LESSEE'S MONTHLY REPORT OF OPERATIONS**

State Utah County DeWette Field Clay Basin

The following is a correct report of operations and production (including drilling and producing wells) for the month of November, 1946.

Agent's address P. O. Box 1199 Company Mount. In Fuel Supply Company

Rock Springs, Wyoming Signed [Signature]

Phone \_\_\_\_\_ Agent's title W. L. Williams Office Manager

SEC. AND ¼ OF ¼	TWP.	RANGE	WELL NO.	DAYS PRODUCED	BARRELS OF OIL	GRAVITY	CU. FT. OF GAS (In thousands)	GALLONS OF GASOLINE RECOVERED	BARRELS OF WATER (If none, so state)	REMARKS (If drilling, depth; if shut down, cause; date and result of test for gasoline content of gas)
SE ¼ 22	3N	24E	6-W		(November 30, 1946)					Drilling: 4253'

NOTE.—There were \_\_\_\_\_ runs or sales of oil; \_\_\_\_\_ M. cu. ft. of gas sold;  
\_\_\_\_\_ runs or sales of gasoline during the month. (Write "no" where applicable.)

NOTE.—Report on this form is required for each calendar month, regardless of the status of operations, and must be filed in duplicate with the supervisor by the 6th of the succeeding month, unless otherwise directed by the supervisor.

BEST COPY  
AVAILABLE  
UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

Budget Bureau No. 42-1336.1  
Approval expires 3-31-47.

LAND OFFICE Salt Lake City  
LEASE NUMBER 045031-A  
UNIT Clay Basin

## LESSEE'S MONTHLY REPORT OF OPERATIONS

State Utah County Daggett Field Clay Basin

The following is a correct report of operations and production (including drilling and producing wells) for the month of December 31, 1946,

Agent's address P. O. Box 1129 Company Mountain Fuel Supply Company  
Rock Springs, Wyoming Signed [Signature]

Phone \_\_\_\_\_ Agent's title Office Manager

SEC. AND ¼ OF ¼	TWP.	RANGE	WELL NO.	DAYS PRODUCED	BARRELS OF OIL	GRAVITY	CU. FT. OF GAS (In thousands)	GALLONS OF GASOLINE RECOVERED	BARRELS OF WATER (If none, so state)	REMARKS (If drilling, depth; if shut down, cause; date and result of test for gasoline content of gas)
SE NW 22	3N	24E	6-W		December 31, 1946					Drilling: 5498'

NOTE.—There were \_\_\_\_\_ runs or sales of oil; \_\_\_\_\_ M. cu. ft. of gas sold;

\_\_\_\_\_ runs or sales of gasoline during the month. (Write "no" where applicable.)

NOTE.—Report on this form is required for each calendar month, regardless of the status of operations, and must be filed in duplicate with the supervisor by the 6th of the succeeding month, unless otherwise directed by the supervisor.

(SUBMIT IN TRIPLICATE)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

Land Office Salt Lake  
Lease No. 045051  
Unit Clay Basin

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL.....	SUBSEQUENT REPORT OF WATER SHUT-OFF.....
NOTICE OF INTENTION TO CHANGE PLANS.....	SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING.....
NOTICE OF INTENTION TO TEST WATER SHUT-OFF.....	SUBSEQUENT REPORT OF ALTERING CASING.....
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL.....	SUBSEQUENT REPORT OF REDRILLING OR REPAIR.....
NOTICE OF INTENTION TO SHOOT OR ACIDIZE.....	SUBSEQUENT REPORT OF ABANDONMENT.....
NOTICE OF INTENTION TO PULL OR ALTER CASING.....	SUPPLEMENTARY WELL HISTORY.....
NOTICE OF INTENTION TO ABANDON WELL.....	
NOTICE OF PRESSURE TEST ON 9 5/8" CASING	

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

R. D. Murphy 6-W ..... January 17, 1947, 19.....

Well No. 6-W is located 1575 ft. from N line and 1540 ft. from W line of sec. 22

SE NW 22                      3 N.              24 E.                      S.I.M.  
(1/4 Sec. and Sec. No.)              (Twp.)              (Range)                      (Meridian)  
Clay Basin                      Daggett                      Utah  
(Field)                      (County or Subdivision)                      (State or Territory)

The elevation of the <sup>ground</sup> surface above sea level is 6507 ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

Placed 2200# pressure on 9 5/8" casing for 30 minutes.

Held OK.

*off. Jan 23, 1947  
C. D. Swadlow*

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company Mountain Fuel Supply Company

Address P. O. Box 1129

Rock Springs,  
Wyoming

By [Signature]  
Title Vice-President

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(SUBMIT IN TRIPPLICATE)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

Land Office Salt Lake  
Lease No. 045051  
Unit Clay Basin

SUNDRY NOTICES AND REPORTS ON WELLS

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NOTICE OF INTENTION TO SHOOT OR ACIDIZE.....	SUBSEQUENT REPORT OF ABANDONMENT.....
NOTICE OF INTENTION TO PULL OR ALTER CASING.....	SUPPLEMENTARY WELL HISTORY.....
NOTICE OF INTENTION TO ABANDON WELL.....	
NOTICE OF CASING SHUT-OFF TEST.....	

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

R.D. Murphy 6-W \_\_\_\_\_ January 18, 1947, 19\_\_

Well No. 6-W is located 1575 ft. from N line and 1540 ft. from W line of sec. 22

SE NW 22 3 N. 24 E S.L.M.  
(4 Sec. and Sec. No.) (Twp.) (Range) (Meridian)  
Clay Basin Daggett Utah  
(Field) (County or Subdivision) (State or Territory)

The elevation of the ~~druck floor~~ <sup>ground</sup> above sea level is 6507 ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

CASING SHUT-OFF TEST

Bottom of hole 5899'  
Bottom of packer 5849'  
Length of anchor 50'

Tool open 30 min., recovered 20' mud.  
Good blow when tool opened, weak blow for 4 minutes. Died down to nothing during remainder of test.

*Handwritten:*  
C.A. Swartzburg  
Jan 23, 1947

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company Mountain Fuel Supply Company  
Address P. O. Box 1129  
Rock Springs,  
Wyoming  
By [Signature]  
Title Vice-President

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(SUBMIT IN TRIPLICATE)  
UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

Land Office Salt Lake  
Lease No. 045051  
Unit Clay Basin

SUNDRY NOTICES AND REPORTS ON WELLS

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NOTICE OF INTENTION TO ABANDON WELL.....	
NOTICE OF DRILL STEM TEST #1	

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

R.D. Murphy Well #6-W ..... February 11, 1947, 19.....

Well No. 6-W is located 1575 ft. from N line and 1540 ft. from W line of sec. 22  
SE NW 22 3 N. 24 E. S.L.M.  
(1/4 Sec. and Sec. No.) (Twp.) (Range) (Meridian)  
Clay Basin Daggett Utah  
(Field) (County or Subdivision) (State or Territory)

The elevation of the ~~center floor~~ <sup>ground</sup> above sea level is 6507 ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

DRILL STEM TEST #1

Bottom of hole 6825'  
Bottom of packer 6805'  
Length of anchor 20'

Tool open 35 minutes. Faint blow of air for 15 min. unloaded mud for 10 minutes with strong blow. Last 10 min. not strong enough to continue unloading mud. Recovered 1 stand very gassy mud and mud cut water, 41 stands very gassy, muddy salt water.

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company Mountain Fuel Supply Company  
Address P. O. Box 1129  
Rock Springs,  
Wyoming  
By [Signature]  
Title Vice-President

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*Approved  
Feb 14, 1947  
C. A. Swindenberg*

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

Budget Bureau No. 42-R356.1  
Approval expires 3-31-47.

LAND OFFICE Salt Lake City  
LEASE NUMBER 045051-A  
UNIT Clay Basin

**LESSEE'S MONTHLY REPORT OF OPERATIONS**

State Utah County Daggett Field Clay Basin

The following is a correct report of operations and production (including drilling and producing wells) for the month of January, 1947

Agent's address P. O. Box 1129 Company Mountain Fuel Supply Company  
Rock Springs, Wyoming Signed [Signature]

Phone \_\_\_\_\_ Agent's title Office Manager

SEC. AND ¼ OF ¼	TWP.	RANGE	WELL NO.	DAYS PRODUCED	BARRELS OF OIL	GRAVITY	CU. FT. OF GAS (in thousands)	GALLONS OF GASOLINE RECOVERED	BARRELS OF WATER (If none, so state)	REMARKS (If drilling, depth; if shut down, cause; date and result of test for gasoline content of gas)
SE NW 22	3N	24E	6-W		January 31,		1947			Drilling: 6452'

NOTE.—There were \_\_\_\_\_ runs or sales of oil; \_\_\_\_\_ M. cu. ft. of gas sold;  
\_\_\_\_\_ runs or sales of gasoline during the month. (Write "no" where applicable.)

NOTE.—Report on this form is required for each calendar month, regardless of the status of operations, and must be filed in duplicate with the supervisor by the 6th of the succeeding month, unless otherwise directed by the supervisor.

(SUBMIT IN TRIPLICATE)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

Land Office Salt Lake  
Lease No. 045051  
Unit Clay Basin

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL.....	SUBSEQUENT REPORT OF WATER SHUT-OFF.....
NOTICE OF INTENTION TO CHANGE PLANS.....	SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING.....
NOTICE OF INTENTION TO TEST WATER SHUT-OFF.....	SUBSEQUENT REPORT OF ALTERING CASING.....
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL.....	SUBSEQUENT REPORT OF REDRILLING OR REPAIR.....
NOTICE OF INTENTION TO SHOOT OR ACIDIZE.....	SUBSEQUENT REPORT OF ABANDONMENT.....
NOTICE OF INTENTION TO PULL OR ALTER CASING.....	SUPPLEMENTARY WELL HISTORY.....
NOTICE OF INTENTION TO ABANDON WELL.....	
NOTICE OF DRILL STEM TEST #2	

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

R. D. Murphy Well #6-W February 15, 1947, 19

Well No. 6-W is located 1575 ft. from N line and 1540 ft. from EX line of sec. 22

SE NW 22 3 N. 24 E. S.L.M.  
(1/4 Sec. and Sec. No.) (Twp.) (Range) (Meridian)  
Clay Basin Daggett Utah  
(Field) (County or Subdivision) (State or Territory)

The elevation of the ~~drill floor~~ <sup>ground</sup> above sea level is 6507 ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

Drill Stem Test #2

Run #1

Bottom of hole 7014'  
Bottom of packer 7003'  
Length of anchor 11'  
Packer failed

Run #2

Bottom of hole 7016'  
Bottom of packer 7006'  
Length of anchor 11'

Tool open 45 minutes. Weak blow of air throughout. Recovered 830' gas-cut mud and 2600' very gassy salt water.

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company Mountain Fuel Supply Company

Address P. O. Box 1129

Rock Springs,

Wyoming

By W. T. Pugh

Title Vice-President

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(SUBMIT IN TRIPLICATE)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

Land Office Salt Lake  
Lease No. 045051  
Unit Clay Basin

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL.....	SUBSEQUENT REPORT OF WATER SHUT-OFF.....
NOTICE OF INTENTION TO CHANGE PLANS.....	SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING.....
NOTICE OF INTENTION TO TEST WATER SHUT-OFF.....	SUBSEQUENT REPORT OF ALTERING CASING.....
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL.....	SUBSEQUENT REPORT OF REDRILLING OR REPAIR.....
NOTICE OF INTENTION TO SHOOT OR ACIDIZE.....	SUBSEQUENT REPORT OF ABANDONMENT.....
NOTICE OF INTENTION TO PULL OR ALTER CASING.....	SUPPLEMENTARY WELL HISTORY.....
NOTICE OF INTENTION TO ABANDON WELL.....	
Notice of Drill Stem Test #3	

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

R. D. Murphy 6-W February 22, 1947, 19

Well No. 6-W is located 1575 ft. from N line and 1540 ft. from W line of sec. 22  
SE NW 22 3 N. 24E S.I.M.  
(¼ Sec. and Sec. No.) (Twp.) (Range) (Meridian)  
Clay Basin Daggett Utah  
(Field) (County or Subdivision) (State or Territory)

The elevation of the ~~drill floor~~ <sup>ground</sup> above sea level is 6507 ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

DRILL STEM TEST #3

Bottom of hole 7217'  
 Bottom of packer 7190'  
 Length of anchor 27'

Tool open 35 minutes (opened twice) very faint blow. Re-covered 450' slightly gassy drilling mud with slight sulphur smell.

*Approved  
March 14, 1947  
C. A. Swendenborg*

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company Mountain Fuel Supply Company  
 Address P. O. Box 1129  
Rock Springs,  
Wyoming  
 By [Signature]  
 Title Vice-President

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(SUBMIT IN TRIPLICATE)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

Land Office Salt Lake  
Lease No. 045051  
Unit Clay Basin

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL.....	SUBSEQUENT REPORT OF WATER SHUT-OFF.....
NOTICE OF INTENTION TO CHANGE PLANS.....	SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING.....
NOTICE OF INTENTION TO TEST WATER SHUT-OFF.....	SUBSEQUENT REPORT OF ALTERING CASING.....
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL.....	SUBSEQUENT REPORT OF REDRILLING OR REPAIR.....
NOTICE OF INTENTION TO SHOOT OR ACIDIZE.....	SUBSEQUENT REPORT OF ABANDONMENT.....
NOTICE OF INTENTION TO PULL OR ALTER CASING.....	SUPPLEMENTARY WELL HISTORY.....
NOTICE OF INTENTION TO ABANDON WELL.....	
Notice of Drill stem Test #4 & #5	

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

R. D. Murphy 6-W March 25, 1947, 19.....

Well No. 6-W is located 1575 ft. from N line and 1540 ft. from W line of sec. 22  
SE NW 22 3 N. 24 E. S.L.M.  
(1/4 Sec. and Sec. No.) (Twp.) (Range) (Meridian)  
Clay Basin Daggett Utah  
(Field) (County or Subdivision) (State or Territory)

The elevation of the <sup>ground</sup> ~~drill floor~~ above sea level is 6507 ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

DRILL STEM TEST #4  
(March 19, 1947)

Bottom of hole 7741'  
 Bottom of packer 7715'  
 Length of anchor 26'  
 Water cushion 900'  
 Tool open 30 minutes, faint blow of air for 5 minutes. Recovered 40' drilling mud and 900' water cushion.

DRILL STEM TEST #5  
(March 23, 1947)

Bottom of hole 7806'  
 Bottom of packer 7798'  
 Length of anchor 8'  
 Water cushion 900'  
 Tool open 30 minutes, strong blow of air throughout test, recovered 70' gassy drilling mud and 1500' gassy salt water.

*see continuation of DST #0's.*

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company Mountain Fuel Supply Company  
 Address P. O. Box 1129  
Rock Springs,  
Wyoming  
 By [Signature]  
 Title Vice-President

*App. Mar. 31, 1947  
P.A. [Signature]*

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UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

LAND OFFICE Salt Lake City  
LEASE NUMBER 045051-A  
UNIT Clay Basin

**LESSEE'S MONTHLY REPORT OF OPERATIONS**

State Utah County Daggett Field Clay Basin

The following is a correct report of operations and production (including drilling and producing wells) for the month of February, 1947.

Agent's address P. O. Box 1129 Company Mountain Fuel Supply Company

Rock Springs, Wyoming Signed Copy (Original Signed)

Phone \_\_\_\_\_ Agent's title W. L. White Office Manager

SEC. AND 1/4 OF 1/4	TWP.	RANGE	WELL NO.	DAYS PRODUCED	BARRELS OF OIL	GRAVITY	CU. FT. OF GAS (in thousands)	GALLONS OF GASOLINE RECOVERED	BARRELS OF WATER (if none, so state)	REMARKS (If drilling, depth; if shut down, cause; date and result of test for gasoline content of gas)
SE NW 22	3N	24E	G-W				February 28, 1947			Drilling: 7842'

NOTE.—There were \_\_\_\_\_ runs or sales of oil; \_\_\_\_\_ M. cu. ft. of gas sold;

\_\_\_\_\_ runs or sales of gasoline during the month. (Write "no" where applicable.)

NOTE.—Report on this form is required for each calendar month, regardless of the status of operations, and must be filed in duplicate with the supervisor by the 6th of the succeeding month, unless otherwise directed by the supervisor.

(SUBMIT IN TRIPLICATE)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

Land Office Salt Lake  
Lease No. 045051  
Unit Clay Basin

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL.....	SUBSEQUENT REPORT OF WATER SHUT-OFF.....
NOTICE OF INTENTION TO CHANGE PLANS.....	SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING.....
NOTICE OF INTENTION TO TEST WATER SHUT-OFF.....	SUBSEQUENT REPORT OF ALTERING CASING.....
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL.....	SUBSEQUENT REPORT OF REDRILLING OR REPAIR.....
NOTICE OF INTENTION TO SHOOT OR ACIDIZE.....	SUBSEQUENT REPORT OF ABANDONMENT.....
NOTICE OF INTENTION TO PULL OR ALTER CASING.....	SUPPLEMENTARY WELL HISTORY.....
NOTICE OF INTENTION TO ABANDON WELL.....	
NOTICE OF DRILL STEM TEST NO. <u>5</u> <input checked="" type="checkbox"/>	

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

R. D. Murphy 6-W \_\_\_\_\_ April 2, 1947 \_\_\_\_\_, 19\_\_

Well No. 6-W is located 1575 ft. from N line and 1540 ft. from E line of sec. 22  
SE NW 22 3 N. 24 E. S.L.M.  
(1/4 Sec. and Sec. No.) (Twp.) (Range) (Meridian)  
Clay Basin Daggett Utah  
(Field) (County or Subdivision) (State or Territory)

The elevation of the ~~conductor~~ <sup>ground</sup> above sea level is 6507 ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

DRILL STEM TEST #5 (March 21, 1947)

Bottom of hole 7792'  
 Bottom of packer 7731'  
 Length of anchor 61'  
 Water cushion 900'

Tool open 30 minutes, faint blow of air throughout test.  
 Recovered water cushion, 400' very gassy drilling mud, 400'  
 very gassy mud filled with salt water.

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company Mountain Fuel Supply Company  
 Address P. O. Box 1129  
Rock Springs,  
Wyoming  
 By [Signature]  
 Title Vice-President

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

Budget Bureau No. 42-R366.1  
Approval expires 3-31-47.

LAND OFFICE Salt Lake City  
LEASE NUMBER 045061-A  
UNIT Clay Basin

## LESSEE'S MONTHLY REPORT OF OPERATIONS

State Utah County Daggett Field Clay Basin

The following is a correct report of operations and production (including drilling and producing wells) for the month of March, 1947.

Agent's address P. O. Box 1129 Company Mountain Fuel Supply Company  
Rock Springs, Wyoming Signed W. J. Williams

Phone \_\_\_\_\_ Agent's title Office Manager

SEC. AND 1/4 OF 1/4	TWP.	RANGE	WELL NO.	DAYS PRODUCED	BARRELS OF OIL	GRAVITY	CU. FT. OF GAS (In thousands)	GALLONS OF GASOLINE RECOVERED	BARRELS OF WATER (If none, so state)	REMARKS (If drilling, depth; if shut down, cause; date and result of test for gasoline content of gas)
SE NW 22	3N	24E	6-W				March 31, 1947			Drilling: 8,022'

NOTE.—There were \_\_\_\_\_ runs or sales of oil; \_\_\_\_\_ M. cu. ft. of gas sold;

\_\_\_\_\_ runs or sales of gasoline during the month. (Write "no" where applicable.)

NOTE.—Report on this form is required for each calendar month, regardless of the status of operations, and must be filed in duplicate with the supervisor by the 6th of the succeeding month, unless otherwise directed by the supervisor.

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(SUBMIT IN TRIPLICATE)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

Land Office Salt Lake  
Lease No. 045051  
Unit Clay Basin

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL.....	SUBSEQUENT REPORT OF WATER SHUT-OFF.....
NOTICE OF INTENTION TO CHANGE PLANS.....	SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING.....
NOTICE OF INTENTION TO TEST WATER SHUT-OFF.....	SUBSEQUENT REPORT OF ALTERING CASING.....
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL.....	SUBSEQUENT REPORT OF REDRILLING OR REPAIR.....
NOTICE OF INTENTION TO SHOOT OR ACIDIZE.....	SUBSEQUENT REPORT OF ABANDONMENT.....
NOTICE OF INTENTION TO PULL OR ALTER CASING.....	SUPPLEMENTARY WELL HISTORY.....
NOTICE OF INTENTION TO ABANDON WELL.....	
<u>TEST</u> NOTICE OF CORRECTION OF DRILL STEM NUMBER 5.	

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

R. D. Murphy 6-W \_\_\_\_\_ April 2, 1947 \_\_\_\_\_, 19\_\_\_\_

Well No. 6-W is located 1575 ft. from N line and 1540 ft. from W line of sec. 22

SE NW 22 3 N. 24 E. S.I.M.  
(¼ Sec. and Sec. No.) (Twp.) (Range) (Meridian)

Clay Basin Daggett Utah  
(Field) (County or Subdivision) (State or Territory)

The elevation of the ~~corner~~ <sup>ground</sup> above sea level is 6507 ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

DRILL STEM TEST #5 (Reported on Sundry Notice to you March 25, 1947) from 7798' to 7806', should read "DRILL STEM TEST #6". A separate Notice of Drill Stem Test #5 will be submitted.

*Apr. 4, 1947  
W.C.O. [Signature]*

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company Mountain Fuel Supply Company

Address P. O. Box 1129

Rock Springs,

Wyoming

By [Signature]

Title Vice-President

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(SUBMIT IN TRIPLICATE)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

Land Office Salt Lake  
Lease No. 045051  
Unit Clay Basin

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL.....	SUBSEQUENT REPORT OF WATER SHUT-OFF.....
NOTICE OF INTENTION TO CHANGE PLANS.....	SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING.....
NOTICE OF INTENTION TO TEST WATER SHUT-OFF.....	SUBSEQUENT REPORT OF ALTERING CASING.....
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL.....	SUBSEQUENT REPORT OF REDRILLING OR REPAIR.....
NOTICE OF INTENTION TO SHOOT OR ACIDIZE.....	SUBSEQUENT REPORT OF ABANDONMENT.....
NOTICE OF INTENTION TO PULL OR ALTER CASING.....	SUPPLEMENTARY WELL HISTORY.....
NOTICE OF INTENTION TO ABANDON WELL.....	
NOTICE OF DRILL STEM TEST #7	

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

R. D. Murphy 6-W \_\_\_\_\_ April 23, 1947 \_\_\_\_\_, 19\_\_\_\_

Well No. 6-W is located 1575 ft. from [N] line and 1540 ft. from [W] line of sec. 22  
SE NW 22 3 N. 24 E. S.L.M.  
(1/4 Sec. and Sec. No.) (Twp.) (Range) (Meridian)  
Clay Basin Daggett Utah  
(Field) (County or Subdivision) (State or Territory)

The elevation of the ~~surface~~ <sup>ground</sup> above sea level is 6507 ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

DRILL STEM TEST NO. 7

Bottom of hole 8763'  
 Bottom of packer 8707'  
 Length of anchor 56'  
 Water cushion 2250'

Tool open 10 minutes. Packer held 7 minutes; fair blow for four minutes. Recovered water cushion and 400' slightly gas-cut mud.

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company Mountain Fuel Supply Company  
 Address P. O. Box 1129  
Rock Springs,  
Wyoming  
 By [Signature]  
 Title Vice-President

(SUBMIT IN TRIPLICATE)

Land Office Salt Lake  
Lease No. 045051  
Unit Clay Basin

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL.....		SUBSEQUENT REPORT OF WATER SHUT-OFF.....	
NOTICE OF INTENTION TO CHANGE PLANS.....		SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING.....	
NOTICE OF INTENTION TO TEST WATER SHUT-OFF.....		SUBSEQUENT REPORT OF ALTERING CASING.....	
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL.....		SUBSEQUENT REPORT OF REDRILLING OR REPAIR.....	
NOTICE OF INTENTION TO SHOOT OR ACIDIZE.....		SUBSEQUENT REPORT OF ABANDONMENT.....	
NOTICE OF INTENTION TO PULL OR ALTER CASING.....		SUPPLEMENTARY WELL HISTORY.....	
NOTICE OF INTENTION TO ABANDON WELL.....			
NOTICE OF DRILL STEM TEST #8	XX		

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

R. D. Murphy 6-W

April 29, 1947, 19

Well No. 6-W is located 1575 ft. from [N] line and 1540 ft. from [W] line of sec. 22  
SE NW 22 3 N. 24 E. S.L.  
(¼ Sec. and Sec. No.) (Twp.) (Range) (Meridian)  
Clay Basin Daggett Utah  
(Field) (County or Subdivision) (State or Territory)

The elevation of the ~~drill floor~~ <sup>ground</sup> above sea level is 6507 ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

NOTICE OF DRILL STEM TEST #8

Bottom of hole 8815'  
 Bottom of packer 8764'  
 Length of anchor 51'  
 Water cushion 2340'

Tool opened twice for total of 30 minutes.  
 Faint blow of air for 2 minutes each time  
 tool opened. Recovered 120' drilling mud.

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company Mountain Fuel Supply Company  
 Address P. O. Box 1129  
Rock Springs,  
Wyoming  
 By [Signature]  
 Title Vice-President

*App. R.D. Murphy, 1947  
 2nd Landing*

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(SUBMIT IN TRIPLICATE)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

Land Office Salt Lake  
Lease No. 045051  
Unit Clay Basin

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL.....	SUBSEQUENT REPORT OF WATER SHUT-OFF.....
NOTICE OF INTENTION TO CHANGE PLANS.....	SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING.....
NOTICE OF INTENTION TO TEST WATER SHUT-OFF.....	SUBSEQUENT REPORT OF ALTERING CASING.....
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL.....	SUBSEQUENT REPORT OF REDRILLING OR REPAIR.....
NOTICE OF INTENTION TO SHOOT OR ACIDIZE.....	SUBSEQUENT REPORT OF ABANDONMENT.....
NOTICE OF INTENTION TO PULL OR ALTER CASING.....	SUPPLEMENTARY WELL HISTORY.....
NOTICE OF INTENTION TO ABANDON WELL.....	
NOTICE OF DRILL STEM TEST No. 9	

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

R. D. Murphy 6-W \_\_\_\_\_ May 4, 1947 \_\_\_\_\_, 19\_\_\_\_

Well No. 6-W is located 1575 ft. from [N] line and 1540 ft. from [W] line of sec. 22  
SE NW 22 3 N. 24 E. S.L.  
(1/4 Sec. and Sec. No.) (Twp.) (Range) (Meridian)  
Clay Basin Daggett Utah  
(Field) (County or Subdivision) (State or Territory)

The elevation of the <sup>ground</sup> ~~drill floor~~ above sea level is 6507 ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

DRILL STEM TEST NO. 9

Bottom of hole 8865'  
 Bottom of packer 8814'  
 Length of anchor 51'  
 Water cushion 2340'

Tool open 30 minutes. Slight blow of air for 1 minute, recovered water cushion and 60' drilling mud.

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company Mountain Fuel Supply Company  
 Address P. O. Box 1129  
Rock Springs,  
Wyoming  
 By [Signature]  
 Title Vice-President

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UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

Budget Bureau No. 42-11356.1.  
Approval expires 3-31-47.

LAND OFFICE Salt Lake City  
LEASE NUMBER 045051-A  
UNIT Clay Basin

**LESSEE'S MONTHLY REPORT OF OPERATIONS**

State Utah County Daggett Field Clay Basin

The following is a correct report of operations and production (including drilling and producing wells) for the month of April, 1947,

Agent's address P. O. Box 1129 Company Mountain Fuel Supply Company  
Rock Springs, Wyoming Signed Copy (Original Signed)

Phone \_\_\_\_\_ Agent's title U. I. Office Manager

SEC. AND 1/4 OF 1/4	TWP.	RANGE	WELL NO.	DAYS PRODUCED	BARRELS OF OIL	GRAVITY	CU. FT. OF GAS (In thousands)	GALLONS OF GASOLINE RECOVERED	BARRELS OF WATER (If none, so state)	REMARKS (If drilling, depth; if shut down, cause; date and result of test for gasoline content of gas)
SE NW 28	3N	24E	6-W		April 30,		1947			Drilling: 8,847'

NOTE.—There were \_\_\_\_\_ runs or sales of oil; \_\_\_\_\_ M. cu. ft. of gas sold;

\_\_\_\_\_ runs or sales of gasoline during the month. (Write "no" where applicable.)

NOTE.—Report on this form is required for each calendar month, regardless of the status of operations, and must be filed in duplicate with the supervisor by the 6th of the succeeding month, unless otherwise directed by the supervisor.

??

(SUBMIT IN TRIPLICATE)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

Land Office Salt Lake  
Lease No. 045051  
Unit Clay Basin

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL.....		SUBSEQUENT REPORT OF WATER SHUT-OFF.....	
NOTICE OF INTENTION TO CHANGE PLANS.....		SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING.....	
NOTICE OF INTENTION TO TEST WATER SHUT-OFF.....		SUBSEQUENT REPORT OF ALTERING CASING.....	
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL.....		SUBSEQUENT REPORT OF REDRILLING OR REPAIR.....	
NOTICE OF INTENTION TO SHOOT OR ACIDIZE.....		SUBSEQUENT REPORT OF ABANDONMENT.....	
NOTICE OF INTENTION TO PULL OR ALTER CASING.....		SUPPLEMENTARY WELL HISTORY.....	
NOTICE OF INTENTION TO ABANDON WELL.....			
NOTICE OF DRILL STEM TEST #10 <input checked="" type="checkbox"/>			

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

R. D. Murphy 6-W \_\_\_\_\_ May 8, 1947 \_\_\_\_\_, 19\_\_\_\_

Well No. 6-W is located 1575 ft. from N line and 1540 ft. from W line of sec. 22  
SE NW 22 3 N. 24 E. S.L.  
(4 Sec. and Sec. No.) (Twp.) (Range) (Meridian)  
Clay Basin Daggett Utah  
(Field) (County or Subdivision) (State or Territory)

The elevation of the ~~drill floor~~ <sup>ground</sup> above sea level is 6507 ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

DRILL STEM TEST NO. 10

Bottom of hole 8908'  
 Bottom of packer 8866'  
 Length of anchor 42'  
 Water cushion 2340'

Tool open 30 minutes, slight blow of air for 2 min.  
 Recovered water cushion and 60' of drilling mud.

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company Mountain Fuel Supply Company  
 Address P. O. Box 1129  
Rock Springs,  
Wyoming  
 By [Signature]  
 Title Vice-President

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(SUBMIT IN TRIPLICATE)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

Land Office Salt Lake  
Lease No. 045051  
Unit Clay Basin

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL.....		SUBSEQUENT REPORT OF WATER SHUT-OFF.....	
NOTICE OF INTENTION TO CHANGE PLANS.....		SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING.....	
NOTICE OF INTENTION TO TEST WATER SHUT-OFF.....		SUBSEQUENT REPORT OF ALTERING CASING.....	
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL.....		SUBSEQUENT REPORT OF REDRILLING OR REPAIR.....	
NOTICE OF INTENTION TO SHOOT OR ACIDIZE.....		SUBSEQUENT REPORT OF ABANDONMENT.....	
NOTICE OF INTENTION TO PULL OR ALTER CASING.....		SUPPLEMENTARY WELL HISTORY.....	
NOTICE OF INTENTION TO ABANDON WELL.....			
NOTICE OF DRILL STEM TEST #11	XX		

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

R. D. Murphy 6-W ..... May 17-18, 1947, 19.....

Well No. 6-W is located 1575 ft. from [N] line and 1540 ft. from [W] line of sec. 22

SE NW 22 3 N. 24 E. S.1.  
(4 Sec. and Sec. No.) (Twp.) (Range) (Meridian)  
Clay Basin Daggett Utah  
(Field) (County or Subdivision) (State or Territory)

The elevation of the ~~derrick floor~~ <sup>ground</sup> above sea level is 6507 ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

DRILL STEM TEST #11

Run #1

Run #2

Bottom of hole 8970'  
Bottom of packer 8944'  
Length of anchor 26'  
Water cushion 3000'  
Tool open 2 minutes. Recovered water cushion and 900' gas-cut mud. Packer failed.

Bottom of hole 8975'  
Bottom of packer 8949'  
Length of anchor 26'  
Water cushion 990'  
Tool open 130 min., slight blow of air throughout test. Recovered water cushion and drilling mud, heavily cut with odorless gas.

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company Mountain Fuel Supply Company  
Address P. O. Box 1129  
Rock Springs,  
Wyoming  
By [Signature]  
Title Vice-President

107

IN TRIPLICATE)  
UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

Land Office Salt Lake  
Lease No. 045051  
Unit Clay Basin

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL.....	SUBSEQUENT REPORT OF WATER SHUT-OFF.....
NOTICE OF INTENTION TO CHANGE PLANS.....	SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING.....
NOTICE OF INTENTION TO TEST WATER SHUT-OFF.....	SUBSEQUENT REPORT OF ALTERING CASING.....
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL.....	SUBSEQUENT REPORT OF REDRILLING OR REPAIR.....
NOTICE OF INTENTION TO SHOOT OR ACIDIZE.....	SUBSEQUENT REPORT OF ABANDONMENT.....
NOTICE OF INTENTION TO PULL OR ALTER CASING.....	SUPPLEMENTARY WELL HISTORY.....
NOTICE OF INTENTION TO ABANDON WELL.....	
Notice of Drill Stem Tests 12 & 13	

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

R. D. Murphy 6-W \_\_\_\_\_ May 29-30, 1947 \_\_\_\_\_, 19\_\_\_\_

Well No. 6-W is located 1575 ft. from N line and 1540 ft. from W line of sec. 22

SE NW 22 3 N. 24 E. S.L.  
(1/4 Sec. and Sec. No.) (Twp.) (Range) (Meridian)  
Clay Basin Daggett Utah  
(Field) (County or Subdivision) (State or Territory)

The elevation of the ~~derrick floor~~ <sup>ground</sup> above sea level is 6507 ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

DRILL STEM TEST #12  
(May 29, 1947)

Bottom of hole 9042'  
Bottom of packer 8989'  
Length of anchor 53'  
Water cushion 993'

DRILL STEM TEST #13  
(May 30, 1947)

Bottom of hole 9043'  
Bottom of packer 9023'  
Water cushion 993'

Tool open 50 min. (packer failed). Faint blow of air at start, increasing to strong blow at time of packer failure. Recovered water cushion and 500' of mud, both heavily cut with sour gas.

Tool open 50 min. Packer failed after 10 min. Fair increasing blow of air until packer failure. Recovered water cushion and 4000' gassy mud.

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company Mountain Fuel Supply Company

Address P. O. Box 1129

Rock Springs,

Wyoming

By [Signature]  
Title Vice-President

Approved June 9, 1947

106

(SUBMIT IN TRIPLICATE)

Land Office Salt Lake

Lease No. 045051

Unit Clay Basin

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL.....		SUBSEQUENT REPORT OF WATER SHUT-OFF.....	
NOTICE OF INTENTION TO CHANGE PLANS.....		SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING.....	
NOTICE OF INTENTION TO TEST WATER SHUT-OFF.....		SUBSEQUENT REPORT OF ALTERING CASING.....	
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL.....		SUBSEQUENT REPORT OF REDRILLING OR REPAIR.....	
NOTICE OF INTENTION TO SHOOT OR ACIDIZE.....		SUBSEQUENT REPORT OF ABANDONMENT.....	
NOTICE OF INTENTION TO PULL OR ALTER CASING.....		SUPPLEMENTARY WELL HISTORY.....	
NOTICE OF INTENTION TO ABANDON WELL.....			
Notice of Drill Stem Test #14	XX		

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

R. D. Murphy 6-W ..... June 7, 1947, 19.....

Well No. 6-W is located 1575 ft. from N line and 1540 ft. from W line of sec. 22

SE NW 22                      3 N.                      24 E.                      S.L.  
(1/4 Sec. and Sec. No.)                      (Twp.)                      (Range)                      (Meridian)

Clay Basin                      Daggett                      Utah  
(Field)                      (County or Subdivision)                      (State or Territory)

The elevation of the <sup>ground</sup> ~~derrick floor~~ above sea level is 6507 ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

DRILL STEM TEST #14

Bottom of hole                      9134'  
Bottom of packer                      9057'  
Length of anchor                      77'

Tool open 2 hours; fair blow of non-inflammable gas, increasing to maximum open flow 826,000 cubic feet in 73 min. After 73 min. blow decreased steadily to an estimated 100 MCF at end of test. Recovered 1080' black sulphur-cut drilling mud.

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company Mountain Fuel Supply Company

Address P. O. Box 1129

Rock Springs,

Wyoming

By.....

Title Vice-President

*Approved June 13, 1947  
C. A. [Signature]*

105

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

Budget Bureau No. 42-11366.1.  
Approval expires 3-31-47.

LAND OFFICE Salt Lake City  
LEASE NUMBER 045051-A  
UNIT Clay Basin

**LESSEE'S MONTHLY REPORT OF OPERATIONS**

State Utah County Daggett Field Clay Basin

The following is a correct report of operations and production (including drilling and producing wells) for the month of May, 1947,

Agent's address P. O. Box 1129 Company Mountain Fuel Supply Company  
Rock Springs, Wyoming Signed Cory (Original Signed)

Phone \_\_\_\_\_ Agent's title W.L. Williams Office Manager

SEC. AND 1/4 OF 1/4	TWP.	RANGE	WELL NO.	DAYS PRODUCED	BARRELS OF OIL	GRAVITY	CU. FT. OF GAS (In thousands)	GALLONS OF GASOLINE RECOVERED	BARRELS OF WATER (If none, so state)	REMARKS (If drilling, depth; if shut down, cause; date and result of test for gasoline content of gas)
SE NW 28	3N	24E	6-W		May 31, 1947					Drilling: 9047'

NOTE.—There were \_\_\_\_\_ runs or sales of oil; \_\_\_\_\_ M. cu. ft. of gas sold;

\_\_\_\_\_ runs or sales of gasoline during the month. (Write "no" where applicable.)

NOTE.—Report on this form is required for each calendar month, regardless of the status of operations, and must be filed in duplicate with the supervisor by the 6th of the succeeding month, unless otherwise directed by the supervisor.

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(SUBMIT IN TRIPLICATE)

Land Office Salt Lake  
Lease No. 045051  
Unit Clay Basin

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL.....		SUBSEQUENT REPORT OF WATER SHUT-OFF.....	
NOTICE OF INTENTION TO CHANGE PLANS.....		SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING.....	
NOTICE OF INTENTION TO TEST WATER SHUT-OFF.....		SUBSEQUENT REPORT OF ALTERING CASING.....	
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL.....		SUBSEQUENT REPORT OF REDRILLING OR REPAIR.....	
NOTICE OF INTENTION TO SHOOT OR ACIDIZE.....		SUBSEQUENT REPORT OF ABANDONMENT.....	
NOTICE OF INTENTION TO PULL OR ALTER CASING.....		SUPPLEMENTARY WELL HISTORY.....	
NOTICE OF INTENTION TO ABANDON WELL.....			
Notice of Drill Stem Test #15	xx		

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

R. D. Murphy 6-W \_\_\_\_\_ June 9, 1947, 19\_\_\_\_

Well No. 6-W is located 1575 ft. from N line and 1540 ft. from W line of sec. 22

SE NW 22                      3 N.                      24 E.                      S.L.  
(¼ Sec. and Sec. No.)                      (Twp.)                      (Range)                      (Meridian)

Clay Basin                      Daggett                      Utah  
(Field)                      (County or Subdivision)                      (State or Territory)

The elevation of the <sup>ground</sup> ~~derrick floor~~ above sea level is 6507 ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

DRILL STEM TEST #15

Bottom of hole                      9134'  
Bottom of packer                      9057'  
Length of anchor                      77'

Pool open 3 hrs. 45 min. Strong blow of non-inflammable gas increasing gradually to 1,070 MCF at end of test. Recovered 45' sulphur-cut mud.

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company Mountain Fuel Supply Company

Address P. O. Box 1129

Rock Springs

Wyoming

By \_\_\_\_\_

Title Vice-President

*94*  
*Approved June 13, 1947*  
*E. O. ...*

(SUBMIT IN TRIPLICATE)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

Land Office Salt Lake  
Lease No. 015051  
Unit Clay Basin

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL.....		SUBSEQUENT REPORT OF WATER SHUT-OFF.....	
NOTICE OF INTENTION TO CHANGE PLANS.....		SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING.....	
NOTICE OF INTENTION TO TEST WATER SHUT-OFF.....		SUBSEQUENT REPORT OF ALTERING CASING.....	
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL.....		SUBSEQUENT REPORT OF REDRILLING OR REPAIR.....	
NOTICE OF INTENTION TO SHOOT OR ACIDIZE.....		SUBSEQUENT REPORT OF ABANDONMENT.....	
NOTICE OF INTENTION TO PULL OR ALTER CASING.....		SUPPLEMENTARY WELL HISTORY.....	
NOTICE OF INTENTION TO ABANDON WELL.....			
Notice of Drill Stem Test #16	xx		

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

R. D. Murphy 6-W ..... June 12, 1947, 19.....

Well No. 6-W is located 1575 ft. from N line and 1540 ft. from E line of sec. 22

SE 22 3 N. 21 E. S. 1.  
(1/4 Sec. and Sec. No.) (Twp.) (Range) (Meridian)  
Clay Basin Daggett Utah  
(Field) (County or Subdivision) (State or Territory)

The elevation of the <sup>ground</sup> ~~derrick floor~~ above sea level is 6507 ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

DRILL STEM TEST #16

Bottom of hole 9192'  
Bottom of packer 9138'  
Length of anchor 54'

Tool open 2 hrs. 47 min. Light blow of non-inflammable gas, steadily increasing to 971,000 cu. ft.

*Approved  
July 11, 1947  
C. A. [Signature]*

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company Mountain Fuel Supply Company

Address P. O. Box 1129

Rock Springs,

Wyoming

By \_\_\_\_\_

Title Vice-President

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(SUBMIT IN TRIPLICATE)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

Land Office Salt Lake  
Lease No. 015051  
Unit Clay Basin

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL.....		SUBSEQUENT REPORT OF WATER SHUT-OFF.....	
NOTICE OF INTENTION TO CHANGE PLANS.....		SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING.....	
NOTICE OF INTENTION TO TEST WATER SHUT-OFF.....		SUBSEQUENT REPORT OF ALTERING CASING.....	
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL.....		SUBSEQUENT REPORT OF REDRILLING OR REPAIR.....	
NOTICE OF INTENTION TO SHOOT OR ACIDIZE.....		SUBSEQUENT REPORT OF ABANDONMENT.....	
NOTICE OF INTENTION TO PULL OR ALTER CASING.....		SUPPLEMENTARY WELL HISTORY.....	
NOTICE OF INTENTION TO ABANDON WELL.....			
Notice of Drill Stem Test #17.....	XX		

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

R. D. Murphy 6-W ..... June 18, 1947, 19.....

Well No. 6-W is located 1575 ft. from {N} line and 1540 ft. from {E} line of sec. 22

SE NW 22 3 N. 24 E. S.I.  
(1/4 Sec. and Sec. No.) (Twp.) (Range) (Meridian)  
Clay Basin Daggett Utah  
(Field) (County or Subdivision) (State or Territory)

The elevation of the <sup>ground</sup> derrick floor above sea level is 6507 ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

DRILL STEM TEST #17

Bottom of hole 9264'  
Bottom of packer 9193'  
Length of anchor 71'

Tool open 80 min. Slight blow of air increasing to fair blow in 15 min. Dropped to 0 in 30 min. Recovered 300' very thick drilling mud cut with sulphur gas. Tool partially plugged throughout test - completely plugged after 30 min.

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company Mountain Fuel Supply Company  
Address P. O. Box 1129  
Rock Springs,  
Wyoming  
By \_\_\_\_\_  
Title Vice-President

(SUBMIT IN TRIPLICATE)  
UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

Land Office Salt Lake  
Lease No. 045051  
Unit Clay Basin

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL.....		SUBSEQUENT REPORT OF WATER SHUT-OFF.....	
NOTICE OF INTENTION TO CHANGE PLANS.....		SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING.....	
NOTICE OF INTENTION TO TEST WATER SHUT-OFF.....		SUBSEQUENT REPORT OF ALTERING CASING.....	
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL.....		SUBSEQUENT REPORT OF REDRILLING OR REPAIR.....	
NOTICE OF INTENTION TO SHOOT OR ACIDIZE.....		SUBSEQUENT REPORT OF ABANDONMENT.....	
NOTICE OF INTENTION TO PULL OR ALTER CASING.....		SUPPLEMENTARY WELL HISTORY.....	
NOTICE OF INTENTION TO ABANDON WELL.....			
Notice of Drill Stem Test #18	xx		

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

R. D. Murphy 6-W June 23, 1947, 19.

Well No. 6-W is located 1575 ft. from N line and 1540 ft. from W line of sec. 22  
SE NW 22. 3 N. 24 E. S.L.  
(1/4 Sec. and Sec. No.) (Twp.) (Range) (Meridian)  
Clay Basin Daggett Utah  
(Field) (County or Subdivision) (State or Territory)

The elevation of the <sup>ground</sup> ~~drill floor~~ above sea level is 6507 ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

DRILL STEM TEST #18

Bottom of hole 9297'  
Bottom of packer 9194'  
Length of anchor 103'

Tool open 1 hr. 40 min. Faint blow increasing to 4,260 MCF (max. flow) of non-inflammable gas in 70 min, with heavy spray of mud and some water. Recovered 500' sulphur water. Bottom hole pressure 3900#, flowing pressure 1200#.

*approved  
Jul. 11, 1947  
S. A. [Signature]*

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company Mountain Fuel Supply Company  
Address P. O. Box 1129  
Rock Springs,  
Wyoming  
By \_\_\_\_\_  
Title Vice-President

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(SUBMIT IN TRIPLICATE)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

Land Office Salt Lake  
Lease No. 045051  
Unit Clay Basin

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL.....		SUBSEQUENT REPORT OF WATER SHUT-OFF.....	
NOTICE OF INTENTION TO CHANGE PLANS.....		SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING.....	
NOTICE OF INTENTION TO TEST WATER SHUT-OFF.....		SUBSEQUENT REPORT OF ALTERING CASING.....	
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL.....		SUBSEQUENT REPORT OF REDRILLING OR REPAIR.....	
NOTICE OF INTENTION TO SHOOT OR ACIDIZE.....		SUBSEQUENT REPORT OF ABANDONMENT.....	
NOTICE OF INTENTION TO PULL OR ALTER CASING.....		SUPPLEMENTARY WELL HISTORY.....	
NOTICE OF INTENTION TO ABANDON WELL.....			
Notice of Drill Stem Test #19	xxx		

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

R. D. Murphy 6-W \_\_\_\_\_ June 27, 1947 \_\_\_\_\_, 19\_\_\_\_

Well No. 6-W is located 1575 ft. from N line and 1540 ft. from W line of sec. 22

SE NW 22                      3 N.                      24 E.                      S.L.  
(1/4 Sec. and Sec. No.)                      (Twp.)                      (Range)                      (Meridian)  
Clay Basin                      Daggett                      Utah  
(Field)                      (County or Subdivision)                      (State or Territory)

The elevation of the <sup>ground</sup> derrick floor above sea level is 6507 ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

DRILL STEM TEST #19

Bottom of hole                      9355'  
Bottom of packer                      9301'  
Length of anchor                      54'

Tool open 90 minutes. Fair surging blow of air throughout test. Recovered 90' gas-cut mud and 210' gassy sulphur water.

*OK'd  
6/27/1947  
P.O. [Signature]*

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company Mountain Fuel Supply Company

Address P. O. Box 1129

Rock Springs

Wyoming

By \_\_\_\_\_

Title Vice-President

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(SUBMIT IN TRIPLICATE)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

Land Office Salt Lake  
Lease No. 045051  
Unit Clay Basin

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL.....	SUBSEQUENT REPORT OF WATER SHUT-OFF.....
NOTICE OF INTENTION TO CHANGE PLANS.....	SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING.....
NOTICE OF INTENTION TO TEST WATER SHUT-OFF.....	SUBSEQUENT REPORT OF ALTERING CASING.....
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL.....	SUBSEQUENT REPORT OF REDRILLING OR REPAIR.....
NOTICE OF INTENTION TO SHOOT OR ACIDIZE.....	SUBSEQUENT REPORT OF ABANDONMENT.....
NOTICE OF INTENTION TO PULL OR ALTER CASING.....	SUPPLEMENTARY WELL HISTORY.....
NOTICE OF INTENTION TO ABANDON WELL.....	
NOTICE OF INTENTION TO SET CEMENT PLUGS AND PLUG BACK.....	

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

R. D. Murphy 6-W \_\_\_\_\_ June 28, 1947 \_\_\_\_\_, 19\_\_\_\_\_

Well No. 6-W is located 1575 ft. from N line and 1540 ft. from W line of sec. 22

SE NW 22 3 N. 24 E. S.L.  
(1/4 Sec. and Sec. No.) (Twp.) (Range) (Meridian)  
Clay Basin Daggett Utah  
(Field) (County or Subdivision) (State or Territory)

The elevation of the <sup>ground</sup>~~derrick floor~~ above sea level is 6507 ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

SEE ATTACHED DETAIL

*Approved  
June 1, 1947  
G. O. Smedley*

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company Mountain Fuel Supply Company

Address P. O. Box 1129

Rock Springs,

Wyoming

By [Signature]  
Title Vice-President

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NOTICE OF INTENTION TO SET CEMENT PLUGS AND PLUG BACK

We have drilled this well to a total depth of 9385 feet, bottomed in the Weber sandstone, the top of which was at 9025 feet. We would like permission to plug this well back to the base of the Frontier formation where we anticipate perforating and producing the Frontier sand.

We will place a cement plug from 9200 feet to 9000 feet, using 44 sacks of cement. This will protect the Weber sandstone; a cement plug will be placed from 8950 feet to 8700 feet, which will protect the Phosphoria formation, consisting of 93 sacks of cement; a cement plug consisting of 93 sacks of cement will be placed from 7900 feet to 7650 feet to protect the Shinarump formation; a cement plug will be placed from 6800 feet to 6500 feet to protect the Entrada sand between 6560 feet and 6665 feet, and the Nugget sand, the top of which was encountered at 6770 feet. This plug consists of 111 sacks of cement; a cement plug consisting of 50 sacks of cement will be placed from 5950 feet to 5800 feet - this will cement up into the 9-5/8-inch casing 72 feet. A cement retainer will be set at 5475 feet to act as a bridging plug. We will perforate the Frontier sand from 5298 feet to 5415 feet, using 234 shots spaced 6 inches apart.

This in confirmation of our Mr. D. K. Bowen's telephone conversation with your Mr. E. A. Swedenborg, June 28, 1947.

(SUBMIT IN TRIPLICATE)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

Land Office Salt Lake  
Lease No. 045051  
Unit Clay Basin

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL.....	SUBSEQUENT REPORT OF WATER SHUT-OFF.....
NOTICE OF INTENTION TO CHANGE PLANS.....	SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING.....
NOTICE OF INTENTION TO TEST WATER SHUT-OFF.....	SUBSEQUENT REPORT OF ALTERING CASING.....
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL.....	SUBSEQUENT REPORT OF REDRILLING OR REPAIR.....
NOTICE OF INTENTION TO SHOOT OR ACIDIZE.....	SUBSEQUENT REPORT OF ABANDONMENT.....
NOTICE OF INTENTION TO PULL OR ALTER CASING.....	SUPPLEMENTARY WELL HISTORY.....
NOTICE OF INTENTION TO ABANDON WELL.....	
NOTICE OF SETTING CEMENT PLUGS AND RETAINER, AND PERFORATING.....	

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

R. D. Murphy 6-W ..... June 29, 1947 ..... 19.....

Well No. 6-W is located 1575 ft. from N line and 1540 ft. from W line of sec. 22

SE NW 22 3 N. 24 E. S.L.  
( $\frac{1}{4}$  Sec. and Sec. No.) (Twp.) (Range) (Meridian)  
Clay Basin Daggett Utah  
(Field) (County or Subdivision) (State or Territory)

The elevation of the ~~derrick floor~~ <sup>ground</sup> above sea level is 6507 ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

Pursuant to our notice of June 28, the following cement plugs were set in this well:

9000'-9200' 44 sax  
8700'-8950' 93 sax  
7650'-7950' 93 sax  
6500'-6800' 111 sax  
5800'-5950' 56 sax  
Set Baker cement retainer 5475'

Perforated 9-5/8" casing with 227 9/16" holes from 5300'-5430'.  
Perforating was done by Lane-Wells.

*Approved  
June 10, 1947  
E. O. Swickelberg*

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company Mountain Fuel Supply Company

Address P. O. Box 1129

Rock Springs,

Wyoming

By *[Signature]*

Title Vice-President

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(SUBMIT IN TRIPLICATE)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

Land Office Salt Lake  
Lease No. 045051  
Unit Clay Basin

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL.....	SUBSEQUENT REPORT OF WATER SHUT-OFF.....
NOTICE OF INTENTION TO CHANGE PLANS.....	SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING.....
NOTICE OF INTENTION TO TEST WATER SHUT-OFF.....	SUBSEQUENT REPORT OF ALTERING CASING.....
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL.....	SUBSEQUENT REPORT OF REDRILLING OR REPAIR.....
NOTICE OF INTENTION TO SHOOT OR ACIDIZE.....	SUBSEQUENT REPORT OF ABANDONMENT.....
NOTICE OF INTENTION TO PULL OR ALTER CASING.....	SUPPLEMENTARY WELL HISTORY.....
NOTICE OF INTENTION TO ABANDON WELL.....	
NOTICE OF RUNNING 2-1/2" TUBING.....	

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

Murphy 6-W ..... July 4, 1947, 19.....

Well No. 6-W is located 1575 ft. from N line and 1540 ft. from W line of sec. 22

SE NW 22 ..... 3 N. ..... 24 E. ..... S.L.  
(1/4 Sec. and Sec. No.) (Twp.) (Range) (Meridian)  
Clay Basin ..... Daggett ..... Utah  
(Field) (County or Subdivision) (State or Territory)

The elevation of the <sup>ground</sup> ~~derrick floor~~ above sea level is 6507 ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

Ran 188 jts. of 2-1/2" EUE tubing, 6.5# 8 thd, J-55, 5459.57' net, 5490.90' gross, and landed at 5466.91', 7.34' below top of Kelly bushings on a National Supply type B tubing head. The bottom joint, 30.35', is bull-plugged. The tubing perforations are from 5426.56' to 5436.56' and the tubing is hanging 8.09' off bottom.

*approved.  
Jul. 10, 1947  
E. R. Swadlow*

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company Mountain Fuel Supply Company  
Address P. O. Box 1129  
Rock Springs,  
Wyoming  
By [Signature]  
Title Vice-President

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UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

Budget Bureau No. 42-R356.1.  
Approval expires 3-31-47.

LAND OFFICE Salt Lake City  
LEASE NUMBER 045051-A  
UNIT Clay Basin

**LESSEE'S MONTHLY REPORT OF OPERATIONS**

State Utah County Daggett Field Clay Basin

The following is a correct report of operations and production (including drilling and producing wells) for the month of June, 1947,

Agent's address P.O. Box 1129 Company Mountain Fuel Supply Company  
Rock Springs, Wyoming Signed \_\_\_\_\_

Phone \_\_\_\_\_ Agent's title Office Manager

SEC. AND 1/4 OF 1/4	TWP.	RANGE	WELL NO.	DAYS PRODUCED	BARRELS OF OIL	GRAVITY	CU. FT. OF GAS (In thousands)	GALLONS OF GASOLINE RECOVERED	BARRELS OF WATER (If none, so state)	REMARKS (If drilling depth; if shut down, cause; date and result of test for gasoline content of gas)
SE NW 28	3N	24E	6-W				June 30, 1947			Depth: 9,355' Setting Cement Plugs.

NOTE.—There were \_\_\_\_\_ runs or sales of oil; \_\_\_\_\_ M. cu. ft. of gas sold;

\_\_\_\_\_ runs or sales of gasoline during the month. (Write "no" where applicable.)

NOTE.—Report on this form is required for each calendar month, regardless of the status of operations, and must be filed in duplicate with the supervisor by the 6th of the succeeding month, unless otherwise directed by the supervisor.

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(SUBMIT IN TRIPLICATE)

Land Office Salt Lake

Lease No. 045051

Unit Clay Basin

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL.....		SUBSEQUENT REPORT OF WATER SHUT-OFF.....	
NOTICE OF INTENTION TO CHANGE PLANS.....	<b>XX</b>	SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING.....	
NOTICE OF INTENTION TO TEST WATER SHUT-OFF.....		SUBSEQUENT REPORT OF ALTERING CASING.....	
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL.....		SUBSEQUENT REPORT OF REDRILLING OR REPAIR.....	
NOTICE OF INTENTION TO SHOOT OR ACIDIZE.....		SUBSEQUENT REPORT OF ABANDONMENT.....	
NOTICE OF INTENTION TO PULL OR ALTER CASING.....		SUPPLEMENTARY WELL HISTORY.....	
NOTICE OF INTENTION TO ABANDON WELL.....			

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

R. D. Murphy 6-W ..... July 9, 1917 ..... 19.....

Well No. 6-W is located 1575 ft. from N line and 1540 ft. from W line of sec. 22

SE NW 22 ..... 3 N. ..... 24 E. ..... S.L.  
(1/4 Sec. and Sec. No.) (Twp.) (Range) (Meridian)  
Clay Basin ..... Daggett ..... Utah  
(Field) (County or Subdivision) (State or Territory)

The elevation of the ~~depth~~ <sup>ground</sup> above sea level is 6507 ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

SEE ATTACHED DETAIL

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company Mountain Fuel Supply Company

Address P. O. Box 1129

Rock Springs,

Wyoming

By.....

Title Vice-President

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(SUBMIT IN TRIPLICATE)

Land Office Salt Lake  
Lease No. 045051  
Unit Clay Basin

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

*Approved  
E. H. Renshaw  
8-25-47*

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL.....	SUBSEQUENT REPORT OF WATER SHUT-OFF.....
NOTICE OF INTENTION TO CHANGE PLANS.....	SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING.....
NOTICE OF INTENTION TO TEST WATER SHUT-OFF.....	SUBSEQUENT REPORT OF ALTERING CASING.....
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL.....	SUBSEQUENT REPORT OF REDRILLING OR REPAIR.....
NOTICE OF INTENTION TO SHOOT OR ACIDIZE.....	SUBSEQUENT REPORT OF ABANDONMENT.....
NOTICE OF INTENTION TO PULL OR ALTER CASING.....	SUPPLEMENTARY WELL HISTORY.....
NOTICE OF INTENTION TO ABANDON WELL.....	
NOTICE OF RUNNING 2-1/2" TUBING.....	

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

R. D. Murphy 6-W ..... July <sup>19</sup>X, 1947, 19.....

Well No. 6-W is located 1575 ft. from N line and 1540 ft. from W line of sec. 22

SE NW 22                      3 N.      24 E.                      S.L.  
(1/4 Sec. and Sec. No.)                      (Twp.)                      (Range)                      (Meridian)

Clay Basin                      Daggett                      Utah  
(Field)                      (County or Subdivision)                      (State or Territory)

The elevation of the ~~surface~~ <sup>ground</sup> floor above sea level is 6507 ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

This report supersedes the report filed with you dated July 4, 1947, due to the fact that an additional 12 joints of tubing were required to complete the well.

Ran 200 jts., of 2-1/2" tubing, EUE 6.5#, 8 thd. J-55, 5807.59' net, 5840.78' gross, landed at 5814.93'; 7.34' below top of Kelly bushings on a National Supply Company type "B" tubing head. The bottom joint, 30.35', is bull-plugged; the tubing perforations are from 5774.58' to 5784.58' and the tubing is hanging 11.00' off bottom.

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company Mountain Fuel Supply Company

Address P. O. Box 1129  
Rock Springs,  
Wyoming

By \_\_\_\_\_  
Title Vice-President

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(SUBMIT IN TRIPLICATE)

Land Office Salt Lake  
Lease No. 045051  
Unit Clay Basin

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

*copy  
E.A. Murdock  
8-25-47*

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL.....	SUBSEQUENT REPORT OF WATER SHUT-OFF.....
NOTICE OF INTENTION TO CHANGE PLANS.....	SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING.....
NOTICE OF INTENTION TO TEST WATER SHUT-OFF.....	SUBSEQUENT REPORT OF ALTERING CASING.....
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL.....	SUBSEQUENT REPORT OF REDRILLING OR REPAIR.....
NOTICE OF INTENTION TO SHOOT OR ACIDIZE.....	SUBSEQUENT REPORT OF ABANDONMENT.....
NOTICE OF INTENTION TO PULL OR ALTER CASING.....	SUPPLEMENTARY WELL HISTORY.....
NOTICE OF INTENTION TO ABANDON WELL.....	
NOTICE OF DRILL STEM TEST #20	

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

R. D. Murphy 6-W

July 19-20, 1947, 19.....

Well No. 6-W is located 1575 ft. from N line and 1540 ft. from W line of sec. 22

SE NW 22 3N 24E S.L.  
(1/4 Sec. and Sec. No.) (Twp.) (Range) (Meridian)  
Clay Basin Daggett Utah  
(Field) (County or Subdivision) (State or Territory)

The elevation of the ~~derrick~~ <sup>ground</sup> floor above sea level is 6507 ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

DRILL STEM TEST #20

Bottom of hole 5825' (retainer)  
Bottom of packer 5603'  
Tool opened 4:49 a.m. 7/19/47, tool closed 8:30 a.m. 7/20/47  
(27 hrs. 41 min.) Flowing pressure 325#; bottom hole pressure 1375#. ~~Maximum~~ open flow 2,060 MCF sweet gas.

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company Mountain Fuel Supply Company  
Address P. O. Box 1129  
Rock Springs,  
Wyoming  
By [Signature]  
Title Vice-President

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UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

LAND OFFICE Salt Lake City  
LEASE NUMBER 046061-A  
UNIT Clay Basin

**LESSEE'S MONTHLY REPORT OF OPERATIONS**

State Utah County Daggett Field Clay Basin

The following is a correct report of operations and production (including drilling and producing wells) for the month of July, 19 47

Agent's address P.O. Box 1129 Company Mountain Fuel Supply Company  
Rock Springs Signed Copy (Original Signed)

Phone \_\_\_\_\_ Agent's title L. Williams Office Manager

SEC. AND 1/4 OF 1/4	TWP.	RANGE	WELL NO.	DAYS PRODUCED	BARRELS OF OIL	GRAVITY	CU. FT. OF GAS (In thousands)	GALLONS OF GASOLINE RECOVERED	BARRELS OF WATER (If none, so state)	REMARKS (If drilling, depth; if shut down, cause; date and result of test for gasoline content of gas)
SE NW 28	3N	24E	6-W							Completed. T.D.: 9,355' P.B.: 5,825'

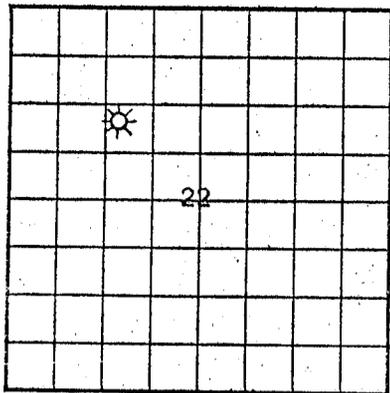
NOTE.—There were \_\_\_\_\_ runs or sales of oil; \_\_\_\_\_ M. cu. ft. of gas sold;

\_\_\_\_\_ runs or sales of gasoline during the month. (Write "no" where applicable.)

NOTE.—Report on this form is required for each calendar month, regardless of the status of operations, and must be filed in duplicate with the supervisor by the 6th of the succeeding month, unless otherwise directed by the supervisor.

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U. S. LAND OFFICE Salt Lake  
 SERIAL NUMBER 045051-A  
 LEASE OR PERMIT TO PROSPECT L



LOCATE WELL CORRECTLY

UNITED STATES  
 DEPARTMENT OF THE INTERIOR  
 GEOLOGICAL SURVEY

LOG OF OIL OR GAS WELL

Company Mountain Fuel Supply Company Address Box 1129, Rock Springs, Wyoming  
 Lessor or Tract Robert D. Murphy Field Clay Basin State Utah  
 Well No. 6-W Sec. 22 T. 3 R. 24 Meridian S.L. County Daggett  
 Location 1575ft. (S.) of N. Line and 1540ft. (E.) of W. Line of Sec. 22 Elevation 6507  
(Derrick floor relative to sea level)

The information given herewith is a complete and correct record of the well and all work done thereon so far as can be determined from all available records.

Signed [Signature] Title Vice-President

Date September 2, 1947

The summary on this page is for the condition of the well at above date.

Commenced drilling October 8, 19 46 Finished drilling July 23, 19 47

OIL OR GAS SANDS OR ZONES

(Denote gas by G)

No. 1, from 5298 to 5336 No. 4, from 5780 to 5790  
 No. 2, from 5368 to 5425 No. 5, from 5774 to 7552  
 No. 3, from 5660 to 5673 No. 6, from 9025 to 9355

IMPORTANT WATER SANDS

No. 1, from \_\_\_\_\_ to \_\_\_\_\_ No. 3, from \_\_\_\_\_ to \_\_\_\_\_  
 No. 2, from \_\_\_\_\_ to \_\_\_\_\_ No. 4, from \_\_\_\_\_ to \_\_\_\_\_

CASING RECORD

Size casing	Weight per foot	Threads per inch	Make	Amount	Kind of shoe	Cut and pulled from	Perforated		Purpose
							From—	To—	
13-3/8"	48-61	8		995'	Guide				Conductor
9-5/8"	36-40	8		5875'	Guide		5765	5800	
2-1/2"	6.5	8		5015'	Plug		5640	5720	Production
							5775	5785	Production

MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
13-3/8"	995'	810	Halliburton		
9-5/8"	5875'	400	Halliburton		

PLUGS AND ADAPTERS

Heaving plug—Material \_\_\_\_\_ Length \_\_\_\_\_ Depth set \_\_\_\_\_  
 Adapters—Material \_\_\_\_\_ Size \_\_\_\_\_

SHOOTING RECORD

Size	Shell used	Explosive used	Quantity	Date	Depth shot	Depth cleaned out

TOOLS USED

Rotary tools were used from \_\_\_\_\_ feet to 9355 feet, and from \_\_\_\_\_ feet to \_\_\_\_\_ feet  
 Cable tools were used from \_\_\_\_\_ feet to \_\_\_\_\_ feet, and from \_\_\_\_\_ feet to \_\_\_\_\_ feet

DATES

Put to producing \_\_\_\_\_, 19 \_\_\_\_\_

The production for the first 24 hours was \_\_\_\_\_ barrels of fluid of which \_\_\_\_\_ % was oil; \_\_\_\_\_ % emulsion; \_\_\_\_\_ % water; and \_\_\_\_\_ % sediment. Gravity, °Bé. \_\_\_\_\_

FOLD MARK

No. 3, from 5600 to 5673 No. 6, from 9025 to 9355  
 No. 1, from \_\_\_\_\_ to \_\_\_\_\_ No. 3, from \_\_\_\_\_ to \_\_\_\_\_  
 No. 2, from \_\_\_\_\_ to \_\_\_\_\_ No. 4, from \_\_\_\_\_ to \_\_\_\_\_

**IMPORTANT WATER SANDS**

EL

**CASING RECORD**

Size casing	Weight per foot	Threads per inch	Make	Amount	Kind of shoe	Cut and pulled from	Perforated		Purpose
							From—	To—	
13-3/8"	48-61	8		995'	Guide				Conductor
9-5/8"	36-40	8		5675'	Guide		5765	5800	
2-1/2"	6.5	8		5815'	Plug		5640	5720	Production
							5775	5785	Production

**MUDDING AND CEMENTING RECORD**

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
13-3/8"	995'	810	Halliburton		
9-5/8"	5675'	400	Halliburton		

FOLD MARK

**PLUGS AND ADAPTERS**

Heaving plug—Material \_\_\_\_\_ Length \_\_\_\_\_ Depth set \_\_\_\_\_  
 Adapters—Material \_\_\_\_\_ Size \_\_\_\_\_

**SHOOTING RECORD**

Size	Shell used	Explosive used	Quantity	Date	Depth shot	Depth cleaned out

**TOOLS USED**

Rotary tools were used from \_\_\_\_\_ feet to 9355 feet, and from \_\_\_\_\_ feet to \_\_\_\_\_ feet  
 Cable tools were used from \_\_\_\_\_ feet to \_\_\_\_\_ feet, and from \_\_\_\_\_ feet to \_\_\_\_\_ feet

**DATES**

\_\_\_\_\_, 19\_\_\_\_ Put to producing \_\_\_\_\_, 19\_\_\_\_  
 The production for the first 24 hours was \_\_\_\_\_ barrels of fluid of which \_\_\_\_\_ % was oil; \_\_\_\_\_ % emulsion; \_\_\_\_\_ % water; and \_\_\_\_\_ % sediment. Gravity, °Bé. \_\_\_\_\_  
 If gas well, cu. ft. per 24 hours 5,210,000 Gallons gasoline per 1,000 cu. ft. of gas \_\_\_\_\_  
 Rock pressure, lbs. per sq. in. 1665

**EMPLOYEES**

Cecil L. Wallace \_\_\_\_\_, Driller Fred Sparks \_\_\_\_\_, Driller  
 E. D. Berry \_\_\_\_\_, Driller Tom J. Flanagan \_\_\_\_\_, Driller

**FORMATION RECORD**

FROM—	TO—	TOTAL FEET	FORMATION
SEE ATTACHED LOG.			

(OVER)





MOUNTAIN FUEL SUPPLY COMPANY  
R. D. Murphy Well No. 6-W

Location: 1575 ft. fm. N. line, 1540 ft. fm. W. line, sec. 22, T. 3 N.,  
R. 24 E., Clay Basin Gas Field - Daggett County, Utah

Commenced: October 8, 1946

Completed: June 27, 1947

Casing: 13-3/8" @ 995'/310 sax  
9-5/8" @ 5875'/400 sax

Elevation: 6518' rotary bushing

Total Depth: 9355 ft., plugged back to 5825 ft.

Production through perforations: 5765'-5800' (105 9/16" holes)  
5640'-5720' (235 9/16" holes)

Initial Production: 5,210,000 cu. ft. sweet gas from Dakota sand.

Rock Pressure: 1660 psi.

Formation tops:	Frontier	5298
	Aspen	5415
	Dakota	5603
	Morrison	5790
	Curtis	6388
	Entrada	6567
	Carmel	6667
	Nugget	6774
	Chinle	7552
	Shinarump	7780
	Moenkopi	7805
	Park City	8700
	Weber	9025

Tests in Weber Sand:

9057-9297' - Max. 6,301,000 cu. ft. non-inflammable sour gas.  
Some sulphur water.

9301-9355' - Sulphur water, slight show gas.

Analysis of Gas From Weber Sand:

	<u>% by volume</u>
Oxygen	0
Nitrogen	31.10
Carbon Dioxide	15.71
Hydrogen sulphide	0.01
Total hydrocarbons	3.48

CHEMICAL LABORATORIES, INC.  
P. O. Box 279  
Casper, Wyoming

GAS ANALYSIS REPORT

Field: Clay Basin, Utah  
Operator: Mountain Fuel Supply Company  
Sand: Weber      Depths: 9,059-9,134  
Analyzed by: J. G. Crawford  
Remarks: DST

Well No. R. D. Murphy 6-W  
Location: SE $\frac{1}{4}$  NW $\frac{1}{4}$  22-3N-21E  
Lab. No.: 550  
Date: June 9, 1947

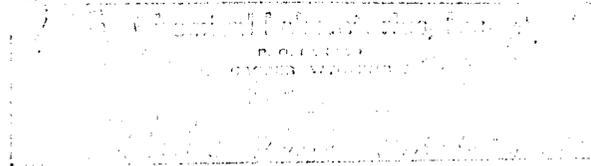
ORSAT ANALYSIS

	<u>% by Volume</u>
Oxygen	0.12
Nitrogen	81.69
Carbon dioxide	15.19
Hydrogen sulfide	0.02
Total hydrocarbons	2.98
Average "n"	2.49
Specific Gravity (calculated)	1.078
Specific Gravity (observed)	1.058
Gross B.t.u. per cu. ft.	64

HYDROGEN SULFIDE  
(by Tutwiler Method)

Grains of hydrogen sulfide per 100 cu. ft. of gas at 60°F. and 14.6 lbs. per sq. in.	12.7
percentage of hydrogen sulfide	0.02

Remarks and Conclusions: High nitrogen gas; worthless.



GAS ANALYSIS REPORT

↙ New Unit Well No 11

Well No. 11 Location New Unit Well No 11  
 Depth 1000 Date 6-20-54  
 Analyzed by G. R. Miller

COMPOSITION DATA

Low Temperature Fractionation

	% by Volume
Carbon	0.02
Nitrogen	0.02
Carbon dioxide	74.02
Hydrogen sulfide	0.02
Total hydrocarbons	2.03
Average "n"	2.02
Specific Gravity (calculated)	2.002
Specific Gravity (observed)	2.002
Gross B.G.M. per cu. ft.	0.02

Oxygen	
Nitrogen	
Carbon dioxide	
Hydrogen sulfide	
Methane	
Ethane	
Propane	
Isobutane	
Normal butane	
Normal pentane	
Normal hexane	
Hexanes & Higher	

ACTUAL

Average "n" by Mol.	
Gross B.G.M. by Mol.	
Specific Gravity by Mol.	
Specific Gravity by Weight	

G.R.M.

Actual pentanes -f	
Calculated at 12 lbs.	
Calculated at 15 lbs.	
Calculated at 22 lbs.	
Calculated at 23 lbs.	

HYDROGEN SULFIDE  
(by Tutwiler Method)

Grains of hydrogen sulfide per 100 cu. ft. of gas at 60°F. and 14.7 lbs. per sq. in.	12.7
Percentage of hydrogen sulfide	0.02

Vapor pressure (calculated) of actual pentanes -f

Remarks and Conclusions: High nitrogen gas, very dry.

NOTICE OF INTENTION TO CHANGE

As set out in our Notice of June 28, 1947, it was our intention to plug back and perforate the Frontier sand. Further, our Notice dated June 29, 1947, confirms the work of plugging back, setting the retainer and perforating. After perforating the Frontier sand we ran tubing in the hole (our Notice dated July 4, 1947) and tested the Frontier sand through these perforations with the following results.

7/8/47

7/9/47

<u>Time</u>	<u>Size Pipe</u>	<u>Water Diff.</u>	<u>Open Flow</u>	<u>Casing Pressure</u>
3 p.m.	1"	4.0"	70,010	19
4 p.m.	1"	4.0"	70,010	23
5 p.m.	1"	4.5"	73,600	28
6 p.m.	1"	5.0"	77,570	28
7 p.m.	1"	5.4"	80,900	36
8 p.m.	1"	5.4"	80,900	33
9 p.m.	1"	5.4"	80,900	33
10 p.m.	1"	5.4"	80,900	33
11 p.m.	1"	5.4"	80,900	33
12 p.m.	1"	5.4"	80,900	33
1 a.m.	1"	5.4"	80,900	33
2 a.m.	1"	5.4"	80,900	33
3 a.m.	1"	5.4"	80,900	34
4 a.m.	1"	5.4"	80,900	34
5 a.m.	1"	5.4"	80,900	36
6 a.m.	1"	5.0"	77,570	40
7 a.m.	1"	5.4"	80,900	44
8 a.m.	1"	5.4"	80,900	44
9 a.m.	1"	5.4"	80,900	44
10 a.m.	1"	5.0"	77,570	45
11 a.m.	1"	5.4"	80,900	45
12 a.m.	1"	5.4"	80,900	45
1 p.m.	1"	5.4"	80,900	48
2 p.m.	1"	5.0"	77,570	48

The above tests indicate that it would not be profitable to produce this sand with such small volume. We will drill out the retainer now set at 5475', condition the mud to the top of the cement plug (5875') and set a bridging plug at 5825', after which we will set a cement retainer at 5275' and squeeze off the perforations between 5300' and 5430' using 100 sax of cement. We will then drill out to 5825' (the top of the retainer) and gun perforate the Dakota sand from 5640' to 5720' using 240 9/16" shots spaced 4 inches apart. We will also perforate the second bench of the Dakota sand from 5765' to 5800' using 105 9/16 inch shots spaced 4 inches apart. We will then run a drill stem test on these perforations, and if they are found to be satisfactory we will complete this well in the Dakota sand.

This Notice confirms the telephone conversation between our Mr. D. K. Bowen and your Mr. E.A. Swedenborg, District Engineer, under date of July 9, 1947.

LOCATION: 1575' fr. N. Line, 1540' fr. W. Line, Sec. 22, T. 3 N.,  
R. 24 E., Daggett County, Utah

ELEVATION: 6507' Ground

STARTED DIGGING CELLAR: August 5, 1946

STARTED DRILLING: October 8, 1946

FINISHED DRILLING: June 27, 1946

FORMATION TOPS: (Schlumberger)

Frontier sand	5298'	(Approx. 70' good sand)
Aspen shale	5415'	
Dakota sand	5655'	(Approx. 35' good sand)
Morrison formation	5790'	
Curtis formation	6385'	
Entrada sandstone	6553'	
Carmel formation	6860'	
Hugget sandstone	6776'	(Tested salt water)
Jelm formation	7362'	
Shinarump sandstone	7780'	(Tested show gas, salt water)
Chugwater formation	7800'	
Phosphoria formation	8725' (?)	(Tested show non-inflammable gas)
Weber sandstone	9025' (?)	(Tested nitrogen gas; water at approx. 9175' Estimated)

TOTAL DEPTH: 9355'

DIAMOND CORING: 9045' to 9355'. 8 diamond heads used. 38.75' per head, average footage.

CASING: 13 3/8" at 995' 810 sacks.  
9 5/8" at 5875' 400 sacks.

Generalized Formation Descriptions

BAXTER SHALE - (Surface to 5298')

The Baxter is here divisible into three zones:

- A. Shale, very calcareous, silty to sandy, soft with hard streaks fissile, dark gray with streaks of bentonite and of sandstone, very calcareous, very fine-grained, light gray with black grains. Probable Steele Shale equivalent. (3370 + ft.)
- B. Speckled shale, silty, very calcareous, soft, gray with minute white to buff specks. Thickly interbedded with shale, silty to sandy, very calcareous, fissile, soft to moderately hard, dark gray. Inoceramus fragments at intervals. Probable Niobrara equivalent. (460')
- C. Shale, silty, calcareous to slightly calcareous, fissile, soft with moderately hard streaks, dark gray, with streaks of sandstone, calcareous, argillaceous, hard, very fine-grained, light gray with black mica and in basal 900' several thin limestones, argillaceous, hard to soft, cryptocrystalline to earthy, light gray to buff. Inoceramus fragments at intervals. Probable Carlile equivalent (1468')

FRONTIER FORMATION - (117 ft. from 5298'-5415')

The Frontier consists here of 39' of sandstone, very fine-grained, glauconitic in part, light gray to buff, sparkling, with sparse black grains, underlain by 31' of shale, carbonaceous, silty in part, soft, dark gray to black with thin streaks of coal, underlain by 47' of sandstone, medium-grained, light gray to gray-white, argillaceous with sparse black grains and glauconite. The Frontier made a good showing of gas with no water.

ASPEN FORMATION - (240' from 5415'- to 5655')

Shale, silicious, hard, dark gray, micaceous in part with interbedded shale, soft, flakey, dark gray and thin streaks of bentonite. Fish scales and spines at intervals throughout (188 ft.)

Shale, carbonaceous, silty in part, hard, dull black with interbedded clay, soft, dense, light to medium gray and greenish-gray. Trace of coal. Possible Bear River equivalent. (52 ft.)

DAKOTA FORMATION - (135 feet, from 5655' to 5790')

The Dakota here consists of an upper sandstone 18 feet thick and a lower sandstone 12 feet thick, separated by 105 feet of carbonaceous shale with thin sandstone breaks. Producing formation - 5,210 MCF gas.

MORRISON FORMATION - (600 feet, from 5790' to 6390')

The Morrison here consists of variegated shale (gray, red, purple, brown, pale blue, maroon, green) soft, silty to dense with thickly interbedded clay and claystone, light to medium gray and greenish-gray, and occasional thick sandstones, fine to medium-grained, gray with occasional red grains.

The upper 300 feet has frequent thin streaks of red to white chert and, near the top, occasional thin gray fresh water limestones.

CURTIS FORMATION - (177 feet, from 6390' to 6567')

The Curtis, here, consists of 95' of thickly interbedded limestone, oolitic, gray to brown and sandstone, calcareous, glauconitic, hard, light gray to greenish-gray, underlain by 82' of shale, hard, black with streaks of sandstone as above.

ENTRADA FORMATION - (100 feet from 6567' to 6667')

The Entrada, here, consists of sandstone, slightly calcareous, gray-white, hard, very fine-grained and silty at top to medium-grained at base with thin partings of shale, silicious, very hard, black.

CARMEL FORMATION - (108 feet from 6667' to 6774')

The Carmel is here characterized by brick-red to reddish-brown silty to sandy shale, calcareous in part, with streaks of translucent green, gypsiferous shale and calcareous, silty and argillaceous, fine-grained gray to pink sandstone. The formation contains abundant gypsum and anhydrite throughout. Traces of gray, dense sandy limestone were encountered in the upper 20 feet, but the basal Twin Creek equivalent is absent in the samples.

NUGGET FORMATION - (778 feet, from 6774' to 7552')

The Nugget is here composed of very fine to medium-grained, hard, porous sandstone, gray to gray-white, brown and buff in the upper portions becoming dominately pale pink to buff in the basal 175 feet. The Nugget is water bearing with a show of gas.

CHINLE FORMATION (228 feet, from 7552' to 7780')

The Chinle here consists predominately of silty to sandy brownish-red shale, hard in the upper portion and becoming softer with depths, with interbedded dense tan shale and occasional streaks of dense light green to apple-green shale. This shale interval is broken at 7688 by 39 feet of hard to quartzitic gray to pink, fine-grained sandstone, becoming coarse-grained to conglomeratic in the basal one quarter. This sand showed neither gas, oil or water on test.

SHIMARUMP FORMATION - (25 feet, from 7780'-7805')

The Shimarump consists, here, of 19 feet of soft, gray, calcareous, medium-grained sandstone with occasional red and black grains, overlain by 6 feet of interbedded, sandy, hard, dense, gray limestone, shale pebble and sand conglomerate and hard mottled reddish-brown, green and greenish-gray shale. This sand carries some salt water with a show of gas.

MOENKOPI FORMATION (895 feet, from 7805'-8700')

The name Moenkopi is used here because of the persistence of red sandy shale in important proportions throughout the formation, making differentiation of Chugwater and Dinwoody impractical. The formation consists predominately of brownish-red to maroon, silty to sandy shale with subordinate amounts of purple, tan, red and green shale, with green and greenish-gray becoming dominant in

the basal 170 feet. The upper 300 feet of the formation is non-calcareous and the remainder is calcareous. Streaks of reddish-brown to gray and green siltstone and sandstone occur at intervals throughout the formation.

PARK CITY FORMATION - (325 feet, from 8700 to 9025')

The Park City is, here, divisible into four major zones:

- A. Shale zone: Dense to silty, very hard, green to gray shale with some hard, black siltstone and brown to reddish-brown shale and, in bottom half, streaks of gray dolomite and brownish-gray, slightly phosphatic sandstone and siltstone. (55 feet)
- B. Dolomitic zone: Very hard, silicious to calcareous, dense, dark to medium gray dolomite with thickly interbedded sandy, gray dolomite and dark gray shale, dolomitic in part. (128 feet - slight show of gas and oil)
- C. Phosphatic zone: Interbedded hard, very fine to medium-grained, light gray, calcareous sandstone, phosphatic in part, gray, sandy, phosphatic to dolomitic limestone, hard, dark gray, silicious dolomite, and hard, maroon shale with 10 feet of oolitic to nodular calcareous phosphate rock at the base. (57 feet. Show of odorless gas)
- D. Sandstone zone: Very hard, tight, fine to very fine-grained, gray-white sandstone with occasional streaks of medium-grained sandstone with coarse, frosted, rounded grains identical with Weber and streaks of red, gray and maroon shale. This zone is differentiated from the Weber by the presence of occasional streaks of fine disseminated phosphate. (65 feet. Show of odorless gas).

WEBER FORMATION - (330 feet drilled, from 9025' to 9355')

Highly cross-bedded, hard, gray, fine to medium-grained (sub-angular to sub-round) sandstone with sparse coarse, frosted, rounded grains. Abundant secondary quartz in streaks. Made 6000 MCF odorless, inert gas.

R. D. MURPHY WELL NO. 6-W  
 Clay Basin, Utah  
 22-3N-24E

DRILL STEM TESTS

<u>Test No.</u>	<u>Bottom Hole</u>	<u>Bottom Packer</u>	<u>Length Anchor</u>	<u>Time Open</u>	<u>Date</u>	<u>Results</u>
1	6825'	6805'	20'	35 min.	2-22-47	Strong blow of air for 15 minutes. Unloaded mud in 10 minutes, with strong blow. Last 10 min. not enough blow to unload mud. Recovered 90' very gassy mud and 3700' very gassy salt water.
2	7016'	7006'	10'	45 min.	2-15-47	Weak blow of air throughout test. Recovered 830' gas-cut mud and 2600' very gassy salt water.
3	7217'	7190'	27'	35 min.	2-23-47	Very faint blow of air throughout test. Recovered 450' slightly gassy drilling mud with slight sulfur smell. (Tool opened twice).
4	7745'	7719'	26'	30 min.	3-19-47	900' water cushion. Faint blow of air for 5 min. Recovered cushion and 40' of drilling mud.
5	7792'	7731'	61'	30 min.	3-21-47	900' water cushion. Faint blow of air. Recovered water cushion and 800' gassy mud thinned with salt water.
6	7806'	7798'	8'	30 min.	3-23-47	900' water cushion. Strong blow of air throughout test. Recovered water cushion and 70' gassy drilling mud and 1500' gassy salt water.
7	8763'	8707'	56'	10 min.	4-23-47	2200' water cushion. Fair blow of air until packer failed after 4 min. Recovered water cushion and 400' slightly gas-cut mud. Inside of tool coated with mud heavily-cut with dark brown live oil.
8	8815'	8764'	51'	30 min.	4-29-47	Water cushion 2300'. Fair blow of air for 2 min. Recovered water cushion and 120' drilling mud.
9	8865'	8814'	51'	30 min.	5- 3-47	Water cushion 2300'. Slight blow of air for 1 min. Recovered water cushion and 60' drilling mud.

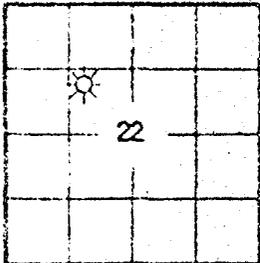
*Nugget*

<u>Test No.</u>	<u>Bottom Hole</u>	<u>Bottom Packer</u>	<u>Length Anchor</u>	<u>Time Open</u>	<u>Date</u>	<u>Results</u>
10	8908'	8866'	42'	30 min.	5-8-47	Water cushion 2300'. Slight blow of air for 2 min. Recovered water cushion and 60' mud both cut with odorless non-inflammable gas.
11	8975'	8949'	26'	60 min.	5-18-47	Water cushion 1000'. Slight blow of air throughout test. Recovered 1000+ water cushion and mud, both heavily cut with odorless, non-inflammable gas.
12	9042'	8989'	53'	50 min.	5-28-47	Water cushion 1000'. Faint blow of air increasing to strong blow at packer failure; failure after 50 min. Recovered water cushion and 500' drilling mud both heavily cut with sulfur gas.
13	9043'	9023'	20'	50 min.	5-29-47	Water cushion 1000'. Fair, increasing blow until seat failed after 10 min. Seat failed gradually throughout test. Recovered water cushion and 4000' very gassy mud.
14	9134'	9057'	77'	120 min.	6-7-47	Strong blow increasing to max. open flow 826 M nitrogen with considerable water spray from cushion in 73 min. Decreased to 100 M at shut off. Rec. 1080' gassy drilling fluid, blackened by sulfur cut.mud.
15	9134'	9057'	77'	225 min.	6-9-47	Strong blow nitrogen increasing to 1,070 MCF at shut off. Still increasing. Made fine spray of mud throughout. Recovered 45' black sulfur cut drlg. mud.
16	9192'	9138'	54'	167 min.	6-12-47	Strong blow nitrogen with fine spray of mud increasing to 971 M at end of test. Still increasing. Rec. 2 oz brown distillate. No other fluid.
17	9264'	9193'	71'	80 min.	7-18-47	Slight blow air, increasing to fair blow in 15 min. & dropping to 0 in 30 min. Rec. 300' very thick drlg. mud cut with sulfur gas. Tool plugged.
18	9297'	9194'	103'	100 min.	7-23-47	Fair blow increasing to 426 M max. open flow nitrogen with heavy spray mud and water in 70 min. Rec. 500' sulfur water.

<u>Test No.</u>	<u>Bottom Hole</u>	<u>Bottom Packer</u>	<u>Length Anchor</u>	<u>Time Open</u>	<u>Date</u>	<u>Results</u>
19	9355'	9301'	54'	90 min.	7-27-47	Fair surging blow through-out test. Rec. 90' gas-cut mud and 210' gassy sulfur water.

TESTS THROUGH PERFORATIONS

<u>Top</u>	<u>Bottom</u>	<u>Number Holes</u>	<u>Open</u>	<u>Date</u>	<u>Results</u>
5300	5430	227	4 days	July 6-9	Max. O.F. 382 MCF, decreasing to 81 MCF
5640 5765	5720 5800	235) 105)	28 $\frac{1}{4}$ hrs.	July 19-20	Max. O.F. 2,060 MCF gas. BHP 1375#, FP. 325#



Location: 1575' FNL, 1540' FNL  
 R.P. 5,210,000 cu ft R.P. 1665  
 Drilling Commenced: October 8, 1946 Completed: June 27, 1947  
 Total Depth: 9355'

Remarks: Plugged back to 5825' and completed as Dakota gas well.  
 Sands: Dakota; perf. 5640-5720'; 5765-5800'.  
 Casing Record: 13-3/8" 6994.83', 48#, 54.5# and 61#, 8 thd, 15' below top of Kelly bshg. cmtd. w/310 sax; 9-5/8" 40# & 36# 65875.42'/400 sax, 13.71' below top of Kelly bshg. 200 jts. 2 1/2" ID EUE 6.5# 8 thd. tubing landed at 5814.93' and perforated 5775'-5785'.

FORMATION RECORD

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	From	To
No samples		0 2700
Shale, very calcareous, slightly silty, soft, dark gray	2700	2726
Same as above, with streaks sandstone, very calcareous, argillaceous, very fine-grained, light gray, with black grains	2726	2790
Sandstone as above, with some shale, as above, and bentonite	2790	2810
Shale, very calcareous, silty to sandy, hard, dark gray	2810	2840
Shale, very calcareous, silty to sandy, soft, dark gray	2840	2870
Same as above, with some sandstone very calcareous, very fine-grained, light gray, with black spots	2870	2910
Shale, as above	2910	2940
Shale, very calcareous, silty, soft, dark gray with some bentonite	2940	2980
Sandstone, calcareous, argillaceous, fine-grained, light gray with black grains	2980	2990
Shale, calcareous, soft, dark gray	2990	3000
No sample	3000	3030
Shale, silty, very calcareous, hard, dark gray	3030	3150
Same as above, sandy in streaks	3150	3300
Shale, very calcareous, silty, soft, dark gray	3300	3370
Speckled shale (Apishipa equiv.) Shale, silty, very calcareous, soft with small irregular white to buff specks.	3370	3400
Shale, very calcareous, silty, soft, dark gray with some speckled shale as above.	3400	3410
Speckled shale, as above, sparse Inoceramus fragments	3410	3480
Sandstone, very calcareous, silty, very fine-grained and speckled shale as above	3480	3500
Speckled shale, as above, hard, sandy in part	3500	3520
Shale, very sandy to silty, very calcareous, hard, dark gray	3520	3540
Shale, as above, speckled in part	3540	3600
Shale, calcareous, slightly silty, hard, dark gray, some Inoceramus fragments	3600	3690
Shale, silty to sandy, calcareous, hard, dark gray, with trace sandstone, calcareous, argillaceous, very fine-grained, gray-white with black specks.	3690	3740
Shale, silty, calcareous, hard, dark gray with some sandstone as above and trace bentonite, silicified, white with minute black specks	3740	3760

	From	To
Shale, as above, with considerable pyrite, very fine-grained, disseminated in clusters	3760	3780
Shale, as above, sandy in streaks,	3780	3800
Shale, as above, with some speckled shale, silty, calcareous, hard, dark gray with some buff specks	3800	3830
Sandstone, calcareous, argillaceous, very fine-grained, light gray, with black mica	3830	3840
Shale, calcareous, sandy to silty, hard, dark gray	3840	3890
No sample	3890	3900
Sandstone, calcareous, argillaceous, hard, very fine-grained, light gray, to gray-white with black mica	3900	3920
Shale, calcareous, slightly silty, soft, dark gray and sandstone, as above, Inoceramus fragments	3920	3950
Shale, as above	3950	3990
Same as above, with some bentonite, sandy	3990	4000
Shale, silty, calcareous, finely-micaceous, soft, dark gray with some streaks bentonite	4000	4040
Shale, as above, with some sandstone, silty, slightly calcareous, very fine-grained, medium-gray with black grains	4040	4070
Sandstone, as above, with some very hard, with abundant biotite and shale as above.	4070	4080
Shale, very silty, calcareous, sandy in part, soft, dirty dark gray, Inoceramus fragments	4080	4130
Shale, silty, slightly calcareous, soft, dark gray, Inoceramus fragments	4130	4190
Shale, silty, slightly calcareous, soft, medium to dark gray	4190	4210
Shale, slightly silty, calcareous, hard, dark gray	4210	4240
Shale, silty, slightly calcareous, soft, dark gray	4240	4280
Shale, silty, calcareous, sandy in part, soft, medium to dark gray-	4280	4310
Shale, silty as above, Inoceramus fragments	4310	4360
Same as above, with some sandstone, calcareous, shaley, silty, light to medium gray, with black grains, very fine-grained, and trace limestone, micro-crystalline, buff, hard	4360	4370
Shale, silty, calcareous, soft, dark gray	4370	4440
Shale, slightly silty, calcareous, hard, dark gray	4440	4450

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## FORMATION RECORD

## FORMATION RECORD

	From	To		From	To
Shale, calcareous, earthy, soft, dark gray		4450 4480	flakey, dark gray and shale, silicious, slightly calcareous; hard, dark gray, platy; sandy in streaks, some shale, soft, light brown, platy, silty in part (probably burned)	5190	5505
Shale, silty, slightly calcareous, soft, dark gray		4480 4560	Shale, soft, gray, as above	5505	5515
Shale, silty, slightly calcareous, hard, dark gray. Sparse Ostrea fragments. Thin streaks sandstone, calcareous, argillaceous, fine-grained, light gray with black grains, biotite.		4560 4590	No Sample	5515	5520
Shale, as above, with some limestone, earthy, buff, very soft. Inoceramus fragments		4590 4610	Shale, silty, calcareous, soft, dark gray to black, fissile	5520	5540
Shale, as above		4610 4620	Same as above, with trace bentonite	5540	5545
Shale, silty, calcareous, soft, dark gray		4620 4710	Shale, silicious, hard, platy, dark gray, sparse fish scales. Trace bentonite	5545	5560
Same as above and sandstone, calcareous, very fine-grained, gray-white to light gray with black grains		4710 4790	Shale, slightly calcareous, dark gray to black, soft, platy. Abundant bentonite.	5560	5580
Shale, silty, calcareous, soft, dark gray		4790 4800	Shale, silicious, slightly calcareous, hard, platy, dark gray	5580	5590
Shale, silty, hard, dark gray		4800 4820	Shale, calcareous, soft, with hard streaks, platy, dark gray	5590	5603
Same as above, with some sandstone, calcareous, silty, very fine-grained, light gray with black grains		4820 4830	Shale, carbonaceous, very slightly calcareous, finely-silty, hard, dull black.	5603	5610
Shale, as above		4830 4840	Trace coal.	5610	5630
Shale, silty, calcareous, soft, dark gray		4840 4860	Same as above, and clay, soft, dense, light to medium gray and greenish-gray	5610	5630
Shale, silty, slightly calcareous, hard, dark gray		4860 4970	Shale, carbonaceous, soft, dull black	5630	5650
Shale, silty, calcareous, hard, medium to dark gray		4970 5010	Samples discarded as useless	5650	5780
Shale, silty, soft, dark gray		5010 5020	Sandstone, silty, soft, loosely consolidated to unconsolidated, medium to coarse-grained, frosted, sub-round to round, colorless quartz. Trace sandstone, very hard, dark green, very fine-grained.	5780	5795
Shale, silty, slightly calcareous, hard, dark gray, sandy in streaks		5020 5040	Clay, soft, light to medium gray	5795	5810
Shale, silty, soft, dark gray		5040 5080	Clay, as above, and limestone, very fine-granular, white, soft. Trace clay, soft, green	5810	5820
Shale, silty, calcareous, hard, dark gray, with some limestone, argillaceous, hard, crypto-crystalline, light gray		5080 5280	Clay, soft, light purple to green and shale, silty, hard, medium to dark gray. Trace chert, red	5820	5840
Shale, silty, calcareous, soft, dark gray		5280 5298	Shale, silty to sandy, hard, medium reddish-purple and clay, soft, gray-white to light gray and greenish-gray	5840	5850
Sandstone, very fine-grained, light to medium gray, with sparse glauconite becoming buff; silty, calcareous in bottom		5298 5310	Shale, silty in part, soft, with hard streaks light to medium reddish-brown and purple; and shale, silty, hard, dark gray with some clay, soft, light greenish-gray to green	5850	5870
Sandstone, very fine-grained, gray-white to light gray and brown-gray with sparse black grains. Sparkling		5310 5330	Limestone, soft, with hard streaks crypto-crystalline to very fine granular, gray-white to buff and shale, slightly silty, soft, maroon to red-purple with some chert, red to translucent gray	5870	5890
Shale, slightly silty, carbonaceous, soft, dark gray to dull black and shale, carbonaceous, soft, black		5330 5350	Shale, silty to sandy, hard, reddish-brown to light greenish-gray and dark gray	5890	5895
Shale, silty, carbonaceous, slightly calcareous, hard, dark gray to black and sandstone, fine-grained, hard, light gray to gray-white with sparse black grains and some tarry residue, trace coal		5350 5370	Sandstone, gray-white, very fine-grained, with occasional coarse frosted rounded grains, soft to unconsolidated and shale as above	5895	5899
Sandstone, soft, porous, medium grained, light gray to gray-white with abundant white argillaceous cement; sparse black grains, trace glauconite. Tarry residue locally		5370 5403			
Shale, silicious, slightly calcareous, micaceous, hard, platy, medium to dark gray		5403 5410			
No Sample		5410 5490			
Shale, slightly calcareous, soft,					

F. J. Taylor

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From	To	From	To
No sample	5899 5940	Sandstone, very calcareous, fine to very fine-grained, soft, firm, light gray to gray-white, with sparse brown, black and green grains and some shale, dense; soft, mottled, red-brown and green	6245 6270
Shale, slightly silty, soft, dark purple with some pale blue and trace chert, white	5940 5960	Shale, as above, and sandstone, as above, medium-grained, with some bentonite, sandy	6270 6280
Shale, soft, dense to silty, light to medium gray, red, pink, purple, brown, with trace chert, gray-white to red. Some sandstone, shaley, medium-gray to dark gray, soft, fine-grained.	5960 6020	Shale, soft, firm, medium-gray, and red-brown, and sandstone, as above.	6280 6285
Shale, dense, soft, purple, maroon, light to medium-gray, and pale green	6020 6040	Shale, soft, firm, silty, red-brown to red, purple, with some green, brick red and black	6285 6300
Same as above, and Sandstone, slightly calcareous, medium-grained, light gray with some green shale inclusions and red grains.	6040 6050	Shale, silty to sandy, soft to hard, brick-red, red-purple, red-brown, brown, greenish-gray, light to medium gray, with abundant green below top 5'.	6300 6310
Shale, as above, with some sandstone, as above	6050 6070	Shale, soft, to hard, light to medium green, greenish-gray, red-brown, and purple with some brown, sandy in part	6310 6340
Shale, as above, with some chert, red	6070 6080	Sandstone, very calcareous, fine-grained, light gray to gray-white and buff	6340 6345
Shale, soft, dense, medium gray	6080 6100	Shale, silty to sandy, soft, red-brown, green and green-gray, and sandstone, as above.	6345 6355
Sandstone, very hard, tight, fine-grained, medium-gray with green tinge and occasional red-brown grains.	6100 6110	Same as above, with trace limestone, hard, light greenish gray, crypto-crystalline	6355 6360
Claystone, soft, firm, light to medium-gray	6110 6120	Shale, soft, light to medium green, greenish-gray, red-brown and purple	6360 6365
No Sample	6120 6125	Sandstone, calcareous, very fine-grained, light buff, hard	6365 6375
Claystone, as above	6125 6135	Same as above, very fine to medium gray	6375 6380
Claystone, soft, firm, light green, gray to green, and shale, silty to sandy, maroon to dark purple	6135 6145	Shale, green, greenish-gray, reddish-brown, purple and sandstone, as above.	6380 6390
Shale, silty, soft, firm, reddish-brown, with some slightly silty to dense, light green	6145 6165	Limestone, oolitic, hard, brownish-gray to brown	6390 6405
Shale, soft, silty to dense, light to medium-gray, dark reddish-brown, and purple	6165 6180	Same as above, with some finely oolitic, light gray, with sparse glauconitic grains	6405 6415
Same as above, with some sandstone, calcareous, hard, fine to very fine-grained, light gray to buff and brown	6180 6185	Same as above, with brachiopod fragments and trace siltstone, calcareous, light gray with streaks black oolites	6415 6420
Shale, as above, and some sandy, crumbly, black	6185 6190	Sandstone, light gray to greenish-gray, very calcareous, hard with black grains and sparse glauconite becoming more glauconitic downward	6420 6440
Shale, soft, dense, light to medium gray and green, gray; green and dark reddish-brown and sandstone, calcareous, very fine-grained, light gray to pale, pink, with streaks coarse grained with light green shale pellets.	6190 6210	Sandstone, very calcareous, glauconitic, very fine to medium-grained, light gray with black grains and abundant glauconite	6440 6455
Sandstone, calcareous, hard, porous, medium-grained, gray-white to light gray and buff, with sparse black grains and green shale inclusions	6210 6215	Limestone, oolitic, soft, gray-white to light gray, sandy matrix with some black oolites.	6455 6470
Shale, silty to dense, soft, light gray to green-gray, dark red-brown and purple	6215 6230	Sandstone, very calcareous, fine to very fine-grained, soft	
Sandstone, calcareous, argillaceous, soft, very fine to fine-grained, light red-brown and shale as above	6230 6240		
Same as above (shale largely burned black by overheating)	6240 6245		

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Company Mountain Fuel Supply Company

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	From	To
with hard streaks, light gray, with black grains and very sparse glauconite	6470	6475
Sandstone, glauconitic, very calcareous, hard, medium-gray, very fine to fine-grained with black grains and abundant glauconite	6475	6485
Shale, non-calcareous to slightly calcareous, hard, black with streaks sandstone, glauconitic, as above.	6485	6557
Note: Drilling time and condition of bits indicates very hard sandstone grinding to powder and not recovered in samples from 6524'. Black, shale, probably all sluff.		
Sandstone, very hard, fine to very-fine-grained, gray-white, sub-angular indicated by sparse loose grains	6557	6564
Sandstone, silty, slightly calcareous, very fine to fine-grained, white, soft, porous	6564	6568
Core #1: 6568'-6570', rec. 3.9'		
Sandstone, silty, slightly calcareous, hard, crumbles easily, fine to very-fine grained, gray-white with sparse black grains.		
Core #2: 6576'-6588', rec. 3.0'		
1.4' sandstone, as above.		
6.1' shale, silicious, very hard, with hackly fracture, black		
1.4' sandstone, as above.		
Sandstone, as above, and shale, black, as in Core #2	6586	6620
Sandstone, slightly calcareous, hard, fine-grained, sub-round, white	6620	6630
Shale, black, as above, with some sandstone, as above	6630	6650
Sandstone, slightly calcareous, hard, gray-white, medium-grained, sub-round and shale, as above	6650	6670
Shale, very sandy and silty, soft, firm, bright red to reddish brown, with trace gypsum, white, earthy to pale green, translucent, cleavable. Trace limestone, sandy, dense, medium-gray; Trace sandstone, silty, argillaceous, calcareous, pale reddish-brown	6670	6690
No Sample	6690	6705
Shale, gypsiferous, soft, translucent, pale green, with some platy gypsum	6705	6710
Sandstone, calcareous, silty, argillaceous, soft, very fine-grained, light gray to pale pink	6710	6715
Shale, silty to sandy, calcareous, hard to soft, light to medium-gray, reddish-brown and green	6715	6720
Shale, gypsiferous, soft, light gray to greenish-gray, translucent with thin strings of white to pink columnar gypsum. Some siltstone, argillaceous, hard, reddish-gray with argillaceous filled voids	6720	6730

	From	To
Shale, calcareous, very sandy to silty, hard, brick-red to reddish-brown and brown, with finely-laminated anhydrite in part	6730	6740
Same as above, with some sandstone, silty, calcareous, soft, fine to very fine-grained, reddish-brown and some gray, white, columnar	6740	6747
Shale, silty to sandy, hard, brick red to reddish-brown. Trace anhydrite, light gray to greenish-gray	6747	6766
Shale, soft, light to medium gray and blue-gray, with some shale, as above, and trace sandstone, very silty, very fine-grained, hard, light gray to buff	6766	6775
Shale, soft, maroon to dark reddish-brown and shale, gray, as above. Trace anhydrite	6775	6790
Same as above, with some sandstone, fine-grained, soft, light gray to buff	6790	6800
Shale, as above	6800	6803
Sandstone, fine-grained, hard, light gray to gray-white.		
Note: Sample lag correction placed in log top 6803'. Checked by drilling time break. Bottom hole sample at 6815 shows sandstone, as above.		
Core #3: 6815'-6820', rec. 0.5'		
Sandstone, hard, porous, fine to medium-grained, sub-angular quartz, gray-white to light gray with faint brown stain, medium-brown in part. One 1/2" streak shale, soft, dense, medium-gray, slight sulfur smell		
Core #4: 6820'-6825', rec. 1.5'		
Sandstone, hard, porous, medium to fine-grained, sub-angular quartz, light gray to light brown. Slight sulfur smell. Slight taste gas and salt. Other (-), Acetone (+), U.F. (-).		
No Sample	6825	6840
Sandstone, slightly calcareous to non-calcareous, soft, firm, porous, fine to very fine-grained, sub-angular to sub-round quartz, gray-white to buff and shale, slightly calcareous, hard, dense with sandy streaks, dark gray	6840	6870
Shale, as above	6870	6880
Sandstone, slightly calcareous, fine-grained, sub-round, soft, porous, buff to gray-white	6880	6910
Sandstone, very slightly calcareous, soft, firm, porous, light gray to gray-white and pale buff	6910	6920
Core #5: 6825'-6885', Anchor 20'. Pool open 35 min.: 15 min. flow of air for 10 min. unloaded and for 10 min. with strong flow. Last 10 min. not strong enough to continue unloading. Air recovered almost very good and had no salt water and all streaks very gassy, muddy salt water		

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Well Clay Basin

Form

Well No. 2

Company Mountain Fuel Supply Company

FORMATION RECORD

FORMATION RECORD

	From	To
Test #2: 7014'-7003', Anchor 11'. (1st Run) packer failed (2nd Run) 7016'-7003', Anchor 10'. Tool open 45 min. 20 min. of this time blowing against back-pressure from frozen test line. Results: weak blow of air throughout test. Recovered 330' gas-cut mud and 2500' very gassy salt water.		
Test #3: 7217'-7190', Anchor 27'. Tool open 35 min. (opened twice). Very faint blow. Recovered 450' slightly gassy drilling mud, with slight sulfur smell.		
Sandstone, slightly calcareous, light brownish-gray to buff, soft, porous, fine to medium-grained, sub-round	6920	6955
Shale, dense to slightly sandy, soft, greenish-gray to green and dark gray, with some red and purple, dense to sandy and abundant anhydrite sandy, soft chalky, white	6955	6980
Shale, as above, with some anhydrite, dense, light gray to greenish-gray.	6980	6996
Shale, soft, dark gray to greenish gray, some sandy, calcareous soft, carbon	6996	7002
Sandstone, slightly calcareous, very hard, crumbly, light gray to buff, rounded, frosted	7002	7009
Core #5: 7009'-7011', rec. 1.3'. Sandstone, slightly calcareous, very hard, crumbly, gray-white, medium-grained, rounded, frosted, with silt to colloidal sized silica grains in interstices. Slightly porous to porous. Slight smell sulfur. Ether (-), Acetone, very faint questionable (+).		
Core #6: 7011'-7014', rec. 1.5'. Sandstone, as above, with shows, as above		
Sandstone, as above	7014	7030
Sandstone, very slightly calcareous, fine to medium-grained, soft, light gray to buff	7030	7065
Shale, dense to slightly silty and sandy, calcareous, soft, medium-green to greenish-gray and dark reddish-brown. Some shale, very calcareous, soft, light gray	7065	7090
Shale, slightly silty, hard, medium to dark gray, and sandstone, slightly calcareous, hard, fine-grained, sub-round, frosted, light gray to buff	7090	7105
Sandstone, fine to medium-grained with coarse-grained streaks, very hard, sub-round to sub-angular, frosted, grayish-white, sparkling in part, with some crown stain and occasional very coarse-grains, hard, dark gray shale	7105	7115
Sandstone, fine to medium-grained, as above, with abundant pyrite	7115	7135
Sandstone, very hard, medium to coarse-grained, sub-angular, sparkling with some rounded frosted grains	7135	7170

	From	To
Sandstone, as above, fine to medium-grained, with occasional coarse to very coarse-grains. (heavy 295 consolidation of coarse brown to orange grains from 7190'-7217')	7170	7217
Sandstone, medium to coarse-grained, with very fine-grained secondary silica, sub-angular to sub-round, frosted in part, gray-white to buff and light brown, very hard	7217	7225
Sandstone as above with some pyrite and black grains	7225	7255
Sandstone, fine to medium-grained, sub-angular to sub-round gray-white, buff, with very fine silicious cement and occasional rounded brown grains	7255	7275
Sandstone, loose, very-fine to medium-grained, sub-angular to sub-round, frosted in part, gray-white with some brown. Some loose consolidation. Lost circulation.	7275	7285
Sandstone, very hard, fine to medium-grained, sub-angular, light gray to pale buff	7285	7375
Sandstone, as above, gray-white to pale pink	7375	7455
No Sample	7455	7460
Sandstone, very hard, very fine to fine-grained, pale pink with sparse black grains and very sparse red grains	7460	7490
Sandstone, very hard, fine to medium-grained, buff to pale pink and gray-white, with occasional red to brown grains	7490	7505
No Sample	7505	7525
Sandstone, as above	7525	7545
Sandstone, very fine to fine-grained with medium-grained, rounded, frosted grains abundant in streaks, pale pink with sparse black and brown grains	7545	7550
Sandstone, very fine to fine-grained, as above	7550	7562
Shale, very silty to sandy, hard, medium to dark brown-red to siltstone, very sandy, hard, medium to dark brown-red.	7562	7575
Sandstone, very fine-grained, hard, light reddish-brown to buff and medium gray	7575	7580
No Sample	7580	7583
Shale, silty, hard, light to medium reddish-brown	7583	7600
Sandstone, fine to very fine-grained, light gray, with some black grains	7600	7610
Shale, slightly silty, soft, reddish brown and shale, slightly calcareous, hard, brittle, black	7610	7620
Shale, reddish-brown, as above, with some light brown, dense, slightly calcareous	7620	7630
Shale, brown, as above, and shale, red, as above, with some light green	7630	7650

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From	To
Shale, dense, light to medium brown and reddish-brown, with thin seams white columnar calcite. (heavy 195 some contamination)	7550 7655
Same as above, no shale, silty, hard, reddish-brown	7655 7660
Same as above, no shale, soft, light yellow, green with trace of apple-green, dense, hard, calcite seams, as above	7660 7675
Silt, sandy, calcareous, hard, black	7675 7685
Shale, slightly silty, hard, reddish-brown	7685 7690
Sandstone, quartzitic, fine-grained, light-gray to pink, very hard, light	7690 7715
Sandstone, quartzitic, fine to very fine-grained, gray-white to pink, with brown specks	7715 7729
Core #7: 7729'-7734', rec. 1.0' Sandstone, hard, very coarse-grained to grit, conglomeratic in part, dense to slightly porous, sub-angular, gray-white to light-gray and transparent colorless quartz, with trace barry residue. Large inclusions and paper thin partings of red shale and inclusions of dark brown carbonaceous waxy shale. No show. Other (-).	7729 7734
Core #8: Recovered 3.0' 0.2' sandstone, as above. 0.1' quartzite, light gray 0.4' siltstone, sandy to shale, very silty and sandy, hard, dark gray with abundant biotite 0.3' siltstone, as above, micaceous, light green, with abundant biotite	7734 7740
Core #9: Recovered 0.3' Sandstone, silty, very hard, light, light greenish-gray, very fine- to medium-grained, with occasional coarse grains; sparse red chert grains and green shale inclusions. Abundant biotite	7740 7745
Core #10: Bottom of hole 7745, bottom of packer 7719; anchor 20'. Water cushion 900'. Tool open 30 min. Faint flow of air for 5 min. Recovered 40' drilling mud and 900' of water cushion.	
Shale, soft, reddish-brown to yellowish-brown, with stringers columnar calcite	7745 7760
Same as above, with iron ore loose grains seen; coarse-grained, sub-round to sub-angular, translucent quartz, and some sandstone, soft, clay-rippled, white to light brown	7760 7770
Sandstone, fine to medium-grained, soft, gray-white to light gray to brown, with coarse conglomerate, sub-angular parts in fine-grained quartz matrix. Confirmed by 1.0' sample	7770 7777

From	To
Core #10: Recovered 1.0' 1.0' sandstone, calcareous, coarse to medium-grained, light pink to light gray with occasional reddish-brown shale inclusions, biotite more abundant downward and possible in to very heavy calcite, very hard, reddish-brown, shale with slight green streaks in bottom 0.1'. No show	
0.9' Silt, very sandy, calcareous, soft, bluish, with rare streaks and thin thin streaks sandstone, argillaceous, calcareous, fine to coarse-grained, unconsolidated. Other (-), acetone (+)	7777 7782
Core #11: Recovered 1.0' 0.1' Limestone, sandy, very hard, dense, medium-gray 0.2' sandstone, calcareous, very hard, light, fine to medium-grained, light gray to pale green, with occasional pink to red grains and with occasional inclusions light-gray shale 1.0' shale, pebbly and some conglomerate, calcareous, dark gray, very hard, predominate shale pellets up to 1/2" dia. with fine to medium-grained sandstone between pellets 0.7' sandstone, as above. 0.3' shale, very hard, mottled reddish-brown, light green and greenish-gray	7782 7787
Core #12: Recovered 1.5' 1.1' shale, silty to sandy, very hard, reddish-brown, with occasional green splotches. 0.4' shale, very silty to sandy, very hard, yellow-gray to brownish-gray. 0.2' shale, reddish-brown, as above, becoming mottled and streaked with light green in bottom 0.1'	7787 7792
Core #13: 7792'-7791', anchor 0.1'. Water cushion 900'. Tool open 30 min. Faint flow of air throughout test. Recovered water cushion, 400' very heavy drilling mud and 400' very sandy mud thinned with salt water	
Core #13: Recovered 1.0' 0.1' shale, soft, crumbly, dark reddish brown. 0.9' sandstone, calcareous, soft, porous, light gray, fine to medium-grained, unconsolidated. Other (-)	7792 7797
Core #14: Recovered 1.0' sandstone, calcareous, soft, silty, porous, medium-grained, sub-round, light gray, with occasional red thin shale grains. No show. Light green salt. Other (+)	7797 7802
Core #15: Recovered 1.0' Sandstone, as above, porous with	

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	From	To
porous streaks	7802	7806
Well #6: 7806'-7790', anchor 3'. water cushion 200'. Pool open 30 min. Strong flow of air throughout test. Recovered 70' gassy drilling mud and 1500' gassy salt water.		
Sandstone, as above	7806	7808
Shale, very sandy, micaceous, hard, reddish-brown	7808	7820
Sandstone, very silty to sandy, hard, light gray to greenish- gray	7820	7825
Shale, very silty to sandy, hard, light to dark reddish-brown	7825	7848
Shale, silty to sandy, slightly calcareous, gray to greenish- gray, hard	7848	7855
Shale, very sandy, hard, reddish- brown, with some purple-red	7855	7870
Same as above, with abundant coarse, sub-angular, trans- parent, colorless quartz	7870	7880
Shale, silty to sandy, hard, medium reddish-brown	7880	7900
Same as above, with some sand- stone, hard, fine-grained, with streaks coarse-grained, light gray to pink	7900	7920
Shale, silty, soft, maroon to Indian red, with some dense, yellowish-brown	7920	7930
Shale, sandy, soft, reddish- brown, with some yellowish- brown, dense	7930	7960
Shale, silty, soft, maroon, to reddish-brown	7960	7980
Shale, slightly silty, hard, Indian red	7980	7985
Shale, hard, silty, reddish- brown to dense, yellowish- brown	7985	7990
Shale, slightly silty, hard, Indian red	7990	7995
No Sample	7995	8000
Shale, dense to silty, soft, maroon to reddish-brown	8000	8020
Shale, dense to silty to sandy, soft, with hard streaks reddish brown to brown.	8020	8035
Shale, sandy to silty, slightly calcareous, hard, brick-red to reddish-brown, with small anhy- drite filled vugs.	8035	8040
Shale, very sandy, hard, reddish- brown with occasional pale green patches.	8040	8040
Same as above, with trace sand- stone, hard, very fine-grained, pale pink to pink-gray and some loose coarse sub-angular grains quartz	8040	8055
Shale, silty to sandy, hard, red- dish-brown to brown and purple	8055	8060
Same as above, as shale, sandy, hard, light greenish-gray to green	8060	8085
Shale, silty to sandy, hard, red- dish-brown to brownish-red	8085	8090
Shale, silty to sandy, slightly calcareous, hard, brownish-red to reddish-brown	8090	8110

	From	To
No sample	8110	8115
Shale, as above, with some sand- stone, calcareous, very fine- grained, hard, light greenish- gray	8115	8140
Shale, as above	8140	8145
Shale, calcareous, silty to sandy, soft, brownish-red, with streaks concretion, very micaceous, argil- laceous, soft, light red	8145	8160
Same as above, and siltstone, sandy slightly calcareous, reddish- brown with streaks clay, soft, red	8160	8185
Shale, silty to sandy, as above, with some sandstone, hard, fine to very fine-grained, pink to buff	8185	8190
Shale, dense to silty, hard, brownish-purple	8190	8195
Siltstone, sandy, very calcareous, gray-white to greenish-gray, hard	8195	8200
Siltstone, as above, pink to light brownish-red	8200	8205
Shale, silty to sandy, cal- careous, light to medium brown- ish red, with some dark maroon, soft	8205	8260
Same as above, micaceous in part	8260	8275
Shale, silty to sandy, calcareous, hard, medium to dark reddish- brown, with trace siltstone, calcareous, hard, light green	8275	8285
Siltstone, sandy, calcareous, hard, buff to light gray, greenish-gray and green, with some claystone, light gray	8285	8290
Same as above, as shale, red- dish-brown as above.	8290	8300
Shale, dense to silty, soft, medium to dark greenish-gray and shale, reddish-brown as above.	8300	8311
Shale, silty, calcareous, hard, reddish-brown, sandy in part	8311	8320
Siltstone, sandy, calcareous, micaceous, light gray to greenish-gray, soft	8320	8330
Siltstone, slightly calcareous, hard, light green to greenish- gray	8330	8335
Shale, silty, calcareous in part, hard, brown to reddish- brown and maroon	8335	8350
Siltstone, sandy, slightly cal- careous, hard, light gray to greenish-gray and medium green	8350	8355
Shale, silty, calcareous, soft, medium to dark reddish-brown, with some siltstone, as above, and argillite, gray-white, sandy	8355	8370
Siltstone, slightly calcareous, silty, soft, light to medium blue-green, with some sand- stone, hard, fine to medium- grained, bluish-green with some black and red grains	8370	8380
Shale, silty, hard, reddish- brown and shale, dense to silty slightly calcareous, hard,		

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	From	To
medium to dark green, and greenish-gray with some sandstone, as above, gray-white	3380	3385
Shale, reddish-brown, as above, and Sandstone, calcareous, soft, very fine-grained, light reddish-brown to buff	3385	3390
Siltstone, calcareous, sandy in part, hard, light gray to greenish-gray, and shale, light to dark brown, silty, soft	3390	3400
Shale, silty to sandy, calcareous, hard, light to dark brown with some bluish-green	3400	3405
Sandstone, silty to siltstone, sandy, very fine-grained, light brown to brown-gray, calcareous soft	3405	3410
Siltstone, sandy, calcareous, hard, light greenish-gray to blue-green	3410	3420
Shale, silty, calcareous, hard, light to medium brown and reddish-brown and siltstone as above.	3420	3435
Same as above, with trace sandstone, calcareous, very fine-grained, gray-white, with sparse black and brown grains	3435	3455
Shale, silty to sandy, hard, medium to dark reddish-brown with bluish-green splotches.	3455	3470
No sample	3470	3475
Shale, silty to sandy, calcareous, soft, light to dark reddish-brown, with green splotches	3475	3490
Siltstone, sandy, slightly calcareous, light greenish-gray to green, soft with hard streaks	3490	3505
Same as above, with trace sandstone, soft, fine-grained, light gray, with brown grains	3505	3510
Shale, silty to dense, soft, reddish-brown	3510	3518
Siltstone, as above, with some sandstone, soft, very fine-grained, light gray and shale, dense, soft, light to medium green	3518	3530
Shale, silty to dense, hard, light greenish-gray to green, with trace sandstone, hard, fine-grained, light gray to brown	3530	3565
Shale, silty to dense, hard, light brown to reddish-brown	3565	3573
Siltstone, sandy, calcareous, soft, light gray to greenish-gray, with abundant finely disseminated pyrite and white mica	3573	3598
Shale, silty to dense, calcareous, light greenish-gray to green, with finely disseminated pyrite as above.	3598	3617
Shale, silty to sandy, soft, light brown to medium brownish-red	3617	3625
Shale, calcareous, silty to dense, soft, light green and siltstone, calcareous, soft, light gray with abundant finely disseminated pyrite	3625	3653
Shale, dense to silty, slightly calcareous, soft, brown to reddish brown.	3653	3670

	From	To
shale, silty to sandy, hard, medium, with white-inclusions and stellate crystalline structure of anhydrite.	3670	3695
Same as above, limestone, hard, soft, pink	3695	3700
Shale, dense to silty, pyritic in part, very hard, light green to greenish-gray	3700	3705
Same as above, with trace siltstone, hard, black	3705	3715
Shale, green to above, dense, hard, lassy, brown to reddish-brown with shale, hard, dense, black.	3715	3725
Same as above, with trace siltstone, calcareous, pyritic, soft, light gray with phosphate nodules in streaks and trace dolomite, hard, gray, crypto-crystalline	3725	3732
Shale, green, as above, with some dolomite, hard, light gray to greenish-gray with finely disseminated black mineral in streaks, trace sandstone, calcareous, medium-grained, light brownish-gray with occasional streaks black mineral	3732	3747
Siltstone, hard, light brown to gray, with some black inclusions and nodules of phosphate (?). Some sandstone, as above, with abundant black mineral streaks	3747	3752
Siltstone, sandy, hard, brown, oil stain. Ether and acetone strongly positive.	3752	3753
Core #16: Recovered 0.1'		
Hole 16, very hard, light gray with very faint brown stain, very finely granular in part, with occasional large phosphatic (?) inclusions. Good seal of oil. Ether and acetone very strong positive. A few siltstones	3753	3756
Core #17: Recovered 2.1'		
Dolomite, very hard, dense, medium-gray, very faint smell of oil in streaks. Acetone faint positive.	3756	3759
Core #18: Recovered 1.5'		
Dolomite, very hard, dense to very fine-grained with medium to dark brown oil stain in fine-grained portion. Oil has oil oil. Ether positive. Core bleeds brown oil in streaks	3759	3762
Core #19, recovered 0.3'		
Same as above, dolomitic, very fine-grained, hard, with soft, streaks, white. Ether (-), acetone very faint (+)	3762	3763
SP #7: 3763-3767', anchor 36. Tool open 10 min. Packer 1 min. Air blow 4 min. 2200' water cushion. 1/2 cu. ft. air for 4 min. 100' water cushion and 400' slightly gas-cut mud. Inside of tool coated with and heavily cut with dark brown live oil.		

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From To

TEST #10: 8908'-9000', anchor 42'.  
Water cushion 790'. Tool open  
30 min. Slight blow of air for  
2 in. Recovered water cushion  
and 500' mud and water cushion  
coming out with odorless gas.  
Water cushion bastes slightly, car-  
bonate. Probably 30%.  
Siltstone, hard, light brown  
and shale, calcareous, hard,  
maroon. Acetone (+). Abundant  
white chert.  
3908 8915  
shale and chert, as above, with  
trace sandstone, hard, medium  
gray, sub-angular, buff  
3915 8922  
Dolomite, silicious, very hard,  
dark gray and siltstone, hard,  
light brown with trace phos-  
phate, black. Acetone faintly  
(+).  
3922 8925  
Dolomite, silicious, very hard,  
grayish-green, with abundant  
streaks and inclusions of phos-  
phate. Acetone faintly (+).  
3925 8930  
Phosphate, calcareous, seltic  
to nodular. Acetone faint (+)  
3930 8940  
Sandstone, calcareous, fine  
to very fine-grained and medi-  
um grained portions. Phos-  
phatic inclusions and partings  
in streaks. (Acetone +) faint.  
Faint brown oil stain.  
3940 8950  
Sandstone, very hard, non-cal-  
careous to slightly calcareous,  
fine-grained, gray-white with  
streaks medium gray with dis-  
seminated phosphate. Acetone  
(+).  
3950 8958  
Sandstone, non-calcareous, hard,  
fine to medium-grained, sub-  
round, light gray with some  
tarry residue. Acetone (+).  
3958 8963  
Core #26: Recovered 1.3'  
Sandstone, very hard, fine-grained,  
light gray, tight in top 1.5',  
becoming dark gray with light  
gray streaks, slightly porous,  
in bottom 0.3'. Smell of sul-  
fur gas. Acetone (+).  
Note: This core not recovered  
1st run. Recovered 1.5' on pul-  
ling Core #29.  
3963 8967  
Core #29: Recovered 0.5'.  
Sandstone as in bottom of core  
#26. Strong smell sour gas.  
Acetone (+).  
3967 8968  
Sandstone, as above. Acetone  
(+).  
3968 8970  
TEST #11: 8970-8994, anchor 26' (Run #1)  
Water cushion 990'. Open 2 min.  
Packer failed. Fair blow of air.  
Recovered water cushion and 800'  
mud heavily cut with odorless  
gas  
TEST #11: 8975-8999, anchor 26' (Run #2)  
Water cushion 990'. Tool opened twice  
for total of one hour. First opening  
operable valves in bucket throughout  
test. 30 min. Second opening: steady  
slight blow throughout test. 30 min.  
Recovered 1000' of water cushion and  
mud heavily cut with odorless gas.

From To

Sandstone, as above, quartzitic  
in part. Acetone, very faint  
(+).  
8970 8978  
Sandstone, slightly calcareous,  
fine-grained, sub-angular, hard,  
gray-white with sparse tarry  
residue with thin streaks shale,  
calcareous, dense, reddish-  
brown to maroon. Acetone —  
8978 8985  
Sandstone, as above, with  
some shale, soft, greenish-  
gray to green with abundant  
nodules phosphatic inclusions  
8985 8995  
Sandstone, calcareous to  
slightly calcareous, very  
fine-grained with occasional  
medium to coarse rounded  
frosted grains, gray-white  
and sandstone, as above.  
Acetone (+)  
8995 8998  
Sandstone, as above, with thin  
streaks shale, dense, soft,  
reddish-brown to purple.  
Acetone (+).  
8998 9000  
Sandstone, very hard, gray-  
white to light gray, fine-  
grained, sub-angular with  
occasional medium to coarse-  
grained, rounded, frosted  
with streaks shale, soft,  
red  
9000 9006  
Same as above with some silt-  
stone, very calcareous, soft,  
buff and trace limestone, hard,  
dense, greenish-gray  
9006 9010  
Sandstone, as above, with sparse  
tarry residue with soft shale,  
hard, dense, maroon  
9010 9025  
Sandstone, hard, gray, with  
abundant tarry residue, fine  
to medium grained, sub-angular,  
to sub-round, frosted, with  
sparse coarse rounded frosted  
grains. Acetone (-) to 9034,  
(+) from 9034 to 9040.  
9025 9040  
Core #31, recovered 0.4'  
sandstone, quartzitic, very hard,  
tight, fine to very fine-grained,  
light gray. Sulfur smell. Acetone  
(+).  
9040 9041  
TEST #12: 9042-8989, anchor 53'.  
Water cushion 993'. Tool open 50 min,  
packer failed. Faint blow of air at  
start increasing to strong blow at  
time of packer failure. Rich sulfur  
gas smell on breaking of Kelly. Re-  
covered water cushion and 500' mud,  
both heavily cut with sour gas.  
Sandstone, as in Core #31  
9041 9042  
TEST #13, 9043-9023, anchor 20'  
Water cushion 993'. Pool open  
50 min. Faint increasing blow  
until seat failed after 10 min.  
Seat failed gradually throughout  
test. Recovered water cushion  
and 1000' very gassy mud.  
Sandstone, as in core #31  
9042 9045  
Core #32, recovered 0.1'  
Sandstone, quartzitic, very hard,  
tight, fine-grained, sub-angular,  
light gray with dk. gray streaks  
rich in tarry residue. Good smell

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From To

sour gas. Core bubbles slightly. Acetone (+). 9045 9047

Core #33: Recovered 13.0' 13.0' sandstone, quartzitic, very hard, tight, fine to very fine-grained, light gray with quartzite streaks. 9047 9065

5.0' sandstone, as above, with streaks of tarry residue. Becomes more quartzitic in bottom 0.1'. Core bubbles slightly. Slight sulfur smell. Acetone (+)

Core #34: Recovered 25.0' 1.3' sandstone, very hard, tight, fine to very-fine grained, sub-angular to sub-round with occasional coarse rounded grains, gray-white. Slight smell sulfur. 9065 9090

7.0' sandstone, as above, highly cross-bedded with frequent dark gray streaks with tarry residue and occasional streaks with faint brown oil stain. Sparse pyrite

15.7' sandstone, as above, with tarry residue and saturated, as above and considerable secondary quartz. Bottom 30" badly fractured

Core #35: Recovered 14.0' 12.0' sandstone, cross-bedded, very hard, fine-grained, tight light gray to gray-white, with frequent coarse rounded frosted grains in streaks and with streaks dark gray from tarry residue, some with brown tinge, possible oil stain. Fair sulfur smell. Acetone (+)

3.0' sandstone, as above, porous to slightly porous, hard with very hard streaks; abundant brown oil (?) stain, fair sulfur smell. Acetone (+). Core badly broken 9090 9107

Note: Entire core bubbles slightly. Bottom 3.0' bubbles strongly. Small fragments taken from water courses in diamond head show good porosity and oil stain

Shale, silty to sandy, slightly calcareous, hard, red to maroon and brown and sandstone, as above. 9107 9109

Core #36: Recovered 25.0' 12.0' sandstone, very hard, very fine to fine-grained, sub-round to sub-angular, medium gray, with sparse black grains and rare streaks and splotches with faint brown stains, cross-bedded. Acetone (+)

1.0' quartzitic, fine-grained, light gray

12.0' sandstone, cross-bedded, very hard, fine-grained, sub-angular to sub-round, gray-white with brown stain in streaks. Entire core shows sparse pyrite 9109 9134

From To

DST #14: 9134'-9057'. Anchor 77'. Water cushion 100'. Tool open 2 hrs. Fair blow increasing to 100% non-inflammable gas after 45 min. and to a max. of 826 # in 75 min; making considerable water from cushion throughout. After 72 min. blow decreased steadily to an estimated 100,000 cu. ft. at end of test. Recovered 1080' gassy black brilliant mud. 9134 9158

DST #15: 9134'-9057'. Anchor 77'. Tool open 3 hrs. 45 min. Strong blow of non-inflammable gas increasing gradually to 1070 SCF at end of test. Still increasing when tool pulled. Recovered 45' sulfur-cut mud, possibly cut with water.

Core #37: Recovered 21.0' 13.0' sandstone, very hard, tight, fine to very fine-grained, sub-round to sub-angular, with glauconitic, medium to coarse, rounded grains in streaks, light to medium gray with sparse tarry residue and frequent light brown stained streaks. Sulfur smell, core bubbles slightly. Acetone (+).

11.0' quartzitic sandstone to quartzite, gray-white, very fine to fine-grained, slight sulfur smell. Core bubbles slightly. Acetone (?) 9158 9169.5

Core #38: Recovered 11.0' 6.5' sandstone, quartzitic as in bottom core #37. 4.5' sandstone, cross-bedded, hard, fine to very fine-grained, gray to light gray, with frequent dark gray to light brown streaks. Tight with porous streaks, looks wet. Good sulfur smell. Acetone (+). Core bubbles slightly 9158 9169.5

Core #39: Recovered 22.5' 1.5' sandstone, very hard, tight to slightly porous, very fine to fine-grained, gray-white with streaks and splotches gray from tarry residue.

0.0' same as above, with medium to coarse, frosted rounded grains in streaks. Abundant colloidal, silica and finely disseminated pyrite.

0.0' sandstone, very hard to quartzitic, very fine to fine-grained, light gray with streaks dark gray sulfide.

0.0' sandstone, very hard, slightly porous, fine-grained, sub-angular, light gray with abundant tarry residue. Fair smell sulfur. Core bubbles slightly. Acetone faint (+) over entire core 9169.5 9172

FORMATION RECORD

FORMATION RECORD

EST #16: 9192'-9193'. Anchor 51'  
 Tool open 2 hrs. 15 min.  
 Slight blow of gas as in EST #15,  
 steadily increasing to 971 ft.  
 Still increasing at end of test.  
 Recovered approx. 2 oz. brown dis-  
 tillate with strong sulfur odor.  
 No other fluid. Bottom hole pres-  
 sure 3730.  
 Core #10: Recovered 21.0'  
 17.0' sandstone, very hard, slightly  
 porous, fine to medium-grained,  
 light gray to gray-white, with  
 frequent rounded frosted, medium  
 to coarse grains. Sparse black  
 grains. Acetone (+), core bubbles,  
 sulfur smell.  
 4.0' sandstone, very hard, tight  
 to slightly porous, fine-grained  
 with occasional rounded, frosted  
 grains and sparse black grains,  
 light gray. Sulfur smell, core  
 bubbles. Acetone (+). 9192 9213  
 Sandstone, as above 9213 9214  
 Core #11: Recovered 25.0'  
 21.0' sandstone, very hard, tight to  
 slightly porous, fine-grained, sub-  
 angular to angular, gray-white,  
 with occasional fine to medium-  
 gray frosted, rounded grains.  
 Sparse small pyrite clusters.  
 Good smell sulfur. Core bubbles.  
 Acetone strong (+) 9214 9239  
 Core #12: Recovered 25.0'  
 18.0' sandstone, very hard to quartz-  
 itic, gray-white, fine-grained, sub-  
 angular to sub-round with sparse  
 pyrite clusters.  
 7.0' sandstone, very hard, light gray,  
 fine to medium-grained, sub-round  
 with sparse coarsely frosted, rounded  
 grains and streaks. Sandstone,  
 quartzitic as above. Very faint  
 sulfur smell. Core bubbles slightly.  
 Acetone (?). 9239 9264  
 EST #17: 9264'-9265', anchor 71'.  
 Tool open 30 min. Slight blow of air  
 increasing to fair blow in 15 min.  
 Dropped to zero in 30 min. Recovered  
 300' very thick drilling mud cut  
 with sulfur gas. Tool plugged.  
 Sandstone, as above, slightly  
 softer 9264 9270  
 Core #13: Recovered 0.5'  
 0.5' sandstone, quartzitic, tight,  
 fine-grained, sub-round to sub-  
 angular, gray-white with strong  
 vertical fractures. Fair sulfur  
 smell 9270 9271  
 Drilled sandstone, as above 9271 9281  
 Core #14: Recovered 14.0'  
 Sandstone, very hard, tight with  
 slightly porous streaks, fine to  
 medium-grained, sub angular to sub-  
 round, light gray to gray-white,  
 with some secondary quartz and  
 sparse pyrite. Occasional streaks  
 rich in gray sulfide and pyrite.  
 Faint sulfur smell. Core bubbles.  
 Acetone (-) 9281 9297

EST #18: 9297'-9298'. Anchor 105'  
 Tool open 100 min. Faint flow  
 increasing to 4200 maximum open  
 flow of gas as in EST #15 in 70  
 min with heavy spray of mud and  
 some water. Recovered 500' sul-  
 fur water.  
 Core #15: 9297'-9322', recovered 25'.  
 17.0' sandstone, hard, slightly  
 porous, gray, fine to very fine-  
 grained, sub-round with some  
 medium rounded frosted grains.  
 Pyrite abundant in streaks.  
 Abundant very fine silicious  
 cement. Slight sulfur smell.  
 Acetone faint (+)  
 6.0' sandstone, as above, very  
 hard, tight 9297 9322  
 Core #16: Recovered 12.0'  
 7.0' sandstone, very hard, tight,  
 fine to very-fine-grained, sub-  
 angular, as above, light gray  
 with gray splotches at intervals  
 caused by concentrations of  
 pyrite and black sulfide.  
 5.0' sandstone, slightly calcareous,  
 very hard, tight, fine-grained,  
 sub-round, light gray with  
 sparse sulfide and abundant  
 small segregations of ortho-  
 clase and calcite. Core bubbles,  
 slight sulfur smell, Acetone  
 (-) 9322 9334  
 Core #17: Recovered 21.0'  
 12.0' sandstone, highly cross-  
 bedded, very hard, quartzitic  
 tight, very fine-grained, light  
 gray, with very sparse ortho-  
 clase and some black stain from  
 sulfur water.  
 7.0' sandstone, as above, but  
 harder 9334 9355  
 Core bubbles slightly, slight  
 sulfur smell.  
 EST #19: 9355'-9361', anchor 51'  
 Tool open 90 min. Fair surging  
 blow throughout test. Re-  
 covered 90' gas-cut mud and 210'  
 gassy sulfur water.

	☀		
	22		

L.P. Gas 5,210,000 cu. R.P. 1660 # Oil \_\_\_\_\_ Bbls.  
 Drilling Commenced October 8, 1946 Completed June 27, 1947  
 Total Depth 9355'

Remarks: Plugged back to 5825' and completed as Dakota gas well.  
 Sands Dakota; perf. 5640-5720; 5765-5800'.  
 Casing Record: 13-3/8" @994.88'/810 sax. 48#, 54.5# and 61#, 8 thd, 15' below top of Kelly bshg.; 9-5/8" 40# & 36# @5875.42'/400 sax, 13.71' below top of Kelly bshg. 200 jts. 2 1/2" ID EVE 6.5# 8 thd. tubing landed at 5814.93' and perforated from 5775'-5785'.

FORMATION RECORD	
From	To
Shale, very calcareous, dark gray, with streaks of sandstone, very calcareous and argillaceous, hard, very fine to fine-grained, light gray. Occasional streaks of bentonite.	0 3370
Shale as above with occasional streaks rich in irregular white to buff specks and frequent Inoceramus fragments. Probable Apishipa equivalent. Occasional streaks of bentonite and sandstone as above.	3370 5080
Shale, calcareous, hard to soft, dark gray with streak of limestone, argillaceous, hard, cryptocrystalline, light gray. Possible Timpas.	5080 5298
TOP FRONTIER FORMATION	
Sandstone, very fine-grained, light to medium gray and gray-white and brown, with sparse black grains and glauconite; hard and tight in top 20 feet; porous in remainder.	5298 5336
Shale, carbonaceous, soft, dark gray to black	5336 5368
Sandstone, soft, porous, medium-grained, light gray to gray-white, with abundant white argillaceous cement; sparse black grains, trace glauconite.	5368 5415
TOP ASPEN FORMATION	
Shale, slightly calcareous, silty in part, soft, dark gray	5415 5445
Shale, silicious, hard, platy, dark gray with sparse fish scales; streaks of bentonite	5445 5460
Shale, calcareous, hard to soft, dark gray, silicious in streaks, with streaks of bentonite.	5460 5603
TOP DAKOTA FORMATION	
Shale, carbonaceous, hard to soft, dull black, with streaks of clay, soft, gray and greenish gray	5603 5660
Sandstone, fine to medium-grained, hard, porous, light gray	5660 5673
Shale, soft, gray to greenish-gray with streaks of sandstone as above.	5673 5780
Sandstone as above.	5780 5790
TOP MORRISON FORMATION	
Clay, soft, gray to green and purple with streaks of limestone, very fine-granular, white, soft	5790 5840
Shale, silty to sandy, variegated (red-brown, purple, white, gray, green, buff) with thick white to buff limestones in bottom half.	5840 5908
Sandstone, very fine-grained, with some coarse	

FORMATION RECORD	
From	To
rounded grains, gray-white	5908 5922
Shale, dense to silty and sandy, soft, variegated (purple, blue, red, brown, gray, maroon, green) with white to red chert in streaks.	5922 6048
Sandstone, medium-grained, light gray	6048 6070
Shale, soft, dense, gray and shale, soft, variegated as above	6070 6202
Sandstone, medium-grained, gray-white to buff	6202 6225
Shale, silty to dense, soft, variegated (gray, green, red, brown, purple, black) with streaks of hard sandstone	6225 6388
TOP CURTIS FORMATION	
Limestone, oolitic, hard, brownish-gray to brown, glauconitic in streaks with abundant brachiopods at base	6388 6430
Sandstone, calcareous, hard, tight, very fine to medium-grained, light gray to greenish-gray, slightly glauconitic in top to very glauconitic at base, with interbedded limestone, oolitic, soft, gray-white to light gray at base	6430 6474
Shale, hard, black with streaks of sandstone, glauconitic as above and limestone, oolitic as above	6474 6567
TOP ENTRADA FORMATION	
Sandstone, silty, slightly calcareous, white, very fine to fine-grained with streaks of shale, black, silicious	6567 6620
Sandstone, slightly calcareous, white, hard, fine-grained with streaks of shale as above	6620 6675
Sandstone as above, medium-grained, with streaks of shale as above	6675 6667
TOP CARMEL FORMATION	
Shale, very sandy and silty, reddish-brown, trace of gypsum and gray, sandy, limestone	6667 6705
Shale, gypsiferous, soft, pale green with interbedded gray, very fine-grained, sandstone and silty to sandy gray to reddish-brown, shale	6705 6730
Shale, calcareous, sandy, brick-red to reddish-brown with some gypsum and anhydrite	6730 6766
Shale, soft, light to medium-gray and blue-gray with trace of silty, very fine-grained gray to buff sandstone	6766 6774
TOP NUGGET	
Sandstone, fine to medium-grained, gray-white	

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FORMATION RECORD

FORMATION RECORD

	From	To
to gray and brown. Salt water with show of gas	6774	6840
Sandstone, slightly calcareous, soft, fine to very-fine grained with streaks of shale, calcareous, hard, dark gray	6840	6920
Sandstone, fine to medium-grained, gray to buff with streaks of shale, soft, greenish-gray to green	6920	7105
Sandstone, fine to medium-grained with coarse rounded grains in streaks, light gray to buff	7105	7375
Sandstone, very fine to medium-grained, gray-white to buff and pale pink.	7375	7552

TOP CHINLE FORMATION

Shale, very silty to sandy, hard, brownish-red with streaks of gray to reddish-brown, very fine-grained, sandstone	7552	7610
Shale, slightly silty, red-brown to tan, slightly calcareous in part	7610	7688
Sandstone, quartzitic, fine to very fine-grained, light gray to pink, conglomeratic in streaks in basal quarter	7688	7727
Shale, soft, reddish-brown to yellowish-brown with streaks of partly conglomeratic fine to medium-grained sandstone	7727	7780

TOP SHINARUMP

Interbedded, shale, sandy, calcareous, limestone and gray and shale pellet and sand conglomerate	7780	7786
Sandstone, calcareous, medium-grained with occasional red and black grains	7786	7805

TOP MOENKOPI

Shale, silty to sandy, hard, reddish-brown	7805	7850
Shale, silty to sandy, hard, reddish-brown to red with streaks of sandstone, fine to coarse grained, gray to pink with 5' shale, silty, greenish-gray at top	7850	7930
Shale, silty to sandy, hard, reddish-brown, with streaks of red, purple and tan.	7930	8090
Shale, silty to sandy, slightly calcareous, hard, brownish-red to reddish-brown with streaks of sandstone, argillaceous, soft, light red.	8090	8145
Shale, calcareous, silty to sandy, soft to hard, reddish brown to maroon with streaks of siltstone, reddish-brown, gray-white and greenish-gray	8145	8300
Shale, silty, calcareous in part, sandy in part with streaks of siltstone, calcareous, buff to gray and green and shale, green	8300	8530
Shale, silty to dense, hard, light greenish-gray to green with occasional thick beds of shale, silty to sandy, light brown to reddish brown and siltstone, sandy, calcareous, soft, greenish-gray to green	8530	8700

TOP PARK CITY FORMATION

	From	To
Shale, dense to silty, very hard, light green to gray with some siltstone, black, hard and shale, hard, dense, brown to reddish-brown. Streaks of dolomite, hard, gray to greenish-gray and sandstone and siltstone, brownish-gray in bottom half, both with phosphatic inclusions.	8700	8754
Siltstone, hard, light brown, oil saturated	8754	8755
Dolomite, very hard, silicious to calcareous, dense, dark to medium gray with thick beds of limestone, dolomitic, sandy, dense, light gray and shale, dark gray, dolomitic in part. Strong oil saturation in top 80'; faint in remainder.	8755	8883
Interbedded sandstone, calcareous, phosphatic in part, hard, very fine to medium-grained, light gray, limestone, sandy, phosphatic to dolomitic, gray, dolomite, silicious, very hard, dark gray and shale, hard, maroon. Abundant black chert throughout. Good gas saturation	8883	8930
Phosphate rock, calcareous, oolitic to nodular	8930	8940
Sandstone, calcareous to non-calcareous, fine to very fine-grained, very hard, gray-white with streaks of fine disseminated phosphate and some tarry residue	8940	8972
Sandstone as above with streaks of red, gray and maroon shale	8972	9025

TOP WEBER FORMATION

Sandstone, hard, gray with abundant tarry residue, fine to medium-grained, sub-angular to sub-round with sparse coarse-frosted grains; quartzitic in streaks	9025	9065
Sandstone as above, highly cross-bedded with abundant secondary quartz in streaks	9065	9355

CLAY BASIN, UTAH

Formation Tops and Thicknesses

Formation	Computed Thicknesses		Murphy No. 2		Murphy No. G-W		
	Weighted Av. Ver Cr., Manila, Spg. Cr., S. Bax.	Projection Ver. Cr., Manila. S. Bax.	Thk.	Top	Actual Thk.	Tops----- Est.	Actual
Frontier	125				117*		5298
Aspen	274				188		5403
Dakota	208)	210	195)	5617*	187*)		5603
Morrison	850) } 1058	600	536) } 731	5817	600 ) } 787		5790
Curtis	114)	150)	148)	6353*	134*)		6390
Entrada	114) } 431	150) } 450	105) } 439	6501	<sup>146</sup> 86 ) } 413		6524
Carmel	193)	150)	186)	6606	<sup>133</sup> 193 )		<sup>6670</sup> 6610
Nugget	936	775		6792	759		6803
Upper Jelms	224	210			128	7739	7562
Shinarump	54	70			118	<sup>7772-86</sup> 7963	7690
Chugwater	1453	<del>1620</del> 420					7808
Linwoody		710				8226	
Phosphoria	307	250				8936	
Weber	1363	1110				9243	

\* - Good Tops

W. W. Skeeters  
Geologist

ROBERT D. MURPHY  
Sec. 22-3-24  
Well No. 6-W

Casing Record

13-3/8" - 48#, 54.5# 361# - 8 thd. - Casing

33 Jts., 987'2" gross, 979.88' net, landed at 994.75' - 14.87' below the top of the Kelly bushings. Cemented with 810 sacks of Monolith and Ideal regular cement. The first 4 joints were welded solid above and below collars, the next 6 joints were spot welded. A Baker guide shoe was run on the bottom and a Halliburton float collar was placed on top of the first joint. Cementing was done by Halliburton Oil Well Cementing Company.

9-5/8" - 36# & 40# - 8 thd. - J55 & N80 casing

	Gross	Net
36 Jts. 40# - LT&C - N80 Casing	1146' 6"	1131.92'
37 Jts. 40# - LT&C - J55 Casing	1201' 7"	1187.92'
116 Jts. 36# - ST&C - J55 Casing	3565' 5"	3542.41'
<u>189 Jts.</u>	<u>5913' 6"</u>	<u>5862.25'</u>

The above string of casing was landed at 5875.42' - 13.17' below the top of the Kelly bushings in a Shaffer spool type casing head. A Halliburton guide shoe and Halliburton float collar, which are included in the above net measurement, were run on the bottom and top of the first joint, and were spot welded as were the next six joints of casing, above and below collars. Cemented with 400 sacks of Monolith and Ideal regular cement by Halliburton Oil Well Cementing Company. This string of casing is perforated from 5765' to 5800' with 105 - 9/16" holes and from 5640' to 5720' with 235 - 9/16" holes.

2-1/2" - 6.5# - 8 thd. - J55 EUE Tubing

200 Jts., 5835'5" gross, 5807.59' net, landed at 5814.93' - 7.34' below the top of the Kelly bushings, on a National Supply Company type "B" tubing head. The bottom joint is bull-plugged. Tubing perforations are from 5774.58' to 5784.58' and the tubing is hanging 11.00' off bottom.

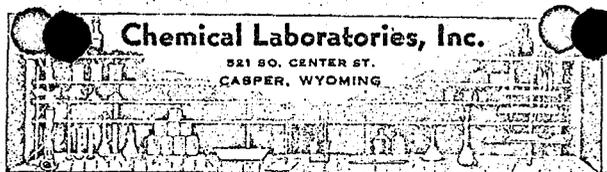
CLAY BASIN, UTAH  
 R. D. MURPHY WELL NO. 6-W  
 22-3N-24E

GORING RECORD

<u>Core No.</u>	<u>From</u>	<u>To</u>	<u>Feet Cut</u>	<u>Feet Recovered</u>
1	6568	6576	8	3.5
2	6576	6586	10	3.0
3	6815	6820	5	0.3
4	6820	6825	5	1.5
5	7009	7011	2	1.8
6	7011	7014	3	1.5
7	7729	7734	4	1.0
8	7734	7740	6	3.0
9	7740	7745	5	0.3
10	7777	7782	5	3.0
11	7782	7787	5	5.0
12	7787	7792	5	4.5
13	7792	7797	5	1.0
14	7797	7802	5	1.2
15	7802	7806	4	1.5
16	8753	8756	3	0.9
17	8756	8759	3	2.0
18	8759	8762	3	1.5
19	8762	8763	1	0.3
20	8763	8764	1	0.1
21	8764	8765	1	0.4
22	8768	8771	3	0.2
23	8801	8804	3	1.0
24	8847	8850	3	3.0
25	8886	8890	4	3.5
26	8890	8894	4	2.7
27	8906	8907	1	0.8
28	8963	8967	4	1.8
29	8967	8968	1	0.8
30	8968	8968	0	0.0
31	9040	9041	1	0.8
32*	9045	9047	2	2.0
33	9047	9065	18	18.0
34	9065	9090	25	25.0
35	9090	9107	17	15.0
36	9109	9134	25	25.0
37	9134	9158	24	24.0
38	9158	9169	11	11.0
39	9169	9192	23	22.5
40	9192	9213	21	21.0
41	9214	9239	25	25.0
42	9239	9264	25	25.0
43	9270	9271	1	0.8
44	9281	9297	16	14.0
45	9297	9322	25	25.0
46	9322	9334	12	12.0
47	9334	9355	21	21.0

*Nugget*

\*Started using diamond bit 9045'.



## WATER ANALYSIS REPORT

Field CLAY BASIN, UTAH Well No. R. D. Murphy 6-W  
 Operator Mountain Fuel Supply Co. Location Sec. 22-3N-24E  
 Sampled by W. W. Skeeters Date 2-11-47  
 Sand \_\_\_\_\_ Depths 6805-6835 How sampled D.S.T.  
 Other pertinent data \_\_\_\_\_  
 \_\_\_\_\_  
 Analyzed by V. Pentecost Date 2-22-47 Lab. No. 383

### PARTS PER MILLION

NA & K	CA	Mg	FE	SO <sub>4</sub>	CL	CO <sub>3</sub>	HCO <sub>3</sub>	OH	H <sub>2</sub> S
22,564	1379	268		2165	34,650		3055		

### MILLIGRAM EQUIVALENTS

981.52	68.83	22.04		45.08	977.24		50.07		
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### MILLIGRAM EQUIVALENTS IN PERCENT

45.76	3.21	1.03		2.10	45.56		2.34		
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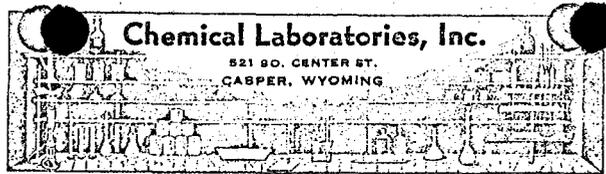
#### Total Solids in Parts per Million.

By evaporation 63,731  
 After ignition 63,048  
 Calculated 62,528  
 Observed pH 7.0

#### Properties of Reaction in Percent

Primary salinity 91.52  
 Secondary salinity 3.80  
 Primary alkalinity 0.00  
 Secondary alkalinity 4.68  
 Chloride salinity 95.59  
 Sulfate salinity 4.41

Remarks and conclusions Same water as 384. Does not correlate with Dakota  
water analysis on file, so believe this is Sundance or Entrada water.



## WATER ANALYSIS REPORT

Field CLAY BASIN, UTAH Well No. R. D. Murphy 6-M  
 Operator Mtn. Fuel Supply Company Location Sec. 22-3N-24E  
 Sampled by W. H. Skasters Date 2-15-47  
 Sand \_\_\_\_\_ Depths 7006-7016 How sampled D.S.T.  
 Other pertinent data \_\_\_\_\_  
 \_\_\_\_\_  
 Analyzed by V. Pentecost Date 2-22-47 Lab. No. 386

### PARTS PER MILLION

NA & K	CA	MG	FE	SO <sub>4</sub>	CL	CO <sub>3</sub>	HCO <sub>3</sub>	OH	H <sub>2</sub> S
23,945	1075	287	Present	2262	36,630	Trace	2360		

### MILLIGRAM EQUIVALENTS

1041.61	53.65	23.60		47.09	1033.09		38.68		
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### MILLIGRAM EQUIVALENTS IN PERCENT

46.55	2.10	1.05		2.10	46.17		1.73		
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#### Total Solids in Parts per Million

By evaporation 65,847  
 After ignition 65,340  
 Calculated 65,359

#### Properties of Reaction in Percent

Primary salinity 93.10  
 Secondary salinity 3.44  
 Primary alkalinity 0.00  
 Secondary alkalinity 3.46  
 Chloride salinity 95.65  
 Sulfate salinity 4.35

Observed pH 6.5

Remarks and conclusions Same water as previous sample. Does not correlate  
with Dakota water on file, so believe this is Sundance or  
Entrada water.

# WATER ANALYSIS REPORT

Field CLAY BASIN, UTAH Well No. R. D. Murphy 6-W  
 Operator Mtn. Fuel Supply Company Location Sec. 22-37-24E  
 Sampled by W. W. Steeters Date 2-15-47  
 Sand \_\_\_\_\_ Depths 7006-7016 How sampled r.c.t.  
 Other pertinent data \_\_\_\_\_  
 \_\_\_\_\_  
 Analyzed by V. Pentecost Date 2-27-47 Lab. No. 584

### PARTS PER MILLION

NA & K	CA	MG	FE	SO <sub>4</sub>	CL	CO <sub>3</sub>	HCO <sub>3</sub>	OH	H <sub>2</sub> S
23,945	1075	287	Present	2262	36,630	Trace	2360		

### MILLIGRAM EQUIVALENTS

1041.61	53.65	23.60		47.09	1037.99		38.68		
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### MILLIGRAM EQUIVALENTS IN PERCENT

45.55	2.40	1.05		2.10	45.17		1.73		
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#### Total Solids in Parts per Million

By evaporation 65,847  
 After ignition 65,940  
 Calculated 65,359

#### Properties of Reaction in Percent

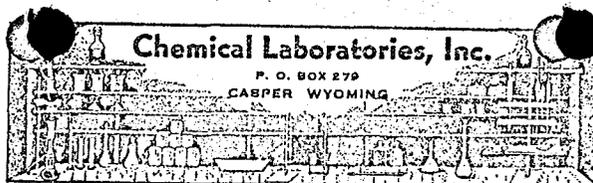
Primary salinity 93.16  
 Secondary salinity 3.44  
 Primary alkalinity 0.00  
 Secondary alkalinity 3.46  
 Chloride salinity 95.65  
 Sulfate salinity 4.35

Observed pH 6.5

#### Remarks and conclusions

Same water as previous sample. Does not correlate with Dakota water on file, so believe this is Sundance or Intrada water.

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## GAS ANALYSIS REPORT

Field Clay Basin, Utah Well No. R. D. Murphy 6-W  
 Operator Mountain Fuel Supply Co. Location SE 1/4 NW 1/4 22-3N-24W  
 Sand Weber Depths 9138-9192 Lab. No. 569  
 Analyzed by J. D. Clark Date June 18, 1947  
 Remarks \_\_\_\_\_

D.S.T.

### ORSAT ANALYSIS

	% by Volume
Oxygen .....	0
Nitrogen .....	81.10
Carbon dioxide .....	15.41
Hydrogen sulfide .....	0.01
Total hydrocarbons .....	3.48
.....	
Average "n" .....	2.18
Specific Gravity (calculated) .....	1.058
Specific Gravity (observed) .....	1.051
Gross B.t.u. per cu. ft. ....	65

### HYDROGEN SULFIDE

(by Tutwiler Method)

Grains of hydrogen sulfide per 100 cu. ft. of gas at 60°F. and 14.6 lbs. per sq. in. ....	6.4
Percentage of hydrogen sulfide .....	0.01

### PODBIELNIAK Low Temperature Fractionation

	% by Volume	G. P. M.
Oxygen .....		
Nitrogen .....		
Carbon dioxide .....		
Hydrogen sulfide .....		
Methane .....		
Ethane .....		
Propane .....		
Isobutane .....		
N-butane .....		
Isopentane .....		
N-pentane .....		
Hexanes & higher .....		
.....		
TOTAL .....		
Average "n" by Pod. ....		
Gross B.t.u. by Pod. ....		
Specific Gravity by Pod. ....		
Specific Gravity by Weight .....		

### G. P. M.

Actual pentanes + .....	
Calculated at 12 lbs. ....	
Calculated at 15 lbs. ....	
Calculated at 22 lbs. ....	
Calculated at 26 lbs. ....	

Vapor pressure (calculated) of  
actual pentanes + .....

Remarks and Conclusions: High nitrogen gas, same as #550.



# Chemical Laboratories, Inc.

SPECIALIZING IN CHEMICAL ANALYSIS  
PHONE 3130 P. O. BOX 279  
521 SO. CENTER ST.  
CASPER, WYOMING

## SUPPLEMENTAL REPORT

### Core Analysis 561

After soaking under pressure in distilled water:

<u>Core No.</u>	<u>Depth</u>	<u>Permeability</u> <u>Md.</u>
57	9139	0.01
62	9149	0
67	9159	0
72	9169	0
77	9179	0
82	9189	0

# Chemical Laboratories, Inc.

SPECIALIZING IN CHEMICAL ANALYSIS

PHONE 3130 P. O. BOX 279

521 SO. CENTER ST.

CASPER, WYOMING

June 6, 1947

## SUPPLEMENTAL REPORT

### Core Analyses 541

After soaking in distilled water for 24 hours  
under pressure:

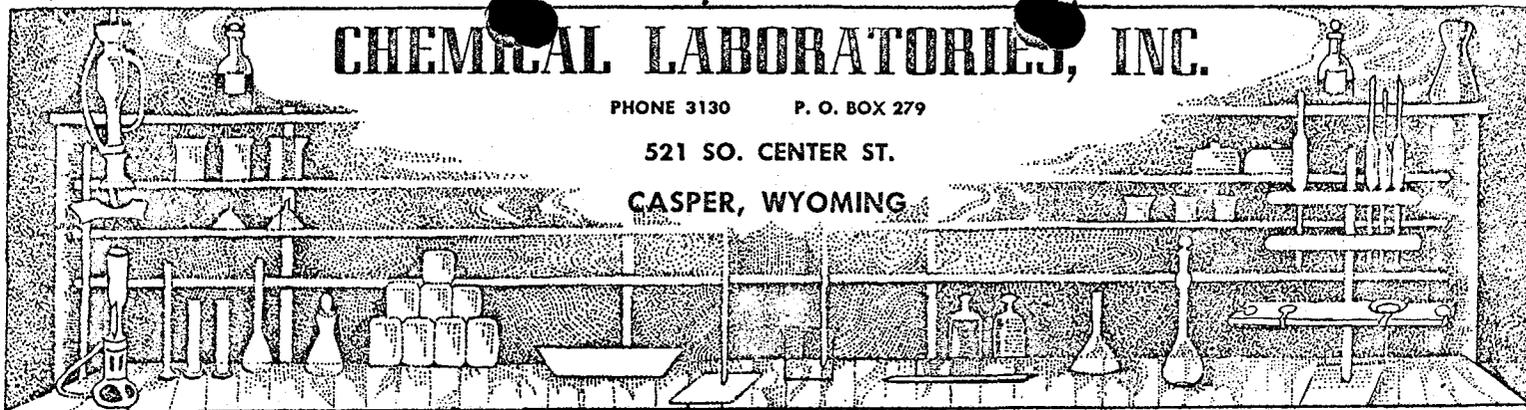
<u>Core No.</u>	<u>Depth</u>	<u>Permeability</u> <u>md</u>
12	9049	0
18	9061	0
20	9065	0
23	9071	0
28	9081	0
33	9091	0
38	9101	0

# CHEMICAL LABORATORIES, INC.

PHONE 3130 P. O. BOX 279

521 SO. CENTER ST.

CASPER, WYOMING



H. E. SUMMERFORD, STRATIGRAPHER

J. G. CRAWFORD, CHEMICAL ENGINEER

July 3, 1947

Mountain Fuel Supply Co.  
Box 1129  
Rock Springs, Wyoming

ATT: Fidler

Gentlemen:

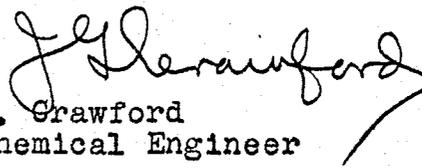
I took cores No. 127 & 128 from the R. D. Murphy 6-W well at Clay Basin and soaked them in water under pressure over night, running the permeability with the following results:

Core # 127 - 4.47 md.  
Core # 128 - 17 md.

From the results of this and other core tests which we have made on the Clay Basin, I am of the opinion that there are no minerals in the sand which swells under action of water and that it is perfectly safe to use water base mud in this well.

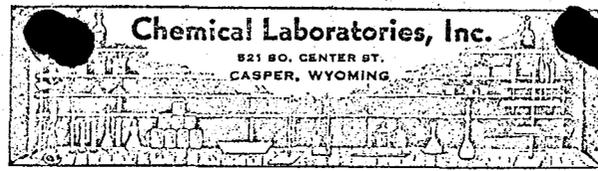
Yours very truly,

CHEMICAL LABORATORIES, INC.

  
J. G. Crawford  
Chemical Engineer

JGC/mr

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*Specializing in Petroleum Production Chemistry*



## CORE ANALYSIS REPORT

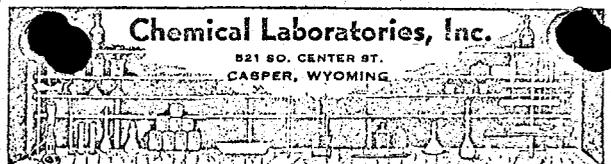
Field CLAY BASIN, UTAH Well No. R. D. Murphy 6-W  
 Operator Mountain Fuel Supply Company Location SE NW 22-3N-24E  
 Sand Weber Depths 9297 - 9355 Lab. No. 598  
 Analyzed by Chemical Laboratories, Inc. Date July 1, 1947

SAMPLE NO.	DEPTH, FEET	EFFECTIVE POROSITY	PERMEABILITY, MILLIDARCIES		OIL SATURATION		WATER SATURATION	
			H	V	PERCENT PORE SPACE	BARRELS PER ACRE-FEET	PERCENT PORE SPACE	BARRELS PER ACRE FEET
Core # 45								
129	9297	8.6	0.85	0.93	NONE		38.5	257
130	9299	10.6	2.60	1.21	"		42.3	348
131	9301	9.3	0.70	0.91	"		43.9	317
132	9303	9.8	0.86	2.15	"		36.3	276
133	9305	9.9	1.23	0.56	"		36.1	277
134	9307	9.5	0.91	0.97	"		33.7	248
135	9309	10.0	1.53	1.29	"		33.9	263
136	9311	9.5	0.67	0.54	"		31.6	233
137	9313	10.6	0.95	5.18	"		24.3	175
138	9315	9.3	0.40	0.28	"		23.7	171
139	9317	7.6	0.03	0.07	"		37.9	223
140	9319	6.7	0.05	0.06	"		28.5	148
141	9321	4.6	0.02	0.04	"		37.2	133
Core # 46								
142	9323	3.4	0.02	0.02	"		38.3	110
143	9325	2.8	0.01	0.02	"		45.7	99
144	9327	4.5	0.02	0.04	"		29.6	103
145	9329	5.6	0.05	0.07	5.0	22	40.9	178
146	9331	3.3	0.03	0.07	7.3	19	35.8	92
147	9333	3.3	0.04	0.05	NONE		30.3	76
Core # 47								
148	9335	5.0	0.06	0.05	"		11.2	43
149	9337	5.0	0.05	0.04	"		23.6	92
150	9339	4.6	0.05	0.21	"		27.0	96
151	9341	5.5	0.06	0.03	"		28.2	120
152	9343	7.3	0.30	0.27	"		22.6	128
153	9345	6.8	0.10	0.03	"		14.7	78
154	9347	3.3	0	-0.01	"		45.5	116
155	9349	4.2	0	0.02	"		33.3	109
156	9351	2.9	0	0	"		36.2	81
157	9353	4.3	0.02	0.04	"		30.2	101
158	9355	3.7	0.03	0.03	"		27.6	79

### SUMMARY

[Arithmetical average, excluding sections with less than one millidarcy permeability]

DEPTH, FEET FROM TO	FEET OF SAND	AVERAGE POROSITY	AVERAGE PERMEABILITY		AVERAGE OIL SATURATION	AVERAGE WATER SATURATION
9297 - 9315	19	9.7	1.07	1.40	None	34.4 - 257
9317 - 9355	39	4.7	0.05	0.06	None	31.2 - 110



## CORE ANALYSIS REPORT

Field CLAY BASIN, UTAH Well No. R. D. Murphy 6-W  
 Operator Mountain Fuel Supply Company Location SE NW 22-3N-24E  
 Sand Weber Depths 9270 - 9295 Lab. No. 580  
 Analyzed by Chemical Laboratories, Inc. Date June 26, 1947

SAMPLE NO.	DEPTH, FEET	EFFECTIVE POROSITY	PERMEABILITY, MILLIDARCIES		OIL SATURATION		WATER SATURATION	
			H	V	PERCENT PORE SPACE	BARRELS PER ACRE FEET	PERCENT PORE SPACE	BARRELS PER ACRE FEET
Core # 43								
120	9270	3.7	0.02	0.01	None		16.5	47
Core # 44								
121	9281	9.2	0.15	0.17	None		23.6	168
122	9283	10.0	3.48	0.13	None		26.9	209
123	9285	4.8	0.02	0.01	None		37.3	139
124	9287	4.6	0.01	-0.01	None		24.8	88
125	9289	3.0	0.01	0	None		15.3	36
126	9291	4.7	0.13	0.06	None		17.7	64
127	9293	11.1	14	4.47	1.4	12	28.8	248
128	9295	11.8	16	17	1.5	14	29.1	266

### SUMMARY

[Arithmetical average, excluding sections with less than one millidarcy permeability]

DEPTH, FEET FROM	FEET TO	FEET OF SAND	AVERAGE POROSITY	AVERAGE PERMEABILITY		AVERAGE OIL SATURATION	AVERAGE WATER SATURATION
				H	V		
9281 - 9283		3	9.6	1.82	0.15	None	25.3 - 189
9285 - 9291		7	4.3	0.04	0.02	None	23.8 - 82
9293 - 9295		3	11.5	15	11	1.5 - 13	29.0 - 257

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CHEMICAL LABORATORIES, INC.

521 SO. CENTER ST. P. O. BOX 279

CASPER, WYOMING

CORE ANALYSIS REPORT

Field GLAY BASIN, UTAH Well No. R. D. Murphy 6-W  
 Operator Mountain Fuel Supply Company Location SE NW 22-3N-24E  
 Sand Weber Depths 9193 - 9259 Lab. No. 561  
 Analyzed by Chemical Laboratories, Inc. Date June 20, 1947

SAMPLE NO.	DEPTH FEET	EFFECTIVE POROSITY	PERMEABILITY, MILLIDARCIES		OIL SATURATION		WATER SATURATION		SOLUBILITY Mud ACID %
			H	V	PERCENT PORE SPACE	BARRELS PER ACRE FEET	PERCENT PORE SPACE	BARRELS PER ACRE FEET	
Core # 40			H	V					
84	9193	13.7	6.63	7.21	3.6	39	31.3	333	
85	9195	15.2	9.02	7.52	0.8	9	26.8	317	
86	9.97	12.7	6.94	9.02	0.9	9	31.0	306	
87	9199	4.9	0	0.02	4.9	19	23.9	91	
88	9201	7.3	0.13	0.11	4.4	25	5.1	29	
89	9203	7.2	0.06	0.05	6.3	35	18.5	103	
90	9205	4.3	0.01	0.01	4.9	16	22.3	74	
91	9207	6.1	0.18	0	4.1	19	23.8	112	
92	9210	3.7	0.02	0.03	5.9	17	42.4	122	
93	9213	3.2	0	0	7.2	18	54.7	136	
94	9215	4.7	-0.01	0	6.2	22	24.7	90	14.0
Core # 41									
95	9217	4.5	-0.01	0	4.9	17	36.7	128	
96	9219	4.9	-0.01	0	5.3	20	33.1	126	
97	9221	6.0	0	0	3.2	15	18.8	88	
98	9223	4.7	0	0	1.0	4	31.3	114	
99	9225	3.1	0	0	3.5	9	33.2	80	10.7
100	9227	5.0	0.02	0.02	3.2	12	36.4	141	
101	9229	4.7	0	0.02	3.6	13	40.4	147	
102	9231	4.6	0.02	0.02	9.6	34	28.5	102	
103	9233	4.8	0.03	0.02	0	0	22.9	85	
104	9235	5.1	0.02	0.02	4.9	19	34.1	135	16.8
105	9237	5.2	0.02	0.02	2.1	9	31.7	128	
106	9239	5.6	0.02	0.02	NONE		11.6	50	
107	9239	4.3	0	0	NONE		28.6	95	
108	9241	4.6	0	0	NONE		20.2	72	
109	9243	4.3	-0.01	0	NONE		29.5	99	
110	9245	4.2	0	0	NONE		27.4	89	15.2
111	9247	4.7	0.12	-0.01	NONE		24.0	88	
112	9249	4.2	-0.01	-0.01	NONE		16.9	55	
113	9251	4.9	0	0	NONE		18.6	71	
114	9253	7.5	0.11	0.04	NONE		0	0	
115	9255	3.9	-0.01	0.03	NONE		16.9	51	16.2
116	9257	5.7	0.01	-0.01	NONE		21.9	97	
117	9259	2.7	0	0	NONE		21.5	45	

SUMMARY

[Arithmetical average, excluding sections with less than one millidarcy permeability]

DEPTH, FEET FROM TO	FEET OF SAND	AVERAGE POROSITY	AVERAGE PERMEABILITY		AVERAGE OIL SATURATION	AVERAGE WATER SATURATION	AVERAGE SOLUBILITY %
9193 - 9197	5	13.9	7.53	7.92	1.8 - 19	29.7 - 319	
9199 - 9210	12	5.7	0.08	0.04	5.1 - 22	22.4 - 88	

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## CORE ANALYSIS REPORT

Field.....CLAY BASIN, UTAH..... Well No.....R. D. Murphy 6-W.....  
 Operator.....Mountain Fuel Supply Company..... Location.....SE NW 22-3N-24E.....  
 Sand.....Weber..... Depths.....9261-9263..... Lab. No. 561.....  
 Analyzed by.....Chemical Laboratories, Inc..... Date.....June 20, 1947.....

SAMPLE NO.	DEPTH FEET	EFFECTIVE POROSITY	PERMEABILITY, MILLIDARCIES		OIL SATURATION		WATER SATURATION		SOLUBILITY Mud ACID %
					PERCENT PORE SPACE	BARRELS PER ACRE FEET	PERCENT PORE SPACE	BARRELS PER ACRE FEET	
118	9261	3.2	H	V			9.7	24	
119	9263	7.9	0	0	NONE		18.9	116	
			0.79	1.14	2.3	14			
SUPPLEMENTAL REPORT TO THE ABOVE CORE ANALYSES  <hr style="width: 10%; margin: auto;"/> After soaking in distilled water for 24 hours under pressure:									
84	9193		0.38						
85	9195		1.52						
86	9197		0.30						

### SUMMARY

[Arithmetical average, excluding sections with less than one millidarcy permeability]

DEPTH. FEET FROM	FEET TO	FEET OF SAND	AVERAGE POROSITY	AVERAGE PERMEABILITY	AVERAGE OIL SATURATION	AVERAGE WATER SATURATION	AVERAGE SOLUBILITY %
9213	9261	49	4.7	0.01 - 0.01	2.0 - 7	25.6 - 91	

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CORE ANALYSIS REPORT

Field Clay Basin, Utah Well No. R. D. Murphy 6-W  
 Operator Mountain Fuel Supply Co. Location Sec. 22-3N-24E SLM  
 Sand Weber Depths 9135-9191 Lab. No. 561  
 Analyzed by Chemical Laboratories, Inc. Date June 17, 1947

SAMPLE NO.	DEPTH FEET	EFFECTIVE POROSITY	PERMEABILITY, MILLIDARCIES		OIL SATURATION		WATER SATURATION		SOLUBILITY	
			H	V	PERCENT PORE SPACE	BARRELS PER ACRE FEET	PERCENT PORE SPACE	BARRELS PER ACRE FEET	Mud %	ACID %
Core #37			H	V						
55	9135	9.6	0.52	0.04	NONE		16.4	122		
56	9137	8.9	0.32	0.30	"		21.6	149		
57	9139	8.5	0.35	0.28	"		19.4	128	7.7	
58	9141	12.7	22	5.22	"		17.1	168		
59	9143	4.9	0.04	0.02	"		14.5	55		
60	9145	6.5	0.24	0.19	"		10.0	50		
61	9147	7.3	0.92	0.34	"		27.4	155		
62	9149	5.2	0.02	0.10	"		33.1	133	7.6	
63	9151	3.3	0	0	"		30.0	77		
64	9153	4.0	0.02	0.03	"		31.5	98		
65	9155	3.4	0.04	-0.01	"		27.4	72		
66	9157	3.7	-0.01	-0.01	"		25.9	74		
Core #38										
67	9159	4.7	0	0	"		24.9	91	10.9	
68	9161	4.0	0.02	0.02	"		31.0	96		
69	9163	5.7	-0.01	-0.01	"		34.7	154		
70	9165	6.9	0.20	0.11	"		27.0	144		
71	9167	9.3	0.22	0.12	"		31.5	227		
72	9169	5.4	0.02	0.02	"		23.1	97	6.2	
Core #39										
73	9171	10.1	0.39	0.10	"		28.9	227		
74	9173	11.5	1.94	1.91	"		29.5	263		
75	9175	10.5	0.12	0.10	"		40.6	330		
76	9177	10.5	1.55	2.53	"		21.8	178		
77	9179	4.6	0	0	"		27.2	97	19.3	
78	9181	4.1	0	0	"		25.6	81		
79	9183	9.3	0.08	0.07	"		11.3	81		
80	9185	10.6	0.46	0.22	"		28.8	237		
81	9187	12.8	5.93	2.12	"		32.0	317		
82	9189	8.2	0.15	0.72	"		10.1	64	14.4	
83	9191	14.0	12	5.12	"		28.4	308		

SUMMARY

[Arithmetical average, excluding sections with less than one millidarcy permeability]

DEPTH, FEET FROM TO	FEET OF SAND	AVERAGE POROSITY	AVERAGE PERMEABILITY		AVERAGE OIL SATURATION	AVERAGE WATER SATURATION	AVERAGE SOLUBILITY
			H	V			%
9135 - 9149	15	8.0	3.05	0.81	None	19.9 - 120	7.7
9151 - 9169	19	5.1	0.05	0.03	None	28.7 - 113	10.9
9171 - 9177	7	10.4	1.00	1.16	None	30.2 - 249	12.8
9183 - 9191	9	11.0	3.72	1.65	None	22.1 - 201	14.4

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**CORE ANALYSIS REPORT**

Field CLAY BASIN, UTAH Well No. R. D. Murphy 6-W  
 Operator Mountain Fuel Supply Company Location SE NW 22-3N-24E  
 Sand Weber Depths 9109 - 9135 Lab. No. 561  
 Analyzed by R. Sanderson Date June 15, 1947

SAMPLE NO.	DEPTH FEET	EFFECTIVE POROSITY	PERMEABILITY, MILLIDARCIES		OIL SATURATION		WATER SATURATION		SOLUBILITY ACID %
			H	V	PERCENT PORE SPACE	BARRELS PER ACRE FEET	PERCENT PORE SPACE	BARRELS PER ACRE FEET	
Core # 36									
41	9109	9.8	1.05	0.41	NONE		22.3	170	
42	9111	10.3	2.64	4.00	"		22.6	181	
43	9113	10.6	6.23	0.07	"		12.7	105	4.4
44	9115	9.2	2.54	0.05	"		27.4	196	
45	9117	11.0	4.67	0.60	"		29.3	250	
46	9119	10.6	5.88	1.33	"		25.5	209	
47	9121	11.1	6.51	1.00	"		18.3	157	
48	9123	9.0	1.30	0.48	"		31.3	219	12.2
49	9125	10.9	0.58	1.31	"		23.9	202	
50	9127	9.4	4.96	0.45	"		23.1	168	
51	9129	6.4	0.04	0.05	"		19.4	96	
52	9131	10.2	4.81	0.08	"		18.3	145	
53	9133	8.6	0.36	1.55	"		18.8	126	6.0
54	9135	8.3	0.20	0.27	"		18.7	120	
SUPPLEMENTAL REPORT TO THE ABOVE CORE ANALYSES									
After soaking in distilled water for 24 hours under pressure:									
43	9113		1.42						
48	9123		0.32						
53	9133		0.06						

**SUMMARY**

[Arithmetical average, excluding sections with less than one millidarcy permeability]

DEPTH, FEET FROM TO	FEET OF SAND	AVERAGE POROSITY	AVERAGE PERMEABILITY		AVERAGE OIL SATURATION	AVERAGE WATER SATURATION	AVERAGE SOLUBILITY %
9109 - 9135	27	9.7	2.98	0.83	None	22.3 - 167	7.5

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**CHEMICAL LABORATORIES, INC.**  
 521 SO. CENTER ST. :: P. O. BOX 279  
 CASPER, WYOMING

**CORE ANALYSIS REPORT**

Field CLAY BASIN, UTAH Well No. R. D. Murphy 6-W  
 Operator Mountain Fuel Supply Company Location Sec. 22-3N-24E S.L.M.  
 Sand \_\_\_\_\_ Depths 8753-8759 & 9041-9105 Lab. No. 541  
 Analyzed by Chemical Laboratories, Inc. Date 6-6-47

SAMPLE NO.	DEPTH FEET	EFFECTIVE POROSITY	PERMEABILITY, MILLIDARCIES		OIL SATURATION		WATER SATURATION		SOLUBILITY Mud ACID %
			H	V	PERCENT PORE SPACE	BARRELS PER ACRE FEET	PERCENT PORE SPACE	BARRELS PER ACRE FEET	
Core # 17									
7	8753-56	7.9	0	0	13.5	83	9.2	57	
8	8756-59	6.4	0	0	NONE		14.4	71	
9	9041	6.5	0	0.02	NONE		36.9	186	
Core # 32									
10	9045	5.1	0.03	0.02	NONE		20.0	79	
11	9047	4.7	0.04	0.04	NONE		18.5	67	7.8
12	9049	4.6	0.05	0.06	NONE		23.9	85	
13	9051	4.5	0.04	0.03	NONE		20.7	72	
14	9053	3.7	0.02	0.02	NONE		34.3	99	
15	9055	3.9	0.02	0.03	NONE		26.7	81	9.2
16	9057	4.7	0.03	0.03	NONE		23.8	87	
17	9059	4.6	0.03	0.04	NONE		20.2	72	
18	9061	4.9	0.03	0.04	NONE		21.6	82	
19	9063	5.3	0.04	0.05	NONE		17.0	70	18.5
20	9065	3.7	0.04	-0.01	NONE		25.1	72	
Core # 34									
21	9067	4.9	0.02	0.03	2.0	9	21.2	92	
22	9069	6.2	0.05	0.03	1.8	10	14.7	81	
23	9071	8.1	0.13	0.11	3.1	22	17.9	128	16.7
24	9073	7.8	0.15	0.09	0.6	4	20.1	139	
25	9075	7.5	0.10	0.07	2.0	13	17.9	119	
26	9077	5.0	0.02	0.02	NONE		29.0	128	
27	9079	6.8	0.07	0.04	4.0	24	17.9	108	
28	9081	6.8	0.11	0.07	4.0	24	15.3	92	14.8
29	9083	6.0	0.04	0.05	2.7	14	17.3	92	
30	9085	5.9	0.03	0.03	2.5	13	18.6	97	
31	9087	6.1	0.03	0.05	2.5	13	17.7	96	
32	9089	4.6	0.02	0.02	4.1	17	14.1	58	
Core # 35									
33	9091	5.2	0.04	0.09	NONE		18.8	76	8.9
34	9093	6.5	0.35	0.60	NONE		13.5	68	
35	9095	5.5	0.03	0.33	NONE		18.7	80	
36	9097	6.8	0.09	0.06	NONE		16.6	88	
37	9099	4.9	0.04	0.02	NONE		9.8	37	
38	9101	7.6	0.30	0.11	NONE		10.9	64	12.4
39	9103	9.9	1.04	1.10	NONE		25.5	196	
40	9105	9.0	0.60	0.59	NONE		35.7	249	

**SUMMARY**

[Arithmetical average, excluding sections with less than one millidarcy permeability]

DEPTH, FEET FROM TO	FEET OF SAND	AVERAGE POROSITY	AVERAGE PERMEABILITY		AVERAGE OIL SATURATION	AVERAGE WATER SATURATION	AVERAGE SOLUBILITY
9045 - 9065	20	4.5	0.03	0.03	None	22.9 - 79	11.8
9067 - 9089	31	6.3	0.06	0.05	2.4 - 14	18.5 - 103	15.8
9091 - 9105	14	6.9	0.31	0.36	None	18.7 - 107	10.7

CHEMICAL LABORATORIES, INC.

521 SO. CENTER ST., P. O. BOX 279

CASPER, WYOMING

CORE ANALYSIS REPORT

Field Clay Basin, Utah Well No. R. D. Murphy 6-W  
 Operator Mountain Fuel Supply Co. Location SE $\frac{1}{4}$  NW $\frac{1}{2}$  22-3N-24E  
 Sand \_\_\_\_\_ Depths 8801 - 8968 Lab. No. 512  
 Analyzed by V. Pentecost Date 5-25-47

SAMPLE NO.	DEPTH FEET	EFFECTIVE POROSITY	PERMEABILITY, MILLIDARCIES		OIL SATURATION		WATER SATURATION		SOLUBILITY Mud ACID %
			H	V	PERCENT PORE SPACE	BARRELS PER ACRE FEET	PERCENT PORE SPACE	BARRELS PER ACRE FEET	
1	8801-04	2.8	0	0	NONE		0	0	
2	8886-90	6.5	0.04	0.04	"		15.2	77	43.3
3	8890-94	6.1	0.03	0.05	"		10.3	49	
4	8906-07	10.1	0.03	0.02	"		3.4	26	
5	8963-67	16.3	0.05	0.07	"		5.8	73	17.9
6	8967-68	10.9	0.06	0	"		0	0	

NOTE: Cores received in glass jars, of which Nos. 1, 4, and 6 were broken upon arrival at laboratory. Saturation figures for these numbers may be in error.

SUMMARY

[Arithmetical average, excluding sections with less than one millidarcy permeability]

DEPTH, FEET FROM	FEET TO	FEET OF SAND	AVERAGE POROSITY	AVERAGE PERMEABILITY	AVERAGE OIL SATURATION	AVERAGE WATER SATURATION	AVERAGE SOLUBILITY %

63

Selwin

PI  
PHB

FORM OGC-8-X  
FILE IN QUADRUPLICATE

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL & GAS CONSERVATION  
1588 West North Temple  
Salt Lake City, Utah 84116

REPORT OF WATER ENCOUNTERED DURING DRILLING

Well Name & Number Clay Basin Unit No. 11  
Operator Mountain Fuel Supply Co. Address SLC, Utah Phone 328-8315  
Contractor Loffland Bros. Address Casper, Wyo. Phone \_\_\_\_\_  
Location SW 1/4 NW 1/4 Sec. 22 T. 3 N, R. 24 E, Daggett County, Utah

Water Sands:

<u>Depth</u>	<u>Volume</u>	<u>Quality</u>	
From:	To:	Flow Rate or Head:	Fresh or Salty:
1. <u>DST 10764' - 10912'</u>	<u>Recovered</u>	<u>10,100' water</u>	<u>33000 ppm chlorides</u>
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____

(Continue on Reverse Side if Necessary)

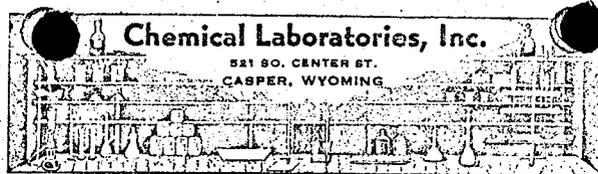
Formation Tops:

Weber 9,025'  
Morgan 10,040'  
Mississippian 10,610'  
Cambrian (Buck Springs ?) 11,180'

Remarks:

NOTE:

- (a) Upon diminishing supply of forms, please inform this office.
- (b) Report on this form as provided for in Rule C-20, General Rules and Regulations and Rules of Practice and Procedure, (See Back of Form).
- (c) If a water analysis has been made of the above reported zone, please forward a copy along with this form.



## WATER ANALYSIS REPORT

Field Clay Basin, Utah Well No. R. D. Murphy 6-W  
 Operator Mt. Fuel Supply Co. Location SE $\frac{1}{4}$  NW $\frac{1}{4}$  22-3N-24E  
 Sampled by \_\_\_\_\_ Date \_\_\_\_\_  
 Sand Weber Depths 9194-9297 How sampled D.S.T.  
 Other pertinent data \_\_\_\_\_  
 \_\_\_\_\_  
 Analyzed by S. A. Currie Date 7-1-47 Lab. No. 594

### PARTS PER MILLION

NA & K	CA	Mg	FE	SO <sub>4</sub>	CL	CO <sub>3</sub>	HCO <sub>3</sub>	OH	H <sub>2</sub> S
6962	107	90		2306	8500	54	1590		

### MILLIGRAM EQUIVALENTS

302.86	5.34	7.40		48.01	239.73	1.80	26.06		
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### MILLIGRAM EQUIVALENTS IN PERCENT

47.98	0.85	1.17		7.61	37.98	0.29	4.12		
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#### Total Solids in Parts per Million

By evaporation 19,068  
 After ignition 18,779  
 Calculated 18,801

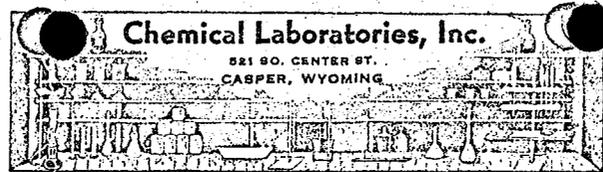
#### Properties of Reaction in Percent

Primary salinity 91.18  
 Secondary salinity 0.00  
 Primary alkalinity 4.78  
 Secondary alkalinity 4.04  
 Chloride salinity 83.31  
 Sulfate salinity 16.69

Observed pH 7.7

Remarks and conclusions Organic matter present, some drilling water contamination, but appears to be largely formation water. Probably Weber water.

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## WATER ANALYSIS REPORT

Field Clay Basin, Utah Well No. R. D. Murphy 6-W  
 Operator Mt. Fuel Supply Co. Location SE $\frac{1}{4}$  NW $\frac{1}{4}$  22-3N-24E  
 Sampled by \_\_\_\_\_ Date \_\_\_\_\_  
 Sand Weber Depths 9057-9134 How sampled D.S.T.  
 Other pertinent data \_\_\_\_\_  
 \_\_\_\_\_  
 Analyzed by S. A. Currie Date 7-1-47 Lab. No. 593

### PARTS PER MILLION

NA & K	CA	Mg	FE	SO <sub>4</sub>	CL	CO <sub>3</sub>	HCO <sub>3</sub>	OH	H <sub>2</sub> S
4537	34	66		698	3800	295	4450		

### MILLIGRAM EQUIVALENTS

197.34	1.70	5.43		14.53	107.17	9.83	72.94		
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### MILLIGRAM EQUIVALENTS IN PERCENT

48.26	0.42	1.32		3.55	26.21	2.40	17.84		
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#### Total Solids in Parts per Million

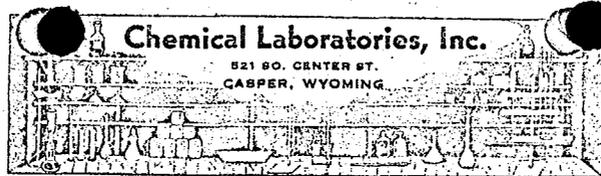
By evaporation 18,669  
 After ignition 17,929  
 Calculated 11,618

#### Properties of Reaction in Percent

Primary salinity 59.52  
 Secondary salinity 0.00  
 Primary alkalinity 37.00  
 Secondary alkalinity 3.48  
 Chloride salinity 88.07  
 Sulfate salinity 11.93

Observed pH 8.1

Remarks and conclusions Organic matter present; high amount of quebracha;  
am inclined to believe this is drilling mud filtrate possibly with  
some formation water.



## WATER ANALYSIS REPORT

Field CLAY BASIN, UTAH Well No. 6-W R. D. Murphy  
 Operator Mt. Fuel Supply Co. Location SE NW 22-3N-24E  
 Sampled by \_\_\_\_\_ Date \_\_\_\_\_  
 Sand \_\_\_\_\_ Depths 7798-7806 How sampled \_\_\_\_\_  
 Other pertinent data \_\_\_\_\_  
 \_\_\_\_\_  
 Analyzed by V. Pentecost Date April 7, 1947 Lab. No. 446

### PARTS PER MILLION

NA & K	CA	MG	FE	SO <sub>4</sub>	CL	CO <sub>3</sub>	HCO <sub>3</sub>	OH	H <sub>2</sub> S
60,866	4509	1123	Present	1356	104,000		230		

### MILLIGRAM EQUIVALENTS

2647.69	225.06	92.36		28.23	2933.11		3.77		
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### MILLIGRAM EQUIVALENTS IN PERCENT

44.65	3.80	1.55		0.48	49.46		0.06		
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#### Total Solids in Parts per Million

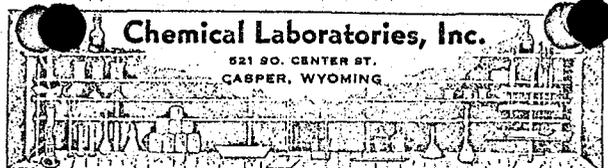
By evaporation 166,283  
 After ignition 164,739  
 Calculated 171,967

#### Properties of Reaction in Percent

Primary salinity 89.30  
 Secondary salinity 10.58  
 Primary alkalinity 0.00  
 Secondary alkalinity 0.12  
 Chloride salinity 99.04  
 Sulfate salinity 0.96

Observed pH 6.6

Remarks and conclusions Same Water as that sampled at 7731-92.



## WATER ANALYSIS REPORT

Field ..... CLAY BASIN, UTAH ..... Well No. .... 6-W R. D. Murphy .....  
 Operator ..... Mt. Fuel Supply ..... Location ..... SE NW 22-3N-24E .....  
 Sampled by ..... Date .....  
 Sand ..... Depths 7731-7792 ..... How sampled .....  
 Other pertinent data .....

---

Analyzed by V. Pentecost ..... Date March 7, 1947 Lab. No. .... 445 .....

### PARTS PER MILLION

NA & K	CA	MG	FE	SO <sub>4</sub>	CL	CO <sub>3</sub>	HCO <sub>3</sub>	OH	H <sub>2</sub> S
47,776	3409	1984		498	85,000		240		

### MILLIGRAM EQUIVALENTS

2078.27	170.15	163.16		10.37	2397.28		3.93		
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### MILLIGRAM EQUIVALENTS IN PERCENT

43.09	3.53	3.38		0.22	49.70		0.08		
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#### Total Solids in Parts per Million

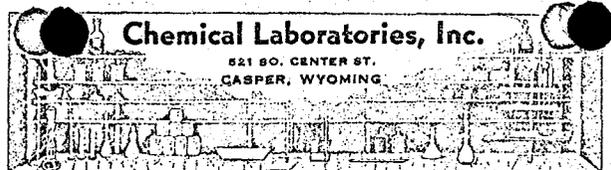
By evaporation ..... 137.730 .....  
 After ignition ..... 134.778 .....  
 Calculated ..... 138.785 .....

#### Properties of Reaction in Percent

Primary salinity ..... 86.18 .....  
 Secondary salinity ..... 13.66 .....  
 Primary alkalinity ..... 0.00 .....  
 Secondary alkalinity ..... 0.16 .....  
 Chloride salinity ..... 99.56 .....  
 Sulfate salinity ..... 0.44 .....

Observed pH ..... 7.0 .....

Remarks and conclusions ..... Different water than that sampled at 7005-7016 .....



## WATER ANALYSIS REPORT

Field CLAY BASIN, UTAH Well No. R. D. Murphy 6-W  
 Operator Mtn. Fuel Supply Company Location Sec. 22-3N-24E  
 Sampled by W. W. Skeeters Date 2-15-47  
 Sand \_\_\_\_\_ Depths 7006-7016 How sampled D.S.T.  
 Other pertinent data \_\_\_\_\_  
 \_\_\_\_\_  
 Analyzed by V. Pentecost Date 2-22-47 Lab. No. 384

### PARTS PER MILLION

NA & K	CA	MG	FE	SO <sub>4</sub>	CL	CO <sub>2</sub>	HCO <sub>3</sub>	OH	H <sub>2</sub> S
23,945	1075	287	Present	2262	36,630	Trace	2360		

### MILLIGRAM EQUIVALENTS

1041.61	53.65	23.60		47.09	1033.09		38.68		
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### MILLIGRAM EQUIVALENTS IN PERCENT

46.55	2.40	1.05		2.10	46.17		1.73		
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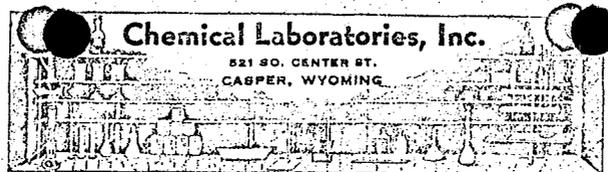
#### Total Solids in Parts per Million

By evaporation 65,847  
 After ignition 65,340  
 Calculated 65,359  
 Observed pH 6.5

#### Properties of Reaction in Percent

Primary salinity 93.10  
 Secondary salinity 3.44  
 Primary alkalinity 0.00  
 Secondary alkalinity 3.46  
 Chloride salinity 95.65  
 Sulfate salinity 4.35

Remarks and conclusions Same water as previous sample. Does not correlate  
with Dakota water on file, so believe this is Sundance or  
Entrada water.



## WATER ANALYSIS REPORT

Field CLAY BASIN, UTAH Well No. R. D. Murphy 6-W  
 Operator Mountain Fuel Supply Co. Location Sec. 22-3N-24E  
 Sampled by W. W. Skeeters Date 2-11-47  
 Sand \_\_\_\_\_ Depths 6805-6825 How sampled D.S.T.  
 Other pertinent data \_\_\_\_\_  
 \_\_\_\_\_  
 Analyzed by V. Pentecost Date 2-22-47 Lab. No. 383

### PARTS PER MILLION

NA & K	CA	MG	FE	SO <sub>4</sub>	CL	CO <sub>3</sub>	HCO <sub>3</sub>	OH	H <sub>2</sub> S
22,564	1379	268		2165	34,650		3055		

### MILLIGRAM EQUIVALENTS

981.52	68.83	22.04		45.08	977.24		50.07		
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### MILLIGRAM EQUIVALENTS IN PERCENT

45.76	3.21	1.03		2.10	45.56		2.34		
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#### Total Solids in Parts per Million

By evaporation 63,731  
 After ignition 63,048  
 Calculated 62,528

#### Properties of Reaction in Percent

Primary salinity 91.52  
 Secondary salinity 3.80  
 Primary alkalinity 0.00  
 Secondary alkalinity 4.68  
 Chloride salinity 95.59  
 Sulfate salinity 4.41

Observed pH 7.0

Remarks and conclusions Same water as 384. Does not correlate with Dakota  
water analysis on file, so believe this is Sundance or Entrada water.



**MOUNTAIN FUEL SUPPLY COMPANY**

180 EAST FIRST SOUTH • P. O. BOX 11368 • SALT LAKE CITY, UTAH 84111 • PHONE 328-8315

LYLE A. HALE  
MANAGER, EXPLORATION

August 15, 1969

UTAH OIL AND GAS  
CONSERVATION COMMISSION  
348 East South Temple  
Salt Lake City, Utah 84110

Gentlemen:

Clay Basin Unit Well No. 11  
(OWDD)  
Daggett County, Utah

Mountain Fuel Supply Company intends to enter Clay Basin Unit Well No. 11, plug the present productive zone and deepen the well to a total depth of 11,900 feet.

The location of this well does not comply with Rule C-3, General Well Spacing Requirements of the Utah Oil and Gas Conservation Commission. Mountain Fuel hereby requests an exception to the well spacing requirements for the following reasons:

1. The location of Unit Well No. 11 is structurally the highest point on the anticline to test the Mississippian Formation.
2. The present total depth of this well is 9,355 feet which makes the deepening of the well to 11,900 feet more economically feasible.
3. Mountain Fuel owns all of the oil and gas leases within a radius of 660 feet of Unit Well No. 11.

Mountain Fuel respectfully requests the Commission to approve the location of this well, for the reasons outlined above and pursuant to its authority under Rule C-3(e).

Very truly yours,

Lyle A. Hale

LAH:mb

30 Comp: 7-23-47

22 311-24E

1575' FWL & 1540' FWL NW SE NW

13-009-15635 07D-9355'

August 20, 1969

Mountain Fuel Supply Company  
P.O. Box 11368  
Salt Lake City, Utah 84111

ATTENTION: Lyle A. Hale, Manager-Exploration

Re: Well No. Clay Basin Unit #11  
Sec. 22, T. 3 N, R. 24 E,  
Daggett County, Utah

Gentlemen:

Insofar as this office is concerned, approval to deepen the above referred to well to the Mississippian Formation is hereby granted in accordance with Rule C-3(c).

Should you determine that it will be necessary to plug and abandon this well, you are hereby requested to immediately notify the following:

PAUL W. BURCHELL - Chief Petroleum Engineer  
HOME: 277-2890  
OFFICE: 328-5771

Enclosed please find Form OGC-8-X, which is to be completed whether or not water sands (aquifers) are encountered during drilling. Your cooperation with respect to completing this form will be greatly appreciated.

The API number of this well is 43-009-15635 (see Bulletin D-12 published by the American Petroleum Institute).

Very truly yours,

DIVISION OF OIL & GAS CONSERVATION

CLEON B. FEIGHT  
DIRECTOR

CBF:sd  
Enclosures  
cc: U.S. Geological Survey  
Rock Springs, Wyoming

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UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK  
 DRILL  DEEPEN  PLUG BACK

b. TYPE OF WELL  
 OIL WELL  GAS WELL  OTHER   
 SINGLE ZONE  MULTIPLE ZONE

2. NAME OF OPERATOR  
 Mountain Fuel Supply Company

3. ADDRESS OF OPERATOR  
 P. O. Box 1129, Rock Springs, Wyoming 82901

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)\*  
 At surface 1575' FNL, 1540' FWL SE NW  
 At proposed prod. zone same

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
 Previously submitted

15. DISTANCE FROM PROPOSED\* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)

16. NO. OF ACRES IN LEASE

17. NO. OF ACRES ASSIGNED TO THIS WELL

18. DISTANCE FROM PROPOSED LOCATION\* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.

19. PROPOSED DEPTH  
 11,900'

20. ROTARY OR CABLE TOOLS  
 Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)  
 KB 6518'

22. APPROX. DATE WORK WILL START\*  
 Sept. 10, 1969

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
Previously submitted				
8-5/8	5-1/2	17 & 20	to be determined	

OTD 9355'. We would like your permission to deepen the subject well to an estimated depth of 11,900'. Anticipated formation tops are as follows: Weber at 9025', Morgan at 10,325', Round Valley at 10,355', Manning Canyon at 10,650', Humbug at 11,010', Desert at 11,185', Madison at 11,415' and Cambrian at 11,715'.

Exception has been sent at an earlier date.

APPROVED BY DIVISION OF  
OIL & GAS CONSERVATION

DATE 8-29-69

BY *Clara B Feight*

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24. SIGNED *B. H. Croft* TITLE Vice President, Gas Supply Operations DATE Aug. 28, 1969

(This space for Federal or State office use)

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

CONDITIONS OF APPROVAL, IF ANY:

Schultz

UNITED STATES DEPARTMENT OF THE INTERIOR GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE (Other instructions on reverse side)

Form approved. Budget Bureau No. 42-R1424.

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL [ ] GAS WELL [X] OTHER Deepen
2. NAME OF OPERATOR Mountain Fuel Supply Company
3. ADDRESS OF OPERATOR P. O. Box 1129, Rock Springs, Wyoming 82901
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. See also space 17 below.) At surface 1575' FNL, 1540' FWL SE NW
14. PERMIT NO. - 15. ELEVATIONS (Show whether DF, RT, GR, etc.) KB 6518'
12. COUNTY OR PARISH Daggett 13. STATE Utah

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data
NOTICE OF INTENTION TO: TEST WATER SHUT-OFF [ ] PULL OR ALTER CASING [ ] WATER SHUT-OFF [ ] REPAIRING WELL [ ]
FRACTURE TREAT [ ] MULTIPLE COMPLETE [ ] FRACTURE TREATMENT [ ] ALTERING CASING [ ]
SHOOT OR ACIDIZE [ ] ABANDON\* [ ] SHOOTING OR ACIDIZING [ ] ABANDONMENT\* [ ]
REPAIR WELL [ ] CHANGE PLANS [ ] (Other) Supplementary history [X]
(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*
Rigged on October 29, killed well with mud, pulled tubing, drilled plug flow cleaning out at 6910'.

18. I hereby certify that the foregoing is true and correct
SIGNED B. W. Craft, Jr. TITLE Vice President, Gas Supply Operations DATE Nov 3, 1969

(This space for Federal or State office use)
APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_
CONDITIONS OF APPROVAL, IF ANY: \_\_\_\_\_

26

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SUBMIT IN THIS DATE\*  
(Other instructions on re-  
verse side)

Form approved.  
Budget Bureau No. 42-R1424.

5. LEASE DESIGNATION AND SERIAL NO.

SL-045051-a

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

Clay Basin Unit

8. FARM OR LEASE NAME

Unit Well

9. WELL NO.

11

10. FIELD AND POOL, OR WILDCAT

Clay Basin

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA

SE NW 22-3N-24E., 6th PM

12. COUNTY OR PARISH

Daggett

13. STATE

Utah

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.  
Use "APPLICATION FOR PERMIT—" for such proposals.)

1.

OIL WELL  GAS WELL  OTHER

2. NAME OF OPERATOR

Mountain Fuel Supply Company

3. ADDRESS OF OPERATOR

P. O. Box 1129 Rock Springs, Wyoming 82901

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.\*  
See also space 17 below.)  
At surface

1575' FNL, 1540' FWL SE NW

14. PERMIT NO.

-

15. ELEVATIONS (Show whether DF, RT, GR, etc.)

KB 6518'

16.

Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF

FRACTURE TREAT

SHOOT OR ACIDIZE

REPAIR WELL

(Other)

PULL OR ALTER CASING

MULTIPLE COMPLETE

ABANDON\*

CHANGE PLANS

SUBSEQUENT REPORT OF:

WATER SHUT-OFF

FRACTURE TREATMENT

SHOOTING OR ACIDIZING

(Other) Supplementary history

REPAIRING WELL

ALTERING CASING

ABANDONMENT\*

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

Depth 9740', drilling.

DST #1: 9007-9358', Weber, IO 1/2 hour, ISI 1 hour, FO 2 1/2 hours, FSI 2 1/2 hours, opened strong, gas in 5 minutes, 1/4 hour 3624 Mcf, 1/2 hour 5169 Mcf, reopened, 1/4 hour 6500 Mcf, 1/2 hour 8250 Mcf, tightened union on test line, 3/4 hour 10,000 Mcf, 1 hour 9500 Mcf, 2 hours 8500 Mcf, 2 1/2 hours 8500 Mcf, gas will not burn, well made 30 gallons drilling mud per hour through separator, recovered 20' drip and 90' salt water. IHP 4303, IOFP's 620-942, ISIP 3833, FOFP's 694-1068, FSIP 3833, FHP 1077 psi.

18. I hereby certify that the foregoing is true and correct

SIGNED

*B. W. Croft*

TITLE

Vice President,  
Gas Supply Operations

DATE

Nov. 19, 1969

(This space for Federal or State office use)

APPROVED BY

TITLE

CONDITIONS OF APPROVAL, IF ANY:

DATE

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE\*  
(Other instructions on reverse side)

Form approved.  
Budget Bureau No. 42-R1424.

**SUNDRY NOTICES AND REPORTS ON WELLS**

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/> <b>Deepen</b>		5. LEASE DESIGNATION AND SERIAL NO. SL - 045051-a
2. NAME OF OPERATOR Mountain Fuel Supply Company		6. IF INDIAN, ALLOTTEE OR TRIBE NAME
3. ADDRESS OF OPERATOR P. O. Box 1129, Rock Springs, Wyoming 82901		7. UNIT AGREEMENT NAME Clay Basin Unit
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface 1575' FNL, 1540' FWL SE NW		8. FARM OR LEASE NAME Unit Well
14. PERMIT NO. -		9. WELL NO. 11
15. ELEVATIONS (Show whether DF, RT, GR, etc.) KB 6518'		10. FIELD AND POOL, OR WILDCAT Clay Basin
		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA SE NW 22-3N-24E., 6th PM
		12. COUNTY OR PARISH Daggett
		13. STATE Utah

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>	WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>	FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input type="checkbox"/>	SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	(Other) <u>Supplementary history</u> <input checked="" type="checkbox"/>	

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

Depth 9899', tripping.

18. I hereby certify that the foregoing is true and correct

SIGNED B. N. Croft TITLE Vice President, Gas Supply Operations DATE Nov 24, 1969

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

CONDITIONS OF APPROVAL, IF ANY:

Schmitt

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

LAND OFFICE \_\_\_\_\_  
LEASE NUMBER \_\_\_\_\_  
UNIT Clay Basin  
Dakota

**LESSEE'S MONTHLY REPORT OF OPERATIONS**

State Utah County Daggett Field Clay Basin

The following is a correct report of operations and production (including drilling and producing wells) for the month of NOV - 1969, 19  ,

Agent's address P.O. Box 11368 Company MOUNTAIN FUEL SUPPLY COMPANY

Salt Lake City, Utah 84111 Signed R. D. Murphy

Phone 328-8315 Agent's title DIVISIONAL CHIEF ACCOUNTANT

SEC. AND 1/4 OF 1/4	TWP.	RANGE	WELL NO.	DAYS PRODUCED	BARRELS OF OIL	GRAVITY	CU. FT. OF GAS (In thousands)	GALLONS OF GASOLINE RECOVERED	BARRELS OF WATER (If none, so state)	REMARKS (If drilling, depth; if shut down, cause; date and result of test for gasoline content of gas)
					<u>Salt Lake City 045051A R. D. Murphy A</u>					
<u>SE NW 22</u>	<u>3N</u>	<u>24E</u>	<u>11</u>							<u>Deepening Drilling 10,155' 11-30-69</u>

NOTE.—There were \_\_\_\_\_ runs or sales of oil; \_\_\_\_\_ M cu. ft. of gas sold;

\_\_\_\_\_ runs or sales of gasoline during the month. (Write "no" where applicable.)

NOTE.—Report on this form is required for each calendar month, regardless of the status of operations, and must be filed in duplicate with the supervisor by the 6th of the succeeding month, unless otherwise directed by the supervisor.

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SUBMIT IN THIS CASE\*  
(Other instructions on re-  
verse side)

Form approved.  
Budget Bureau No. 42-R1424.

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.  
Use "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/> Deepen		5. LEASE DESIGNATION AND SERIAL NO. SL - 045051-a	
2. NAME OF OPERATOR Mountain Fuel Supply Company		6. IF INDIAN, ALLOTTEE OR TRIBE NAME	
3. ADDRESS OF OPERATOR P. O. Box 1129, Rock Springs, Wyoming 82901		7. UNIT AGREEMENT NAME Clay Basin Unit	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface 1575' FNL, 1540' FWL SE NW		8. FARM OR LEASE NAME Unit Well	
14. PERMIT NO. -		9. WELL NO. 11	
15. ELEVATIONS (Show whether DF, RT, GR, etc.) KB 6518'		10. FIELD AND POOL, OR WILDCAT Clay Basin	
		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA SE NW 22-3N-24E., 6th PM	
		12. COUNTY OR PARISH Daggett	13. STATE Utah

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data:

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>	WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>	FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input type="checkbox"/>	SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	(Other) <u>Supplementary history</u> <input checked="" type="checkbox"/>	
(Other) <input type="checkbox"/>		(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)	

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*  
Depth 10,155', drilling. ✓

18. I hereby certify that the foregoing is true and correct  
 SIGNED B. W. Croft TITLE Vice President, Gas Supply Operations DATE Dec. 1, 1969

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
 CONDITIONS OF APPROVAL, IF ANY:

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE\*  
(Other instructions on reverse side)

Form approved.  
Budget Bureau No. 42-R1424.

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/> Deepen		7. UNIT AGREEMENT NAME Clay Basin Unit	
2. NAME OF OPERATOR Mountain Fuel Supply Company		8. FARM OR LEASE NAME Unit Well	
3. ADDRESS OF OPERATOR P. O. Box 1129, Rock Springs, Wyoming 82901		9. WELL NO. 11	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface  1575' FNL, 1540' FWL SE NW		10. FIELD AND POOL, OR WILDCAT Clay Basin	
14. PERMIT NO. -		15. ELEVATIONS (Show whether DF, RT, OR, etc.) KB 6518'	
		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA SE NW 22-3N-24E., 6th PM	12. COUNTY OR PARISH Daggett
			13. STATE Utah

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO :		SUBSEQUENT REPORT OF :	
TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>	WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>	FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input type="checkbox"/>	SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	(Other) <u>Supplementary history</u>	<input checked="" type="checkbox"/>
(Other) <input type="checkbox"/>		(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)	

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

Depth 10,715', drilling.

18. I hereby certify that the foregoing is true and correct

SIGNED B. N. Craft

Vice President,  
Gas Supply Operations

DATE Dec. 10, 1969

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:

TITLE \_\_\_\_\_

DATE \_\_\_\_\_

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE\*  
(Other instructions on re-  
verse side)

Form approved.  
Budget Bureau No. 42-R1424.

5. LEASE DESIGNATION AND SERIAL NO.

SL - 045051-a

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.  
Use "APPLICATION FOR PERMIT" for such proposals.)

1. OIL WELL  GAS WELL  OTHER  Deepen

7. UNIT AGREEMENT NAME

Clay Basin Unit

2. NAME OF OPERATOR  
Mountain Fuel Supply Company

8. FARM OR LEASE NAME

Unit Well

3. ADDRESS OF OPERATOR  
P. O. Box 1129, Rock Springs, Wyoming 82901

9. WELL NO.

11

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.\*  
See also space 17 below.)  
At surface

10. FIELD AND POOL, OR WILDCAT

Clay Basin

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA

SE NW 22-3N-24E., 6th PM

14. PERMIT NO. - 15. ELEVATIONS (Show whether DF, RT, GR, etc.)  
KB 6518'

12. COUNTY OR PARISH 13. STATE

Daggett Utah

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

SUBSEQUENT REPORT OF:

TEST WATER SHUT-OFF

PULL OR ALTER CASING

WATER SHUT-OFF

REPAIRING WELL

FRACTURE TREAT

MULTIPLE COMPLETE

FRACTURE TREATMENT

ALTERING CASING

SHOOT OR ACIDIZE

ABANDON\*

SHOOTING OR ACIDIZING

ABANDONMENT\*

REPAIR WELL

CHANGE PLANS

(Other) Supplementary history

(Other)

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

Depth 10,715', drilling.

18. I hereby certify that the foregoing is true and correct

SIGNED

B. W. Croft

TITLE

Vice President,  
Gas Supply Operations

DATE

Dec. 10, 1969

(This space for Federal or State office use)

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SUBMIT IN TRIPlicate\*  
(Other instructions on reverse side)

Form approved.  
Budget Bureau No. 42-R1424.

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL  GAS WELL  OTHER

2. NAME OF OPERATOR  
Mountain Fuel Supply Company

3. ADDRESS OF OPERATOR  
P. O. Box 1129, Rock Springs, Wyoming 82901

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.\* See also space 17 below.)  
At surface

1575' FNL 1540' FWL SE NW

14. PERMIT NO. - - -

15. ELEVATIONS (Show whether DF, RT, GR, etc.)  
KB 6518'

5. LEASE DESIGNATION AND SERIAL NO.  
SL - 045051-a

6. IF INDIAN, ALLOTTEE OR TRIBE NAME  
- - -

7. UNIT AGREEMENT NAME  
Clay Basin Unit

8. FARM OR LEASE NAME  
Unit Well

9. WELL NO.  
11

10. FIELD AND POOL, OR WILDCAT  
Clay Basin

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
SE NW 22-3N-24E, 6th PM

12. COUNTY OR PARISH  
Daggett

13. STATE  
Utah

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>	WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>	FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input type="checkbox"/>	SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	(Other) <u>Supplementary history</u> <input checked="" type="checkbox"/>	
(Other) <input type="checkbox"/>		(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)	

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

Depth 11,392', drilling.

DST #2: 10,764'-10,912', Madison, IO 1/2 hr., ISI 1 hr., FO 2 hrs., FSI 3 hrs., opened with strong blow, no gas, reopened strong, decreasing to end of test, no gas, recovered 10,100' salt water. IHP 5070, IOFP's 485-2332, ISIP 4546, FOFP's 2489-4415, FSIP 4599, FHP 5044 psi.

18. I hereby certify that the foregoing is true and correct

SIGNED B. St. Cruff TITLE Vice President Gas Supply Operations DATE Dec. 17, 1969.

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

CONDITIONS OF APPROVAL, IF ANY:

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE\*  
(Other instructions on re-  
verse side)

Form approved.  
Budget Bureau No. 42-R1424.

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.  
Use "APPLICATION FOR PERMIT—" for such proposals.)

*Schmitt*

1. OIL WELL  GAS WELL  OTHER

2. NAME OF OPERATOR  
Mountain Fuel Supply Company

3. ADDRESS OF OPERATOR  
P. O. Box 1129, Rock Springs, Wyoming 82901

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.\*  
See also space 17 below.)  
At surface  
1575' FNL 1540' FWL SE NW

14. PERMIT NO.  
---

15. ELEVATIONS (Show whether DF, RT, GR, etc.)  
KB 6518'

5. LEASE DESIGNATION AND SERIAL NO.  
SL - 045051-a

6. IF INDIAN, ALLOTTEE OR TRIBE NAME  
---

7. UNIT AGREEMENT NAME  
Clay Basin Unit

8. FARM OR LEASE NAME  
Unit Well

9. WELL NO.  
11

10. FIELD AND POOL, OR WILDCAT  
Clay Basin

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
SE NW 22-3N-24E, 6th PM

12. COUNTY OR PARISH  
Daggett

13. STATE  
Utah

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>	WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>	FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOT OR ACIDIZING <input type="checkbox"/>	ABANDON* <input type="checkbox"/>	SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	(Other) <u>Supplementary history</u> <input checked="" type="checkbox"/>	

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*  
Depth 11,702', drilling.

18. I hereby certify that the foregoing is true and correct

SIGNED B. A. Crapp TITLE Vice President Gas Supply Operations DATE Dec. 24, 1969

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

CONDITIONS OF APPROVAL, IF ANY:

\*See Instructions on Reverse Side

12/25/69  
 Joe Center - # 11  
 Memphis G-w

≈ 11,760' T.P.  
 in Cambrian  
 Water floor = 10,100' from  
 Median = 10,968

① 10,625 - 10,825  
 68 st

Weber =  $8\frac{1}{2}$  MCFPD =  
 ↓ BTU = 61  
 9025 8070 97 strop  
 1470 Cu2

② 9500 - 9600 base of Weber  
 34 st & Argon = 9575

③ 8900 - 9000 = top of Weber  
 34 st

④ 7600 - 7700  
 34 st  
 7552 = Chamber?  
 6567 = Entrance

5875 - 95 1/8  
 Center @ 6388

⑤ 6100 - 6200  
 34 st

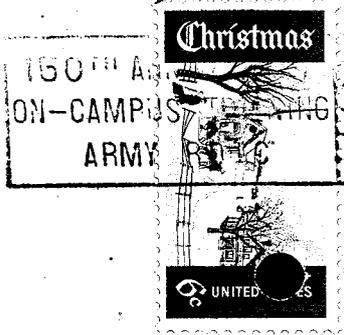
⑥ Cast in  
 @ 5825

use some pipe  
 for Roberts 5640 to  
 5720 & 5750 to  
 5800 - Pater 841  
 cross - Pater will  
 other from

fract  
 promotion  
 PWB

Shorup 7780  
 = 6500 - 6600  
 34 st

#16 = 1, MMCFD



*Mr & Mrs Andy Panoz  
5088 Moor Oak Circle  
S. L. C., Utah*

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

LAND OFFICE \_\_\_\_\_  
LEASE NUMBER \_\_\_\_\_  
UNIT Clay Basin  
Dakota

**LESSEE'S MONTHLY REPORT OF OPERATIONS**

State Utah County Daggett Field Clay Basin

The following is a correct report of operations and production (including drilling and producing wells) for the month of DEC - 1969, 19\_\_\_\_

Agent's address P.O. Box 11368 Company MOUNTAIN FUEL SUPPLY COMPANY  
Salt Lake City, Utah 84111 Signed R. D. Murphy

Phone 328-8315 Agent's title DIVISIONAL CHIEF ACCOUNTANT

SEC. AND 1/4 OF 1/4	TWP.	RANGE	WELL No.	DAYS PRODUCED	BARRELS OF OIL	GRAVITY	CU. FT. OF GAS (In thousands)	GALLONS OF GASOLINE RECOVERED	BARRELS OF WATER (If none, so state)	REMARKS (If drilling, depth; if shut down, cause; date and result of test for gasoline content of gas)
SE NW 22	3N	24E	11		Salt Lake City	045051A	R. D. Murphy A			Deepening TD 11,778' PBD 5,830 Waiting on Completion Tools 12-31-69

NOTE.—There were \_\_\_\_\_ runs or sales of oil; \_\_\_\_\_ M cu. ft. of gas sold;

\_\_\_\_\_ runs or sales of gasoline during the month. (Write "no" where applicable.)

NOTE.—Report on this form is required for each calendar month, regardless of the status of operations, and must be filed in duplicate with the supervisor by the 6th of the succeeding month, unless otherwise directed by the supervisor.

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

LAND OFFICE \_\_\_\_\_  
LEASE NUMBER \_\_\_\_\_  
UNIT **Clay Basin**  
**Dakota**

**LESSEE'S MONTHLY REPORT OF OPERATIONS**

State **Utah** County **Daggett** Field **Clay Basin**

The following is a correct report of operations and production (including drilling and producing wells) for the month of **JAN - 1970**, 19\_\_\_\_,

Agent's address **P.O. Box 11368** Company **MOUNTAIN FUEL SUPPLY COMPANY**

**Salt Lake City, Utah 84111** Signed *R. D. Murphy*

Phone **328-8315** Agent's title **DIVISIONAL CHIEF ACCOUNTANT**

SEC. AND 1/4 OF 1/4	TWP.	RANGE	WELL NO.	DAYS PRODUCED	BARRELS OF OIL	GRAVITY	CU. FT. OF GAS (In thousands)	GALLONS OF GASOLINE RECOVERED	BARRELS OF WATER (If none, so state)	REMARKS (If drilling, depth; if shut down, cause; date and result of test for gasoline content of gas)
<b>SE NW 22</b>	<b>3N</b>	<b>24E</b>	<b>11</b>							<b>Shut In 1-31-70</b>
					<b>Salt Lake City 045051-A</b>			<b>R. D. Murphy A</b>		

NOTE.—There were **No** runs or sales of oil; **No** M cu. ft. of gas sold;

**No** runs or sales of gasoline during the month. (Write "no" where applicable.)

NOTE.—Report on this form is required for each calendar month, regardless of the status of operations, and must be filed in duplicate with the supervisor by the 6th of the succeeding month, unless otherwise directed by the supervisor.

UNITED STATES DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SUBMIT IN THE REVERSE SIDE  
(Other Instructions on reverse side)

Form approved  
Budget Bureau No. 42-01124  
5. LEASE DESIGNATION AND SERIAL NO.

SL 045051  
6. IF INDIAN, ALLOTTEE OR TRIBE NAME  
7. UNIT AGREEMENT NAME  
Clay Basin Unit  
8. FARM OR LEASE NAME  
Unit Well  
9. WELL NO.  
11  
10. FIELD AND POOL, OR WILDCAT  
Clay Basin  
11. SEC., T., R., M., OR BLE. AND SURVEY OR AREA  
SE NW 22-3N-24E., 6th PM  
12. COUNTY OR PARISH  
Daggett  
13. STATE  
Utah

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL  GAS WELL  OTHER  
2. NAME OF OPERATOR  
Mountain Fuel Supply Company  
3. ADDRESS OF OPERATOR  
P. O. Box 1129, Rock Springs, Wyoming 82901  
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.\* See also space 17 below.)  
At surface  
1575' FNL, 1540' FWL SE NW  
14. PERMIT NO.  
-  
15. ELEVATIONS (Show whether DF, RT, GR, etc.)  
KB 6517.50' GR 6507'

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>	WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>	FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input type="checkbox"/>	SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	(Other) <input checked="" type="checkbox"/>	Supplementary history <input checked="" type="checkbox"/>
(Other) <input type="checkbox"/>			

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

TD 11,778', PBD 5830', drilling rig released 12/29/69, workover rig released 2/12/70. Verbal approval was granted by Mr. Duletsky with the U.S.G.S. and Mr. Burchell with the Utah Oil & Gas Division to lay the following plugs:

Plug No. 1: 10,825-10,625', 68 sacks  
 Plug No. 2: 9,600-9500', 40 sacks  
 Plug No. 3: 9000-8900', 40 sacks  
 DST #3: 5847-6128', Morrison, IO 1/2 hr, ISI 1 hr, FO 1 hr, FSI 2 hrs, opened with good blow on both openings declining to weak, no gas, recovered 754' mud and 964' heavily gas cut mud. IHP 2879, 10FP's 117-318, ISIP 1805, FOPP's 384-647, FSIP 1834, FHP 2869. Landed 5580.91' net, 5624.16' gross of 4 1/2", 11.6#, N-80 casing in a model DA production packer at 5592.09'. Landed 2-3/8" tubing at 5603.19', applied 30,000 gallons sand-oil treatment to old perforations 5640-5720' and 5765-5800', swabbed, and well flowed 1441 Mcf of gas per day, TP 260, CP 375. Moved in workover rig on 2-7-70, rig released 2-12-70.

18. I hereby certify that the foregoing is true and correct  
 SIGNED B. H. Craft TITLE Vice President, Gas Supply Operations DATE Feb. 20, 1970

(This space for Federal or State office use)  
 APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
 CONDITIONS OF APPROVAL, IF ANY:

9

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SUBMIT IN DUPLICATE\*

(See other In-  
structions on  
reverse side)

Form approved,  
Budget Bureau No. 42-R355.5.

5. LEASE DESIGNATION AND SERIAL NO.

SL 045051-a

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

Clay Basin Unit

8. FARM OR LEASE NAME

Unit Well

9. WELL NO.

11

10. FIELD AND POOL, OR WILDCAT

Clay Basin - Dakota

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA

SE NW 22-3N-24E., 6th PM

12. COUNTY OR PARISH  
Daggett

13. STATE  
Utah

WELL COMPLETION OR RECOMPLETION REPORT AND LOG\*

1a. TYPE OF WELL: OIL WELL  GAS WELL  DRY  Other \_\_\_\_\_

b. TYPE OF COMPLETION: NEW WELL  WORK OVER  DEEP-EN  PLUG BACK  DIFF. RESVR.  Other \_\_\_\_\_

2. NAME OF OPERATOR

Mountain Fuel Supply Company

3. ADDRESS OF OPERATOR

P. O. Box 1129, Rock Springs, Wyoming 82901

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)\*

At surface 1575' FNL, 1540' FWL SE NW

At top prod. interval reported below same

At total depth same

14. PERMIT NO. DATE ISSUED

- -

15. DATE SPUDDED 16. DATE T.D. REACHED 17. DATE COMPL. (Ready to prod.) 18. ELEVATIONS (DF, FKB, RT, GR, ETC.)\* 19. ELEV. CASINGHEAD

10-30-69 12-25-69 2-12-70 KB 6517.50' GR 6507' -

20. TOTAL DEPTH, MD & TVD 21. PLUG, BACK T.D., MD & TVD 22. IF MULTIPLE COMPL., HOW MANY\* 23. INTERVALS DRILLED BY ROTARY TOOLS CABLE TOOLS

11,778 5830 - - 0-11,778 -

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)\* 25. WAS DIRECTIONAL SURVEY MADE

5640-5720' and 5765-5800', Dakota (old perforations) No

26. TYPE ELECTRIC AND OTHER LOGS RUN 27. WAS WELL CORED

Borehole Compensated Sonic -GR, Dual Induction Laterolog Yes

28. CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
Previously submitted					
4-1/2	11.6	5,592.09	9-5/8 casing	Landed in production packer	

29. LINER RECORD					30. TUBING RECORD		
SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
					2-3/8	5603.19	

31. PERFORATION RECORD (Interval, size and number)	32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.
	DEPTH INTERVAL (MD) AMOUNT AND KIND OF MATERIAL USED
	5640-5800 30,000 gals drip oil mixed with 0.05# Adomite, 0.003 FR3 & 1/2 to 1 ppg 20-40 mesh sand GPG.

33.* PRODUCTION							
DATE FIRST PRODUCTION		PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump)				WELL STATUS (Producing or shut-in)	
Shut in		Flowing				Shut in	
DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
2-12-70	24						
FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)	
260	375			1441	0		

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.) TEST WITNESSED BY

Vented while testing

35. LIST OF ATTACHMENTS

BHC Sonic, DIL, Well Completion, Well Lithology (sent at a later date)

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED B. N. Craft pz TITLE Vice President, Gas Supply Operations DATE Feb. 24, 1970

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

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

LAND OFFICE .....  
LEASE NUMBER .....  
UNIT Clay Basin  
Dakota

**LESSEE'S MONTHLY REPORT OF OPERATIONS**

State Utah County Daggett Field Clay Basin

The following is a correct report of operations and production (including drilling and producing wells) for the month of MAR - 1970, 19.....

Agent's address P.O. Box 11368 Company MOUNTAIN FUEL SUPPLY COMPANY

Salt Lake City, Utah 84111 Signed R. D. Murphy

Phone 328-8315 Agent's title DIVISIONAL CHIEF ACCOUNTANT

SEC. AND 1/4 OF 1/4	TWP.	RANGE	WELL NO.	DATE PRODUCED	BARRELS OF OIL	GRAVITY	CU. FT. OF GAS (In thousands)	GALLONS OF GASOLINE RECOVERED	BARRELS OF WATER (If none, so state)	REMARKS (If drilling, depth; if shut down, cause; date and result of test for gasoline content of gas)
SE NW 22	3N	24E	11		Salt Lake City		045051A	R.D. Murphy A		Shut In

NOTE.—There were No runs or sales of oil; No M cu. ft. of gas sold;

No runs or sales of gasoline during the month. (Write "no" where applicable.)

NOTE.—Report on this form is required for each calendar month, regardless of the status of operations, and must be filed in duplicate with the supervisor by the 6th of the succeeding month, unless otherwise directed by the supervisor.

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

LAND OFFICE .....  
LEASE NUMBER .....  
UNIT Clay Basin  
Dakota

**LESSEE'S MONTHLY REPORT OF OPERATIONS**

State Utah County Daggett Field Clay Basin

The following is a correct report of operations and production (including drilling and producing wells) for the month of MAY, 191970,

Agent's address P.O. Box 11368 Company MOUNTAIN FUEL SUPPLY COMPANY

Salt Lake City, Utah 84111

Signed R. D. Murphy

Phone 328-8315

Agent's title CHIEF ACCOUNTANT

SEC. AND 1/4 OF 1/4	TWP.	RANGE	WELL NO.	DATE PRODUCED	BARRELS OF OIL	GRAVITY	CU. FT. OF GAS (In thousands)	GALLONS OF GASOLINE RECOVERED	BARRELS OF WATER (If none, so state)	REMARKS (If drilling, depth; if shut down, cause; date and result of test for gasoline content of gas)
<u>SE NW 22</u>	<u>3N</u>	<u>24E</u>	<u>11</u>		<u>Salt Lake City</u>	<u>045051A</u>	<u>R. D. Murphy</u>	<u>A</u>		<u>Shut In</u>

NOTE.—There were No runs or sales of oil; No M cu. ft. of gas sold;

No runs or sales of gasoline during the month. (Write "no" where applicable.)

NOTE.—Report on this form is required for each calendar month, regardless of the status of operations, and must be filed in duplicate with the supervisor by the 6th of the succeeding month, unless otherwise directed by the supervisor.

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

LAND OFFICE \_\_\_\_\_  
LEASE NUMBER \_\_\_\_\_  
UNIT Clay Basin  
Dakota

**LESSEE'S MONTHLY REPORT OF OPERATIONS**

State Utah County Daggett Field Clay Basin

The following is a correct report of operations and production (including drilling and producing wells) for the month of JUN - 1970, 19\_\_\_\_.

Agent's address P.O. Box 11368 Company MOUNTAIN FUEL SUPPLY COMPANY

Salt Lake City, Utah 84111

Signed R. D. Murphy

Phone 328-8315

Agent's title CHIEF ACCOUNTANT

SEC. AND ¼ OF ¼	TWP.	RANGE	WELL NO.	DAYS PRODUCED	BARRELS OF OIL	GRAVITY	CU. FT. OF GAS (In thousands)	GALLONS OF GASOLINE RECOVERED	BARRELS OF WATER (If none, so state)	REMARKS (If drilling, depth; if shut down, cause; date and result of test for gasoline content of gas)
<u>SE NW 22</u>	<u>3N</u>	<u>24E</u>	<u>11</u>		<u>Salt Lake City</u>		<u>045051A</u>	<u>R. D. Murphy A</u>		<u>Shut In</u>

NOTE.—There were No runs or sales of oil; No M cu. ft. of gas sold;

No runs or sales of gasoline during the month. (Write "no" where applicable.)

NOTE.—Report on this form is required for each calendar month, regardless of the status of operations, and must be filed in duplicate with the supervisor by the 6th of the succeeding month, unless otherwise directed by the supervisor.

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

LAND OFFICE .....  
LEASE NUMBER .....  
UNIT Clay Basin  
Dakota

**LESSEE'S MONTHLY REPORT OF OPERATIONS**

State Utah County Daggett Field Clay Basin

The following is a correct report of operations and production (including drilling and producing wells) for the month of SEP 1970, 19.....

Agent's address P.O. Box 11368 Company MOUNTAIN FUEL SUPPLY COMPANY

Salt Lake City, Utah 84111 Signed J. Murphy

Phone 328-8315 Agent's title CHIEF ACCOUNTANT

SEC. AND 1/4 OF 1/4	TWP.	RANGE	WELL NO.	DAYS PRODUCED	BARRELS OF OIL	GRAVITY	CU. FT. OF GAS (In thousands)	GALLONS OF GASOLINE RECOVERED	BARRELS OF WATER (If none, so state)	REMARKS (If drilling, depth; if shut down, cause; date and result of test for gasoline content of gas)
					<u>Salt Lake City</u>	<u>045051A</u>	<u>R. D. Murphy A</u>			
<u>SE NW 22</u>	<u>3N</u>	<u>24E</u>	<u>11</u>							<u>Shut In</u>

NOTE.—There were No runs or sales of oil; No M cu. ft. of gas sold; No runs or sales of gasoline during the month. (Write "no" where applicable.)

NOTE.—Report on this form is required for each calendar month, regardless of the status of operations, and must be filed in duplicate with the supervisor by the 6th of the succeeding month, unless otherwise directed by the supervisor.

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

LAND OFFICE .....  
LEASE NUMBER .....  
UNIT **Clay Basin**  
**Dakota**

**LESSEE'S MONTHLY REPORT OF OPERATIONS**

State **Utah** County **Daggett** Field **Clay Basin**

The following is a correct report of operations and production (including drilling and producing wells) for the month of **OCT** 1970, 19.....

Agent's address **P.O. Box 11368** Company **MOUNTAIN FUEL SUPPLY COMPANY**

**Salt Lake City, Utah 84111** Signed *R. D. Murphy*

Phone **328-8315** Agent's title **CHIEF ACCOUNTANT**

SEC. AND 1/4 OF 1/4	TWP.	RANGE	WELL NO.	DAYS PRODUCED	BARRELS OF OIL	GRAVITY	CU. FT. OF GAS (In thousands)	GALLONS OF GASOLINE RECOVERED	BARRELS OF WATER (If none, so state)	REMARKS (If drilling, depth; if shut down, cause; date and result of test for gasoline content of gas)
SE NW 22	3N	24E	11		Salt Lake City		045051A	R. D. Murphy A		*See Other Report

NOTE.—There were **No** runs or sales of oil; \* M cu. ft. of gas sold;

**No** runs or sales of gasoline during the month. (Write "no" where applicable.)

NOTE.—Report on this form is required for each calendar month, regardless of the status of operations, and must be filed in duplicate with the supervisor by the 6th of the succeeding month, unless otherwise directed by the supervisor.

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

LAND OFFICE \_\_\_\_\_  
LEASE NUMBER \_\_\_\_\_  
UNIT Clay Basin  
Dakota

**LESSEE'S MONTHLY REPORT OF OPERATIONS**

State Utah County Daggett Field Clay Basin

The following is a correct report of operations and production (including drilling and producing wells) for the month of JUL - 1970, 19\_\_\_\_,

Agent's address P.O. Box 11368 Company MOUNTAIN FUEL SUPPLY COMPANY

Salt Lake City, Utah 84111

Signed E. Murphy

Phone 328-8315

Agent's title CHIEF ACCOUNTANT

SEC. AND ¼ OF ¼	TWP.	RANGE	WELL NO.	DAYS PRODUCED	BARRELS OF OIL	GRAVITY	CU. FT. OF GAS (In thousands)	GALLONS OF GASOLINE RECOVERED	BARRELS OF WATER (If none, so state)	REMARKS (If drilling, depth; if shut down, cause; date and result of test for gasoline content of gas)
<u>SE NW 22</u>	<u>3N</u>	<u>24E</u>	<u>11</u>		<u>Salt Lake</u>	<u>City</u>	<u>045051A</u>	<u>R.D. Murphy A</u>		<u>Shut In</u>

NOTE.—There were No runs or sales of oil; No M cu. ft. of gas sold;

No runs or sales of gasoline during the month. (Write "no" where applicable.)

NOTE.—Report on this form is required for each calendar month, regardless of the status of operations, and must be filed in duplicate with the supervisor by the 6th of the succeeding month, unless otherwise directed by the supervisor.

50

OK DF

UNITED STATES DEPARTMENT OF THE INTERIOR GEOLOGICAL SURVEY

LAND OFFICE LEASE NUMBER UNIT Clay Basin Dakota

LESSEE'S MONTHLY REPORT OF OPERATIONS

State Utah County Daggett Field Clay Basin

The following is a correct report of operations and production (including drilling and producing wells) for the month of AUG 1970, 19

Agent's address P.O. Box 11368 Salt Lake City, Utah 84111 Company MOUNTAIN FUEL SUPPLY COMPANY Signed R. D. Murphy

Phone 328-8315 Agent's title CHIEF ACCOUNTANT

Table with 10 columns: SEC. AND 1/4 OF 1/4, TWP., RANGE, WELL NO., DATE PRODUCED, BARRELS OF OIL, GRAVITY, CU. FT. OF GAS (In thousands), GALLONS OF GASOLINE RECOVERED, BARRELS OF WATER (If none, so state), REMARKS. Row 1: SE NW 22, 3N, 24E, 11, Salt Lake City, 045051A, R. D. Murphy A, Shut In.

NOTE.—There were No runs or sales of oil; No M cu. ft. of gas sold; No runs or sales of gasoline during the month. (Write "no" where applicable.)

NOTE.—Report on this form is required for each calendar month, regardless of the status of operations, and must be filed in duplicate with the supervisor by the 6th of the succeeding month, unless otherwise directed by the supervisor.



STATE OF UTAH  
NATURAL RESOURCES  
Oil, Gas & Mining

Norman H. Bangerter, Governor  
Dee C. Hansen, Executive Director  
Dianne R. Nielson, Ph.D., Division Director

355 W. North Temple • 3 Triad Center • Suite 350 • Salt Lake City, UT 84180-1203 • 801-538-5340

April 15, 1985

Bureau of Land Management  
170 South 500 East  
Vernal, Utah 84078

Attention: Benna

Gentlemen:

Re: Clay Basin Units #2, #3, #4, #5, #6, #10, and #11

Benna, we are unable to reach a decision regarding the status of the above mentioned wells. Wexpro states they are Gas Storage Wells and that they sent sundry's to that affect.

Reviewing our files, I am unable to locate any sundry's or any other information indicating that these are Gas Storage Wells. Perhaps Wexpro sent copies to you and not to us. Can you shed any light on the subject?

Any help you could provide us would be greatly appreciated.

Sincerely,

Vicky Carney  
Office Specialist, Production

cc: Dianne R. Nielson  
Ronald J. Firth  
Norman C. Stout  
File

0031-53

Schematic  
not drawn to scale.

3N 24E Sec 22  
AP/ H4300915635 FRTR  
8-13-55 JJS  
Revised 12-22-67 JJS  
Revised 2-12-70 JJS

Sec 22-T3N-R34E  
Daggett Co, Utah.

PRESENT STATUS of WELL

UNIT Well No. 11  
(formerly R.D. MURPHY Well No. 6-W)  
CLAY BASIN FIELD.

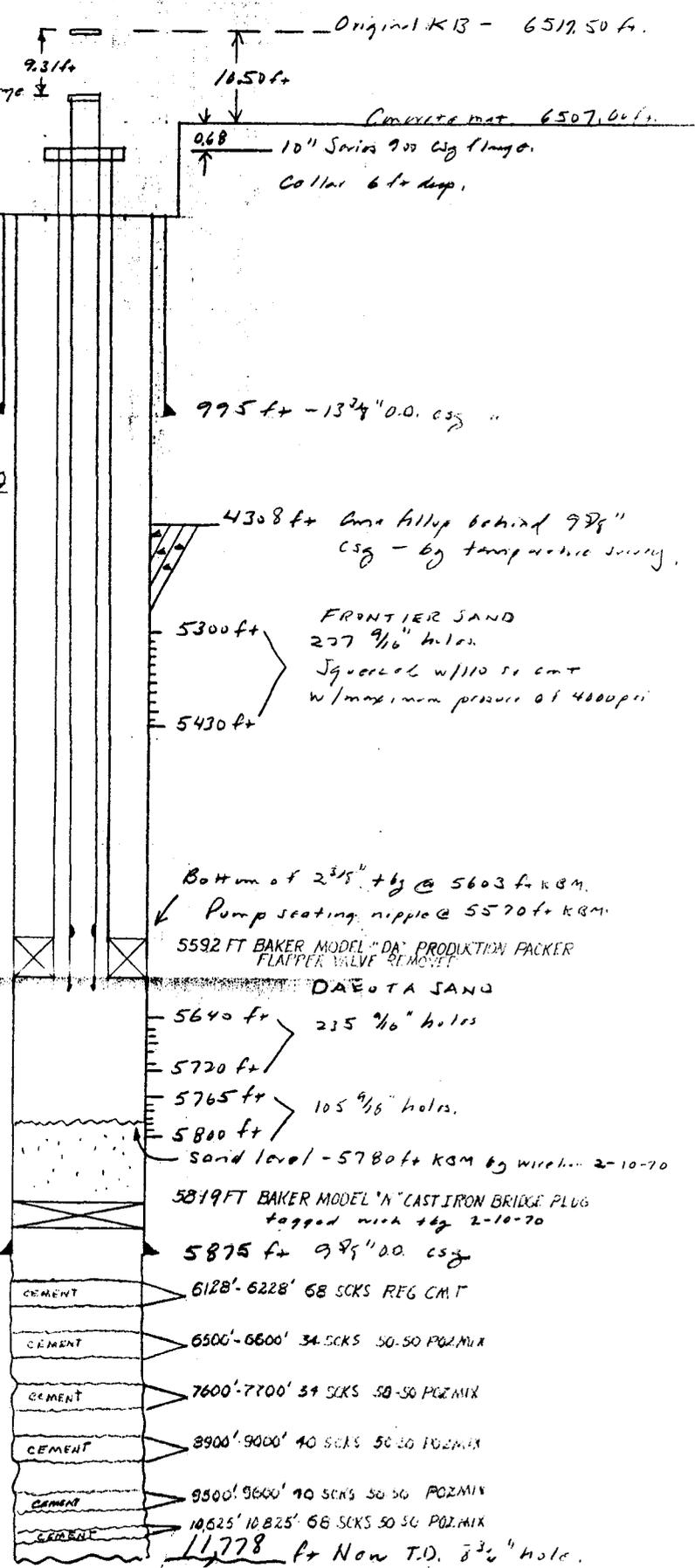
Drilled by MFS Co  
1947 by rotary.  
Drilled by MFS Co  
1969 by rotary

13 3/4" - 48# - 545' - 61# 8th leg  
33 Jts - 987' 2" gross of 97988 net  
landed at 994.75 ft or 14.87' below  
K.B. Cont'd w/ 810 sv Monitor +  
1 deal reg em, First 4 Jts welded  
solid above & below collars - near  
6 Jts spot welded. Baker guide  
shoe run in bottom of Howco  
float collar placed on top of  
first Jt - Cont'd by Howco.  
9 7/8" - 36# - 40# 8th J-55 + 14 8' csj  
36 Jts 40# LTYC N-80 1131.92  
37 Jts 40# LTYC J-55 1187.92  
116 Jts 36# STYC J-55 3542.41  
179 Jts 586 225

Above csj landed @ 5875.42 or  
1317 ft below KB in a Schotter  
Spool type csj head. Howco guide  
shoe + Howco float collar which are  
included in net measurements were  
run in bottom & top of first Jt and  
spot welds were run near 6 Jts  
above & below collars. Cont'd w/ 400 sv  
Monitor + 1 deal reg em by Howco.

4.5 INCH PRODUCTION CASING		NET
1- 4.5" x 100' 110# N80 STYC		31.27
117 Jts 4.5" x 100' 110# N80 STYC		5547.61
BAKER LATCH TYPE SEAL NIPPLE		2.03
		5580.91
LANDED ABOVE CSJ AT 5592.09 FT KBM OR 1118 FT BELOW KB IN A BAKER MODEL "DA" RETAINER PRODUCTION PACKER FLAPPER VALVE REMOVED WITH 10000 POUNDS INDICATOR WEIGHT AND REMAINDER OF 33 000 POUNDS INDICATOR WEIGHT ON SLIPS IN THE 12-INCH SERIES 900 BY 10 INCH SERIES 900 CSJ FLANGE INSTALLED A NSCO TYPE "B" 10 INCH SERIES 900 BY 6 INCH SERIES 1500 PRESSURE CROSSOVER TBG SPOOL.		
NOTE: THE BAKER MODEL "DA" PRODUCTION PACKER WAS SET AT 5600 FT KBM BY DRESSER ATLAS WIRE LINE MEASUREMENTS. THE CSJ WAS LANDED AT 5592.09 FT KBM. THE CSJ IS LANDED AND LATCHED INTO THE PRODUCTION PACKER		
2 3/8" O.D. Production Tubing 2-12-70		NET
1- NSC type H-1 tbg hang on 2 3/8" O.D.		0.44
179 Jts 2 3/8" O.D. 4.7# J-55 8' EUE		5560.27
1- 2 3/8" pump seating nipple w/ collar		0.76
1- Jt 2 3/8" O.D. H-7# J-55 8' EUE		31.68
1- Shop made combination closing tool + shoe		0.73
		5593.88

Above tbg landed @ 5603.19 ft KBM  
or 9.31 ft below KB in a NSC  
6" 1500 tbg flange.



Bottom of 2 3/8" tbg @ 5603 ft KBM.  
Pump seating nipple @ 5570 ft KBM.  
5592 FT BAKER MODEL "DA" PRODUCTION PACKER  
FLAPPER VALVE REMOVED

DAKOTA SAND  
5640 ft 2 3/8" holes  
5720 ft  
5765 ft 10 5/16" holes.  
5800 ft  
sand level - 5780 ft KBM by wireline 2-10-70  
5819 FT BAKER MODEL "N" CAST IRON BRIDGE PLUG  
tagged with tag 2-10-70  
5875 ft 9 7/8" O.D. csj  
6128' - 6228' 68 SCKS 50-50 POZ MIX  
6500' - 6600' 34 SCKS 50-50 POZ MIX  
7600' - 7700' 34 SCKS 50-50 POZ MIX  
8900' - 9000' 40 SCKS 50-50 POZ MIX  
9500' - 9600' 40 SCKS 50-50 POZ MIX  
10625' - 10825' 68 SCKS 50-50 POZ MIX  
11778 ft New T.D. 8 3/4" hole.

Schematic  
not drawn to scale.

PRESENT STATUS of WELL HEAD

1-5-70 JJS

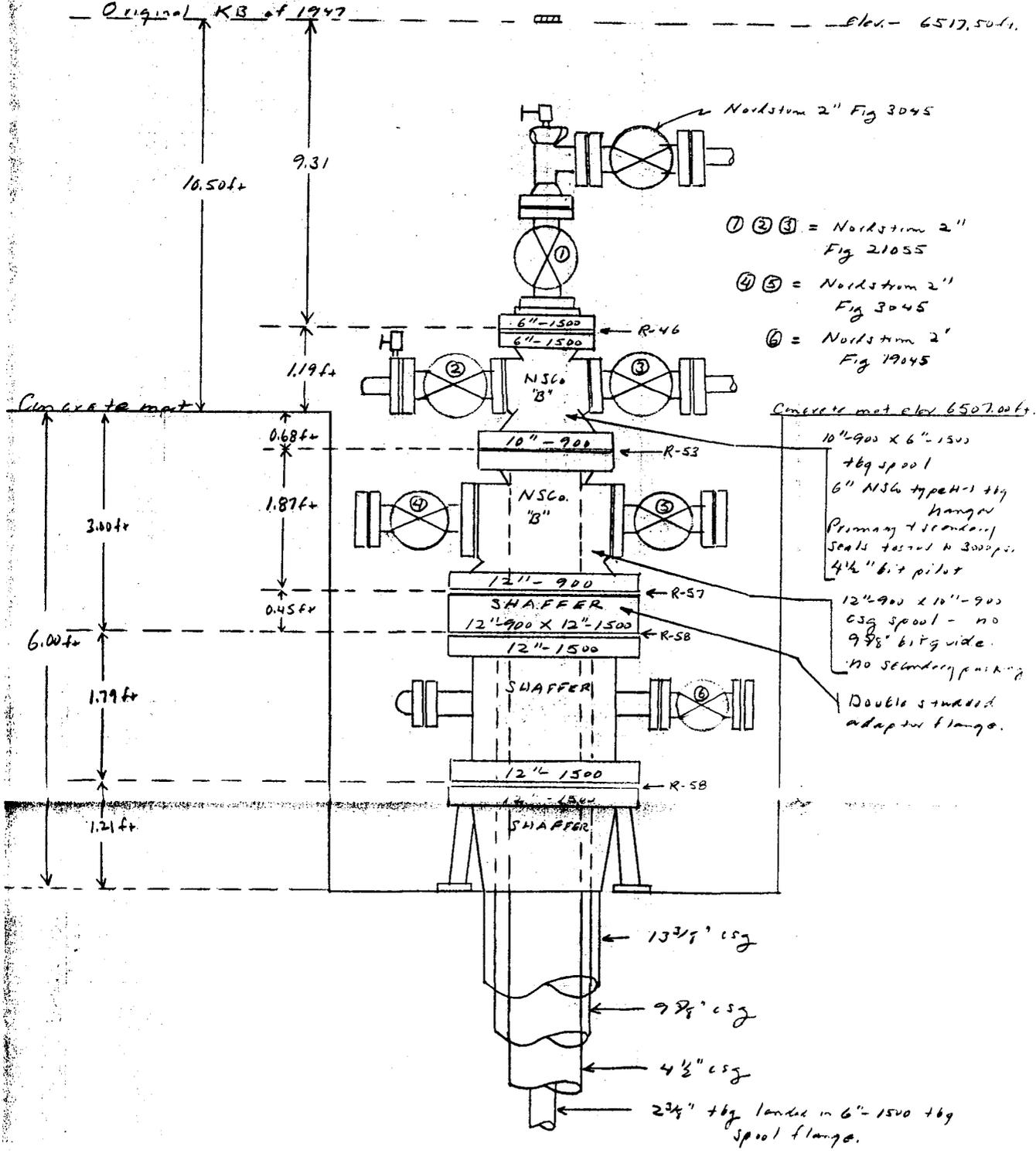
UNIT WELL No 11

CLAY BASIN FIELD

After deepening and  
then plug back operations  
of December, 1969.

Original KB of 1947

Elev. - 6517.50 ft.





# United States Department of the Interior

BUREAU OF LAND MANAGEMENT  
VERNAL DISTRICT OFFICE  
170 South 500 East  
Vernal, Utah 84078

IN REPLY  
REFER TO:

3100  
Clay Basin Unit

April 30, 1985

Mountain Fuel Supply Co.  
P.O. Box 11368  
Salt Lake City, UT 84139

Re: Well No. 2  
Sec. 21, T3N, R24E, SLB&M  
Lease SLC-045051-A

Well No. 6  
Sec. 23, T3N, R24E, SLB&M  
Lease SLC-045051-B

Well No. 3  
Sec. 16, T3N, R24E, SLB&M  
State Lease

Well No. 10  
Sec. 23, T3N, R24E, SLB&M  
Lease SLC-045049

Well No. 4  
Sec. 27, T3N, R24E, SLB&M  
Lease SLC-045053-A

Well No. 11  
Sec. 22, T3N, R24E, SLB&M  
Lease SLC-045051-A

Well No. 5  
Sec. 20, T3N, R24E, SLB&M  
Fee Lease

All in Clay Basin Unit.  
All in Daggett County, Utah.

Gentlemen:

The aforementioned wells were originally completed as gas wells producing from the Dakota Formation. However, plan of developments/subsequent reports submitted for the Clay Basin Unit for calendar years 1977 through 1983 indicate that these wells are being converted to gas injection wells. If conversion has occurred, please submit sundry notices with subsurface schematics depicting the current status for each well. If alterations occurred to the casing while conversion was taking place, please submit Well Completion and Recompletion Report and Log for those wells affected, along with the aforementioned sundry notices.

Thank you for your cooperation in this matter. If you have any questions, please contact Allen McKee at (801) 789-1362.

Sincerely,

Craig M. Hansen  
Assistant District Manager  
for Minerals



# CELSIUS ENERGY COMPANY

P.O. BOX 458 • ROCK SPRINGS, WYOMING 82901 • PHONE (307) 382-9791

MAY 1985

RECEIVED  
DEPT. OF INTERIOR  
BUREAU OF LAND MANAGEMENT

May 8, 1985

Bureau of Land Management  
Vernal District Office  
170 South 500 East  
Vernal, Utah 84078

MAY 13 1985

Re: Well No. 2  
Sec. 21, T3N, R24E, SLB&M  
Lease SLC-045051-A

Well No. 6  
Sec. 23, T3N, R24E, SLB&M  
Lease SLC-045051-B

Well No. 3  
Sec. 16, T3N, R24E, SLB&M  
State Lease

Well No. 10  
Sec. 23, T3N, R24E, SLB&M  
Lease SLC-045049

Well No. 4  
Sec. 27, T3N, R24E, SLB&M  
Lease SLC-045053-A

Well No. 11  
Sec. 22, T3N, R24E, SLB&M  
Lease SLC-045051-A

Well No. 5  
Sec. 20, T3N, R24E, SLB&M  
Fee Lease

All in Clay Basin Unit.  
All in Daggett County, Utah

Dear Mr. McKee:

In reference to your letter 3100 on Clay Basin Unit, the above wells in question have all been converted to gas injection/withdrawal wells. This work was performed in 1976. Attached are sundries for wells that were reperforated in the Dakota along with schematics depicting each wells current status.

Thank you for bringing this matter to our attention. If you have any further questions, please contact me at 307-382-9791.

Sincerely,

Robert L. Rasmussen  
Staff Engineer

RLR/sr1

Attachments



# CELSIUS ENERGY COMPANY

P.O. BOX 458 • ROCK SPRINGS, WYOMING 82901 • PHONE (307) 382-9791

RECEIVED

JUN 27 1985

DIVISION OF OIL  
GAS & MINING

June 25, 1985

State of Utah Natural Resources  
Oil, Gas and Mining  
355 W N Temple, Suite 350  
Salt Lake City, Utah 84180-1203

Re: Well No. 2  
Sec. 21, T3N, R24E, SLB&M  
Lease SLC-045051-A

Well No. 6  
Sec. 23, T3N, R24E, SLB&M  
Lease SLC-045051-B

Well No. 3  
Sec. 16, T3N, R24E, SLB&M  
State Lease

Well No. 10  
Sec. 23, T3N, R24E, SLB&M  
Lease SLC-045049

Well No. 4  
Sec. 27, T3N, R24E, SLB&M  
Lease SLC-045053-A

[REDACTED]  
Sec. 22, T3N, R24E, SLB&M  
Lease SLC-045051-A

Well No. 5  
Sec. 20, T3N, R24E, SLB&M  
Fee Lease

All in Clay Basin Unit.  
All in Daggett County, Utah

Dear Ms. Poulsen:

In reference to your letter on the Clay Basin Unit, the above wells in question have all been converted to gas injection/withdrawal wells. This work was performed in 1976. Attached are sundries for wells that were reperforated in the Dakota along with schematics depicting each wells current status.

Thank you for bringing this matter to our attention. If you have any further questions, please contact me at 307-382-9791.

Sincerely,

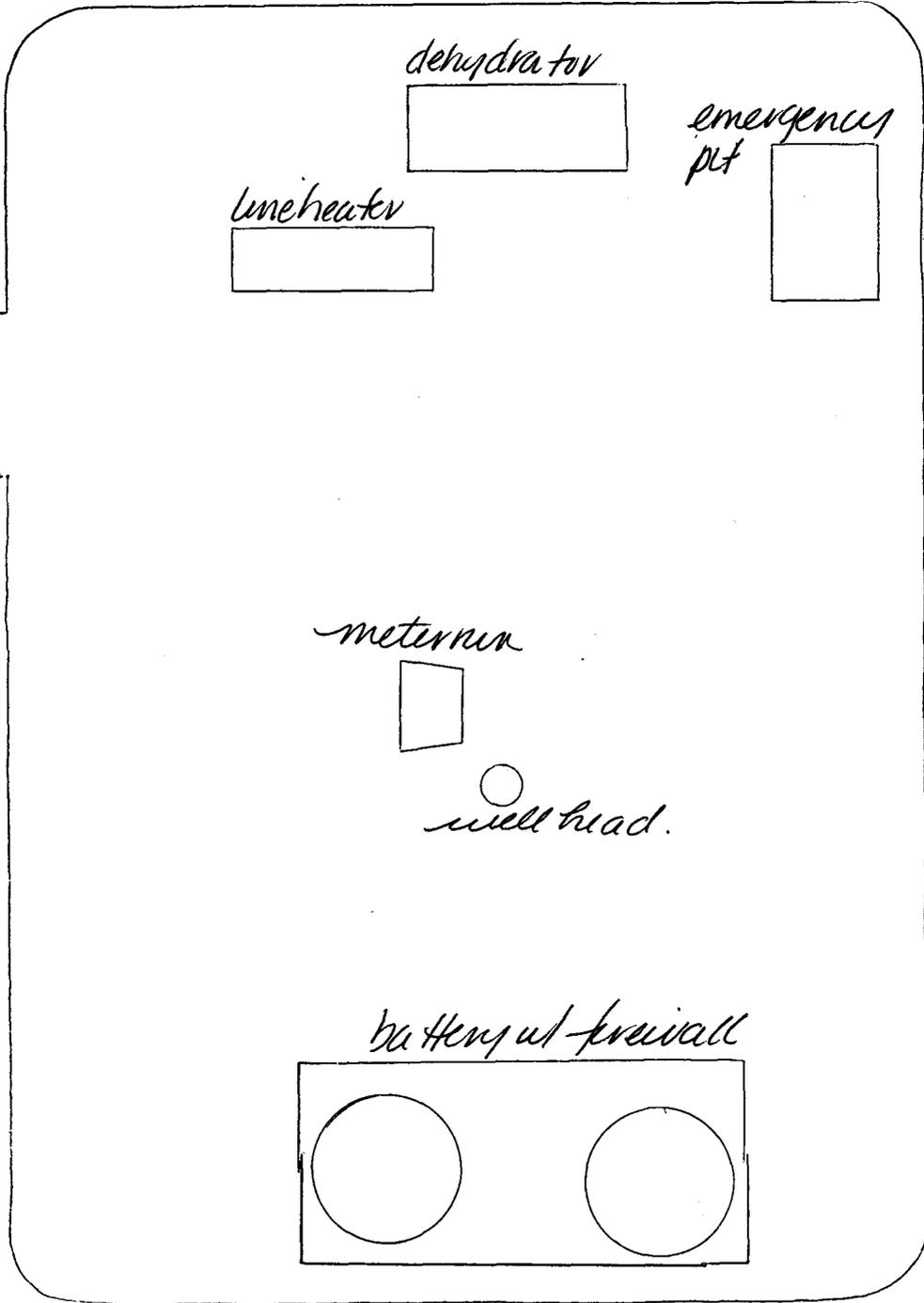
Robert L. Rasmussen  
Staff Engineer

RLR/sr1

Attachments

Clay Basin Unit # 10 Sec 22, 30, 24E

Cloudy 14 June 88



access road.

42-381 50 SHEETS 5 SQUARE  
42-381 100 SHEETS 5 SQUARE  
42-381 200 SHEETS 5 SQUARE  
MADE IN U.S.A.  
NATIONAL



# QUESTAR PIPELINE COMPANY

79 SOUTH STATE STREET • P. O. BOX 11450 • SALT LAKE CITY, UTAH 84147 • PHONE (801) 530-2400  
June 23, 1988

CERTIFIED MAIL  
RETURNED RECEIPT REQUESTED  
#P 879 571 459

Bureau of Land Management  
Utah State Office  
CFS Financial Center  
324 S. State Street  
Salt Lake City, UT 84111-2303

REC'D JUN 29 AM 9 00  
BUREAU OF LAND MGMT  
SALT LAKE CITY, UT

Re: Name Change  
Mountain Fuel Resources, Inc.  
to Questar Pipeline Company

Gentlemen:

Enclosed for your files and information is a certified copy of the Articles of Amendment to the Articles of Incorporation of Mountain Fuel Resources, Inc. dated March 7, 1988, indicating that Mountain Fuel Resources, Inc. changed its name to Questar Pipeline Company.

Questar Pipeline Company holds interests in the following Federal Oil and Gas Leases in Utah:

*now holds on gas hold with CA* - U<sup>9</sup>9712-A - Questar 100%  
 CA well - RT - OR'S - Mt. Fuel Resources - U-11246 - ITA signed pending to "Questar Energy Co"  
 SLC-045051(A) > OR'S  
 SLC-045051(B) > OR'S  
 SLC-045053(A) > OR'S  
 SLC-045053(B) > OR'S  
 SLC-062508 - OR'S  
 SLC-070555 - OR'S  
 SLC-070555(A) - OR'S  
 ? Agreement No. 14-08-0001-16009  
 (Clay Basin Gas Storage Agreement)

Please note and adjust your records in accordance with the above and furnish verification of your receipt of this notice to the undersigned.

Sincerely,

J. B. Neese  
Senior Landman

JBN/sdg

Enclosure

List of Leases

Overriding Royalties

U-09712-A  
U-011246

Operating Rights

SL-045051-A & B  
SL-045053-A & B  
SL-062508  
SL-0700555  
SL-070555-A  
SL-045049-A & B

Clay Basin Gas Storage Agreement  
Agreement No. 14-08-0001-16009

3100  
U-09712-A  
et al  
(U-942)  
*C. Seare*  
*3/9/89*

DECISION

Questar Pipeline Company : Oil and Gas Leases  
P.O. Box 11450 : U-09712-A et al  
Salt Lake City, Utah 84147 :

Corporate Name Change Recognized

Acceptable evidence has been received establishing that Mountain Fuel Resources, Inc. has changed their name to Questar Pipeline Company. Accordingly, the surviving company, Questar Pipeline Company, is recognized as holding all interests in Federal oil and gas leases which were held by Mountain Fuel Resources, Inc. We are changing our records with respect to the attached listing of oil and gas leases. If there are any other leases that will be affected, please contact this office.

**/s/ M. Willis**

**ACTING** Chief, Minerals  
Adjudication Section

Enclosure  
List of Leases

cc: All District Offices, Utah  
MMS, AFS  
MMS, BRASS  
920, Teresa Thompson  
Clay Basin Unit File

CSeare:s1 3/9/89:1642f

RECEIVED  
JAN 28 2004  
DIV. OF OIL, GAS & MINING

**OPERATOR CHANGE WORKSHEET**

**ROUTING**

1. GLH
2. CDW
3. FILE

Change of Operator (Well Sold)

Designation of Agent/Operator

**X Operator Name Change**

Merger

The operator of the well(s) listed below has changed, effective:		<b>3/7/1988</b>
<b>FROM: (Old Operator):</b>	<b>TO: ( New Operator):</b>	
N1070-Wexpro Company PO Box 45360 Salt Lake City, UT 84145-0360 Phone: 1-(801) 534-5267	N7560-Questar Pipeline Company PO Box 11450 Salt Lake City, UT 84147 Phone: 1-(801) 530-2019	

CA No.

Unit:

**WELL(S)**

NAME	SEC	TWN	RNG	API NO	ENTITY NO	LEASE TYPE	WELL TYPE	WELL STATUS
CLAY BASIN UNIT 39-S	21	030N	240E	4300930030	1025	Federal	GS	A
CLAY BASIN UNIT 48-S	21	030N	240E	4300930044	1025	Federal	GS	A
CLAY BASIN UNIT 50-S	21	030N	240E	4300930046	1025	Federal	GS	A
CLAY BASIN UNIT 51-S	21	030N	240E	4300930047	1025	Federal	GS	A
CLAY BASIN UNIT 58-S	21	030N	240E	4300930054	1025	Federal	GS	A
CLAY BASIN UNIT 60-S	21	030N	240E	4300930056	1025	Federal	GS	A
CLAY BASIN U 11 (RD MURPHY 6-W)	22	030N	240E	4300915635	1025	Federal	GS	A
CLAY BASIN 28-S	22	030N	240E	4300930021	1025	Federal	GS	A
CLAY BASIN UNIT 32-S	22	030N	240E	4300930023	1025	Federal	GS	A
CLAY BASIN UNIT 36-S	22	030N	240E	4300930027	1025	Federal	GS	A
CLAY BASIN UNIT 54-S	22	030N	240E	4300930050	1025	Federal	GS	A
CLAY BASIN U 6 (RD MURPHY 3)	23	030N	240E	4300915630	1025	Federal	GS	A
CLAY BASIN U 10 (1 CL SPARKS)	23	030N	240E	4300915634	1025	Federal	GS	A
CLAY BASIN UNIT 29-S	23	030N	240E	4300930020	1025	Federal	GS	A
CLAY BASIN UNIT 31-S	23	030N	240E	4300930022	1025	Federal	GS	A
CLAY BASIN UNIT 44-S	23	030N	240E	4300930040	1025	Federal	GS	A
CLAY BASIN UNIT 45-S	23	030N	240E	4300930041	1025	Federal	GS	A
CLAY BASIN UNIT 57-S	24	030N	240E	4300930053	1025	Federal	GS	A
CLAY BASIN UNIT 41-S	26	030N	240E	4300930032	1025	Federal	GS	A
CLAY BASIN UNIT 42-S	26	030N	240E	4300930033	1025	Federal	GS	A
CLAY BASIN UNIT 43-S	26	030N	240E	4300930039	1025	Federal	GS	A

**OPERATOR CHANGES DOCUMENTATION**

Enter date after each listed item is completed

- (R649-8-10) Sundry or legal documentation was received from the **FORMER** operator on: 1/13/2004
- (R649-8-10) Sundry or legal documentation was received from the **NEW** operator on: 1/13/2004
- The new company was checked on the Department of Commerce, Division of Corporations Database on: 1/14/2004
- Is the new operator registered in the State of Utah: YES Business Number: 649172-0142
- If NO, the operator was contacted on: \_\_\_\_\_

6. (R649-9-2)Waste Management Plan has been received on: IN PLACE

7. **Federal and Indian Lease Wells:** The BLM and or the BIA has approved the merger, name change, or operator change for all wells listed on Federal or Indian leases on: 3/9/1989

8. **Federal and Indian Units:**  
The BLM or BIA has approved the successor of unit operator for wells listed on: n/a

9. **Federal and Indian Communization Agreements ("CA"):**  
The BLM or BIA has approved the operator for all wells listed within a CA on: n/a

10. **Underground Injection Control ("UIC"** The Division has approved UIC Form 5, **Transfer of Authority to Inject,** for the enhanced/secondary recovery unit/project for the water disposal well(s) listed on: N/A

**DATA ENTRY:**

- 1. Changes entered in the **Oil and Gas Database** on: 1/29/2004
- 2. Changes have been entered on the **Monthly Operator Change Spread Sheet** on: 1/29/2004
- 3. Bond information entered in RBDMS on: 1/29/2004
- 4. Fee wells attached to bond in RBDMS on: 1/29/2004
- 5. Injection Projects to new operator in RBDMS on: n/a

**STATE WELL(S) BOND VERIFICATION:**

1. State well(s) covered by Bond Number: 965003032

**FEDERAL WELL(S) BOND VERIFICATION:**

1. Federal well(s) covered by Bond Number: 965002976

**INDIAN WELL(S) BOND VERIFICATION:**

1. Indian well(s) covered by Bond Number: n/a

**FEE WELL(S) BOND VERIFICATION:**

- 1. (R649-3-1) The **NEW** operator of any fee well(s) listed covered by Bond Number 965003033
- 2. The **FORMER** operator has requested a release of liability from their bond on: N/A  
The Division sent response by letter on: N/A

**LEASE INTEREST OWNER NOTIFICATION:**

3. (R649-2-10) The **FORMER** operator of the fee wells has been contacted and informed by a letter from the Division of their responsibility to notify all interest owners of this change on: 1/29/2004

**COMMENTS:**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**NEW ENTITY NUMBERS ASSIGNED FEBRUARY 2004**

ACCT	OPERATOR NAME	API NUM.	Sec	Twنشp	Rng	WELL NAME	ENTITY	EFF DATE	REASON
N7560	Questar Pipeline Co	4300915629	20	030N	240E	Clay Basin Unit 5	1025 to 14040	2/10/2004	Clay Basin Gas Storage
N7560	Questar Pipeline Co	4300915627	16	030N	240E	Clay Basin Unit 3	1025 to 14040	2/10/2004	Clay Basin Gas Storage
N7560	Questar Pipeline Co	4300930018	16	030N	240E	Clay Basin Unit 27-S	1025 to 14040	2/10/2004	Clay Basin Gas Storage
N7560	Questar Pipeline Co	4300930048	16	030N	240E	Clay Basin Unit 52-S	1025 to 14040	2/10/2004	Clay Basin Gas Storage
N7560	Questar Pipeline Co	4300930049	16	030N	240E	Clay Basin Unit 53-S	1025 to 14040	2/10/2004	Clay Basin Gas Storage
N7560	Questar Pipeline Co	4300930055	16	030N	240E	Clay Basin Unit 59-S	1025 to 14040	2/10/2004	Clay Basin Gas Storage
N7560	Questar Pipeline Co	4300930026	17	030N	240E	Clay Basin Unit 35-S	1025 to 14040	2/10/2004	Clay Basin Gas Storage
N7560	Questar Pipeline Co	4300930031	20	030N	240E	Clay Basin Unit 40-S	1025 to 14040	2/10/2004	Clay Basin Gas Storage
N7560	Questar Pipeline Co	4300930045	20	030N	240E	Clay Basin Unit 49-S	1025 to 14040	2/10/2004	Clay Basin Gas Storage
N7560	Questar Pipeline Co	4300915626	21	030N	240E	Clay Basin Unit 2	1025 to 14040	2/10/2004	Clay Basin Gas Storage
N7560	Questar Pipeline Co	4300930015	21	030N	240E	Clay Basin 24-S	1025 to 14040	2/10/2004	Clay Basin Gas Storage
N7560	Questar Pipeline Co	4300930016	21	030N	240E	Clay Basin Unit 25-S	1025 to 14040	2/10/2004	Clay Basin Gas Storage
N7560	Questar Pipeline Co	4300930017	21	030N	240E	Clay Basin Unit 26-S	1025 to 14040	2/10/2004	Clay Basin Gas Storage
N7560	Questar Pipeline Co	4300930019	21	030N	240E	Clay Basin 30-S	1025 to 14040	2/10/2004	Clay Basin Gas Storage
N7560	Questar Pipeline Co	4300930024	21	030N	240E	Clay Basin Unit 33-S	1025 to 14040	2/10/2004	Clay Basin Gas Storage
N7560	Questar Pipeline Co	4300930030	21	030N	240E	Clay Basin Unit 39-S	1025 to 14040	2/10/2004	Clay Basin Gas Storage
N7560	Questar Pipeline Co	4300930044	21	030N	240E	Clay Basin Unit 48-S	1025 to 14040	2/10/2004	Clay Basin Gas Storage
N7560	Questar Pipeline Co	4300930046	21	030N	240E	Clay Basin Unit 50-S	1025 to 14040	2/10/2004	Clay Basin Gas Storage
N7560	Questar Pipeline Co	4300930047	21	030N	240E	Clay Basin Unit 51-S	1025 to 14040	2/10/2004	Clay Basin Gas Storage
N7560	Questar Pipeline Co	4300930054	21	030N	240E	Clay Basin Unit 58-S	1025 to 14040	2/10/2004	Clay Basin Gas Storage
N7560	Questar Pipeline Co	4300930056	21	030N	240E	Clay Basin Unit 60-S	1025 to 14040	2/10/2004	Clay Basin Gas Storage
N7560	Questar Pipeline Co	4300915635	22	030N	240E	Clay Basin U 11 (RD Murphy)	1025 to 14040	2/10/2004	Clay Basin Gas Storage
N7560	Questar Pipeline Co	4300930021	22	030N	240E	Clay Basin 28-S	1025 to 14040	2/10/2004	Clay Basin Gas Storage
N7560	Questar Pipeline Co	4300930023	22	030N	240E	Clay Basin Unit 32-S	1025 to 14040	2/10/2004	Clay Basin Gas Storage
N7560	Questar Pipeline Co	4300930027	22	030N	240E	Clay Basin Unit 36-S	1025 to 14040	2/10/2004	Clay Basin Gas Storage

Note to file: These entity numbers were changed to compliment the operator correction from 3/7/98

<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	<b>FORM 9</b>  5. LEASE DESIGNATION AND SERIAL NUMBER: SL-045051A
<b>SUNDRY NOTICES AND REPORTS ON WELLS</b>  Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:  7. UNIT or CA AGREEMENT NAME: CLAY BASIN GAS STORAGE
1. TYPE OF WELL Gas Storage Well	8. WELL NAME and NUMBER: CLAY BASIN U 11 (RD MURPHY 6-W)
2. NAME OF OPERATOR: QUESTAR PIPELINE COMPANY	9. API NUMBER: 43009156350000
3. ADDRESS OF OPERATOR: P.O.Box 45360 , Salt Lake city , UT, 84145	9. FIELD and POOL or WILDCAT: CLAY BASIN
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1575 FNL 1540 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SENW Section: 22 Township: 03.0N Range: 24.0E Meridian: S	COUNTY: DAGGETT  STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> <b>NOTICE OF INTENT</b> Approximate date work will start: 10/15/2016  <input type="checkbox"/> <b>SUBSEQUENT REPORT</b> Date of Work Completion:  <input type="checkbox"/> <b>SPUD REPORT</b> Date of Spud:  <input type="checkbox"/> <b>DRILLING REPORT</b> Report Date:	<input type="checkbox"/> ACIDIZE  <input type="checkbox"/> CHANGE TO PREVIOUS PLANS  <input type="checkbox"/> CHANGE WELL STATUS  <input type="checkbox"/> DEEPEN  <input type="checkbox"/> OPERATOR CHANGE  <input type="checkbox"/> PRODUCTION START OR RESUME  <input type="checkbox"/> REPERFORATE CURRENT FORMATION  <input type="checkbox"/> TUBING REPAIR  <input type="checkbox"/> WATER SHUTOFF  <input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> ALTER CASING  <input type="checkbox"/> CHANGE TUBING  <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS  <input type="checkbox"/> FRACTURE TREAT  <input checked="" type="checkbox"/> <b>PLUG AND ABANDON</b>  <input type="checkbox"/> RECLAMATION OF WELL SITE  <input type="checkbox"/> SIDETRACK TO REPAIR WELL  <input type="checkbox"/> VENT OR FLARE  <input type="checkbox"/> SI TA STATUS EXTENSION  <input type="checkbox"/> OTHER	<input type="checkbox"/> CASING REPAIR  <input type="checkbox"/> CHANGE WELL NAME  <input type="checkbox"/> CONVERT WELL TYPE  <input type="checkbox"/> NEW CONSTRUCTION  <input type="checkbox"/> PLUG BACK  <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION  <input type="checkbox"/> TEMPORARY ABANDON  <input type="checkbox"/> WATER DISPOSAL  <input type="checkbox"/> APD EXTENSION  OTHER: <input style="width: 100px;" type="text"/>

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Questar Pipeline Company requests that its Clay Basin 11 Monitor Well at its Clay Basin Storage facility be approved for P&A. Please find attached a copy of the proposed procedure, proposed WBD, actual WBD, casing & cement reports, and the approved BLM Sundry of the proposed procedure. If you have any questions please feel free to contact Jacob Isaac K. Abraham at 801-647-7065. Note: BLM approved this procedure via the attached Sundry on 10/04/2016.

**Approved by the  
Utah Division of  
Oil, Gas and Mining**

**Date:** October 11, 2016

**By:** *Jacob Isaac K. Abraham*

**Please Review Attached Conditions of Approval**

<b>NAME (PLEASE PRINT)</b> Jacob Isaac K. Abraham	<b>PHONE NUMBER</b> 801 324-3160	<b>TITLE</b> Associate Engineer - Reservoir
<b>SIGNATURE</b> N/A	<b>DATE</b> 9/17/2016	



**The Utah Division of Oil, Gas, and Mining**

- State of Utah  
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

**Sundry Conditions of Approval Well Number 43009156350000**

- 1. Notify the Division at least 24 hours prior to conducting abandonment operations. Please call Dan Jarvis at 801-538-5338.**
- 2. All balanced plugs shall be tagged to ensure they are at the depths specified in the procedure.**
  - 3. All annuli shall be cemented from a minimum depth of 100' to the surface.**
  - 4. Surface reclamation shall be done in accordance with R649-3-34 – Well Site Restoration.**
  - 5. All requirements in the Oil and Gas Conservation General Rule R649-3-24 shall apply.**
- 6. If there are any changes to the procedure or the wellbore configuration, notify Dustin Doucet at 801-538-5281 (ofc) or 801-733-0983 (home) prior to continuing with the procedure.**
- 7. All other requirements for notice and reporting in the Oil and Gas Conservation General Rules shall apply.**

10/6/2016

# Wellbore Diagram

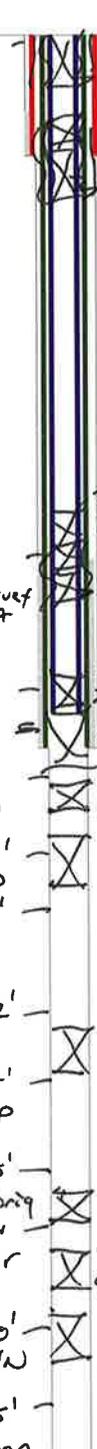
r263

API Well No: 43-009-15635-00-00 Permit No: Well Name/No: CLAY BASIN U 11 (RD MURPHY)  
 Company Name: QUESTAR PIPELINE COMPANY  
 Location: Sec: 22 T: 3N R: 24E Spot: SENW String Information  
 Coordinates: X: 651688 Y: 4538736  
 Field Name: CLAY BASIN  
 County Name: DAGGETT

### String Information

String	Bottom (ft sub)	Diameter (inches)	Weight (lb/ft)	Length (ft)	Capacity (cf/cf)
HOL1	995	17.5			
SURF	995	13.325	48		
HOL2	5875	12.25			
II	5875	9.625	36		2.304
HOL3	11778	8.75		10800	1.980
L1	5592	4.5	11.6		11.459

Bunker shale



**Plug #5**  
 $\frac{1.15}{9.5} \times 125' / (1.15) \times (4.459) = 105'x$   
 $\frac{1.15}{13.3} \times 125' / (1.15) \times (3.090) = 35'x$   
 $\frac{1.15}{13.3} \times 125' / (1.15) \times (2.656) = 41'x$   
 Cement from 995 ft. to 820 ft.  
 Surface: 13.325 in. @ 995 ft.  
 Hole: 17.5 in. @ 995 ft.  
**Plug #4**  
 \* 14' no WJ set plug @ (100' to 800'  
 Below:  $\frac{1.15}{26.5} \times 50' = 45'x$   
 $\frac{1.15}{9.5} \times 125' / (1.15) \times (2.062) = 275'x$   
 $\frac{1.15}{26.5} \times 125' / (1.15) \times (2.656) = 80'x$   
 Above:  $\frac{1.15}{22.5} \times 125' / (1.15) \times (3.090) = 150'x$   
 $\frac{1.15}{22.5} \times 125' / (1.15) \times (4.459) = 220'x$

$9.5 \frac{1}{8} \times 4 \frac{1}{2}$   
 $12 \frac{1}{2} \times 9 \frac{5}{8} (108)$   
 $13 \frac{3}{8} \times 9 \frac{5}{8}$   
 3.090  
 2.062  
 2.656

### Cement Information

String	BOC (ft sub)	TOC (ft sub)	Class	Sacks
II	5875	4308	UK	400
L1	5592		Temp Survey	1947
SURF	995	620	UK	810

### Perforation Information

Top (ft sub)	Bottom (ft sub)	Shts/Ft	No Shts	Dt Squeeze
5300	5430			
5640	5785			
5765	5800			

### Formation Information

Formation	Depth
FRTR	5298
ASPEN	5415
DKTA	5602
MRSN	5790
CRTS	6388
ENRD	6567
CARM	6667
NGSD	6774
CHIN	7552
SRMP	7780
MNKP	7805

TD: 11778 TVD: PBTD:

Phosphoria 8725'  
 Weber 9025'  
 Manning CFA 10650'  
 Humburg 11,010'  
 Madison 11,415'  
 ... 11,715'

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9	
		<b>5. LEASE DESIGNATION AND SERIAL NUMBER:</b> SL-045051A	
<b>SUNDRY NOTICES AND REPORTS ON WELLS</b>		<b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME:</b>	
Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		<b>7. UNIT or CA AGREEMENT NAME:</b> CLAY BASIN GAS STORAGE	
<b>1. TYPE OF WELL</b> Gas Storage Well		<b>8. WELL NAME and NUMBER:</b> CLAY BASIN U 11 (RD MURPHY 6-W)	
<b>2. NAME OF OPERATOR:</b> QUESTAR PIPELINE COMPANY		<b>9. API NUMBER:</b> 43009156350000	
<b>3. ADDRESS OF OPERATOR:</b> P.O.Box 45360, Salt Lake city, UT, 84145		<b>9. FIELD and POOL or WILDCAT:</b> CLAY BASIN	
<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 1575 FNL 1540 FWL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: SENW Section: 22 Township: 03.0N Range: 24.0E Meridian: S		<b>PHONE NUMBER:</b> 801 324-5061 Ext	
		<b>9. FIELD and POOL or WILDCAT:</b> CLAY BASIN	
		<b>COUNTY:</b> DAGGETT	
		<b>STATE:</b> UTAH	
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA			
TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> <b>NOTICE OF INTENT</b> Approximate date work will start: <b>10/15/2016</b>	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> <b>SUBSEQUENT REPORT</b> Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> <b>SPUD REPORT</b> Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input type="checkbox"/> <b>DRILLING REPORT</b> Report Date:	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input checked="" type="checkbox"/> <b>PLUG AND ABANDON</b>	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.			
<p>Dominion Questar Pipeline Company, formally Questar Pipeline Company, requests that its Clay Basin 11 Monitor Well at its Clay Basin Storage facility be approved for P&amp;A. Please find attached a copy of the proposed procedure, proposed WBD, actual WBD, and casing &amp; cement reports. If you have any questions please feel free to contact Jacob Isaac K. Abraham at 801-647-7065. *Sundry notice will be filed with the BLM on 9/19/2016</p>			
<b>NAME (PLEASE PRINT)</b> Jacob Isaac K. Abraham		<b>PHONE NUMBER</b> 801 324-3160	<b>TITLE</b> Associate Engineer - Reservoir
<b>SIGNATURE</b> N/A		<b>DATE</b> 9/17/2016	



---

Questar Pipeline Company  
333 South State Street  
P.O. Box 45360  
Salt Lake City, UT 84145  
Tel (801) 324-3160  
Fax (801) 324-5606

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## **Clay Basin 11**

### **API 43-009-15635**

#### **Plugging Procedure**

1. MIRU slickline and run a 1-3/4" GR to tag sand at bottom of well. POOH and RDMO slickline.
2. Test / install dead men anchors.
3. MIRU a contract workover rig w/ pipe racks, catwalk, mud pump, rig tank, FB tank, and 1 – 400 bbl upright. Fill the upright with fresh water. Move in and set one 200 bbl cement returns tank. Lay return lines from FB and rig tank to the wellhead.
4. HU, kill well using fresh water taking note of volumes to fill. Monitor the fluid level occasionally to ensure well stays under control, as needed pump water to keep hole full during P&A ops.
5. ND production tree. NU a 10" 3k double gate BOPE (R53). Function-test both the blind and pipe rams. Hook up pump line to BOPE.
6. Take delivery of ~300 ft of 2-3/8" 4.7# N-80 EUE workstring w/ full set of pups.
  - a. 2x 2', 1x 4', 1x 5', 1x 6', 1x 8', 1x 10' pup jts.
7. Install 2-3/8" pup into hanger & PU and un-land tubing.
8. B/O and LD hanger & SB all EUE tubing in derrick. Keep hole full during SB of 2-3/8" tubing. ~22 bbls.
9. Contingency: If sand level is above perforations then MU 2-3/8" workstring and RIH to locate top of sand at approx. 5780' KBM. RU power swivel and reverse circulate to wash off sand down within 1' of Baker Model "N" CIBP located at 5,830' WLM. POOH 2-3/8" workstring and SB in derrick.
10. RU 4-1/2" bit and scrapper and RIH on 2-3/8" workstring to 1' above Baker model "DA" production packer [flapper removed] located at 5592' KBM.
11. POOH and SB workstring in derrick, LD 4-1/2" bit and scrapper.
12. RU 4-1/2" MS-CICR and RIH and set CICR ~3' above Baker model "DA" production packer top at ~5,589' KBM.

13. Sting out of CICR. Pressure test 4-1/2" casing and CICR to 1500 psi to ensure functional mechanical integrity for 15 minutes. MU safety valve. Close safety valve & sting into CICR. (BHP ~2300# – Hydrostatic water column ~ 2420#). Re-test annulus to 1000# to ensure CICR seal.
14. Open safety valve on tubing to pump line. Establish injection rate thru CICR. Monitor annulus pressure during injection test. If injection is established proceed to step #15. Contingency to step #14: If injection cannot be established into perforations sting out of CICR, RU cementing services and place a ~340' balanced cement plug above CICR f/ ~5,589' up to ~5,249' w/ 26 sks (16.0 ppg slurry / 1.15 yield ~5.3 bbls). ~1.5 bbls water displacement. Proceed to step 17.
15. RU cementing services.

#### **Cement squeeze #1- Production perms**

16. Mix and pump a total of 197 sks (16.0 ppg slurry / 1.15 yield 31 bbls) as follows:
  - a. 9-5/8" Casing: Squeeze perforations w/ 171 sks (25 bbls) below CICR at 5,640'-5,720' & 5,765' to 5,800'.
    - i. Note: 50% excess cement.
  - b. 4-1/2" Casing: With 26 sks (~5.3 bbls) left in tubing, sting out of CICR and displace w/ 1.5 bbl of water to balance cement to leave a ~340' cement plug f/ 5,589' up to 5,249' KBM (after tubing pull out) inside the 4-1/2" casing above CICR.
17. Pick up to 5,190', LD tubing and reverse out w/ 20 bbls fresh water.

#### **9.0# POZ SPACER #1 (5,190' to 4,400').**

18. Mix and pump a 9.0# balanced Poz-Gel spacer f/ 5,190'- 4,450 ~11.5 bbls (Assume 9.94 yield).
19. POOH LD tubing to ~4,450'. SB remaining tubing in derrick. Fill 4-1/2" casing w/ ~9 bbls of water.

#### **Cement Squeeze #2, below 9-5/8" Cement Top**

20. RU WL contractor. MU & RIH w/ 4-1/2" casing punch gun dressed 6 spf, 60 deg. phased and perforate the 4-1/2" x 9-5/8" annulus 4,450' KBM. POOH RD WL.
21. RU MS-CICR and RIH to 4,400' KBM and set CICR at ~4,400' KBM. RU cementing services. Mix and Pump 95 sks cement (16.0 ppg slurry / 1.15 yield 19.5 bbl) to fill 200' in the 4-1/2" x 9-5/8" annulus and 50' in the 4-1/2" pipe.

**Balanced cement plug #1 – 300' plug.**

22. Mix and Pump 23 sks cement (16.0 ppg slurry / 1.15 yield 5 bbls) to lay a 300' balanced cement plug from 4,400' to 4,100' KBM on top of CICR.

**Balanced cement plug #2 – 300' plug.**

23. Mix and Pump 23 sks cement (16.0 ppg slurry / 1.15 yield 5 bbls) to lay a 300' balanced cement plug from 4,100' to 3,800' KBM. (~2.8 bbl water displacement)
24. POOH LD to 3,650' KBM.
25. Reverse out f/ ~3,650' w/ ~15 bbls fresh water.

**9.0# POZ SPACER #2 (3,650' to 1,050')**

26. Mix and pump a 9.0# balanced Poz-Gel spacer f/ 3,650' – 1,050' ~41 bbls (Assume 9.94 yield).
27. POOH LD tubing to ~1,050' KBM. SB remaining tubing in Derrick. Fill 4-1/2" casing w/ 6.5 bbls water.

**Cement squeeze #3- 300' plug (opposite 13-3/8" surface casing shoe)**

28. RU WL contractor. MU & RIH w/ 9-5/8" casing perf gun dressed 6 spf, 60 deg. phased and perforate the 4-1/2" x 9-5/8" annulus and 9-5/8" x 12-1/2" annulus @ 1,050' KBM. POOH RD WL.
29. Close blind rams on BOPE and attempt to establish an injection rate thru perforations @ 1,050' w/ 10 bbls of fresh water. Monitor 4-1/2" x 9-5/8" and 9-5/8" x 13-3/8" annuli for returns. If injection rate is established proceed w/ step #30.

Contingency to step #29: If injection could not be established into perms @ 1050' then RIH with tubing to 1050'. RU cementing services and place a 300' balanced cement plug inside the 4-1/2" production casing f/ ~1050' (50' below shoe) up to ~750' (250' above the 13-3/8" surface casing shoe) with ~23 sks (15.8 ppg / 1.15 yield 5 bbl) cement and displace with 1.4 bbl of water. Then proceed to step #32.

30. MU 4-1/2 MS-CICR, RIH w/ tubing & set the CICR @ ~1,000'. RU cementing services and establish injection rates thru perforations again @ 1,050' w/ 10 bbls of fresh water.
31. Mix and pump a total of 105 sks (16.0 ppg slurry / 1.15 yield ~21 bbls) as follows:
  - a. 9-5/8" x 13-3/8": Lay 100' plug by squeezing 49 sks (10 bbls) below CICR and thru the perforations @ 1,050' taking returns up the 9-5/8" x 13-3/8" annulus to lay a 100' plug.
    - i. Note: 50% excess cement.
  - b. 4-1/2" x 9 5/8": Lay 100' plug by squeezing 42 sks (8.5 bbls) below CICR and thru the perforations @ 1,050' taking returns up the 4-1/2" x 9-5/8" annulus to lay a 100' plug.
    - i. Note: 50% excess cement.
  - c. 4-1/2": Squeeze 6 sks (1.2 bbls) below CICR into the 4-1/2" casing. Displace w/ ~0.4 bbl of water.
    - i. Note: 50% excess cement.
  - d. With 22 sks (~4 bbl) left in tubing, sting out of CICR and displace w/ ~0.8 bbls of water to balance cement & leave a ~250' cement plug f/ 1,000' up to ~750' (after tubing pull out) inside of the 4-1/2" casing above the CICR.
32. POOH LD tubing to ~700' KBM. HU and reverse out with 3 bbls of water.

### **9.0# POZ SPACER #3 (700' to 125')**

33. Mix and pump a 9.0# balanced Poz-Gel spacer f/ 700' up to 125' ~9 bbls (Assume 9.94 yield)
34. POOH LD all remaining tubing.
35. RU WL contractor. MU & RIH w/ 4-1/2" casing perf gun dressed 6 spf, 60 deg. phased and perforate the 4-1/2" x 9-5/8" and 9-5/8" x 13-3/8" annuli @ 125' KBM. POOH RD WL.

36. Close the blind rams. With fresh water establish circulation by pumping down 4-1/2" casing and returning up 9-5/8" x 13-3/8" annulus. ~8.5 bbls hole volume. With fresh water establish circulation by pumping down 4-1/2" casing and returning up 4-1/2" x 9-5/8" annulus. ~7 bbls hole volumes.

### **Surface cement plug**

37. With circulation established, RU cementers, mix and pump a total of 123 sks (12.5 bbls) of 16.0 ppg as follows:
- a. 9-5/8" x 13-3/8": Pump 62 sks (12.5 bbls) of cement slurry surface to surface down 4-1/2" casing and returning up the 9-5/8" x 13-3/8" annulus for good cement returns.
    - i. Note: 50% excess cement to try and ensure returns to surface.
  - b. 4-1/2" x 9-5/8": Pump 61 sks (12.5 bbls) of 16.0 ppg cement slurry surface to surface down 4-1/2" casing and returning up the 4-1/2" x 9-5/8" annulus for good cement returns.
    - i. Note: 50% excess cement for 4-1/2" x 9-5/8" annulus to try and ensure returns to surface.
38. Displace cement from 4' below GL with water. RU power swivel. MU 4-1/2" internal casing cutter and drill collar ponies and RIH w/ cutter to 4' below GL. Make internal cut and drop 4-1/2" casing. POOH LD cutter and RD swivel.
39. RD rig floor, ND BOPE and wash out same.
40. RDMO WOR and associated equipment.
41. MIRU backhoe w/ jackhammer and remove cement cellar.
42. ND 12" – 900 x 12" – 1500 Shaffer DSA. Top out w/ cement inside 9-5/8" casing and all casing annuli as needed.
43. Install sub surface regulation abandonment headmarker plate above 12"-1500 shaffer surface casing head. Obtain GPS coordinates for location and record on report.
44. Back fill over marker. Cut off anchors 4' below GL.
45. Haul junk tubing to Pacific steel for scrap or as directed by QPC engineering. Test tubing for "NORM" before load out and haul-off.

# Daily Operations Report

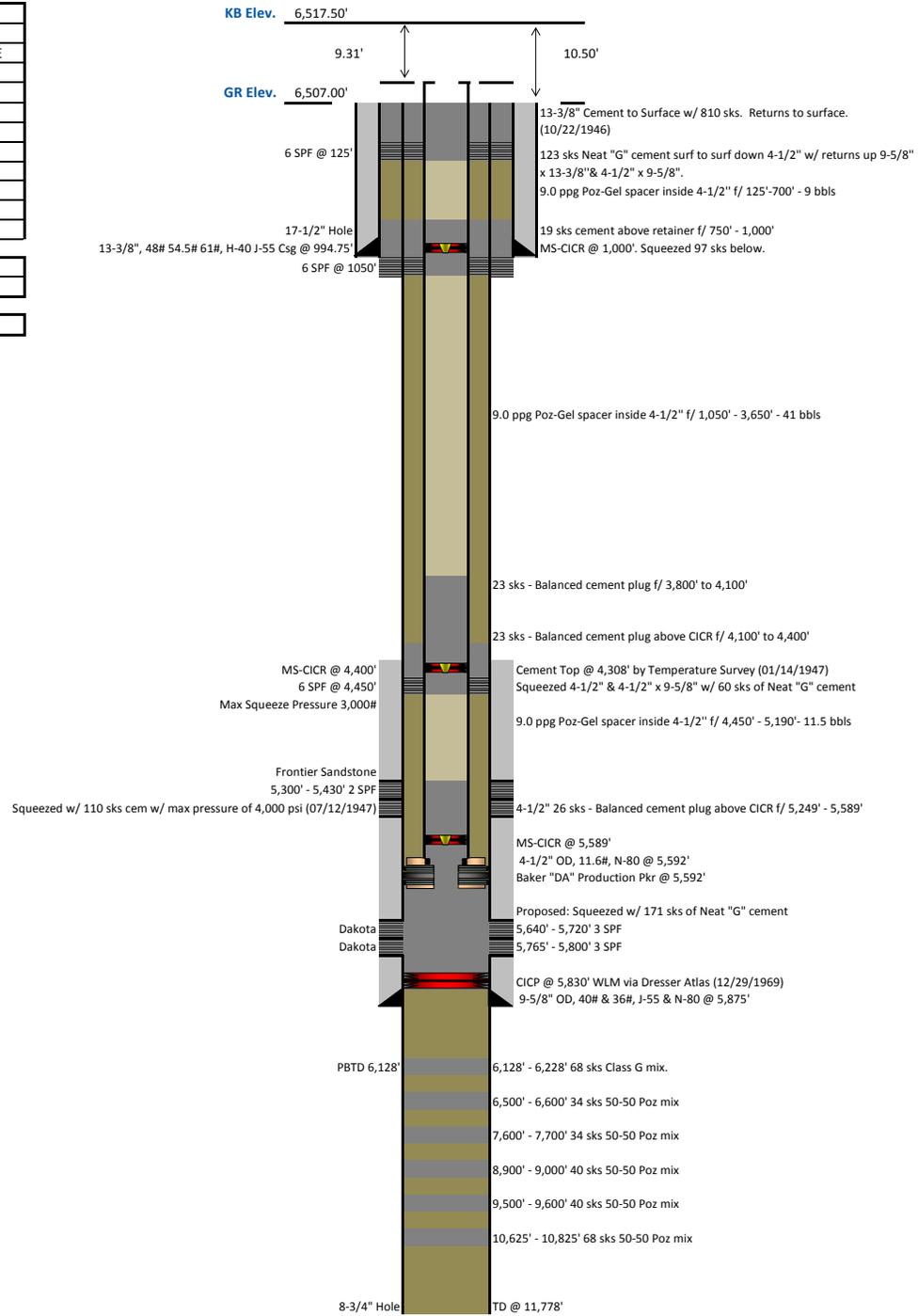
## Proposed Wellbore Diagram

<b>Well Name:</b>	Clay Basin 11
<b>County, State</b>	Daggett, UT
<b>Legal Description:</b>	SE NW Sec 22, T 3N, R 24E
<b>API:</b>	43-009-15635
<b>Updated By:</b>	J. Abraham
<b>Date Updated:</b>	9/17/2016
<b>Spud Date:</b>	10/8/1946
<b>TD Date:</b>	12/29/1969
<b>Well TD:</b>	11,778
<b>Orientation:</b>	Vertical
<b>Plug Back MD:</b>	6,128
<b>Bridge Plug MD:</b>	5,830

<b>Latitude</b>	40.985544
<b>Longitude</b>	-109.196975

<b>As of Plugging</b>	
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All measurements are in KB unless otherwise specified.



Schematic

NOT drawn to scale.

Sec 22-T3N-R24E  
Daguerre Co, Utah.

Drilled by MFS Co  
1947 by rotary.

Deepened by MFS Co  
1969- by rotary

PRESENT STATUS of WELL

UNIT Well No. 11

(formerly R.D. MURPHY Well No. 6-W)

CLAY BASIN FIELD.

5-13-55 JJS  
Revised 12-22-67 JJS  
Revised 2-12-70 JJS

Original KB - 6517.50 ft.

13 3/8" - 48# - 54.5' - 61# T&H csg

33 Jts - 987' 2" gross or 979.88 net  
landed at 994.75 ft or 14.87' below  
KB. Control w/ 81000 Monolith +  
1 ideal tag unit, First 4 Jts welded  
solid above & below collars - next  
6 Jts spot welded. Baker guide  
shoe run on bottom Jt. Howco  
float collar placed on top of  
first Jt - Control by Howco.

9 5/8" - 36# - 40# 8' x 4' J-55 + N 80 csg

36 Jts 40# LTIC N-80	1131.92
37 Jts 40# LTIC J-55	1187.92
116 Jts 36# STIC J-55	3542.41
189 Jts	5862.25

Above csg landed @ 5875.42 or  
13.17 ft below KB in a Schaffner  
Spool type csg head. Howco guide  
shoe + Howco float collar which are  
included in net measurements were  
run on bottom & top of first Jt and  
spot welds were the next 6 Jts  
above & below collars. Control w/ 40000  
Monolith + 1 ideal tag unit by Howco.

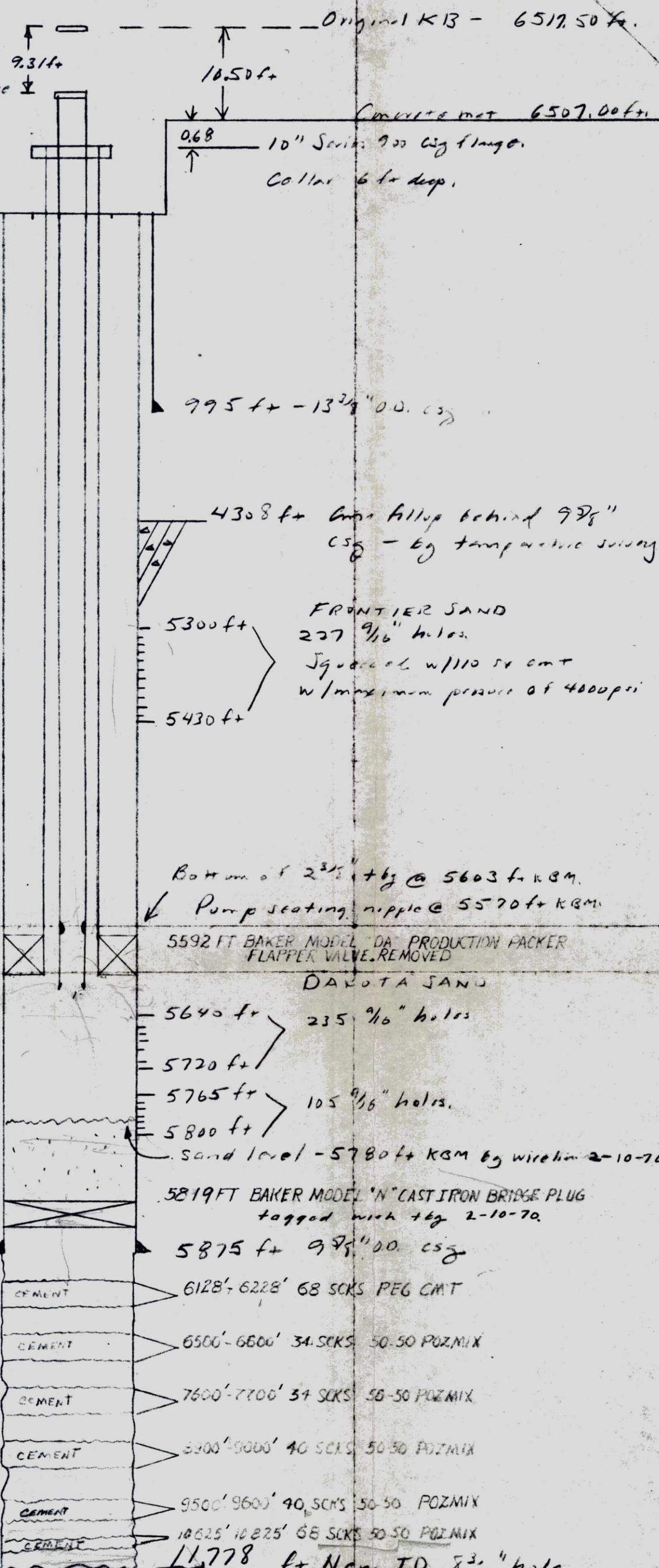
4 1/2" INCH PRODUCTION CASING	NET
1- PC 4 1/2" INCH O.D. 11.6" N-80 BRD. L.T.C.	51.27
171 JTS 4 1/2" INCH O.D. 11.6" N-80 BRD. L.T.C.	5547.61
BAKER LATCH TYPE SEAL NIPPLE	2.03
	5580.91

LANDED ABOVE CSC AT 5592.09 FT KBM OR 11.12 FT BELOW KB  
IN A BAKER MODEL DA RETAINER PRODUCTION PACKER (W/  
FLAPPER VALVE REMOVED) WITH 10000 POUNDS INDICATOR  
WEIGHT AND REMAINDER OF 32000 POUNDS INDICATOR  
WEIGHT ON SLIPS IN THE 12-INCH SERIES 900 BY 10-INCH  
SERIES 900 CSG FLANGE INSTALLED A NSCO TYPE 15 10-INCH  
SERIES 900 BY 6-INCH SERIES 1500 PRESSURE CROSSOVER TBG  
SPOOL

NOTE: THE BAKER MODEL DA PRODUCTION PACKER WAS  
SET AT 5600 FT KBM BY DRESSER ATLAS WIRE LINE  
MEASUREMENTS. THE CSG WAS LANDED AT 5592.09 FT  
KBM. THE CSG IS LANDED AND LATCHED INTO THE  
PRODUCTION PACKER

2 3/8" O.D. Production Tubing 2-12-70	NET
1- NSC type H-1 tag hang on 2 3/8" EVE	0.44
179 Jts 2 3/8" O.D. 4.7# J-55 8' x 4' EVE	5560.27
1- 2 3/8" pump seating nipple w/ collar	0.76
1- Jt 2 3/8" O.D. 4.7# J-55 8' x 4' EVE	31.68
1- Shop made combination closing tool + shoe	0.73
	5593.88

Above tag landed @ 5603.19 ft KBM  
or 9.31 ft below KB in a NSC  
6" - 1500 tag flange.



Schematic  
not drawn to scale.

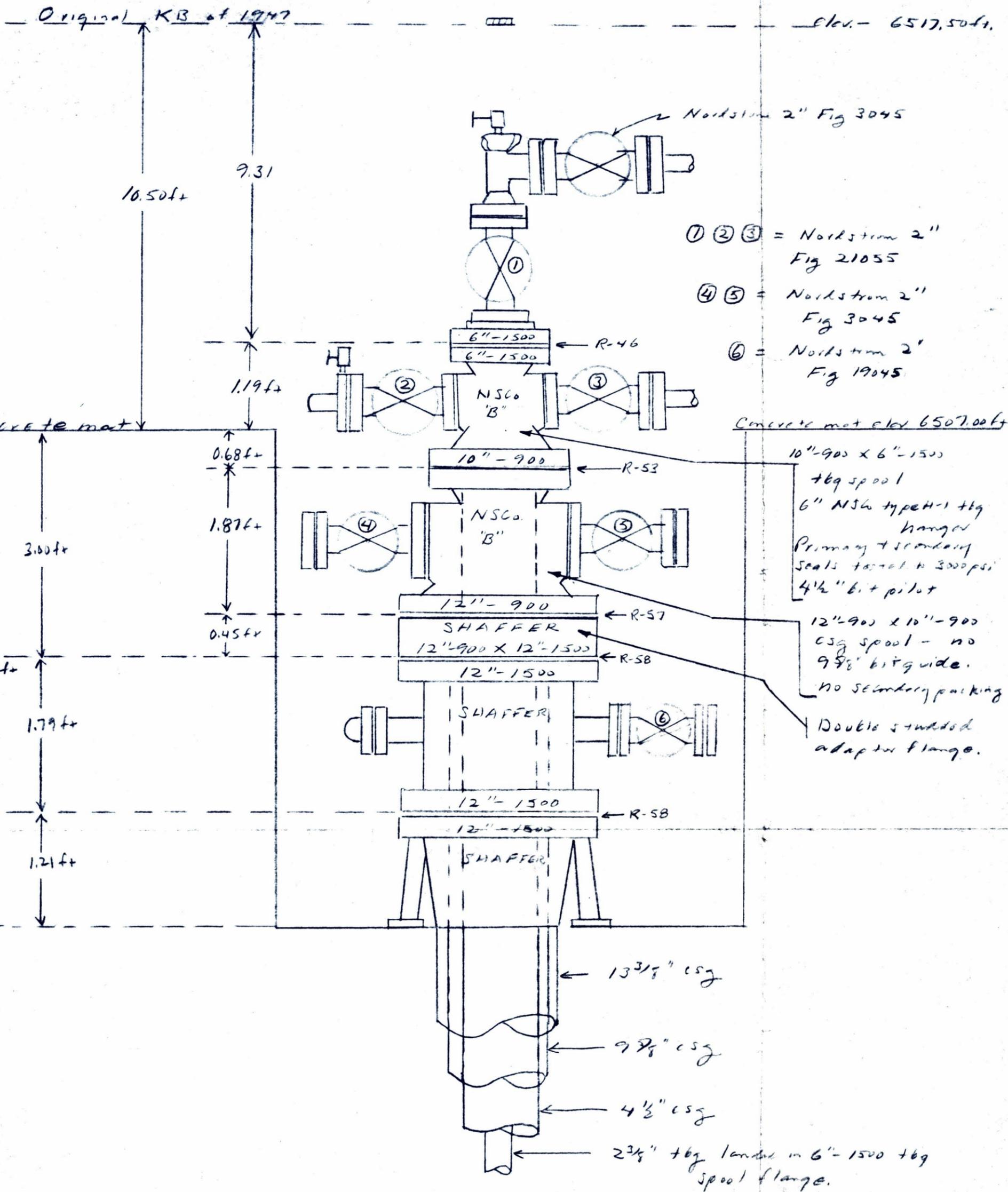
PRESENT STATUS of WELLHEAD

1-5-70 JJS

UNIT WELL No 11

CLAY BASIN FIELD

After deepening and  
then plug back operations  
of December, 1969.



December 28, 1969:

Depth PB 6128', 0', 60 days, pump 1000, table 0, wt on bit 0 tons, mud wt 9.3, vis 57, sand content-trace, wl 4.8, fc 2/32, ph 10.2, oil 2.5%, solids 6%, lost time 24 hrs. -- 4 hrs. trip with scraper, 2 hrs. circulate at 5860', 1 1/2 hrs. trip out with scraper, 1 hr. pick up 4 collars and bit, <sup>TAGGED</sup> logged cement top at 6128', set 15,000# on plug, 2 hrs. circulate at 6128', 7 hrs. waiting on cement, 6 1/2 hrs. DST #3.

December 29, 1969:

Depth PB 5830', 0', 61 days, lost time 24 hrs. -- 7 hrs. DST #3, 7 1/2 hrs. trip to lay down drill pipe and collars, 4 hrs. set bridge plug and production packer with Dresser Atlas wireline, top bridge plug at 5830', top production packer at 5600' KBM, 3 1/2 hrs. running 4 1/2" casing, 2 hrs. wait on orders.

Drill Stem Test No. 3

Depth 6128, bottom packer 5847'

Morrison sand, 5908-5922', 6050-6068', log analysis

IO 1/2 hr., ISI 1 hr., FO 1 hr., FSI 2 hrs., opened with good blow, declining to weak in 30 minutes, no gas, reopened with good blow, declining to very weak blow in 60 minutes, no gas to surface, recovered 754' of mud and 964' of heavy gas cut mud, IHP 2879, IOFP's 117-~~334~~, OSOP 1805, FOFP's ~~318~~-647, FSIP 1834, FHP 2869 psi.

318

384

CASING REPORT

	<u>Net</u>	<u>Gross</u>
1 piece 4 1/2"OD, 11.6#, N-80, 8rd thd, LT&C casing	31.27'	31.52'
171 jts. 4 1/2"OD, 11.6#, N-80, 8rd thd, LT&C casing	5,547.61'	5,590.61'
1 Baker latch type seal nipple	2.03'	2.03'
	<u>5,580.91'</u>	<u>5,624.16'</u>

Left on rack:

8 jts. 4 1/2"OD, 11.6#, N-80, 8rd thd, LT&C	245.35'	247.35'
1 piece 4 1/2"OD, 11.6#, N-80, 8rd thd, LT&C (junk)	2.00'	2.00'

Landed above casing at 5592.09' KBM or 11.18' below KB in a Baker model "DA" retainer production packer with 10,000 pounds indicator weight <sup>or packer</sup> and remainder of 32,000 pounds indicator weight on slips in the 12" series 900 by 10" series 900 casing flange; installed a NSCO type B 10" series 900 by 6" series 1500 pressure ~~XXXX~~ crossover tubing spool. Pressure tested seal assembly to 3000 psi for 5 minutes, held good, installed tubing master valve,

-- CONTINUED NEXT PAGE --

-- CASING REPORT continued --

shut all valves on wellhead.

NOTE: The Baker Model "DA" retainer production packer was set at 5600' KBM by Dresser Atlas wireline measurements; the casing tally indicates the casing was landed at 5592.09' KBM. The casing is landed and latched in the Baker Model "DA" production packer.

December 30, 1969:

TD 11,778', PBD 5830', 0', 62 days, lost time 12 hours--3½ run 4½" casing; 8½ land casing, remove BOP, install wellhead, clean mud tanks, 4½" casing landed at 5592.09' KBM, pressure tested seals to 3000# for 5 minutes, held OK.

RIG RELEASED DECEMBER 29, 1969.

Core No. 1: 11,412' to 11,446.6', cut 34.6', recovered 34.6'

Horizontal &amp; vertical fractures throughout, no visible porosity, entire core laminated.

34.6" - Limestone, light to medium grey, granular to coarsely crystalline, hard, tite, glauconitic to very glauconitic, shaly in part, sandy in part, dolomitic, laminated with shale; medium to dark gray, silty to very silty, micaceous, pyritic in part, dolomitic. Shale ~~MM~~ laminations 1/32" to 1" thick, fossil fragments 11,444'-11,446'; edgewise conglomerate 11,444'-11,445' ?.

2-7-70: Move in and rig up workover rig.

2-9-70: No pressure on wellhead. Removed upper portion of wellhead, installed 6" series 900 stripper head, picked up and ran 188 joints of 2-3/8"OD, 4.7#, J-55, 8rd thd, EUE tubing into well using a shop made combination type G closing tool and aluminum plug. Installed 2-3/8" pump seating nipple on top of bottom joint of tubing. Checked plugged back depth at 5819.08' KBM. Land tubing in rotary slips and shut well in. Hooked up testing facilities.

2-10-70: No pressure on casing. Rigged up Halco 58-C pump truck. Using 10 barrels water spacer ahead of drip oil loaded tubing and pumped out closing tool plug then displaced drilling mud out of casing from plugged back depth to surface using drip oil mixed with 0.05# Adomite and 0.003 gal. FR-3 per gallon drip oil. Used approximately 110 barrels drip oil. Picked up 2-3/8"OD, 4.7#, J-55, 8rd thd EUE tubing and landed tubing in a NSCO type H-1 tubing hanger at 5603.19' KBM or 9.31' below KB. Installed upper portion of wellhead. Ran tubing as follows:

TUBING REPORT

	Net	Gross
<del>XXXXXX</del> 1 NSCO type H-1 tubing hanger	0.44'	0.44'
179 jts. 2-3/8"OD, 4.7#, J-55, 8rd thd, EUE tubing	5,560.27'	5,589.16'
1 - 2-3/8" seating nipple with collar	0.76'	0.93'
1 jt. 2-3/8"OD, 4.7#, J-55, 8rd thd, EUE tubing	31.68'	31.85'
1 shop made type G combination closing tool shoe	0.73'	0.73'
	5,593.88'	5,623.11'
Left on rack:		
14 jts. 2-3/8", 4.7#, J-55, 8rd thd, EUE tubing	433.90'	436.16'

Rigged up Halco blender, 2 HT-400 and 1 58-C pump truck, pumped 60 barrels drip oil mixed with 0.05# Adomite, and 0.003 gal FR-3 per gallon drip oil. Breakdown pressure 4450 psig at 10 BPM, maximum 5400 psig at 19 BPM injection rate. Instantaneous shut in pressure 3000 psig. Applied sand oil treatment as follows: NOTE: all drip oil treated with 0.05# Adomite and 0.003 gal FR-3 per gallon drip oil. Sand all 20-40 mesh.

# MOUNTAIN FUEL SUPPLY COMPANY

CASING RECORD FOR R. D. Murphy 6-W

Sec 22 Twp 3 N. Range 24 E. Date January 12-13, 1947

## MEASUREMENTS

Surface Elev	<u>6507.00</u>	Derrick Floor Elev	<u>6515.40'</u>
Ht Rotary above floor	<u>1.30</u> ft	Ht Top Kelly Bushings above floor	<u>2.10</u> ft
Elev Top Kelly Bushings	<u>6517.50</u>		ft
Rig floor to production floor	<u>8.40</u>		ft
Production floor to bottom of cellar	<u>6.00</u>		ft
Production floor to top of casing head	<u>2.67</u>		ft
Number of joints of casing used	<u>189</u>		
Casing landed at	<u>5875.42</u>		ft
Depth of hole	<u>5899.00</u>		ft
Open hole below casing point	<u>23.58</u>		ft
Elevation of casing shoe	<u>642.08</u>		ft

## CASING SPECIFICATIONS AND CASING EQUIPMENT

Make of casing	<u>Spang</u>	type	<u>J-55 &amp; N-80</u>	Wt per foot	<u>36 &amp; 40</u>	lbs
O D of casing	<u>9 5/8</u>	in	I D of casing	<u>40# - 8.835</u>		
Length of threads	<u>LT&amp;C - 4.625</u>	in	O D of couplings	<u>36# - 8.921</u>		
Height of couplings	<u>ST&amp;C - 3.250</u>	in	Kind of casing head	<u>Shaffer spool</u>		
Height of clamp		in	Thickness of clamp			in
Length of clamp		in	No of bolts			
Type casing shoe	<u>Halliburton guide</u>		Type float collar	<u>Halliburton</u>		
Number joints spot welded	<u>6</u>		Welded electric or acetylene	<u>Electric</u>		
Number of faulty joints			<u>2 faulty joints not included in tally</u>			

## CASING TOOLS

Make tongs	<u>B-J rotary</u>	Slips	<u>Ideal</u>	Elevators	<u>Ideal slip type</u>
Kind of thread dope	<u>Best-O-Life</u>				

## CEMENT AND CEMENTING EQUIPMENT

Cementing contractor	<u>Halliburton</u>		
Man in charge	<u>Warren Barr</u>	Assistant	<u>D. Taylor</u>
Type equipment used	<u>Power</u>	Number of wagons	<u>1</u>
Brand cement used	<u>Monolith</u>	sax	<u>260</u>
	<u>Ideal</u>	sax	<u>140</u>
		sax	
Total number sax	<u>400 regular</u>	Number sax treated	<u>None</u>
Kind of treatment used			
Kind of plugs used	<u>One wood and one rubber top plug</u>		
Method used in measuring plugs down	<u>Bumped plugs at 1050#, maximum to displace 750#</u>		

## TIME OF OPERATIONS

Began rigging up to run casing	<u>1:15 P.M.</u>	<u>1-12-47</u>
Began running casing	<u>2:05 P.M.</u>	<u>1-12-47</u>
Finished running casing	<u>11:00 A.M.</u>	<u>1-13-47</u>
Began circulating casing	<u>12:20 P.M.</u>	<u>1-13-47</u>
Circulated casing		hrs <u>40</u> min
Began cementing	<u>1:30 P.M.</u>	
Finished cementing	<u>1:50 P.M.</u>	<u>Displaced at 3:00 P.M.</u>
Cement to set		<u>48</u> hrs

**PROCEDURE** (Should include brief history of operations, difficulties, remedies for same, weather conditions, condition of hole, mud weight, etc)

Considerable difficulty encountered in picking up washover string standing in derrick - 3 stands required 2 1/2 hours to run. Most of pipe was run during snow storm and blizzard and freezing weather.

Signed R. A. Gilpin

Elevation of Kelly Bushings..... 6517.50 Ft  
 Height of Rotary above floor..... 1.30 Ft  
 Rig floor Elevation ..... 6515.40 Ft

Production Floor or Surface Elevation ..... 6507.00 Ft  
 (B) Top of Collar or Casing to Production Floor ..... 2.67 Ft  
 Production Floor to bottom of Cellar ..... 6.00 Ft

(A) Pipe permanently cemented in hole ..... 5362.25 Ft

**LANDING POINT**

(A) Actual Pipe Cemented ..... 5362.25  
 Plus  
 Top of Collar to Production Floor (B) ..... 2.57  
 Production to Rig Floor ..... 3.40  
 Top of Kelly Bushings to Rig Floor ..... 2.10  
 Equals Landing Point ..... 575.42  
 Elevation of Casing Shoe ..... 642.08

**ELEVATION OF CASING SHOE**

Surface Elevation ..... 6507.00  
 (A) Actual Pipe ..... 5362.25  
 Plus  
 (B) Casing to Production floor ..... 2.67  
 Equals Elevation Casing Shoe ..... 642.08 Ft

- (A) All three of these amounts must be the same, and must agree with your pipe tally. Therefore, your pipe tally can only include the total of the actual pipe cemented—**NOT THE LANDING JOINT**, although the landing joint may be shown as a matter of information but not included in the total of the pipe tallied.
- (B) All three of these items must be the same

**CASING TALLY**

**CASING TALLY**

No Pcs	Feet	In	Feet	In	Feet	In	Feet	In	Feet	In	Feet	In	No Pcs	Feet	In								
1	29	0	29	6	31	7	30	9	29	11	91	5	1	31	8	32	4	30	7	31	8	32	1
2	38	5	31	5	29	3	30	0	38	9			2	28	9	30	2	32	7	31	11	29	8
3	32	6	31	10	30	5	29	0	37	9			3	31	3	31	4	31	10	28	5	31	6
4	30	9	31	5	25	8	32	1			90	9	4	31	9	31	3	29	1	30	0	30	3
5	30	9	30	10	31	1	30	11					5	30	6	29	4	30	5	31	5	27	0
6	29	0	32	4	31	5	30	10					6	29	11	31	9	30	7	25	4	31	9
7	31	3	31	1	29	3	40	10			92	4	7	30	9	32	5	32	2	27	5	30	10
8	41	3	31	7	33	0	40	7					8	25	0	32	2	29	2	28	4	32	9
9	41	7	28	6	31	1	37	11					9	29	11	32	0	30	8	28	11	31	11
10	40	3	31	7	30	6	41	5			27	3	10	31	10	31	3	30	4	29	11	30	10
11	24	0	32	1	31	3	37	5			27	4	11	29	2	32	3	31	8	31	9	31	7
12	24	5	29	3	30	2	30	1			30	4	12	32	3	30	2	31	8	32	3	31	8
13	30	6	31	4	29	5	31	8			31	11	13	32	7	32	5	27	4	30	5	29	9
14	29	9	30	9	29	2	30	11			30	7	14	30	6	28	1	29	2	32	8	29	6
15	32	1	30	8	31	0					29	6	15	29	5	32	2	31	5	32	7	30	5
16	32	5	31	0	30	6					31	5	16	32	0	32	7	31	8	31	10	11	10
17	25	9			29	3					32	0	17	31	10	32	5	26	4	29	6		
18	30	7			31	8					32	7	18	32	9	30	2	31	6	32	0		
19	30	9	<del>32</del>		32	1					29	10	19	32	1	32	7	28	3	30	11		
20	31	9			31	4					31	5	20	32	5	30	8	30	0	32	7		
	636	9	495	2	609	1	472	5	106	5	609	1		616	4	627	6	607	0	609	10	472	8

Total No of Pieces 189 Length 5362 ft 3 in  
 636.75 495.17 609.08 472.42 106.42 609.08  
 Total No of Pieces 189 Length 5362 ft 3 in  
 616.33 627.50 607.00 609.83 472.67  
 Note: Above figures converted to 1/10 ft.

## MOUNTAIN FUEL SUPPLY COMPANY

CASING RECORD FOR R. D. Murphy 6-WSec 22 Twp 3 N Range 24 E. Date October 21, 1946

## MEASUREMENTS

Surface Elev 6507' Derrick Floor Elev 6515.40'  
 Ht Rotary above floor 1.30 ft in Ht Top Kelly Bushings above floor 2.10 ft in  
 Elev Top Kelly Bushings 6517.50 ft in  
 Rig floor to production floor 8.40 ft in  
 Production floor to bottom of cellar 6.00 ft in  
 Production floor to top of casing head 4.50 ft in  
 Number of joints of casing used 33  
 Casing landed at 994.75 ft in  
 Depth of hole 17 1/2" - 1015 ft 11" - 1059' in  
 Open hole below casing point 17 1/2" - 20.25 ft 11" - 64.25' in  
 Elevation of casing shoe 5522.62 ft in

## CASING SPECIFICATIONS AND CASING EQUIPMENT

Make of casing Pittsburgh & type ST&C & LT&C Wt per foot 68 - 54.5 lbs  
 O D of casing 11 - 3/8" in I D of casing 12.515 in. Threads per in 8  
 Length of threads 9.5 & 4.75 in. O D of couplings 14.375 in  
 Height of couplings 8 & 10.5 in. Kind of casing head Shaffer Base  
 Height of clamp in. Thickness of clamp in  
 Length of clamp in No of bolts  
 Type casing shoe Baker Guide Type float collar Halliburton  
 Number joints spot welded 10 Welded electric or acetylene Electric  
 Number of faulty joints 0

## CASING TOOLS

Make tongs Dunn Shps Cable Tool Elevators Butler  
 Kind of thread dope Zinn Lubricant

## CEMENT AND CEMENTING EQUIPMENT

Cementing contractor Halliburton  
 Man in charge Dawkins Assistant Williamson  
 Type equipment used Power Number of wagons 1  
 Brand cement used Monolith & Ideal Regular sax 810  
 sax  
 sax  
 Total number sax 810 Number sax treated 0  
 Kind of treatment used  
 Kind of plugs used Wooden (2)  
 Method used in measuring plugs down Wire Line

## TIME OF OPERATIONS

Began rigging up to run casing 4:00 A.M. 10-21-46  
 Began running casing 7:00 A.M. 10-21-46  
 Finished running casing 4:00 P.M. 10-21-46  
 Began circulating casing 4:45 P.M. 10-21-46  
 Circulated casing hrs 15 min  
 Began cementing 5:00 P.M. 10-21-46  
 Finished cementing 6:30 P.M. 10-21-46  
 Cement to set 48 hrs

PROCEDURE (Should include brief history of operations, difficulties, remedies for same, weather conditions, condition of hole, mud weight, etc)

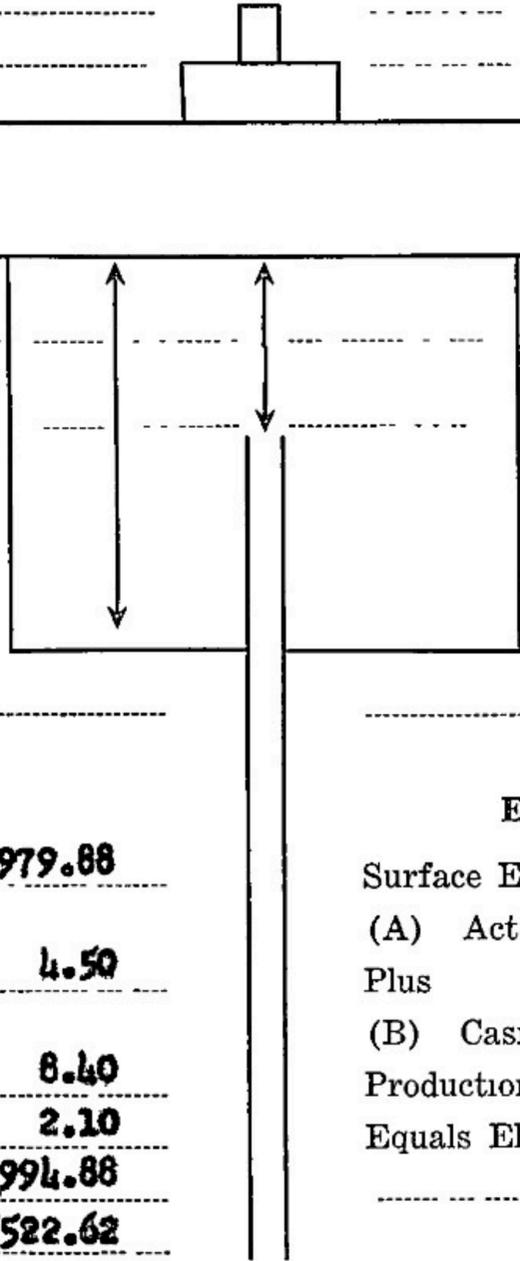
Welded first 4 joints solid above and below collars and floating equipment

Spot welded next 6 joints.

Signed

Elevation of Kelly Bushings..... 6517.50 Ft  
 Height of Rotary above floor..... 1.30 Ft  
 Rig floor Elevation ..... 6515.40 Ft

Production Floor or Surface Elevation ..... 6507.00 Ft  
 (B) Top of Collar or Casing to Production Floor..... 4.50 Ft  
 Production Floor to bottom of Cellar..... 6.00 Ft



(A) Pipe permanently cemented in hole..... 979.88 Ft

**LANDING POINT**

**ELEVATION OF CASING SHOE**

(A) Actual Pipe Cemented ..... 979.88  
 Plus  
 Top of Collar to Production Floor (B) ..... 4.50  
 Production to Rig Floor ..... 8.40  
 Top of Kelly Bushings to Rig Floor ..... 2.10  
 Equals Landing Point ..... 994.88  
 Elevation of Casing Shoe ..... 5522.62

Surface Elevation ..... 6507.00  
 (A) Actual Pipe ..... 979.88  
 Plus  
 (B) Casing to Production floor ..... 4.50  
 Equals Elevation Casing Shoe..... 984.38  
 ..... 5522.62 Ft.

- (A) All three of these amounts must be the same, and must agree with your pipe tally. Therefore, your pipe tally can only include the total of the actual pipe cemented—NOT THE LANDING JOINT, although the landing joint may be shown as a matter of information but not included in the total of the pipe tallied.
- (B) All three of these items must be the same

**CASING TALLY**

**CASING TALLY**

No Pcs	Feet	In	No Pcs	Feet	In																				
1	32	58	40	00	31	74	40	00			1	26	33	40	33	00	29	29	29	29	29	29	29	29	
2	34	28			29	99					2	5	51	50	83		27	27	27	27	27	27	27	27	
3	30	95			31	48					3	2	61	00	00		40	40	40	40	40	40	40	40	
4	34	12			31	91					4	1	32	32	32		32	32	32	32	32	32	32	32	
5	32	68			32	81					5	1	99	99	99		60	60	60	60	60	60	60	60	
6	32	88			30	60					6	15	00	00	00		79	79	79	79	79	79	79	79	
7	31	72			21	79	51	50			7	31	72	72	72		90	90	90	90	90	90	90	90	
8	31	80			26	90					8	31	80	80	80		01	01	01	01	01	01	01	01	
9	30	01			22	48					9	30	01	01	01		67	67	67	67	67	67	67	67	
10	31	67			22	00					10	31	67	67	67		46	46	46	46	46	46	46	46	
11	31	46			23	18	61	00			11	28	85	85	85		78	78	78	78	78	78	78	78	
12	28	85			8	22	61	00			12	31	78	78	78		57	57	57	57	57	57	57	57	
13	31	78			26	10	51	50			13	31	57	57	57		56	56	56	56	56	56	56	56	
14	31	57			1	60					14	30	56	56	56		40	40	40	40	40	40	40	40	
15	30	56			1	32					15	32	40	40	40		31	31	31	31	31	31	31	31	
16	32	40									16	30	31	31	31		15	15	15	15	15	15	15	15	
17	30	31									17	30	90	90	90		09	09	09	09	09	09	09	09	09
18	34	15									18														
19	30	90									19														
20	33	09									20														

Total No of Pieces..... 35, Length ..... 979.88 ft in

Total No of Pieces....., Length ..... ft in

R. D. MURPHY - 22-3-24  
Well #6-W

Accounting for Pipe

<u>Date</u>	<u>Transfer</u>	<u>To or From</u>	<u>Charges</u>	<u>Credits</u>	<u>Balance</u>
<u>13-3/8" - Casing</u>					
10/2/46	140513	R.S. Whse. H-40	834' 4"		
	140513	R.S. Whse. J-55 (54.5#)	120' 10"		
	140513	R.S. Whse. J-55 (61#)	44' 1"		
10/30/46	144365	R.S. Whse. J-55 (61#)		20' 7"	
12/4/46	91275	R.S. Whse. J-55 (61#)		20' 7"	
4/25/47	166526	R.S. Whse. J-55 (61#)	20' 7"		
10/15/46	140539	R.S. Whse. J-55 (61#)	33' 11"		
10/23/46	140631	R.S. Whse. (61#)	8' 6"		
8/28/47	167283	R.S. Whse. J-55 (61#)		33' 11"	
			<u>1062' 3"</u>	<u>75' 1"</u>	<u>987' 2"</u>
<u>9-5/8" - Casing</u>					
2/2/47	156113	R.S. Whse. J-55 (36#)	3615' 5"		
	156113	R.S. Whse. J-55 (40#)	1233' 4"		
	156113	R.S. Whse. N-80 (40#)	1146' 6"		
1/23/47	91286	M.F. Machine Shop J-55 (36#)		50' 0"	
	91286	M.F. Machine Shop - J-55 (40#)		31' 9"	
			<u>5995' 3"</u>	<u>81' 9"</u>	<u>5913' 6"</u>
<u>2-1/2" - 6.5# J-55 Tubing</u>					
7/7/47	157138	R.S. Whse.	5574' 3"		
7/10/47	157211	R.S. Whse.	290' 3"		
8/1/47	160528	R.S. Whse.		29' 1"	
			<u>5864' 6"</u>	<u>29' 1"</u>	<u>5835' 5"</u>

ROBERT D. MURPHY  
 Sec. 22-3-24  
 Well No. 6-W

Casing Record

13-3/8" - 48# , 54.5# & 61# - 8 thd. - Casing

33 Jts., 987'2" gross, 979.38' net, landed at 994.75' - 14.87' below the top of the Kelly bushings. Cemented with 810 sacks of Monolith and Ideal regular cement. The first 4 joints were welded solid above and below collars, the next 6 joints were spot welded. A Baker guide shoe was run on the bottom and a Halliburton float collar was placed on top of the first joint. Cementing was done by Halliburton Oil Well Cementing Company.

9-5/8" - 36# & 40# - 8 thd. - J55 & N80 casing

	<u>Gross</u>	<u>Net</u>
36 Jts. 40# - LT&C - N80 Casing	1146' 6"	1131.92'
37 Jts. 40# - LT&C - J55 Casing	1201' 7"	1187.92'
116 Jts. 36# - ST&C - J55 Casing	3565' 5"	3542.41'
<u>189 Jts.</u>	<u>5913' 6"</u>	<u>5862.25'</u>

The above string of casing was landed at 5875.42' - 13.17' below the top of the Kelly bushings in a Shaffer spool type casing head. A Halliburton guide shoe and Halliburton float collar, which are included in the above net measurement, were run on the bottom and top of the first joint, and were spot welded as were the next six joints of casing, above and below collars. Cemented with 400 sacks of Monolith and Ideal regular cement by Halliburton Oil Well Cementing Company. This string of casing is perforated from 5765' to 5800' with 105 - 9/16" holes and from 5640' to 5720' with 235 - 9/16" holes.

2-1/2" - 6.5# - 8 thd. - J55 EUE Tubing

200 Jts., 5835'5" gross, 5807.59' net, landed at 5814.93' - 7.34' below the top of the Kelly bushings, on a National Supply Company type "B" tubing head. The bottom joint is bull-plugged. Tubing perforations are from 5774.58' to 5784.58' and the tubing is hanging 11.00' off bottom.

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
OMB NO. 1004-0135  
Expires: July 31, 2010

**SUNDRY NOTICES AND REPORTS ON WELLS**  
*Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.*

5. Lease Serial No.  
UTSL045051A

6. If Indian, Allottee or Tribe Name

**SUBMIT IN TRIPLICATE - Other instructions on reverse side.**

7. If Unit or CA/Agreement, Name and/or No.  
8900160090

1. Type of Well

Oil Well  Gas Well  Other: INJECTION

8. Well Name and No.  
CLAY BASIN UNIT 11S

2. Name of Operator

QUESTAR PIPELINE COMPANY

Contact: JACOB I ABRAHAM

E-Mail: Jacob.Abraham@questar.com

9. API Well No.  
43-009-15635-00-S1

3a. Address

333 SOUTH STATE STREET  
SALT LAKE CITY, UT 84145

3b. Phone No. (include area code)

Ph: 801-324-3160

10. Field and Pool, or Exploratory  
CLAY BASIN

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Sec 22 T3N R24E SENW 1575FNL 1540FWL

11. County or Parish, and State

DAGGETT COUNTY, UT

**12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input checked="" type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Questar Pipeline requests that its Clay Basin 11 Monitor Well at its Clay Basin Storage facility be approved for P&A. Please find attached a copy of the proposed procedure, proposed WBD, actual WBD, and casing & cement reports. If you have any questions please feel free to contact Jacob Isaac K. Abraham at 801-647-7065.

14. I hereby certify that the foregoing is true and correct.

**Electronic Submission #351903 verified by the BLM Well Information System  
For QUESTAR PIPELINE COMPANY, sent to the Vernal  
Committed to AFMSS for processing by STEVE HIRSCHI on 09/20/2016 (16STH0503SE)**

Name (Printed/Typed) JACOB I ABRAHAM

Title STORAGE RESERVOIR ENGINEER

Signature (Electronic Submission)

Date 09/20/2016

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved By JERRY KENCZKA

Title AFM FOR MINERAL RESOURCES

Date 10/04/2016

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office Vernal

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

**\*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\***

RECEIVED: Oct. 06, 2016

**Revisions to Operator-Submitted EC Data for Sundry Notice #351903**

	<b>Operator Submitted</b>	<b>BLM Revised (AFMSS)</b>
Sundry Type:	ABD NOI	ABD NOI
Lease:	UTSL045051A	UTSL045051A
Agreement:	8900160090	8900160090 (8900160090)
Operator:	QUESTAR PIPELINE 333 SOUTH STATE STREET SALT LAKE CITY, UT 84145 Ph: 801-324-3160	QUESTAR PIPELINE COMPANY 333 SOUTH STATE STREET SALT LAKE CITY, UT 84145 Ph: 801.534.5555
Admin Contact:	JACOB I ABRAHAM STORAGE RESERVOIR ENGINEER E-Mail: Jacob.Abraham@questar.com Cell: 801-647-7065 Ph: 801-324-3160	JACOB I ABRAHAM STORAGE RESERVOIR ENGINEER E-Mail: Jacob.Abraham@questar.com Cell: 801-647-7065 Ph: 801-324-3160
Tech Contact:	JACOB I ABRAHAM STORAGE RESERVOIR ENGINEER E-Mail: Jacob.Abraham@questar.com Cell: 801-647-7065 Ph: 801-324-3160	JACOB I ABRAHAM STORAGE RESERVOIR ENGINEER E-Mail: Jacob.Abraham@questar.com Cell: 801-647-7065 Ph: 801-324-3160
Location:		
State:	UT	UT
County:	DAGGETT	DAGGETT
Field/Pool:	CLAY BASIN - DAKOTA	CLAY BASIN
Well/Facility:	CLAY BASIN 11 11 Sec 22 T3N R24E SENW 1575FNL 1540FWL 40.985544 N Lat, 109.196970 W Lon	CLAY BASIN UNIT 11S Sec 22 T3N R24E SENW 1575FNL 1540FWL



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Questar Pipeline Company  
333 South State Street  
P.O. Box 45360  
Salt Lake City, UT 84145  
Tel (801) 324-3160  
Fax (801) 324-5606

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## **Clay Basin 11**

### **API 43-009-15635**

#### **Plugging Procedure**

1. MIRU slickline and run a 1-3/4" GR to tag sand at bottom of well. POOH and RDMO slickline.
2. Test / install dead men anchors.
3. MIRU a contract workover rig w/ pipe racks, catwalk, mud pump, rig tank, FB tank, and 1 – 400 bbl upright. Fill the upright with fresh water. Move in and set one 200 bbl cement returns tank. Lay return lines from FB and rig tank to the wellhead.
4. HU, kill well using fresh water taking note of volumes to fill. Monitor the fluid level occasionally to ensure well stays under control, as needed pump water to keep hole full during P&A ops.
5. ND production tree. NU a 10" 3k double gate BOPE (R53). Function-test both the blind and pipe rams. Hook up pump line to BOPE.
6. Take delivery of ~300 ft of 2-3/8" 4.7# N-80 EUE workstring w/ full set of pups.
  - a. 2x 2', 1x 4', 1x 5', 1x 6', 1x 8', 1x 10' pup jts.
7. Install 2-3/8" pup into hanger & PU and un-land tubing.
8. B/O and LD hanger & SB all EUE tubing in derrick. Keep hole full during SB of 2-3/8" tubing. ~22 bbls.
9. Contingency: If sand level is above perforations then MU 2-3/8" workstring and RIH to locate top of sand at approx. 5780' KBM. RU power swivel and reverse circulate to wash off sand down within 1' of Baker Model "N" CIBP located at 5,830' WLM. POOH 2-3/8" workstring and SB in derrick.
10. RU 4-1/2" bit and scrapper and RIH on 2-3/8" workstring to 1' above Baker model "DA" production packer [flapper removed] located at 5592' KBM.
11. POOH and SB workstring in derrick, LD 4-1/2" bit and scrapper.
12. RU 4-1/2" MS-CICR and RIH and set CICR ~3' above Baker model "DA" production packer top at ~5,589' KBM.

13. Sting out of CICR. Pressure test 4-1/2" casing and CICR to 1500 psi to ensure functional mechanical integrity for 15 minutes. MU safety valve. Close safety valve & sting into CICR. (BHP ~2300# – Hydrostatic water column ~ 2420#). Re-test annulus to 1000# to ensure CICR seal.
14. Open safety valve on tubing to pump line. Establish injection rate thru CICR. Monitor annulus pressure during injection test. If injection is established proceed to step #15. Contingency to step #14: If injection cannot be established into perforations sting out of CICR, RU cementing services and place a ~340' balanced cement plug above CICR f/ ~5,589' up to ~5,249' w/ 26 sks (16.0 ppg slurry / 1.15 yield ~5.3 bbls). ~1.5 bbls water displacement. Proceed to step 17.
15. RU cementing services.

#### **Cement squeeze #1- Production perms**

16. Mix and pump a total of 197 sks (16.0 ppg slurry / 1.15 yield 31 bbls) as follows:
  - a. 9-5/8" Casing: Squeeze perforations w/ 171 sks (25 bbls) below CICR at 5,640'-5,720' & 5,765' to 5,800'.
    - i. Note: 50% excess cement.
  - b. 4-1/2" Casing: With 26 sks (~5.3 bbls) left in tubing, sting out of CICR and displace w/ 1.5 bbl of water to balance cement to leave a ~340' cement plug f/ 5,589' up to 5,249' KBM (after tubing pull out) inside the 4-1/2" casing above CICR.
17. Pick up to 5,190', LD tubing and reverse out w/ 20 bbls fresh water.

#### **9.0# POZ SPACER #1 (5,190' to 4,400').**

18. Mix and pump a 9.0# balanced Poz-Gel spacer f/ 5,190'- 4,450 ~11.5 bbls (Assume 9.94 yield).
19. POOH LD tubing to ~4,450'. SB remaining tubing in derrick. Fill 4-1/2" casing w/ ~9 bbls of water.

#### **Cement Squeeze #2, below 9-5/8" Cement Top**

20. RU WL contractor. MU & RIH w/ 4-1/2" casing punch gun dressed 6 spf, 60 deg. phased and perforate the 4-1/2" x 9-5/8" annulus 4,450' KBM. POOH RD WL.
21. RU MS-CICR and RIH to 4,400' KBM and set CICR at ~4,400' KBM. RU cementing services. Mix and Pump 95 sks cement (16.0 ppg slurry / 1.15 yield 19.5 bbl) to fill 200' in the 4-1/2" x 9-5/8" annulus and 50' in the 4-1/2" pipe.

**Balanced cement plug #1 – 300' plug.**

22. Mix and Pump 23 sks cement (16.0 ppg slurry / 1.15 yield 5 bbls) to lay a 300' balanced cement plug from 4,400' to 4,100' KBM on top of CICR.

**Balanced cement plug #2 – 300' plug.**

23. Mix and Pump 23 sks cement (16.0 ppg slurry / 1.15 yield 5 bbls) to lay a 300' balanced cement plug from 4,100' to 3,800' KBM. (~2.8 bbl water displacement)
24. POOH LD to 3,650' KBM.
25. Reverse out f/ ~3,650' w/ ~15 bbls fresh water.

**9.0# POZ SPACER #2 (3,650' to 1,050')**

26. Mix and pump a 9.0# balanced Poz-Gel spacer f/ 3,650' – 1,050' ~41 bbls (Assume 9.94 yield).
27. POOH LD tubing to ~1,050' KBM. SB remaining tubing in Derrick. Fill 4-1/2" casing w/ 6.5 bbls water.

**Cement squeeze #3- 300' plug (opposite 13-3/8" surface casing shoe)**

28. RU WL contractor. MU & RIH w/ 9-5/8" casing perf gun dressed 6 spf, 60 deg. phased and perforate the 4-1/2" x 9-5/8" annulus and 9-5/8" x 12-1/2" annulus @ 1,050' KBM. POOH RD WL.
29. Close blind rams on BOPE and attempt to establish an injection rate thru perforations @ 1,050' w/ 10 bbls of fresh water. Monitor 4-1/2" x 9-5/8" and 9-5/8" x 13-3/8" annuli for returns. If injection rate is established proceed w/ step #30.

Contingency to step #29: If injection could not be established into perms @ 1050' then RIH with tubing to 1050'. RU cementing services and place a 300' balanced cement plug inside the 4-1/2" production casing f/ ~1050' (50' below shoe) up to ~750' (250' above the 13-3/8" surface casing shoe) with ~23 sks (15.8 ppg / 1.15 yield 5 bbl) cement and displace with 1.4 bbl of water. Then proceed to step #32.

30. MU 4-1/2 MS-CICR, RIH w/ tubing & set the CICR @ ~1,000'. RU cementing services and establish injection rates thru perforations again @ 1,050' w/ 10 bbls of fresh water.
31. Mix and pump a total of 105 sks (16.0 ppg slurry / 1.15 yield ~21 bbls) as follows:
  - a. 9-5/8" x 13-3/8": Lay 100' plug by squeezing 49 sks (10 bbls) below CICR and thru the perforations @ 1,050' taking returns up the 9-5/8" x 13-3/8" annulus to lay a 100' plug.
    - i. Note: 50% excess cement.
  - b. 4-1/2" x 9 5/8": Lay 100' plug by squeezing 42 sks (8.5 bbls) below CICR and thru the perforations @ 1,050' taking returns up the 4-1/2" x 9-5/8" annulus to lay a 100' plug.
    - i. Note: 50% excess cement.
  - c. 4-1/2": Squeeze 6 sks (1.2 bbls) below CICR into the 4-1/2" casing. Displace w/ ~0.4 bbl of water.
    - i. Note: 50% excess cement.
  - d. With 22 sks (~4 bbl) left in tubing, sting out of CICR and displace w/ ~0.8 bbls of water to balance cement & leave a ~250' cement plug f/ 1,000' up to ~750' (after tubing pull out) inside of the 4-1/2" casing above the CICR.
32. POOH LD tubing to ~700' KBM. HU and reverse out with 3 bbls of water.

### **9.0# POZ SPACER #3 (700' to 125')**

33. Mix and pump a 9.0# balanced Poz-Gel spacer f/ 700' up to 125' ~9 bbls (Assume 9.94 yield)
34. POOH LD all remaining tubing.
35. RU WL contractor. MU & RIH w/ 4-1/2" casing perf gun dressed 6 spf, 60 deg. phased and perforate the 4-1/2" x 9-5/8" and 9-5/8" x 13-3/8" annuli @ 125' KBM. POOH RD WL.

36. Close the blind rams. With fresh water establish circulation by pumping down 4-1/2" casing and returning up 9-5/8" x 13-3/8" annulus. ~8.5 bbls hole volume. With fresh water establish circulation by pumping down 4-1/2" casing and returning up 4-1/2" x 9-5/8" annulus. ~7 bbls hole volumes.

### **Surface cement plug**

37. With circulation established, RU cementers, mix and pump a total of 123 sks (12.5 bbls) of 16.0 ppg as follows:
- a. 9-5/8" x 13-3/8": Pump 62 sks (12.5 bbls) of cement slurry surface to surface down 4-1/2" casing and returning up the 9-5/8" x 13-3/8" annulus for good cement returns.
    - i. Note: 50% excess cement to try and ensure returns to surface.
  - b. 4-1/2" x 9-5/8": Pump 61 sks (12.5 bbls) of 16.0 ppg cement slurry surface to surface down 4-1/2" casing and returning up the 4-1/2" x 9-5/8" annulus for good cement returns.
    - i. Note: 50% excess cement for 4-1/2" x 9-5/8" annulus to try and ensure returns to surface.
38. Displace cement from 4' below GL with water. RU power swivel. MU 4-1/2" internal casing cutter and drill collar ponies and RIH w/ cutter to 4' below GL. Make internal cut and drop 4-1/2" casing. POOH LD cutter and RD swivel.
39. RD rig floor, ND BOPE and wash out same.
40. RDMO WOR and associated equipment.
41. MIRU backhoe w/ jackhammer and remove cement cellar.
42. ND 12" – 900 x 12" – 1500 Shaffer DSA. Top out w/ cement inside 9-5/8" casing and all casing annuli as needed.
43. Install sub surface regulation abandonment headmarker plate above 12"-1500 shaffer surface casing head. Obtain GPS coordinates for location and record on report.
44. Back fill over marker. Cut off anchors 4' below GL.
45. Haul junk tubing to Pacific steel for scrap or as directed by QPC engineering. Test tubing for "NORM" before load out and haul-off.

# Daily Operations Report

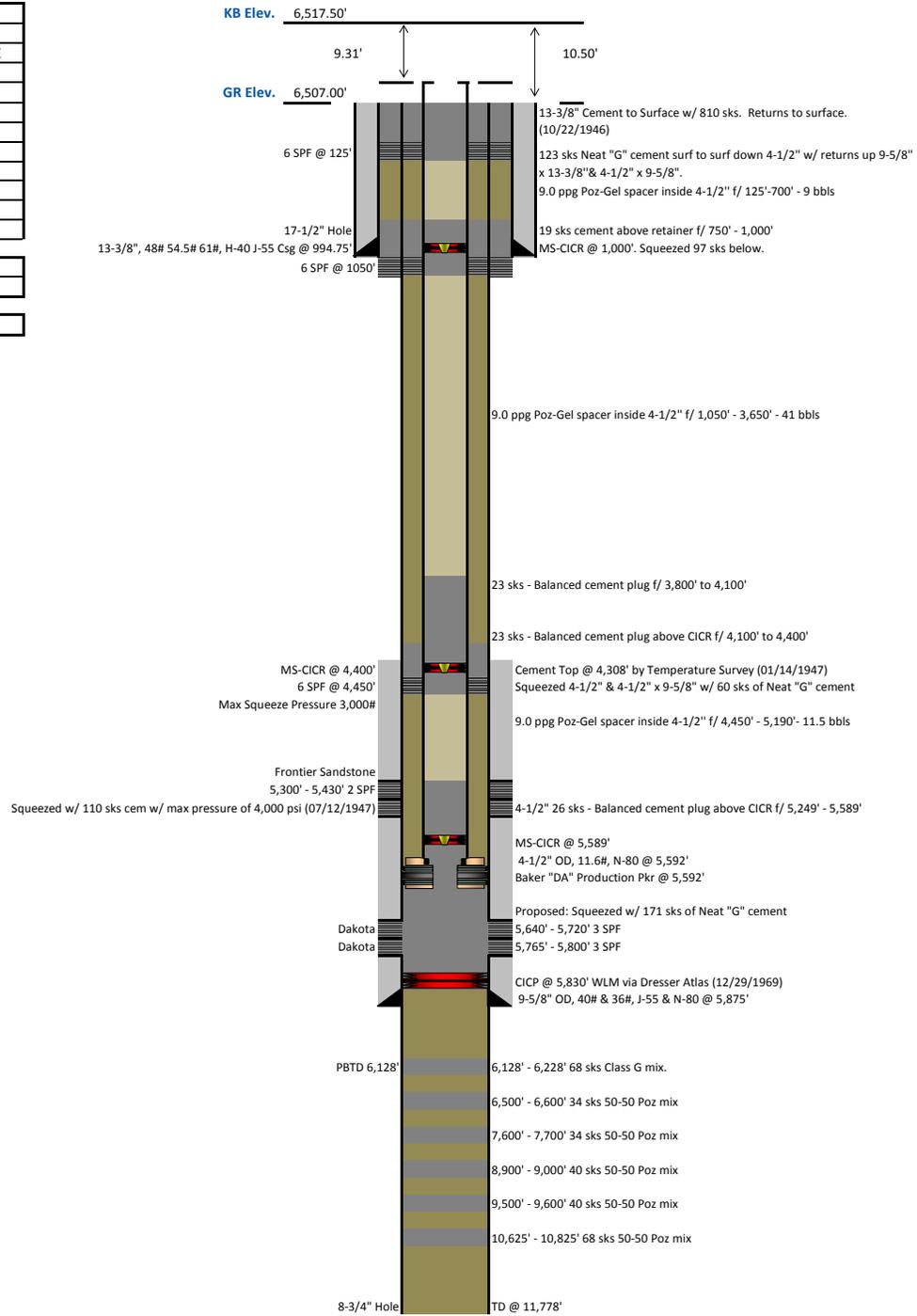
## Proposed Wellbore Diagram

<b>Well Name:</b>	Clay Basin 11
<b>County, State</b>	Daggett, UT
<b>Legal Description:</b>	SE NW Sec 22, T 3N, R 24E
<b>API:</b>	43-009-15635
<b>Updated By:</b>	J. Abraham
<b>Date Updated:</b>	9/17/2016
<b>Spud Date:</b>	10/8/1946
<b>TD Date:</b>	12/29/1969
<b>Well TD:</b>	11,778
<b>Orientation:</b>	Vertical
<b>Plug Back MD:</b>	6,128
<b>Bridge Plug MD:</b>	5,830

<b>Latitude</b>	40.985544
<b>Longitude</b>	-109.196975

<b>As of Plugging</b>	
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All measurements are in KB unless otherwise specified.



Schematic

NOT drawn to scale.

Sec 22-T3N-R24E  
Daguerre Co, Utah.

Drilled by MFS Co  
1947 by rotary.

Deepened by MFS Co  
1969- by rotary

PRESENT STATUS of WELL

UNIT Well No. 11

(formerly R.D. MURPHY Well No. 6-W)

CLAY BASIN FIELD.

5-13-55 JJS  
Revised 12-22-67 JJS  
Revised 2-12-70 JJS

Original KB - 6517.50 ft.

13 3/8" - 48# - 54.5' - 61# T&H csg

33 Jts - 987' 2" gross or 979.88 net  
landed at 994.75 ft or 14.87' below  
KB. Control w/ 81000 Monolith +  
1 ideal tag unit, First 4 Jts welded  
solid above & below collars - next  
6 Jts spot welded. Baker guide  
shoe run on bottom Jt. Howco  
float collar placed on top of  
first Jt - Control by Howco.

9 5/8" - 36# - 40# 8' x 4' J-55 + N 80 csg

36 Jts 40# LTIC N-80	1131.92
37 Jts 40# LTIC J-55	1187.92
116 Jts 36# STIC J-55	3542.41
189 Jts	5862.25

Above csg landed @ 5875.42 or  
13.17 ft below KB in a Schaffner  
Spool type csg head. Howco guide  
shoe + Howco float collar which are  
included in net measurements were  
run on bottom & top of first Jt and  
spot welds were the next 6 Jts  
above & below collars. Control w/ 40000  
Monolith + 1 ideal tag unit by Howco.

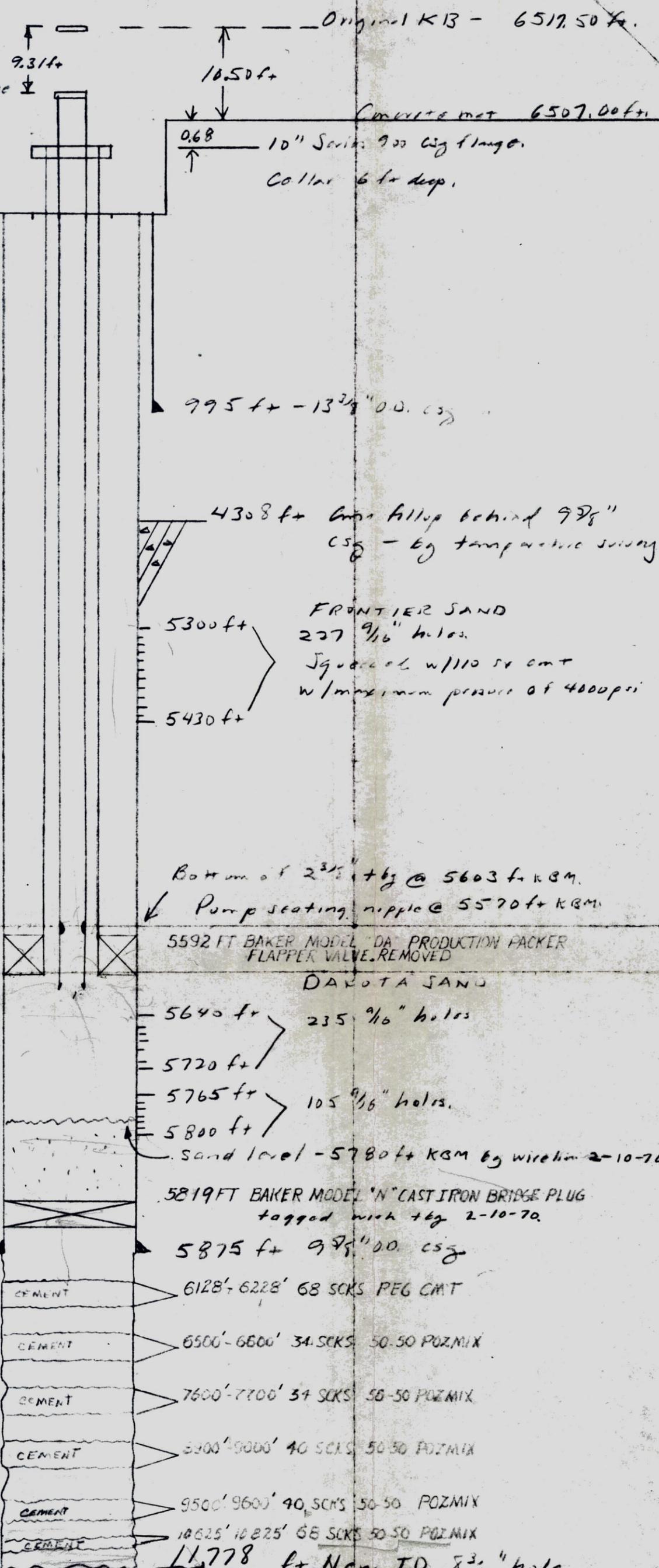
4 1/2" INCH PRODUCTION CASING	NET
1- PC 4 1/2" INCH O.D. 11.6# N-80 BRD. L.T.C.	31.27
171 JTS 4 1/2" INCH O.D. 11.6# N-80 BRD. L.T.C.	5547.61
BAKER LATCH TYPE SEAL NIPPLE	2.03
	5580.91

LANDED ABOVE CSC AT 5592.09 FT KBM OR 11.12 FT BELOW KB  
IN A BAKER MODEL DA RETAINER PRODUCTION PACKER (W/  
FLAPPER VALVE REMOVED) WITH 10000 POUNDS INDICATOR  
WEIGHT AND REMAINDER OF 32000 POUNDS INDICATOR  
WEIGHT ON SLIPS IN THE 12-INCH SERIES 900 BY 10-INCH  
SERIES 900 CSG FLANGE INSTALLED A NSCO TYPE 15 10-INCH  
SERIES 900 BY 6-INCH SERIES 1500 PRESSURE CROSSOVER TBG  
SPOOL

NOTE: THE BAKER MODEL DA PRODUCTION PACKER WAS  
SET AT 5600 FT KBM BY DRESSER ATLAS WIRE LINE  
MEASUREMENTS. THE CSG WAS LANDED AT 5592.09 FT  
KBM. THE CSG IS LANDED AND LATCHED INTO THE  
PRODUCTION PACKER

2 3/8" O.D. Production Tubing 2-12-70	NET
1- NSC type H-1 tag hang on 2 3/8" EVE	0.44
179 Jts 2 3/8" O.D. 4.7# J-55 8' x 4' EVE	5560.27
1- 2 3/8" pump seating nipple w/ collar	0.76
1- Jt 2 3/8" O.D. 4.7# J-55 8' x 4' EVE	31.68
1- Shop made combination closing tool + shoe	0.73
	5593.88

Above tag landed @ 5603.19 ft KBM  
or 9.31 ft below KB in a NSC  
6" - 1500 tag flange.





December 28, 1969:

Depth PB 6128', 0', 60 days, pump 1000, table 0, wt on bit 0 tons, mud wt 9.3, vis 57, sand content-trace, wl 4.8, fc 2/32, ph 10.2, oil 2.5%, solids 6%, lost time 24 hrs. -- 4 hrs. trip with scraper, 2 hrs. circulate at 5860', 1 1/2 hrs. trip out with scraper, 1 hr. pick up 4 collars and bit, <sup>TAGGED</sup> logged cement top at 6128', set 15,000# on plug, 2 hrs. circulate at 6128', 7 hrs. waiting on cement, 6 1/2 hrs. DST #3.

December 29, 1969:

Depth PB 5830', 0', 61 days, lost time 24 hrs. -- 7 hrs. DST #3, 7 1/2 hrs. trip to lay down drill pipe and collars, 4 hrs. set bridge plug and production packer with Dresser Atlas wireline, top bridge plug at 5830', top production packer at 5600' KBM, 3 1/2 hrs. running 4 1/2" casing, 2 hrs. wait on orders.

Drill Stem Test No. 3

Depth 6128, bottom packer 5847'

Morrison sand, 5908-5922', 6050-6068', log analysis

IO 1/2 hr., ISI 1 hr., FO 1 hr., FSI 2 hrs., opened with good blow, declining to weak in 30 minutes, no gas, reopened with good blow, declining to very weak blow in 60 minutes, no gas to surface, recovered 754' of mud and 964' of heavy gas cut mud, IHP 2879, IOFP's 117-~~334~~, OSOP 1805, FOFP's ~~318~~-647, FSIP 1834, FHP 2869 psi.

318

384

CASING REPORT

	<u>Net</u>	<u>Gross</u>
1 piece 4 1/2"OD, 11.6#, N-80, 8rd thd, LT&C casing	31.27'	31.52'
171 jts. 4 1/2"OD, 11.6#, N-80, 8rd thd, LT&C casing	5,547.61'	5,590.61'
1 Baker latch type seal nipple	2.03'	2.03'
	<u>5,580.91'</u>	<u>5,624.16'</u>

Left on rack:

8 jts. 4 1/2"OD, 11.6#, N-80, 8rd thd, LT&C	245.35'	247.35'
1 piece 4 1/2"OD, 11.6#, N-80, 8rd thd, LT&C (junk)	2.00'	2.00'

Landed above casing at 5592.09' KBM or 11.18' below KB in a Baker model "DA" retainer production packer with 10,000 pounds indicator weight <sup>or packer</sup> and remainder of 32,000 pounds indicator weight on slips in the 12" series 900 by 10" series 900 casing flange; installed a NSCO type B 10" series 900 by 6" series 1500 pressure ~~XXXX~~ crossover tubing spool. Pressure tested seal assembly to 3000 psi for 5 minutes, held good, installed tubing master valve,

-- CONTINUED NEXT PAGE --

-- CASING REPORT continued --

shut all valves on wellhead.

NOTE: The Baker Model "DA" retainer production packer was set at 5600' KBM by Dresser Atlas wireline measurements; the casing tally indicates the casing was landed at 5592.09' KBM. The casing is landed and latched in the Baker Model "DA" production packer.

December 30, 1969:

TD 11,778', PBD 5830', 0', 62 days, lost time 12 hours--3½ run 4½" casing; 8½ land casing, remove BOP, install wellhead, clean mud tanks, 4½" casing landed at 5592.09' KBM, pressure tested seals to 3000# for 5 minutes, held OK.

RIG RELEASED DECEMBER 29, 1969.

Core No. 1: 11,412' to 11,446.6', cut 34.6', recovered 34.6'

Horizontal &amp; vertical fractures throughout, no visible porosity, entire core laminated.

34.6" - Limestone, light to medium grey, granular to coarsely crystalline, hard, tite, glauconitic to very glauconitic, shaly in part, sandy in part, dolomitic, laminated with shale; medium to dark gray, silty to very silty, micaceous, pyritic in part, dolomitic. Shale ~~MM~~ laminations 1/32" to 1" thick, fossil fragments 11,444'-11,446'; edgewise conglomerate 11,444'-11,445' ?.

2-7-70: Move in and rig up workover rig.

2-9-70: No pressure on wellhead. Removed upper portion of wellhead, installed 6" series 900 stripper head, picked up and ran 188 joints of 2-3/8"OD, 4.7#, J-55, 8rd thd, EUE tubing into well using a shop made combination type G closing tool and aluminum plug. Installed 2-3/8" pump seating nipple on top of bottom joint of tubing. Checked plugged back depth at 5819.08' KBM. Land tubing in rotary slips and shut well in. Hooked up testing facilities.

2-10-70: No pressure on casing. Rigged up Halco 58-C pump truck. Using 10 barrels water spacer ahead of drip oil loaded tubing and pumped out closing tool plug then displaced drilling mud out of casing from plugged back depth to surface using drip oil mixed with 0.05# Adomite and 0.003 gal. FR-3 per gallon drip oil. Used approximately 110 barrels drip oil. Picked up 2-3/8"OD, 4.7#, J-55, 8rd thd EUE tubing and landed tubing in a NSCO type H-1 tubing hanger at 5603.19' KBM or 9.31' below KB. Installed upper portion of wellhead. Ran tubing as follows:

TUBING REPORT

	Net	Gross
<del>XXXXXX</del> 1 NSCO type H-1 tubing hanger	0.44'	0.44'
179 jts. 2-3/8"OD, 4.7#, J-55, 8rd thd, EUE tubing	5,560.27'	5,589.16'
1 - 2-3/8" seating nipple with collar	0.76'	0.93'
1 jt. 2-3/8"OD, 4.7#, J-55, 8rd thd, EUE tubing	31.68'	31.85'
1 shop made type G combination closing tool shoe	0.73'	0.73'
	5,593.88'	5,623.11'
Left on rack:		
14 jts. 2-3/8", 4.7#, J-55, 8rd thd, EUE tubing	433.90'	436.16'

Rigged up Halco blender, 2 HT-400 and 1 58-C pump truck, pumped 60 barrels drip oil mixed with 0.05# Adomite, and 0.003 gal FR-3 per gallon drip oil. Breakdown pressure 4450 psig at 10 BPM, maximum 5400 psig at 19 BPM injection rate. Instantaneous shut in pressure 3000 psig. Applied sand oil treatment as follows: NOTE: all drip oil treated with 0.05# Adomite and 0.003 gal FR-3 per gallon drip oil. Sand all 20-40 mesh.

# MOUNTAIN FUEL SUPPLY COMPANY

CASING RECORD FOR R. D. Murphy 6-W

Sec 22 Twp 3 N. Range 24 E. Date January 12-13, 1947

## MEASUREMENTS

Surface Elev	<u>6507.00</u>	Derrick Floor Elev	<u>6515.40'</u>
Ht Rotary above floor	<u>1.30</u> ft	Ht Top Kelly Bushings above floor	<u>2.10</u> ft
Elev Top Kelly Bushings	<u>6517.50</u>		ft
Rig floor to production floor	<u>8.40</u>		ft
Production floor to bottom of cellar	<u>6.00</u>		ft
Production floor to top of casing head	<u>2.67</u>		ft
Number of joints of casing used	<u>189</u>		
Casing landed at	<u>5875.42</u>		ft
Depth of hole	<u>5899.00</u>		ft
Open hole below casing point	<u>23.58</u>		ft
Elevation of casing shoe	<u>642.08</u>		ft

## CASING SPECIFICATIONS AND CASING EQUIPMENT

Make of casing	<u>Spang</u>	type	<u>J-55 &amp; N-80</u>	Wt per foot	<u>36 &amp; 40</u>	lbs
O D of casing	<u>9 5/8</u>	in	I D of casing	<u>40# - 8.835</u>		
Length of threads	<u>LT&amp;C - 4.625</u>	in	O D of couplings	<u>36# - 8.921</u>		
Height of couplings	<u>ST&amp;C - 3.250</u>	in	Kind of casing head	<u>Shaffer spool type</u>		
Height of clamp		in	Thickness of clamp			in
Length of clamp		in	No of bolts			
Type casing shoe	<u>Halliburton guide</u>		Type float collar	<u>Halliburton</u>		
Number joints spot welded	<u>6</u>		Welded electric or acetylene	<u>Electric</u>		
Number of faulty joints			<u>2 faulty joints not included in tally</u>			

## CASING TOOLS

Make tongs	<u>B-J rotary</u>	Slips	<u>Ideal</u>	Elevators	<u>Ideal slip type</u>
Kind of thread dope	<u>Best-O-Life</u>				

## CEMENT AND CEMENTING EQUIPMENT

Cementing contractor	<u>Halliburton</u>		
Man in charge	<u>Warren Barr</u>	Assistant	<u>D. Taylor</u>
Type equipment used	<u>Power</u>	Number of wagons	<u>1</u>
Brand cement used	<u>Monolith</u>	sax	<u>260</u>
	<u>Ideal</u>	sax	<u>140</u>
		sax	
Total number sax	<u>400 regular</u>	Number sax treated	<u>None</u>
Kind of treatment used			
Kind of plugs used	<u>One wood and one rubber top plug</u>		
Method used in measuring plugs down	<u>Bumped plugs at 1050#, maximum to displace 750#</u>		

## TIME OF OPERATIONS

Began rigging up to run casing	<u>1:15 P.M.</u>	<u>1-12-47</u>
Began running casing	<u>2:05 P.M.</u>	<u>1-12-47</u>
Finished running casing	<u>11:00 A.M.</u>	<u>1-13-47</u>
Began circulating casing	<u>12:20 P.M.</u>	<u>1-13-47</u>
Circulated casing		hrs <u>40</u> min
Began cementing	<u>1:30 P.M.</u>	
Finished cementing	<u>1:50 P.M.</u>	<u>Displaced at 3:00 P.M.</u>
Cement to set		<u>48</u> hrs

**PROCEDURE** (Should include brief history of operations, difficulties, remedies for same, weather conditions, condition of hole, mud weight, etc)

Considerable difficulty encountered in picking up washover string standing in derrick - 3 stands required 2 1/2 hours to run. Most of pipe was run during snow storm and blizzard and freezing weather.

Signed R. A. Gilpin

Elevation of Kelly Bushings..... 6517.50 Ft  
 Height of Rotary above floor..... 1.30 Ft  
 Rig floor Elevation ..... 6515.40 Ft

Production Floor or Surface Elevation ..... 6507.00 Ft  
 (B) Top of Collar or Casing to Production Floor ..... 2.67 Ft  
 Production Floor to bottom of Cellar ..... 6.00 Ft

(A) Pipe permanently cemented in hole ..... 5362.25 Ft

**LANDING POINT**

(A) Actual Pipe Cemented ..... 5362.25  
 Plus  
 Top of Collar to Production Floor (B) ..... 2.57  
 Production to Rig Floor ..... 3.40  
 Top of Kelly Bushings to Rig Floor ..... 2.10  
 Equals Landing Point ..... 5775.42  
 Elevation of Casing Shoe ..... 642.08

**ELEVATION OF CASING SHOE**

Surface Elevation ..... 6507.00  
 (A) Actual Pipe ..... 5362.25  
 Plus  
 (B) Casing to Production floor ..... 2.67  
 Equals Elevation Casing Shoe ..... 642.08 Ft

- (A) All three of these amounts must be the same, and must agree with your pipe tally. Therefore, your pipe tally can only include the total of the actual pipe cemented—**NOT THE LANDING JOINT**, although the landing joint may be shown as a matter of information but not included in the total of the pipe tallied.
- (B) All three of these items must be the same

**CASING TALLY**

**CASING TALLY**

No Pcs	Feet	In	Feet	In	Feet	In	Feet	In	Feet	In	Feet	In	No Pcs	Feet	In								
1	29	0	29	6	31	7	30	9	29	11	91	5	1	31	8	32	4	30	7	31	8	32	1
2	38	5	31	5	29	3	30	0	38	9			2	28	9	30	2	32	7	31	11	29	8
3	32	6	31	10	30	5	29	0	37	9			3	31	3	31	4	31	10	28	5	31	6
4	30	9	31	5	25	8	32	1			90	9	4	31	9	31	3	29	1	30	0	30	3
5	30	9	30	10	31	1	30	11					5	30	6	29	4	30	5	31	5	27	0
6	29	0	32	4	31	5	30	10					6	29	11	31	9	30	7	25	4	31	9
7	31	3	31	1	29	3	40	10			92	4	7	30	9	32	5	32	2	27	5	30	10
8	41	3	31	7	33	0	40	7					8	25	0	32	2	29	2	28	4	32	9
9	41	7	28	6	31	1	37	11					9	29	11	32	0	30	8	28	11	31	11
10	40	3	31	7	30	6	41	5			27	3	10	31	10	31	3	30	4	29	11	30	10
11	24	0	32	1	31	3	37	5			27	4	11	29	2	32	3	31	8	31	9	31	7
12	24	5	29	3	30	2	30	1			30	4	12	32	3	30	2	31	8	32	3	31	8
13	30	6	31	4	29	5	31	8			31	11	13	32	7	32	5	27	4	30	5	29	9
14	29	9	30	9	29	2	30	11			30	7	14	30	6	28	1	29	2	32	8	29	6
15	32	1	30	8	31	0					29	6	15	29	5	32	2	31	5	32	7	30	5
16	32	5	31	0	30	6					31	5	16	32	0	32	7	31	8	31	10	11	10
17	25	9			29	3					32	0	17	31	10	32	5	26	4	29	6		
18	30	7			31	8					32	7	18	32	9	30	2	31	6	32	0		
19	30	9	<del>32</del>		32	1					29	10	19	32	1	32	7	28	3	30	11		
20	31	9			31	4					31	5	20	32	5	30	8	30	0	32	7		
	636	9	495	2	609	1	472	5	106	5	609	1		616	4	627	6	607	0	609	10	472	8

Total No of Pieces 189 Length 5362 ft 3 in  
 636.75 495.17 609.08 472.42 106.42 609.08  
 Total No of Pieces 616 Length 627 ft 6 in  
 616.33 627.50 607.00 609.83 472.67  
 Note: Above figures converted to 1/10 ft.

## MOUNTAIN FUEL SUPPLY COMPANY

CASING RECORD FOR R. D. Murphy 6-WSec 22 Twp 3 N Range 24 E. Date October 21, 1946

## MEASUREMENTS

Surface Elev 6507' Derrick Floor Elev 6515.40'  
 Ht Rotary above floor 1.30 ft in Ht Top Kelly Bushings above floor 2.10 ft in  
 Elev Top Kelly Bushings 6517.50 ft in  
 Rig floor to production floor 8.40 ft in  
 Production floor to bottom of cellar 6.00 ft in  
 Production floor to top of casing head 4.50 ft in  
 Number of joints of casing used 33  
 Casing landed at 994.75 ft in  
 Depth of hole 17 1/2" - 1015 ft 11" - 1059' in  
 Open hole below casing point 17 1/2" - 20.25 ft 11" - 64.25' in  
 Elevation of casing shoe 5522.62 ft in

## CASING SPECIFICATIONS AND CASING EQUIPMENT

Make of casing Pittsburgh & type ST&C & LT&C Wt per foot 68 - 54.5 lbs  
 O D of casing 11 - 3/8" in I D of casing 12.515 in. Threads per in 8  
 Length of threads 9.5 & 4.75 in. O D of couplings 14.375 in  
 Height of couplings 8 & 10.5 in. Kind of casing head Shaffer Base  
 Height of clamp in. Thickness of clamp in  
 Length of clamp in No of bolts  
 Type casing shoe Baker Guide Type float collar Halliburton  
 Number joints spot welded 10 Welded electric or acetylene Electric  
 Number of faulty joints 0

## CASING TOOLS

Make tongs Dunn Shps Cable Tool Elevators Butler  
 Kind of thread dope Zinn Lubricant

## CEMENT AND CEMENTING EQUIPMENT

Cementing contractor Halliburton  
 Man in charge Dawkins Assistant Williamson  
 Type equipment used Power Number of wagons 1  
 Brand cement used Monolith & Ideal Regular sax 810  
 sax  
 sax  
 Total number sax 810 Number sax treated 0  
 Kind of treatment used  
 Kind of plugs used Wooden (2)  
 Method used in measuring plugs down Wire Line

## TIME OF OPERATIONS

Began rigging up to run casing 4:00 A.M. 10-21-46  
 Began running casing 7:00 A.M. 10-21-46  
 Finished running casing 4:00 P.M. 10-21-46  
 Began circulating casing 4:45 P.M. 10-21-46  
 Circulated casing hrs 15 min  
 Began cementing 5:00 P.M. 10-21-46  
 Finished cementing 6:30 P.M. 10-21-46  
 Cement to set 48 hrs

PROCEDURE (Should include brief history of operations, difficulties, remedies for same, weather conditions, condition of hole, mud weight, etc)

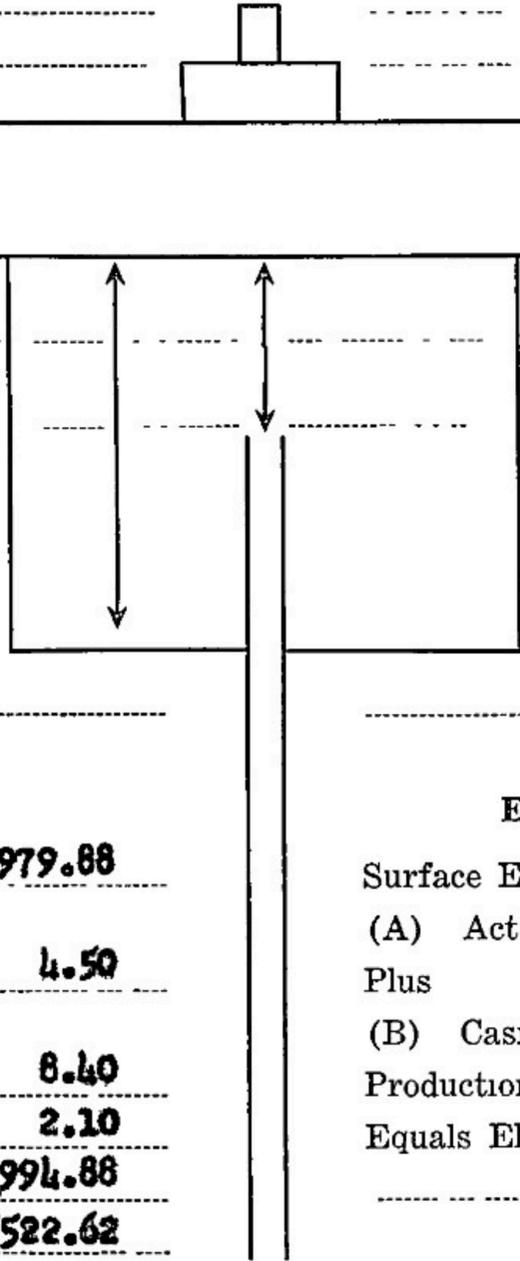
Welded first 4 joints solid above and below collars and floating equipment

Spot welded next 6 joints.

Signed

Elevation of Kelly Bushings..... 6517.50 Ft  
 Height of Rotary above floor..... 1.30 Ft  
 Rig floor Elevation ..... 6515.40 Ft

Production Floor or Surface Elevation ..... 6507.00 Ft  
 (B) Top of Collar or Casing to Production Floor..... 4.50 Ft  
 Production Floor to bottom of Cellar..... 6.00 Ft



(A) Pipe permanently cemented in hole ..... 979.88 Ft

**LANDING POINT**

(A) Actual Pipe Cemented ..... 979.88  
 Plus  
 Top of Collar to Production Floor (B) ..... 4.50  
 Production to Rig Floor ..... 8.40  
 Top of Kelly Bushings to Rig Floor ..... 2.10  
 Equals Landing Point ..... 994.88  
 Elevation of Casing Shoe ..... 5522.62

**ELEVATION OF CASING SHOE**

Surface Elevation ..... 6507.00  
 (A) Actual Pipe ..... 979.88  
 Plus  
 (B) Casing to Production floor ..... 4.50  
 Equals Elevation Casing Shoe..... 5522.62 Ft

- (A) All three of these amounts must be the same, and must agree with your pipe tally. Therefore, your pipe tally can only include the total of the actual pipe cemented—NOT THE LANDING JOINT, although the landing joint may be shown as a matter of information but not included in the total of the pipe tallied.
- (B) All three of these items must be the same

**CASING TALLY**

**CASING TALLY**

No Pcs	Feet	In	No Pcs	Feet	In	Feet	In	Feet	In	Feet	In	Feet	In																	
1	32	58	41	48	31	74	41	48					1	26	33	41	48	33	33	Gr.	826	29	Net							
2	34	28			29	99							2	5	51	51	51	83			119	27	"							
3	30	95			31	48							3	2	61			32	00			31	40	"						
4	34	12			31	91							4	1 Baker Guide Shoe				1	32			1	32	"						
5	32	68			32	81							5	1 Halli. Float Collar				1	99			1	60	"						
6	32	88			30	60							6	total of 3 1/2 jts. of 1 3/8" OD 8" d. thd. Pittsburgh and Republic casing, measuring 979.88' net, 990.47' gross, landed at 991.88' 15.00' below top of the Kelly bushings or a threaded Shaffer landing base. A guide shoe and float collar were placed on the first joint. Cemented with 810 sacks regular cement with cement returns when plug was at 611'. Bumped plug at 979'. Will allow cement to set 48 hours. The 4 1/2" pipe is H-40 and the 4 1/2" & 6 1/2" is H-55.																
7	31	72			21	79							7																	
8	31	80			26	90							8																	
9	30	01			22	48							9																	
10	31	67			22	00							10																	
11	31	46			23	18							11																	
12	28	85			8	22							12																	
13	31	78			26	10							13																	
14	31	57			1	60							14																	
15	30	56			1	32							15																	
16	32	40											16																	
17	30	31											17																	
18	34	15											18																	
19	30	90											19																	
20	33	09											20																	

Total No of Pieces..... 35, Length ..... 979.88 ft in

Total No of Pieces....., Length ..... ft in

R. D. MURPHY - 22-3-24  
Well #6-W

Accounting for Pipe

<u>Date</u>	<u>Transfer</u>	<u>To or From</u>	<u>Charges</u>	<u>Credits</u>	<u>Balance</u>
<u>13-3/8" - Casing</u>					
10/2/46	140513	R.S. Whse. H-40	834' 4"		
	140513	R.S. Whse. J-55 (54.5#)	120' 10"		
	140513	R.S. Whse. J-55 (61#)	44' 1"		
10/30/46	144365	R.S. Whse. J-55 (61#)		20' 7"	
12/4/46	91275	R.S. Whse. J-55 (61#)		20' 7"	
4/25/47	166526	R.S. Whse. J-55 (61#)	20' 7"		
10/15/46	140539	R.S. Whse. J-55 (61#)	33' 11"		
10/23/46	140631	R.S. Whse. (61#)	8' 6"		
8/28/47	167283	R.S. Whse. J-55 (61#)		33' 11"	
			<u>1062' 3"</u>	<u>75' 1"</u>	<u>987' 2"</u>
<u>9-5/8" - Casing</u>					
2/2/47	156113	R.S. Whse. J-55 (36#)	3615' 5"		
	156113	R.S. Whse. J-55 (40#)	1233' 4"		
	156113	R.S. Whse. N-80 (40#)	1146' 6"		
1/23/47	91286	M.F. Machine Shop J-55 (36#)		50' 0"	
	91286	M.F. Machine Shop - J-55 (40#)		31' 9"	
			<u>5995' 3"</u>	<u>81' 9"</u>	<u>5913' 6"</u>
<u>2-1/2" - 6.5# J-55 Tubing</u>					
7/7/47	157138	R.S. Whse.	5574' 3"		
7/10/47	157211	R.S. Whse.	290' 3"		
8/1/47	160528	R.S. Whse.		29' 1"	
			<u>5864' 6"</u>	<u>29' 1"</u>	<u>5835' 5"</u>

ROBERT D. MURPHY  
 Sec. 22-3-24  
 Well No. 6-W

Casing Record

13-3/8" - 48# , 54.5# & 61# - 8 thd. - Casing

33 Jts., 987'2" gross, 979.38' net, landed at 994.75' - 14.87' below the top of the Kelly bushings. Cemented with 810 sacks of Monolith and Ideal regular cement. The first 4 joints were welded solid above and below collars, the next 6 joints were spot welded. A Baker guide shoe was run on the bottom and a Halliburton float collar was placed on top of the first joint. Cementing was done by Halliburton Oil Well Cementing Company.

9-5/8" - 36# & 40# - 8 thd. - J55 & N80 casing

	<u>Gross</u>	<u>Net</u>
36 Jts. 40# - LT&C - N80 Casing	1146' 6"	1131.92'
37 Jts. 40# - LT&C - J55 Casing	1201' 7"	1187.92'
116 Jts. 36# - ST&C - J55 Casing	3565' 5"	3542.41'
<u>189 Jts.</u>	<u>5913' 6"</u>	<u>5862.25'</u>

The above string of casing was landed at 5875.42' - 13.17' below the top of the Kelly bushings in a Shaffer spool type casing head. A Halliburton guide shoe and Halliburton float collar, which are included in the above net measurement, were run on the bottom and top of the first joint, and were spot welded as were the next six joints of casing, above and below collars. Cemented with 400 sacks of Monolith and Ideal regular cement by Halliburton Oil Well Cementing Company. This string of casing is perforated from 5765' to 5800' with 105 - 9/16" holes and from 5640' to 5720' with 235 - 9/16" holes.

2-1/2" - 6.5# - 8 thd. - J55 EUE Tubing

200 Jts., 5835'5" gross, 5807.59' net, landed at 5814.93' - 7.34' below the top of the Kelly bushings, on a National Supply Company type "B" tubing head. The bottom joint is bull-plugged. Tubing perforations are from 5774.58' to 5784.58' and the tubing is hanging 11.00' off bottom.

<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	<b>FORM 9</b>
<b>SUNDRY NOTICES AND REPORTS ON WELLS</b>	
Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.	
<b>1. TYPE OF WELL</b> Gas Storage Well	<b>5. LEASE DESIGNATION AND SERIAL NUMBER:</b> SL-045051A
<b>2. NAME OF OPERATOR:</b> QUESTAR PIPELINE COMPANY	<b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME:</b>
<b>3. ADDRESS OF OPERATOR:</b> P.O.Box 45360 , Salt Lake city , UT, 84145	<b>7. UNIT or CA AGREEMENT NAME:</b> CLAY BASIN
<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 1575 FNL 1540 FWL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: SENW Section: 22 Township: 03.0N Range: 24.0E Meridian: S	<b>8. WELL NAME and NUMBER:</b> CLAY BASIN U 11 (RD MURPHY 6-W)
<b>PHONE NUMBER:</b> 801 324-5061 Ext	<b>9. API NUMBER:</b> 43009156350000
<b>9. FIELD and POOL or WILDCAT:</b> CLAY BASIN	<b>COUNTY:</b> DAGGETT
	<b>STATE:</b> UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input checked="" type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: 11/15/2016	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input checked="" type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Questar Pipeline Company has recently completed the Plug and Abandonment of Well 11s at the Clay Basin site. This Sundry Notice is to provide a subsequent report. Attached is the detailed report of the work that was done on this site.

**Accepted by the**  
**Utah Division of**  
**Oil, Gas and Mining**  
**FOR RECORD ONLY**  
 November 29, 2016

<b>NAME (PLEASE PRINT)</b> Chris B. Balling	<b>PHONE NUMBER</b> 801 324-3619	<b>TITLE</b> Property Agent - ROW
<b>SIGNATURE</b> N/A	<b>DATE</b> 11/29/2016	



Dominion Wexpro  
 2221 Westgate Dr.  
 P.O. Box 458  
 Rock Springs, WY 82902  
 Tel (307) 352-7500  
 Fax (307) 352-7575

## Clay Basin Unit 11

API 43-009-15635

### Plug & Abandon 2016

11/2/2016

Day 1

Scott Colvin

PBTD 5,819'; FM Dakota 5640' - 5720' 235 Holes, 5765' - 6800' 3SPF

SICP 1,960 psi, SITP 1,960 psi; Spot in RU E&E slickline. MU 1-1/2" OD bailer. Open well. Hydrates just under master valve. Pumped 3 gal meth. SI and bleed off lubricator. Called field operations at CB for methanol. Wait on 20 gal methanol. Filled E&E meth storage with 20 gal methanol. Pump and fill lubricator. Open lower master and equalize lubricator. Wait on methanol to fall. Work thru Hydrates to 20' then fell free. RIH with 1-1/2" bailer to depth of 5,799' WLM-KBM. POOH, bleed off pressure. B/O sample bailer. Bottom packed full of frac sand. RD slickline. Set in UWS rig pump and tank. Set 1 400 bbl FB tank & 1 400 bbl upright tank. Unloaded RU mats and rig floor. Set in RU matt to WH. Spot in and level rig on jacks. Rig up rig and guy out same. Fill rig tank and upright with Dutch John city water. Lay out pump lines to WH and tie in return lines to tanks. Work on getting seized csg outlet valves to operate to close and open positions for pump tie in and returns, pressure checks. Installed secondary valves on outside of existing for safety, 2-3/8" x 4-1/2" csg valve on east side of tbg head (side with 1/2" ported flange with needle valves) will not operate to close position. Will isolate valve with secondary valve after well kill. Night cap all outlets and SDFD.

**Daily Costs:** \$8,436

**Accumulated Cost:** \$8,436

**AFE Cost:** \$246,000

11/3/2016

Day 2

Scott Colvin

PBTD 5,819'; FM Dakota 5640' - 5720' 235 Holes, 5765' - 6800' 3SPF

SICP 1,960 psi, SITP 1,960 psi, 4-1/2" x 9-5/8" annulus 40 psi; PJSM, HU pump lines into each other. Prime up pump and circulated back to tank to warm lines and pump. HU pump lines to well. Pressure tested lines to 3,100 psi, tested good. Pump down 2-3/8" x 4-1/2" annulus by bull-heading fresh water. Pump @ 3 bpm. Pressure down to 500 psi with 70 bbl away then increased from 500 psi to 1,600 psi pumping @ 2.5 bpm for another 15 bbl. Opened tbg to FB tank thru 20/64" choke continuing to pump @ 2.5 bpm. Tbg at open was 3,100 psi, bleed gas thru choke to 50 psi in 10 minutes. Tbg turning to gas cut water with 15 bbl away after tbg open. Switched returns to rig tank. Returns gas cut for 10 more bbl then turning clear. Continue to circulate hole with 100 bbl holding 200 psi back pressure with choke. Lost 6.5 bbl in 45 minutes while circulating. SD pump. Opened both csg and tbg to tank. Well is static. Monitor well for flow. Kicked in pump to fill hole. Took 1/3 bbl to fill. Opened well again to rig tank and monitor for flow. Work on backing out lock pins from hanger, B/O all WH bolts, clean and re-install bolts 4 bolting tree. Kicked in pump to fill hole. Took 1/2 bbl to fill after being static 1 hr. Set manifold and reverse circulated @ 2.5 bpm for 45 min holding 250 psi back pressure with choke. Gas cut fluid @ 1st bottoms up

# Clay Basin Unit 11

for 10 bbl then returns clean, clear and smooth. Lost 5 bbl to formation holding 250 psi back pressure with choke on returns. SD pump, check for flow- well is static. Knock off pump lines, ND tree, NU BOPE, RU floor and tools. Set in catwalk & racks. Install tbg pup into hanger with safety valve. HU and reverse circulated 50 bbl for 2 bottoms up. 5 bbl gas cut fluid on 1st then clean clear and smooth on 2nd. Knock off pump lines and re-route to fill hole across WH for pipe displacement for TOO. PU unladed tbg hanger from head. LD hanger on top jt. POOH SB 89 stds and single of 2-3/8" J-55 tbg 8rd eue tbg. Top 30 stds in near new condition and can faintly read stenciling, middle 40 stds powder coated and bottom 19 stands clean and smooth, pump nipple and closing tool both in excellent condition with no corrosion. Hole fill on TOO took 10 bbl for pipe displacement (1/2 bbl over calculated) Discussed with engineering to not run scraper and to wireline set CICR. SLM singles on walk and first 29 stds in derrick for RIH. Line up WL and tools. Drain up pump and lines, close in secure well and night cap all outlets. SDFD. Made notifications to State and BLM of CICR setting and start of plugging ops on 11-7-16. Contacts verbally made were - Chris Jensen State of Utah & Ray Arnold BLM.

**Daily Costs:** \$15,156      **Accumulated Cost:** \$23,592      **AFE Cost:** \$246,000

**11/4/2016**

**Day 3**

**Scott Colvin**

PBTD 5,819'; FM Dakota 5640' - 5720' 235 Holes, 5765' - 6800' 3SPF

SICP 1,960 psi, SITP 1,960 psi, 4-1/2" x 9-5/8" annulus 40 psi; PJSM, check pressures. Wait on WL. Spot in RU Patriot Wireline. MU 3.70" GR & JB. RIH with same to 5,616'. PUH and log collars. Located Baker DA packer and end of 4-1/2" csg @ 5592'. POOH LD GR-JB. MU Baker Oil Tools WL set CICR. Obtained approval from Ray Arnold (BLM on location) and notified Chris Jensen (State) to set CICR 11' higher than plan proposal @ 5,578' WLM. RIH correlated on depth and set CICR @ 5,578' WLM. POOH LD setting tool and RD WL. Pressure test csg and CICR to 1,100 psi for 5 min isolating pressure at WH, tested good no losses. ND WL BOPE and flange. NU stripper head. MU Baker stinger for CICR. TIH SLM. Install stripper rubber last std. PU 2 singles and sting into CICR, make mark for spacing out CICR by tbg tally found @ 5,578.49' KBM. LD single, HU and reverse circulated hole volume @ 3 bpm. 20 bbl gas cut fluid in returns beginning at bottoms up. SD pump with 90 bbl circulated. PU RIH with 6' & 8' tbg pups. Sting into CICR, pressure tested csg and tbg to 1,200 psi for 10 min. HU to tbg and establish injection rate @ 2 bpm 15 bbl. Pressure @ start was 1,300 psi, pressure at end was 1,900 psi. SD and let pressure fall. Lost 1,500 psi in 5 min. Sting out, LD tbg pups. POOH SB 5 stds to drop fluid level in well bore. CIW, night cap all outlets. SDFWE. Ray Arnold with Vernal BLM witnessed pressure test of csg and CICR.

**Daily Costs:** \$14,640      **Accumulated Cost:** \$38,232      **AFE Cost:** \$246,000

**11/7/2016**

**Day 4**

**Scott Colvin**

PBTD 5,819'; FM Dakota 5640' - 5720' 235 Holes, 5765' - 6800' 3SPF

SICP 1,960 psi, SITP 1,960 psi, 4-1/2" x 9-5/8" annulus 40 psi; Rig Number: Uinta Well Service 1 SDFD, Wait on HES cementing equipment.

**Daily Costs:** \$578      **Accumulated Cost:** \$38,810      **AFE Cost:** \$246,000

**11/8/2016**

**Day 5**

**Scott Colvin**

PBTD 5,819'; FM Dakota 5640' - 5720' 235 Holes, 5765' - 6800' 3SPF

SICP 0 psi, SITP 0 psi, 4-1/2" x 9-5/8" annulus 40 psi; SM, spot in RU HES cementers, break off and clean cement from inside BOP valves & 2" plug vales. RIH with 5 stds from derrick.

# Clay Basin Unit 11

Displaced only a trickle on last jt. Sting into CICR @ 5578.49'. Tbg static, RU HES to well. Filled hole and circulated lines back to tank & prime up pump. Pressure tested csg and CICR to 1,400 psi, no losses or communication to tbg or to 4-1/2" x 9-5/8" annulus. Bleed off csg. PJSJ for cementing ops, Pressure tested iron to 5k, bled off and establish injection rate with 10 bbl fresh water @ 2 bpm. Pressure at start was 1150 psi, pressure @ end of 10 bbl was 2,250 psi and flat. ISDP was 1780 psi. Sting out of CICR. Mix and pump 15 bbl of 15.8 ppg. Neat G cement (73 sks) in tbg holding 800 psi back pressure to keep cement from running. Sting into CICR (6 bbl from EOT). Mix and pump at 2 bpm 11 more bbl of cement (54 sks) and displaced same with 20 bbl of fresh water leaving 1 bbl in tbg. Pressure at start of displacement was 650 psi. Monitored 4-1/2" x 9-5/8" annulus during squeeze, no communication. Slowed rate to 1 bpm last 3 bbl of displacement. Sting out of CICR, 3060 psi, bleed off pressure, B/O HES. POOH LD 2 single jts and tbg pups leaving 64' (1 bbl cement) on top of CICR from 5578' up to 5504'. Wash up pump and lines. HU and reverse out with 30 bbl fresh water, 1/2 bbl dirty cement water at bottoms up in returns. HU, mix and pump 4 bbl (20 sks) 15.8 ppg G cement. Pump cement and displace same with 20.5 bbl water to place and leave balanced cement plug inside 4-1/2" csg from 5,504' up to 5,238' after tbg pull out. Break-off HES, wash up pump and lines, POOH LD 9 jts of tbg. HU and reverse circulate from 5,221' with fresh water. No cement in returns at bottoms up (21 bbl) only gray water, with 23 bbl pumped away tbg started to unload gas cut fluid then unloaded tbg volume to tank with much gas for 5 min until partial returns restored. Continue pumping by reverse with HES @ 2 bpm. Gas dissipated after 30 bbl pumped. Continue to pump and circulate an additional 40 bbl for hole volume. Returns clean and smooth. SI tbg and pressure tested csg and CICR to 1,450 psi. Held pressure for 10 minutes. No losses. Bleed off pressure. Discussed step next with Ray Arnold Vernal Ut BLM and Wexpro engineering SLC UT. Will TOOH remove stinger and TIH and tag cement to ensure depth of cement plug top in AM of 11-09-16. B/O HES, drain pump and lines. POOH SB 83 stds keeping hole full during POOH, 8 bbl. B/O LD stinger from std 84. MU coupling to std. TIH with 84 stds to 5,218' KBM. HU to circulate. Circulated reverse for 20 min @ 3 bpm. No gas in returns in 3 bottoms up. SD pump. POOH SB 5 stds to drop fluid in well. CIW, drain up pump and lines. Night-capped all outlets. SDFD. Ray Arnold with Vernal Ut BLM and Chris Jensen with state of UT DNR witnessed plugging ops today.

**Daily Costs:** \$6,752**Accumulated Cost:** \$45,562**AFE Cost:** \$246,000**11/9/2016****Day 6****Scott Colvin**

PBSD 5,819'; FM Dakota 5640' - 5720' 235 Holes, 5765' - 6800' 3SPF

SICP 0 psi, SITP 0 psi, 4-1/2" x 9-5/8" annulus 40 psi; PJSJ with rig crew. Check pressures. HU pump lines and prime pump. TIH with 5 stds from derrick, no displacement. HU and circulated hole vol from 5220' with 75 bbl fresh water. Returns clean and smooth with no gas in returns. B/O pump line from tbg. PU 1 single RIH with 13' of same set 10k on cement plug. Plug @ 5231' KBM, 7' higher than calculated. POOH LD single. RU HES and prime equipment. PJSJ covering cement OPS. Mix and pump 7 sks Poz Gel (12 bbl). Pump 9.0 ppg poz mud spacer and displace same with 17 bbl water leaving balanced spacer inside 4-1/2" csg after tbg PUH from 5218' to 4450'. Break off HES from tbg. POOH LD 26 jts. POOH SB 71 stds in derrick. ND stripper head. NU WL flange, RU KLX WL. Fill hole while RIH with 2-1/4" perf gun. Pressure up on 4-1/2" csg to 500 psi. Perforated the 4-1/2" csg @ 4450' 4SPF with .50" entry holes. Pressure dropped to 200 psi, bled off pressure. POOH with WL shut blind rams. RD WL. HU and pump 30 bbl fresh water. Returns up 4-1/2" x 9-5/8" annulus after 21 bbl pumped, pump pressure 1,000 psi @ 3 bpm. SD pump and bleed back pressure. Flowed back 18 bbl to rig tank. Mud wt in returns 8.2 - 8.5 ppg MU MS CICR TIH with 71 stds. Set CICR @ 4,410' KBM. Pump 5 bbl thru CICR, shear out of CICR and reverse circulate

# Clay Basin Unit 11

hole vol with 50 bbl for clean returns. Returned approximately 28 bbl dirty water cut mud. Sting into CICR, pressure test CICR to 500 psi tested good. Bleed off pressure, HU lines to take returns up 4-1/2" by 9-5/8" annulus and 4-1/2" x 2-3/8" annulus. RU HES pressure test lines to 5k. Establish injection 3 bpm 850 psi. Pumped 20 bbl before getting returns. SD pump. Mix cement. Mix and pump 85 sks (17.2 bbl) of cement for a 15.8 ppg slurry, displace with 12 bbl of fresh water leaving 5 bbl in tbg. Sting out of CICR and pump 3.5 bbl of water to push cement out of tbg to leave a balanced cement plug from 4410' to 4,088' after tbg PUH. Break off HES, POOH LD 12 jts to 4036'. HU HES and reverse circulated with 20 bbl. 1/2 bbl of cement returned with at 16 bbl pumped into returns. Mix and pump 26 sks Poz Gel (46 bbl). Pump 9.0 ppg poz mud spacer and displace same with 2.7 bbl water for to leave balanced spacer inside 4-1/2" csg after tbg PUH from 4,036' up to 1050'. B/O HES from tbg. POOH LD 98 jts. POOH SB 16 stds in derrick. Close in well, drain up pump and lines. Night cap all outlets. SDFD Ray Arnold with Vernal BLM did not require 2nd 300' balanced plug in step #23 of approved plan. Chris Jenson with Utah DNR signed off with his initials to step #23 agreeing to BLM's requirement. Both agencies witnessed plugging ops today.

**Daily Costs:** \$5,703      **Accumulated Cost:** \$51,254      **AFE Cost:** \$246,000

**11/10/2016**

**Day 7**

**Tim Erickson**

PBTD 5,819'; FM Dakota 5640' - 5720' 235 Holes, 5765' - 6800' 3SPF

SICP 0 psi, SITP 0 psi PJSM. Cover daily ops. HU lines and prime pump, fill hole, RU WL. RIH with 3-1/8" csg perf gun to 1,050' dressed 6SPF 60°. Phased. Pressure up on csg to 500 psi, perforated thru 4-1/2" & 9-5/8" csg strings. Lost all pressure on 4-1/2" csg. POOH with WL. RD WL. Pump 8 bbl down 4-1/2" csg and established returns up 9-5/8" x 13-3/8" csg annulus, drilling mud in returns. SD pump and let fluids balance out in well bore. NU stripper head. MU BOT MS-CICR. TIH with 16 stds from derrick. Set the CICR @ 995'. Shear out and reverse circulated with 20 bbl for clean returns, 11 bbl of mud in returns. Sting into CICR and pressure test backside to 500 psi. Tested good. PJSM, on cementing ops. Pressure tested iron to 3,500 psi, tested good. Injected 9 bbl to establish circulation up 9-5/8" x 13-3/8" annulus. Opened 4-1/2" x 9-5/8" annulus and pump 6 bbl for circulation. Mix and pump 95 sks (19.5 bbl) pump 14 bbl cement taking returns up 9-5/8" x 13-3/8" annulus then SI and opened up 4-1/2" x 9-5/8" annulus pumped remaining 27 sks (5.5 bbl) of cement from tub and displaced cement with 3.25 bbl of fresh water. SD and sting out with 1/2 bbl left in tbg. Break off pump line to tbg. POOH LD 1 single. EOT @ 966'. HU and reverse circulated with 5 bbl. 1/4 bbl cement returned. Mix 20 sks (4 bbl), pump cement and displaced with 2.5 bbl of water to leave a balanced cement plug f/ 966' up to 686' inside 4-1/2" csg after tbg PUH. POOH LD 9 jts. EOT @ 686'. HU and reverse out with 5 bbl. 1/4 bbl cement & 1/4 bbl dirty cement water in returns. Swap manifold mix and pump 7 sks (9 bbl) to leave balanced 9.0 ppg Poz mud spacer inside csg after tbg pull out from 686' up to 125'. POOH LD last 22 jts in well. RU WL. Break for lunch WOC to set @ 1,050' until surface, sample firm. Opened up surface and intermediate csg outlets and check for flow, no flow. Filled 4-1/2" csg with water. PU RIH with 3-1/8" OD perf gun dressed with 6SPF 60° phased and perforated 4-1/2" and 9-5/8" csg strings @ 125'. POOH RD WL. Removed rigs plug valves from WH valves, closed in same. RD Baker manifold and tie in pump line to 13-3/8" x 9-5/8" outlet. Open 4-1/2" x 9-5/8" outlet. Pumped down 13-3/8" x 9-5/8" establishing returns up 4-1/2" x 9-5/8" annulus with 5 bbl. Mix and pump 78 sks (16 bbl) Neat 'G' cement @ 15.8 ppg slurry. Cement in returns with 15 bbl pumped circulated 1 bbl good cement to tank. Shut in 4-1/2" x 9-5/8" outlet and open up thru BOP the 4-1/2" csg. Continue to mix and pump an additional 3 bbl cement until good cement in returns to tank. SD pump. Wait 15 minutes to check for cement fall back. Kicked in pump 1/2 bpm, returns were instant with good cement returns up both annulus. CI annulus outlets, connect lines

# Clay Basin Unit 11

together and wash up HES. RD and released HES. PU 20' of 2-3/8" pup jts & RIH. Closed pipe rams HU and circulated out cement from 6' below cellar bottom. Pull and LD pup jts. RU power swivel. PU MU BOT 4-1/2" internal csg cutter. RIH with cutter to 6' below cellar bottom. Cut off and drop 4-1/2" csg (7 minutes to make cut). LD cutter, RD power swivel. RD tools and floor. 4 bolted BOPE. Secure well, drain-up pump and lines. SDFD.

**Daily Costs:** \$17,341      **Accumulated Cost:** \$68,606      **AFE Cost:** \$246,000

**11/11/2016**

**Day 8**

**Tim Erickson**

PBTD 5,819'; FM Dakota 5640' - 5720' 235 Holes, 5765' - 6800' 3SPF

PJSM, checked pressures. Checked cement depth. Found hard cement 6' below cellar bottom. ND BOPE and rack out pump and equipment for rig move. Using Cameron hydraulic torque wrench ND 6" 5k x 10" 900 tbg head. MU 4-1/2" csg spear. Spear csg and pull from well. Removed packing rings and seal rubber, set 4-1/2" stub on csg slips and tack weld same to stub. PU and remove slips. ND 10" 900 psi x 12" 900 psi csg spool. Found good cement in annulus of 4-1/2" x 9-5/8". Ray Arnold with BLM signed off on plan to "Not" ND 12" 900 psi x 12" 1,500 psi DSA for fear of studs being seized in next spool and to install marker plate on top of DSA 2.55' below GL. Mixed 2 sks Neat G cement and filled 4-1/2" and 9-5/8" csg to top of DSA. Cut off remaining upper studs on DSA. Weld on regulation marker plate leaving 1" gap for vent. Closed 13-3/8" x 9-5/8" outlet and installed bull plug on outside. Loaded out Catwalk and racks and accumulator. Load out pump and retired WH equipment for transfer to CP @ Cameron in RS. Moved 2-3/8" tbg to lower pipe yard to store for pending sale. Hydra-vac cement returns tank and empty rig tank and FB tank taking waste water to Legend disposal well. Rig down rig and wrap lines. Road out rig to RS. Police location and install caution tape and tee posts around cellar, moved 400 bbl upright to lower pipe yard to stage for move. Dig out guy anchors and cut off 3' below GL. Set well location sign next to "T" post at cellar edge. Hydra vac returned from Labarge to finish cleaning tanks. Finished cleaning cement tank. Clean FB and rig tank. Set FB tank to location edge for easy PU away from PL riser. Will load out all other associated rig equip 11/12/16. Only remaining equipment on location for PU will be toilets, trash cage and FB tank for PU by Tuesday 11/15/2016. SDFD. **Final report job complete.** No Utah DNR witness of plugging Ops since 11-9-16

- Surface GPS
  - Latitude N 40.985541
  - Longitude W 109.196972

**Daily Costs:** \$64,228      **Accumulated Cost:** \$132,834      **AFE Cost:** \$246,000



# Daily Operations Report

## Wellbore Diagram

Well Name:	Clay Basin Unit 11
County, State	Daggett, UT
Legal Description:	SE NW 22-3N-24E
API:	43-009-15635
SHL:	1575' FNL, 1540' FWWL
Updated By:	S. Colvin
Date Updated:	11/11/2016
Spud Date:	10/8/1946
TD Date:	12/29/1969
Well TMD:	11,778
Orientation:	Vertical
Plug Back MD:	Surface
Bridge Plug MD:	995'
Injecting Frac Jobs:	1

Latitude	40.985541
Longitude	-109.196972

As Of P&A	11/11/2016
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All measurements are in KB & MD unless otherwise specified.

