FILE NOTATIONS

Entered in NID File	.....	Checked by Chief	.....
Location Map Pinned	.....	Approval Letter	.....
Card Indexed	.....	Disapproval Letter	.....

COMPLETION DATA:

Well Completed	5-4-79	Location Inspected	
..... WW..... TA.....		Bond released	
GW..✓... OS..... PA.....		State or Fee Land	

LOGS FILED

Driller's Log.....✓

Electric Logs (No.) ✓.....

E..... I..... Dual I Lat..... GR-N..... Micro .....

BHC Sonic GR..... Lat..... Mi-L.....

CBLog..... CCLog..... Others.....

THE ANSCHUTZ CORPORATION

2400 ANACONDA TOWER · 555 SEVENTEENTH STREET · DENVER, COLORADO 80202 · 303-825-6100

September 15, 1978

Mr. Cleon B. Feight
Division of Oil, Gas & Mining
1588 West, North Temple
Salt Lake City, Utah 84116

Re: Anschutz Ranch No. 3-2
Sec. 3, T.3N-R.7E
Summit County, Utah

Dear Mr. Feight:

Enclosed in triplicate is Application For Permit to Drill the referenced location. We would appreciate your prompt approval to drill this well.

If you have any questions, please do not hesitate to contact us.

Thank you.

Cordially,

Peter B. Doty
Operations Coordinator

PBD/mle
Enclosures

RECEIVED
SEP 18 1978
DIV. OF OIL, GAS & MINING

Form 9-331 C
(May 1963)

SUBMIT IN TRIPLICATE
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1425.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK: DRILL [XX] DEEPEN [ ] PLUG BACK [ ]

b. TYPE OF WELL: OIL WELL [X] GAS WELL [ ] OTHER SINGLE ZONE [ ] MULTIPLE ZONE [ ]

2. NAME OF OPERATOR: Anschutz Corp.

3. ADDRESS OF OPERATOR:

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 2103' FSL 2041' FEL
At proposed prod. zone: Same NWSE

5. LEASE DESIGNATION AND SERIAL NO.: FEE

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: Anschutz Ranch

9. WELL NO.: 3-2

10. FIELD AND POOL, OR WILDCAT: Anschutz Ranch

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 3, T.3N, R.7E

12. COUNTY OR PARISH: Summit

13. STATE: Utah

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: 20 Miles Southwest of Evanston, Wyoming

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: 160

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

19. PROPOSED DEPTH: 8800

20. ROTARY OR CABLE TOOLS: Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 7717 GL 7730 Est KB

22. APPROX. DATE WORK WILL START*:

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
24	20"		100	Redimix
17 ½	13 3/8"		1500	Circ to Surface
8 3/4	7"		8800	

We propose to drill this well to an approximate total depth of 8800' to test the Nugget Formation. Mud and BOP Programs will be those generally used in this area. Electric logs will be run to T.D. (DIL-GR, Density and Neutron Logs). No cores are planned at this time; drill stem tests will be run as warranted. If production is encountered, casing will be set through the indicated pay section and selectivity perforated; fracing or acidizing may be necessary to stimulate production. Blanket bond is on file. Survey plats are attached.

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 RBB Peter B. Doty TITLE Production Coordinator DATE 9-14-78

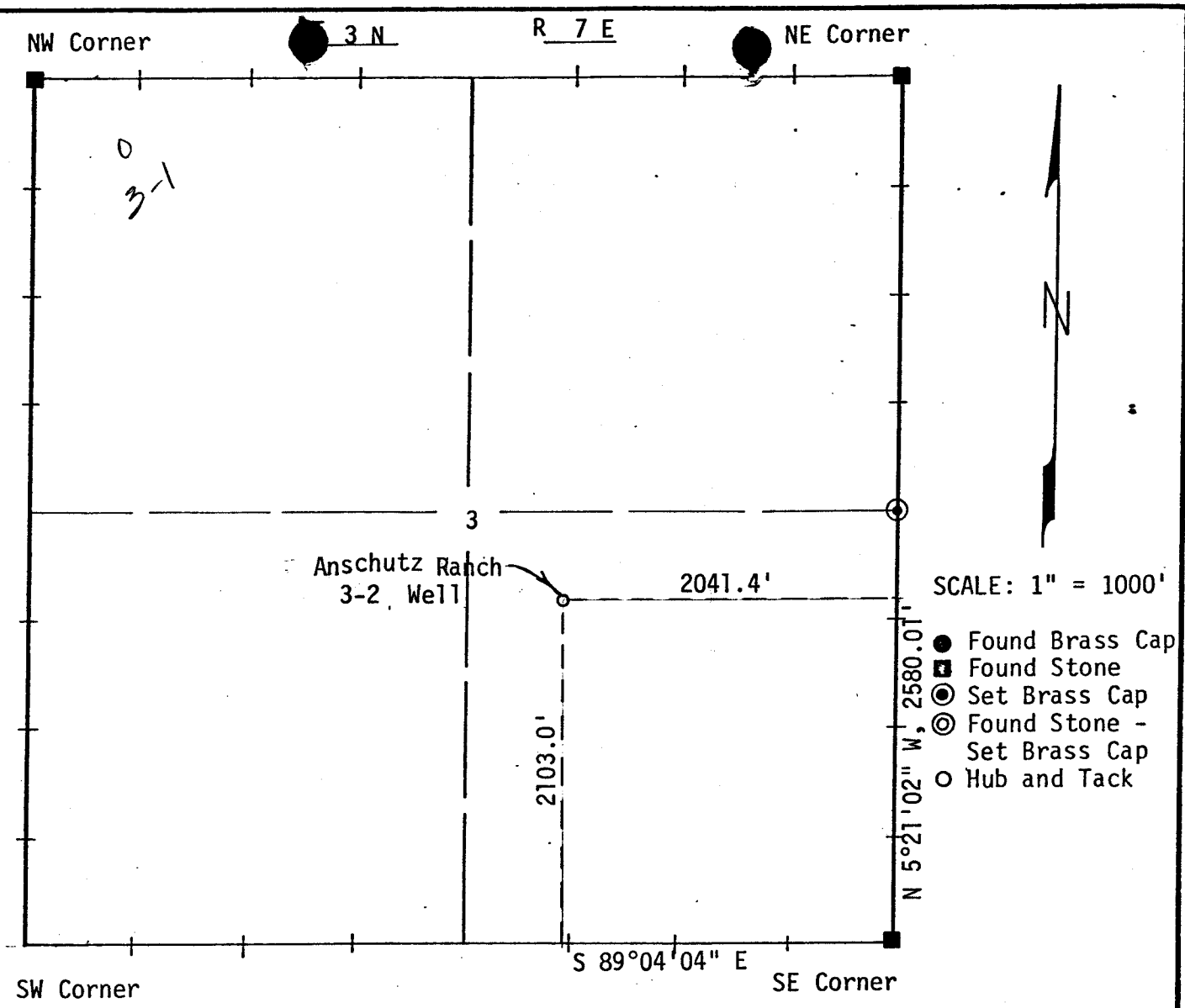
(This space for Federal or State office use)

PERMIT NO. APPROVAL DATE

APPROVED BY TITLE DATE

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions On Reverse Side



I, John A. Proffit of Evanston, Wyoming certify that in accordance with a request from Pete Dotie of Denver Colorado for Anschutz Corporation I made a survey on the 13th day of July, 19 78 for Location and Elevation of the Anschutz Ranch 3-2 Well as shown on the above map, the wellsite is in the NW¼SE¼ of Section 3, Township 3 N, Range 7 E of the Salt Lake Base & Meridian, Summit County, State of Utah, Elevation is 7717 Feet top of hub Datum U.S.G.S. Quadrangle - Castle Rock, Utah - Spot Elev. 7722' in the SW¼SE¼, Sec. 34, T 4 N, R 7 E, S.L.B. & M.

Reference point	North 200'	5/8" rebar	Elev. top of pin	7714.9'
Reference point	North 300'	"	"	7716.0'
Reference point	East 200'	"	"	7734.1'
Reference point	East 300'	"	"	7745.6'

John A. Proffit 7/14/78
JOHN A. PROFFIT UTAH R.L.S. NO. 2860

DATE: 7-14-78
JOB NO.: 78-92 Revised 9-14-78

UINTA ENGINEERING & SURVEYING, INC.
808 MAIN STREET, EVANSTON, WYOMING

STATE OF UTAH
DIVISION OF OIL, GAS, AND MINING

** FILE NOTATIONS **

Date: Sept. 18

Operator: Ruschutz Corp.

Well No: Ruschutz Ranch 3-2

Location: Sec. 3 T. 3N R. 7E County: Summit

File Prepared: /____/ Entered on N.I.D.: /____/

Card Indexed: /____/ Completion Sheet: /____/

API Number: 43-043-30084

CHECKED BY:

Administrative Assistant: AW

Remarks: 3-1- Nwnw - FC

Petroleum Engineer: P

Remarks:

Director: R

Remarks:

INCLUDE WITHIN APPROVAL LETTER:

Bond Required: /✓/ Survey Plat Required: /____/

Order No. _____ Surface Casing Change to _____ /____/

Rule C-3(c), Topographic exception/company owns or controls acreage within a 660' radius of proposed site /____/

O.K. Rule C-3 /✓/ O.K. In _____ Unit

Other:

Verbal 9/13
CBJ

/✓/ Letter Written/~~Approved~~

SCOTT M. MATHESON
Governor

GORDON E. HARMSTON
Executive Director,
NATURAL RESOURCES

CLEON B. FEIGHT
Director

STATE OF UTAH

DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL, GAS, AND MINING

1588 West North Temple
Salt Lake City, Utah 84116
(801) 533-5771

OIL, GAS, AND MINING BOARD

I. DANIEL STEWART
Chairman

CHARLES R. HENDERSON
JOHN L. BELL
THADIS W. BOX
C. RAY JUVELIN

September 19, 1978

The Anschutz Corporation
555 Seventeenth Street
Denver, Colorado 80202

Re: Anschutz Ranch 3-2
Sec. 3, T. 3 N, R. 7 E,
Summit County, Utah

Gentlemen:

Insofar as this office is concerned, approval to drill the above referred to well is hereby granted in accordance with Rule C-3, General Rules and Regulations and Rules of Practice and Procedure.

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

PATRICK L. DRISCOLL - Chief Petroleum Engineer
HOME: 582-7247
OFFICE: 533-5771

Enclosed please find Form OGC-8-X, which is to be completed whether or not water sands (aquifers) are encountered during drilling.

Further, it is requested that this Division be notified within 24 hours after drilling operations commence, and that the drilling contractor and rig number be identified.

The API number assigned to this well is 43-043-30084.

Very truly yours,

DIVISION OF OIL, GAS, AND MINING

CLEON B. FEIGHT
Director

November 2, 1978

MEMO TO FILE

Re: ANSCHUTZ CORPORATION
Well No. Anschutz Ranch 3-2
Sec. 3, T. 3N, R. 7E
Summit County, Utah

This field well is being drilled by the Circle "T" Drilling Company. The total depth at the time was 6,584'. The rig was given a safety check and found to be in superior condition.

Patrick L. Driscoll

PATRICK L. DRISCOLL
CONSULTANT

PLD/lw

Form DOGC 4

STATE OF UTAH

DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL, GAS, AND MINING

1588 WEST NORTH TEMPLE

SALT LAKE CITY, UTAH 84116

538-5771

REPORT OF OPERATIONS AND WELL STATUS REPORT

STATE Utah COUNTY Summit FIELD/LEASE Anschutz Ranch

The following is a correct report of operations and production (including drilling and p[illegible]) for the month of JUNE 19 79

Agent's Address 2400 Anaconda Tower
555- 17th Street
Denver, Colorado 80202
Phone No. 303-825-6100

Company The Anschutz Corporation
Signed Sonja Stone
Title Production Clerk

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)
Sec. 3 NW NW	3N	7E	3-1							Currently Being Completed
Sec. 3 NW SE	3N	7E	3-2							Shut-In Waiting on Pipeline Connection
Sec. 28 SW SE	4N	7E	28-1							Temporarily Abandoned
Sec. 34	4N	7E	34-1							Shut-In Waiting on Pipeline Connection

CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
DALLAS, TEXAS

File RFL 79646

Well Anschutz No. 3-2

Hydrocarbon Analyses of Separator Products and Calculated Well Stream

Component	Separator Liquid Mol Per Cent	Separator Gas Mol Per Cent	Separator Gas GPM	Well Stream Mol Per Cent	Well Stream GPM
Hydrogen Sulfide	Nil	Nil		Nil	
Carbon Dioxide	Nil	Nil		Nil	
Nitrogen	0.50	7.10		7.03	
Methane	14.63	80.97		80.24	
Ethane	5.47	7.11		7.09	
Propane	5.42	2.50	0.684	2.53	0.692
iso-Butane	3.20	0.60	0.195	0.63	0.205
n-Butane	6.34	0.80	0.251	0.86	0.270
iso-Pentane	4.59	0.29	0.106	0.34	0.124
n-Pentane	6.91	0.27	0.097	0.34	0.123
Hexanes	14.06	0.22	0.089	0.37	0.150
Heptanes plus	38.88	0.14	0.063	0.57	0.267
	100.00	100.00	1.485	100.00	1.831

Properties of Heptanes plus

API gravity @ 60° F.	59.1		
Specific gravity @ 60/60° F.	0.7425		0.741
Molecular weight	112	103 (assumed)	110

Calculated separator gas gravity (air = 1.000) = 0.682
Calculated gross heating value for separator gas = 1090 BTU
per cubic foot of dry gas @ 14.65 psia and 60° F.

Primary separator gas collected @ 750 psig and 98 °F.
Primary separator liquid collected @ 750 psig and 98 °F.

Primary separator gas/separator liquid ratio 100023 SCF/Bbl @ 750 psig & 98°F.

Primary separator gas/well stream ratio 988.94 MSCF/MMSCF

These analyses, opinions or interpretations are based on observations and material supplied by the client to whom, and for whose exclusive and confidential use, this report is made. The interpretations or opinions expressed represent the best judgment of Core Laboratories, Inc. (all errors and omissions excepted); but Core Laboratories, Inc. and its officers and employees, assume no responsibility and make no warranty or representations as to the productivity, proper operation, or profitableness of any oil, gas or other mineral well or sand in connection with which such report is used or relied upon.

File RFL 79646

Well Anschutz No. 3-2

Pressure-Volume Relations of Reservoir Fluid at 140 °F.
(Constant Composition Expansion)

Pressure PSIG		Relative Volume	Deviation Factor Z
6000		0.6046	1.081
5500		0.6301	1.033
5000		0.6621	0.987
4500		0.7034	0.944
4000		0.7583	0.905
3500		0.8341	0.872
3100		0.9169	0.849
2800	Reservoir Pressure	1.0000	0.837
2500		1.1116	0.831
2200		1.2606	0.830
2000		1.3907	0.833
1800		1.5546	0.839
1600		1.7668	0.848
1400		2.0399	0.858
1115		2.6139	0.878
900		3.2906	0.895
750		4.1117	0.909

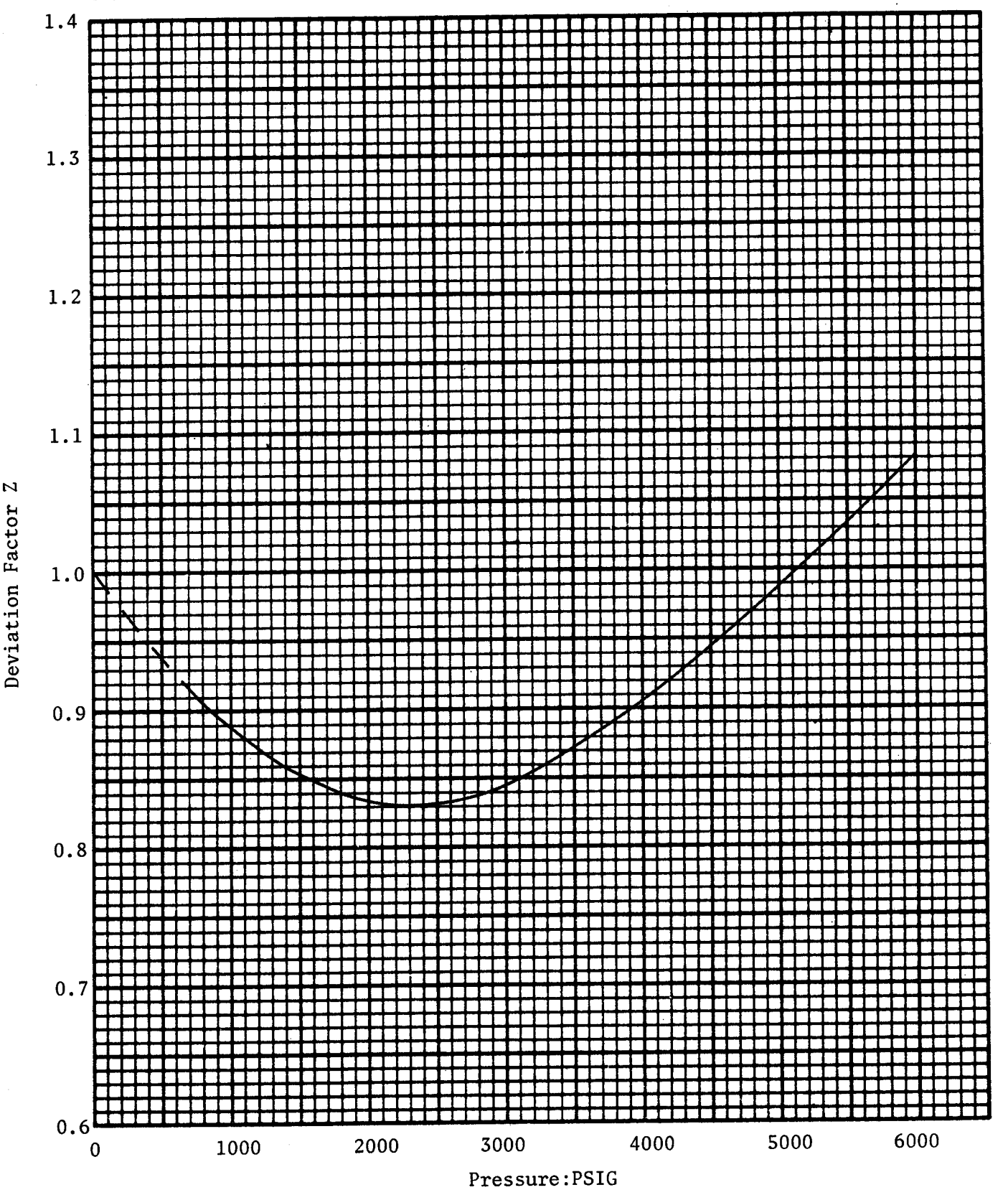
These analyses, opinions or interpretations are based on observations and material supplied by the client to whom, and for whose exclusive and confidential use, this report is made. The interpretations or opinions expressed represent the best judgment of Core Laboratories, Inc. (all errors and omissions excepted); but Core Laboratories, Inc. and its officers and employees, assume no responsibility and make no warranty or representations as to the productivity, proper operation, or profitableness of any oil, gas or other mineral well or sand in connection with which such report is used or relied upon.

CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
DALLAS, TEXAS

File RFL 79646

Deviation Factor Z of Well Stream During Depletion at 140°F.

Company The Anschutz Corporation **Formation**
Well Anschutz No. 3-2 **County**
Field Anschutz Ranch **State** Utah



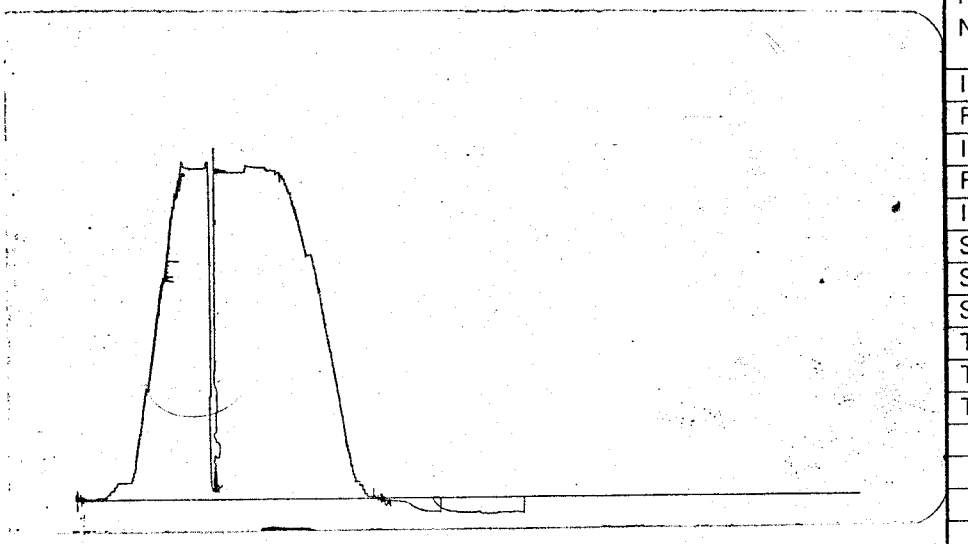
Phone
522-1206 Area 303

LYNES, INC.

Box 3600
Sterling, Colo. 80751

Contractor	Circle "T" Drlg. Co.	Top Choke	1/8"	Flow No. 1	-- Min.
Rig No.	10	Bottom Choke	3/4"	Shut-in No. 1	-- Min.
Spot	NW-SE	Size Hole	8 3/4"	Flow No. 2	-- Min.
Sec.	3	Size Rat Hole	--	Shut-in No. 2	-- Min.
Twp.	3 N	Size & Wt. D. P.	4 1/2" 16.60	Flow No. 3	-- Min.
Rng.	7 E	Size Wt. Pipe	308.25'	Shut-in No. 3	-- Min.
Field	Wildcat	I. D. of D. C.	2 1/4"		
County	Summit	Length of D. C.	270'		
State	Utah	Total Depth	9310'	Bottom Hole Temp.	--
Elevation	7734' "K.B."	Interval Tested	8076-8273'	Mud Weight	--
Formation	Twin Creek	Type of Test	Inflate Straddle	Gravity	--
				Viscosity	--

Tool opened @ 10:12



Outside Recorder

PRD Make Kuster K-3
No. 12983 Cap. 5950 @ 8084'

Press		Corrected
Initial Hydrostatic	A	--
Final Hydrostatic	K	--
Initial Flow	B	--
Final Initial Flow	C	--
Initial Shut-in	D	--
Second Initial Flow	E	--
Second Final Flow	F	--
Second Shut-in	G	--
Third Initial Flow	H	--
Third Final Flow	I	--
Third Shut-in	J	--

Lynes Dist.: Rock Springs, Wy.
Our Tester: Art Anderson
Witnessed By: Don Reese

Did Well Flow – Gas No Oil No Water No

RECOVERY IN PIPE: 260' Total Fluid
200' Gas cut mud = .98 bbl.
60' Mud = .29 bbl.

Top Sample: R.W. .09 @ 75°F = 78,000 ppm. chl.
Middle Sample: R.W. .08 @ 75°F = 90,000 ppm. chl.
Bottom Sample: R.W. .07 @ 75°F = 110,000 ppm. chl.

MISRUN: No packer seats.

Operator: The Anschutz Corp.
Address: See Distribution
Well Name and No.: Anschutz Ranch #3-2
Ticket No.: 13590
Date: 12-18-78
DST No.: 6
No. Final Copies: 13

Form 1

LYNES, INC.

Sampler Report

Company: The Anschutz Corp. Date: 12-18-78

Well Name & No.: Anschutz Ranch #3-2 Ticket No.: 13590

County: Summit State: Utah

Test Interval: 8076-8273' DST No.: 6

Total Volume of Sampler: 2000 cc.

Total Volume of Sample: 800 cc.

Pressure in Sampler: 60 psig

Oil: None cc.

Water: None cc.

Mud: 800 Gas cut cc.

Gas: .2 cu. ft.

Other: None

Resistivity

Make Up Water 3.0 @ 70°F of Chloride Content 1,900 ppm.

Mud Pit Sample .1 @ 70°F of Chloride Content 75,000 ppm.

Gas/Oil Ratio _____ Gravity _____ °API @ _____ °F

Where was sample drained _____

Remarks: _____

Form 5

LYNES, INC.

Distribution of Final Reports

Operator The Anschutz Corp. Well Name and No. Anschutz Ranch #3-2

Original & 1 copy: The Anschutz Corp., 555 17th St., Suite 2400, Denver, Colorado 80202
Attn: Charles Williams

3 copies: Narmco, Box 283, Houston, Texas 77001 Attn: Keith Hawkins

3 copies: Amoco Production Co., Security Life Bldg., Denver, Colorado 80202
Attn: Cliff Bruce

2 copies: Champlin Petroleum Co., Box 1257, Englewood, Colorado 80150 Attn: Pat Hiatt

1 copy: Narmco, 732 Republic Bldg., Denver, Colorado 80202 Attn: Neal Harr

1 copy: Ron Janc, Room 427, Sun-Mar Motel, Evanston, Wyoming 82930

1 copy: Utah Oil & Gas Comm., 1588 West North Temple, Salt Lake City, Utah 84111
Attn: Pat Driscoll

Form 6

Phone
522-1206 Area 303

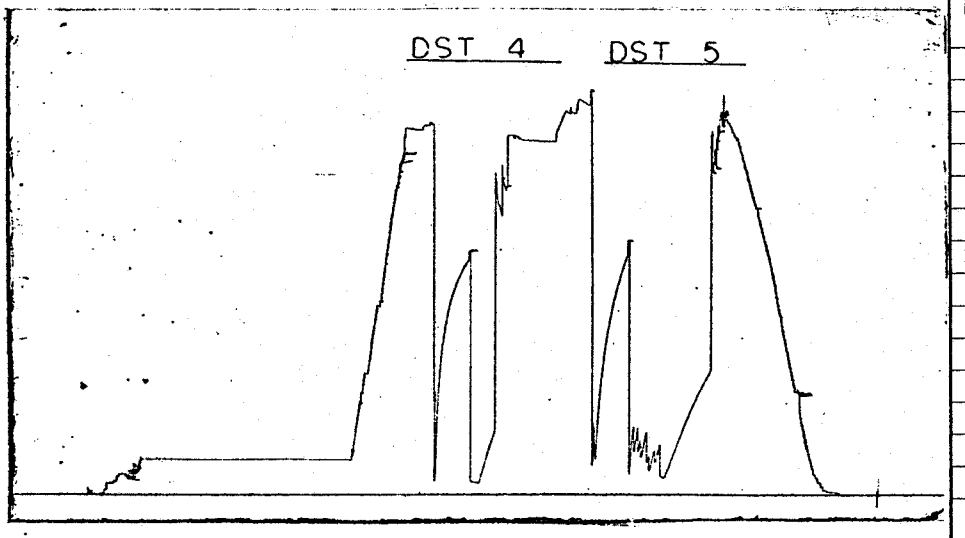
LYNES, INC

Box 3600
Sterling, Colo. 80751

Operator The Anschutz Corp.
Address See Distribution
Well Name and No. Anschutz Ranch #3-2
Ticket No. 13588
Date 12-15-78
DST No. 5
No. Final Copies 13

Contractor	Circle T Drlg. Co.	Top Choke	1/8"	Flow No. 1	5 Min.
Rig No.	10	Bottom Choke	3/4"	Shut-in No. 1	60 Min.
Spot	NW-SE	Size Hole	8 3/4"	Flow No. 2	60 Min.
Sec.	3	Size Rat Hole	--	Shut-in No. 2	90 Min.
Twp.	3 N	Size & Wt. D. P.	4 1/2" 16.60	Flow No. 3	-- Min.
Rng.	7 E	Size Wt. Pipe	--	Shut-in No. 3	-- Min.
Field	Wildcat	I. D. of D. C.	2 1/4"		
County	Summit	Length of D. C.	470'		
State	Utah	Total Depth	9310'	Bottom Hole Temp.	148°F
Elevation	7734' "K.B."	Interval Tested	8600-8797'	Mud Weight	9.9
Formation	Twin Creek	Type of Test	Inflate Straddle	Gravity	--
				Viscosity	57

Tool opened @ 10:52 AM.



Outside Recorder

PRD Make Kuster K-3
No. 15239 Cap. 5500 @ 8608'

Press		Corrected
Initial Hydrostatic	A	4501
Final Hydrostatic	K	4430
Initial Flow	B	359
Final Initial Flow	C	423
Initial Shut-in	D	2837
Second Initial Flow	E	255
Second Final Flow	F	209
Second Shut-in	G	1478
Third Initial Flow	H	--
Third Final Flow	I	--
Third Shut-in	J	--

Lynes Dist.: Rock Springs, WY.
Our Tester: Art Anderson
Witnessed By: Don Reese

Did Well Flow – Gas No Oil No Water No
RECOVERY IN PIPE: 320' Mud = 1.57 bbl.

Top Sample: R.W. .20 @ 70°F = 35,000 ppm. chl.
Middle Sample: R.W. .25 @ 70°F = 26,000 ppm. chl.

Blow Description:

1st Flow: Tool opened with a very weak blow and remained.

2nd Flow: Tool opened with a very weak blow, died in 35 minutes and remained.

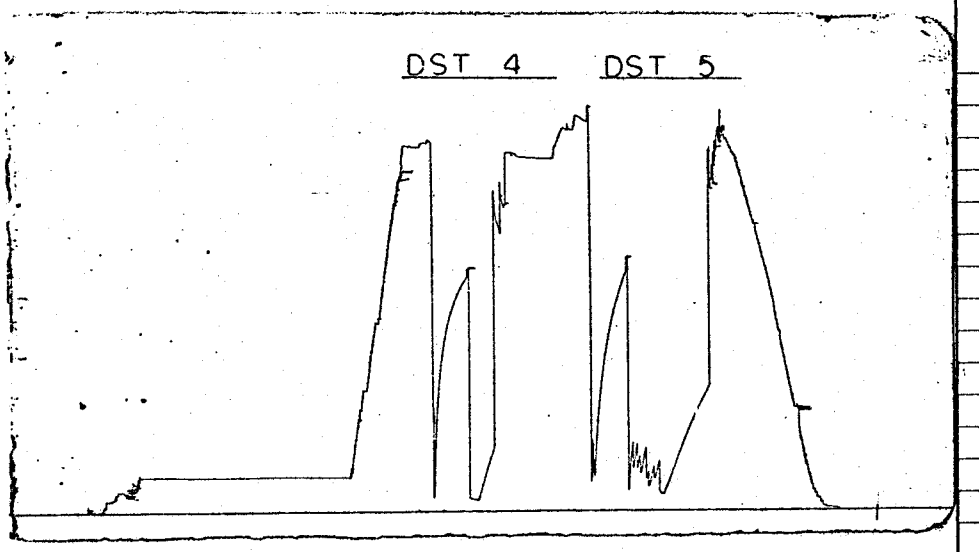
Second of two tests on same run hole.

Charts indicate slight plugging during both flow periods.

Form 1

LYNES, INC.

Operator The Anschutz Corp. Lease & No. Anschutz Ranch #3-2 DST No. 5

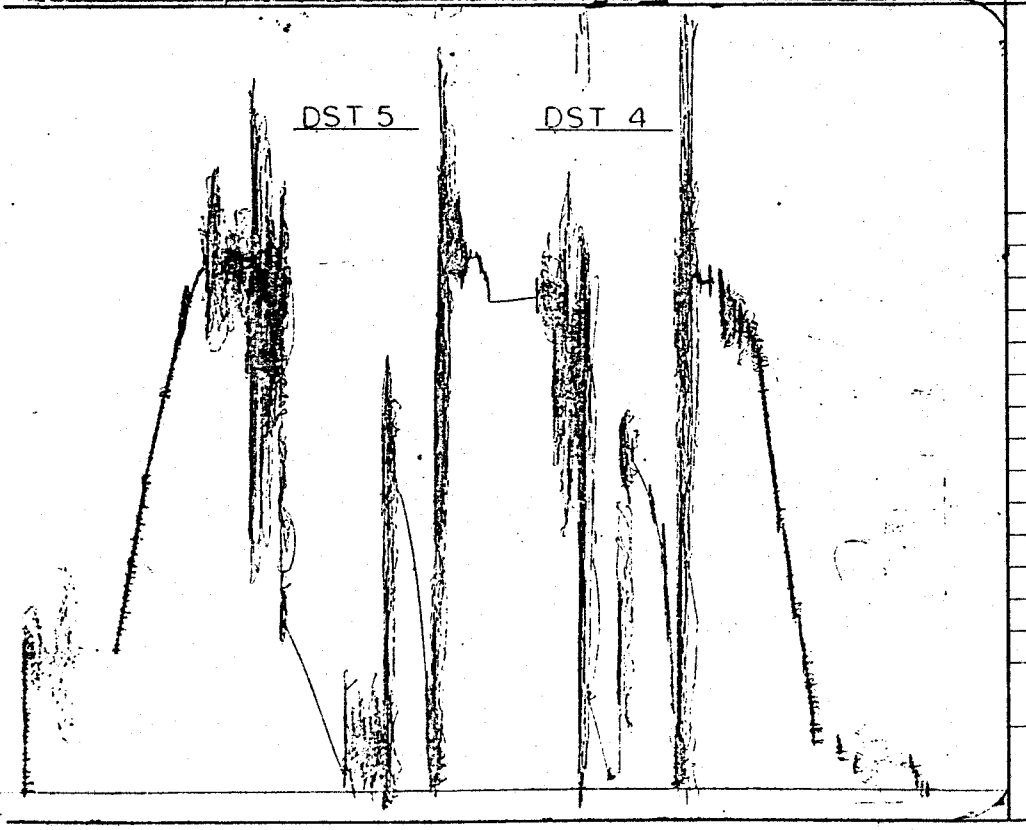


Outside Recorder

PRD Make Kuster K-3

No. 12983 Cap. 5950 @ 8608'

Press		Corrected
Initial Hydrostatic	A	4490
Final Hydrostatic	K	4421
Initial Flow	B	370
Final Initial Flow	C	415
Initial Shut-in	D	2830
Second Initial Flow	E	246
Second Final Flow	F	200
Second Shut-in	G	1464
Third Initial Flow	H	--
Third Final Flow	I	--
Third Shut-in	J	--
Pressure Below Bottom Packer Bled To		



Inside Recorder

PRD Make Kuster AK-1

No. 10238 Cap. 6600 @ 8591'

Press		Corrected
Initial Hydrostatic	A	4480
Final Hydrostatic	K	4415
Initial Flow	B	*
Final Initial Flow	C	*
Initial Shut-in	D	2828
Second Initial Flow	E	*
Second Final Flow	F	198
Second Shut-in	G	1470
Third Initial Flow	H	--
Third Final Flow	I	--
Third Shut-in	J	--
* Unreadable		
Pressure Below Bottom Packer Bled To		

Form 3

LYNES, INC.

Operator The Anschutz Corp. Lease & No. Anschutz Ranch #3-2 DST No. 5

Recorder No. 15239 @ 8608'

Initial Shut-In

0	Min.	423	Psig.
6	"	979	"
12	"	1409	"
18	"	1725	"
24	"	1968	"
30	"	2175	"
36	"	2347	"
42	"	2492	"
48	"	2625	"
54	"	2737	"
60	"	2837	"

Final Shut-In

0	Min.	209	Psig.
9	"	313	"
18	"	464	"
27	"	611	"
36	"	756	"
45	"	892	"
54	"	1025	"
63	"	1150	"
72	"	1263	"
81	"	1370	"
90	"	1478	"

Form 2

LYNES, INC.

Sampler Report

Company: The Anschutz Corp. Date: 12-15-78

Well Name & No.: Anschutz Ranch Ticket No.: 13588

County: Summit State: Utah

Test Interval: 8600-8797' DST No.: 5

Total Volume of Sampler: 2100 cc.

Total Volume of Sample: 1600 cc.

Pressure in Sampler: 0 psig

Oil: None cc.

Water: None cc.

Mud: 1600 cc.

Gas: None cu. ft.

Other: None

R.W. .1 @ 70°F = 86,000

Resistivity

Make Up Water 10.0 @ 60°F of Chloride Content 525 ppm.

Mud Pit Sample .2 @ 70°F of Chloride Content 35,000 ppm.

Gas/Oil Ratio _____ Gravity _____ °API @ _____ °F

Where was sample drained _____

Remarks: _____

Form 5

LYNES, INC.

Distribution of Final Reports

Operator The Anschutz Corp. Well Name and No. Anschutz Ranch #3-2

Original & 1 copy: The Anschutz Corp., 555 17th St., Suite 2400, Denver, Colorado 80202
Attn: Charles Williams

3 copies: Narmco, Box 283, Houston, Texas 77001 Attn: Keith Hawkins

3 copies: Amoco Production Co., Security Life Bldg,, Denver, Colorado 80202
Attn: Cliff Bruce

2 copies: Champlin Petroleum Co., Box 1257, Englewood, Colorado 80150 Attn: Pat Hiatt

1 copy: Narmco, 732 Republic Bldg., Denver, Colorado 80202 Attn: Neal Harr

1 copy: Ron Janc, Room 427, Sun-Mar Motel, Evanston, Wyoming 82930

1 copy: Utah Oil & Gas Comm., 1588 West North Temple, Salt Lake City, Utah 84111
Attn: Pat Driscoll

Form 6

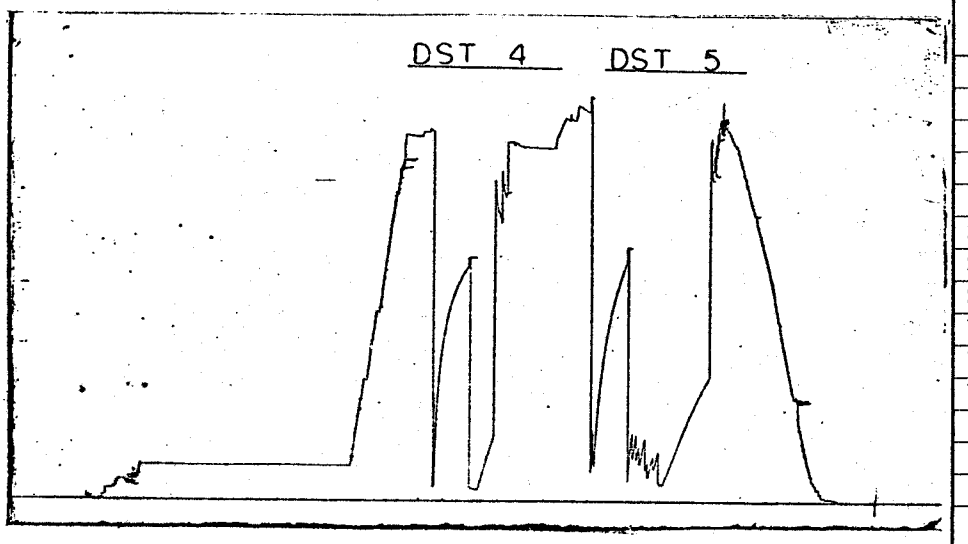
Phone
522-1206 Area 303

LYNES, INC

Box 3600
Sterling, Colo. 80751

Contractor	Circle T.Drlg. Co.	Top Choke	1/8"	Flow No. 1	5 Min.
Rig No.	10	Bottom Choke	3/4"	Shut-in No. 1	60 Min.
Spot	NW-SE	Size Hole	8 3/4"	Flow No. 2	15 Min.
Sec.	3	Size Rat Hole	--	Shut-in No. 2	30 Min.
Twp.	3 N	Size & Wt. D. P.	4 1/2" 16.60	Flow No. 3	-- Min.
Rng.	7 E	Size Wt. Pipe	--	Shut-in No. 3	-- Min.
Field	Wildcat	I. D. of D. C.	2 1/4"		
County	Summit	Length of D. C.	470'	Bottom Hole Temp.	--
State	Utah	Total Depth	9310'	Mud Weight	9.9
Elevation	7734' "K.B."	Interval Tested	8242-8439'	Gravity	--
Formation	Twin Creek	Type of Test	Inflate Straddle	Viscosity	54

Tool opened @ 6:00 AM.



Outside Recorder

PRD Make Kuster K-3
No. 15239 Cap. 5500 @ 8250'

Press		Corrected
Initial Hydrostatic	A	4304
Final Hydrostatic	K	4243
Initial Flow	B	193
Final Initial Flow	C	193
Initial Shut-in	D	2782
Second Initial Flow	E	175
Second Final Flow	F	145
Second Shut-in	G	747
Third Initial Flow	H	--
Third Final Flow	I	--
Third Shut-in	J	--

Lynes Dist.: Rock Springs, WY.
Our Tester: Art Anderson
Witnessed By: Don Reese

Did Well Flow – Gas No Oil No Water No
RECOVERY IN PIPE: 320' Mud = 1.57 bbl.

Top Sample: R.W. .20 @ 70°F = 35,000 ppm. chl.
Middle Sample: R.W. .25 @ 70°F = 26,000 ppm. chl.

Blow Description:

1st Flow: Tool opened with a 1/2" underwater blow, died immediately and remained.

2nd Flow: Tool opened with a 1/4" underwater blow, died in 3 minutes and remained.

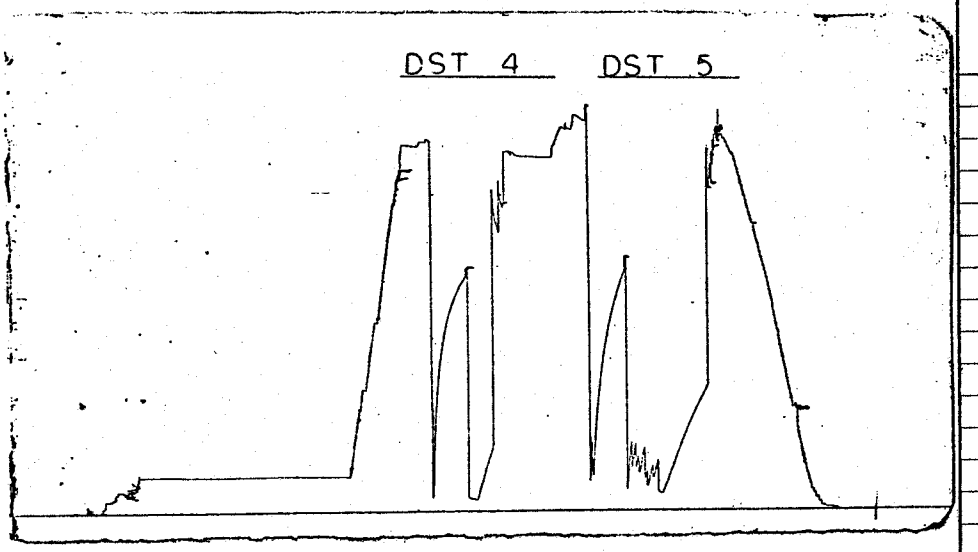
First of two tests on same run in hole.

Operator The Anschutz Corp. | Address See Distribution | Well Name and No. Anschutz Ranch #3-2 | Ticket No. 13588 | Date 12-15-78 | DST No. 4 | No. Final Copies 13

Form 1

LYNES, INC.

Operator The Anschutz Corp. Lease & No. Anschutz Ranch #3-2 DST No. 4

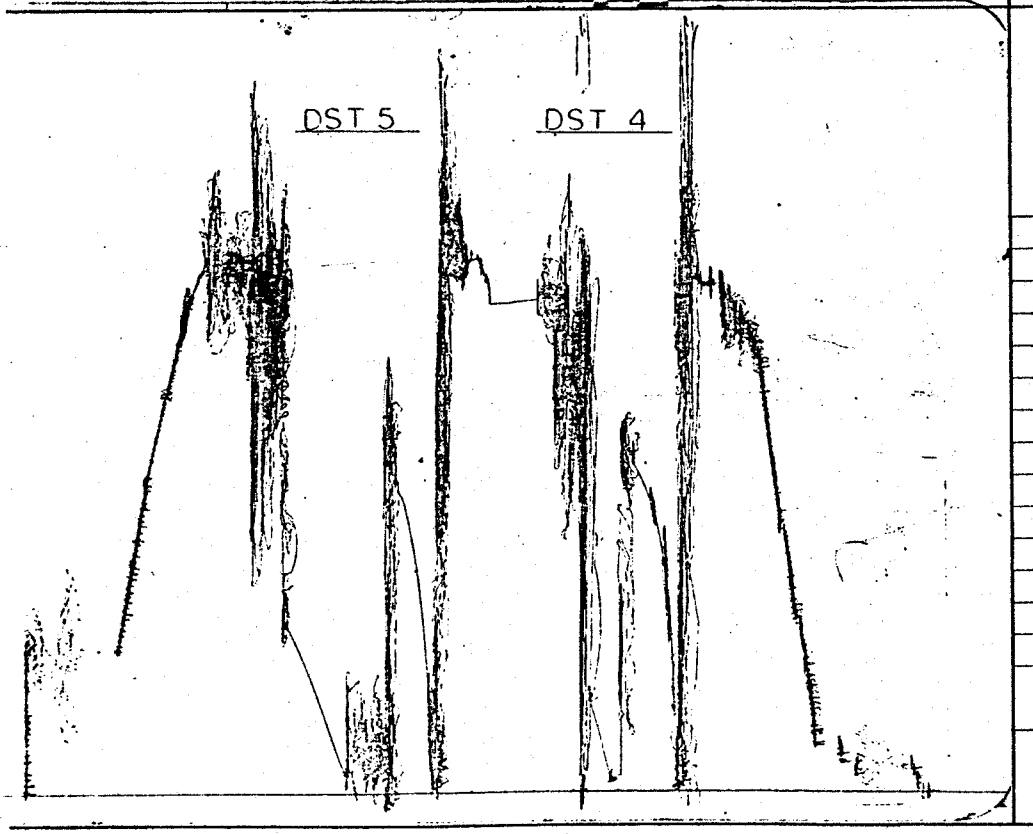


Outside Recorder

PRD Make Kuster K-3

No. 12983 Cap. 5950 @ 8250'

Press		Corrected
Initial Hydrostatic	A	4290
Final Hydrostatic	K	4234
Initial Flow	B	186
Final Initial Flow	C	186
Initial Shut-in	D	2776
Second Initial Flow	E	171
Second Final Flow	F	140
Second Shut-in	G	738
Third Initial Flow	H	--
Third Final Flow	I	--
Third Shut-in	J	--
Pressure Below Bottom Packer Bled To		



Inside Recorder

PRD Make Kuster AK-1

No. 10238 Cap. 6600 @ 8233'

Press		Corrected
Initial Hydrostatic	A	4280
Final Hydrostatic	K	4220
Initial Flow	B	*
Final Initial Flow	C	*
Initial Shut-in	D	2769
Second Initial Flow	E	160
Second Final Flow	F	140
Second Shut-in	G	730
Third Initial Flow	H	--
Third Final Flow	I	--
Third Shut-in	J	--
*Unreadable		
Pressure Below Bottom Packer Bled To		

Form 3

LYNES, INC.

Operator The Anschutz Corp. Lease & No. Anschutz Ranch #3-2 DST No. 4

Recorder 15239 @ 8250'

Initial Shut-In

0	Min.	193	Psig.
6	"	1249	"
12	"	1727	"
18	"	1991	"
24	"	2202	"
30	"	2349	"
36	"	2469	"
42	"	2563	"
48	"	2648	"
54	"	2717	"
60	"	2782	"

Final Shut-In

0	Min.	145	Psig.
3	"	193	""
6	"	260	"
9	"	324	"
12	"	386	"
15	"	452	"
18	"	517	"
21	"	577	"
24	"	632	"
27	"	691	"
30	"	747	"

Form 2

LYNES, INC.

Distribution of Final Reports

Operator The Anschutz Corp. Well Name and No. Anschutz Ranch #3-2

Original & 1 copy: The Anschutz Corp., 555 17th St., Suite 2400, Denver, Colorado 80202
Attn: Charles Williams

3 copies: Narmco, Box 283, Houston, Texas 77001 Attn: Keith Hawkins

3 copies: Amoco Production Co., Security Life Bldg., Denver, Colorado 80202
Attn: Cliff Bruce

2 copies: Champlin Petroleum Co., Box 1257, Englewood, Colorado 80150 Attn: Pat Hiatt

1 copy: Narmco, 732 Republic Bldg., Denver, Colorado 80202 Attn: Neal Harr

1 copy: Ron Janc, Room 427, Sun-Mar Motel, Evanston, Wyoming 82930

1 copy: Utah Oil & Gas Comm., 1588 West North Temple, Salt Lake City, Utah 84111
Attn: Pat Driscoll

Form 6

Phone
522-1206 Area 303

LYNES, INC

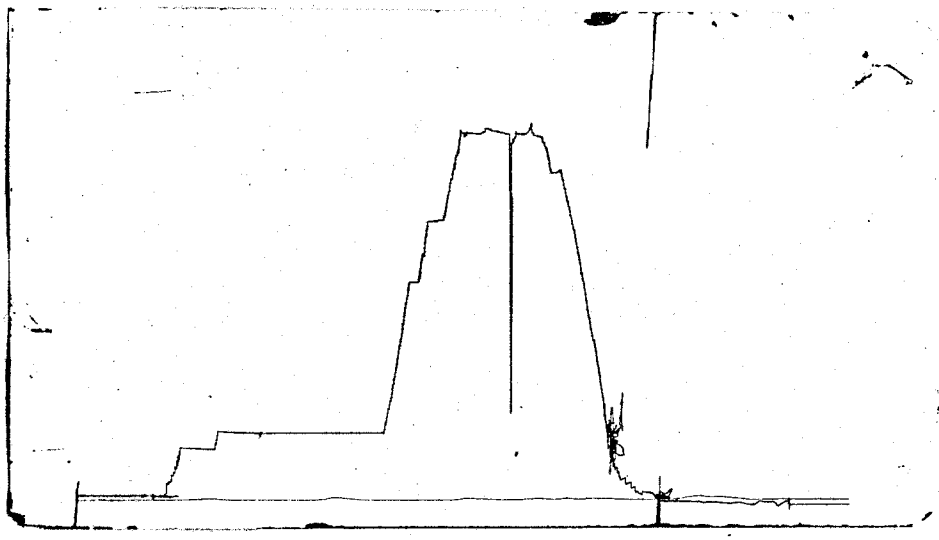
Box 3600
Sterling, Colo. 80751

Operator The Anschutz Corp. Address See Distribution

Well Name and No. Anschutz Ranch #3-2 Ticket No. 13587 Date 12-14-78 DST No. 3 No. Final Copies 13

Contractor	Circle T Drlg. Co.	Top Choke	1/8"	Flow No. 1	-- Min.
Rig No.	10	Bottom Choke	3/4"	Shut-in No. 1	-- Min.
Spot	NW-SE	Size Hole	8 3/4"	Flow No. 2	-- Min.
Sec.	3	Size Rat Hole	--	Shut-in No. 2	-- Min.
Twp.	3 N	Size & Wt. D. P.	4 1/2" 16.60	Flow No. 3	-- Min.
Rng.	7 E	Size Wt. Pipe	--	Shut-in No. 3	-- Min.
Field	Wildcat	I. D. of D. C.	2 1/4"		
County	Summit	Length of D. C.	470'		
State	Utah	Total Depth	9310'	Bottom Hole Temp.	140°F
Elevation	7734' "K.B."	Interval Tested	8238-8435'	Mud Weight	9.7
Formation	Twin Creek	Type of Test	Inflate Straddle	Gravity	--
				Viscosity	54

Tool opened @ 7:01



Outside Recorder

PRD Make Kuster K-3
No. 15239 Cap. _____ @ 8246'

Press		Corrected
Initial Hydrostatic	A	--
Final Hydrostatic	K	--
Initial Flow	B	--
Final Initial Flow	C	--
Initial Shut-in	D	--
Second Initial Flow	E	--
Second Final Flow	F	--
Second Shut-in	G	--
Third Initial Flow	H	--
Third Final Flow	I	--
Third Shut-in	J	--

Lynes Dist.: Rock Springs, WY.
Our Tester: Art Anderson
Witnessed By: Don Reese

Did Well Flow – Gas No Oil No Water No
RECOVERY IN PIPE:

MISRUN: No packer seats.

Form 1

LYNES, INC.

Distribution of Final Reports

Operator The Anschutz Corp. Well Name and No. Anschutz Ranch #3-2

Original & 1 copy: The Anschutz Corp., 555 17th St., Suite 2400, Denver, Colorado 80202
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1 copy: Ron Janc, Room 427, Sun-Mar Motel, Evanston, Wyoming 82930

1 copy: Utah Oil & Gas Comm., 1588 West North Temple, Salt Lake City, Utah 84111
Attn: Pat Driscoll

Form 6

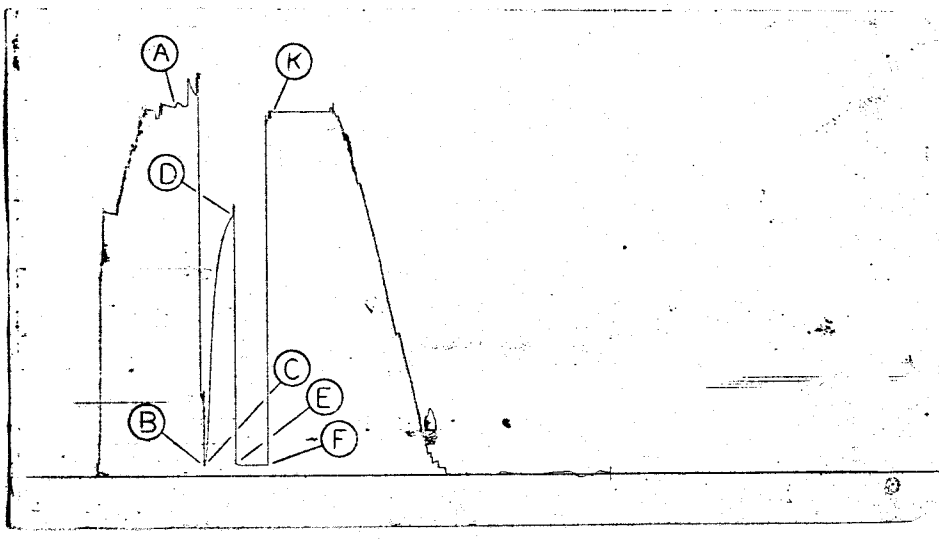
Phone
522-1206 Area 303

LYNES, INC

Box 3600
Sterling, Colo. 80751

Contractor	Circle T Drlg. Co.	Top Choke	1/8"	Flow No. 1	5 Min.
Rig No.	10	Bottom Choke	3/4"	Shut-in No. 1	60 Min.
Spot	NW-SE	Size Hole	8 3/4"	Flow No. 2	60 Min.
Sec.	3	Size Rat Hole	--	Shut-in No. 2	120 Min.
Twp.	3 N	Size & Wt. D. P.	4 1/2" 16.60	Flow No. 3	-- Min.
Rng.	7 E	Size Wt. Pipe	--	Shut-in No. 3	-- Min.
Field	Wildcat	I. D. of D. C.	2 1/4"		
County	Summit	Length of D. C.	533'	Bottom Hole Temp.	140°F
State	Utah	Total Depth	9310'	Mud Weight	9.8
Elevation	7734' "K.B."	Interval Tested	8470-8600'	Gravity	--
Formation	Sliderock	Type of Test	Inflate Straddle	Viscosity	54

Tool opened @ 7:24



Outside Recorder

PRD Make Kuster K-3
No. 15239 Cap. 5500 @ 8478'

Press		Corrected
Initial Hydrostatic	A	4380
Final Hydrostatic	K	4311
Initial Flow	B	115
Final Initial Flow	C	122
Initial Shut-in	D	3102
Second Initial Flow	E	133
Second Final Flow	F	122
Second Shut-in	G	*
Third Initial Flow	H	--
Third Final Flow	I	--
Third Shut-in	J	--

Lynes Dist.: Rock Springs, WY.
Our Tester: Art Anderson
Witnessed By: Don Reese

Did Well Flow – Gas No Oil No Water No
RECOVERY IN PIPE: 105' Mud = .51 bbl.
Recovery R.W.: .1 @ 65°F = 80,000 ppm. chl.

Blow Description:

1st Flow: Tool opened with a weak blow, increased to a 1 1/2" underwater blow and remained.

2nd Flow: Tool opened with a 1/2" underwater blow, began to decrease to a 1/4" underwater blow in 32 minutes and remained.

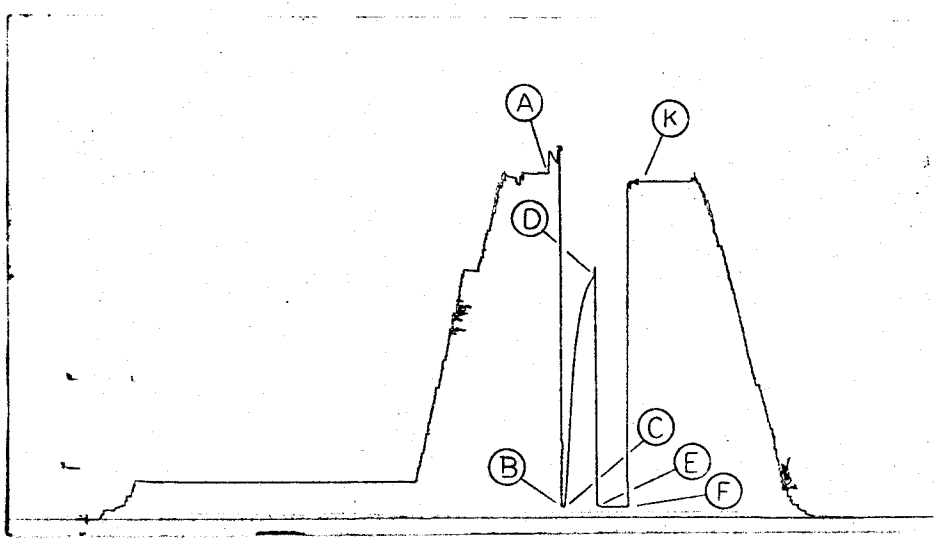
* Lost packer seats during final shut-in period.

Operator The Anschutz Corp. | Address See Distribution | Well Name and No. Anschutz Ranch #3-2 | Ticket No. 13586 | Date 12-12-78 | DST No. 2 | No. Final Copies 13

Form 1

LYNES, INC.

Operator The Anschutz Corp. Lease & No. Anschutz Ranch #3-2 DST No. 2

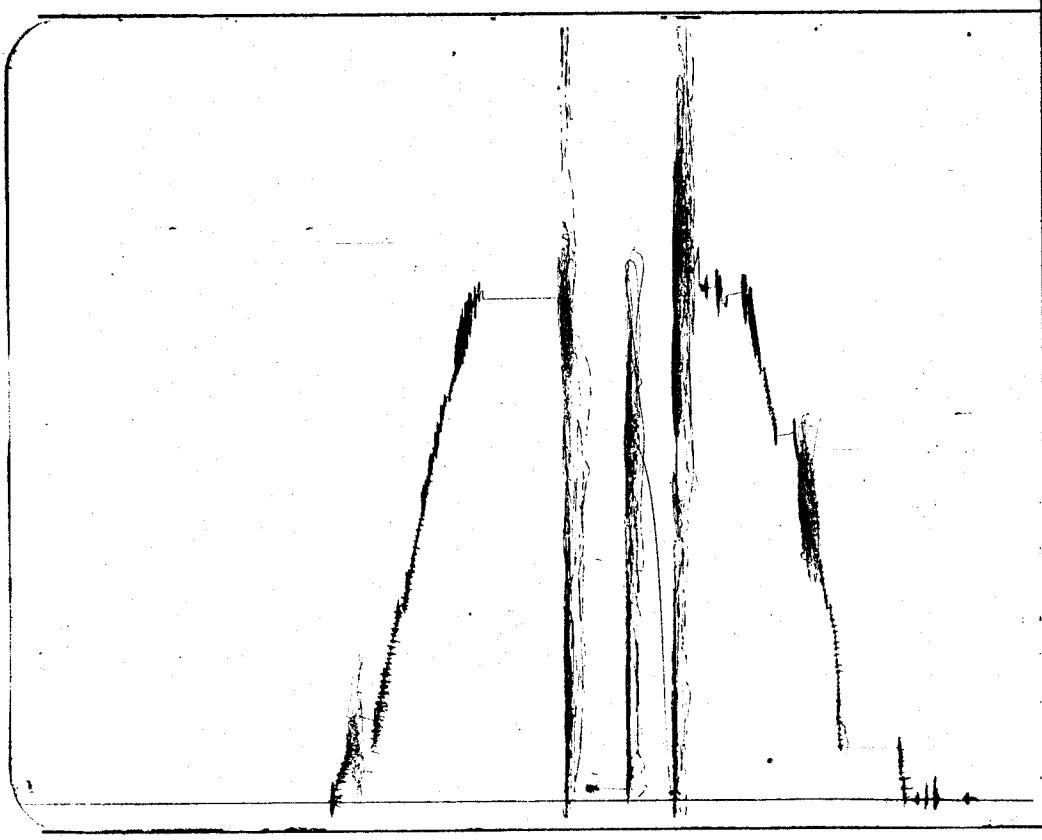


Outside Recorder

PRD Make Kuster K-3

No. 12983 Cap. 5950 @ 8478'

Press		Corrected
Initial Hydrostatic	A	4371
Final Hydrostatic	K	4307
Initial Flow	B	113
Final Initial Flow	C	113
Initial Shut-in	D	3100
Second Initial Flow	E	145
Second Final Flow	F	113
Second Shut-in	G	*
Third Initial Flow	H	--
Third Final Flow	I	--
Third Shut-in	J	--
Pressure Below Bottom Packer Bled To		



Inside Recorder

PRD Make Kuster AK-1

No. 10238 Cap. 6600 @ 8456'

Press		Corrected
Initial Hydrostatic	A	4395
Final Hydrostatic	K	4320
Initial Flow	B	65
Final Initial Flow	C	67
Initial Shut-in	D	3106
Second Initial Flow	E	100
Second Final Flow	F	110
Second Shut-in	G	*
Third Initial Flow	H	--
Third Final Flow	I	--
Third Shut-in	J	--
Pressure Below Bottom Packer Bled To		

Form 3

LYNES, INC.

Operator The Anschutz Corp. Lease & No. Anschutz Ranch #3-2 DST No. 2

Recorder No. 15239 @ 8478'

Initial Shut-In

0	Min.	122	Psig.
6	"	400	"
12	"	1132	"
18	"	1813	"
24	"	2271	"
30	"	2547	"
36	"	2743	"
42	"	2878	"
48	"	2975	"
54	"	3046	"
60	"	3102	"

Form 2

LYNES, INC.

Sampler Report

Company: The Anschutz Corp. Date: 12-12-78

Well Name & No.: Anschutz Ranch #3-2 Ticket No.: 13586

County: Summit State: Utah

Test Interval: 8470-8600' DST No.: 2

Total Volume of Sampler: 2100 cc.

Total Volume of Sample: 1200 cc.

Pressure in Sampler: 0 psig

Oil: None cc.

Water: None cc.

Mud: 1200 cc.

Gas: None cu. ft.

Other: None

Resistivity

Make Up Water 6.0 @ 55°F of Chloride Content 1,150 ppm.

Mud Pit Sample .7 @ 70°F of Chloride Content 8,800 ppm.

Gas/Oil Ratio _____ Gravity _____ °API @ _____ °F

Where was sample drained On location.

Remarks:

Form 5

LYNES, INC.

Distribution of Final Reports

Operator The Anschutz Corp. Well Name and No. Anschutz Ranch #3-2

Original & 1 copy: The Anschutz Corp., 555 17th St., Suite 2400, Denver, Colorado 80202

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1 copy: Ron Janc, Room 427, Sun-Mar Motel, Evanston, Wyoming 82930

1 copy: Utah Oil & Gas Comm., 1588 West North Temple, Salt Lake City, Utah 84111

Attn: Pat Driscoll

Form 6

DUNN RESEARCH LABORATORIES

P.O. Box 266 Fort Duchesne, Utah 84026 (801) 722-2254

LABORATORY NUMBER W-5768
SAMPLE TAKEN 12-12-78
SAMPLE RECEIVED 12-13-78
RESULTS REPORTED 12-15-78

SAMPLE DESCRIPTION FIELD NO.
COMPANY Anschutz Corp. LEASE Anschutz Ranch WELL NO. 3-2
FIELD Wildcat COUNTY Summit STATE Utah
SAMPLE TAKEN FROM Bottom of Fluid DST#1
PRODUCING FORMATION Nuggett TOP
REMARKS

SAMPLE TAKEN BY Randy Ripple

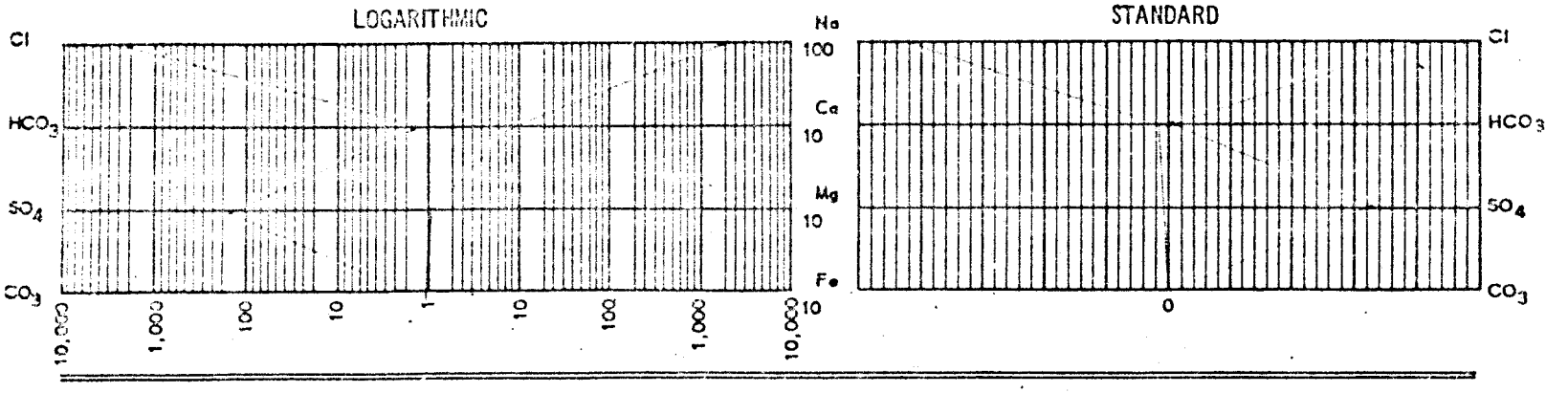
CHEMICAL AND PHYSICAL PROPERTIES

SPECIFIC GRAVITY @60/60° F. 1.0814 pH 9.82 RES. 0.077 OHM METERS @ 77°F

TOTAL HARDNESS 118.9 mg/l as $CaCO_3$ TOTAL ALKALINITY 256.00 mg/l as $CaCO_3$

CONSTITUENT	MILLIGRAMS PER LITER mg/L	MILLEQUIVALENTS PER LITER MEQ/L		REMARKS
CALCIUM - Ca^{++}	176.0	8.80		
MAGNESIUM - Mg^{++}	1.9	0.16		
SODIUM - Na^{+}	50,100.0	2178.26		
BARIUM (INCL. STRONTIUM) - Ba^{++}	0.9	0.01		
TOTAL IRON - Fe^{++} AND Fe^{+++}	0.6	0.02	2187.3	
BICARBONATE - HCO_3^{-}	85.4	1.40		
CARBONATE - CO_3^{--}	69.6	2.32		
SULFATE - SO_4^{--}	7,850.0	163.54		
CHLORIDE - Cl^{-}	71,992.4	2027.95	2195.2	
TOTAL DISSOLVED SOLIDS	132,520.0			

MILLEQUIVALENTS PER LITER



ANALYST

CHECKED

WATER RESEARCH LABORATORIES

P.O. Box 266 Fort Duchesne, Utah 84026 (801) 722-2254

LABORATORY NUMBER W-5767
SAMPLE TAKEN 12-12-78
SAMPLE RECEIVED 12-13-78
RESULTS REPORTED 12-15-78

SAMPLE DESCRIPTION FIELD NO.
COMPANY Anschutz Corp. LEASE Anschutz Ranch WELL NO. 3-2
FIELD Wildcat COUNTY Summit STATE Utah
SAMPLE TAKEN FROM Middle of Fuild DST#1
PRODUCING FORMATION Nugcett TOP
REMARKS

SAMPLE TAKEN BY Randy Ripple

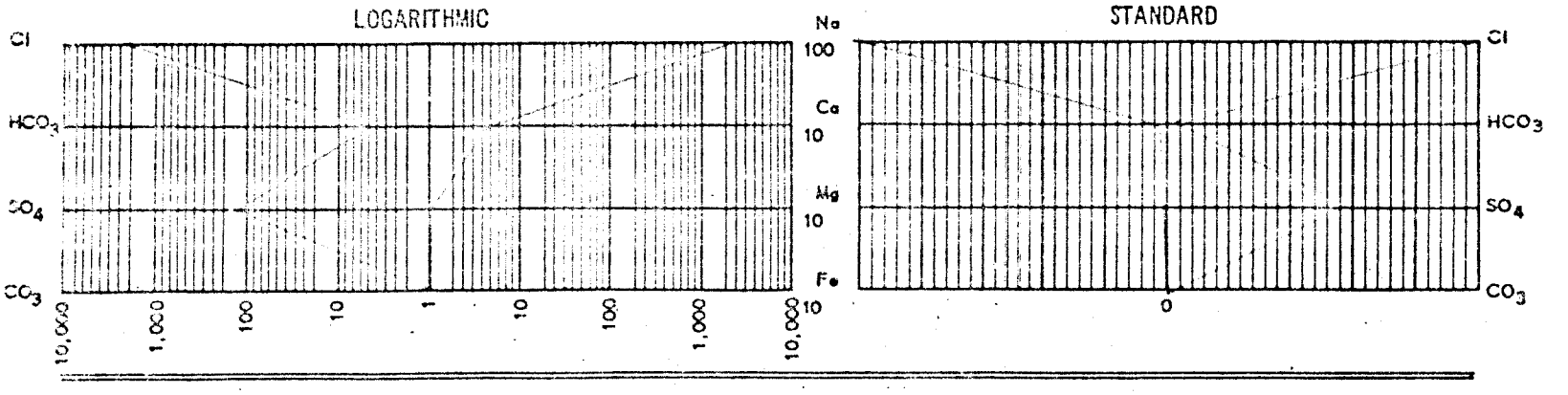
CHEMICAL AND PHYSICAL PROPERTIES

SPECIFIC GRAVITY @60/60° F. 1.1033 pH 10.23 RES. 0.080 OHM METERS @ 77°F

TOTAL HARDNESS 310.0 mg/L as $CaCO_3$ TOTAL ALKALINITY 598.00 mg/L as $CaCO_3$

CONSTITUENT	MILLIGRAMS PER LITER MG/L	MILLEQUIVALENTS PER LITER MEQ/L		REMARKS
CALCIUM - Ca^{++}	118.0	5.90		
MAGNESIUM - Mg^{++}	1.7	0.14		
SODIUM - Na^{+}	59,600.0	2591.30		
BARIUM (INCL. STRONTIUM) - Ba^{++}	4.6	0.07		
TOTAL IRON - Fe^{++} AND Fe^{+++}	4.7	0.17	2507.6	
BICARBONATE - HCO_3^{-}	353.9	5.80		
CARBONATE - CO_3^{--}	10.8	0.36		
SULFATE - SO_4^{--}	7,050.0	146.88		
CHLORIDE - CL^{-}	86,790.4	2444.80	2597.8	
TOTAL DISSOLVED SOLIDS	159,920.0			

MILLEQUIVALENTS PER LITER



ANALYST

CHECKED

P.O. Box 266 Fort Duchesne Utah 84026 (801) 722-2254

RECEIVED
DEC 19 1978
GAS, & MINING

LABORATORY NUMBER W-5765
SAMPLE TAKEN 12-12-78
SAMPLE RECEIVED 12-13-78
RESULTS REPORTED 12-15-78

SAMPLE DESCRIPTION
COMPANY Anschutz Corp. LEASE Anschutz Ranch FIELD NO. WELL NO. 3-2
FIELD Wildcat COUNTY Summit STATE Utah
SAMPLE TAKEN FROM Sampler DST-1
PRODUCING FORMATION nuggett TOP
REMARKS

SAMPLE TAKEN BY Randy Ripple

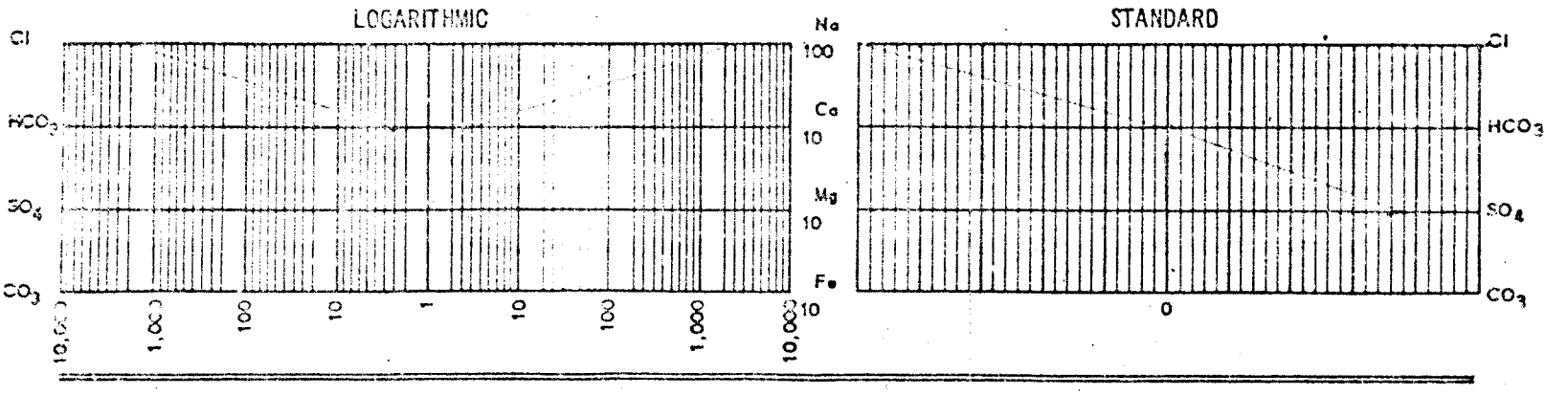
CHEMICAL AND PHYSICAL PROPERTIES

SPECIFIC GRAVITY @60/60° F. 1.109½ pH 9.95 RES. 0.075 OHM METERS @ 77°F

TOTAL HARDNESS 182.7 mg/L as $CaCO_3$ TOTAL ALKALINITY 510.00 mg/L as $CaCO_3$

CONSTITUENT	MILLIGRAMS PER LITER mg/L	MILLEQUIVALENTS PER LITER MEQ/L		REMARKS
CALCIUM - Ca^{++}	71.0	3.55		
MAGNESIUM - Mg^{++}	1.0	0.08		
SODIUM - Na^{+}	67,400.0	2930.43		
BARIUM (INCL. STRONTIUM) - Ba^{++}	1.0	0.01		
TOTAL IRON - Fe^{++} AND Fe^{+++}	0.7	0.03	2934.1	
BICARBONATE - HCO_3^{-}	200.0	3.28		
CARBONATE - CO_3^{--}	109.2	3.64		
SULFATE - SO_4^{--}	8,850.0	184.38		
CHLORIDE - Cl^{-}	94,491.4	2661.73	2853.0	
TOTAL DISSOLVED SOLIDS	171,520.0			

MILLEQUIVALENTS PER LITER



ANALYST

CHECKED

DE ROSSETT LABORATORIES

P.O. Box 266 Fort Duchesne, Utah 84026 (801) 722-2254

LABORATORY NUMBER W-5766
SAMPLE TAKEN 12-12-78
SAMPLE RECEIVED 1-2-13-78
RESULTS REPORTED 12-15-78

SAMPLE DESCRIPTION FIELD NO.
COMPANY Anschutz Corp. LEASE Anschutz Ranch WELL NO. 3-2
FIELD Wildcat COUNTY Summit STATE Utah
SAMPLE TAKEN FROM Top of Fluid DST#1
PRODUCING FORMATION Nugget TOP
REMARKS

SAMPLE TAKEN BY Randy Ripple

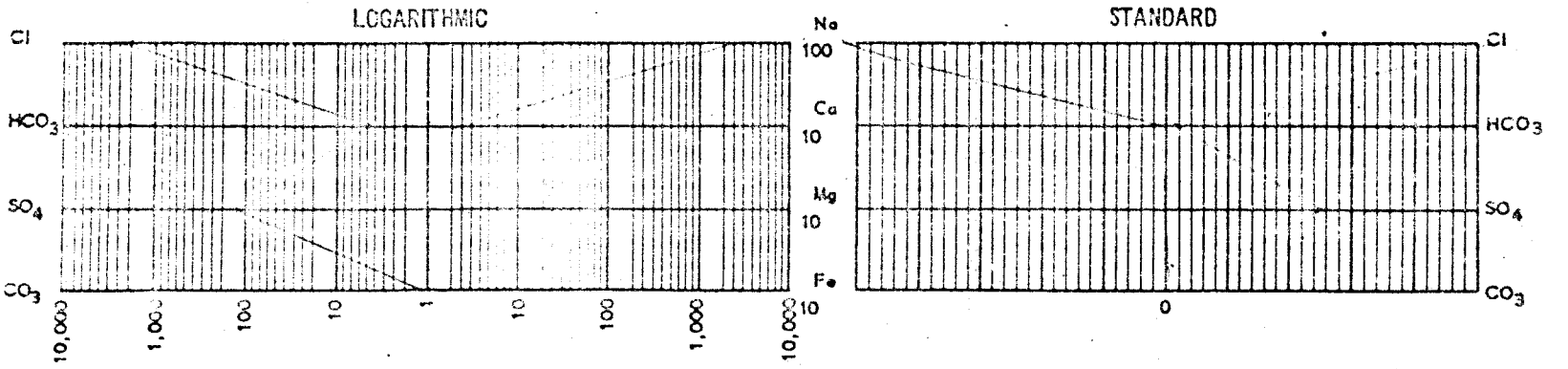
CHEMICAL AND PHYSICAL PROPERTIES

SPECIFIC GRAVITY @60/60° F. 1.1133 pH 10.20 RES. 0.075 OHM METERS @ 77°F

TOTAL HARDNESS 118.9 mg/L as $CaCO_3$ TOTAL ALKALINITY 648.00 mg/L as $CaCO_3$

CONSTITUENT	MILLIGRAMS PER LITER mg/L	MILLEQUIVALENTS PER LITER MEQ/L		REMARKS
CALCIUM - Ca^{++}	45.0	2.25		
MAGNESIUM - Mg^{++}	1.3	0.11		
SODIUM - Na^{+}	71,700.0	3117.39		
BARIUM (INCL. STRONTIUM) - Ba^{++}	0.8	0.01		
TOTAL IRON - Fe^{++} AND Fe^{+++}	0.6	0.02	3119.8	
BICARBONATE - HCO_3^{-}	349.0	5.72		
CARBONATE - CO_3^{--}	45.6	1.52		
SULFATE - SO_4^{--}	6200.0	129.17		
CHLORIDE - CL^{-}	105,800.0	2983.10	3119.5	
TOTAL DISSOLVED SOLIDS	184,920.0			

MILLEQUIVALENTS PER LITER



ANALYST

CHECKED

FLUID SAMPLE DATA

Sampler Pressure 10 P.S.I.G. at Surface
Recovery: Cu. Ft. Gas .028
cc. Oil
cc. Water 1850
cc. Mud
Tot. Liquid cc.
Gravity ° API @ °F.
Gas/Oil Ratio cu. ft./bbl.

			RESISTIVITY		CHLORIDE CONTENT
Recovery Water		@		°F.	ppm
Recovery Mud	.11	@	55	°F.	80,000 ppm
Recovery Mud Filtrate		@		°F.	ppm
Mud Pit Sample	.08	@	50	°F.	115,000 ppm
Mud Pit Sample Filtrate		@		°F.	ppm

Mud Weight 9.7 vis 54 sec

Date 12-11-78 Ticket Number 438365
Kind of Job OPEN HOLE TEST Halliburton District VERNAL
Tester R. RIPPLE Witness DON REESE
Drilling Contractor CIRCLE "T" DRILLING COMPANY #10

EQUIPMENT & HOLE DATA PW

Formation Tested Nugget
Elevation Ft.
Net Productive Interval Ft.
All Depths Measured From Kelly Bushing
Total Depth 9340' Ft.
Main Hole/Casing Size 8 3/4"
Drill Collar Length 901.68' I.D. 2 1/4"
Drill Pipe Length 8266' I.D. 3.826"
Packer Depth(s) 9197' - 9205' Ft.
Depth Tester Valve 9180' Ft.

Cushion TYPE AMOUNT Ft. Depth Back Pres. Valve Surface Choice 1"-1/8" Bottom Choice .75"

Recovered 124 Feet of mud.
Recovered 598 Feet of mud cut water.
Recovered Feet of
Recovered Feet of
Recovered Feet of
Remarks

Mea. From Tester Valve

- SEE PRODUCTION TEST DATA SHEET -

TEMPERATURE	Gauge No. 1531 Depth: 9182 Ft.	Gauge No. 1530 Depth: 9337 Ft.	Gauge No. Depth: Ft.	TIME
	24 Hour Clock	24 Hour Clock	Hour Clock	Tool Opened 1348 A.M. P.M.
Est. 142 °F.	Blanked Off No	Blanked Off Yes	Blanked Off	
Actual °F.	Pressures	Pressures	Pressures	Opened Bypass 1802 A.M. P.M.

			Field	Office	Field	Office	Reported Minutes	Computed Minutes
Initial Hydrostatic			4685	4685	4934	4752		
First Period	Flow	Initial	41	53	167	205	—	—
		Final	122	122	209	217	8	7
	Closed in		3356	3339	3404	3406	63	67
Second Period	Flow	Initial	102	138	209	238	—	—
		Final	407	391	418	451	61	57
	Closed in		3317	3335	3383	3398	120	120
Third Period	Flow	Initial					—	—
		Final						
	Closed in							
Final Hydrostatic			4805	4677	4810	4738	—	—

Legal Location Sec. - Twp. - Rng. 3 - 3 N - 7 E
Lease Name ANSCHUTZ RANCH
Well No. 3-2
Test No.
Tested Interval 9205' - 9340'
Field Area WILDCAT
County SUMMIT
State UTAH
Lease Owner/Company Name THE ANSCHUTZ CORPORATION

FORM 181-R2—PRINTED IN U.S.A.

FORMATION TEST DATA

LITTLE'S 102548 5M 9/76

14

Casing perfs. _____ Bottom choke _____ Surf. temp _____ °F Ticket No. 438365
Gas gravity _____ Oil gravity _____ GOR _____
Spec. gravity _____ Chlorides _____ ppm Res. _____ @ _____ °F
INDICATE TYPE AND SIZE OF GAS MEASURING DEVICE USED _____

Date 12-11-78 Time a.m. p.m.	Choke Size	Surface Pressure psi	Gas Rate MCF	Liquid Rate BPD	Remarks
0700					On location.
0800					Made up tools.
0945					Went in hole with tools.
1348					Opened tool with 1/4" blow increasing
					to 2" in water.
1356					Closed tool.
1501					Reopened tool with a 1/4" blow increasing
					to 1 1/2" blow in 10 minutes.
1511	1/8"				1½" blow in water.
1521	"				3" blow in water.
1531	"				4" blow in water.
1541	"				4" blow in water.
1551	"				4¼" blow in water.
1601	"				4½" blow in water.
1602					Closed tool.
1802					Pulled tool loose.
1815					Pulled out of hole.
2030					Shut down rig until daylight.
12-12-78					
1100					Break tools down.
1200					Through with job.

PRODUCTION TEST DATA

Gauge No. 1531	Depth 9182'	Clock No. 11654	24 hour	Ticket No. 438365

	First Flow Period		First Closed In Pressure			Second Flow Period		Second Closed In Pressure			Third Flow Period		Third Closed In Pressure		
	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	$\text{Log}\frac{t+\theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	$\text{Log}\frac{t+\theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	$\text{Log}\frac{t+\theta}{\theta}$	PSIG Temp. Corr.
0	.000	53	.000		122	.000	138	.000		391					
1	.0037	55	.0374		3137*	.0240	191**	.0275		2869					
2	.0074	65	.0510		3224	.0582	232	.0549		3109					
3	.0111	75	.0647		3262	.0924	283	.0824		3192					
4	.0148	84	.0783		3286	.1266	326	.1099		3236					
5	.0186	102	.0919		3298	.1608	356	.1374		3262					
6	.0223	114	.1055		3310	.1950	391	.1648		3280					
7	.0260	122	.1191		3317			.1923		3294					
8			.1327		3323			.2198		3304					
9			.1463		3327			.2472		3312					
10			.1599		3331			.2747		3317					
11			.1735		3333			.3022		3323					
12			.1871		3337			.3296		3327					
13			.2008		3339			.3571		3331					
14			.2144		3339			.3846		3333					
15			.2280		3339			.4120		3335					

Gauge No. 1530	Depth 9337'	Clock No. 4090	24 hour

0	.000	205	.000		217	.000	238	.000		451					
1	.0036	200	.0376		3211*	.0241	263**	.0275		2944					
2	.0071	196	.0513		3290	.0585	301	.0549		3174					
3	.0107	196	.0649		3327	.0929	351	.0824		3255					
4	.0143	198	.0786		3350	.1272	392	.1099		3296					
5	.0179	211	.0923		3366	.1616	422	.1374		3325					
6	.0214	219	.1060		3377	.1960	451	.1648		3344					
7	.0250	217	.1196		3381			.1923		3358					
8			.1333		3387			.2198		3369					
9			.1470		3393			.2472		3375					
10			.1606		3395			.2747		3383					
11			.1743		3400			.3022		3387					
12			.1880		3402			.3296		3391					
13			.2016		3404			.3571		3395					
14			.2153		3406			.3846		3398					
15			.2290		3406			.4120		3398					
Reading Interval	1		4			10		8							Minutes

REMARKS: * = 11 minute interval. ** = 7 minute interval.

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SPECIAL PRESSURE DATA

TICKET NO. 438365

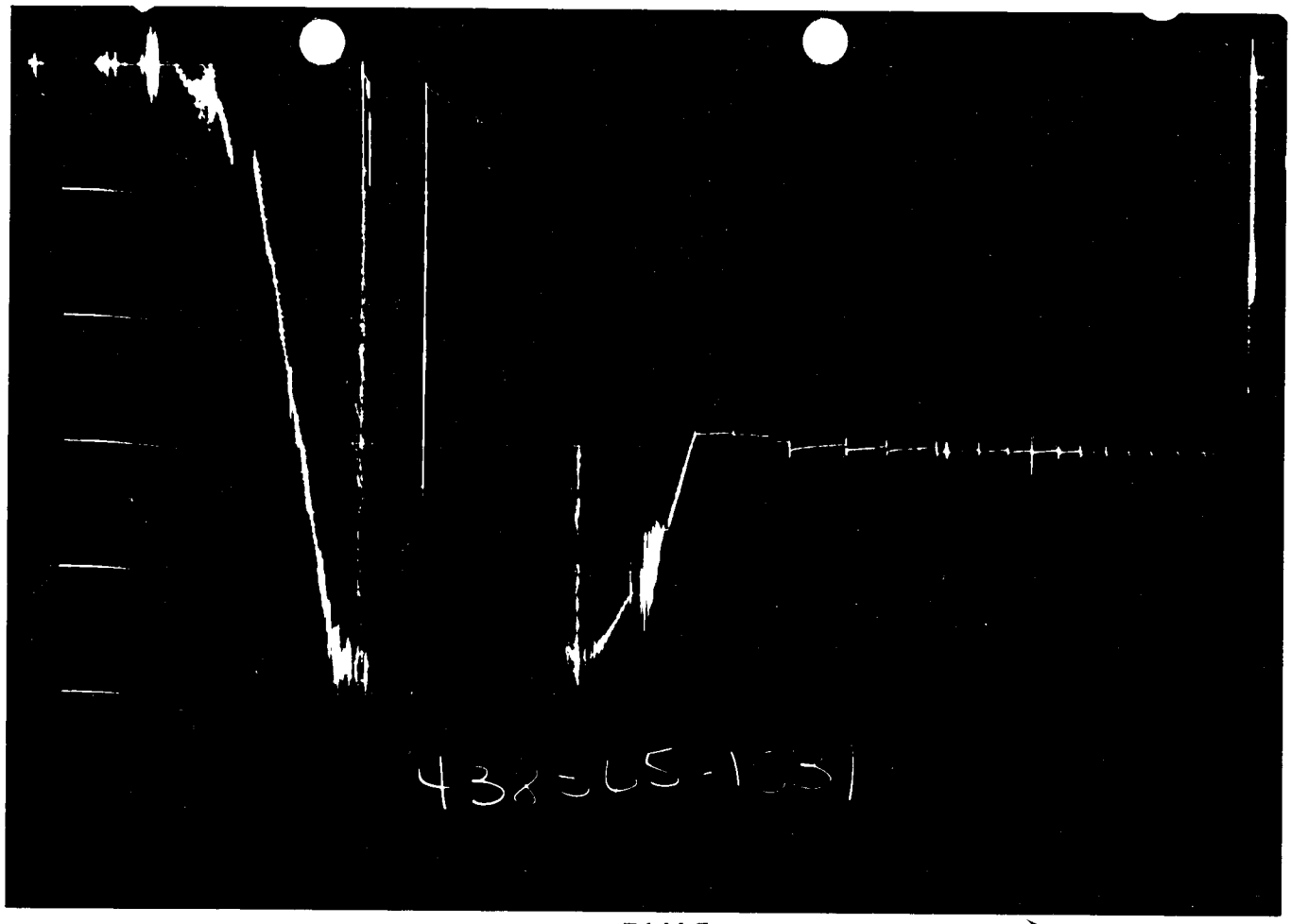
	O. D.	I. D.	LENGTH	DEPTH
Drill Pipe or Tubing				
Reversing Sub	6 1/2"	3"	.92'	
Water Cushion Valve				
Drill Pipe	4 1/2"	3.826"	8266'	
Drill Collars	6 3/4"	2 1/4"	901.68'	
Handling Sub & Choke Assembly				
~~Dual CIP Valve~~ X-Over	5 7/8"	3 1/8"	.63'	
Dual CIP Sampler	5"	.87"	6.75'	9175'
Hydro-Spring Tester	5"	.75"	5'	9180'
Multiple CIP Sampler				
Extension Joint				
AP Running Case	5"	3.06"	4'	9182'
Hydraulic Jar	5"	1.75"	5'	
VR Safety Joint	5"	1"	3'	
Pressure Equalizing Crossover				
Packer Assembly	7 3/4"	1.53"	5.75'	9197'
Distributor	5"	1.68"	2'	
Packer Assembly	7 3/4"	1.53"	5.75'	9205'
~~Flush Joint Anchor~~ Safety Jt.	5 3/4"	1.50"	4'	
Pressure Equalizing Tube				
Blanked-Off B.T. Running Case				
Drill Collars				
Anchor Pipe Safety Joint	5 3/4"	2.87"	26'	
Packer Assembly				
Distributor				
Packer Assembly				
~~Anchor Pipe Safety Joint~~ X-Over	5 7/8"	3 1/4"	.66'	
~~Side Wall Anchor~~ Drill Collar	6 3/4"		92.98'	
~~Drill Collars~~ X-Over	6"	2 7/8"	.72'	
Flush Joint Anchor	5 3/4"	2.87"	5'	
Blanked-Off B.T. Running Case	5 3/4"	2.50"	4'	9337'
Total Depth				9340'

FORM 187-R1—PRINTED IN U.S.A.

EQUIPMENT DATA

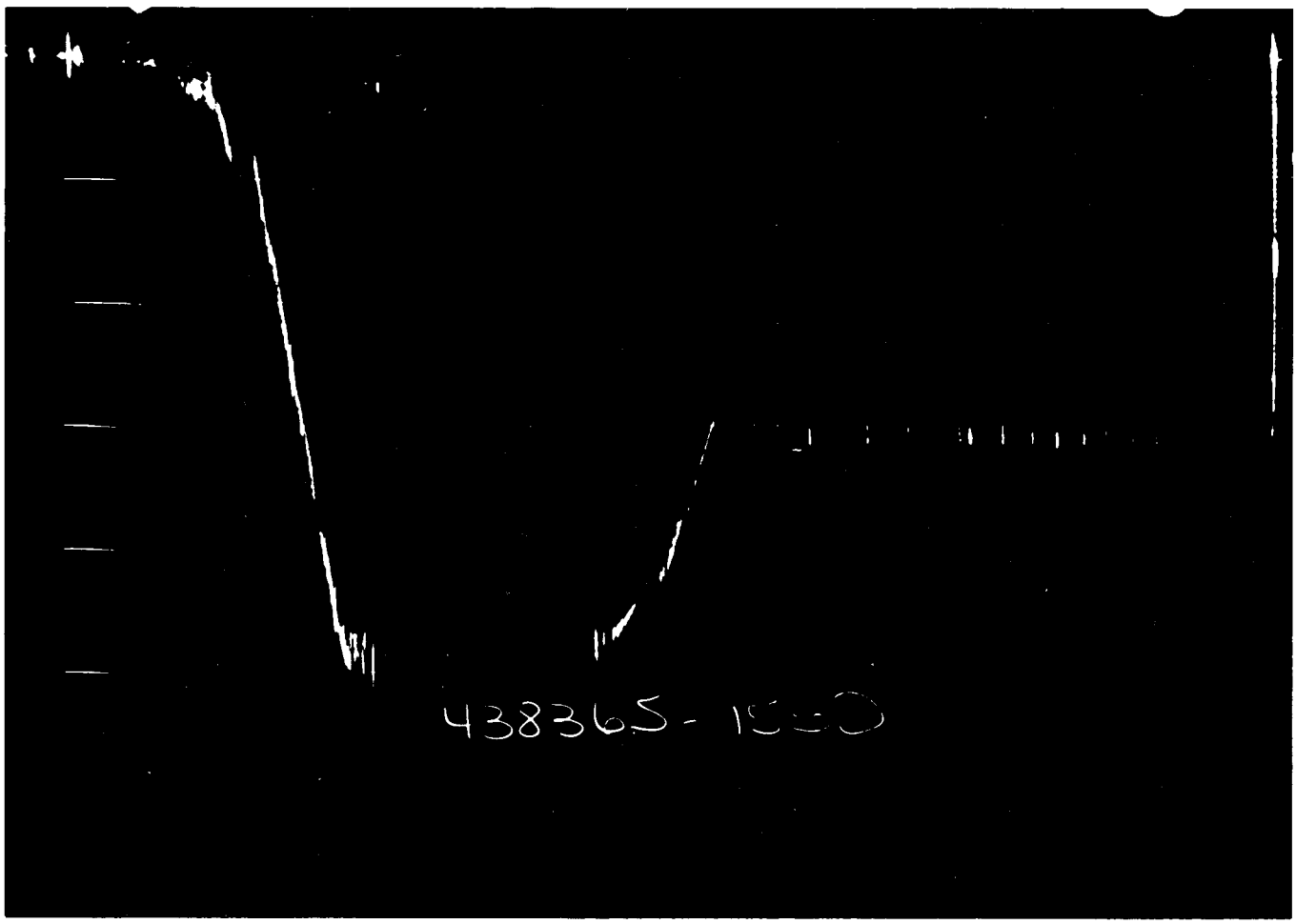
LITTLE'S 96676 75C 8/74

4



PRESSURE

TIME



Each Horizontal Line Equal to 1000 p.s.i.

10

Form OGCC-3

STATE OF UTAH

OIL & GAS CONSERVATION COMMISSION

SUBMIT IN DUPLICATE*
(See other instructions on reverse side)

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

RECEIVED AUG 10 1979 DIVISION OF GAS, & MINING

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: The Anschutz Corporation

3. ADDRESS OF OPERATOR: 555 17th St., #2400, Denver, Colorado 80202

4. LOCATION OF WELL (*Report location clearly and in accordance with any State requirements*)*
At surface: 2103' FSL & 2041' FEL
At top prod. interval reported below
At total depth

5. LEASE DESIGNATION AND SERIAL NO.: Fee

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME: Anschutz Ranch

9. WELL NO.: 3-2

10. FIELD AND POOL, OR WILDCAT: Anschutz Ranch

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA: Sec. 3-T3N-R7E

14. PERMIT NO. API 43-043-30084 | DATE ISSUED 9-19-78

12. COUNTY OR PARISH: Summit | 13. STATE: Utah

15. DATE SPUDDED	16. DATE T.D. REACHED	17. DATE COMPL. (*Ready to prod.*)	18. ELEVATIONS (DF, RKB, RT, GR, ETC.)*	19. ELEV. CASINGHEAD
10-3-78	12-8-78	5-9-79	7717' GR	7717'

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
9310'	8600'		→	0-9310	-0-

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)*: Twin Creek 8090-8600

25. WAS DIRECTIONAL SURVEY MADE: yes

26. TYPE ELECTRIC AND OTHER LOGS RUN: DIL, Sonic, DIP, CNL-FDC, Velocity CBL, CCL

27. WAS WELL CORED: no

28. CASING RECORD (*Report all strings set in well*)

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
13-3/8	72#	68	17-1/2	100 sx	-0-
9-5/8	36#	2132	12-1/4	1000 sx	-0-
5-1/2	15½, 17, 20#	9310	8-3/4	1950 sx	-0-

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)
2-7/8	7144	7144

31. PERFORATION RECORD (*Interval, size and number*)
.41-1 spf: 8770-78, 8781-95, 8800-09, 8812-26, 8848-64, 8646-57, 8666-84, 8542-76, 8372-92, 8402-20, 8445-62, 8484-8500
2 spf 8090-8316

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
8646-84	5500 gal 15% HCl
8542-76	6000 gal 15% HCl
8372-8500	14,000 gal 15% HCl
8090-8316	14,000 gal 15% HCl

33.* PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD (*Flowing, gas lift, pumping—size and type of pump*)	WELL STATUS (*Producing or shut-in*)
NA	Flowing	SI WOPL

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
4-27-79	12	24/64	→	29	703		NA

FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)
1550		→	58	1407		70°API @ 34°F

34. DISPOSITION OF GAS (*Sold, used for fuel, vented, etc.*): Vented

TEST WITNESSED BY: W.G. Cutler

35. LIST OF ATTACHMENTS

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED [signature] TITLE Operations Coordinator DATE 8-8-79

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

INSTRUCTIONS

General: This form is designed for submitting a complete and correct well completion report and log on all types of lands and leases to either a Federal agency or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office. See instructions on items 22 and 24, and 33, below regarding separate reports for separate completions.

If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments should be listed on this form, see item 35.

Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

Item 18: Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments.

Items 22 and 24: If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) (if any) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.

Item 29: *"Sacks Cement":* Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool.

Item 33: Submit a separate completion report on this form for each interval to be separately produced. (See instruction for items 22 and 24 above.)

37. SUMMARY OF POROUS ZONES:
SHOW ALL IMPORTANT ZONES OF POROSITY AND CONTENTS THEREOF; CORED INTERVALS; AND ALL DRILL-STEM TESTS, INCLUDING DEPTH INTERVAL TESTED, CUSHION USED, TIME TOOL OPEN, FLOWING AND SHUT-IN PRESSURES, AND RECOVERIES

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.
Twin Creek	7392	8060	Gas
Leeds Creed	8060	8230	"
Walton Crk	8230	8645	"
Boundry Butte	8645	8690	Wet
Rich	8690	9010	"
Slide Rock	9010	9080	"
Gypsem Spring	9080	9230	"
Nugget	9230	-	"

38. GEOLOGIC MARKERS

NAME	TOP MEAS. DEPTH	TOP TRUE VERT. DEPTH
Pruess Salt	7240	
Twin Creek	7392	
Leeds Creek	8060	
Waton Creek	8230	
Slide Rock	9010	
Nugget	9230	

GEOLOGIC REPORT

ON

THE ANSCHUTZ CORPORATION'S

ANSCHUTZ RANCH WELL NO 3-2 REDRILL

SECTION 3, T 3 N, R 7 E

SUMMIT COUNTY, UTAH

BY

JOHN S. WILLIAMS, GEOLOGIST

GRAND JUNCTION, COLORADO 81503

WELL SUMMARY

OPERATOR:	The Anschutz Corporation.
WELL:	Anschutz Ranch 3-2, Redrill.
FIELD:	Anschutz Ranch.
LOCATION:	NW ¼, SE ¼, Sec. 3, T. 3 N., R. 7 E.
COUNTY:	Summit.
STATE:	Utah.
ELEVATION:	KB, 7748. GL, 7727.
OBJECTIVE:	Jurassic Twin Creek.
SPUDDED:	Sidetracked at 3,699 ft., 10:00 P.M., 5 July, 1980.
COMPLETED:	Finished electric logging, 19 September, 1980.
TOTAL DEPTH:	8922 driller. 8923, loggers.
SUPERVISION:	Lynch Consulting Services; Val Dillie, Lee Naylor, Pat Patterson, Ted Fuller.
GEOLOGIST:	John S. Williams.
DRILLING CONTRACTOR:	Brinkerhoff-Signal, Rig 8.
TOOL PUSHER:	Jesse Carter, Bill Kimball.
DIRECTIONAL DRILLING:	Franco Directional Control; Harvey Francis.
HOLE SIZE:	8 3/4", 3699-8922.
DRILL COLLARS:	6 3/4: I. F.
DRILL PIPE:	4 ½" X-hole.
CASING:	9 5/8" at 2144.
DRILLING MUD:	IMCO Services; low-solids, non-dispersed; salt-saturated.
MUD ENGINEERS:	Norm Allard, Mike Voorhis, Don Schneider.
MUD LOGGING:	Tooke Engineering, Unit T-78.
MUD LOGGERS:	Pete Thams, Sam Spencer, Bill Hoesch, Larry Hunold, Pat Swigart.
ELECTRIC LOGGING:	Schlumberger; DLL-GR; BHC-GR-TTI; OH-AMPL-VDL; FDC-CNL-GR; HDT-FIL-GR.
STATUS:	Waiting on completion orders.

JOHN S. WILLIAMS, GEOLOGIST

Operator: The Anschutz Corporation - Well: Anschutz Ranch 3-2 (Redrill).

WELL CHRONOLOGY

5 July, 1980	3,705?	6?	Kickd off old hole w/Dyna-Drill/at 3,699 ft. at 10:00 P.M. Drld. WOB, NR. RPM, NR. SPM, 122. PSI, 700.
6 July	3,757	52	Drld. Srvy. Drld. Srvy. Drld. WOB, 8,000; 11,000; 10,000. RPM, 400. SPM, 120. PSI, 800.
7 July	3,866	109	Drld. Trip out, ld dn Dyna-Drill, pu new bit & stblzrs. Trip in hole, rmd 62 ft. to btm. Drld. Circ, surv. Drld. Circ, srvy. Drld. Circ, surv. WOB, 15-25,000; 35,000. RPM, 80; 50. SPM, 120; 122. PSI, 850; 900; 800.
8 July	4,173	307	Srvy. Drld. Circ, srvy. Drld. Circ, srvy. Drld. Circ, srvy. Drld. Circ, srvy. Drld. Circ, srvy. Drld. Circ, srvy. Drld. Circ, srvy. Drld. Circ, srvy. Drld. Srvy. Drld. Circ, srvy. WOB, 35,000. RPM, 50. SPM, 120; 122. PSI, 900.
9 July	4,409	236	Srvy. Drld. Circ, srvy. Drld. Circ, srvy. Drld. Circ, srvy. Drld. Srvy. Drld. Srvy. Drld. Reran srvy. Drld. Circ, srvy. Tried to drl. Trip out, chgd BHA. Trip in hole, wshd to btm. Drld. Srvy. WOB, 35,000; 20,000; 25,000. RPM, 50; 64. SPM, 120. PSI, 900; 1,100.
10 July	4,654	245	Srvy. Drld. Circ, srvy. Drld. Srvy. Drld. Circ, srvy. Drld. Srvy, misrun. Drld. WOB, 25,000; 15,000; 25,000. RPM, 64; 65. SPM, 120. PSI, 1,450; 1,400.
11 July	4,824	170	Drld. Srvy. Drld. Srvy, misrun. Drld. Srvy. Drld. Srvy. Drld. WOB, 15,000. RPM, 65. SPM, 122; 120. PSI, 1,400; 1,450; 1,400.
12 July	4,977	153	Drld. Srvy. Drld. Srvy. Drld. WOB, 15,000; 20,000; 15,000; 25,000; 35,000. RPM, 65. SPM, 122; 120; 115. PSI, 1,400; 1,500.
13 July	5,092	115	Drld. Srvy. Drld. Srvy. Drld. Srvy. Drld. Trip out. Ckd BOP, pu shk sub. Trip in hole, wshd 25 ft. to btm. Drld. WOB, 35,000; 25,000; 35,000. RPM, 65. SPM, 122; 120. PSI, 1,500; 1,450.
14 July	5,242	150	Drld. Srvy. Drld. Ckd pmp. Drld. Srvy. Drld. WOB, 35,000; 25,000; 38,000. RPM, 65; 60. SPM, 122; 120. PSI, 1,500.

15 July	5,329	87	Drld. Srvy. Drld. Trip out. Lyd dn IBS. Trip in hole. Drld. Srvy. Drld. Chgd pmps. Drld. Chgd pmps. WOB, 30,000; 38,000; 30,000. RPM, 60; 50. SPM, 122; 120. PSI, 1,500.
16 July	5,416	87	Chgd pmps. drld. Srvy. Drld. Srvy. Drld. Srvy. Drld. Srvy. Drld. Trip out. WOB, 30,000; 25,000; 30,000. RPM, 50; 65; 64. SPM, 122; 120. PSI, 1,500.
17 July	5,494	78	Inspctd dc's, chgd out 3 dc's. Trip in hole. Drld. LC at 5,461 ft., 375 bbl. Trip out, 23 stds. Mxd mud, LCM. Rgnd circ. Circd, wshd 23 stds to btm. Drld. Srvy. WOB, 35,000. RPM, 65. SPM, 120; 110. PSI, 1,400; 1,000.
18 July	5,646	152	Srvy. Drld. Srvy. Drld. Chgd pmp. Drld. Srvy. Drld. WOB, 40,000; 38,000. RPM, 60. SPM, 110; 120. PSI, 1,000; 1,300.
19 July	5,771	125	Drld. Srvy. Drld. Srvy. WOB, 38,000; 35,000. RPM, 60; 65. SPM, 120. PSI, 1,300.
20 July	5,836	65	Srvy. Drld. Trip out. Drsd bit. Trip in hole, ckd BPO, pkd up jnk sub, 3 dc's torque dc. Trip in hole. Wshd, rmd 45 ft. to btm, 15 ft. fill. Drld. Srvy. WOB, 35,000; 30,000. RPM, 65; 70. SPM, 120. PSI, 1,300; 1,350.
21 July	5,919	83	Srvy. Drld. Srvy. Drld. WOB, 30,000. RPM, 70. SPM, 120; 122. PSI, 1,300; 1,350.
22 July	5,968	49	Drld. LC at 5,932, 150 bbl. Trip out, 28 stds. Mxd mud, LCM. Trip in hole, wshd 30 ft to btm. Drld. Srvy. Drld. WOB, 30,000. RPM, 70. SPM, 120. PSI, 1,300.
23 July	5,998	30	Drld. Trip out. Chgd out 2 stblzrs, shk sub. Trip in hole w/BHA. Cut 90 ft drlg line. Trip in hole. Rmd out-of-gauge. hole. Drld. WOB, 30,000 (rmg WOB, 5,000). RPM, 70. SPM, 120; 122. PSI, 1,300; 1,400.
24 July	6,075	77	Drld. Srvy. Drld. WOB, 30,000. RPM, 70. SPM, 120; 122. PSI, 1,300; 1,400.
25 July	6,089	14	Drld. Srvy. Unplgd bit. Drld. Trip out. Ggd BHA, chgd 2 nr-bit IBS. Trip in hole. Rmd 120 ft to btm. Drld. Trip out. WOB, 30,000; 25,000 (rmg WOB, 3,000). RPM, 70. SPM, 120; 122. PSI, 1,400.
26 July	6,139	50	Trip out. PU jnk sub. Trip in hole. Rmd 40 ft to btm. Drld. Trip out. Ggd BHA, chgd nr-bit sub. Trip in hole. Rmd 107 ft to btm. Drld. Srvy. WOB, 25,000. RPM, 72; 70. SPM, 120. PSI, 1,400; 1,300.
27 July	6,227	88	Srvy. Drld. Srvy. Drld. WOB, 25,000; 20,000. RPM, 70. SPM, 120. PSI, 1,300.

28 July	6,287	60	Drld. Srvy. Drld. Trip out. Chgd bit, pu jnk sub. Trip in hole. WOB, 20,000. RPM, 70. SPM, 120. PSI, 1,300.
29 July	6,357	70	Trip in hole. Rmd 45 ft to btm. Drld. Srvy, misrun. Drld. Srvy, misrun. Drld. Srvy, misrun. Drld. Srvy, misrun. Drld. Srvy. Drld. WOB, 18,000. RPM, 70. SPM, 120. PSI, 1,200; 1,250.
30 July	6,429	72	Drld. Srvy. Drld. LC, 50 bbl, at 6,404, regnd. Drld, mxd mud & LCM. Drld. WOB, 18,000; 15,000. RPM, 70. SPM, 120. PSI, 1,250.
31 July	6,459	30	Drld. Srvy. Trip out, hole tt 28 stds off btm. Inspctd BHA, chgd 3 dc's. Trip in hole, Magnafluxed dc's. Rmd 86 ft to btm. Drld. WOB, 15,000. RPM, 70. SPM, 120. PSI, 1,250; 1,300.
1 Aug.	6,535	76	Drld. Srvy. Drld. WOB, 15,000. RPM, 70. SPM, 120. PSI, 1,300.
2 Aug.	6,607	72	Drld. Srvy. Drld. WOB, 15,000. RPM, 70. SPM, 120. PSI, 1,300.
3 Aug.	6,677	70	Drld. Srvy. Drld. WOB, 15,000. RPM, 70. SPM, 120. PSI, 1,300.
4 Aug.	6,715	38	Drld. Drpd srvy. Trip out, SLM, hole tt 18 stds off btm. Ckd BOP. Lyd dn stblzrs, shk sub. Pkd up 6-pt rmr, 2 3-pt rmrs, shk sub, jars, 2 dc's. Cut drlg line. Trip in hole, slow. WOB, 15,000. RPM, 70. SPM, 120. PSI, 1,300.
5 Aug.	6,750	35	Trip in hole, slow. Rmd tt hole. Drld. WOB, 20,000 (rmg WOB, 3,000-5,000). RPM, 70. SPM, 120. PSI, 1,300.
6 Aug.	6,896	146	Drld. Srvy. Drld. Srvy. Drld. Srvy. Drld. WOB, 15,000. RPM, 70. SPM, 120. PSI, 1,300.
7 Aug.	7,001	105	Drld. Srvy. Drld. Srvy. WOB, 15,000; 20,000. RPM, 70. SPM, 120. PSI, 1,300.
8 Aug.	7,059	58	Srvy. Drld. Drpd srvy. Trip out, wrkd thru tt spots. lyd dn 6-pt rmr. Ckd BOP. Pkd up bit & 6-pt rmr. WOB, 20,000. RPM, 70. SPM, 120. PSI, 1,400; 1,300.
9 Aug.	7,100	41	Chgd rmrs, kyst wpr, lyd dn 3 dc's. Trip in hole. Rmd. Drld. WOB, 15,000; 20,000 (rmg WOB, 3,000-5,000). RPM, 70. SPM, 120. PSI, 1,375; 1,300.
10 Aug.	7,152	52	Drld. Srvy, misrun. Srvy. Drld. WOB, 20,000. RPM, 70. SPM, 120. PSI, 1,300.
11 Aug.	7,183	31	Drld. Trip out, hole tt. Trip in hole, wshd thru tt spots. Wshd 240 ft to btm. Drld. WOB, 20,000. RPM, 70. SPM, 120; 122. PSI, 1,300; 1,400.
12 Aug	7,245	62	Drld. Srvy, misrun. Srvy. Drld. Srvy. WOB, 20,000. RPM, 70. SPM, 120. PSI, 1,400.
13 Aug.	7,270	25	Srvy. Drld. Drpd srvy. Trip out, hole tt. Chgd BHA. Trip in hole, tt at 5,000 ft, rmd 3 jts. Finished trip in hole. Rmd. WOB, 20,000 (rmg WOB, 5,000). RPM, 70. SPM, 120. PSI, 1,400; 1,200.

14 Aug.	7,319	49	Rmd, cond mud. Drld. Rmd tt hole for srvy. WOB, 12,000; 15,000; 16,000 (rmg WOB, 3,000-5,000). RPM, 70. SPM, 120. PSI, 1,300 (rmg PSI, 1,200).
15 Aug.	7,334	15	Rmd tt spot. Srvy. Drld. Trip out, wrkd thru tt spot 2,200 ft off btm. Ckd BOP. Pkd up Dyna-Drill, chgd BHA. Trip in hole, wrkd thru tt spots. Wshd to btm. Drld w/Dyna-Drill. WOB, 15,000; 8,000; 10,000. RPM, 70/430. SPM, 120. PSI, 1,300; 1,250.
16 Aug.	7,401	67	Drld. Srvy, misrun. Srvy, misrun. Srvy. Drld. WOB, 8,000; 20,000. RPM, 430; 30/400. SPM, 120. PSI, 1,300; 1,250.
17 Aug.	7,472	71	Drld. Srvy. Drld. Trip out, slow, hole tt. WOB, 8,000; 10,000. RPM, 30/400; 40; 46/400. SPM, 120. PSI, 1,250.
18 Aug.	7,523	51	Trip out. Chgd BHA, lyd dn Dyna-Drill, chgd out shk sub. Trip in hole, blk-ltd BHA. Rmd, wshd 30 ft to btm, 15 ft fill. Drld. Srvy. Drld. WOB, 15,000; 25,000; 20,000. RPM, 70. SPM, 120. PSI, 1,400.
19 Aug.	7,599	76	Drld. Srvy. Drld. Srvy. Drld. WOB, 25,000; 10,000. RPM, 70; 36. SPM, 120. PSI, 1,400.
20 Aug.	7,646	47	Drld. Srvy. Drld. WOB, 10,000; 15,000; 35,000. RPM, 42; 44; 34. SPM, 120. PSI, 1,300; 1,350.
21 Aug.	7,717	71	Drld. Srvy. Drld. Srvy. Drld. Drpd srvy. Trip out, slow. WOB, 35,000. RPM, 35. SPM, 120; 122; 120. PSI, 1,350.
22 Aug.	7,744	27	Trip out, rmd 45 ft at 8 stds out. Chgd bit. Trip in hole. Wshd, rmd to btm, 4 ft fill. Drld. Srvy. Drld. WOB, 10,000; 15,000. RPM, 40. SPM, 120. PSI, 1,300.
23 Aug.	7,773	29	Drld. Srvy. Drld. Trip out. Pkd up Dyna-Drill, lyd dn IBS. Trip in hole slow. Wshd, rmd to btm. Drld. WOB, 15,000; 18,000. RPM, 40. SPM, 120. PSI, 1,300.
24 Aug.	7,846	73	Drld. Swtchd pmps. Drld. Srvy. Drld. WOB, 8,000; 10,000. RPM, 35/350; 28/400; 36. SPM, 120; 122; 120. PSI, 1,250; 1,200.
25 Aug.	7,915	69	Drld. Srvy. Drld. WOB, 8,000; 10,000. RPM, 30/400; 28/400. SPM, 120; 122. PSI, 1,200.
26 Aug.	7,971	56	Drld. Srvy. Drld. Drpd srvy. Trip out. WOB, 8,000; 10,000. RPM, 30/400; 28/400. SPM, 120; 122. PSI, 1,200; 1,150.
27 Aug.	8,011	40	Trip out. Lyd dn Dyna-Drill, pkd up new BHA. Trip in hole. Cut 70 ft drlg line. Fnshd trip in hole. Wshd, rmd 45 ft to btm. Drld. Srvy. Drld. WOB, 10,000. RPM, 36; 70. SPM, 120. PSI, 1,400.

28 Aug.	8,071	60	Drld. Srvy. Drld. Srvy. Drld. WOB, 10,000; 15,000. RPM, 70. SPM, 120. PSI, 1,400.
29 Aug.	8,152	81	Drld. Srvy. Drld. Srvy, misrun. Srvy. Drld. Srvy. Drld. Rmd after torqd up. Drld. WOB, 15,000; 20,000; 25,000. RPM, 70. SPM, 122; 120. PSI, 1,400; 1,700; 1,400.
30 Aug.	8,244	92	Drld. Srvy. Drld. Srvy. Drld. Srvy. Drld. Wrkd on pmp. Drld. WOB, 25,000; 20,000. RPM, 70. SPM, 122; 120. PSI, 1,400; 1,300; 1,400.
31 Aug.	8,275	31	Drld. Srvy. Drld. Trip out, hole tt 15 stds off btm. Chgd bit. Trip in hole. Wshd, rmd 133 ft to btm. Drld. WOB, 25,000; 10,000; 15,000; 18,000. RPM, 70. SPM, 122; 120. PSI, 1,400; 1,300.
1 Sept.	8,333	58	Drld. Srvy. Drld. Srvy. Drld. WOB, 18,000. RPM, 70. SPM, 122. PSI, 1,300.
2 Sept.	8,389	56	Drld. Srvy. Drld. Srvy. Drld. Twstd off 3,816 ft dn. WOB, 18,000; 15,000. RPM, 70. SPM, 122. PSI, 1,300.
3 Sept.	8,389	0	Trip out. WO fsg tls. Pkd up fsg tls. Trip in hole, SLM. Enggd fish, wrkd free. Trip out w/fish. Lyd dn fsh, fsg tls. Fnshd trip out. Ckd, bld-ltd dc's, subs. Trip in hole, chgd out shk sub, jars, 3 dc's.
4 Sept	8,435	46	Trip in hole, chgd out 11 jts bent dp. Wshd, rmd to btm. Drld. Srvy, tl wd not go to btm. Drld. Srvy. Drld. WOB, 15,000; 20,000; 15,000. RPM, 60; 70. SPM, 92; 122. PSI, 1,400; 1,350.
5 Sept.	8,478	43	Drld. Srvy. Drld. Srvy, tl wd not go to btm. Drld. Srvy, tl stpd @ 8,145 ft. Trip out, drftd 26 stds, rmvd rks. Chgd bit. WOB, 15,000. RPM, 70. SPM, 120. PSI, 1,350.
6 Sept.	8,539	61	Trip in hole, chgd kyst wpr. Rmd 60 ft out-of-gauge hole. Drld. Srvy. Drld. Srvy. Drld. WOB, 15,000; 18,000. RPM, 70. SPM, 120. PSI, 1,350.
7 Sept.	8,633	94	Drld. Srvy. Drld. Srvy. Drld. WOB, 18,000; 20,000. RPM, 70. SPM, 120. PSI, 1,350.
8 Sept.	8,712	79	Drld. Srvy. Drld. WOB, 18,000; 20,000. RPM, 70. SPM, 120. PSI, 1,350.
9 Sept.	8,793	81	Drld. Srvy. Chgd pmps. Drld. Chgd pmps. Drld. Srvy. Drld. WOB, 18,000; 20,000; 25,000. RPM, 70. SPM, 120; 122. PSI, 1,350.
10 Sept.	8,910	117	Drld. Srvy. Drld. Rprd rtry trq whl. Drld. Srvy. Drld. Circ out smpls @ 8,879. Drld. Rmd hole on conn. Drld. Rprd rtry bshgs. WOB, 20,000; 25,000. RPM, 70. SPM, 122. PSI, 1,350; 1,400.

7180 - 7190	PR SMPL - TRIP FOR BIT		
	LS	50	gy, micxln, aa.
	MRLS	30	aa.
	LS	20	oolc, aa.
7190 - 7200	MRLS	50	aa.
	LS	30	gy, micxln, aa.
	LS	20	oolc, aa.
	LS	Tr	bn, vfxln, dns, dolc.
		Tr	CAL frac fill, wh.
7200 - 7210	SMPL LOST		
7210 - 7220	MRLS	60	ltgy, sft-vsft, vfgran, vcalc.
	LS	20	gy, micxln, dns.
	LS	20	ltgy, oolc.
7220 - 7230	LS	50	gy, micxln, aa.
	MRLS	30	aa.
	LS	20	oolc, aa.
7230 - 7250	LS	70	gy, micxln, aa.
	LS	20	oolc, aa.
	MRLS	10	aa.
	LS	Tr	bn, vfxln, dns, dolc, w/s/cxln CAL vn/frac-fill.
7250 - 7260	LS	60	micxln, aa, bcmg bngy, less arg.
	LS	30	oolc, aa, ltgy-ltbn.
	MRLS	10	aa.
7260 - 7270	LS	70	gy-bngy, micxln, aa.
	LS	30	ltgy-ltbn, oolc, aa.
	MRLS	Tr	aa.
	CAL	Tr	wh, cxln, void-fill.
7270 - 7310	LS	90	gy, micxln, aa, w/CAL-fld frac.
	LS	10	ltgy, oolc, aa.
7310 - 7320	LS	80	gy, micxln, aa.
	LS	20	ltgy, oolc, aa.
7320 - 7330	LS	100	gy, micxln, dns, sly arg.
	LS	Tr	ltgy-ltbn, vfxln, sly sucr.
	ABN UPHOLE MATL, 7330-7940		
7330 - 7350	LS	90	gy, micxln, aa, w/CAL-fld frac.
	LS	10	ltgy-ltbn, aa.
7350 - 7370	LS	100	gy, micxln, aa, w/CAL-fld frac.
7370 - 7390	LS	90	gy, micxln, aa, w/CAL-fld frac.
	LS	10	ltgy, vfxln, sly sucr.
7390 - 7410	LS	100	gy, micxln, aa, w/CAL-fld frac.
	LS	Tr	ltgy, vfxln, aa.
7410 - 7510	LS	100	gy, micxln, aa, s/w/vf dism PYR, trs CAL-fld frac.
7510 - 7520	LS	100	aa, no PYR.
	LS	Tr	gy-ltbngy, oolc, rexld.
7520 - 7530	LS	90	gy, micxln, aa.
	LS	10	ltbn-gy, oolc, vfxln, wh-ltbn & ltgy mtrx.
	LS	Tr	bn, micxln, dns.
7530 - 7540	LS	80	gy, micxln, aa.
	LS	20	oolc, aa.
7540 - 7550	LS	90	gy, micxln, aa.
	LS	10	oolc, aa.
7550 - 7570	LS	80	gy, micxln, aa.
	LS	20	oolc, aa.
7570 - 7590	LS	70	gy, micxln, aa.
	LS	30	oolc, aa.

7590 - 7610	LS	90	gy, micxln, aa.
	LS	10	oolc, aa.
7610 - 7660	LS	100	gy, micxln, aa, decr arg.
	LS	Tr	oolc, aa.
7660 - 7670	LS	90	gy, micxln, dns, sly arg, grdg lcly to ltgy, mic-vfxln, sly sucr.
	LS	10	ltgy-ltbn, oolc.
	ANHY	Tr	ltgn, amorph, sft.
7670 - 7700	LS	100	gy, mic-vfxln, aa, w/CAL-fld frac.
7700 - 7720	LS	100	aa, incr arg.
	LS	Tr	ltgy-ltbn, oolc.
7720 - 7740	LS	100	gy, micxln, aa, tr ltgngy.
	LS	Tr	oolc, aa.
7740 - 7810	LS	100	gy, micxln, aa.
7810 - 7830	LS	100	aa.
	LS	Tr	bn, oolc, rexld.
7830 - 7840	LS	100	gy, micxln, aa.
7840 - 7850	LS	100	aa.
	LS	Tr	bn, oolc, rexld.
7850 - 7910	LS	100	bn, micxln, aa, w/tr LS, ltgy, vfxln, dns.
7910 - 7940	LS	100	aa, m-dkgy.
	LS	Tr	ltgy, oolc, rexld.
7940 - 7950	V PR SMPL - MOSTLY CVGS - PROB LS, AA.		
7950 - 7960	PR SMPL - ABN CVGS		
	LS	90	m-dkgy, micxln, aa.
	LS	10	bn-ltgy, oolc, rexld.
7960 - 7980	PR SMPLS - CVGS		
	LS	100	gy, micxln, aa.
	LS	Tr	ltbn-ltgy, oolc.
7980 - 8060	LS	100	m-ltgy, s/bn, micxln, aa, decr arg, trs relict oolc tex. CAL-fld frac.
8060 - 8070	LS	100	aa.
	LS	Tr	ltgy, oolc.
8070 - 8170	LS	100	m-ltgy, aa, w/s/bn. CAL-fld frac.
8170 - 8190	LS	90	aa.
	LS	10	ltgy-bn, oolc.
8190 - 8200	LS	100	m-ltgy, aa, incr bn.
	LS	Tr	oolc, aa.
8200 - 8210	LS	90	gy, bn, micxln, aa.
	LS	10	oolc, aa.
8210 - 8250	LS	100	m-ltgy w/s/dkgy, bn, micxln, dns, hd, w/CAL-fld frac.
	LS	Tr	bn-dkbn, oolc, rexld.
8250 - 8270	LS	100	gy, bn, micxln, aa, w/CAL-fld frac.
	LS	Tr	bn-dkbn, oolc, rexld, aa.
	LS	Tr	ltgy-ltbn, oolc.
8270 - 8290	LS	100	gy, bn, micxln, aa, w/CAL-fld frac.
8290 - 8310	LS	100	aa, pred m-dkgy, w/CAL-fld frac.
	LS	Tr	bn, oolc, rexld.
8310 - 8320	LS	100	gy, bn, micxln, aa, w/CAL-fld frac.
	LS	Tr	bn, oolc, rexld.
	LS	Tr	ltgy, ltbn, vfoolc.
8320 - 8360	LS	100	gy, bn, micxln, aa, w/CAL-fld frac.
	LS	Tr	bn, oolc, rexld.
	LS	Tr	ltbn, ltgy, f-vfoolc.

8360 - 8370	LS	100	dkgy-dkgybn, micxln, dns, hd, grdg lcly to ltgy, vfxln; CAL-fld frac.
	LS	Tr	dkbn, oolc, rexld.
8370 - 8400	LS	100	m-dkgy, micxln, dns, hd, w/CAL-fld frac.
	LS	Tr	ltbn, oolc, rexld.
8400 - 8410	LS	100	dk-mgy, micxln, dns, hd, w/CAL-fld frac.
8410 - 8420	LS	90	aa, w/trs bn-ltbn; CAL-fld frac.
	LS	10	ltbn-ltgy, oolc, in pt rexld.
8420 - 8430	LS	100	aa, pred dkgy-gy, w/CAL-fld frac.
	LS	Tr	oolc, aa.
8430 - 8500	LS	100	dkgy-gy, aa, w/CAL-fld frac.
8500 - 8550	LS	100	aa, lcly oolc.
8550 - 8560	LS	100	aa, sl incr bngy.
8560 - 8570	LS	100	gy, aa, w/CAL-fld frac.
8570 - 8610	LS	100	gy, aa.
8610 - 8640	LS	100	gy-bngy, aa, w/CAL-fld frac.
	LS	Tr	ltbn, oolc, rexld.
8640 - 8650	LS	100	gy-bn, aa, incr bn, w/CAL-fld frac.
8650 - 8660	LS	100	aa, pred bn-bngy.
8660 - 8720	LS	100	aa, gy-bngy, w/CAL-fld frac.
	LS	Tr	bn, oolc, rexld.
8720 - 8730	LS	60	bn-gy, micxln, aa, w/CAL-fld frac.
	SS	30	wh-bn, vfg, wsrt, sbrd-sbang, wcmt, calc, s/slty.
	SLTS	10	bn, fm, calc.
	ANHY	Tr	wh, msv.
8730 - 8740	SLTS	50	aa.
	SS	40	aa.
	ANHY	10	aa.
8740 - 8760	SLTS	60	aa.
	SS	20	aa, w/tr SS, bn, mg, wsrt, ang, wcmt, calc.
	SH	10	bn, fm, calc.
	ANHY	10	aa.
		Trs	CAL frac-fill, wh, vfxln.
8760 - 8770	SLTS	50	aa.
	SS	20	aa.
	SH	20	aa.
	ANHY	10	aa.
	LS	Tr	bn, crpxln, dns, he, w/sbconch frac.
8770 - 8800	SLTS	70	aa.
	SS	20	aa.
	SH	10	aa.
	ANHY	Tr	aa.
			CAL-fld frac.
8800 - 8810	SLTS	60	aa.
	SS	20	aa.
	SH	10	aa.
	ANHY	10	aa.
			CAL-fld frac.
8810 - 8820	SLTS	50	aa.
	SS	30	aa.
	SH	10	aa.
	ANHY	10	aa.
			CAL-fld frac.
8820 - 8830	SLTS	60	aa.
	SS	20	aa.
	SH	10	aa.
	ANHY	10	aa.
			CAL-fld frac.

8830 - 8840	SLTS	50	aa.
	SS	20	aa.
	SH	20	aa.
	ANHY	10	aa.
	LS	Tr	bn-dkgybn, mic-vfxln, dns, hd, sbconch frac. CAL-fld frac.
8840 - 8850	SLTS	50	aa.
	SS	20	wh, f-vfg w/s/mg, w-msrt, sbrd-sbang, wcmt, tt, sly calc, w/SS aa.
	SH	10	aa.
	LS	10	aa.
	ANHY	10	aa. CAL-fld frac.
8850 - 8860	SS	40	aa.
	SLTS	30	aa.
	SH	10	aa.
	LS	10	aa.
	ANHY	10	aa.
8860 - 8870	SS	50	aa, bcmg wh-ltbn, s/pnk, incr mg, tr cg.
	SLTS	20	aa.
	SH	10	aa.
	LS	10	aa.
	ANHY	10	aa.
8870 8910	SS	100	aa, ltbn & pnk - wh, f-mg, w/s/vfg, s/cg.
8910 - 8923	V PR SMPL - SWEEPING HOLE FOR LOGS		
	SS	100	aa.

JOHN S. WILLIAMS, GEOLOGIST

SUMMARY OF GEOLOGY

Operator: The Anschutz Corporation - Well: Anschutz Ranch 3-2, Redrill.

Redrilling and geologic coverage of the Anschutz Corporation's Anschutz Ranch well number 3-2 began at 10:00 P.M., 5 July, 1980, at a depth of 3,699 feet. The sediments at the kick-off point were multicolored claystones, predominantly gray to purple-gray, firm, and calcareous. Immediately underlying the claystone, from 3,708 to 3,756, was a light-colored-white, light brown, light gray - conglomerate, composed predominantly of chert and limestone pebbles or cobbles in a matrix of white to brown, fine to very fine grained, well sorted sandstone which was subangular to subrounded, well cemented, and calcareous. Such porosity as was visible was very low to low. This conglomerate is presumed to be lower Cretaceous in age.

Underlying the conglomerate, from 3,756 to 3,904, was a sequence of predominantly reddish-brown to brown siltstones and claystones characteristic of the Preuss formation. Both the siltstones and the claystones were calcareous.

At 3,904 a sequence was entered which is interpreted as being primarily salt with minor amounts of other evaporites. Cuttings consisted of masses of silica - in part crystalline aggregates of quartz, in part cryptocrystalline to amorphous silica which was locally jasperoid. Other than traces of white gypsum, there was no direct evidence of evaporites in this section.

From 4,330 to 5,350 a disrupted sequence was penetrated. Samples here consisted of interbedded brown to reddish-brown siltstone and claystone with minor sandstone, limestone, and gypsum. The sandstone units, which were thin, were light colored - white, light brown, light gray - generally fine to medium grained, moderately to well sorted, subangular to subrounded, well cemented, and calcareous; some were conglomeratic, with chert fragments. The probability of the existence of several faults - of indeterminate displacement - in this section is strong, but could not be defined due to lack of wire-line log coverage of a prt of the well which included this interval, and generally poor sample quality.

At 5,350 a chert-pebble conglomerate was encountered, very probably a repetition of that at 3,708. This was a light brown to light gray to white conglomerate composed primarily of chert pebbles in a matrix of light brown to white sandstone of variable grain size, well cemented and locally quartzitic.

Beneath this conglomerate, from 5,390 to 6,765, was a sequence of typical Preuss lithology: brown to reddish-brown siltstones and generally brownish quartz sandstones with minor amounts of limestone. The siltstones and sandstones were calcareous; the sandstones were predominantly fine to medium grained, moderately to well sorted and subangular to subrounded. The limestones, which were probably nodular to lenticular, were gray to tan, micro- to crypto-crystalline, and dense.

A Preuss evaporite section was penetrated from 6,765 to 6,940. Here, again, there was no direct evidence of salt, and its presence is inferred. Samples through this interval consisted of aggregates of silica - in part crystalline quartz; in part cryptocrystalline to amorphous silica, some of which were jasperoid. Below this was a sequence of Preuss siltstone and sandstone: brown to reddish-brown calcareous siltstone; and brown to gray and white, fine to medium grained quartz sandstone which was in general moderately well sorted, subangular to subrounded, well cemented, and calcareous.

The Twin Creek formation, Giraffe Creek member, was identified at 7,008 feet, on the appearance of dark gray, microcrystalline, dense, argillaceous limestone which was gradational to calcareous shale. The upper part of the Giraffe Creek contained significant amounts of light gray, soft, locally sandy marlstone. Also noted, with amounts increasing with depth, was brown to gray oolitic/pelletal limestone, consisting of very fine to medium ooliths and pellets in a matrix of white to light gray, very finely crystalline, highly calcic limestone. Calcite-filled fractures became increasingly frequent in the lower part of the member.

The top of the Leeds Creek member, at 7,648, was packed on the appearance of light green, amorphous anhydrite. Underlying this was a sequence of dark gray, microcrystalline, dense argillaceous limestone and light gray to light brown oolitic/pelletal limestone with a white to light gray, very fine crystalline calcic limestone matrix. Some calcite-healed fractures were noted in this member.

The Walton Canyon member, top at 7,800, consisted of gray to dark gray to locally brownish-gray, microcrystalline, dense limestone - less argillaceous than the overlying Leeds Creek member - and increasing amounts of brown to gray oolitic/pelletal limestone. As in the members above, the oolitic/pelletal limestone had a matrix composed of white to gray very finely crystalline calcic limestone. Calcite-filled fractures were common in the Walton Canyon.

The Boundary Ridge member, top at 8,220, was composed of gray to brownish-gray, microcrystalline, dense limestone and generally light brown oolitic/pelletal limestone. Calcite-filled fractures were common in this member.

The Rich member, from 8,268 to 8,578, consisted of brown to grayish-brown, microcrystalline, dense limestone and brown to gray recrystallized oolitic/pelletal limestone. Numerous calcite-filled fractures were noted in the Rich member.

The Sliderock member, top at 8,578, consisted of gray to brownish-gray, microcrystalline, dense limestone and brown to gray recrystallized oolitic/pelletal limestone, with calcite-filled fractures.

The Gypsum Springs member, top at 8,655, contained extensively fractured to brecciated limestone, gray to brown in color, microcrystalline, and dense, with brown to gray oolitic/pelletal limestone; white to brown, very fine

grained, sandstone which was well sorted, subrounded to subangular, well cemented, and calcareous, composed predominantly of quartz grains; brown calcareous siltstone; and white massive anhydrite. Calcite-filled fractures were abundant.

The Nugget formation was encountered at 8,810 feet. It consisted of white to light brown and pink quartz sandstone, generally fine to medium grained but locally very fine grained; moderately well sorted; subrounded to subangular; in general well cemented; and slightly calcareous. There was no significant visible porosity.

No indications of hydrocarbons were observed during the redrilling of this well. Although fracturing was extensive through the lower members of the Twin Creek formation in particular, mud log records of hydrocarbon gases were minimal throughout, and no staining, fluorescence, or cut was observed.

Drilling of this well was done in a competent manner, and all personnel associated with the operation deserve commendation.

It was a pleasure to be of service to you in this operation, and I look forward to the opportunity to represent you in future work.

Respectfully submitted,

John S. Williams, Geologist

11 Sept	8,922	12	Rprd rtry bshg. Drld. Circ, cond mud. Trip out, lkg for hole in pipe - twstd off, left Monel dc & bit in hole. WO fsg tls. Rgd up Schlumberger. Ran logging tool in hole, stopped at 4,210, cd not wrk deeper. Pld lgg tl, pld 3,000 lbs ovr tl wt at 4,190. Trip in hole w/RR bit. WOB, 20,000; 25,000. RPM, 70. SPM, 122. PSI, 1,400.
12 Sept.	8,922	0	Trip in hole, plgd jet. Tagd fsh. Circ, cond hole. WO mud matls. Mxd mud, circ, cond hole. Trip out, SLM.
13 Sept.	8,922	0	Trip out, SLM. Rgd up lgrs. Ran in w/lgg tl, tl stpd at 4,418. Wrkd tl at 4,418, wd not go. Pld tl, rgd dn lgrs. Trip in hole w/opn-ended dp, 50 stds. Trip out. Rgd up lgrs, rn in hole, tl stpd at 4,418. Wrkd tl, wd not go. Pld tl, rgd dn lgrs. Trip in hole w/bit, wrkd pipe at 4,695-4,784. Trip out. Rgd up lgrs, rn in hole, tl stpd at 2,952. Wrkd tl, wd not go Pld tl, rgd dn lgrs. Trip in hole w/bit, wshd 45 ft to btm. Circ, cond hole.
14 Sept.	8,922	0	Circ, WO mud matls. Mxd mud, circ, cond hole. Short trip, 25 stds. Circ, cond hole. Trip out. Rgd up lgrs. Ran lgg tl in hole, stpd at 4,613. Pld tl, rgd dn lgrs.
15 Sept.	8,922	0	Trip in hole w/bit, BHA, 22 stds dp. Trip in hole w/23 stds, wrkd ea std 90 ft 5 times. Finshd trip in hole, tgd fish. Trip out, chnd out. Rgd up lgrs. Ran lgg tl, stpd at 4,613. Pld lgg tl, rgd dn lgrs. Pkd up fsg tls. Trip in hole. Circ above fsh. Tgd, wrkd over fsh. Trip out w/fsh.
16 Sept.	8,922	0	Trip out w/fsh, chnd out, wshd thru tt spots. Lyd dn fsg tls & fsh. Trip in hole, pkd up jars. Cut 120 ft drlg line. Fnshd trip in hole, wshd & rmd 40 ft to btm, 12 ft fill. Circ, cond hole.
17 Sept.	8,922	0	Circ, cond hole. Rgd up ly-dn mchn. Ld dn dp. Rgd up to run 7-inch csg.
18 Sept.	8,922	0	Rgd up to run csg. WO csg shoe-did not fit. Ran 7-inch csg, stpd at 4,840. Wrkd csg, wd not go. WO circ hd. Rgd up circ hd. Wrkd csg thru tt spot. Ran csg to 5,985. Rgd up lgrs. Ran Schlumberger logs.
19 Sept.	8,922	0	Logged. Rgd dn lgrs. Rgd up to pull 7-inch csg, WO completion orders.

JOHN S. WILLIAMS, GEOLOGIST

BIT RECORD

Operator: The Anschutz Corporation - Well: Anschutz Ranch 3-2, Redrill.

BIT NO.	SIZE	MFR.	TYPE	DEPTH IN	DEPTH OUT	FEET	HOURS	FT./HR.
1	4 1/2	Security	MH	Drilled plug in 5 1/2" casing			27 ½	2.25
2	8 3/4	Security	S4F	Cleaned hole, drilled cement.				
3	"	Christen-sen (dia)	MD411	3699	3761	62	27 ½	2.25
4	"	Security	S44F	3761	4357	596	33	18.1
5	"	Hughes	J22	4357	5059	702	80 ¼	8.7
6	"	Reed	FP52	5059	5245	186	27 ½	6.8
6RR	"	"	"	5245	5416	171	36 ½	4.7
6 Total						357	64	5.6
7	"	Smith	F2	5416	5781	365	59 ½	6.1
8	"	Security	S86F	5781	5979	198	59 ½	3.3
9	"	Security	S86F	5979	6088	109	33 ¼	3.3
10	"	Hughes	J7	6088	6089	1	1 ½	0.7
11	"	Security	H75G	6089	6105	16	4	4.0
12	"	Smith	F3	6105	6287	182	47 ½	3.8
13	"	Security	S86F	6287	6451	164	49 3/4	3.3
14	"	Hughes	J44	6451	6715	264	85 ½	3.1
15	"	Smith	F3	6715	7059	344	66	5.2
16	"	Hughes	J44	7059	7180	121	46 3/4	2.6
17	"	Reed	FP52	7180	7270	90	32 ¼	2.8
18	"	Security	H75GJ	7270	7327	57	18 ½	3.1
19	"	Christen-sen (dia)	MD331	7327	7473	146	41 ½	3.5
17RR	"	Reed	FP52	7473	7717	244	76 3/4	3.3
17 Total						334	109	3.1

JOHN S. WILLIAMS, GEOLOGIST

BIT RECORD

Operator: The Anschutz Corporation - Well: Anschutz Ranch 3-2, Redrill.

BIT NO.	SIZE	MFR.	TYPE	DEPTH IN	DEPTH OUT	FEET	HOURS	FT./HR.
20	8 3/4	Security	S84F	7717	7773	56	22	2.5
21	"	Christen-sen (dia)	MD331	7773	7971	198	67	3.0
22	"	Smith	F3	7971	8261	290	82 ½	3.5
23	"	Reed	FP53A	8261	8479	218	78	2.8
24	"	Security	S86F	8479	8922	443	105	4.2

JOHN S. WILLIAMS, GEOLOGIST

DIRECTIONAL SURVEYS

Operator: The Anschutz Corporation - Well: Anschutz Ranch 3-2, Redrill.

DEPTH	DEVIATION	DIRECTION	DEPTH	DEVIATION	DIRECTION
3600	1 3/4°	S ½°E	4409	10 1/4°	N63°W
3679	3/4°	S23°E	4470	10 1/2°	N64°W
3712	1 1/2°	N83°W	4532	10 3/4°	N63°W
3794	5°	N58°W	4593	10 1/2°	N65°W
3824	5 1/2°	N55°W	4641	NR	NR
3856	6 1/4°	N58°W	4673	10°	N65°W
3887	6 3/4°	N55°W	4731	NR	NR
3917	7°	N55°W	4731	9 1/2°	N68°W
3948	7 1/2°	N53°W	4796	9°	N70°W
3979	7 3/4°	N53°W	4866	8 3/4°	N72°W
4010	8 1/4°	N49°W	4919	8°	N75°W
4040	8 1/2°	N48°W	4991	NR	NR
4070	8 3/4°	N48°W	5020	NR	NR
4075	8 1/2°	N48°W	5021	8°	N78°W
4101	9°	N48°W	5122	7 1/4°	N68°W
4133	8 1/2°	N50°W	5182	7°	N82°W
4163	8 3/4°	N55°W	5244	6 3/4°	N84°W
4193	8 3/4°	N54°W	5288	7 1/4°	N85°W
4233	8 3/4°	N55°W	5351	NR	NR
4264	9 1/4°	N57°W	5351	NR	NR
4294	9 1/2°	N59°W	5352	8 1/2°	N88°W
4324	NR	NR	5412	9 3/4°	90°W
4327	10°	N60°W	5494	10 1/4°	S88°W
4357	10 1/4°	N63°W	5545	10 1/4°	S89°W

GEOLOGIC REPORT

ON

THE ANSCHUTZ CORPORATION'S

ANSCHUTZ RANCH WELL NO 3-2 REDRILL

SECTION 3, T 3 N, R 7 E

SUMMIT COUNTY, UTAH

BY

JOHN S. WILLIAMS, GEOLOGIST

GRAND JUNCTION, COLORADO 81503

WELL SUMMARY

OPERATOR:	The Anschutz Corporation.
WELL:	Anschutz Ranch 3-2, Redrill.
FIELD:	Anschutz Ranch.
LOCATION:	NW ¼, SE ¼, Sec. 3, T. 3 N., R. 7 E.
COUNTY:	Summit.
STATE:	Utah.
ELEVATION:	KB, 7748. GL, 7727.
OBJECTIVE:	Jurassic Twin Creek.
SPUDDED:	Sidetracked at 3,699 ft., 10:00 P.M., 5 July, 1980.
COMPLETED:	Finished electric logging, 19 September, 1980.
TOTAL DEPTH:	8922 driller. 8923, loggers.
SUPERVISION:	Lynch Consulting Services; Val Dillie, Lee Naylor, Pat Patterson, Ted Fuller.
GEOLOGIST:	John S. Williams.
DRILLING CONTRACTOR:	Brinkerhoff-Signal, Rig 8.
TOOL PUSHER:	Jesse Carter, Bill Kimball.
DIRECTIONAL DRILLING:	Franco Directional Control; Harvey Francis.
HOLE SIZE:	8 3/4", 3699-8922.
DRILL COLLARS:	6 3/4: I. F.
DRILL PIPE:	4 ½" X-hole.
CASING:	9 5/8" at 2144.
DRILLING MUD:	IMCO Services; low-solids, non-dispersed; salt-saturated.
MUD ENGINEERS:	Norm Allard, Mike Voorhis, Don Schneider.
MUD LOGGING:	Tooke Engineering, Unit T-78.
MUD LOGGERS:	Pete Thams, Sam Spencer, Bill Hoesch, Larry Hunold, Pat Swigart.
ELECTRIC LOGGING:	Schlumberger; DLL-GR; BHC-GR-TTI; OH-AMPL-VDL; FDC-CNL-GR; HDT-FIL-GR.
STATUS:	Waiting on completion orders.

JOHN S. WILLIAMS, GEOLOGIST

Operator: The Anschutz Corporation - Well: Anschutz Ranch 3-2 (Redrill).

WELL CHRONOLOGY

5 July, 1980	3,705?	6?	Kickd off old hole w/Dyna-Drill/at 3,699 ft. at 10:00 P.M. Drld. WOB, NR. RPM, NR. SPM, 122. PSI, 700.
6 July	3,757	52	Drld. Srvy. Drld. Srvy. Drld. WOB, 8,000; 11,000; 10,000. RPM, 400. SPM, 120. PSI, 800.
7 July	3,866	109	Drld. Trip out, ld dn Dyna-Drill, pu new bit & stblzrs. Trip in hole, rmd 62 ft. to btm. Drld. Circ, surv. Drld. Circ, srvy. Drld. Circ, surv. WOB, 15-25,000; 35,000. RPM, 80; 50. SPM, 120; 122. PSI, 850; 900; 800.
8 July	4,173	307	Srvy. Drld. Circ, srvy. Drld. Circ, srvy. Drld. Circ, srvy. Drld. Circ, srvy. Drld. Circ, srvy. Drld. Circ, srvy. Drld. Circ, srvy. Drld. Circ, srvy. Drld. Srvy. Drld. Circ, srvy. WOB, 35,000. RPM, 50. SPM, 120; 122. PSI, 900.
9 July	4,409	236	Srvy. Drld. Circ, srvy. Drld. Circ, srvy. Drld. Circ, srvy. Drld. Srvy. Drld. Srvy. Drld. Reran srvy. Drld. Circ, srvy. Tried to drl. Trip out, chgd BHA. Trip in hole, wshd to btm. Drld. Srvy. WOB, 35,000; 20,000; 25,000. RPM, 50; 64. SPM, 120. PSI, 900; 1,100.
10 July	4,654	245	Srvy. Drld. Circ, srvy. Drld. Srvy. Drld. Circ, srvy. Drld. Srvy, misrun. Drld. WOB, 25,000; 15,000; 25,000. RPM, 64; 65. SPM, 120. PSI, 1,450; 1,400.
11 July	4,824	170	Drld. Srvy. Drld. Srvy, misrun. Drld. Srvy. Drld. Srvy. Drld. WOB, 15,000. RPM, 65. SPM, 122; 120. PSI, 1,400; 1,450; 1,400.
12 July	4,977	153	Drld. Srvy. Drld. Srvy. Drld. WOB, 15,000; 20,000; 15,000; 25,000; 35,000. RPM, 65. SPM, 122; 120; 115. PSI, 1,400; 1,500.
13 July	5,092	115	Drld. Srvy. Drld. Srvy. Drld. Srvy. Drld. Trip out. Ckd BOP, pu shk sub. Trip in hole, wshd 25 ft. to btm. Drld. WOB, 35,000; 25,000; 35,000. RPM, 65. SPM, 122; 120. PSI, 1,500; 1,450.
14 July	5,242	150	Drld. Srvy. Drld. Ckd pmp. Drld. Srvy. Drld. WOB, 35,000; 25,000; 38,000. RPM, 65; 60. SPM, 122; 120. PSI, 1,500.

15 July	5,329	87	Drld. Srvy. Drld. Trip out. Lyd dn IBS. Trip in hole. Drld. Srvy. Drld. Chgd pmps. Drld. Chgd pmps. WOB, 30,000; 38,000; 30,000. RPM, 60; 50. SPM, 122; 120. PSI, 1,500.
16 July	5,416	87	Chgd pmps. drld. Srvy. Drld. Srvy. Drld. Srvy. Drld. Srvy. Drld. Trip out. WOB, 30,000; 25,000; 30,000. RPM, 50; 65; 64. SPM, 122; 120. PSI, 1,500.
17 July	5,494	78	Inspctd dc's, chgd out 3 dc's. Trip in hole. Drld. LC at 5,461 ft., 375 bbl. Trip out, 23 stds. Mxd mud, LCM. Rgnd circ. Circd, wshd 23 stds to btm. Drld. Srvy. WOB, 35,000. RPM, 65. SPM, 120; 110. PSI, 1,400; 1,000.
18 July	5,646	152	Srvy. Drld. Srvy. Drld. Chgd pmp. Drld. Srvy. Drld. WOB, 40,000; 38,000. RPM, 60. SPM, 110; 120. PSI, 1,000; 1,300.
19 July	5,771	125	Drld. Srvy. Drld. Srvy. WOB, 38,000; 35,000. RPM, 60; 65. SPM, 120. PSI, 1,300.
20 July	5,836	65	Srvy. Drld. Trip out. Drsd bit. Trip in hole, ckd BPO, pkd up jnk sub, 3 dc's torque dc. Trip in hole. Wshd, rmd 45 ft. to btm, 15 ft. fill. Drld. Srvy. WOB, 35,000; 30,000. RPM, 65; 70. SPM, 120. PSI, 1,300; 1,350.
21 July	5,919	83	Srvy. Drld. Srvy. Drld. WOB, 30,000. RPM, 70. SPM, 120; 122. PSI, 1,300; 1,350.
22 July	5,968	49	Drld. LC at 5,932, 150 bbl. Trip out, 28 stds. Mxd mud, LCM. Trip in hole, wshd 30 ft to btm. Drld. Srvy. Drld. WOB, 30,000. RPM, 70. SPM, 120. PSI, 1,300.
23 July	5,998	30	Drld. Trip out. Chgd out 2 stblzrs, shk sub. Trip in hole w/BHA. Cut 90 ft drlg line. Trip in hole. Rmd out-of-gauge. hole. Drld. WOB, 30,000 (rmg WOB, 5,000). RPM, 70. SPM, 120; 122. PSI, 1,300; 1,400.
24 July	6,075	77	Drld. Srvy. Drld. WOB, 30,000. RPM, 70. SPM, 120; 122. PSI, 1,300; 1,400.
25 July	6,089	14	Drld. Srvy. Unplgd bit. Drld. Trip out. Ggd BHA, chgd 2 nr-bit IBS. Trip in hole. Rmd 120 ft to btm. Drld. Trip out. WOB, 30,000; 25,000 (rmg WOB, 3,000). RPM, 70. SPM, 120; 122. PSI, 1,400.
26 July	6,139	50	Trip out. PU jnk sub. Trip in hole. Rmd 40 ft to btm. Drld. Trip out. Ggd BHA, chgd nr-bit sub. Trip in hole. Rmd 107 ft to btm. Drld. Srvy. WOB, 25,000. RPM, 72; 70. SPM, 120. PSI, 1,400; 1,300.
27 July	6,227	88	Srvy. Drld. Srvy. Drld. WOB, 25,000; 20,000. RPM, 70. SPM, 120. PSI, 1,300.

28 July	6,287	60	Drld. Srvy. Drld. Trip out. Chgd bit, pu jnk sub. Trip in hole. WOB, 20,000. RPM, 70. SPM, 120. PSI, 1,300.
29 July	6,357	70	Trip in hole. Rmd 45 ft to btm. Drld. Srvy, misrun. Drld. Srvy, misrun. Drld. Srvy, misrun. Drld. Srvy, misrun. Drld. Srvy. Drld. WOB, 18,000. RPM, 70. SPM, 120. PSI, 1,200; 1,250.
30 July	6,429	72	Drld. Srvy. Drld. LC, 50 bbl, at 6,404, regnd. Drld, mxd mud & LCM. Drld. WOB, 18,000; 15,000. RPM, 70. SPM, 120. PSI, 1,250.
31 July	6,459	30	Drld. Srvy. Trip out, hole tt 28 stds off btm. Inspctd BHA, chgd 3 dc's. Trip in hole, Magnafluxed dc's. Rmd 86 ft to btm. Drld. WOB, 15,000. RPM, 70. SPM, 120. PSI, 1,250; 1,300.
1 Aug.	6,535	76	Drld. Srvy. Drld. WOB, 15,000. RPM, 70. SPM, 120. PSI, 1,300.
2 Aug.	6,607	72	Drld. Srvy. Drld. WOB, 15,000. RPM, 70. SPM, 120. PSI, 1,300.
3 Aug.	6,677	70	Drld. Srvy. Drld. WOB, 15,000. RPM, 70. SPM, 120. PSI, 1,300.
4 Aug.	6,715	38	Drld. Drpd srvy. Trip out, SLM, hole tt 18 stds off btm. Ckd BOP. Lyd dn stblzrs, shk sub. Pkd up 6-pt rmr, 2 3-pt rmrs, shk sub, jars, 2 dc's. Cut drlg line. Trip in hole, slow. WOB, 15,000. RPM, 70. SPM, 120. PSI, 1,300.
5 Aug.	6,750	35	Trip in hole, slow. Rmd tt hole. Drld. WOB, 20,000 (rmg WOB, 3,000-5,000). RPM, 70. SPM, 120. PSI, 1,300.
6 Aug.	6,896	146	Drld. Srvy. Drld. Srvy. Drld. Srvy. Drld. WOB, 15,000. RPM, 70. SPM, 120. PSI, 1,300.
7 Aug.	7,001	105	Drld. Srvy. Drld. Srvy. WOB, 15,000; 20,000. RPM, 70. SPM, 120. PSI, 1,300.
8 Aug.	7,059	58	Srvy. Drld. Drpd srvy. Trip out, wrkd thru tt spots. lyd dn 6-pt rmr. Ckd BOP. Pkd up bit & 6-pt rmr. WOB, 20,000. RPM, 70. SPM, 120. PSI, 1,400; 1,300.
9 Aug.	7,100	41	Chgd rmrs, kyst wpr, lyd dn 3 dc's. Trip in hole. Rmd. Drld. WOB, 15,000; 20,000 (rmg WOB, 3,000-5,000). RPM, 70. SPM, 120. PSI, 1,375; 1,300.
10 Aug.	7,152	52	Drld. Srvy, misrun. Srvy. Drld. WOB, 20,000. RPM, 70. SPM, 120. PSI, 1,300.
11 Aug.	7,183	31	Drld. Trip out, hole tt. Trip in hole, wshd thru tt spots. Wshd 240 ft to btm. Drld. WOB, 20,000. RPM, 70. SPM, 120; 122. PSI, 1,300; 1,400.
12 Aug	7,245	62	Drld. Srvy, misrun. Srvy. Drld. Srvy. WOB, 20,000. RPM, 70. SPM, 120. PSI, 1,400.
13 Aug.	7,270	25	Srvy. Drld. Drpd srvy. Trip out, hole tt. Chgd BHA. Trip in hole, tt at 5,000 ft, rmd 3 jts. Finished trip in hole. Rmd. WOB, 20,000 (rmg WOB, 5,000). RPM, 70. SPM, 120. PSI, 1,400; 1,200.

14 Aug.	7,319	49	Rmd, cond mud. Drld. Rmd tt hole for srvy. WOB, 12,000; 15,000; 16,000 (rmg WOB, 3,000-5,000). RPM, 70. SPM, 120. PSI, 1,300 (rmg PSI, 1,200).
15 Aug.	7,334	15	Rmd tt spot. Srvy. Drld. Trip out, wrkd thru tt spot 2,200 ft off btm. Ckd BOP. Pkd up Dyna-Drill, chgd BHA. Trip in hole, wrkd thru tt spots. Wshd to btm. Drld w/Dyna-Drill. WOB, 15,000; 8,000; 10,000. RPM, 70/430. SPM, 120. PSI, 1,300; 1,250.
16 Aug.	7,401	67	Drld. Srvy, misrun. Srvy, misrun. Srvy. Drld. WOB, 8,000; 20,000. RPM, 430; 30/400. SPM, 120. PSI, 1,300; 1,250.
17 Aug.	7,472	71	Drld. Srvy. Drld. Trip out, slow, hole tt. WOB, 8,000; 10,000. RPM, 30/400; 40; 46/400. SPM, 120. PSI, 1,250.
18 Aug.	7,523	51	Trip out. Chgd BHA, lyd dn Dyna-Drill, chgd out shk sub. Trip in hole, blk-ltd BHA. Rmd, wshd 30 ft to btm, 15 ft fill. Drld. Srvy. Drld. WOB, 15,000; 25,000; 20,000. RPM, 70. SPM, 120. PSI, 1,400.
19 Aug.	7,599	76	Drld. Srvy. Drld. Srvy. Drld. WOB, 25,000; 10,000. RPM, 70; 36. SPM, 120. PSI, 1,400.
20 Aug.	7,646	47	Drld. Srvy. Drld. WOB, 10,000; 15,000; 35,000. RPM, 42; 44; 34. SPM, 120. PSI, 1,300; 1,350.
21 Aug.	7,717	71	Drld. Srvy. Drld. Srvy. Drld. Drpd srvy. Trip out, slow. WOB, 35,000. RPM, 35. SPM, 120; 122; 120. PSI, 1,350.
22 Aug.	7,744	27	Trip out, rmd 45 ft at 8 stds out. Chgd bit. Trip in hole. Wshd, rmd to btm, 4 ft fill. Drld. Srvy. Drld. WOB, 10,000; 15,000. RPM, 40. SPM, 120. PSI, 1,300.
23 Aug.	7,773	29	Drld. Srvy. Drld. Trip out. Pkd up Dyna-Drill, lyd dn IBS. Trip in hole slow. Wshd, rmd to btm. Drld. WOB, 15,000; 18,000. RPM, 40. SPM, 120. PSI, 1,300.
24 Aug.	7,846	73	Drld. Swtchd pmps. Drld. Srvy. Drld. WOB, 8,000; 10,000. RPM, 35/350; 28/400; 36. SPM, 120; 122; 120. PSI, 1,250; 1,200.
25 Aug.	7,915	69	Drld. Srvy. Drld. WOB, 8,000; 10,000. RPM, 30/400; 28/400. SPM, 120; 122. PSI, 1,200.
26 Aug.	7,971	56	Drld. Srvy. Drld. Drpd srvy. Trip out. WOB, 8,000; 10,000. RPM, 30/400; 28/400. SPM, 120; 122. PSI, 1,200; 1,150.
27 Aug.	8,011	40	Trip out. Lyd dn Dyna-Drill, pkd up new BHA. Trip in hole. Cut 70 ft drlg line. Fnshd trip in hole. Wshd, rmd 45 ft to btm. Drld. Srvy. Drld. WOB, 10,000. RPM, 36; 70. SPM, 120. PSI, 1,400.

28 Aug.	8,071	60	Drld. Srvy. Drld. Srvy. Drld. WOB, 10,000; 15,000. RPM, 70. SPM, 120. PSI, 1,400.
29 Aug.	8,152	81	Drld. Srvy. Drld. Srvy, misrun. Srvy. Drld. Srvy. Drld. Rmd after torqd up. Drld. WOB, 15,000; 20,000; 25,000. RPM, 70. SPM, 122; 120. PSI, 1,400; 1,700; 1,400.
30 Aug.	8,244	92	Drld. Srvy. Drld. Srvy. Drld. Srvy. Drld. Wrkd on pmp. Drld. WOB, 25,000; 20,000. RPM, 70. SPM, 122; 120. PSI, 1,400; 1,300; 1,400.
31 Aug.	8,275	31	Drld. Srvy. Drld. Trip out, hole tt 15 stds off btm. Chgd bit. Trip in hole. Wshd, rmd 133 ft to btm. Drld. WOB, 25,000; 10,000; 15,000; 18,000. RPM, 70. SPM, 122; 120. PSI, 1,400; 1,300.
1 Sept.	8,333	58	Drld. Srvy. Drld. Srvy. Drld. WOB, 18,000. RPM, 70. SPM, 122. PSI, 1,300.
2 Sept.	8,389	56	Drld. Srvy. Drld. Srvy. Drld. Twstd off 3,816 ft dn. WOB, 18,000; 15,000. RPM, 70. SPM, 122. PSI, 1,300.
3 Sept.	8,389	0	Trip out. WO fsg tls. Pkd up fsg tls. Trip in hole, SLM. Enggd fish, wrkd free. Trip out w/fish. Lyd dn fsh, fsg tls. Fnshd trip out. Ckd, bld-ltd dc's, subs. Trip in hole, chgd out shk sub, jars, 3 dc's.
4 Sept	8,435	46	Trip in hole, chgd out 11 jts bent dp. Wshd, rmd to btm. Drld. Srvy, tl wd not go to btm. Drld. Srvy. Drld. WOB, 15,000; 20,000; 15,000. RPM, 60; 70. SPM, 92; 122. PSI, 1,400; 1,350.
5 Sept.	8,478	43	Drld. Srvy. Drld. Srvy, tl wd not go to btm. Drld. Srvy, tl stpd @ 8,145 ft. Trip out, drftd 26 stds, rmvd rks. Chgd bit. WOB, 15,000. RPM, 70. SPM, 120. PSI, 1,350.
6 Sept.	8,539	61	Trip in hole, chgd kyst wpr. Rmd 60 ft out-of-gauge hole. Drld. Srvy. Drld. Srvy. Drld. WOB, 15,000; 18,000. RPM, 70. SPM, 120. PSI, 1,350.
7 Sept.	8,633	94	Drld. Srvy. Drld. Srvy. Drld. WOB, 18,000; 20,000. RPM, 70. SPM, 120. PSI, 1,350.
8 Sept.	8,712	79	Drld. Srvy. Drld. WOB, 18,000; 20,000. RPM, 70. SPM, 120. PSI, 1,350.
9 Sept.	8,793	81	Drld. Srvy. Chgd pmps. Drld. Chgd pmps. Drld. Srvy. Drld. WOB, 18,000; 20,000; 25,000. RPM, 70. SPM, 120; 122. PSI, 1,350.
10 Sept.	8,910	117	Drld. Srvy. Drld. Rprd rtry trq whl. Drld. Srvy. Drld. Circ out smpls @ 8,879. Drld. Rmd hole on conn. Drld. Rprd rtry bshgs. WOB, 20,000; 25,000. RPM, 70. SPM, 122. PSI, 1,350; 1,400.

7180 - 7190	PR SMPL - TRIP FOR BIT		
	LS	50	gy, micxln, aa.
	MRLS	30	aa.
	LS	20	oolc, aa.
7190 - 7200	MRLS	50	aa.
	LS	30	gy, micxln, aa.
	LS	20	oolc, aa.
	LS	Tr	bn, vfxln, dns, dolc.
		Tr	CAL frac fill, wh.
7200 - 7210	SMPL LOST		
7210 - 7220	MRLS	60	ltgy, sft-vsft, vfgran, vcalc.
	LS	20	gy, micxln, dns.
	LS	20	ltgy, oolc.
7220 - 7230	LS	50	gy, micxln, aa.
	MRLS	30	aa.
	LS	20	oolc, aa.
7230 - 7250	LS	70	gy, micxln, aa.
	LS	20	oolc, aa.
	MRLS	10	aa.
	LS	Tr	bn, vfxln, dns, dolc, w/s/cxln CAL vn/frac-fill.
7250 - 7260	LS	60	micxln, aa, bcmg bngy, less arg.
	LS	30	oolc, aa, ltgy-ltbn.
	MRLS	10	aa.
7260 - 7270	LS	70	gy-bngy, micxln, aa.
	LS	30	ltgy-ltbn, oolc, aa.
	MRLS	Tr	aa.
	CAL	Tr	wh, cxln, void-fill.
7270 - 7310	LS	90	gy, micxln, aa, w/CAL-fld frac.
	LS	10	ltgy, oolc, aa.
7310 - 7320	LS	80	gy, micxln, aa.
	LS	20	ltgy, oolc, aa.
7320 - 7330	LS	100	gy, micxln, dns, sly arg.
	LS	Tr	ltgy-ltbn, vfxln, sly sucr.
	ABN UPHOLE MATL, 7330-7940		
7330 - 7350	LS	90	gy, micxln, aa, w/CAL-fld frac.
	LS	10	ltgy-ltbn, aa.
7350 - 7370	LS	100	gy, micxln, aa, w/CAL-fld frac.
7370 - 7390	LS	90	gy, micxln, aa, w/CAL-fld frac.
	LS	10	ltgy, vfxln, sly sucr.
7390 - 7410	LS	100	gy, micxln, aa, w/CAL-fld frac.
	LS	Tr	ltgy, vfxln, aa.
7410 - 7510	LS	100	gy, micxln, aa, s/w/vf dism PYR, trs CAL-fld frac.
7510 - 7520	LS	100	aa, no PYR.
	LS	Tr	gy-ltbngy, oolc, rexld.
7520 - 7530	LS	90	gy, micxln, aa.
	LS	10	ltbn-gy, oolc, vfxln, wh-ltbn & ltgy mtrx.
	LS	Tr	bn, micxln, dns.
7530 - 7540	LS	80	gy, micxln, aa.
	LS	20	oolc, aa.
7540 - 7550	LS	90	gy, micxln, aa.
	LS	10	oolc, aa.
7550 - 7570	LS	80	gy, micxln, aa.
	LS	20	oolc, aa.
7570 - 7590	LS	70	gy, micxln, aa.
	LS	30	oolc, aa.

7590 - 7610	LS	90	gy, micxln, aa.
	LS	10	oolc, aa.
7610 - 7660	LS	100	gy, micxln, aa, decr arg.
	LS	Tr	oolc, aa.
7660 - 7670	LS	90	gy, micxln, dns, sly arg, grdg lcly to ltgy, mic-vfxln, sly sucr.
	LS	10	ltgy-ltbn, oolc.
	ANHY	Tr	ltgn, amorph, sft.
7670 - 7700	LS	100	gy, mic-vfxln, aa, w/CAL-fld frac.
7700 - 7720	LS	100	aa, incr arg.
	LS	Tr	ltgy-ltbn, oolc.
7720 - 7740	LS	100	gy, micxln, aa, tr ltgngy.
	LS	Tr	oolc, aa.
7740 - 7810	LS	100	gy, micxln, aa.
7810 - 7830	LS	100	aa.
	LS	Tr	bn, oolc, rexld.
7830 - 7840	LS	100	gy, micxln, aa.
7840 - 7850	LS	100	aa.
	LS	Tr	bn, oolc, rexld.
7850 - 7910	LS	100	bn, micxln, aa, w/tr LS, ltgy, vfxln, dns.
7910 - 7940	LS	100	aa, m-dkgy.
	LS	Tr	ltgy, oolc, rexld.
7940 - 7950	V PR SMPL - MOSTLY CVGS - PROB LS, AA.		
7950 - 7960	PR SMPL - ABN CVGS		
	LS	90	m-dkgy, micxln, aa.
	LS	10	bn-ltgy, oolc, rexld.
7960 - 7980	PR SMPLS - CVGS		
	LS	100	gy, micxln, aa.
	LS	Tr	ltbn-ltgy, oolc.
7980 - 8060	LS	100	m-ltgy, s/bn, micxln, aa, decr arg, trs relict oolc tex. CAL-fld frac.
8060 - 8070	LS	100	aa.
	LS	Tr	ltgy, oolc.
8070 - 8170	LS	100	m-ltgy, aa, w/s/bn. CAL-fld frac.
8170 - 8190	LS	90	aa.
	LS	10	ltgy-bn, oolc.
8190 - 8200	LS	100	m-ltgy, aa, incr bn.
	LS	Tr	oolc, aa.
8200 - 8210	LS	90	gy, bn, micxln, aa.
	LS	10	oolc, aa.
8210 - 8250	LS	100	m-ltgy w/s/dkgy, bn, micxln, dns, hd, w/CAL-fld frac.
	LS	Tr	bn-dkbn, oolc, rexld.
8250 - 8270	LS	100	gy, bn, micxln, aa, w/CAL-fld frac.
	LS	Tr	bn-dkbn, oolc, rexld, aa.
	LS	Tr	ltgy-ltbn, oolc.
8270 - 8290	LS	100	gy, bn, micxln, aa, w/CAL-fld frac.
8290 - 8310	LS	100	aa, pred m-dkgy, w/CAL-fld frac.
	LS	Tr	bn, oolc, rexld.
8310 - 8320	LS	100	gy, bn, micxln, aa, w/CAL-fld frac.
	LS	Tr	bn, oolc, rexld.
	LS	Tr	ltgy, ltbn, vfoolc.
8320 - 8360	LS	100	gy, bn, micxln, aa, w/CAL-fld frac.
	LS	Tr	bn, oolc, rexld.
	LS	Tr	ltbn, ltgy, f-vfoolc.

8360 - 8370	LS	100	dkgy-dkgybn, micxln, dns, hd, grdg lcly to ltgy, vfxln; CAL-fld frac.
	LS	Tr	dkbn, oolc, rexld.
8370 - 8400	LS	100	m-dkgy, micxln, dns, hd, w/CAL-fld frac.
	LS	Tr	ltbn, oolc, rexld.
8400 - 8410	LS	100	dk-mgy, micxln, dns, hd, w/CAL-fld frac.
8410 - 8420	LS	90	aa, w/trs bn-ltbn; CAL-fld frac.
	LS	10	ltbn-ltgy, oolc, in pt rexld.
8420 - 8430	LS	100	aa, pred dkgy-gy, w/CAL-fld frac.
	LS	Tr	oolc, aa.
8430 - 8500	LS	100	dkgy-gy, aa, w/CAL-fld frac.
8500 - 8550	LS	100	aa, lcly oolc.
8550 - 8560	LS	100	aa, sl incr bngy.
8560 - 8570	LS	100	gy, aa, w/CAL-fld frac.
8570 - 8610	LS	100	gy, aa.
8610 - 8640	LS	100	gy-bngy, aa, w/CAL-fld frac.
	LS	Tr	ltbn, oolc, rexld.
8640 - 8650	LS	100	gy-bn, aa, incr bn, w/CAL-fld frac.
8650 - 8660	LS	100	aa, pred bn-bngy.
8660 - 8720	LS	100	aa, gy-bngy, w/CAL-fld frac.
	LS	Tr	bn, oolc, rexld.
8720 - 8730	LS	60	bn-gy, micxln, aa, w/CAL-fld frac.
	SS	30	wh-bn, vfg, wsrt, sbrd-sbang, wcmt, calc, s/slty.
	SLTS	10	bn, fm, calc.
	ANHY	Tr	wh, msv.
8730 - 8740	SLTS	50	aa.
	SS	40	aa.
	ANHY	10	aa.
8740 - 8760	SLTS	60	aa.
	SS	20	aa, w/tr SS, bn, mg, wsrt, ang, wcmt, calc.
	SH	10	bn, fm, calc.
	ANHY	10	aa.
		Trs	CAL frac-fill, wh, vfxln.
8760 - 8770	SLTS	50	aa.
	SS	20	aa.
	SH	20	aa.
	ANHY	10	aa.
	LS	Tr	bn, crpxln, dns, he, w/sbconch frac.
8770 - 8800	SLTS	70	aa.
	SS	20	aa.
	SH	10	aa.
	ANHY	Tr	aa.
			CAL-fld frac.
8800 - 8810	SLTS	60	aa.
	SS	20	aa.
	SH	10	aa.
	ANHY	10	aa.
			CAL-fld frac.
8810 - 8820	SLTS	50	aa.
	SS	30	aa.
	SH	10	aa.
	ANHY	10	aa.
			CAL-fld frac.
8820 - 8830	SLTS	60	aa.
	SS	20	aa.
	SH	10	aa.
	ANHY	10	aa.
			CAL-fld frac.

8830 - 8840	SLTS	50	aa.
	SS	20	aa.
	SH	20	aa.
	ANHY	10	aa.
	LS	Tr	bn-dkgybn, mic-vfxln, dns, hd, sbconch frac. CAL-fld frac.
8840 - 8850	SLTS	50	aa.
	SS	20	wh, f-vfg w/s/mg, w-msrt, sbrd-sbang, wcmt, tt, sly calc, w/SS aa.
	SH	10	aa.
	LS	10	aa.
	ANHY	10	aa. CAL-fld frac.
8850 - 8860	SS	40	aa.
	SLTS	30	aa.
	SH	10	aa.
	LS	10	aa.
	ANHY	10	aa.
8860 - 8870	SS	50	aa, bcmg wh-ltbn, s/pnk, incr mg, tr cg.
	SLTS	20	aa.
	SH	10	aa.
	LS	10	aa.
	ANHY	10	aa.
8870 8910	SS	100	aa, ltbn & pnk - wh, f-mg, w/s/vfg, s/cg.
8910 - 8923	V PR SMPL - SWEEPING HOLE FOR LOGS		
	SS	100	aa.

JOHN S. WILLIAMS, GEOLOGIST

SUMMARY OF GEOLOGY

Operator: The Anschutz Corporation - Well: Anschutz Ranch 3-2, Redrill.

Redrilling and geologic coverage of the Anschutz Corporation's Anschutz Ranch well number 3-2 began at 10:00 P.M., 5 July, 1980, at a depth of 3,699 feet. The sediments at the kick-off point were multicolored claystones, predominantly gray to purple-gray, firm, and calcareous. Immediately underlying the claystone, from 3,708 to 3,756, was a light-colored-white, light brown, light gray - conglomerate, composed predominantly of chert and limestone pebbles or cobbles in a matrix of white to brown, fine to very fine grained, well sorted sandstone which was subangular to subrounded, well cemented, and calcareous. Such porosity as was visible was very low to low. This conglomerate is presumed to be lower Cretaceous in age.

Underlying the conglomerate, from 3,756 to 3,904, was a sequence of predominantly reddish-brown to brown siltstones and claystones characteristic of the Preuss formation. Both the siltstones and the claystones were calcareous.

At 3,904 a sequence was entered which is interpreted as being primarily salt with minor amounts of other evaporites. Cuttings consisted of masses of silica - in part crystalline aggregates of quartz, in part cryptocrystalline to amorphous silica which was locally jasperoid. Other than traces of white gypsum, there was no direct evidence of evaporites in this section.

From 4,330 to 5,350 a disrupted sequence was penetrated. Samples here consisted of interbedded brown to reddish-brown siltstone and claystone with minor sandstone, limestone, and gypsum. The sandstone units, which were thin, were light colored - white, light brown, light gray - generally fine to medium grained, moderately to well sorted, subangular to subrounded, well cemented, and calcareous; some were conglomeratic, with chert fragments. The probability of the existence of several faults - of indeterminate displacement - in this section is strong, but could not be defined due to lack of wire-line log coverage of a prt of the well which included this interval, and generally poor sample quality.

At 5,350 a chert-pebble conglomerate was encountered, very probably a repetition of that at 3,708. This was a light brown to light gray to white conglomerate composed primarily of chert pebbles in a matrix of light brown to white sandstone of variable grain size, well cemented and locally quartzitic.

Beneath this conglomerate, from 5,390 to 6,765, was a sequence of typical Preuss lithology: brown to reddish-brown siltstones and generally brownish quartz sandstones with minor amounts of limestone. The siltstones and sandstones were calcareous; the sandstones were predominantly fine to medium grained, moderately to well sorted and subangular to subrounded. The limestones, which were probably nodular to lenticular, were gray to tan, micro- to crypto-crystalline, and dense.

A Preuss evaporite section was penetrated from 6,765 to 6,940. Here, again, there was no direct evidence of salt, and its presence is inferred. Samples through this interval consisted of aggregates of silica - in part crystalline quartz; in part cryptocrystalline to amorphous silica, some of which were jasperoid. Below this was a sequence of Preuss siltstone and sandstone: brown to reddish-brown calcareous siltstone; and brown to gray and white, fine to medium grained quartz sandstone which was in general moderately well sorted, subangular to subrounded, well cemented, and calcareous.

The Twin Creek formation, Giraffe Creek member, was identified at 7,008 feet, on the appearance of dark gray, microcrystalline, dense, argillaceous limestone which was gradational to calcareous shale. The upper part of the Giraffe Creek contained significant amounts of light gray, soft, locally sandy marlstone. Also noted, with amounts increasing with depth, was brown to gray oolitic/pelletal limestone, consisting of very fine to medium ooliths and pellets in a matrix of white to light gray, very finely crystalline, highly calcic limestone. Calcite-filled fractures became increasingly frequent in the lower part of the member.

The top of the Leeds Creek member, at 7,648, was packed on the appearance of light green, amorphous anhydrite. Underlying this was a sequence of dark gray, microcrystalline, dense argillaceous limestone and light gray to light brown oolitic/pelletal limestone with a white to light gray, very fine crystalline calcic limestone matrix. Some calcite-healed fractures were noted in this member.

The Walton Canyon member, top at 7,800, consisted of gray to dark gray to locally brownish-gray, microcrystalline, dense limestone - less argillaceous than the overlying Leeds Creek member - and increasing amounts of brown to gray oolitic/pelletal limestone. As in the members above, the oolitic/pelletal limestone had a matrix composed of white to gray very finely crystalline calcic limestone. Calcite-filled fractures were common in the Walton Canyon.

The Boundary Ridge member, top at 8,220, was composed of gray to brownish-gray, microcrystalline, dense limestone and generally light brown oolitic/pelletal limestone. Calcite-filled fractures were common in this member.

The Rich member, from 8,268 to 8,578, consisted of brown to grayish-brown, microcrystalline, dense limestone and brown to gray recrystallized oolitic/pelletal limestone. Numerous calcite-filled fractures were noted in the Rich member.

The Sliderock member, top at 8,578, consisted of gray to brownish-gray, microcrystalline, dense limestone and brown to gray recrystallized oolitic/pelletal limestone, with calcite-filled fractures.

The Gypsum Springs member, top at 8,655, contained extensively fractured to brecciated limestone, gray to brown in color, microcrystalline, and dense, with brown to gray oolitic/pelletal limestone; white to brown, very fine

grained, sandstone which was well sorted, subrounded to subangular, well cemented, and calcareous, composed predominantly of quartz grains; brown calcareous siltstone; and white massive anhydrite. Calcite-filled fractures were abundant.

The Nugget formation was encountered at 8,810 feet. It consisted of white to light brown and pink quartz sandstone, generally fine to medium grained but locally very fine grained; moderately well sorted; subrounded to subangular; in general well cemented; and slightly calcareous. There was no significant visible porosity.

No indications of hydrocarbons were observed during the redrilling of this well. Although fracturing was extensive through the lower members of the Twin Creek formation in particular, mud log records of hydrocarbon gases were minimal throughout, and no staining, fluorescence, or cut was observed.

Drilling of this well was done in a competent manner, and all personnel associated with the operation deserve commendation.

It was a pleasure to be of service to you in this operation, and I look forward to the opportunity to represent you in future work.

Respectfully submitted,

John S. Williams, Geologist

11 Sept	8,922	12	Rprd rtry bshg. Drld. Circ, cond mud. Trip out, lkg for hole in pipe - twstd off, left Monel dc & bit in hole. WO fsg tls. Rgd up Schlumberger. Ran logging tool in hole, stopped at 4,210, cd not wrk deeper. Pld lgg tl, pld 3,000 lbs ovr tl wt at 4,190. Trip in hole w/RR bit. WOB, 20,000; 25,000. RPM, 70. SPM, 122. PSI, 1,400.
12 Sept.	8,922	0	Trip in hole, plgd jet. Tagd fsh. Circ, cond hole. WO mud matls. Mxd mud, circ, cond hole. Trip out, SLM.
13 Sept.	8,922	0	Trip out, SLM. Rgd up lgrs. Ran in w/lgg tl, tl stpd at 4,418. Wrkd tl at 4,418, wd not go. Pld tl, rgd dn lgrs. Trip in hole w/opn-ended dp, 50 stds. Trip out. Rgd up lgrs, rn in hole, tl stpd at 4,418. Wrkd tl, wd not go. Pld tl, rgd dn lgrs. Trip in hole w/bit, wrkd pipe at 4,695-4,784. Trip out. Rgd up lgrs, rn in hole, tl stpd at 2,952. Wrkd tl, wd not go Pld tl, rgd dn lgrs. Trip in hole w/bit, wshd 45 ft to btm. Circ, cond hole.
14 Sept.	8,922	0	Circ, WO mud matls. Mxd mud, circ, cond hole. Short trip, 25 stds. Circ, cond hole. Trip out. Rgd up lgrs. Ran lgg tl in hole, stpd at 4,613. Pld tl, rgd dn lgrs.
15 Sept.	8,922	0	Trip in hole w/bit, BHA, 22 stds dp. Trip in hole w/23 stds, wrkd ea std 90 ft 5 times. Finshd trip in hole, tgd fish. Trip out, chnd out. Rgd up lgrs. Ran lgg tl, stpd at 4,613. Pld lgg tl, rgd dn lgrs. Pkd up fsg tls. Trip in hole. Circ above fsh. Tgd, wrkd over fsh. Trip out w/fsh.
16 Sept.	8,922	0	Trip out w/fsh, chnd out, wshd thru tt spots. Lyd dn fsg tls & fsh. Trip in hole, pkd up jars. Cut 120 ft drlg line. Fnshd trip in hole, wshd & rmd 40 ft to btm, 12 ft fill. Circ, cond hole.
17 Sept.	8,922	0	Circ, cond hole. Rgd up ly-dn mchn. Ld dn dp. Rgd up to run 7-inch csg.
18 Sept.	8,922	0	Rgd up to run csg. WO csg shoe-did not fit. Ran 7-inch csg, stpd at 4,840. Wrkd csg, wd not go. WO circ hd. Rgd up circ hd. Wrkd csg thru tt spot. Ran csg to 5,985. Rgd up lgrs. Ran Schlumberger logs.
19 Sept.	8,922	0	Logged. Rgd dn lgrs. Rgd up to pull 7-inch csg, WO completion orders.

JOHN S. WILLIAMS, GEOLOGIST

BIT RECORD

Operator: The Anschutz Corporation - Well: Anschutz Ranch 3-2, Redrill.

BIT NO.	SIZE	MFR.	TYPE	DEPTH IN	DEPTH OUT	FEET	HOURS	FT./HR.
1	4 1/2	Security	MH	Drilled plug in 5 1/2" casing			27 ½	2.25
2	8 3/4	Security	S4F	Cleaned hole, drilled cement.				
3	"	Christen-sen (dia)	MD411	3699	3761	62	27 ½	2.25
4	"	Security	S44F	3761	4357	596	33	18.1
5	"	Hughes	J22	4357	5059	702	80 ¼	8.7
6	"	Reed	FP52	5059	5245	186	27 ½	6.8
6RR	"	"	"	5245	5416	171	36 ½	4.7
6 Total						357	64	5.6
7	"	Smith	F2	5416	5781	365	59 ½	6.1
8	"	Security	S86F	5781	5979	198	59 ½	3.3
9	"	Security	S86F	5979	6088	109	33 ¼	3.3
10	"	Hughes	J7	6088	6089	1	1 ½	0.7
11	"	Security	H75G	6089	6105	16	4	4.0
12	"	Smith	F3	6105	6287	182	47 ½	3.8
13	"	Security	S86F	6287	6451	164	49 3/4	3.3
14	"	Hughes	J44	6451	6715	264	85 ½	3.1
15	"	Smith	F3	6715	7059	344	66	5.2
16	"	Hughes	J44	7059	7180	121	46 3/4	2.6
17	"	Reed	FP52	7180	7270	90	32 ¼	2.8
18	"	Security	H75GJ	7270	7327	57	18 ½	3.1
19	"	Christen-sen (dia)	MD331	7327	7473	146	41 ½	3.5
17RR	"	Reed	FP52	7473	7717	244	76 3/4	3.3
17 Total						334	109	3.1

JOHN S. WILLIAMS, GEOLOGIST

BIT RECORD

Operator: The Anschutz Corporation - Well: Anschutz Ranch 3-2, Redrill.

BIT NO.	SIZE	MFR.	TYPE	DEPTH IN	DEPTH OUT	FEET	HOURS	FT./HR.
20	8 3/4	Security	S84F	7717	7773	56	22	2.5
21	"	Christen-sen (dia)	MD331	7773	7971	198	67	3.0
22	"	Smith	F3	7971	8261	290	82 ½	3.5
23	"	Reed	FP53A	8261	8479	218	78	2.8
24	"	Security	S86F	8479	8922	443	105	4.2

JOHN S. WILLIAMS, GEOLOGIST

DIRECTIONAL SURVEYS

Operator: The Anschutz Corporation - Well: Anschutz Ranch 3-2, Redrill.

DEPTH	DEVIATION	DIRECTION	DEPTH	DEVIATION	DIRECTION
3600	1 3/4°	S ½°E	4409	10 1/4°	N63°W
3679	3/4°	S23°E	4470	10 1/2°	N64°W
3712	1 1/2°	N83°W	4532	10 3/4°	N63°W
3794	5°	N58°W	4593	10 1/2°	N65°W
3824	5 1/2°	N55°W	4641	NR	NR
3856	6 1/4°	N58°W	4673	10°	N65°W
3887	6 3/4°	N55°W	4731	NR	NR
3917	7°	N55°W	4731	9 1/2°	N68°W
3948	7 1/2°	N53°W	4796	9°	N70°W
3979	7 3/4°	N53°W	4866	8 3/4°	N72°W
4010	8 1/4°	N49°W	4919	8°	N75°W
4040	8 1/2°	N48°W	4991	NR	NR
4070	8 3/4°	N48°W	5020	NR	NR
4075	8 1/2°	N48°W	5021	8°	N78°W
4101	9°	N48°W	5122	7 1/4°	N68°W
4133	8 1/2°	N50°W	5182	7°	N82°W
4163	8 3/4°	N55°W	5244	6 3/4°	N84°W
4193	8 3/4°	N54°W	5288	7 1/4°	N85°W
4233	8 3/4°	N55°W	5351	NR	NR
4264	9 1/4°	N57°W	5351	NR	NR
4294	9 1/2°	N59°W	5352	8 1/2°	N88°W
4324	NR	NR	5412	9 3/4°	90°W
4327	10°	N60°W	5494	10 1/4°	S88°W
4357	10 1/4°	N63°W	5545	10 1/4°	S89°W

GEOLOGIC REPORT

ON

THE ANSCHUTZ CORPORATION'S

ANSCHUTZ RANCH WELL NO 3-2 REDRILL

SECTION 3, T 3 N, R 7 E

SUMMIT COUNTY, UTAH

BY

JOHN S. WILLIAMS, GEOLOGIST

GRAND JUNCTION, COLORADO 81503

WELL SUMMARY

OPERATOR:	The Anschutz Corporation.
WELL:	Anschutz Ranch 3-2, Redrill.
FIELD:	Anschutz Ranch.
LOCATION:	NW ¼, SE ¼, Sec. 3, T. 3 N., R. 7 E.
COUNTY:	Summit.
STATE:	Utah.
ELEVATION:	KB, 7748. GL, 7727.
OBJECTIVE:	Jurassic Twin Creek.
SPUDDED:	Sidetracked at 3,699 ft., 10:00 P.M., 5 July, 1980.
COMPLETED:	Finished electric logging, 19 September, 1980.
TOTAL DEPTH:	8922 driller. 8923, loggers.
SUPERVISION:	Lynch Consulting Services; Val Dillie, Lee Naylor, Pat Patterson, Ted Fuller.
GEOLOGIST:	John S. Williams.
DRILLING CONTRACTOR:	Brinkerhoff-Signal, Rig 8.
TOOL PUSHER:	Jesse Carter, Bill Kimball.
DIRECTIONAL DRILLING:	Franco Directional Control; Harvey Francis.
HOLE SIZE:	8 3/4", 3699-8922.
DRILL COLLARS:	6 3/4: I. F.
DRILL PIPE:	4 ½" X-hole.
CASING:	9 5/8" at 2144.
DRILLING MUD:	IMCO Services; low-solids, non-dispersed; salt-saturated.
MUD ENGINEERS:	Norm Allard, Mike Voorhis, Don Schneider.
MUD LOGGING:	Tooke Engineering, Unit T-78.
MUD LOGGERS:	Pete Thams, Sam Spencer, Bill Hoesch, Larry Hunold, Pat Swigart.
ELECTRIC LOGGING:	Schlumberger; DLL-GR; BHC-GR-TTI; OH-AMPL-VDL; FDC-CNL-GR; HDT-FIL-GR.
STATUS:	Waiting on completion orders.

JOHN S. WILLIAMS, GEOLOGIST

Operator: The Anschutz Corporation - Well: Anschutz Ranch 3-2 (Redrill).

WELL CHRONOLOGY

5 July, 1980	3,705?	6?	Kickd off old hole w/Dyna-Drill/at 3,699 ft. at 10:00 P.M. Drld. WOB, NR. RPM, NR. SPM, 122. PSI, 700.
6 July	3,757	52	Drld. Srvy. Drld. Srvy. Drld. WOB, 8,000; 11,000; 10,000. RPM, 400. SPM, 120. PSI, 800.
7 July	3,866	109	Drld. Trip out, ld dn Dyna-Drill, pu new bit & stblzrs. Trip in hole, rmd 62 ft. to btm. Drld. Circ, surv. Drld. Circ, srvy. Drld. Circ, surv. WOB, 15-25,000; 35,000. RPM, 80; 50. SPM, 120; 122. PSI, 850; 900; 800.
8 July	4,173	307	Srvy. Drld. Circ, srvy. Drld. Circ, srvy. Drld. Circ, srvy. Drld. Circ, srvy. Drld. Circ, srvy. Drld. Circ, srvy. Drld. Circ, srvy. Drld. Circ, srvy. Drld. Srvy. Drld. Circ, srvy. WOB, 35,000. RPM, 50. SPM, 120; 122. PSI, 900.
9 July	4,409	236	Srvy. Drld. Circ, srvy. Drld. Circ, srvy. Drld. Circ, srvy. Drld. Srvy. Drld. Srvy. Drld. Reran srvy. Drld. Circ, srvy. Tried to drl. Trip out, chgd BHA. Trip in hole, wshd to btm. Drld. Srvy. WOB, 35,000; 20,000; 25,000. RPM, 50; 64. SPM, 120. PSI, 900; 1,100.
10 July	4,654	245	Srvy. Drld. Circ, srvy. Drld. Srvy. Drld. Circ, srvy. Drld. Srvy, misrun. Drld. WOB, 25,000; 15,000; 25,000. RPM, 64; 65. SPM, 120. PSI, 1,450; 1,400.
11 July	4,824	170	Drld. Srvy. Drld. Srvy, misrun. Drld. Srvy. Drld. Srvy. Drld. WOB, 15,000. RPM, 65. SPM, 122; 120. PSI, 1,400; 1,450; 1,400.
12 July	4,977	153	Drld. Srvy. Drld. Srvy. Drld. WOB, 15,000; 20,000; 15,000; 25,000; 35,000. RPM, 65. SPM, 122; 120; 115. PSI, 1,400; 1,500.
13 July	5,092	115	Drld. Srvy. Drld. Srvy. Drld. Srvy. Drld. Trip out. Ckd BOP, pu shk sub. Trip in hole, wshd 25 ft. to btm. Drld. WOB, 35,000; 25,000; 35,000. RPM, 65. SPM, 122; 120. PSI, 1,500; 1,450.
14 July	5,242	150	Drld. Srvy. Drld. Ckd pmp. Drld. Srvy. Drld. WOB, 35,000; 25,000; 38,000. RPM, 65; 60. SPM, 122; 120. PSI, 1,500.

15 July	5,329	87	Drld. Srvy. Drld. Trip out. Lyd dn IBS. Trip in hole. Drld. Srvy. Drld. Chgd pmps. Drld. Chgd pmps. WOB, 30,000; 38,000; 30,000. RPM, 60; 50. SPM, 122; 120. PSI, 1,500.
16 July	5,416	87	Chgd pmps. drld. Srvy. Drld. Srvy. Drld. Srvy. Drld. Srvy. Drld. Trip out. WOB, 30,000; 25,000; 30,000. RPM, 50; 65; 64. SPM, 122; 120. PSI, 1,500.
17 July	5,494	78	Inspctd dc's, chgd out 3 dc's. Trip in hole. Drld. LC at 5,461 ft., 375 bbl. Trip out, 23 stds. Mxd mud, LCM. Rgnd circ. Circd, wshd 23 stds to btm. Drld. Srvy. WOB, 35,000. RPM, 65. SPM, 120; 110. PSI, 1,400; 1,000.
18 July	5,646	152	Srvy. Drld. Srvy. Drld. Chgd pmp. Drld. Srvy. Drld. WOB, 40,000; 38,000. RPM, 60. SPM, 110; 120. PSI, 1,000; 1,300.
19 July	5,771	125	Drld. Srvy. Drld. Srvy. WOB, 38,000; 35,000. RPM, 60; 65. SPM, 120. PSI, 1,300.
20 July	5,836	65	Srvy. Drld. Trip out. Drsd bit. Trip in hole, ckd BPO, pkd up jnk sub, 3 dc's torque dc. Trip in hole. Wshd, rmd 45 ft. to btm, 15 ft. fill. Drld. Srvy. WOB, 35,000; 30,000. RPM, 65; 70. SPM, 120. PSI, 1,300; 1,350.
21 July	5,919	83	Srvy. Drld. Srvy. Drld. WOB, 30,000. RPM, 70. SPM, 120; 122. PSI, 1,300; 1,350.
22 July	5,968	49	Drld. LC at 5,932, 150 bbl. Trip out, 28 stds. Mxd mud, LCM. Trip in hole, wshd 30 ft to btm. Drld. Srvy. Drld. WOB, 30,000. RPM, 70. SPM, 120. PSI, 1,300.
23 July	5,998	30	Drld. Trip out. Chgd out 2 stblzrs, shk sub. Trip in hole w/BHA. Cut 90 ft drlg line. Trip in hole. Rmd out-of-gauge. hole. Drld. WOB, 30,000 (rmg WOB, 5,000). RPM, 70. SPM, 120; 122. PSI, 1,300; 1,400.
24 July	6,075	77	Drld. Srvy. Drld. WOB, 30,000. RPM, 70. SPM, 120; 122. PSI, 1,300; 1,400.
25 July	6,089	14	Drld. Srvy. Unplgd bit. Drld. Trip out. Ggd BHA, chgd 2 nr-bit IBS. Trip in hole. Rmd 120 ft to btm. Drld. Trip out. WOB, 30,000; 25,000 (rmg WOB, 3,000). RPM, 70. SPM, 120; 122. PSI, 1,400.
26 July	6,139	50	Trip out. PU jnk sub. Trip in hole. Rmd 40 ft to btm. Drld. Trip out. Ggd BHA, chgd nr-bit sub. Trip in hole. Rmd 107 ft to btm. Drld. Srvy. WOB, 25,000. RPM, 72; 70. SPM, 120. PSI, 1,400; 1,300.
27 July	6,227	88	Srvy. Drld. Srvy. Drld. WOB, 25,000; 20,000. RPM, 70. SPM, 120. PSI, 1,300.

28 July	6,287	60	Drld. Srvy. Drld. Trip out. Chgd bit, pu jnk sub. Trip in hole. WOB, 20,000. RPM, 70. SPM, 120. PSI, 1,300.
29 July	6,357	70	Trip in hole. Rmd 45 ft to btm. Drld. Srvy, misrun. Drld. Srvy, misrun. Drld. Srvy, misrun. Drld. Srvy, misrun. Drld. Srvy. Drld. WOB, 18,000. RPM, 70. SPM, 120. PSI, 1,200; 1,250.
30 July	6,429	72	Drld. Srvy. Drld. LC, 50 bbl, at 6,404, regnd. Drld, mxd mud & LCM. Drld. WOB, 18,000; 15,000. RPM, 70. SPM, 120. PSI, 1,250.
31 July	6,459	30	Drld. Srvy. Trip out, hole tt 28 stds off btm. Inspctd BHA, chgd 3 dc's. Trip in hole, Magnafluxed dc's. Rmd 86 ft to btm. Drld. WOB, 15,000. RPM, 70. SPM, 120. PSI, 1,250; 1,300.
1 Aug.	6,535	76	Drld. Srvy. Drld. WOB, 15,000. RPM, 70. SPM, 120. PSI, 1,300.
2 Aug.	6,607	72	Drld. Srvy. Drld. WOB, 15,000. RPM, 70. SPM, 120. PSI, 1,300.
3 Aug.	6,677	70	Drld. Srvy. Drld. WOB, 15,000. RPM, 70. SPM, 120. PSI, 1,300.
4 Aug.	6,715	38	Drld. Drpd srvy. Trip out, SLM, hole tt 18 stds off btm. Ckd BOP. Lyd dn stblzrs, shk sub. Pkd up 6-pt rmr, 2 3-pt rmrs, shk sub, jars, 2 dc's. Cut drlg line. Trip in hole, slow. WOB, 15,000. RPM, 70. SPM, 120. PSI, 1,300.
5 Aug.	6,750	35	Trip in hole, slow. Rmd tt hole. Drld. WOB, 20,000 (rmg WOB, 3,000-5,000). RPM, 70. SPM, 120. PSI, 1,300.
6 Aug.	6,896	146	Drld. Srvy. Drld. Srvy. Drld. Srvy. Drld. WOB, 15,000. RPM, 70. SPM, 120. PSI, 1,300.
7 Aug.	7,001	105	Drld. Srvy. Drld. Srvy. WOB, 15,000; 20,000. RPM, 70. SPM, 120. PSI, 1,300.
8 Aug.	7,059	58	Srvy. Drld. Drpd srvy. Trip out, wrkd thru tt spots. lyd dn 6-pt rmr. Ckd BOP. Pkd up bit & 6-pt rmr. WOB, 20,000. RPM, 70. SPM, 120. PSI, 1,400; 1,300.
9 Aug.	7,100	41	Chgd rmrs, kyst wpr, lyd dn 3 dc's. Trip in hole. Rmd. Drld. WOB, 15,000; 20,000 (rmg WOB, 3,000-5,000). RPM, 70. SPM, 120. PSI, 1,375; 1,300.
10 Aug.	7,152	52	Drld. Srvy, misrun. Srvy. Drld. WOB, 20,000. RPM, 70. SPM, 120. PSI, 1,300.
11 Aug.	7,183	31	Drld. Trip out, hole tt. Trip in hole, wshd thru tt spots. Wshd 240 ft to btm. Drld. WOB, 20,000. RPM, 70. SPM, 120; 122. PSI, 1,300; 1,400.
12 Aug	7,245	62	Drld. Srvy, misrun. Srvy. Drld. Srvy. WOB, 20,000. RPM, 70. SPM, 120. PSI, 1,400.
13 Aug.	7,270	25	Srvy. Drld. Drpd srvy. Trip out, hole tt. Chgd BHA. Trip in hole, tt at 5,000 ft, rmd 3 jts. Finished trip in hole. Rmd. WOB, 20,000 (rmg WOB, 5,000). RPM, 70. SPM, 120. PSI, 1,400; 1,200.

14 Aug.	7,319	49	Rmd, cond mud. Drld. Rmd tt hole for srvy. WOB, 12,000; 15,000; 16,000 (rmg WOB, 3,000-5,000). RPM, 70. SPM, 120. PSI, 1,300 (rmg PSI, 1,200).
15 Aug.	7,334	15	Rmd tt spot. Srvy. Drld. Trip out, wrkd thru tt spot 2,200 ft off btm. Ckd BOP. Pkd up Dyna-Drill, chgd BHA. Trip in hole, wrkd thru tt spots. Wshd to btm. Drld w/Dyna-Drill. WOB, 15,000; 8,000; 10,000. RPM, 70/430. SPM, 120. PSI, 1,300; 1,250.
16 Aug.	7,401	67	Drld. Srvy, misrun. Srvy, misrun. Srvy. Drld. WOB, 8,000; 20,000. RPM, 430; 30/400. SPM, 120. PSI, 1,300; 1,250.
17 Aug.	7,472	71	Drld. Srvy. Drld. Trip out, slow, hole tt. WOB, 8,000; 10,000. RPM, 30/400; 40; 46/400. SPM, 120. PSI, 1,250.
18 Aug.	7,523	51	Trip out. Chgd BHA, lyd dn Dyna-Drill, chgd out shk sub. Trip in hole, blk-ltd BHA. Rmd, wshd 30 ft to btm, 15 ft fill. Drld. Srvy. Drld. WOB, 15,000; 25,000; 20,000. RPM, 70. SPM, 120. PSI, 1,400.
19 Aug.	7,599	76	Drld. Srvy. Drld. Srvy. Drld. WOB, 25,000; 10,000. RPM, 70; 36. SPM, 120. PSI, 1,400.
20 Aug.	7,646	47	Drld. Srvy. Drld. WOB, 10,000; 15,000; 35,000. RPM, 42; 44; 34. SPM, 120. PSI, 1,300; 1,350.
21 Aug.	7,717	71	Drld. Srvy. Drld. Srvy. Drld. Drpd srvy. Trip out, slow. WOB, 35,000. RPM, 35. SPM, 120; 122; 120. PSI, 1,350.
22 Aug.	7,744	27	Trip out, rmd 45 ft at 8 stds out. Chgd bit. Trip in hole. Wshd, rmd to btm, 4 ft fill. Drld. Srvy. Drld. WOB, 10,000; 15,000. RPM, 40. SPM, 120. PSI, 1,300.
23 Aug.	7,773	29	Drld. Srvy. Drld. Trip out. Pkd up Dyna-Drill, lyd dn IBS. Trip in hole slow. Wshd, rmd to btm. Drld. WOB, 15,000; 18,000. RPM, 40. SPM, 120. PSI, 1,300.
24 Aug.	7,846	73	Drld. Swtchd pmps. Drld. Srvy. Drld. WOB, 8,000; 10,000. RPM, 35/350; 28/400; 36. SPM, 120; 122; 120. PSI, 1,250; 1,200.
25 Aug.	7,915	69	Drld. Srvy. Drld. WOB, 8,000; 10,000. RPM, 30/400; 28/400. SPM, 120; 122. PSI, 1,200.
26 Aug.	7,971	56	Drld. Srvy. Drld. Drpd srvy. Trip out. WOB, 8,000; 10,000. RPM, 30/400; 28/400. SPM, 120; 122. PSI, 1,200; 1,150.
27 Aug.	8,011	40	Trip out. Lyd dn Dyna-Drill, pkd up new BHA. Trip in hole. Cut 70 ft drlg line. Fnshd trip in hole. Wshd, rmd 45 ft to btm. Drld. Srvy. Drld. WOB, 10,000. RPM, 36; 70. SPM, 120. PSI, 1,400.

28 Aug.	8,071	60	Drld. Srvy. Drld. Srvy. Drld. WOB, 10,000; 15,000. RPM, 70. SPM, 120. PSI, 1,400.
29 Aug.	8,152	81	Drld. Srvy. Drld. Srvy, misrun. Srvy. Drld. Srvy. Drld. Rmd after torqd up. Drld. WOB, 15,000; 20,000; 25,000. RPM, 70. SPM, 122; 120. PSI, 1,400; 1,700; 1,400.
30 Aug.	8,244	92	Drld. Srvy. Drld. Srvy. Drld. Srvy. Drld. Wrkd on pmp. Drld. WOB, 25,000; 20,000. RPM, 70. SPM, 122; 120. PSI, 1,400; 1,300; 1,400.
31 Aug.	8,275	31	Drld. Srvy. Drld. Trip out, hole tt 15 stds off btm. Chgd bit. Trip in hole. Wshd, rmd 133 ft to btm. Drld. WOB, 25,000; 10,000; 15,000; 18,000. RPM, 70. SPM, 122; 120. PSI, 1,400; 1,300.
1 Sept.	8,333	58	Drld. Srvy. Drld. Srvy. Drld. WOB, 18,000. RPM, 70. SPM, 122. PSI, 1,300.
2 Sept.	8,389	56	Drld. Srvy. Drld. Srvy. Drld. Twstd off 3,816 ft dn. WOB, 18,000; 15,000. RPM, 70. SPM, 122. PSI, 1,300.
3 Sept.	8,389	0	Trip out. WO fsg tls. Pkd up fsg tls. Trip in hole, SLM. Enggd fish, wrkd free. Trip out w/fish. Lyd dn fsh, fsg tls. Fnshd trip out. Ckd, bld-ltd dc's, subs. Trip in hole, chgd out shk sub, jars, 3 dc's.
4 Sept	8,435	46	Trip in hole, chgd out 11 jts bent dp. Wshd, rmd to btm. Drld. Srvy, tl wd not go to btm. Drld. Srvy. Drld. WOB, 15,000; 20,000; 15,000. RPM, 60; 70. SPM, 92; 122. PSI, 1,400; 1,350.
5 Sept.	8,478	43	Drld. Srvy. Drld. Srvy, tl wd not go to btm. Drld. Srvy, tl stpd @ 8,145 ft. Trip out, drftd 26 stds, rmvd rks. Chgd bit. WOB, 15,000. RPM, 70. SPM, 120. PSI, 1,350.
6 Sept.	8,539	61	Trip in hole, chgd kyst wpr. Rmd 60 ft out-of-gauge hole. Drld. Srvy. Drld. Srvy. Drld. WOB, 15,000; 18,000. RPM, 70. SPM, 120. PSI, 1,350.
7 Sept.	8,633	94	Drld. Srvy. Drld. Srvy. Drld. WOB, 18,000; 20,000. RPM, 70. SPM, 120. PSI, 1,350.
8 Sept.	8,712	79	Drld. Srvy. Drld. WOB, 18,000; 20,000. RPM, 70. SPM, 120. PSI, 1,350.
9 Sept.	8,793	81	Drld. Srvy. Chgd pmps. Drld. Chgd pmps. Drld. Srvy. Drld. WOB, 18,000; 20,000; 25,000. RPM, 70. SPM, 120; 122. PSI, 1,350.
10 Sept.	8,910	117	Drld. Srvy. Drld. Rprd rtry trq whl. Drld. Srvy. Drld. Circ out smpls @ 8,879. Drld. Rmd hole on conn. Drld. Rprd rtry bshgs. WOB, 20,000; 25,000. RPM, 70. SPM, 122. PSI, 1,350; 1,400.

7180 - 7190	PR SMPL - TRIP FOR BIT		
	LS	50	gy, micxln, aa.
	MRLS	30	aa.
	LS	20	oolc, aa.
7190 - 7200	MRLS	50	aa.
	LS	30	gy, micxln, aa.
	LS	20	oolc, aa.
	LS	Tr	bn, vfxln, dns, dolc.
		Tr	CAL frac fill, wh.
7200 - 7210	SMPL LOST		
7210 - 7220	MRLS	60	ltgy, sft-vsft, vfgran, vcalc.
	LS	20	gy, micxln, dns.
	LS	20	ltgy, oolc.
7220 - 7230	LS	50	gy, micxln, aa.
	MRLS	30	aa.
	LS	20	oolc, aa.
7230 - 7250	LS	70	gy, micxln, aa.
	LS	20	oolc, aa.
	MRLS	10	aa.
	LS	Tr	bn, vfxln, dns, dolc, w/s/cxln CAL vn/frac-fill.
7250 - 7260	LS	60	micxln, aa, bcmg bngy, less arg.
	LS	30	oolc, aa, ltgy-ltbn.
	MRLS	10	aa.
7260 - 7270	LS	70	gy-bngy, micxln, aa.
	LS	30	ltgy-ltbn, oolc, aa.
	MRLS	Tr	aa.
	CAL	Tr	wh, cxln, void-fill.
7270 - 7310	LS	90	gy, micxln, aa, w/CAL-fld frac.
	LS	10	ltgy, oolc, aa.
7310 - 7320	LS	80	gy, micxln, aa.
	LS	20	ltgy, oolc, aa.
7320 - 7330	LS	100	gy, micxln, dns, sly arg.
	LS	Tr	ltgy-ltbn, vfxln, sly sucr.
	ABN UPHOLE MATL, 7330-7940		
7330 - 7350	LS	90	gy, micxln, aa, w/CAL-fld frac.
	LS	10	ltgy-ltbn, aa.
7350 - 7370	LS	100	gy, micxln, aa, w/CAL-fld frac.
7370 - 7390	LS	90	gy, micxln, aa, w/CAL-fld frac.
	LS	10	ltgy, vfxln, sly sucr.
7390 - 7410	LS	100	gy, micxln, aa, w/CAL-fld frac.
	LS	Tr	ltgy, vfxln, aa.
7410 - 7510	LS	100	gy, micxln, aa, s/w/vf dism PYR, trs CAL-fld frac.
7510 - 7520	LS	100	aa, no PYR.
	LS	Tr	gy-ltbngy, oolc, rexld.
7520 - 7530	LS	90	gy, micxln, aa.
	LS	10	ltbn-gy, oolc, vfxln, wh-ltbn & ltgy mtrx.
	LS	Tr	bn, micxln, dns.
7530 - 7540	LS	80	gy, micxln, aa.
	LS	20	oolc, aa.
7540 - 7550	LS	90	gy, micxln, aa.
	LS	10	oolc, aa.
7550 - 7570	LS	80	gy, micxln, aa.
	LS	20	oolc, aa.
7570 - 7590	LS	70	gy, micxln, aa.
	LS	30	oolc, aa.

7590 - 7610	LS	90	gy, micxln, aa.
	LS	10	oolc, aa.
7610 - 7660	LS	100	gy, micxln, aa, decr arg.
	LS	Tr	oolc, aa.
7660 - 7670	LS	90	gy, micxln, dns, sly arg, grdg lcly to ltgy, mic-vfxln, sly sucr.
	LS	10	ltgy-ltbn, oolc.
	ANHY	Tr	ltgn, amorph, sft.
7670 - 7700	LS	100	gy, mic-vfxln, aa, w/CAL-fld frac.
7700 - 7720	LS	100	aa, incr arg.
	LS	Tr	ltgy-ltbn, oolc.
7720 - 7740	LS	100	gy, micxln, aa, tr ltgngy.
	LS	Tr	oolc, aa.
7740 - 7810	LS	100	gy, micxln, aa.
7810 - 7830	LS	100	aa.
	LS	Tr	bn, oolc, rexld.
7830 - 7840	LS	100	gy, micxln, aa.
7840 - 7850	LS	100	aa.
	LS	Tr	bn, oolc, rexld.
7850 - 7910	LS	100	bn, micxln, aa, w/tr LS, ltgy, vfxln, dns.
7910 - 7940	LS	100	aa, m-dkgy.
	LS	Tr	ltgy, oolc, rexld.
7940 - 7950	V PR SMPL - MOSTLY CVGS - PROB LS, AA.		
7950 - 7960	PR SMPL - ABN CVGS		
	LS	90	m-dkgy, micxln, aa.
	LS	10	bn-ltgy, oolc, rexld.
7960 - 7980	PR SMPLS - CVGS		
	LS	100	gy, micxln, aa.
	LS	Tr	ltbn-ltgy, oolc.
7980 - 8060	LS	100	m-ltgy, s/bn, micxln, aa, decr arg, trs relict oolc tex. CAL-fld frac.
8060 - 8070	LS	100	aa.
	LS	Tr	ltgy, oolc.
8070 - 8170	LS	100	m-ltgy, aa, w/s/bn. CAL-fld frac.
8170 - 8190	LS	90	aa.
	LS	10	ltgy-bn, oolc.
8190 - 8200	LS	100	m-ltgy, aa, incr bn.
	LS	Tr	oolc, aa.
8200 - 8210	LS	90	gy, bn, micxln, aa.
	LS	10	oolc, aa.
8210 - 8250	LS	100	m-ltgy w/s/dkgy, bn, micxln, dns, hd, w/CAL-fld frac.
	LS	Tr	bn-dkbn, oolc, rexld.
8250 - 8270	LS	100	gy, bn, micxln, aa, w/CAL-fld frac.
	LS	Tr	bn-dkbn, oolc, rexld, aa.
	LS	Tr	ltgy-ltbn, oolc.
8270 - 8290	LS	100	gy, bn, micxln, aa, w/CAL-fld frac.
8290 - 8310	LS	100	aa, pred m-dkgy, w/CAL-fld frac.
	LS	Tr	bn, oolc, rexld.
8310 - 8320	LS	100	gy, bn, micxln, aa, w/CAL-fld frac.
	LS	Tr	bn, oolc, rexld.
	LS	Tr	ltgy, ltbn, vfoolc.
8320 - 8360	LS	100	gy, bn, micxln, aa, w/CAL-fld frac.
	LS	Tr	bn, oolc, rexld.
	LS	Tr	ltbn, ltgy, f-vfoolc.

8360 - 8370	LS	100	dkgy-dkgybn, micxln, dns, hd, grdg lcly to ltgy, vfxln; CAL-fld frac.
	LS	Tr	dkbn, oolc, rexld.
8370 - 8400	LS	100	m-dkgy, micxln, dns, hd, w/CAL-fld frac.
	LS	Tr	ltbn, oolc, rexld.
8400 - 8410	LS	100	dk-mgy, micxln, dns, hd, w/CAL-fld frac.
8410 - 8420	LS	90	aa, w/trs bn-ltbn; CAL-fld frac.
	LS	10	ltbn-ltgy, oolc, in pt rexld.
8420 - 8430	LS	100	aa, pred dkgy-gy, w/CAL-fld frac.
	LS	Tr	oolc, aa.
8430 - 8500	LS	100	dkgy-gy, aa, w/CAL-fld frac.
8500 - 8550	LS	100	aa, lcly oolc.
8550 - 8560	LS	100	aa, sl incr bngy.
8560 - 8570	LS	100	gy, aa, w/CAL-fld frac.
8570 - 8610	LS	100	gy, aa.
8610 - 8640	LS	100	gy-bngy, aa, w/CAL-fld frac.
	LS	Tr	ltbn, oolc, rexld.
8640 - 8650	LS	100	gy-bn, aa, incr bn, w/CAL-fld frac.
8650 - 8660	LS	100	aa, pred bn-bngy.
8660 - 8720	LS	100	aa, gy-bngy, w/CAL-fld frac.
	LS	Tr	bn, oolc, rexld.
8720 - 8730	LS	60	bn-gy, micxln, aa, w/CAL-fld frac.
	SS	30	wh-bn, vfg, wsrt, sbrd-sbang, wcmt, calc, s/slty.
	SLTS	10	bn, fm, calc.
	ANHY	Tr	wh, msv.
8730 - 8740	SLTS	50	aa.
	SS	40	aa.
	ANHY	10	aa.
8740 - 8760	SLTS	60	aa.
	SS	20	aa, w/tr SS, bn, mg, wsrt, ang, wcmt, calc.
	SH	10	bn, fm, calc.
	ANHY	10	aa.
		Trs	CAL frac-fill, wh, vfxln.
8760 - 8770	SLTS	50	aa.
	SS	20	aa.
	SH	20	aa.
	ANHY	10	aa.
	LS	Tr	bn, crpxln, dns, he, w/sbconch frac.
8770 - 8800	SLTS	70	aa.
	SS	20	aa.
	SH	10	aa.
	ANHY	Tr	aa.
			CAL-fld frac.
8800 - 8810	SLTS	60	aa.
	SS	20	aa.
	SH	10	aa.
	ANHY	10	aa.
			CAL-fld frac.
8810 - 8820	SLTS	50	aa.
	SS	30	aa.
	SH	10	aa.
	ANHY	10	aa.
			CAL-fld frac.
8820 - 8830	SLTS	60	aa.
	SS	20	aa.
	SH	10	aa.
	ANHY	10	aa.
			CAL-fld frac.

8830 - 8840	SLTS	50	aa.
	SS	20	aa.
	SH	20	aa.
	ANHY	10	aa.
	LS	Tr	bn-dkgybn, mic-vfxln, dns, hd, sbconch frac. CAL-fld frac.
8840 - 8850	SLTS	50	aa.
	SS	20	wh, f-vfg w/s/mg, w-msrt, sbrd-sbang, wcmt, tt, sly calc, w/SS aa.
	SH	10	aa.
	LS	10	aa.
	ANHY	10	aa. CAL-fld frac.
8850 - 8860	SS	40	aa.
	SLTS	30	aa.
	SH	10	aa.
	LS	10	aa.
	ANHY	10	aa.
8860 - 8870	SS	50	aa, bcmg wh-ltbn, s/pnk, incr mg, tr cg.
	SLTS	20	aa.
	SH	10	aa.
	LS	10	aa.
	ANHY	10	aa.
8870 8910	SS	100	aa, ltbn & pnk - wh, f-mg, w/s/vfg, s/cg.
8910 - 8923	V PR SMPL - SWEEPING HOLE FOR LOGS		
	SS	100	aa.

JOHN S. WILLIAMS, GEOLOGIST

SUMMARY OF GEOLOGY

Operator: The Anschutz Corporation - Well: Anschutz Ranch 3-2, Redrill.

Redrilling and geologic coverage of the Anschutz Corporation's Anschutz Ranch well number 3-2 began at 10:00 P.M., 5 July, 1980, at a depth of 3,699 feet. The sediments at the kick-off point were multicolored claystones, predominantly gray to purple-gray, firm, and calcareous. Immediately underlying the claystone, from 3,708 to 3,756, was a light-colored-white, light brown, light gray - conglomerate, composed predominantly of chert and limestone pebbles or cobbles in a matrix of white to brown, fine to very fine grained, well sorted sandstone which was subangular to subrounded, well cemented, and calcareous. Such porosity as was visible was very low to low. This conglomerate is presumed to be lower Cretaceous in age.

Underlying the conglomerate, from 3,756 to 3,904, was a sequence of predominantly reddish-brown to brown siltstones and claystones characteristic of the Preuss formation. Both the siltstones and the claystones were calcareous.

At 3,904 a sequence was entered which is interpreted as being primarily salt with minor amounts of other evaporites. Cuttings consisted of masses of silica - in part crystalline aggregates of quartz, in part cryptocrystalline to amorphous silica which was locally jasperoid. Other than traces of white gypsum, there was no direct evidence of evaporites in this section.

From 4,330 to 5,350 a disrupted sequence was penetrated. Samples here consisted of interbedded brown to reddish-brown siltstone and claystone with minor sandstone, limestone, and gypsum. The sandstone units, which were thin, were light colored - white, light brown, light gray - generally fine to medium grained, moderately to well sorted, subangular to subrounded, well cemented, and calcareous; some were conglomeratic, with chert fragments. The probability of the existence of several faults - of indeterminate displacement - in this section is strong, but could not be defined due to lack of wire-line log coverage of a prt of the well which included this interval, and generally poor sample quality.

At 5,350 a chert-pebble conglomerate was encountered, very probably a repetition of that at 3,708. This was a light brown to light gray to white conglomerate composed primarily of chert pebbles in a matrix of light brown to white sandstone of variable grain size, well cemented and locally quartzitic.

Beneath this conglomerate, from 5,390 to 6,765, was a sequence of typical Preuss lithology: brown to reddish-brown siltstones and generally brownish quartz sandstones with minor amounts of limestone. The siltstones and sandstones were calcareous; the sandstones were predominantly fine to medium grained, moderately to well sorted and subangular to subrounded. The limestones, which were probably nodular to lenticular, were gray to tan, micro- to crypto-crystalline, and dense.

A Preuss evaporite section was penetrated from 6,765 to 6,940. Here, again, there was no direct evidence of salt, and its presence is inferred. Samples through this interval consisted of aggregates of silica - in part crystalline quartz; in part cryptocrystalline to amorphous silica, some of which were jasperoid. Below this was a sequence of Preuss siltstone and sandstone: brown to reddish-brown calcareous siltstone; and brown to gray and white, fine to medium grained quartz sandstone which was in general moderately well sorted, subangular to subrounded, well cemented, and calcareous.

The Twin Creek formation, Giraffe Creek member, was identified at 7,008 feet, on the appearance of dark gray, microcrystalline, dense, argillaceous limestone which was gradational to calcareous shale. The upper part of the Giraffe Creek contained significant amounts of light gray, soft, locally sandy marlstone. Also noted, with amounts increasing with depth, was brown to gray oolitic/pelletal limestone, consisting of very fine to medium ooliths and pellets in a matrix of white to light gray, very finely crystalline, highly calcic limestone. Calcite-filled fractures became increasingly frequent in the lower part of the member.

The top of the Leeds Creek member, at 7,648, was packed on the appearance of light green, amorphous anhydrite. Underlying this was a sequence of dark gray, microcrystalline, dense argillaceous limestone and light gray to light brown oolitic/pelletal limestone with a white to light gray, very fine crystalline calcic limestone matrix. Some calcite-healed fractures were noted in this member.

The Walton Canyon member, top at 7,800, consisted of gray to dark gray to locally brownish-gray, microcrystalline, dense limestone - less argillaceous than the overlying Leeds Creek member - and increasing amounts of brown to gray oolitic/pelletal limestone. As in the members above, the oolitic/pelletal limestone had a matrix composed of white to gray very finely crystalline calcic limestone. Calcite-filled fractures were common in the Walton Canyon.

The Boundary Ridge member, top at 8,220, was composed of gray to brownish-gray, microcrystalline, dense limestone and generally light brown oolitic/pelletal limestone. Calcite-filled fractures were common in this member.

The Rich member, from 8,268 to 8,578, consisted of brown to grayish-brown, microcrystalline, dense limestone and brown to gray recrystallized oolitic/pelletal limestone. Numerous calcite-filled fractures were noted in the Rich member.

The Sliderock member, top at 8,578, consisted of gray to brownish-gray, microcrystalline, dense limestone and brown to gray recrystallized oolitic/pelletal limestone, with calcite-filled fractures.

The Gypsum Springs member, top at 8,655, contained extensively fractured to brecciated limestone, gray to brown in color, microcrystalline, and dense, with brown to gray oolitic/pelletal limestone; white to brown, very fine

grained, sandstone which was well sorted, subrounded to subangular, well cemented, and calcareous, composed predominantly of quartz grains; brown calcareous siltstone; and white massive anhydrite. Calcite-filled fractures were abundant.

The Nugget formation was encountered at 8,810 feet. It consisted of white to light brown and pink quartz sandstone, generally fine to medium grained but locally very fine grained; moderately well sorted; subrounded to subangular; in general well cemented; and slightly calcareous. There was no significant visible porosity.

No indications of hydrocarbons were observed during the redrilling of this well. Although fracturing was extensive through the lower members of the Twin Creek formation in particular, mud log records of hydrocarbon gases were minimal throughout, and no staining, fluorescence, or cut was observed.

Drilling of this well was done in a competent manner, and all personnel associated with the operation deserve commendation.

It was a pleasure to be of service to you in this operation, and I look forward to the opportunity to represent you in future work.

Respectfully submitted,

John S. Williams, Geologist

11 Sept	8,922	12	Rprd rtry bshg. Drld. Circ, cond mud. Trip out, lkg for hole in pipe - twstd off, left Monel dc & bit in hole. WO fsg tls. Rgd up Schlumberger. Ran logging tool in hole, stopped at 4,210, cd not wrk deeper. Pld lgg tl, pld 3,000 lbs ovr tl wt at 4,190. Trip in hole w/RR bit. WOB, 20,000; 25,000. RPM, 70. SPM, 122. PSI, 1,400.
12 Sept.	8,922	0	Trip in hole, plgd jet. Tagd fsh. Circ, cond hole. WO mud matls. Mxd mud, circ, cond hole. Trip out, SLM.
13 Sept.	8,922	0	Trip out, SLM. Rgd up lgrs. Ran in w/lgg tl, tl stpd at 4,418. Wrkd tl at 4,418, wd not go. Pld tl, rgd dn lgrs. Trip in hole w/opn-ended dp, 50 stds. Trip out. Rgd up lgrs, rn in hole, tl stpd at 4,418. Wrkd tl, wd not go. Pld tl, rgd dn lgrs. Trip in hole w/bit, wrkd pipe at 4,695-4,784. Trip out. Rgd up lgrs, rn in hole, tl stpd at 2,952. Wrkd tl, wd not go Pld tl, rgd dn lgrs. Trip in hole w/bit, wshd 45 ft to btm. Circ, cond hole.
14 Sept.	8,922	0	Circ, WO mud matls. Mxd mud, circ, cond hole. Short trip, 25 stds. Circ, cond hole. Trip out. Rgd up lgrs. Ran lgg tl in hole, stpd at 4,613. Pld tl, rgd dn lgrs.
15 Sept.	8,922	0	Trip in hole w/bit, BHA, 22 stds dp. Trip in hole w/23 stds, wrkd ea std 90 ft 5 times. Finshd trip in hole, tgd fish. Trip out, chnd out. Rgd up lgrs. Ran lgg tl, stpd at 4,613. Pld lgg tl, rgd dn lgrs. Pkd up fsg tls. Trip in hole. Circ above fsh. Tgd, wrkd over fsh. Trip out w/fsh.
16 Sept.	8,922	0	Trip out w/fsh, chnd out, wshd thru tt spots. Lyd dn fsg tls & fsh. Trip in hole, pkd up jars. Cut 120 ft drlg line. Fnshd trip in hole, wshd & rmd 40 ft to btm, 12 ft fill. Circ, cond hole.
17 Sept.	8,922	0	Circ, cond hole. Rgd up ly-dn mchn. Ld dn dp. Rgd up to run 7-inch csg.
18 Sept.	8,922	0	Rgd up to run csg. WO csg shoe-did not fit. Ran 7-inch csg, stpd at 4,840. Wrkd csg, wd not go. WO circ hd. Rgd up circ hd. Wrkd csg thru tt spot. Ran csg to 5,985. Rgd up lgrs. Ran Schlumberger logs.
19 Sept.	8,922	0	Logged. Rgd dn lgrs. Rgd up to pull 7-inch csg, WO completion orders.

JOHN S. WILLIAMS, GEOLOGIST

BIT RECORD

Operator: The Anschutz Corporation - Well: Anschutz Ranch 3-2, Redrill.

BIT NO.	SIZE	MFR.	TYPE	DEPTH IN	DEPTH OUT	FEET	HOURS	FT./HR.
1	4 1/2	Security	MH	Drilled plug in 5 1/2" casing			27 ½	2.25
2	8 3/4	Security	S4F	Cleaned hole, drilled cement.				
3	"	Christen-sen (dia)	MD411	3699	3761	62	27 ½	2.25
4	"	Security	S44F	3761	4357	596	33	18.1
5	"	Hughes	J22	4357	5059	702	80 ¼	8.7
6	"	Reed	FP52	5059	5245	186	27 ½	6.8
6RR	"	"	"	5245	5416	171	36 ½	4.7
6 Total						357	64	5.6
7	"	Smith	F2	5416	5781	365	59 ½	6.1
8	"	Security	S86F	5781	5979	198	59 ½	3.3
9	"	Security	S86F	5979	6088	109	33 ¼	3.3
10	"	Hughes	J7	6088	6089	1	1 ½	0.7
11	"	Security	H75G	6089	6105	16	4	4.0
12	"	Smith	F3	6105	6287	182	47 ½	3.8
13	"	Security	S86F	6287	6451	164	49 3/4	3.3
14	"	Hughes	J44	6451	6715	264	85 ½	3.1
15	"	Smith	F3	6715	7059	344	66	5.2
16	"	Hughes	J44	7059	7180	121	46 3/4	2.6
17	"	Reed	FP52	7180	7270	90	32 ¼	2.8
18	"	Security	H75GJ	7270	7327	57	18 ½	3.1
19	"	Christen-sen (dia)	MD331	7327	7473	146	41 ½	3.5
17RR	"	Reed	FP52	7473	7717	244	76 3/4	3.3
17 Total						334	109	3.1

JOHN S. WILLIAMS, GEOLOGIST

BIT RECORD

Operator: The Anschutz Corporation - Well: Anschutz Ranch 3-2, Redrill.

BIT NO.	SIZE	MFR.	TYPE	DEPTH IN	DEPTH OUT	FEET	HOURS	FT./HR.
20	8 3/4	Security	S84F	7717	7773	56	22	2.5
21	"	Christen-sen (dia)	MD331	7773	7971	198	67	3.0
22	"	Smith	F3	7971	8261	290	82 ½	3.5
23	"	Reed	FP53A	8261	8479	218	78	2.8
24	"	Security	S86F	8479	8922	443	105	4.2

JOHN S. WILLIAMS, GEOLOGIST

DIRECTIONAL SURVEYS

Operator: The Anschutz Corporation - Well: Anschutz Ranch 3-2, Redrill.

DEPTH	DEVIATION	DIRECTION	DEPTH	DEVIATION	DIRECTION
3600	1 3/4°	S ½°E	4409	10 1/4°	N63°W
3679	3/4°	S23°E	4470	10 1/2°	N64°W
3712	1 1/2°	N83°W	4532	10 3/4°	N63°W
3794	5°	N58°W	4593	10 1/2°	N65°W
3824	5 1/2°	N55°W	4641	NR	NR
3856	6 1/4°	N58°W	4673	10°	N65°W
3887	6 3/4°	N55°W	4731	NR	NR
3917	7°	N55°W	4731	9 1/2°	N68°W
3948	7 1/2°	N53°W	4796	9°	N70°W
3979	7 3/4°	N53°W	4866	8 3/4°	N72°W
4010	8 1/4°	N49°W	4919	8°	N75°W
4040	8 1/2°	N48°W	4991	NR	NR
4070	8 3/4°	N48°W	5020	NR	NR
4075	8 1/2°	N48°W	5021	8°	N78°W
4101	9°	N48°W	5122	7 1/4°	N68°W
4133	8 1/2°	N50°W	5182	7°	N82°W
4163	8 3/4°	N55°W	5244	6 3/4°	N84°W
4193	8 3/4°	N54°W	5288	7 1/4°	N85°W
4233	8 3/4°	N55°W	5351	NR	NR
4264	9 1/4°	N57°W	5351	NR	NR
4294	9 1/2°	N59°W	5352	8 1/2°	N88°W
4324	NR	NR	5412	9 3/4°	90°W
4327	10°	N60°W	5494	10 1/4°	S88°W
4357	10 1/4°	N63°W	5545	10 1/4°	S89°W

JOHN S. WILLIAMS, GEOLOGIST

DIRECTIONAL SURVEYS

Operator: The Anschutz Corporation - Well: Anschutz Ranch 3-2, Redrill.

DEPTH	DEVIATION	DIRECTION	DEPTH	DEVIATION	DIRECTION
5616	10 1/4°	N87°W	6818	16°	N73°W
5706	11 1/4°	N85°W	6878	16°	N70°W
5770	11 1/2°	N83°W	6942	16°	N68°W
5836	12°	N81°W	7001	15 3/4°	N68°W
5896	12 1/2°	N81°W	7059	16 1/2°	N68°W
5985	12 3/4°	N81°W	7130	NR	NR
6017	13 1/2°	N81°W	7130	16 1/4°	N66°W
6069	13 3/4°	N80°W	7184	16 3/4°	N62°W
6140	14 1/2°	N80°W	7245	17 1/2°	N63°W
6200	14 3/4°	N78°W	7270	17 3/4°	N63°W
6260	15°	N77°W	7319	11 3/4°	N63°W
6324	NR	NR	7327	NR	NR
6325	NR	NR	7367	NR	NR
6326	NR	NR	7367	NR	NR
6327	NR	NR	7337	17 1/2°	N63°W
6324	15°	N78°W	7400	16°	N63°W
6387	15 1/2°	N79°W	7502	15°	N63°W
6448	15 3/4°	N79°W	7563	17 1/2°	N59°W
6508	16°	N81°W	7593	17 3/4°	N58°W
6571	16°	N80°W	7623	17 1/2°	N58°W
6633	16°	N78°W	7652	17 1/4°	N60°W
6694	16 1/2°	N77°W	7713	19°	N55°W
6715	NR	NR	7717	NR	NR
6760	16 1/2°	N74°W	7742	18 1/2°	N53°W

JOHN S. WILLIAMS, GEOLOGIST

DIRECTIONAL SURVEYS

Operator: The Anschutz Corporation - Well: Anschutz Ranch 3-2, Redrill.

DEPTH	DEVIATION	DIRECTION	DEPTH	DEVIATION	DIRECTION
7771	19°	N55°W	8474	NR	NR
7792	18 3/4°	N53°W	8478	NR	NR
7852	17 3/4°	N52°W	8475	15 3/4°	N47°W
7945	17 1/4°	N52°W	8506	15 1/2°	N48°W
7971	NR	NR	8567	15 1/2°	N53°W
7983	16 3/4°	N53°W	8630	15 3/4°	N53°W
8014	16 3/4°	N52°W	8662	15 1/4°	N52°W
8044	16 1/4°	N53°W	8723	15 1/4°	N52°W
8077	16 1/4°	N52°W	8784	16°	N54°W
8108	NR	NR	8814	16°	N55°W
8108	15 3/4°	N52°W	8873	14 3/4°	N57°W
8169	15 1/2°	N50°W			
8198	15°	N51°W			
8228	15 1/4°	N53°W			
8228	15 1/4°	N53°W			
8258	16°	N50°W			
8288	15 1/2°	N50°W			
8317	15 1/2°	N50°W			
8348	16 1/4°	N48°W			
8379	16°	N47°W			
8413	NR	NR			
8414	15 3/4°	N46°W			
8444	15 3/4°	N48°W			

JOHN S. WILLIAMS, GEOLOGIST

FORMATION TOPS

Operator: The Anschutz Corporation - Well: Anschutz Ranch 3-2, Redrill.

FORMATION	TOP				
	PROGNOSIS	SAMPLES	ELECTRIC LOGS	TRUE VERTICAL DEPTH *	SEA LEVEL DATUM
Preuss evaporites	7240		3902	3899	+3849
			6765	6703	+1045
Twin Creek					
Giraffe Creek	7340	7100	7008	6936	+ 812
Leeds Creek	8060	7870	7648	7550	+ 198
Watton Canyon	8230	8055	7800	7699	+ 49
Boundary Ridge	8635	8556	8220	8102	- 354
Rich	8690	8618	8268	8148	- 400
Sliderock	9010	8660	8578	8446	- 698
Gypsum Springs	9080	8725	8655	8510	- 772
Nugget	----	8860	8810	8670	- 922

* Interpolated from nearest plotted deviation points.

JOHN S. WILLIAMS, GEOLOGIST

Operator: The Anschutz Corporation - Well: Anschutz Ranch 3-2 (Redrill).

SAMPLE DESCRIPTIONS

INTERVAL	ROCK TYPE, PERCENTAGE, DESCRIPTION		
3700 - 3730	CLYS	80	gy-pplgy, bn rdbn, frm, slty in pt, s/wxy; s/CAL vns, masses; tr GYP.
	LS	10	tn, crpxln, dns; mnrl flu.
	CHT	10	wh, c frags.
	SS	Tr	wh-bn, vf-fg, wsrt sbang-sbrdd, wcm't, calc.
3730 - 3760	CLYS	60	aa, pred bn-rdbn.
	SLTS	10	bn, frm, arg, calc.
	LS	10	aa, dkbn lcly
	SS	10	aa
	CHT	10	aa
3760 - 3790	CLYS	70	aa, incr rdbn.
	SLTS	30	aa.
	LS	Tr	aa
	SS	Tr	aa
	CHT	Tr	aa
3790 - 3820	V LG CTGS.		
	CLYS	80	aa, pred rdbn-bn.
	SLTS	10	aa
	LS	10	aa.
	SS	Tr	aa, f-mg.
3820 - 3850	CLYS	90	aa
	LS	10	aa
	SLTS	Tr	aa
3850 - 3880	CLYS	70	aa
	DOL	10	gy-bn, micxln, dns
	LS	10	aa
	CHT	10	ltgy-ltbn, c frags.
	LS	10	aa
	SS	Tr	bn, vfg, wrst, ang-sbrdd, wcmt, calc, ark, w/secndry qtz grwth.
3880 - 3910	CLYS	60	aa
	SLTS	30	bn, rdbn, frm, calc.
	LS	10	aa
	SS	Tr	bn, fg, wsrt, sbrdd-sbang, wcmt, sly calc.
	CHT	Tr	wh, c-vc frags.
	GYP	Tr	wh, sft, vf-fgran.
3910 - 4330	Sample entirely uphole matl & Preuss lithology-xln aggs sil, s/jasperoid, salt inferred.		
4330 - 4360	CLYS	50	gy-pplgy, bn, rdbn, slty in pt, w/CAL vns masses.
	SLTS	30	bn, rdbn, frm, calc.
	SIL	10	aa
	LS	10	tn-gytn, mic-crpxln, dns

4360 - 4390	SLTS	50	aa.
	SS	30	lttn-bn, vf-mg, msrt, sbang-sbrdd, m-wcmt, sly-vpor, w/SIL void-fill, aa.
	CLYS	20	aa.
	LS	Tr	aa.
4390 - 4420	SS	70	aa.
	SLTS	20	aa.
	CLYS	10	aa.
4420 - 4450	CLYS	60	aa.
	SS	40	aa.
	SLTS	Tr	aa.
4450 - 4480	SLTS	40	aa.
	CLYS	30	aa.
	SS	30	aa.
	LS	Tr	wh-tn, fxln, foss.
4480 - 4510	SS	60	aa, ABN SIL void-fill.
	SLTS	30	aa.
	CLYS	10	aa.
	LS	Tr	ltgy, crpxln, dns.
	DOL	Tr	gy, crpxln, dns, nod.
4510 - 4540	SLTS	50	aa.
	SS	40	aa.
	CLYS	10	aa.
	LS	Tr	aa.
	DOL	Tr	aa.
	GYP	Tr	wh, vfgran, sft.
4540 - 4570	SLTS	50	aa.
	SS	30	aa.
	CLYS	10	aa.
	GYP	10	aa.
4570 - 4600	SLTS	60	aa.
	SS	30	aa.
	CLYS	10	aa.
	GYP	Tr	aa.
4600 - 4630	SLTS	60	aa.
	SS	30	aa.
	CLYS	10	aa.
	GYP	Tr	aa.
	LS	Tr	ltgy-tn, crpxln, dns.
4630 - 4660	SLTS	60	aa, w/incls GYP, LS, aa
	SS	30	aa, w/incls GYP, LS, aa
4660 - 4690	SLTS	70	aa.
	SS	30	aa.
	CLYS	Tr	aa.
	LS	Tr	aa.
4690 - 4720	SLTS	60	aa.
	CLYS	20	aa.
	SS	20	aa, s/c-vc CHT frags.
	LS	Tr	aa.
4720 - 4750	SLTS	60	aa.
	SS	30	aa.
	CLYS	10	aa.
	GYP	Tr	wh, wfgran, sft.

4750 - 4780	SLTS	50	aa.
	SS	40	aa.
	CLYS	10	aa.
	LS	Tr	tn-dkbn, crpxln, dns.
	GYP	Tr	aa.
4780 - 4810	SLTS	60	aa.
	SS	30	aa.
	CLYS	10	aa.
	LS	Tr	aa.
4810 - 4840	SLTS	40	aa.
	SS	40	aa.
	CLYS	20	aa.
	LS	Tr	aa.
4840 - 4870	SS	50	aa.
	SLTS	40	aa.
	CLYS	10	aa.
4870 - 4900	SLTS	70	aa.
	SS	30	aa.
	CLYS	Tr	aa.
4900 - 4930	SLTS	70	aa.
	SS	20	aa.
	CLYS	10	aa.
4930 - 4990	SLTS	80	aa.
	SS	20	aa, tr wh.
	CAL	Tr	void-fill.
4990 - 5020	SS	60	aa.
	SLTS	40	aa.
5020 - 5050	SS	70	aa.
	SLTS	30	aa.
5050 - 5110	SS	60	aa.
	SLTS	40	aa.
	LS	Tr	gy-tngy, micxln, dns.
5110 - 5140	SLTS	80	aa.
	SS	20	aa.
	LS	Tr	aa.
5140 - 5170	SLTS	90	aa.
	SS	10	aa.
5170 - 5200	SLTS	80	aa.
	SS	20	aa.
5200 - 5230	SS	60	aa, m-fg.
	SLTS	40	aa.
5230 - 5260	SS	70	aa.
	SLTS	30	aa.
5260 - 5290	SS	80	aa.
	SLTS	20	aa.
	LS	Tr	tn-gy, micxln, dns.
5290 - 5320	SLTS	70	aa.
	SS	30	aa.
	LS	Tr	aa.
5320 - 5350	SLTS	80	aa.
	SS	20	aa.
5350 - 5380	SLTS	70	aa.
	SS	30	aa, s/m-cg, qtztc, cglc.

5380 - 5410	SS	70	aa, s/por.
	SLTS	30	aa.
	LS	Tr	gytn, micxln, dns.
5410 - 5440	SLTS	60	aa.
	SS	40	aa.
	LS	Tr	aa.
	CHT	Tr	ltgy-ltbn.
5440 - 5470	PR SMPL - LC AT 5461.		
	SLTS	60	aa.
	SS	40	aa, w/s/c-vc ltgy CHT frags.
	LS	Tr	aa.
5470 - 5500	SLTS	60	aa.
	SS	30	aa, tr carb plant remains.
	LS	10	aa.
5500 - 5560			aa.
	LS	Tr	tn, crp-micxln, dns.
	ANHY	Tr	wh, frm.
	CAL	Tr	wh-clr, frac-fill.
5560 - 5590	SCANT SMPL.		
	SLTS	70	aa.
	SS	20	aa.
	LS	10	aa.
5590 - 5620	SCANT SMPL W/ABN LCM.		
	SLTS	90	aa.
	SS	10	aa.
5620 - 5650	SCANT SMPL.		
	SLTS	80	aa.
	SS	20	aa.
5650 - 5680	SS	60	aa.
	SLTS	40	aa.
	LS	Tr	tn, micxln, dns.
5680 - 5710	SS	50	aa.
	SLTS	50	aa.
	LS	Tr	aa.
5710 - 5740	PR SMPL - ABN LCM.		
	SS	60	aa.
	SLTS	40	aa.
5740 - 5800	PR SMPLS - ABN LCM.		
	SLTS	60	aa.
	SS	40	aa.
	LS	Tr	aa.
5800 - 5830	SLTS	60	aa.
	SS	40	aa.
5830 - 5890	SLTS	80	aa.
	SS	20	aa, tr CAL-fld frac.
5890 - 5920	SLTS	60	aa.
	SS	40	aa.
	LS	Tr	tn, micxln, dns.
5920 - 5950	SS	60	aa, s/wh, mg, wcmt, calc.
	SLTS	20	aa
	CLYS	20	bn, frm, blky, calc, s/slty.
	LS	Tr	aa, tn-gy.
5950 - 5980	V SCANT SMPL, LC AT 5932		
	SLTS	60	aa, tr CAL-fld frac.
	SS	30	aa.
	CLYS	10	aa.
	LS	Tr	aa.

5980 - 6040	SS	50	aa.
	SLTS	30	aa.
	CLYS	20	aa.
	LS	Tr	aa.
6040 - 6070	SS	50	aa & gybn, f-vfg, wsrt, sbang-sbrdd, wcmt, calc.
	SLTS	40	aa.
	CLYS	10	aa, s/wxy.
	LS	Tr	aa.
6070 - 6100	V PR SMPL - PRED LCM.		
	SLTS	60	aa.
	SS	20	aa.
	CLYS	20	aa.
6100 - 6220	SLTS	70	aa.
	SS	20	aa.
	CLYS	10	aa.
	LS	Tr	aa.
6220 - 6250	SLTS	60	aa.
	SS	20	aa.
	LS	Tr	aa.
6250 - 6280	SLTS	40	aa.
	SS	30	aa.
	CLYS	30	aa.
6280 - 6310	SS	60	aa.
	SLTS	30	aa.
	CLYS	10	aa.
	LS	Tr	aa, s/sil.
6310 - 6340	SLTS	70	aa.
	SS	20	aa.
	CLYS	10	aa.
	LS	Tr	aa.
6340 - 6370	SLTS	60	aa.
	SS	30	aa.
	CLYS	10	aa.
	LS	Tr	aa.
6370 - 6460	SLTS	50	aa.
	SS	40	aa.
	CLYS	10	aa.
	LS	Tr	aa.
6460 - 6490	SLTS	70	aa.
	SS	20	aa.
	CLYS	10	aa.
	LS	Tr	aa.
6490 - 6520	SLTS	60	aa.
	SS	20	aa.
	CLYS	20	aa.
	LS	Tr	aa.
6520 - 6580	SLTS	50	aa.
	SS	30	aa.
	CLYS	20	aa.
	SIL	ABN QTZ & crpxln void-fill, s/jasperoid.	
	LS	Tr	gy-tngy, micxln, dns, dolc.
6580 - 6640	SLTS	60	aa.
	SS	20	aa.
	CLYS	20	aa.
	LS	Tr	aa.
	SIL	Tr	void-fill, aa.

6640 - 6670	SLTS	40	aa.
	SS	30	aa, cglc.
	CLYS	30	aa.
	LS	Tr	aa.
	SIL	Tr	aa.
6670 - 6700	SLTS	50	aa.
	CLYS	30	aa.
	SS	20	aa.
	LS	Tr	aa.
6700 - 6730	CLYS	50	aa, s/gy.
	SLTS	30	aa.
	SS	20	aa.
	LS	Tr	aa, s/rdbn, arg, slty.
6730 - 6760	SLTS	50	aa.
	CLYS	20	aa.
	SS	20	aa.
	LS	10	aa.
	SIL	ABN	void-fill, clr-orng.
6760 - 6940	SMPLS ENTIRELY UPHOLE MATL & PREUSS LITHOLOGY - XLN AGGS SIL, S/JASPEROID, SALT INFERRED.		
6940 - 6970	SLTS	80	rdbn-bn, frm, calc, w/CAL-fld frac.
	SS	20	ltbn-bn, vf-mg, msrt, sbang-sbrdd, m-wcmt, sly-vpor
	LS	Tr	gy-tngy, micxln, dns, dolc.
	SIL	Tr	aa.
6970 - 7000	SLTS	60	aa.
	SS	30	aa.
	CLYS	10	aa.
	LS	Tr	aa.
7000 - 7030	SLTS	50	aa.
	SS	40	aa.
	CLYS	10	aa.
	LS	Tr	aa.
7030 - 7060	SLTS	50	aa.
	SS	40	aa.
	CLYS	10	aa.
	LS	Tr	aa.
7060 - 7090	SLTS	50	aa.
	SS	20	aa.
	CLYS	20	aa.
	LS	10	aa.
7090 - 7120	SLTS	40	aa.
	SS	20	aa.
	MARL - STONE	30	ltgy, sft, arg-slt-sdy, vcalc, w/slickensides.
	CLYS	10	aa.
	LS	Tr	aa.
	LS	Tr	ltgy-ltbn, foolc w/micxln mtrx.
		Tr	CAL-fld frac.
7120 - 7150	MRLS	40	aa.
	LS	30	ltgy-ltbngy, oolc, rexld, s/pin-pt por.
	LS	30	gy, micxln, dns, w/CAL-fld frac, arg ip.
		ABN	uphole matl
7150 - 7180	MRLS	70	aa.
	LS	20	gy, micxln, aa.
	LS	10	oolc, aa, pred ltgy.
		ABN	uphole matl.

CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
DALLAS, TEXAS

Phase Determination

for

THE ANSCHUTZ CORPORATION

Anschutz No. 3-2 Well
Anschutz Ranch Field
Utah

CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
DALLAS, TEXAS 75207

November 29, 1979

RESERVOIR FLUID DIVISION

The Anschutz Corporation
2400 Anaconda Tower
555 17th Street
Denver, Colorado 80202

Attention: Mr. Wayne C. Pierce

Subject: Phase Determination
Anschutz No. 3-2 Well
Anschutz Ranch Field
Utah
Our File Number: RFL 79646

Gentlemen:

Separator samples from the subject well were collected by Otis Engineering on September 7, 1979. These samples were forwarded to our Dallas laboratory to be used in a phase determination.

Upon arrival in Dallas the separator samples were analyzed and a well stream composition calculated. This composition is on page two.

Separator samples were recombined to a gas-liquid ratio of 100023 standard cubic feet of separator gas at 14.65 psia and 60°F. per barrel of separator liquid at 750 psig and 98°F. A portion of the recombined fluid was subjected to constant composition expansion at the reported reservoir temperature of 140°F. During this expansion, no measurable liquid was found. Therefore, the relative volumes in the pressure volume relation curve are based on the volume at the reservoir pressure of 2800 psig. The pressure volume data and the deviation factor data are tabulated on page three.

Thank you for the opportunity to perform this phase determination. We look forward to serving The Anschutz Corporation again in the near future.

Very truly yours,

Core Laboratories, Inc.

P. L. Moses, Manager
Reservoir Fluid Analysis

PLM:AVZ:sm
7 cc.-Addressee

CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
DALLAS, TEXAS 75207

File RFL 79646

Company The Anschutz Corporation — Date Sampled September 7, 1979
Well Anschutz No. 3-2 — County
Field Anschutz Ranch — State Utah

FORMATION CHARACTERISTICS

Formation Name	
Date First Well Completed	, 19
Original Reservoir Pressure	PSIG @ Ft.
Original Produced Gas-Liquid Ratio	SCF/Bbl
Production Rate	Bbls/Day
Separator Pressure and Temperature	PSIG °F.
Liquid Gravity at 60°F.	° API
Datum	Ft. Subsea

WELL CHARACTERISTICS

Elevation	Ft.
Total Depth	Ft.
Producing Interval	Ft.
Tubing Size and Depth	In. to Ft.
Open Flow Potential	MMSCF/Day
Last Reservoir Pressure	2800 PSIG @ Ft.
Date	, 19
Reservoir Temperature	140 °F. @ Ft.
Status of Well	
Pressure Gauge	

SAMPLING CONDITIONS

Flowing Tubing Pressure	PSIG
Flowing Bottom Hole Pressure	PSIG
Primary Separator Pressure	750 PSIG
Primary Separator Temperature	98 °F.
Secondary Separator Pressure	PSIG
Secondary Separator Temperature	°F.
Field Stock Tank Liquid Gravity	° API @ 60°F.
Primary Separator Gas Production Rate	MSCF/Day
Pressure Base	14.65 PSIA
Temperature Base	60 °F.
Compressibility Factor (F_{pv})	1.060
Gas Gravity (Laboratory)	0.682
Gas Gravity Factor (F_g)	1.2109
Liquid Production Rate @ °F.	Bbls/Day
Primary Separator Gas/ Separator Liquid Ratio	100,023 SCF/Bbl
or	Bbls/MMSCF
Sampled by	Otis Engineering

REMARKS:

These analyses, opinions or interpretations are based on observations and material supplied by the client to whom, and for whose exclusive and confidential use, this report is made. The interpretations or opinions expressed represent the best judgment of Core Laboratories, Inc. (all errors and omissions excepted); but Core Laboratories, Inc. and its officers and employees, assume no responsibility and make no warranty or representations as to the productivity, proper operation, or profitableness of any oil, gas or other mineral well or sand in connection with which such report is used or relied upon.

8-27-79

Anschutz 3-1

Called Pete Doty: 303-825-6100

Of Concern

1. Was Resv. Retrograde condensate
2. How was plug back accomplished
   nothing behind casing
3. Gas <u>not</u> to be vented in Utah

Jim Bandoy
Wayne Pierce

1. Will send letter stating that Reservoir is not retrograde condensate

2. Will send sundry detailing plug-back to 7418'

3. Although wrote vented meant flared a matter of semantics

M.J.M.

THE ANSCHUTZ CORPORATION

2400 ANACONDA TOWER · 555 SEVENTEENTH STREET · DENVER, COLORADO 80202 · 303-825-6100 · TWX 910-931-2620

January 17, 1980

Mr. Michael T. Minder
Geological Engineer
Division of Oil, Gas and Mining
Department of Natural Resources
State of Utah
1588 West North Temple
Salt Lake City, Utah 84116

Re: Reservoir Status
Anschutz Ranch Field Reservoir
Twin Creek Formation
Summit County, Utah

Dear Mr Minder:

On behalf of The Anschutz Corporation I sincerely apologize for the delay in answering your request (Letter dated November 14, 1979) regarding the classification of the above mentioned reservoir. The reasons for the delay were several, outlined as follows:

(1) The possibility of retrograde condensate behavoir.

(2) The potential production problems associated with retrograde behavoir.

(3) Our desire to be certain whether or not retrograde behavoir would occur.

(4) Difficulties in obtaining representative samples of produced fluids.

(5) Extended delays in obtaining laboratory analysis due to workload.

The two reports, enclosed herein, show that if there is going to be any retrograde condensate behavoir at all, the maximum amount of liquid condensation within the reservoir will be insignificant. It is possible that there will be no retrograde behavoir at all. These conclusions are based on the two laboratory reports, one each for two different wells completed in the field. These reports represent the only analysis

THE ANSCHUTZ CORPORATION

2400 ANACONDA TOWER · 555 SEVENTEENTH STREET · DENVER, COLORADO 80202 · 303-825-6100 · TWX 910-931-2620

conducted to date on the Twin Creek reservoir in the Anschutz Ranch Field.

Referencing the report on Well No. 3-2, dated November 29, 1979, you will note that the constant composition expansion of the fluid sample at reservoir temperature found no measurable liquid, indicating normal gas reservoir behavior. There was no indication of retrograde condensate behavior.

We also obtained a fluid sample for analysis from another well, 34-1, which arrived at the laboratory September 20, 1979. The final report of the analysis was received on January 2, 1980. The constant composition expansion at reservoir temperature for this fluid sample found a dew point of 2520 psig, indicating the fluid to be retrograde condensate. However, the positive point is that the maximum liquid buildup was only one percent of the hydrocarbon pore space. Therefore, even though this sample demonstrated retrograde condensate behavior, the maximum possible liquid condensation in the reservoir is so low, only one percent, that the potential production problems would be minimal, or insignificant.

These two reports are in slight disagreement, one indicating no retrograde behavior and the other showing only slight retrograde behavior. Even though we cannot be certain at this time which analysis is correct, we feel relieved that if there is to be any retrograde behavior at all, it will have little, if any, influence on recovery. We plan to closely monitor future production and reservoir performance to improve our understanding and to optimize recovery from the field.

I have enclosed copies of the above mentioned laboratory analysis. After you have reviewed the reports, please do not hesitate to call if you have any questions.

Yours very truly,

Wayne C. Pierce

Wayne C. Pierce
Production Manager
Rocky Mountain Division

WCP:lkc

CC: JDH, CDW,
Amoco
Champlin
Field File

Form OGC-1b

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

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.)

5. LEASE DESIGNATION AND SERIAL NO.: FEE

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

1. OIL WELL [ ] GAS WELL [X] OTHER

7. UNIT AGREEMENT NAME:

2. NAME OF OPERATOR: The Anschütz Corporation

8. FARM OR LEASE NAME: Anschutz Ranch

3. ADDRESS OF OPERATOR: 555 - 17th St Suite 2400 Denver, Colorado 80202

9. WELL NO.: 3-2

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: 2103' FSL & 2041' FEL

10. FIELD AND POOL, OR WILDCAT: Anschutz Ranch

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec 3T 3N R7E SLBM

14. PERMIT NO.: 43-043-30084

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 7717 GR ungraded

12. COUNTY OR PARISH: Summit

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	[ ]	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)			[ ]
(Other) Re-enter			[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.) *

Due to collapsed casing @ 7254' in this well a re-entry program has been devised as follows

1.) Cut and pull casing from the best depth (free point @ 3850).
2.) Set a cement plug @ the top of the casing left in the hole.
3.) Set another cement plug for whipstock and across any other pourous zones.
4.) Whipstock due west @ ± 4000'.
5.) Drill the well @ an approximate angle of ± 8° to a target area near the wells original bottom hole location.
6.) Run 5½" casing to T.D. and complete in the twin creek formation. Casing will be a 5½" tapered string using 15.5, 17, & 20 #/ft joints as done previously. Muds used will be LSND until the pruess Salt is anticipated. From that point until casing is set salt saturated muds will be used. BOP's will be those generally used in the area.

APPROVED BY THE DIVISION OF OIL, GAS, AND MINING
DATE: 5-19-80
M. J. Minder

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

SIGNED: P.B.D. Peter B. Doty TITLE: Operations Coordinator DATE: May 5, 1980

RECEIVED MAY 5 1980 DIVISION OF OIL, GAS & MINING

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

THE ANSCHUTZ CORPORATION

2400 ANACONDA TOWER · 555 SEVENTEENTH STREET · DENVER, COLORADO 80202 · 303-825-6100 · TWX 910-931-2620

May 1, 1980

Mr. Cleon B. Feight, Director
Utah Division of Oil Gas & Mining
1588 West North Temple
Salt Lake City, Utah 84116

RE: Overthrust Project
Anschutz Ranch Field
Anschutz Ranch # 3-2
NWSE, Sec 3, T3N, R7E,SLBM
Summit County, Utah
RE-ENTRY

Dear Jack,

Enclosed please find our sundry notice describing the Re-entry program for the above referenced location. This work is required because of collapsed casing deep in the original hole which we cannot repair. Should you have any questions please feel free to contact me.

Sincerely,

Peter B. Doty
Operations Coordinator

RECEIVED
MAY 5 1980
DIVISION OF
OIL, GAS & MINING

PBD/rtz
enclosure

JOHN S. WILLIAMS, GEOLOGIST
334 South Redlands Road
Grand Junction, Colorado 81503
303-242-0189

22 October, 1980

Division of Oil, Gas, and Mining
1588 West North Temple
Salt Lake City, Utah 84116

Gentlemen,

Your copies of my geologic report and log on The Anschutz Corporation's Anschutz Ranch well number 3-2, redrill, are enclosed.

Sincerely yours,

John S. Williams

RECEIVED
OCT 27 1980
DIVISION OF
OIL, GAS & MINING

Form OGCC-1 b

STATE OF UTAH

OIL & GAS CONSERVATION COMMISSION

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

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 [XX] OTHER

2. NAME OF OPERATOR: The Anschutz Corporation

3. ADDRESS OF OPERATOR: 2400 555 -17th Street Denver, Colorado 80202

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: 2,103' FSL & 2,041' FEL

5. LEASE DESIGNATION AND SERIAL NO.: Fee

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: Anschutz Ranch

9. WELL NO.: 3-2

10. FIELD AND POOL, OR WILDCAT: Anschutz Ranch

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec 3 T3N R7E

14. PERMIT NO.: 43-043-30084

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 7,717 Gr.

12. COUNTY OR PARISH: Summit

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	[ ]	PULL OR ALTER CASING	[ ]	WATER SHUT-OFF	[ ]	REPAIRING WELL	[ ]
FRACTURE TREAT	[ ]	MULTIPLE COMPLETE	[ ]	FRACTURE TREATMENT	[ ]	ALTERING CASING	[ ]
SHOOT OR ACIDIZE	[ ]	ABANDON*	[XX]	SHOOTING OR ACIDIZING	[ ]	ABANDONMENT*	[ ]
REPAIR WELL	[ ]	CHANGE PLANS	[ ]	(Other)			[ ]
(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.) *

1. Spot cement from 8,000-8,925 ft. K.B. (cover all perforated intervals)
2. Spot 100 ft. cement across any casing stub left as a result of cutting and pulling casing.
3. Spot 10 sacks cement at surface to plug hole.
4. Weld steel plate over surface opening, marked to identify well & location.

7/21/81
CB Feight

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

SIGNED David J Kingston TITLE Production Engineer DATE 7/2/81

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

Form OGCC-1 b

STATE OF UTAH

OIL & GAS CONSERVATION COMMISSION

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

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 [X] GAS WELL [ ] OTHER

2. NAME OF OPERATOR: The Anschutz Corporation

3. ADDRESS OF OPERATOR: 2400 Anaconda Tower, 555-17th St., Denver, CO 80202

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: 2103 FSL and 2041' FEL

5. LEASE DESIGNATION AND SERIAL NO.: Fee

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: Anschutz Ranch

9. WELL NO.: 3-2 Redrill

10. FIELD AND POOL, OR WILDCAT: Anschutz Ranch

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Section 3, T3N-R7E

14. PERMIT NO.: 43-043-30084

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 7717' GR

12. COUNTY OR PARISH: Summit

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	[ ]	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) Reentry Well Report			[X]
(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.)*

Rig up 6/21/80.
Shot 5-1/2" csg. off @ 3955'.
Sidetrack hole @ 3940'.
Log with Schlumberger @ 8922'.
Run 5-1/2" csg. to 8922'.
Rig released 9/26/80.

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

SIGNED [signature] TITLE _____ DATE 2/8/82

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

Form OGCC-1 b

STATE OF UTAH

OIL & GAS CONSERVATION COMMISSION

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

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 [X] GAS WELL [ ] OTHER

2. NAME OF OPERATOR: The Anschutz Corporation

3. ADDRESS OF OPERATOR: 2400 Anaconda Tower, 555-17th St., Denver, CO 80202

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: 2103' FSL and 2041' FEL

5. LEASE DESIGNATION AND SERIAL NO.: Fee

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: Anschutz Ranch

9. WELL NO.: 3-2

10. FIELD AND POOL, OR WILDCAT: Anschutz Ranch

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Section 3, T3N-R7E

14. PERMIT NO.: 43-043-30084

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 7717' GR

12. COUNTY OR PARISH: Summit

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	[ ]	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) Well Report			[X]
(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.)*

Spud - 2300 hrs. 10/3/78.
Run 9-5/8" csg. to 2144'.
Log with Schlumberger @ 9028'.
Run DST #1 & #2 @ 9340'.
Run DST #3,4,5 @ 9340'.
Run 5-1/2" csg. to 9340'.
Plug back to 9309'.
Rig released 1/3/79.

Intend to re-enter.

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

SIGNED [signature] TITLE _____ DATE 2/8/82

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

STATE OF UTAH
NATURAL RESOURCES & ENERGY
Oil, Gas & Mining

Scott M. Matheson, Governor
Temple A. Reynolds, Executive Director
Cleon B. Feight, Division Director

4241 State Office Building • Salt Lake City, UT 84114 • 801-533-5771

February 18, 1982

Anschutz Corporation
2400 Anaconda Tower
555 17th Street
Denver, Colorado 80202

Re: Well No. Anschutz Ranch #3-2
Sec. 3, T. 3N, R. 7E
Summit County, Utah

Gentlemen:

This letter is to advise you that the Well Completion or Recompletion Report and Log for the above mentioned well is due and has not been filed with this office as required by our rules and regulations.

Please complete the enclosed Form OGC-3, in duplicate, and forward them to this office as soon as possible.

Thank you for your cooperation relative to the above.

Very truly yours,

DIVISION OF OIL, GAS AND MINING

Cari Furse

Cari Furse
Clerk Typist

Board/Charles R. Henderson, Chairman • John L. Bell • E. Steele McIntyre • Edward T. Beck
Robert R. Norman • Margaret R. Bird • Herm Olsen

an equal opportunity employer • please recycle paper

Form OGC-3

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

SUBMIT IN DUPLICATE*
(See other instructions on reverse side)

56 64 01

10

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

1a. TYPE OF WELL: OIL WELL [XX] GAS WELL [ ] DRY [ ] Other

b. TYPE OF COMPLETION: NEW WELL [ ] WORK OVER [ ] DEEP-EN [ ] PLUG BACK [ ] DIFF. RESVR. [ ] Other Redrill

2. NAME OF OPERATOR: The Anschutz Corporation

3. ADDRESS OF OPERATOR: 555 17th Street, Suite 2400, Denver, Colorado 80202

4. LOCATION OF WELL (*Report location clearly and in accordance with any State requirements*)*
At surface: 2103' FSL & 2041' FEL
At top prod. interval reported below: NWSE
At total depth:

5. LEASE DESIGNATION AND SERIAL NO.: Fee
6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
7. UNIT AGREEMENT NAME:
8. FARM OR LEASE NAME: Anschutz Ranch
9. WELL NO.: 3-2 Redrill
10. FIELD AND POOL, OR WILDCAT: ~~Anschutz Ranch~~ Wildcat
11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA: Sec. 3-T3N-R7E
12. COUNTY OR PARISH: Summit
13. STATE: Utah

14. PERMIT NO.: 43-043-30084 DATE ISSUED:

15. DATE SPUDDED	16. DATE T.D. REACHED	17. DATE COMPL. (*Ready to prod.*)	18. ELEVATIONS (DF, RKB, RT, GR, ETC.)*	19. ELEV. CASINGHEAD
6/21/80	9/11/80	12/3/80	7717' GR	

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
8922 MD			→	TD	

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)*: N/A

25. WAS DIRECTIONAL SURVEY MADE: Yes

26. TYPE ELECTRIC AND OTHER LOGS RUN: DIL, VDL, DLL, Dipmeter, CNL-FDC, FIL, BHC Sonic

27. WAS WELL CORED: No

28. CASING RECORD (*Report all strings set in well*)

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
9-5/8"	36	2144	12-1/4	1000 sx "G"	----
5-1/2"	15.5/17/20	9336	8-3/4	1950 sx	3955
5-1/2"	15.5/17/20	8922	8-3/4	980 sx	----

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)

31. PERFORATION RECORD (*Interval, size and number*)
8312-8404 2 spf, 8268-8294, 8124-8142, 8156-8180, 8047-8110, 7890-8014

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
8312-8404	7100 gal acid
8268-8294	
8124-8142	7100 gal
8156-8180	12000 gal

33.* PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD (*Flowing, gas lift, pumping—size and type of pump*)	WELL STATUS (*Producing or shut-in*)
N/A		SI

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD →	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO

FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE →	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)

34. DISPOSITION OF GAS (*Sold, used for fuel, vented, etc.*)

TEST WITNESSED BY

35. LIST OF ATTACHMENTS

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED [illegible] TITLE Production Engineer DATE 3/4/82

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

INSTRUCTIONS

General: This form is designed for submitting a complete and correct well completion report and log on all types of lands and leases to either a Federal agency or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office. See instructions on items 22 and 24, and 33, below regarding separate reports for separate completions.
If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments should be listed on this form, see item 35.
Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.
Item 18: Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments.
Items 22 and 24: If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) (if any) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.
Item 29: *"Sacks Cement":* Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool.
Item 33: Submit a separate completion report on this form for each interval to be separately produced. (See instruction for items 22 and 24 above.)

37. SUMMARY OF POROUS ZONES:
SHOW ALL IMPORTANT ZONES OF POROSITY AND CONTENTS THEREOF; CORED INTERVALS; AND ALL DRILL-STEM TESTS, INCLUDING DEPTH INTERVAL TESTED, CUSHION USED, TIME TOOL OPEN, FLOWING AND SHUT-IN PRESSURES, AND RECOVERIES

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.
Twin Creek	7392	8060	Gas
Leeds Creek	8060	8230	"
Walton Creek	8230	8645	"
Boundry Butte	8645	8690	Wet
Rich	8690	9010	"
Slide Rock	9010	9080	"
Gypsem Spring	9080	9230	"
Nugget	9230	----	"

38. GEOLOGIC MARKERS

NAME	TOP	
	MEAS. DEPTH	TRUE VERT. DEPTH
Pruess Salt	7240	
Twin Creek	7392	
Leeds Creek	8060	
Walton Creek	8230	
Slide Rock	9010	
Nugget	9230	

Form OGCC-1 b

STATE OF UTAH

OIL & GAS CONSERVATION COMMISSION

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

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 [X] GAS WELL [ ] OTHER

2. NAME OF OPERATOR: The Anschutz Corporation

3. ADDRESS OF OPERATOR: 2400 Anaconda Tower Denver CO

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: 2103 FSL, 2041 FEL

5. LEASE DESIGNATION AND SERIAL NO.: FEE

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: Anschutz Ranch

9. WELL NO.: 3-2 (redrill)

10. FIELD AND POOL, OR WILDCAT: Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec 3 T3N R7E

14. PERMIT NO.: 43-043-30084

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 7717 GR

12. COUNTY OR PARISH: Summit

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	[ ]	PULL OR ALTER CASING	[ ]	WATER SHUT-OFF	[ ]	REPAIRING WELL	[ ]
FRACTURE TREAT	[ ]	MULTIPLE COMPLETE	[ ]	FRACTURE TREATMENT	[ ]	ALTERING CASING	[ ]
SHOOT OR ACIDIZE	[ ]	ABANDON*	[X]	SHOOTING OR ACIDIZING	[ ]	ABANDONMENT*	[X]
REPAIR WELL	[ ]	CHANGE PLANS	[ ]	(Other)			[ ]
(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.) *

8/7/81 Shot and pulled 48 jts of 5½" casing
Set 100 sx plug from 2000' to 2200'

8/10/81 Set 10 sx plug at surface
Set dry hole marker

5/17/82

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

SIGNED [signature] TITLE Division Drlg & Prod. Mgr DATE 5/10/82

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

Form OGC-1b

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

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 Abandoned

2. NAME OF OPERATOR: The Anschutz Corporation

3. ADDRESS OF OPERATOR: 555-17th Street, Suite 2400, Denver, Colorado 80202

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: 2103' FSL, 2041' FEL Section 3

5. LEASE DESIGNATION AND SERIAL NO.: FEE

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: Anschutz Ranch

9. WELL NO.: 3-2 (re-drill)

10. FIELD AND POOL, OR WILDCAT: Anschutz Ranch

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 3-3N-7E

12. COUNTY OR PARISH: Summit

13. STATE: Utah

14. PERMIT NO.: 43-043-30084

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 7717' GR

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*	X
REPAIR WELL	☐	CHANGE PLANS	☐	(Other)			☐
(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.)*

This well was plugged and abandoned on August 10, 1981, Sundry Notice filed May 10, 1982.

RECEIVED
JUN 15 1984
DIVISION OF OIL GAS & MINING

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

SIGNED W. Randall Miller TITLE Operations Coordinator DATE June 11, 1984

W. Randall Miller

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side