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H. M. ADDINGTON & ASSOC.

3
STATE 3352-36-2

NW/NE Sec. 36-33S-53W

Las Animas County, Colo.

JOSEPH R. CLAIR
Geological Consultant
C.P.G. #713

WELL SUMMARY

Operator: H. W. Addington & Assoc.

Well: State 3353-36-2

Location: NW/NE Section 36, Township 33S, Range 53 West,
Las Animas County, Colorado.

Field: Wildcat.

Elevation: 5321' K.B., 5310' Ground.

Spudded: October 17, 1974 at 6:00 A.M.

Completed: Finished drilling October 24, 1974.
Plugged October 25, 1974.

Total Depth: 1969' - Driller
1972' - Schlumberger

Casing: 4 double joints of 8 5/8" O.D., used S.T. & C, K55, 28.55#
line pipe and Texas Pattern Shoe (156.79') were run and set
at 167.75'.

Cores: None.

Drill Stem Tests: None.

Mud Logging: Monaco Engineering Co., Inc. James Mabry, Logging engineer.

Logs: Drilling Time Log - 400' to 1969'
Detailed Sample Log - 170' to 1969'

Schlumberger:
Dual Induction-Laterolog - 170' to 1972'
Compensated Neutron-Formation Density Log - 170' to 1972'

Contractor: Signal Oil Field Services, Inc. - Rig #8
Buck Taylor - Tool Pusher

Equipment: Mast: Ideco 96' telescoping derrick - 212,000 lb. capacity
with 8' wide, 15' long, 10' high substructure with
3' folding wings.
Drawworks: Ideco H-37, Drive-in with double drum.
Power: One 8V-71 GMC diesel motor - 250 HP through Allison
torque converter.
Pump: Gardner-Denver FXK - 14' x 5 1/2"
Power: Two 671 GMC diesel engines.
Pits: One 12' x 5' x 50' 500 barrel with desilter and
shale shaker.
Drill Collars: 21 - 6 1/8" x 2 1/4" x 30'
Drill Pipe: 3 1/2" IF

Status: Well plugged and abandoned October 25, 1974.

WELL CHRONOLOGY

H. M. ADDINGTON & ASSOC.
STATE 3353-36-2

NW/NE Sec. 36-33S-53W
Las Animas County, Colo.
Elevation: 5321' K.B.

1974

Oct. 14,
Oct. 15) Waiting on weather to move.

Oct. 16 Moving in.

Oct. 17 Drilling surface hole. Spudded at 6:00 A.M. Drilled 12 1/4" surface hole to 172'. Ran 4 double joints and Texas Pattern Shoe (156.79') of 8 5/8" used S.T. & C., K55, 28.55# line pipe and set at 167.79' K.B. measurement. Casing cemented with 125 sacks of Halco Liteweight and 80 sacks of Halco "H" cement plus 3% calcium chloride. Plug was pumped down at 6:35 P.M., October 17, 1974.

Oct. 18 Drilled out from under surface at 9:20 A.M. Plugged bit at 359' at 3:29 P.M. Back to drilling at 6:00 P.M. Geologist on well.

Oct. 19 Drilling @ 637' at 8:00 A.M.

Oct. 20 Drilling @ 987' at 8:00 A.M.

Oct. 21 Drilling @ 1217' at 8:15 A.M.

Oct. 22 Drilling @ 1576' at 8:00 A.M.

Oct. 23 Drilling @ 1775' at 8:20 A.M.

Oct. 24 Drilling @ 1910' at 8:00 A.M. Drilled to 1969' T.D. at 7:55 P.M. Conditioned hole. Came out to run logs.

Oct. 25 Started logging at 12:00 midnight. Finished logging at 5:00 A.M. Decision was made to plug the well. Plugging was carried out according to instructions from State Plugging Engineer.

GEOLOGICAL REPORT

H. M. ADDINGTON & ASSOC.
STATE 3352-36-2

NW/NE Sec. 36-33S-53W
Las Animas County, Colo.
Elevation: 5321' K.B.

The State 3353-36-2 was spudded at 6:00 A.M. on October 17, 1974. 12 1/4" surface hole was drilled to 172'. Then 4 double joints of 8 5/8" OD. used S. T. & C., K55, 28.55# line pipe, with Texas Pattern Shoe, (156.79') were run and set at 167.75' K. B. measurement. Casing was cemented with 125 sacks of Halco Liteweight and 80 sacks of Halco "H" cement plus 3% calcium chloride. Plug was pumped down at 6:35 P.M. on October 17, 1974.

The well went out from under surface at 9:20 A.M., October 18, 1974.

The following formation tops, corrected to Schlumberger Electric Logs, were picked on the well.

Jurassic System:

Morrison	At surface	
Wenakah	- 140 (+5181)	(Behind surface pipe)
Ocate	- 223 (+5098)	

Permian System

Day Creek	- 610 (+4711)	
Blaine	- 660 (+4661)	
Glorietta	- 873 (+4448)	
Yeso	- 962 (+4359)	
	- 1227 (+4094)	

Precambrian:

Granite (solid)	- 1628 (+3693)	
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Total depth	- 1969	Driller
	1972	Schlumberger

The State 3353-36-2 is the second in a continuing series of ten wildcat tests to be drilled in eastern Las Animas and western Baca Counties, Colorado, operated by H. M. Addington and Associates.

The first indication of structural position was the absence of any Triassic beds. The test went directly from Jurassic into Permian red beds.

The first definitive marker was the Day Creek dolomite which was found in the 660-70' sample. Top was placed at 657' on drilling time, corrected to 660' by electric logs. At this point the well was running 113' high to the Pauley & Sullivan #1 Doherty, C/NW/SW Sec. 15-32S-56W, and 103' high to the J. K. Wadley #1 Fee (or Gov't.), NW/NW Sec. 23-32S-54W, the closest controls to the northwest.

The first Blaine lithology was found in the 930-40' sample and top was placed at 933' on drilling time. This indicated far too thick an interval between the Day Creek and the Blaine and the discrepancy, which I still cannot resolve, was not straightened out until after logs were run.

The first Glorietta was found in the 990-1000' sample and top was placed at 987' by drilling time. The Glorietta had some obvious porosity in the samples but no sign of a gas kick of any kind. Circulation was lost at 1141' and samples were very poor throughout the remainder of the Glorietta.

The first Yeso ? was found in the 1290-1300' sample and top placed at 1293' on drilling time. The Yeso had much more limestone and dolomite than I have previously observed in the area and was extremely sandy (see Detailed Sample Log).

In the 1580-90' sample was found the first trace of Arkose and varicolored Quartz, coarse to very coarse, angular to subangular, little subrounded, weathered, and I thought the lower Madera Arkose had been penetrated. The top was placed at 985' by drilling time. Drilling proceeded and the amount of Arkose in the samples increased until the 1610-20' sample where weathered Granite Wash was found in the samples. At 1628' the penetration rate increased markedly, and in the 1630-40' sample there was Granite and Granite Wash, weathered to fresh, coarse to very, very coarse textured. Due to the amount of weathering I believed we were still in Granite Wash and drilling was continued. Finally it was decided to run logs and determine whether it was Granite in place or Granite Wash. Drilling was stopped at 1969' when Schlumberger arrived.

Schlumberger Dual Induction-Laterolog and simultaneous Compensated Neutron-Formation Density Logs were run. The logs indicated that Granite in place had been penetrated at 1628' and that 341' of Granite had been cut. In view of this it is apparent that the weathering observed in the samples is probably due to deep fracturing of the Granite surface. The weathered Granite Wash and Arkose was from 1616-28', and this is quite obvious on the logs.

Further study of the logs showed that the top of the Blaine was at 873', some 60' higher than I found it in the samples. The top of the Glorietta was at 962', some 25' higher than it appeared in the samples. Base of the Glorietta is placed at 1227' by the electric logs, and this is over 60' higher than it could be placed by samples and drilling time.

The Glorietta showed positive gas indications (1010-47, 1100-1164, 1182-98, 1206-15) much as observed in the State 3053-36-4, NW/NW Sec. 36-30S-53W, the first of this series of wells to be drilled. However, it was decided not to attempt any further testing of the Glorietta, and orders were given to plug and abandon the well.

Plugging was carried out according to instructions from the State Plugging Engineer on October 25, 1974.

The well is extremely high structurally and apparently quite close to the axis of the Sierra Grande Uplift. Because of the sample problems, the Detailed Sample Log is in part interpretive. I have not been able to resolve the mechanical problem which occurred in connection with the catching of samples, but obviously the samples were not properly caught.

Joseph R. Clair
JOSEPH R. CLAIR
Geological Consultant
C.P.G. #713

November 2, 1974

DETAILED SAMPLE LOG

H. M. ADDINGTON & ASSOC.

STATE 3353-36-2

NW/NE Sec. 36-33S-53W

Las Animas County, Colo.

Elevation: 5321' K.B.

- 170-186 Shale, red, dark red, fairly hard; with traces of Limestone, light red, pink-buff, very finely crystalline, dense (probably nodules).
- 186-193 Siltstone, light red, pink-red, micromicaceous, slightly limey.
- 193-195 Shale, light red, pink-red, hard.
- 195-214 Siltstone to very, very fine sandstone, pink-red, micromicaceous, limey.
- 214-223 Limestone, pink-buff, pink-red, trace red, very finely crystalline, dense; trace white chalk.
- 223 Top - OCATE (+5098)
- 223-224 Shale, brown-red, pale purple, mottled, little chocolate, fairly hard; trace red, dense limestone (? nodules).
- 224-271 Siltstone to very, very fine sandstone, pink-red, brown-red, micromicaceous, limey.
- 271-273 Shale, brown-red, hard; trace red, dense Limestone nodules.
- 273-306 Siltstone to very fine Sandstone, pink-red, pale orange-buff, micromicaceous, limey.
- 306-308 Shale, light red, pink-red, hard; with varicolored, very finely crystalline, dense, Dolomite nodules.
- 308-318 Dolomite, buff, tan, pink, some varicolored, finely crystalline, dense; trace Chert, gray, tan, opaque and semiopaque.
- 318-350 Shale, red, light red, trace purple.
- 350-361 Sandstone, purple, purple-red, varicolored, very fine to fine, some medium grains, angular to subangular, tight to friable; some dolomitic; some quartzitic; trace Chert, gray, semiopaque, oolitic.
- 361-370 Shale, purple, purple-red, trace gray, some mottled.
- 370-387 Sandstone, purple to gray, and varicolored, very fine to fine, and some medium grains, angular to subangular, with few subrounded, floating grains, most very tight.
- 387-391 Shale, as above.

- 391-398 Sandstone, gray-white, buff, pink, pale purple, very fine to fine, little medium, angular to subangular and subrounded, very tight to friable, much loose; traces of pyrite.
- 398-401 Shale, purple, purple-red, traces of gray.
- 401-410 Sandstone, gray-white, gray, buff, pink-red, red, very fine to fine, angular to subangular; with some medium, subrounded to rounded, floating grains.
- 410-427 Shale, purple, dark red, pale gray, in part sandy; much is hard, talcy Clay.
- 427-451 Sandstone, gray-white, little pink-red, red, pale purple, very fine, angular, very tightly cemented, some quartzitic; some with much intergranular Clay; traces of varicolored, semiopaque Chert.
- 451-467 Sandstone, gray, gray-white and varicolored, very fine to fine; with some medium aggregates, angular to subangular, very tight; some with much intergranular Clay.
- 467-469 Shale, pale gray, dark purple, purple, chocolate, red, most hard, some very finely sandy.
- 469-479 Sandstone, as above; more pink, red, dark purple; traces of Chert.
- 479-498 Shale, pale gray, dark purple, purple-red, red, brown-red, some mottled, very hard, little sandy; in part talcy Clay; with some interbedded Sandstone, gray-white, very fine, angular to subangular, very very tightly cemented; considerable intergranular siliceous Clay; some quartzitic; traces of Chert, pink, tan, gray-white, semiopaque and semitranslucent.
- 498-526 Shale, pale purple, pale gray, brown-red, brown, dark red, some mottled, hard; some sandy, talcy Clay.
- 526-549 Sandstone, gray-white, pink, red, very fine to fine and little medium, angular to subangular, very very tightly cemented; little Chert, gray-white, pink gray, semiopaque and semitranslucent.
- 549-551 Shale, purple, dark purple, pale gray, trace brown-red, hard, considerable mottled; much is very finely sandy, hard, talcy Clay.
- 551-591 Sandstone, gray-white and varicolored, very fine to medium and some coarse, grading to very fine to fine toward bottom, angular to subangular, with some subrounded and few rounded grains, very very tight with abundant intergranular cement, very slightly limey; traces of Chert, gray, tan, white, opaque and semiopaque; little interbedded Shale, purple, purple-gray, mottled, purple-red, gray, hard; in part sandy, talcy Clay.
- 591-610 Shale, pale gray, purple, purple-red, some mottled; most hard, sandy, talcy Clay; with interbedded Dolomite, buff, tan, pale pink-red, very finely crystalline to crystalline, dense; trace Chert, white, tan, opaque and semiopaque.
- 610 Top - PERMIAN (+4711)
- 610-642 Siltstone to very fine Sandstone, orange-red, dark orange-red, angular to subangular, very tight, micromicaceous; with much interbedded Shale, brown-red, orange-red, brown, hard, little micromicaceous.

- 642-648 Shale, dark brown-red, brown-red, chocolate, orange-red.
- 648-652 Siltstone to Sandstone, orange-red, dark orange-red, very very fine to very fine, micromicaceous, slightly limey.
- 652-660 Shale, as above.
- 660 Top - DAY CREEK (+4661)
- 660-672 Dolomite, pale orange-buff, pale purple, trace orange, very finely crystalline, dense to slight pinpoint vug porosity, slightly limey, some succrosic.
- 672-682 Siltstone to very fine Sandstone, pale purple, purple, purple-red, micromicaceous, very tight, slightly limey to dolomitic.
- 682-694 Dolomite, pale orange-buff, orange, buff, pink-red, pale purple, very very finely crystalline to very finely crystalline, dense to minute vug porosity, little very finely sandy.
- 694-716 Shale, brown-red, orange-brown, hard, micromicaceous, some silty; and Siltstone.
- 617-751 Siltstone to very, very fine Sandstone, orange-red, orange-brown, brown-red, micromicaceous, very tight, some quite shaly, very slightly dolomitic.
- 751-753 Shale, dark brown-red, orange-brown, trace orange, hard; some micromicaceous.
- 753-770 Siltstone to very fine Sandstone, orange-red, dark orange, orange-brown, micromicaceous, very tight, slightly dolomitic; some argillaceous to little interbedded Shale, dark brown-red, hard.
- 770-772 Shale, dark brown-red, hard, some micromicaceous.
- 772-800 Siltstone to very fine Sandstone, dark orange, orange-brown, dark orange-red, traces of brown-red, orange-buff, micromicaceous, very slightly dolomitic, some shaly; with some interbedded Shale, dark brown-red, hard, micromicaceous.
- 800-802 Shale, dark brown-red, brown-red, brown, hard, micromicaceous.
- 802-830 Siltstone to Sandstone, dark orange-red, orange, orange-red, brown-red, trace orange-buff, very very fine to very fine, micromicaceous, very tight; some with much intergranular Gypsum; some shaly.
- 830-832 Shale, brown, brown-red, orange, hard to soft; trace white, soft Gypsum.
- 832-863 Siltstone to very fine Sandstone, orange, dark orange-brown, orange-red, micromicaceous, considerable shaly; traces medium, rounded, floating grains; some intergranular Gypsum; little white, soft and fibrous Gypsum; some interbedded Shale, dark brown-red, dark orange-brown, hard.
- 863-873 Shale, dark brown-red, dark orange-brown, hard.
- 873 Top - BLAINE (+4448)
- 873-893 Anhydrite, white, finely crystalline to massive, dense; with interbedded Dolomite, pale gray, gray-white, pink-buff, orange-buff, buff, very very

finely crystalline to very finely crystalline, very dense; slightly pyritic; some white, finely crystalline and soft Gypsum.

- 893- 895 Shale, dark red, brown-red, chocolate, red, hard.
- 895- 927 Dolomite, pale gray, buff, tan, pink, brown, very very finely crystalline to some finely crystalline, dense; slightly pyritic and anhydritic; with interbedded Anhydrite, white, crystalline to massive, dense; and Gypsum, white, crystalline to soft.
- 927- 962 Shale, dark brown-red, dark red, orange-brown, purple, chocolate, hard.
- 962 Top - GLORIETTA (+4270)
- 962- 970 Sandstone, gray, slightly green-gray, very fine to fine, angular to slightly subangular, slightly micromicaceous, very very tightly cemented; slightly pyritic; some medium to coarse, subrounded to rounded, floating grains.
- 970-1004 Sandstone, gray, fine to coarse, angular to subrounded, tight to quite friable, much loose, limey, slightly pyritic; poor to fair and little good permeability and porosity; some imbedded floating grains.
- 1004-1010 Shale, dark red, chocolate, purple, brown-red, hard.
- 1010-1059 Sandstone, gray, gray-white, slightly green-gray, very fine to fine, little medium and trace coarse, angular to subangular and trace sub-rounded, very tight, limey, slightly pyritic; with some white Anhydrite and Gypsum.
- 1059-1091 Shale, dark red, chocolate, purple, purple-red, mottled; with some inter-bedded Sandstone, gray, slightly green-gray, very very fine to fine, angular, very tight, limey; some quite pyritic; some silty.
- 1091-1159 Sandstone, gray, gray-white, very very fine to medium and some coarse, angular to subrounded and some rounded, very tight to friable; some dolomitic; considerable white, soft Gypsum; and traces of Anhydrite; considerable intergranular cement. (Note: Lost circulation at 1141.)
- 1159-1175 Shale, dark red, purple-red, chocolate, maroon.
- 1175-1199 Sandstone, orange-buff, orange, pink-red, gray, green-gray, gray-white, some very very fine, most fine to coarse, angular to subangular, with some subrounded to rounded grains, tight to friable, slightly limey; with little to considerable intergranular cement; some white, limey, Clay flakes; little white Gypsum; little pyritic; with interbedded Siltstone to very fine Sandstone, dark red, brown-red, dark orange-red, micromicaceous, very tight.
- 1199-1203 Shale, dark red, red, chocolate, purple, hard.
- 1203-1227 Sandstone, gray, gray-white, green-gray, traces of orange, pink-red, red, very very fine to coarse, angular to rounded, tight to loose; with abundant white, limey Clay; slightly pyritic; abundant loose, fine to coarse, subangular to rounded grains.

- 1227 Top - YESO (+4094)
- 1227-1232 Shale, dark chocolate, hard, little silty.
- 1232-1243 Siltstone to very, very fine Sandstone, dark brown, red, brown-red, chocolate, micromicaceous, very tight, some shaly.
- 1243-1250 Shale, chocolate, dark brown-red, hard.
- 1250-1257 Siltstone to very, very fine Sandstone, as above.
- 1257-1259 Shale, as above.
- 1259-1282 Siltstone to Sandstone, orange, dark orange, orange-red, dark orange-brown, very very fine to very fine, micromicaceous, very tight, considerable argillaceous; with some interbedded Shale, chocolate, dark brown-red, brown, hard.
- 1282-1306 Siltstone to very fine Sandstone, dark orange-red, dark orange, brown-gray, brown, trace dark red, micromicaceous, tight, limey; with some interbedded Limestone, red, dark red, pink-red, pale purple, very finely crystalline, dense; some nodular; some silty and slightly argillaceous (probably as lentils and nodules).
- 1306-1323 Siltstone to very, very fine Sandstone, dark orange-red, orange, orange-brown, micromicaceous, tight, slightly limey, some shaly; with little interbedded Limestone, as above.
- 1323-1326 Shale, dark red, chocolate, red, brown-red, brown, hard.
- 1326-1362 Siltstone to Sandstone, purple, orange, orange-red, brown-red, very very fine to fine, angular, micromicaceous to micaceous, very tight, slightly limey and some shaly; with little interbedded Limestone, red, dark red, pink-red, very finely crystalline, dense; and Dolomite, gray-buff, very very finely crystalline, dense (possibly as nodules).
- 1362-1377 Siltstone to Sandstone, orange, orange-red, dark red, purple-red, very very fine to fine, angular to little subangular, very tight, slightly dolomitic, considerable shaly; little Dolomite, red, dark red, pink-red, pink-gray, tan, very finely crystalline, dense, slightly limey, nodular.
- 1377-1410 Sandstone, varicolored, very fine to coarse, angular to subangular, very tight, slightly dolomitic; with abundant intergranular Clay; some shaly; some varicolored, very coarse, conglomeratic quartz grains; with traces of Dolomite, pink-red, light brown, very finely crystalline, very dense, slightly nodular.
- 1410-1432 Sandstone, purple-red, dark red, red, very fine to coarse, angular to subangular, very tight, slightly dolomitic; with abundant intergranular cement.
- 1432-1456 Sandstone, orange-red, red, brown-red, orange, orange-gray, dark red, very very fine to very fine, angular, very tight, dolomitic; some shaly; with interbedded Dolomite, highly varicolored, very finely crystalline to slightly crystalline, dense, some silty to very finely sandy; some with imbedded sand and quartz grains (Has conglomeratic appearance.)

- 1456-1483 Siltstone to Sandstone, orange, orange-red, orange-buff, brown, pale purple, very very fine to very fine and little fine, angular, micromicaceous, very tight, slightly dolomitic; some shaly and little Shale, brown, brown-red, red, chocolate, hard; with little Dolomite, varicolored, very finely crystalline to crystalline, dense; some nodular; some silty to very finely sandy and argillaceous.
- 1483-1515 Siltstone to very fine Sandstone, orange-red, orange-brown, brown-red, dark red, very tight, micromicaceous, some shaly; with Dolomite, varicolored, trace pale gray, very finely crystalline to crystalline, dense, conglomeratic in part; silty to very finely sandy; some argillaceous; considerable nodular.
- 1515-1545 Siltstone to Sandstone, dark orange, orange-red, brown-red, dark red, orange-buff, trace gray-white, very very fine to very fine, micromicaceous, slightly dolomitic and considerable shaly; with little interbedded Dolomite, dark red and varicolored, finely crystalline to slightly crystalline, dense; considerable nodular; some silty to very finely sandy and argillaceous.
- 1545-1550 Shale, brown-red, chocolate, purple-red, hard.
- 1550-1578 Siltstone to Sandstone, varicolored, very very fine to little fine, angular, micromicaceous, dolomitic, considerable shaly; with interbedded Dolomite, varicolored, very finely crystalline to crystalline, dense; some silty and argillaceous; few imbedded sand grains (quite conglomeratic in appearance).
- 1578-1580 Shale, brown-red, chocolate, purple, hard; trace very coarse, loose, subangular, quartz grains.
- 1580-1593 Siltstone to Sandstone, as above; with some Dolomite and Feldspar, Quartz and Arkose, varicolored, coarse to very coarse, angular to subangular, little subrounded.
- 1593-1595 Shale, as above.
- 1595-1616 Siltstone to Sandstone, as above; with interbedded Arkose, varicolored Feldspar and Quartz, very tightly cemented, angular to subangular, considerable very, very coarse quartz grains; some Feldspar is slightly weathered.
- 1616-1628 Arkose and Granite Wash, orange, pink, red, angular to subangular, very tight, some weathered; with interbedded Shale, brown-red, dark red, chocolate.
- 1628 Top - PRECAMBRIAN (GRANITE) (+3693)
- 1628-1662 Granite, dark red, red, pink, orange, coarse to very very coarse textured, weathered to fresh.
- 1662-1712 Granite, dark red, red, orange, coarse to very very coarse, slightly weathered to fresh; considerable white, siliceous Clay flakes.
- 1712-1732 Granite, dark red, orange, red, coarse to very very coarse textured, slightly weathered to fresh; considerable coarse Biotite, some is chloritic.

- 1732-1751 Granite, orange-dark red, pink, coarse to very very coarse textured; considerable white, siliceous Clay; slightly weathered to fresh.
- 1751-1791 Granite, orange, dark red, red, pink, coarse to very very coarse textured, weathered to fresh; considerable white, siliceous Clay; abundant mica, some of which is chloritized.
- 1791-1802 Granite, red, orange-red, orange, dark red, coarse to very coarse textured, fresh to some weathered; little siliceous Clay.
- 1802-1852 Granite, red, orange, dark red, pink, coarse to very very coarse textured, fresh to some weathered; much mica; considerable white, siliceous Clay.
- 1852-1885 Granite, red, orange, dark red, orange-red, coarse to very very coarse textured, slightly weathered to fresh.
- 1885-1914 Granite, red, dark red, orange, orange-red, coarse to very very coarse textured, weathered to fresh; considerable siliceous Clay; increase in amount of Feldspar.
- 1914-1934 Granite, as above; much Quartz and Feldspar as loose grains; some siliceous Clay; some chloritic mica; most fresh.
- 1934-1969 Granite, red, dark red, orange-red, pink, medium to coarse and very very coarse textured; slightly weathered to fresh; abundant white and mottled, siliceous Clay.
- 1969 Total depth - Driller.
- 1972 Total depth - Schlumberger.

Note: The excessive penetration of granite was due to my opinion that the amount of weathering present and the abundance of loose grains of feldspar and quartz indicated some transport. However, electric logs proved conclusively that the granite was in place. The weathering is apparently due to deep fracturing.

Samples described:

Joseph R. Clair
JOSEPH R. CLAIR
(on well)

DRILLING TIME LOG

H. M. ADDINGTON & ASSOC.

STATE 3353-36-2

NW/NE Sec. 36-33S-53W

Las Animas County, Colo.

Elevation: 5321' K.B.

One foot drilling time starts at 400'.

400- 420	5-5-5-5-5-3-2-2-3-2 1/2	2 1/2-2 1/2-2 1/2-2-2-1- 1 1/2-2 1/2-2 1/2
420- 440	1 1/2-1 1/2-2-1 1/2-2 1/2- 1 1/2-2-2-2-2	2-2-2-2 1/2-2 1/2-2 1/2- 2 1/2-2 1/2-2 1/2-2 1/2
440- 460	2-2 1/2-1 1/2-2 1/2-2-3-3- 2-2 1/2-2 1/2	2-2-3-2-2-2 1/2-2 1/2-2-3-2
460- 480	2-1-2-2-1-1-5-1-1	3-6-2-2-1-1-1-1-1-1/2
480- 500	1/2-1/2-1-1-1/2-1/2-1-1 1/2- 1-1 1/2	1-1 1/2-1-1/2-1/2-1/2-1-2-2
500- 520	1 1/2-1 1/2-1-1 1/2-1 1/2-2 2-1-1 1/2-2	2 1/2-2-2 1/2-2 1/2-3-1-3-2- 3-3
520- 540	1-3-2-2-3-2-2-3-2-1	2-2-2-2-2-1-1 1/2-1 1/2-1-2
540- 560	1-2-2-2-1-2-2-1-2-2	1-2-2-2-1-2-2-2-1-2
560- 580	2-2-2-2-1-3-2-2-2-2	3-2-3-2-2-2-3-2-2-2
580- 600	2-2-2-3-3-2-2-2-3-2 1/2	2 1/2-2-2-3-2-2-2-2 1/2-2-2 1/2
600- 620	2-2-3-2-2-2-3-2-2-2	2-2-1-2-2-2-2-2-2-2
620- 640	3-2-2-3-2-3-2-3-2-3	3-2-2-3-3-3-2-2-3-2
640- 660	3-3-3-5-7-3-3-3-4-4	5-4-4-4-1-2-3-4-4-4
660- 680	2-3-3-4-4-1-1-1-1-1	1-1-1-1-1-1-1-2-1-1
680- 700	2-2-2-1-1-3-2-1-3-2	2-3-2-3-2-2-3-2-1-3
700- 720	2-1-1/2-1/2-1/2-1/2-1/2- 1/2-1/2-1/2	1-1-1-1-1-1-1-1-1-1 Drill pipe stuck at 702'.
720- 740	1-1-1-1-1-1-1-1-1-1	1-1-1-1-1-1-1-1 1/2-1-1 1/2
740- 760	1 1/2-1 1/2-1 1/2-1 1/2-1 1/2- 1 1/2-1 1/2-1 1/2-1 1/2-1 1/2	1 1/2-1 1/2-1 1/2-1 1/2-1 1/2- 1 1/2-1 1/2-1 1/2-1 1/2-1 1/2
760- 780	1 1/2-1 1/2-1 1/2-1 1/2-1 1/2- 1 1/2-1 1/2-1 1/2-1 1/2-1 1/2	1 1/2-1-1-1 1/2-1 1/2-1 1/2- 1 1/2-1 1/2-3-3
780- 800	3-3-2 1/2-2 1/2-3-2-2-3-2-2 1/2	2 1/2-2 1/2-2 1/2-2-3-2-1-1-1-1
800- 820	1/2-1/2-1/2-1/2-1-1-1-1-1-1	4-3-2-3-7-2-3-3-4-5
820- 840	4-3-2-2-3-2 1/2-2 1/2-x-x-x	3-4-5-2-2-3-4-4-3-2
840- 860	3-3-3-3-3-3-3-3-2	3-3-3-4-2-3-3-4-4-3
860- 880	3-3-3-3-3-3-3-3-3	5-5-4-4-4-5-5-4-3-2
880- 900	4-5-4-5-4-5-4-5-4-4	5-4-3-2-2-4-4-5-5-5
900- 920	4-4-5-4-5-4-4-5-3-5	4-5-5-5-5-5-5-5-5-5
920- 940	3-3-3-4-4-4-4-3-3-4	4-4-3-4-4-3-5-4-4-5
940- 960	3-4-3-4-3-3-4-3-4-3	3-3-3-3-3-3-3-2-3-3
960- 980	2-2-4-3-2-3-2-2-3-2	3-2-3-3-3-3-4-3-3-4
980-1000	3-3-4-3-3-4-4-2-3-2	3-3-2-2-3-2-3-3-2-3

1000-1020	3-3-2-3-3-2-3-3-3-3	2-3-2-3-2-3-3-3-3-3	
1020-1040	3-2-2-3-2-2-3-3-4-3	3-3-4-3-4-3-4-4-4-4	
1040-1060	4-3-4-3-4-4-3-3-3-4	5-3-4-4-3-4-3-4-4-4	
1060-1080	3-4-4-4-4-3-5-5-5-5	5-6-5-4-3-3-4-3-3-3	Trip @ 1065'.
1080-1100	3-3-4-4-3-3-4-4-4-3	4-3-4-3-4-3-4-4-3-4	Bit #3. J-33.
1100-1120	4-3-3-3-3-3-3-3-4-3	4-4-5-5-4-5-6-7-7-6	
1120-1140	8-5-5-5-5-5-5-3-4-4	3-4-3-4-4-3-4-3-2-2	
1140-1160	2-2-3-2-2-2-1-2-1-2	1-2-1-2-2-2-2-1-2-3	
1160-1180	3-3-4-3-3-2-3-4-3-3	4-4-5-5-6-6-5-5-6-6	
1180-1200	6-7-7-8-7-8-7-6-5-5	6-5-6-4-4-4-4-4-3-5	
1200-1220	3-4-3-4-4-4-3-5-3-5	4-4-5-5-7-4-5-5-5-4	
1220-1240	4-3-5-4-3-4-4-4-4-3	4-4-5-7-6-3-3-4-3	
1240-1260	4-4-3-2-3-3-3-2-2-2	3-1-3-2-3-2-2-2-3	
1260-1280	2-3-2-1-3-2-3-2-3-2	2-2-3-2-3-x-2-3-3	x = No time.
1280-1300	2-2-2-2-2-2-2-2-2-2	2-2-2-1-2-3-2-3-3	Geologist corr.
1300-1320	3-3-2-3-3-3-3-2-3-4	3-3-2-2-2-2-3-3-3-3	
1320-1340	2-3-3-3-3-3-2-2-2-2	2-3-2-2-2-2-3-3-3-3	
1340-1360	3-3-3-3-3-3-3-3-4-2	3-2-4-3-5-5-2-4-4-4	
1360-1380	4-3-5-3-5-5-2-3-2-3	3-5-6-2-2-3-3-4-4-3	
1380-1400	4-3-3-4-4-5-5-3-3-3	4-5-2-4-5-2-2-3-3-5	
1400-1420	4-5-4-5-3-4-4-4-5-2	3-4-4-5-4-4-6-3-3-5	
1420-1440	7-4-4-4-4-3-4-3-5-6	5-6-4-3-5-4-5-4-5	
1440-1460	4-6-6-6-6-5-6-6-7-5	5-4-7-6-5-4-4-5-5	
1460-1480	5-7-8-5-6-7-4-5-3-5	4-4-4-5-4-4-4-4-4	
1480-1500	2-4-2-2-4-2-3-3-4-3	4-3-5-3-5-3-3-4-3	
1500-1520	4-3-3-3-4-3-3-2-3-5	3-3-4-3-4-4-3-3-4-5	
1520-1540	3-3-4-4-3-3-3-3-3-4	3-4-3-4-3-5-4-7-4-5	
1540-1560	5-5-5-5-3-4-5-5-5-5	5-5-5-3-5-4-5-3-3-4	
1560-1580	4-4-3-5-8-5-6-6-5-6	5-4-5-4-6-4-5-5-5-6	
1580-1600	6-5-6-5-5-6-5-6-6-5	4-5-6-6-5-5-5-5-5-5	
1600-1620	5-5-6-5-5-6-5-4-4-4	4-3-3-3-4-3-5-5-5-5	
1620-1640	4-6-5-5-5-5-5-6-7-8	11-7-10-8-8-8-7-9-7-7	
1640-1660	6-4-7-7-7-6-8-6-6-8	7-5-6-9-10-10-10-8-12-11	
1660-1680	10-12-9-8-10-10-9-7-9-8	10-10-9-9-6-8-6-7-6-7	
1680-1700	8-6-8-7-9-11-11-8-8-6	8-9-8-10-9-3-13-7-7-9	
1700-1720	13-9-11-11-9-13-9-10-9-12	8-6-7-6-8-7-9-7-11-6	
1720-1740	7-6-7-7-7-5-10-6-6-3	x-x-x-x-x-x-x-x-6-5	x = No time.
1740-1760	4-9-4-7-5-5-8-7-5-8	9-6-8-10-8-10-9-10-8-8	Geol. clock ran
1760-1780	10-8-8-3-8-5-10-10-10-10	10-10-9-9-10-12-12-10-8	down.
1780-1800	7-8-10-10-8-8-7-8-9-5	6-10-12-10-10-10-7-11-10-8	
1800-1820	11-13-12-13-13-13-14-12-12-10	9-12-10-11-15-14-13-9-13-11	
1820-1840	10-13-10-10-9-7-10-14-11-10	9-10-10-8-12-10-12-20-12-12	
1840-1860	13-12-10-11-13-8-9-10-11-12	15-16-14-9-7-6-8-8-8-8	
1860-1880	8-8-8-8-9-8-10-10-10-12	8-10-10-11-12-10-11-9-10-9	
1880-1900	9-10-10-7-5-8-8-9-9-9	10-7-10-8-9-10-9-9-9-9	

1900-1920	9-10-10-10-8-10-8-9-9-10	9-7-6-9-7-7-8-13-13-12
1920-1940	13-12-14-14-12-12-13-14-13-17	14-13-13-11-11-11-13-12-10
1940-1960	13-11-12-10-13-11-12-15-14-10	14-11-15-15-15-13-13-14-15-14
1960-1969	15-14-15-12-15-16-10-13-14	

1969 Total depth - Driller.

1972 Total depth - Schlumberger.

BIT RECORD

H. M. ADDINGTON & ASSOC.

STATE 3353-36-2

NW/NE Sec. 36-33S-53W

Las Animas County, Colo.

Elevation: 5321' K.B.

<u>Run No.</u>	<u>Size</u>	<u>Make</u>	<u>Type</u>	<u>Jet Size</u>			<u>Depth out</u>	<u>Feet</u>	<u>Hours</u>
				<u>1</u>	<u>2</u>	<u>3</u>			
1	12 1/4	Rerun					172	172	21
1	7 7/8	Sec.	M4NGJ	12/32	12/32	12/32	657	485	20
2	7 7/8	Sec.	M4NJ	18/32	18/32	18/32	1064	579	18 3/4
3	7 7/8	HFC	J-33	18/32	18/32	18/32	1969	905	96 1/2