FILE NOTATIONS

Entered in N I D File Prior

Entered On S R Sheet OGCC

Location Map Pinned

Card Indexed

I W R for State or Fee Land

Checked by Chief

Copy N I D to Field Office

Approval Letter

Disapproval Letter

COMPLETION DATA:

Date Well Completed

OW WW TA

GW OS PA

Location Inspected

Bond released

State of Fee Land

LOGS FILED

Driller's Log

Electric Logs (No.) 1

E I E-I GR GR-N Micro

Lat Mi-L Sonic Others Temperature Log

MEMORANDUM
January 4, 1961

On Thursday, December 22, 1960, I visited the Ray M. Johnson, Watson Fee Wells No. 1, 2, 3 and 4, located in Sections 27 and 34, Township 9 South, Range 25 East, Uintah County, Utah.

The town of Bonanza, Utah, has been obtaining culinary water from wells drilled in the bed of the White River some distance down-stream from the above abandoned oil wells. Bonanza's water supply showed substancial amounts of hydrogen sulphide, and a company they retained to analyse the contamination advised them that the most common source of this contamination was abandoned oil wells leaking sulphur water. The Bonanza people investigated and found that the above wells, 2, 3 and 4, were flowing some amounts of sulphur which ran directly into the White River. They secured the permission of the present owner of the land on which the wells were located to weld steel plates or plugs on top of the open casing of these three wells and had these plates welded on in the early part of December. These temporary plugs should not be considered as sufficient, and permanent plugging of the last three wells should be required.

Photographs were taken of all four wells on December 22, and are attached in the file for reference.

<u>Well No. 1</u> - SW SW SW of Sec. 27, T. 9 S., R. 25 E., Uintah Co.

This well appears to be properly plugged and abandoned. It is located in the river bed and is probably surrounded by water when the river is higher. When the well was drilled, the location was some distance from the river; however, the river has evidently meandered around the well. There appeared to be several sizes of conductor pipe from approximately

20" down to approximately 10" set and cemented to the surface, and a string of 8 5/8" cemented and extending about 10 feet above the current level of the river bed. There was no sulphur water leaking from this well.

Well No. 2 - NW NW NW of Sec. 34, T. 9 S., R. 25 E., Uintah Co.

This well was originally drilled by Johnson and later deepened by Phillips. Johnson had set 7" casing at 8343' with 350 saxs of cement. Phillips deepened the well and then plugged it back leaving all of the 7" casing in the hole. Since that time someone has apparently shot off and pulled some of the 7" leaving an open hole from the top of the casing stub to the bottom of the 13 3/4" surface casing set at 360'. The Drillers Log shows a sulphur water sand from 438-448', and this is evidently the source of the water which flowed to the surface after the 7" pipe was pulled. This well flowed an estimated 5 gallons per minute of sulphur water before the steel plate was welded on top of the 8 5/8" casing exposed at the surface. (We have no record of any 8 5/8" pipe in this well.)

Well No. 3 - NW SW NW of Sec. 34, T. 9 S., R. 25 E., Uintah Co.

This well was never properly plugged and has evidently been leaking for some time. We have no record of the amount or size of casing set, although it appears to have 7" casing at the surface. An electric log shows casing set at approximately 50' although we do not know whether this is the 7" or may be a larger diameter surface casing. A steel plate has been welded on top of a flange on the 7" pipe, and a 2" bull plug set in the side of the pipe. This well flowed an estimated 5 gallons per minute of sulphur water before the plate was welded.

<u>Well No. 4</u> - SW SW NW of Sec. 34, T. 9 S., R. 25 E., Uintah Co.

This well was also drilled prior to the existance of the Commission and very little information is available. A shop-made bull plug is welded to the top of a collar on the 8 5/8" casing at the surface. A 2" bull plug is set in the side of the big plug. This well flowed an estimated 15 gallons of sulphur water per minute before the bull plug was installed. This well was evidentally never properly plugged.

Robert L. Schmidt

ROBERT L. SCHMIDT,
CHIEF PETROLEUM ENGINEER

RLS:awg

File Copy
Calawell & Covington
File No. 100.13-3-14-2

WATSON FEE #6

[illegible]
Town[illegible]

70-	80	Shale, gray, light to medium, calcareous, lemogeneous, dense.
80-	90	Shale, gray as above with some tan shale.
90-	100	Shale, gray, as above with some sandstone, gray, friable, medium grained, with black accessory minerals.
100-	110	Shale, gray, tan and brown, with some sandstone, friable, medium grained, as above.
110-	120	Sandstone, gray, fine to medium fine grained, soft (3).(Gives cut in acetone). Shale, gray as above (2). Trace limestone, buff, dense.
120-	130	Sandstone, as above (3). Shale as above (2).
130-	140	Limestone, white, colitic (1-2 mm, smooth, rounded) with some fine tan, colitic limestone. Trace gray shale. Limestone fluoresces canary yellow. Gives excellent cut in acetone.
140-	150	Limestone, as above (3). Limestone, tan, platy, silty (2). Some gray shale as above.
150-	160	Sandstone, gray, medium to dark, very fine grained, silty, grading into silty shale. No cut or fluorescence. Trace tan to creamy, colitic limestone.
160-	170	Marlstone, cream, laminated (3). Shale, brown, hard, and shale, gray (2). Some soft, white, shale and trace colitic limestone.
170-	180	Marlstone, cream, laminated (4). Shale, medium gray with some dark gray, very fine grained sandstone (1).
181-		Limestone, creamy, white, ostracodal (1-2 mm) with trace gray limestone, colitic. Trace limestone, light gray, soft.
181-	190	Limestone, creamy, ostracodal, porous (3), and limestone, medium gray, colitic (2).
190-	195	Shale, gray, dark, calcareous, dense with some white, ostracodal limestone and trace plus gray, colitic limestone. Trace tan, silty limestone.
195-	200	Shale, gray, dark (3). Sandstone, gray, dark to medium, fine grained (2). Trace ostracodal limestone.
200-	210	Sandstone, dark gray, fine grained with biotite (4). Shale, dark gray, platy, as above (1).
210-	220	Sandstone, as above (4). Shale, as above (1).
220-	225	Sandstone, dark gray, very fine grained, and sandstone, white, finely salt and pepper, grading into siltstone. Some gray shale as above.
225-	230	Sandstone, very light gray, fine to very fine grained, finely micaceous, hard, grades into silty shale. Trace medium gray, blocky shale.
230-	240	Sandstone, as above (4). Shale, medium gray, blocky (1). Some fine grained very friable sandstone washes out.
240-	250	Shale, dark gray, calcareous laminated silty.
250-	257	Shale, gray and tan as above (3). Limestone, gray to cream, ostracodal, fragmented with some sandstone as above (2).
257-	260	Shale, medium to dark gray, calcareous, silty (4). Sandstone, white, fine grained (1).
260-	270	Limestone, creamy, ostracodal and creamy, dense with some brown, finely crystalline limestone (4). Shale, brown and gray as above (1).
270-	280	Limestone, creamy to creamy, white, slightly ostracodal (3). Shale, dark gray to olive gray laminated shale (2). Some brown and green shale. Limestone, gray, sandy, grading into limestone with white ostracods (2).
280-	290	Shale, olive gray, silty (2). Sandstone, gray, fine grained. Trace creamy ostracodal limestone.

290-	300	No sample.
300-	310	Sandstone, gray, very fine grained to fine grained sandstone, calcareous(4). Shale, gray, calcareous (1). Trace limestone, creamy, ostracodal and trace gray ostracodal limestone.
310-	320	Shale, gray, calcareous (3). Siltstone, gray, hard, calcareous (1). Sandstone, gray, very fine grained, (1). with some gray, sandy limestone and gray, limey ostracodal sandstone. Trace gray ostracodal limestone.
320-	330	Shale, gray, calcareous (3). Siltstone, gray, calcareous (1). Sandstone, gray, very fine grained (1). Some buff, silty shale.
330-	340	Sandstone, light gray-white, very calcareous, biotitic, medium grained, sharp (3). Gray shale (2).(335-340).
340-	350	Shale, gray, soft, calcareous, clayey with some sandstone white, mdium grained, calcareous (10%).
350-	355	As above.
355-	360	Shale, tan, platy, soft, calcareous with some light tan shale (3). Shale, dark brown, laminated, hard, calcareous (1). Shale, light gray, soft and clayey with some bentonitic shale.
360-	370	Limestone, creamy, silty (2). Shale, dark brown, hard (2). Black, wavy laminated shale (1).
370-	375	Limestone, creamy, silty soft (3). Shale, dark brown, laminated (oil shale) (1) Shale, black, laminated silty (1). Trace gray pyritic shale. Strong gas odor in samples. Trace brown, silty limestone and black, laminated shale with oil stain. Trace whit , opaque chert.
375-	380	Limestone, light creamy-white, with some shale as above.
380-	390	Siltstone, light gray, finely micaceous, calcareous. Some sandstone, gray, very fine grained, calcareous, very micaceous.
390-	400	Shale, light brown, laminated, calcareous (3). Shale, gray, laminated, calcareous, soft (2).
400-	410	Limestone, creamy, ostracodal (3). Shale, "oil" shale, brown, laminated (1). Limestone, gray, oolitic, sandy, hard (1).
410-	420	Siltstone, light grey, calcareous, biotitic, grading into very fine grained sandstone.
420-	430	Siltstone, light gray (3) Sandstone, white-gray, fine grained, calcareous(2).
430-	440	Shale, light gray (4). Siltstone, as above (1).
440-	450	Shale, light gray (3). Sandstone, light gray, very fine grained, calcareous, micaceous (2). Some bentonite.
450-	460	Limestone, buff to creamy-buff, ostracodal (3). Claystone, medium gray(2).
460-	470	Siltstone, gray (2). Shale, gray (2). Limestone, buff, ostracodal (1). Some sandstone, light gray, very fine grained, quartzitic, hard.
470-	480	Sandstone, very light to medium gray, biotitic (4). Shale, medium gray (1).
480-	490	Sandstone, quartzitic, conglomeratic, with large rounded and frosted rose to clear grains (2). Sandstone, gray, very fine grained, calcareous (2). Shale, gray, with some purple, brick-red, and black, sandy shale (1).
490-	500	Siltstone, gray, hard, calcareous (2). Sandstone, light gray, micaceous, fine grained, quartzitic (2). Sandstone, coarse to medium grained, very friable (1).
500-	510	Sandstone, light gray, very fine grained, micaceous and biotitic (3). Siltstone, gray, calcareous, hard (3).
510-	520	Shale, medium to dark gray (3). Siltstone, gray, as above (2).
520-	530	Sandstone, white, medium fine grained, semewhat sugary, biotitic, calcareous (4). Shale, gray, laminated (1).
530-	540	Sandstone, white, medium fine grained, sugary, very biotitic, calcareous, with some gray shale.
540-	550	Sandstone, as above. Gypsum common.
550-	560	Shale, medium grey (3). Sandstone, white, fine grained, calcareous, friable (2).
560-	570	Sandstone, white, micaceous, calcareous and biotitic (4). Shale, grey (1).

570-	580	Sandstone, as above (3). Shale, gray, silty, some finely micaceous (2).
580-	590	Shale, gray, silty (3). Sandstone, as above (2).
590-	600	As above.
600-	610	Shale, gray (3). Sandstone, dark gray, fine grained (1). Shale, "oil" shale (1). Gilsonite rare.
610-	620	Shale, gray, silty, finely micaceous and calcareous (3). Shale, buff, silty (1). Sandstone, gray, fine grained, quartzitic, calcareous (1).
620-	630	Shale, medium to dark gray. Trace pyrite.
630-	640	No sample.
640-	650	Sandstone, white, medium fine to medium grained, calcareous and quartzitic, with some biotitic (4). Shale, gray, silty, finely micaceous (1).
650-	660	Sandstone, white, medium fine grained, sugary, friable (3). Shale, gray, silty, calcareous (1). Shale, buff to creamy buff (1). Trace pyrite.
660-	670	Sandstone, white, medium fine, biotitic and calcareous (3). Shale, gray, as above (2). Some sandstone, medium grained, oil saturated, fluorescence, gives out in acetone. Bentonite very common.
670-	680	Shale, gray, with some "oil" shale (4). Bentonite, white, hard, chalky(1). Some sandstone, white, medium to fine, calcareous.
680-	690	Shale, gray, as above, with some gray, waxy, laminated shale (3). Shale, buff, dense (1). Shale, brown, laminated "oil" shale (?) (1).
690-	700	Shale, light to dark gray (4). Shale, brown "oil" shale (1). Gilsonite common. Trace gypsum.
700-	710	Shale, as above. Some laminated gray shale.
710-	720	Shale, as above.
720-	730	Shale, brown, "oil" shale (4). Shale, gray, as above (1). Gilsonite common.
730-	740	Shale, brown, "oil" shale (4). Shale, gray (1). Gilsonite, common.
740-	750	Shale, buff, laminated (2). Shale, brown, silty, calcareous (2). Shale, brown "oil" shale (1). Gilsonite rare.
750-	760	Shale, buff to tan (2). Shale, gray (2). Shale, black, carbonaceous (1).
760-	770	Shale, brown, "oil" shale (3). Shale, tan (1). Shale, gray and buff (1).
770-	780	Shale, gray (3). Shale, buff, finely micaceous to tan (1). Shale, brown "oil" shale (1).

WATSON FEE #8

PAGE

780-	790	No Sample.
790-	800	Shale, gray, light gray, silty and buff, with some brown "oil" shale (3). Limestone, creamy, ostracodal (1). Sandstone, gray, medium grained, calcareous and micaceous (1). Trace calcitic sandstone with gilsonite impregnation. Trace gypsum.
800-	810	Shale, brown (oil" shale, laminated (3). Shale, gray (1). Shale, buff (1). Some gray claystone and gypsum.
810-	820	Shale, buff to light tan (3). Shale, brown (oil) shale (2). Some gypsum.
820-	830	Shale, buff, laminated (4). Shale, brown to dark brown, "oil" shale (1). Some black laminated (oil) shale.
830-	840	Shale, dark brown, "oil" shale (3). Shale, buff (1). Shale, gray, dense to waxy, laminated (1). Trace gray, milky and orange chert. Trace gypsum. Trace sandstone, medium-coarse, rose-quartz.
840-	850	Shale, brown "oil" shale (1). Shale, buff (1). Shale, gray, laminated (2). Limestone, buff, dense with brown oil saturation, yellow, and with good cut in acetone (1). Some frosted rounded, quartzite pebbles. Some sandstone, medium grained, friable.
850-	860	Shale, brown, "oil" shale (4). Shale, gray (1).
860-	870	Shale, dark brown, "oil" shale (3). Shale, gray, laminated, waxy (2). Some buff, dense limestone.
870-	880	Shale, gray, laminated, waxy and shale, buff, laminated (4). Limestone, brown, dense, angular and sharp (1).
880-	890	Shale, gray and buff, with some purple shale (4). Limestone, brown, buff, finely crystalline to dense (1). Trace limestone, brown with oil saturation.
890-	900	Shale, gray, limey, laminated with ostracods, waxy (50%). Shale, light to dark gray, silty (20%). Limestone, gray, silty with ostracods (10%). Sandstone, fine grained, gray, quartzitic, calcareous (10%). Trace pyrite, few gastropods (1 mm), coiled, brown.
900-	910	Limestone, light gray, very shaly to silty, with gray ostracods, gilsonite (10%) calcite and aragonite (10%). Gray shell fragments, recemented. Trace shale, white, chalky, tripolitic, hard.
910-	920	Sandstone, gray-white, medium grained, very calcareous and very friable (4). Shale, gray (1). Some shale, marly, white, chalky, soft. Some bentonite.
920-	930	Sandstone, gray, as above (50%). Sandstone, medium to medium coarse, friable, staining even. Show on pits, gas odor. Sample washes greasy (50%).
930-	935	Sandstone, brown, medium to medium coarse, oil stained, friable, sub-rounded to sub-angular (3). Sandstone, white, as above (2). Trace marlstone, white, chalky.
935-	940	Shale, light gray, silty, finely micaceous (3). Sandstone, gray-white, medium grained with biotite and glauconite (rare), tight calcareous (1). Sandstone, brown, oil saturated, friable (1). Trace marlstone, white, blocky, chalky.
940-	950	Shale, gray and carbonaceous with some oil shale and green shale (4). Sandstone, brown, medium coarse, saturated evenly with oil , friable (1). Trace chert, milky, white, Trace pyrite. Some gilsonite and some buff dense limestone.
950-	960	Shale, gray, micaceous and black, carbonaceous (4). Limestone, gray and cream, oolitic, with trace dense buff limestone, sharp (1). Gilsonite common. Calcite fairly common. Some sandstone, medium grained, oil stained.

WARREN FEE #5

PAGE

960- 970	No sample.
970- 980	Sandstone, white, medium grained, tight, calcareous, with glauconite and biotite. Trace sandstone, medium grained, yellow and sandstone, brown, coarse grained. Some sandstone, medium grained, very friable, with bentonite.
980- 990	Shale, gray, silty and micaceous, calcareous (4). Sandstone, white, glauconite and biotitic, medium grained, tight, as above, with some sandstone, white, quartzitic, coarse grained (1).
990- 1000	Shale, gray, calcareous (3). Sandstone, white, medium grained (2). Gypsum and bentonite common.
1000- 1010	Sandstone, white, medium grained, calcareous, with some biotite and glauconitic, friable sandstone (80%). Shale, gray, micaceous (30%) Some sandstone, brown, medium grained, oil stained, friable (10%).
1010- 1020	Shale, as above (3). Sandstone, as above, tight (2). Trace pyrite.
1020- 1030	Shale, dark gray, with some light gray, micaceous shale (4). Dolomite, buff, dense, silty (1).
1030- 1040	Limestone, gray, dense, platy, angular (4). Shale, gray and black carbonaceous, waxy to laminated (1). Gilsonite and aragonite shells common.
1040- 1050	Limestone, cream to gray, ostracodal (3). Shale, dark gray laminated to medium gray (2). Trace stained ostracodal limestone.
1050- 1060	Shale, brown and dark gray, laminated (3). Limestone, creamy, oolitic (2), with 10% stained.
1060- 1070	Limestone, white, chalky, with some brown and gray shale. Calcite common. Some brown and creamy oolitic limestone.
1070- 1080	Limestone, white as above (4). Shale, gray, micaceous (1). Trace limestone, buff, ostracodal.
1080- 1090	Shale, gray, limey, platy to laminated. Some limestone, white, chalky, as above. Trace gilsonite.
1090- 1100	Shale, gray, as above (3). Limestone, buff, dense and silty (2). Some gray, ostracodal limestone. Aragonite shells common.
1100- 1110	Shale, gray, limey, with some gray, waxy, laminated, ostracodal shale and brown, laminated ostracodal shale (3). Limestone, white, chalky (2). Some oil shale and buff limestone.
1110- 1120	Shale, gray, limey (2). Limestone, white, chalky (2). Limestone, brown-buff, shaly, ostracodal (1). Some silty, ostracodal limestone, buff.
1120- 1130	Shale, gray, limey, ostracodal (4). Limestone, white, chalky (1).
1130- 1140	Shale, variegated, (green, gray, pupple and white). Some free, quartzite crystals and trace pyrite.
1140- 1150	Shale, variegated, as above.
1150- 1155	As above, with some carbonaceous shale. Trace plus pyrite.
1155- 1160	Shale, variegated, as above, with some brown shale and with some gray siltstone.
1160- 1165	Shale, variegated, with some siltstone and bentonite.
1165- 1170	Shale, variegated, as above, with some brown and mustard yellow shale.

JOHNSON-WATSON FEE # 3 WELL

(Negatives in Johnson-Watson Fee #1 File)