

YUMA VALLEY O & G MUSGROVE #1
NW/NE Sec 11-T11S-R25W, Yuma Co. 14-20

YUMA VALLEY O & G MUSGROVE #1
NW/NE Sec 11-T11S-R25W, Yuma Co. 14-20

14-20

County Yuma

Area Gadsden

Lease No. _____

Well Name Yuma Valley Musgrove #1 14-20

Location ^{SW} ~~NW NE~~ Sec 11 Twp 11S Range 25W Footage est. 800 fml 2400 fml

Elev ±90 Gr _____ KB Date 7-8-39 Spud Completed Total 4870 Depth 4868
bottom drilled per log

Contractor: L. E. Hylton and Clyde Hall Approx. Cost \$ _____

Casing Size _____ Depth _____ Cement _____ Drilled by Rotary Cable Tool _____

Production Horizon _____

Initial Production D&A

E.L. issued 11-16-75

REMARKS _____

Elec. Logs Elec log to 4868 *Drillers Log* Sample Log _____
Applic Plugging Completion Sample Descrip.
to Plug Record Report Sample Set _____
Cores _____

Water well - accepted by _____

Bond Co. & No. _____

Bond Am't \$ _____ Cancelled _____ Date _____ Organization Report _____

Filing Receipt _____ Dated _____ Well Book _____ Plat Book _____

Loc. Plat _____ Dedication _____

API# 02-027-05016

PERMIT NUMBER None Date Issued _____ 14-20



WM. ALBERTS
STATE LAND COMMISSIONER

OFFICE OF
State Land Department
STATE OF ARIZONA
Phoenix, Arizona
December 21, 1939

Mr. Wm. Alberts,
State Land Commissioner,
Phoenix, Arizona.

Dear Mr. Alberts:

The Yuma Valley Gas and Oil Company ran a formation test on their Musgrove # 1 well, in $N\frac{1}{2}SW\frac{1}{4}NW\frac{1}{4}NE\frac{1}{4}$, Section 11, Township 11 South, Range 25 West, Yuma County, on the gray sand cored between depths of 3318 and 3330 feet, the night of December 19th, 1939.

A Collins Hydraulic packer tester was used under the direction of Mr. Collins. 80 feet of 4" tail pipe were placed below the packer to aid the driller in setting the packer at that depth above bottom of hole. The packer was run on the lower end of the drill pipe and set at a depth about 3250 feet. The valve in the packer was opened for 30 minutes and closed. During that 30 minute period very little action was observed in the breather pipe. The drill pipe was pulled out of hole and 800 feet of mud fluid was found in the lower part of the pipe. This is equal to 69 cubic feet and if it had been oil, would have been equivalent to a flow of 138 barrels per day. The volume of the hole below the packer was estimated to be 32 cubic feet, provided there had been no caving. It is probable that the sand body had caved, as the core taken several weeks ago was found to disintegrate in water. None of the fluid contained oil or gas nor was there any sign of water, either salt or fresh. The test was regarded as showing a dry sand.

It appeared that the fluid in the drill pipe must have come from the hole by leaking around the packer or through a leak in the drill pipe. The driller claimed there was no leak in the drill pipe and expressed the opinion that the packer had not secured a tight seal when set.

It is my opinion that the latter condition was the case and that the sand was dry, carrying no appreciable amount of oil or gas. I recommended to the operators that they make every effort to continue drilling, as I think they are in the top of the marine sediments and should find numerous sand bodies

No permit

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December 21, 1939

Mr. Wm. Alberts
Phoenix, Arizona

which may carry petroleum or gas or both at greater depths. I also suggested that they take samples of drill cuttings at intervals of ten feet (which they have not done so far) and core any sand bodies encountered. It was also suggested that at some depth, say 5000 feet, that they run a Schlumberger electric logging device to determine the exact location of all sand bodies, their thicknesses and probable petroleum-bearing status.

Respectfully submitted,


D. A. Holm, Consulting Geologist
State Land Department

DAH:ac

No permit



WM. ALBERTS
STATE LAND COMMISSIONER

OFFICE OF
State Land Department
STATE OF ARIZONA
Phoenix, Arizona

Nov. 17, 1939

Mr. William Alberts
State Land Commissioner
Phoenix, Arizona

Dear Sir:

At your request I visited the site on which the Yuma Valley Gas and Oil Company is drilling for oil in Yuma County on November 15, and wish to make the following report on the well and its progress.

The location is on patented land, owned by Musgrove, and the description is as follows:

$N\frac{1}{2}SW\frac{1}{4}NW\frac{1}{4}NE\frac{1}{4}$ Section 11, Township 11 South, Range 25 West.

The derrick lies about one mile west of the Immigration Station at San Luis and about 100 yards north of the International Boundary. Elevation is about 135 feet above sea level.

The well is equipped with a 96-foot wooden derrick, a unitized rotary drilling rig composed of unitized draw-works powered by 2 V-8 gasoline motors which can be used in tandem for hoisting, a large covered rotary table, and a motor-driven mud pump powered by a gasoline motor. The drill pipe is 4 inch or $3\frac{1}{2}$ inch and the bits used are Hughes Rock Bits. Mud circulation is from a small deep pit near the pump through the drilling system into a wooden flume on the west side of the derrick floor, which makes two right-angled bends before returning the fluid to the slush pit. An auxiliary pit for excess mud is located on the west side of the location at about fifty feet from the rig.

The well was spudded in on July 8 and $12\frac{1}{2}$ inch surface pipe was set at depth of 240 feet. The hole carried is $8\text{-}5/8$ inches in diameter. Drilling procedure is to use Hughes Rock Bits until encountering a hard formation, a show of oil or a sandstone. Then a core barrel is put on and a core taken of the formation and examined for saturation with oil.

The crew works daylight only, and is composed of four men. One man is left on duty at night to keep the drill stem rotating and mud circulating slowly in order to keep the hole in condition. This arrangement naturally slows daily drilling footage as compared with the usual arrangement of three crews taking eight-hour tours through the full 24 hours daily.

At noon, November 15, the hole was bottomed at 2,804 feet in sandy shale.

Among the formations cored, the following are worth making note

No Perm A

Mr. William Alberts

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November 17, 1939

of: (1) a gray, well-rounded soft sand at 2,274 feet; (2) a broken sand and shale zone between 2,635 and 2,675 feet from which a solid core of hard white, well-rounded calcareous sand, carrying fossils, was taken at 2,660 feet. The formation, according to the driller, Mr. Clyde Hall, carried a small amount of high gravity oil. The small bottles left on your desk are from the top and bottom of this zone.

The well is located on a block of acreage assembled by the Yuma Valley Gas and Oil Company, largely of patented lands. The block is in the irrigated agricultural district known as the Yuma Project of the Reclamation Service. A small amount of acreage near the well is in public domain or controlled by the Department of the Interior.

The following State lands occur in or near the block:

$N\frac{1}{2}NE\frac{1}{4}$: $W\frac{1}{2}SW\frac{1}{4}NE\frac{1}{4}$: $SW\frac{1}{4}$: $W\frac{1}{2}SE\frac{1}{4}$ Section 16, Township 10 South, Range 24 West, containing 340 acres, on which OP-38920-S was filed August 3, 1939, by Gus T. Molina;

$S\frac{1}{2}$: $S\frac{1}{2}NE\frac{1}{4}$ Section 32, Township 10 South, Range 24 West, containing 400 acres, held under lease expiring May 17, 1940, by B. Guisti, L. Sands & J. Tapp, jointly.

All Section 26, Township 10 South, Range 25 West, of which the $NE\frac{1}{4}$ and $W\frac{1}{2}$ are leased to the Yuma Valley Gas & Oil Company until May 8, 1940.

From my examination of the cores available at the well, and a core shown me by Mr. T. B. Cahoe in Yuma, it appears to me that the well is drilling through clastic deposits laid down in or near the seaward edge of the Colorado River delta. The silts and gravels of the river deposits alternate with marine sands and clays deposited by the waters of the Gulf of California. The geological age is probably Recent or late Pleistocene. - ?

As mentioned above, several small shows of light oil had been reported by the driller. These may represent traces of high gravity oil or wet gas which has migrated vertically through the sediments from some lower oil and gas sand. It seems fairly probable that better indications of oil and gas may be found at greater depth.

From available information it seems logical to classify the State lands as mentioned above as potential oil lands.

Respectfully submitted,

D. A. Holm
D. A. HOLM, Consulting Geologist
State Land Department

DAH/bb

No permit

YUMA VALLEY OIL AND GAS CO. MUSGROVE #1
 NW $\frac{1}{4}$ NE $\frac{1}{4}$ Sec. 11, T. 11S., R. 25W., near Gadsden, Yuma County, Arizona

Spudded in July 8, 1939; Drilled by L. E. Hylton and Clyde Hall;
 Completed June, 1940; Total Depth 4868'.
 Schlumberger E Log to 4868'

0	30	Surface sand and gravel
30	35	Gravel
35	45	Sand and gravel
45	60	Quicksand with streaks of clay
60	130	Sand with streaks of clay
130	135	Clay
135	174	Water gravel
174	336	Conglomerate
336	360	Clay
360	370	Coarse sand
370	407	Fine sand
407	465	Conglomerate
465	470	Sandy clay
470	482	Sand-G. (?)
482	493	Conglomerate
493	495	Sand
495	510	Conglomerate
510	518	Sandy shale
518	522	Conglomerate
522	533	Sandy shale
533	534	Conglomerate
534	586	Sandy shale
586	588	Conglomerate
588	862	Sandy shale with boulders
862	930	Sandy shale with boulders
930	1010	Sand and shale
1010	1033	Shale and limestone
1033	1073	Shale with streaks of limestone
1073	1080 ✓	Gas sand - <u>gas showing</u>
1080	1100	Water sand with shale
1100	1122	Water sand - cored - 1098 - 1122
1122	1188	Shale with streaks of sand
1188	1210	Shale with streaks of limestone - cored 6'
1210	1254	Shale with streaks of sand and limestone
1254	1270 ✓	Shale with streaks of sand - cored - <u>showing of oil</u>
1270	1300	Boulders and blue shale
1300	1313	Hard sand and limestone
1313	1317	Hard sand
1317	1344	Conglomerate
1344	1490	Conglomerate with hard sand
1390	1539	Hard sand
1539	1541 ✓	<u>Gas sand</u>
1541	1555	Sand and lime
1555	1600	Hard sand with streaks of shale
1600	1645	Sand and shale
1645	1650 ✓	<u>Oil sand</u>
1650	1667	Hard shale with streaks of sand
1667	1798	Sandy shale
1798	1810	Sticky shale
1810	1827	Shale with streaks of sand
1827	1833	Hard sand
1833	1928	Sandy shale
1928	1979	Shale with streaks of sand
1979	1985	Hard sand with conglomerate
1985	1995 ✓	<u>Oil sand</u>
1995	2022	Sand and shale - cored 1984 - 2025'
2022	2065	Sandy shale
2065	2175	Sand and shale
2175	2263	Sandy shale
2263	2275	Hard sand <u>showing oil</u>
2275	2283	Missing
2283	2293 ✓	<u>Oil sand - cored</u>
2293	2304 ✓	<u>Oil sand with shale at bottom</u>
2304	2367	Shale with streaks of sand

(Csg: Record)
 10 $\frac{5}{8}$ To 1650'
 8 $\frac{5}{8}$ at 4868'

↑
 Not so - E.A.K.
 Rotary hole
 E.L. shows no casing
 below 180'

Yuma Valley Oil Co., Musgrove #1

2367	2410	Sandy shale - cored
2410	2437	Missing
2437	2545	Sandy shale with streaks of sand
2545	2622	Sandy shale
2622	2630	Hard shell)
2630	2635	Sand) cored
2635	2650	?
2650	2664	Sand and shale - Fault cored at 2664
2664	2675	Oil sand - cored
2675	2770	Sandy shale with boulders
2770	2845	Shale with streaks of sand
2845	2920	Sand and shale
2920	2932	Hard sand
2932	3010	Shale
3010	3020	Hard sand
3020	3040	Hard shale
3040	3055	Conglomerate - granite wash (arkose?)
3055	3150	Hard sand with streaks of conglomerate
3150	3210	Hard sand with streaks of shale
3210	3220	Hard sand - <u>gas show</u>
3220	3235	Sandy shale with streaks of soft sand
3235	3275	Shale with streaks of soft sand
3275	3318	Shale
3318	3330	Sand ran from tester - cored 3318 - 3330
3330	3340	Shale
3340	3360	Sand
3360	3410	Shale with streaks of sand
3410	3450	Sandy shale
3450	3480	Shale and limestone
3480	3550	Shale
3550	3580	Shale with streaks of sand
3580	3595	Sand
3595	3610	Shale
3610	3620	Shale with streaks of hard sand
3620	3633	Shale
3633	3642	Sand - <u>gas shows in ditch</u>
3642	3672	Shale
3672	3703	Tough Shale
3703	3730	Tough shale with streaks of sand
3730	3750	Shale
3750	3780	Shale with gravel (conglomerate?)
3780	3785	Gravel
3785	3800	Shale
3800	3840	Conglomerate with sand
3840	3860	Conglomerate wash?
3860	3927	Sandy shale
3927	3967	Shale with streaks of sand
3967	4010	Shale with streaks of gravel and sand

No further log available

Casing

0	1650	10 5/8"
1650	4868	8 5/8"

Slumberger Log shows TD to be 4868'

Well casing broke @ 50' in earthquake of 1940 and is now farmed over. Elliott reports recovered slickensides and gouge from somewhere below 3300'. (?)

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Yuma Valley Oil Co., Musgrove #1

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Stamps

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Yuma Co permit

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Page 3

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0-1650 10 5/8"
1650-4868' 8 5/8"

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Well casing broke @ 50' in earthquake of 1940 and is now
farmed over. Elliott reports recovered slickensides and
gouge from somewhere below 3300'. (?)

W. J. Perry

6

Messgrove #1

Yuma Valley Oil and Gas Co. ~~Yuma~~ #1
NW 1/4 NE 1/4 13-T11S-R25W, near Gadsden

Spudded in July 8, 1939; Drilled by L.E. Hylton; Total Depth 4868'.
Completed June, 1940

Log taken from notes by S.C. Brown. *W. Clyde Hall*
W. Clyde Hall, Gadsden

0	30	Surface sand and gravel
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518	522	Conglomerate
522	533	Sandy shale
533	534	Conglomerate
534	586	Sandy shale
586	588	Conglomerate
588	862	Sandy shale with boulders

- 1313-1317 Hard sand
- 1317-1344 Conglomerate
- 1344-1490 Conglomerate with hard sand
- 1390-1539 Hard sand
- 1539-1541 Gas sand
- 1541-1555 Sand and Lime

Casing
 0-1650 10 5/8"
 1650-4868' 8 5/8"

Slumberger Log shows TD to be ^{4868'} 4870'.

Mc well casing broke @ 50' in earthquake of 1940 and is now
gauge jammed over. Elliott reports recovered slickensides and ^{gauge} found
 from somewhere below 3300'. (?)

TDRA TALKER GALT AND ALL-ROSCOVILLE #1
11-115-29W

(C-11-29) 11
Catalogue 37

Analysis of 1 cutting at 2300' and 3 cuttings of core cut at 3320'-3330'.

Depth	Sample	Composition of Cutting	Remarks
2300'	Sand		Fine, well rounded, well sorted, uniform quartz sand with considerable amounts of magnetite. Windblown origin probable. Av. size: 1/4-1/2 mm. Cement calcareous.
Core 3320'	Siltstone		With very few sand grains up to 1 mm. 2 subangular pebbles 1 x 1/2 mm. Pebbles chiefly cement calcareous. Some poorly defined fossil material. Color: grey tinged with green.
3322 ±	Siltstone and fine sandstone		Silty to fine grained sandstone, clay with some broken shell fragments. Few paleoecological fragments. Sand sized grains 90% quartz, angular. 1/8-1/4 mm, white to yellow to extremely glassy. Blotlike flakes up to 1 mm. Numerous flakes up to 1 mm. Some undistorted black grains up to 1 mm. Cement calcareous. Color: grey tinged with green.
3328'-3330'	Clay, siltstone and fine sandstone		See description for 3322' sample. Some paleoecological fragments. Somewhat coarser sand. Some evidence of very fine laminated bedding between ss and clay but impossible to give amount of clay or direction because of broken nature of core fragments.

Core
3318' - 3330'

Probably U.S.G.S data

no permit

YUMA VALLEY GAS AND OIL-MUSGROVE #1
11-11S-25W

Analysis of 1 cutting at 2300' and 3 cuttings of core cut at 3320'-3330'.

Depth Sample	Composition of Cutting	Remarks
2300	Sand	Fine, well rounded, well sorted, uniform quartz sand, with considerable amounts of magnetite. Windblown origin probable. Av. size: $\frac{1}{2}$ - $\frac{1}{4}$ mm. Cement calcareous.

Core	Sample	Composition of Cutting	Remarks
3320'		Siltstone	Silt with very few sand grains up to 2mm. 2 subangular pebbles 1 x $\frac{1}{2}$ cm. Pebbles cherty. cement calcareous. Some poorly defined fossil material. Color: grey tinged with green

3322'		Siltstone and fine sandstone	Silty to fine grained sandstone, clay with some broken shell fragments. Few pelocypod fragments. Sand sized grains 90% quartz, angular, 1/8-2mm, white to yellow to extremely glassy. Biotite flakes up to 1 mm. Muscovite flakes up to 1 mm. Some unidentified black grains up to 4mm. Cement calcareous. Color: Grey tinged with green
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3328'-3330' Clay, siltstone and fine sandstone
See description for 3322' sample. Some pelocypod fragments. ~~Some~~ Some what coarser sand. Some evidence of very fine laminated bedding between ss and clays but impossible to give amount of dip or direction because of broken nature of core fragments.

No permit

Incidentally, the copy of the electric log on the Musgrove well is a little odd looking don't you think. The reason is that the SP curve is on the right hand side of the log and the resistivity curve is on the left hand side. I took the trouble to rearrange the log on my copy. You might think of doing that. It looks a little more credible when you do this.

B F. Hoffacker, Jr, Midland, Tex

Yuma Gas-Dil #1 Musgrove
Sec. 11 - T 11 S - R 25 W
Yuma County
No Permit #14-20

14-20

Yuma Valley Gas + Oil Co. Spudded in July 8/39
Well No 1

Drilled by L.E. Hylton, NE 1/4 NE 1/4 Sec. 15, T11S R25W
Near Godden.

	Depth
Surface Sand + Gravel 0-30' = 30'	30
Gravel 30-35' = 5'	35
Sand + Gravel 35-45' = 10'	45
Quick sand with streaks of clay 45-60' = 15'	60
Sand with streaks of clay 60-130' = 70'	130
Clay 130-135' = 5'	135
Water Gravel 135-174' = 39'	174

(3)

174
180
190
200
210
220
230
240
250
260
270
280
290
300
310
320
330
340
350
360

174
180
190
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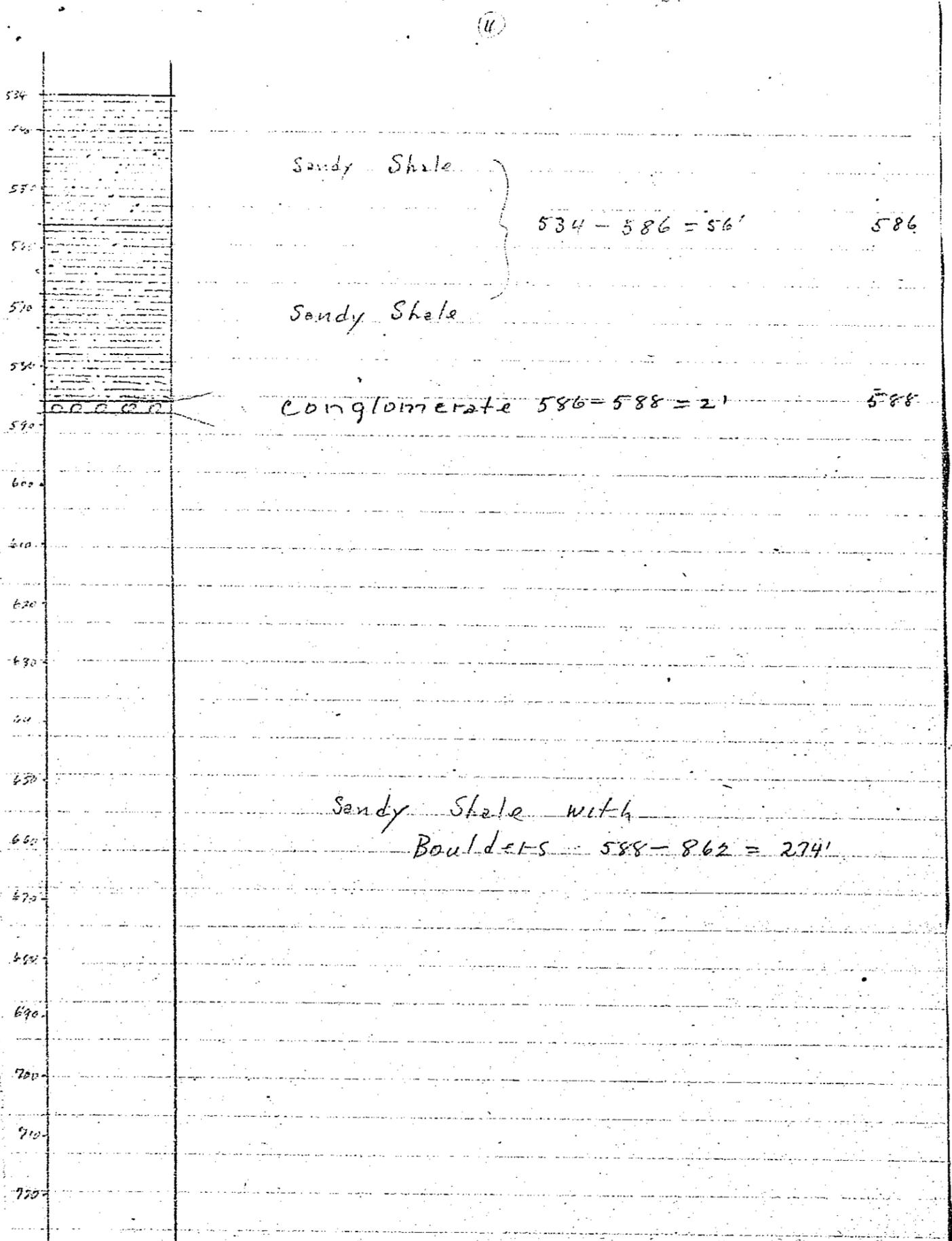
Conglomerate 174 - 336 = 162 336

Clay 336 - 360 = 24 360
N

360

3

Depth	Description	Interval	Start Depth
370	Coarse Sand	360-370 = 10'	370
407	Fine Sand	370-407 = 37'	407
465	conglomerate	407-465 = 58'	465
470	Sandy Clay	465-470 = 5'	470
482	Sand - G(?)	470-482 = 12'	482
493	conglomerate	482-493 = 11'	493
495	sand	493-495 = 2'	495
510	conglomerate	495-510 = 15'	510
518	Sandy Shale	510-518 = 8'	518
522	conglomerate	518-522 = 4'	522
533	Sandy Shale	522-533 = 11'	533
534	conglomerate	533-534 = 1'	534



1313 - 1317 Hard Sand.
1317 - 44 Conglomerate
1344 - 1490 Congl. with hard sand
1490 - 1539 Hard Sand.
1539 - 41 Gas sand.
1541 - 1555 Sand & Limestone

T.D. 4868'
Casing 0 - 1650' - 10 3/4"
1650 - 4868' 8 1/2" Stamborga long shore T.D. 4870'

Yuma Valley Oil & Gas Co.
Well #1
April 30.

January 31, 1961

Mr. Larry Curtis
Kerr-McGee Oil Industries Inc.
Kerr-McGee Building
Oklahoma City 2, Oklahoma

Dear Larry:

Enclosed is some of the information which you requested in our phone conversation this date.

(Fed. #1)

Spudding date for Colorado Basin Associates, Sec. 24, T. 10S, R. 24W, Yuma County, is not definitely known; but from the data contained in our records, we believe they commenced on or about the first of November, 1954. It was plugged January 13, 1955.

Spudding date and completion date for Yuma Valley Oil & Gas Co., Musgrove #1, Sec. 11, T. 11S, R. 25W, Yuma County, is included in the enclosed log.

Yours very truly,

D. A. Jarome
Executive Secretary

ew
Encs.

The permit



OFFICE OF
State Land Department
STATE OF ARIZONA
Phoenix, Arizona

ROGER ERNST
~~State Land Commissioner~~
STATE LAND COMMISSIONER

August 5, 1954

Mr. M. P. Stewart
Tuscania Oil Company
P. O. Drawer 3128
Wichita Falls, Texas

Dear Mr. Stewart:

I am in receipt of your letter and a copy of the electric log
of the Musgrove well for which I wish to thank you.

I am interested in your proposed well in Apache County and will
be happy to help you in any way I can.

Very truly yours,

Phillip W. Johnson,
Geologist

C
O
P
Y

PWJ:mb

from file #17

TUSCANIA OIL COMPANY

(ESTABLISHED 1917)

P. O. DRAWER 3128

WICHITA FALLS, TEXAS



M. P. STEWART

July 20, 1954.

Mr. P.W. Johnson
P.O.Box 2270
Tucson, Arizona.

Dear Mr. Johnson;

I am sending herewith a copy of electric log of the old well drilled near San Luis, Yuma County, Arizona, thinking that you might like same for your files.

I have this day mailed to your Phoenix office the forms covering the plugging of my well in Yuma County and hope that you will find them in order.

We propose to drill a well in Apache County next winter and I will be looking forward to seeing you at that time.

Sincerely Yours,
M.P.
M.P. Stewart

MPS/ec

RECEIVED
JUL 21 1954
WATER RESOURCES DIVISION
U. S. GEOLOGICAL SURVEY
GRAND RAPIDS, MICHIGAN

March 22, 1949

Mr. Frank Elliott, Jr.
934 West 4th Avenue
Yuma, Arizona

Dear Mr. Elliott:

Since my conversation with you the early part
of this month I have been able to locate a
partial driller's log of the Musgrove #1 Well.

I am forwarding two copies of the log that we
now have for your files.

Very truly yours,

L. A. Heindl
Geologist

LAH:kb
encls.

No answer required

No permit

March 8, 1949

Mr. Frank Elliott, Jr.
943 West 4th Avenue
Yuma, Arizona

Dear Mr. Elliott:

Under separate cover I am forwarding to you the negatives you lent me, and enclosed please find one copy of the electric log on the Yuma Valley Musgrove #1 Well. This information adds greatly to what little we already know about the well.

Mr. Verdugo in San Luis has put me on the track of a possible copy of the driller's log, and I am writing for it today. Should this log actually materialize I will have copies made and forward one to you.

Thank you for your consideration during my visit in Yuma.

Very truly yours,

L. A. HEINDL
Geologist

LAH:kb
encl.

No answer required

No permit

