

CONFIDENTIAL

Release Date 5-20-81

SALT RIVER BASIN "FLETCHER" 1 FED. 773
SW NW 34-5N-3W MARICOPA CO.

WELL COMPLETION OR RECOMPLETION REPORT AND WELL LOG

DESIGNATE TYPE OF COMPLETION:

New Well Work-Over Deepen Plug Back Same Reservoir Different Reservoir Oil Gas Dry

DESCRIPTION OF WELL AND LEASE

Operator: Salt River Basin Joint Venture
 Address: 506 E. Thompson Blvd. Suite 5, Ventura, California 93001
 Federal, State or Indian Lease Number or name of lessor if fee lease: Federal A-9112
 Well Number: Fletcher #1
 Field & Reservoir: Wildcat
 Location: 330'N & 330'E from West Quarter Corner
 County: Maricopa
 Sec. TWP-Range or Block & Survey: Sec. 34, T5N, R3W Gila & Salt River B&M
 O & G CONS. COMM.

Date spudded: 9-28-81
 Date total depth reached: 10-13-81
 Date completed, ready to produce: -
 Elevation (IDEV. POINT OR Gr.) feet: 1600'
 Elevation of casing hd. Range feet: 1590'
 Total depth: 3980'
 P.B.T.D.: Surface
 Single, dual or triple completion? Abandoned
 If this is a dual or triple completion, furnish separate report for each completion.

Producing interval (s) for this completion: None
 Rotary tools used (interval): 0 - 3980'
 Cable tools used (interval): -

Was this well directionally drilled? No
 Was directional survey made? No
 Was copy of directional survey filed? -
 Date filed: -

Type of electrical or other logs run (check logs filed with the commission): Dual Induction Log
 Date filed: -

CASING RECORD

| Casing (report all strings set in well—conductor, surface, intermediate, producing, etc.) | | | | | | |
|---|-------------------|-----------------|------------------|-----------|---------------------|-------------|
| Purpose | Size hole drilled | Size casing set | Weight (lb./ft.) | Depth set | Sacks cement | Amt. pulled |
| Conductor | Unknown | 16" | Henskin | 40' | Cemented to surface | |
| Surface | 15" | 10-3/4" | 40.5# | 450' | 300 sxs | none |

TUBING RECORD

LINER RECORD

| Size in. | Depth set ft. | Packer set at ft. | Size in. | Top ft. | Bottom ft. | Sacks cement | Screen (ft.) |
|----------|---------------|-------------------|----------|---------|------------|--------------|--------------|
| | | | | | | | |

PERFORATION RECORD

ACID, SHOT, FRACTURE, CEMENT SQUEEZE RECORD

| Number per ft. | Size & type | Depth Interval | Amt. & kind of material used | Depth Interval |
|----------------|-------------|----------------|------------------------------|----------------|
| | | | | |

INITIAL PRODUCTION

Date of first production: _____ Producing method (indicate if flowing, gas lift or pumping—if pumping, show size & type of pump): _____

| Date of test | Hrs. tested | Choke size | Oil prod. during test bbls. | Gas prod. during test MCF | Water prod. during test bbls. | Oil gravity ° API (Corr) |
|--------------|-------------|------------|-----------------------------|---------------------------|-------------------------------|--------------------------|
| | | | | | | |

Disposition of gas (state whether vented, used for fuel or sold): _____

I, the undersigned, under the penalty of perjury, state that I am the Agent of the Salt River Basin Joint Venture (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

Date: 11-20-81 Signature: *Ed Davis*

STATE OF ARIZONA
 OIL & GAS CONSERVATION COMMISSION
 Well Completion or Recompletion Report and Well Log
 Form No. 4 File One Copy

No. 773

UNITED STATES
 DEPARTMENT OF THE INTERIOR
 GEOLOGICAL SURVEY
 INSPECTION RECORD - ABANDONMENT

Date: October 15, 1981 District: Bakersfield
 Location (S-T-R): Sec. 34, T5N, R3W Operator: Salt River Valley Venture
 Field Area: Wildcat Contractor & Rig: Sustain Drilling Rig #1
 County: Maricopa Lease No: A9172
 State: Arizona Type of Well: Dry Hole
 Inspector: Jac DeLozier Well No: Fletcher #1

| | Yes | No | NA | ENF |
|---|-----|----|----|-----|
| 1. Plugs spotted across perforations if casing set? | | | X | S |
| 2. Plugs spotted at casing stubs? | | | X | S |
| 3. Open hole plugs spotted as specified? | X | | | S |
| 4. Retainers, bridge plugs, or packers set as specified? | | | X | S |
| 5. Cement quantities as specified? | X | | | S |
| 6. Method of verifying and testing plugs as specified? | X | | | S |
| 7. Pipe withdrawal rate satisfactory after spotting plug? | X | | | W |
| 8. All annular spaces plugged to surface? | X | | | S |

Plug tested: No Pressured Tagged
 If tested, which plug(s) _____

Cement and mechanical plug placement data (attach service company report, if available): N/A

Cement plug spotting method: Balance Method

Operation(s) witnessed: Plug # 1, 2, 3.

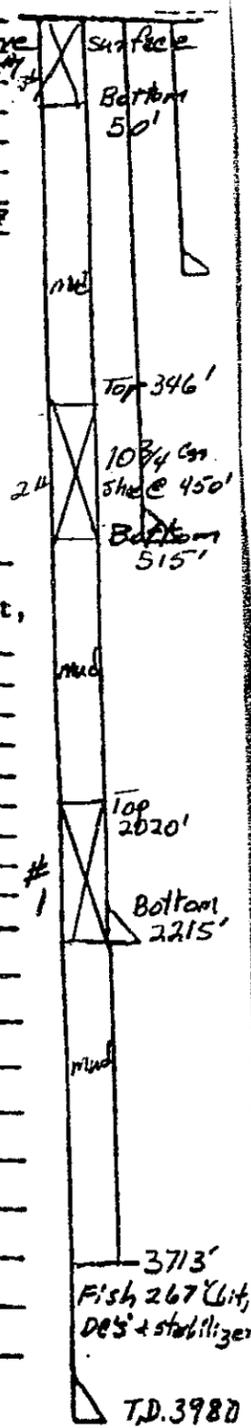
Additional remarks:

Plug # 1 2215' to 2020' 69sx Glass "G" Cnt.
 Plug # 2 515' to 346' 80sx Glass "G" Cnt.
 Plug # 3 50' to surface 32sx Glass "G" Cnt.

Witnessed by Jac DeLozier Date Oct 16, 1981

Operations approved yes

*Dry hole, depleted producer, service, water well, etc.



3713'
 Fish 267' bit,
 De's + stabilizer.

T.D. 3980

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OCT 21 1981

D & G CONS. COMM.

973

Operator: Salt River Basin Joint Venture
Well Name: Fletcher #1
Location: Sec. 34, T5N, R3W, Maricopa County, Arizona

10-14-81 - 7:00 AM - Depth 3980'. Drilled 9-7/8" hole to 3980', twisted off. Pulled out of hole. Left 6 drill collars, 4 stabilizers, 2 crossover subs and 2 jts. of drill pipe in hole. Ran bumper sub and overshot. Hooked on to fish, pulled off with 4000# over-weight of string. Rotated on fish with guide milling shoe, hooked onto fish and pulled off with 8000# over-weight of string. Rotated on fish with guide milling shoe, hooked on to fish. Pulled 11,000# over-weight of string, rig stalled out due to clutches slipping. Backed off to string weight, ran into fish and pulled tool off fish. Decided not to take hold of fish again because rig could not pull enough to recover fish. Circulated for logs.

Mud Wt: 71#/cf., Vis: 44 sec./qt., FC: 3/32", Sand content: trace, P_H: 10.5, Salinity 200 ppm., W.L.: 9.5 cc/30 min.

Survey: None.

10-15-81 - 7:00 AM - Depth 3980'. Circulated for logs. Pulled out of hole with fishing tools. Ran Welex DIL log 3717' - 450'.

Mud Wt: 70#/cf., Vis: 39 sec./qt., FC: 3/32", Sand content: trace, P_H: 10.5, Salinity: 200 ppm., W.L.: 9.5 cc/30 min.

10-16-81 - 7:00 AM - Depth 3980'. Ran drill pipe to 2215'. Plug #1: With open end drill pipe at 2215, pumped in 50 cu.ft. water followed by 69 sxs Class G cement treated with 2% CaCl₂. Displaced with 4 cu.ft. water and 76 cu.ft. mud. Cement in place at 11:05 AM 10-15-81. Located top of plug at 2020'. Laid down excess drill pipe. Plug #2: With open end drill pipe hung at 515', pumped in 50 cu.ft. water followed by 80 sxs Class G cement treated with 3% CaCl₂. Displaced with 14 cu.ft. water. Cement in place at 8:15 PM 10-15-81. Located top of plug at 346'. Plug #3: With open end drill pipe at 50' pumped in 32 sxs Class G cement. Filled 10-3/4" casing to surface. Cement in place at 2:15 AM 10-16-81. All plugs witnessed and approved by USGS. Tearing out BOPE.

10-17-81 - 7:00 AM - Depth 3980'. 10-3/4" cemented at 450'. Plug 2215'- 2020', 515'- 346' and 50'- surface. Finished tearing out BOPE and released rig at 8:30 AM 10-16-81. Well abandoned 10-16-81.

Operator: Salt River Basin Joint Venture
Well Name: Fletcher #1
Location: Sec. 34, T5N, R3W, Maricopa County, Arizona

10-8-81 - 7:00 AM - Depth 2404'. Drilled 9-7/8" hole 2142'- 2404'.

Mud Wt: 71#/cf., Vis: 40 sec./qt., FC: 2/32", Sand content: $\frac{1}{2}\%$, P_H: 10.5,
Salinity: 550 ppm., W.L.: 9.5 cc/30 min.

Surveys: 2248', 1° 15'.

10-9-81 - 7:00 AM - Depth 2728'. Drilled 9-7/8" hole 2404'- 2728'.

Mud Wt: 70#/cf., Vis: 40 sec./qt., FC: 2/32", Sand content: $1\frac{1}{2}\%$, P_H: 9.5,
Salinity: 340 ppm., W.L.: 10.5 cc/30 min.

Surveys: 2548', 1° 15'.

10-10-81 - 7:00 AM - Depth 2879'. Drilled 9-7/8" hole 2728'- 2731'. Pulled out of
hole to change bit. Drilled 9-7/8" hole 2731'- 2879'.

Mud Wt: 70#/cf., Vis: 38 sec./qt., FC: 2/32", Sand content: trace, P_H: 10,
Salinity: 250 ppm., W.L.: 9.5 cc/30 min.

Surveys: 2846', 0° 15'.

10-11-81 - 7:00 AM - Depth 3230'. Drilled 9-7/8" hole 2879'- 2893'. Pulled out of
hole, changed bit. Drilled 9-7/8" hole 2893'- 3230'.

Mud Wt: 70#/cf., Vis: 40 sec./qt., FC: 2/32", Sand content: trace,
P_H: 10.5, Salinity: 250 ppm., W.L.: 9 33/30 min.

Surveys: 2893' 0° 15'.

10-12-81 - 7:00 AM - Depth 3668'. Drilled 9-7/8" hole 3230'- 3599'. Pulled out of
hole. Changed bit. Drilled 9-7/8" hole 3599'- 3668'.

Mud Wt: 71#/cf., Vis: 45 sec./qt., FC: 2/32", Sand content: $\frac{1}{2}\%$, P_H: 10.5,
Salinity: 225 ppm., W.L.: 10 cc/30 min.

Setup: Bit, stabilizer, drill collar, stabilizer, drill collar, stabilizer,
4 drill collars, stabilizer on 3 $\frac{1}{2}$ " drill pipe.

Surveys: 3559' 2° 0'.

10-13-81 - 7:00 AM - Depth 3970'. Drilled 9-7/8" hole 3668'- 3957'. Pulled out of
hole, changed bits. Drilled 9-7/8" hole 3957'- 3970'.

Mud Wt: 71#/cf., Vis: 38 sec./qt., FC: 2/32", Sand content: $\frac{1}{2}\%$, P_H: 10,
Salinity: 220 ppm., W.L.: 9.5 cc/sec.

Surveys: 3925' 3° 45'. ✓

Operator: Salt River Basin Joint Venture
Well Name: Fletcher #1
Location: Sec. 34, T5N, R3W, Maricopa County, Arizona

10-3-81 - 7:00 AM - Depth 1028'. Drilled 9-7/8" hole 577'- 897'. Pulled out of hole to change bit and bottom hole assembly. Drilled 9-7/8" hole 897'- 1028'.

Mud Wt: 73#/cf., Vis: 38 sec./qt., FC: 2/32", Sand content: 3/4%, P_h: 10.5,
Salinity: 500 ppm., W.L.: 10 cc/30 min.

Setup: Bit, stabilizer, drill collar, stabilizer, drill collar, stabilizer,
4 drill collar, stabilizer, 2 drill collars, stabilizer on 3 1/2"
drill pipe.

Surveys: 740', 1° 0'.

10-4-81 - 7:00 AM - Depth 1304'. Drilled 9-7/8" hole 1028'- 1063'. Pulled out of hole to change bit. Drilled 9-7/8" hole 1063'- 1304'.

Mud Wt: 75#/cf., Vis: 42 sec./qt., FC: 2/32", Sand content: 1%, P_h: 10,
Salinity: 550 ppm., W.L.: 10 cc/30 min.

Surveys: 1025', 2° 45'; 1063', 2° 00'; 1184', 2° 15'.

10-5-81 - 7:00 AM - Depth 1544'. Drilled 9-7/8" hole 1304'- 1544'. Pulled out of hole to change bit.

Mud Wt: 75#/cf., Vis: 40 sec./qt., FC: 2/32", Sand content: 1 1/4%, P_h: 10,
Salinity: 500 ppm., W.L.: 10 cc/30 min.

Surveys: 1295', 0° 15'; 1452', 0° 45'; 1544', 1° 15'.

10-6-81 - 7:00 AM - Depth 1797'. Drilled 9-7/8" hole 1544'- 1797'. Pulled out of hole to change bit.

Mud Wt: 75#/cf., Vis: 42 sec./qt., FC: 2/32", Sand content: 1%, P_h: 10,
Salinity: 500 ppm., W.L.: 10 cc/30 min.

Surveys: 1694', 1° 0'.

10-7-81 - 7:00 AM - Depth 2142'. Ran in hole with button bit. Drilled 9-7/8" hole 1797'- 2142'.

Mud Wt: 75#/cf., Vis: 41 sec./qt., FC: 2/32", sand content: 1 1/4%, P_h: 10.5,
Salinity: 550 ppm. W.L.: 10 cc/30 min.

Surveys: 1948', 2° 15'.

Operator: Salt River Basin Joint Venture
Well Name: Fletcher #1
Location: Sec. 34, T5N, R3W, Maricopa County, Arizona

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9-25-81 - Completed preparing location, digging and forming cellar, set and completed 40' of 16" conductor pipe, dug mud sump.

9-26-81 - Moving in Swain Oil Corp. Drilling Rig #1 and rigging up.

9-27-81 - Moving in and rigging up.

9-28-81 - 7:00 AM - Depth 104'. Spud in at 3:00 AM 9-28-81. Drilled from 42' to 104'.

Mud Wt: 67#/cf., Vis: 48 sec./qt. W.L.: uncontrolled.

Surveys: None.

9-29-81 - 7:00 AM - Depth 392'. Drilled 288'. Drilled 15" hole 104'- 392'. Lost 7 hrs. repairing bad weld on surface pipe. Directional survey instrument failed.

Mud: Gel and water, Wt: 71#/cf., Vis: 60 sec./qt., W.L.: uncontrolled.

Surveys: None.

9-30-81 - 7:00 AM - Depth 450'. Drld. 15" hole 392'-450'. Circulated and prepared for casing. 10-3/4" casing cement at 450'. Ran 12 jts. 451.08' 10-3/4", 40.5#, STC casing. Cemented guide shoe at 450' with 300 sxs Class G cement premixed with 1% CaCl₂. Displaced one top plug to insert float valve at 320' with 233 cf. mud. Cement in place at 7:06 PM 9-29-81. Had 15 cf. cement returns to surface. Centralizers at 440', 410', 340' and 270'. Waited on cement 4 hrs. Dug out cellar to install BOPE.

Surveys: 450', 0° 45'.

10-1-81 - 7:00 AM - Depth 450'. Finished digging out cellar to a depth of 11'. Installing BOPE.

10-2-81 - 7:00 AM - Depth 577'. Finished installing BOPE. Tested BOPE with 1500 psi, OK. Witnessed and approved by USGS. Drilled out cement and 10-3/4" shoe at 450'. Drilled 9-7/8" hole 450' - 577'.

Mud Wt: 70#/cf., Vis: 38 sec./qt., W.L.: 10.4 cc/30min., FC: 2/32", Solids: 1/2%, P_h: 10.8.

Surveys: None.

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OCT 22 1981

O & G CONS. COMM. *AKS*

SUNDRY NOTICES AND REPORTS ON WELLS

1. Name of Operator Salt River Basin Joint Venture

2. OIL WELL GAS WELL OTHER (Specify) _____

3. Well Name Fletcher #1

Location 330' N & 330' E from the West Quarter Corner

Sec. 34 Twp. 5N Rge. 3W County Maricopa Arizona.

4. Federal, State or Indian Lease Number, or lessor's name if fee lease Federal A9112

5. Field or Pool Name None

6. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

| | | | |
|--|---|--|---|
| NOTICE OF INTENTION TO: | | SUBSEQUENT REPORT OF: | |
| TEST WATER SHUT-OFF <input type="checkbox"/> | PULL OR ALTER CASING <input type="checkbox"/> | WATER SHUT-OFF <input type="checkbox"/> | MONTHLY PROGRESS <input type="checkbox"/> |
| FRACTURE TREAT <input type="checkbox"/> | DIRECTIONAL DRILL <input type="checkbox"/> | FRACTURE TREATMENT <input type="checkbox"/> | REPAIRING WELL <input type="checkbox"/> |
| SHOOT OR ACIDIZE <input type="checkbox"/> | PERFORATE CASING <input type="checkbox"/> | SHOOTING OR ACIDIZING <input type="checkbox"/> | ALTERING CASING <input type="checkbox"/> |
| REPAIR WELL <input type="checkbox"/> | CHANGE PLANS <input type="checkbox"/> | (OTHER) <u>Weekly Progress Report</u> | ABANDONMENT <input checked="" type="checkbox"/> |

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

7. 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.)

10-11-81 - Depth 3230'. Drilled 9-7/8" hole 2879'- 3230'.

10-12-81 - Depth 3668'. Drilled 9-7/8" hole 3230'- 3668'.

10-13-81 - Depth 3970'. Drilled 9-7/8" hole 3668'- 3970'.

10-14-81 - Depth 3980'. Drilled 9-7/8" hole 3970'- 3980'. Twisted off at 3980'. Attempted to recover fish with no success. Top of fish at 3717'.

10-15-81 - Depth 3980'. Ran Welex DIL log 3717'-450'.

10-16-81 - Depth 3980'. Placed abandonment plugs 2215'- 2020', 515'- 346' and 50'- surface. Plugs witnessed by USGS. Released drilling rig at 8:30 AM 10-16-81. Will weld plate on top of 10-3/4" casing and install appropriate monument at surface on 10-20-81.

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

Signed Larry Knight *Petroleum Consultant* 10-19-81

Permit No. 773

STATE OF ARIZONA
 OIL & GAS CONSERVATION COMMISSION
 Sundry Notices and Reports On Wells
 File One Copy
 Form No. 25

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OCT 13 1981

O & G CONS. COMM.

SUNDRY NOTICES AND REPORTS ON WELLS

1. Name of Operator Salt River Basin Joint Venture

2. OIL WELL GAS WELL OTHER (Specify) _____

3. Well Name Fletcher #1

Location 330'N & 330'E from the West Quarter Corner

Sec. 34 Twp. 5N Rge. 3W County Maricopa, Arizona.

4. Federal, State or Indian Lease Number, or lessor's name if fee lease Federal A9112

5. Field or Pool Name None

6. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

| | | | |
|---------------------|--------------------------|----------------------|--------------------------|
| TEST WATER SHUT-OFF | <input type="checkbox"/> | PULL OR ALTER CASING | <input type="checkbox"/> |
| FRACTURE TREAT | <input type="checkbox"/> | DIRECTIONAL DRILL | <input type="checkbox"/> |
| SHOOT OR ACIDIZE | <input type="checkbox"/> | PERFORATE CASING | <input type="checkbox"/> |
| REPAIR WELL | <input type="checkbox"/> | CHANGE PLANS | <input type="checkbox"/> |
| (OTHER) | <input type="checkbox"/> | | <input type="checkbox"/> |

SUBSEQUENT REPORT OF:

| | | | |
|-----------------------|--------------------------|------------------------|-------------------------------------|
| WATER SHUT-OFF | <input type="checkbox"/> | MONTHLY PROGRESS | <input type="checkbox"/> |
| FRACTURE TREATMENT | <input type="checkbox"/> | REPAIRING WELL | <input type="checkbox"/> |
| SHOOTING OR ACIDIZING | <input type="checkbox"/> | ALTERING CASING | <input type="checkbox"/> |
| (OTHER) | <input type="checkbox"/> | ABANDONMENT | <input type="checkbox"/> |
| | | Weekly Progress Report | <input checked="" type="checkbox"/> |

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

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- 10-4-81 - Depth 1304'. Drilled 9-7/8" hole 1028'- 1304'.
- 10-5-81 - Depth 1544'. Drilled 9-7/8" hole 1304'- 1544'.
- 10-6-81 - Depth 1797'. Drilled 9-7/8" hole 1544'- 1797'.
- 10-7-81 - Depth 2142'. Drilled 9-7/8" hole 1797'- 2142'.
- 10-8-81 - Depth 2404'. Drilled 9-7/8" hole 2142'- 2404'.
- 10-9-81 - Depth 2728'. Drilled 9-7/8" hole 2404'- 2728'.
- 10-10-81 - Depth 2879'. Drilled 9-7/8" hole 2728'- 2879'.

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

Signed Larry Knight Title Petroleum Consultant Date 10-10-81

Permit No. 773

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
Sundry Notices and Reports On Wells
Form No. 25 File One Copy

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OCT 7 1981

O & G CONS. COMM.

AKS
To: OS

SUNDRY NOTICES AND REPORTS ON WELLS

1. Name of Operator Salt River Basin Joint Venture

2. OIL WELL GAS WELL OTHER (Specify) _____

3. Well Name Fletcher #1

Location 330'N & 330'E From the West Quarter Corner

Sec. 34 Twp. 5N Rge. 3W County Maricopa, Arizona.

4. Federal, State or Indian Lease Number, or lessor's name if fee lease Federal A9112

5. Field or Pool Name None

6. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

| NOTICE OF INTENTION TO: | | | SUBSEQUENT REPORT OF: | | |
|-------------------------|--------------------------|----------------------|--------------------------|---------------------------------------|-------------------------------------|
| TEST WATER SHUT-OFF | <input type="checkbox"/> | PULL OR ALTER CASING | <input type="checkbox"/> | WATER SHUT-OFF | <input type="checkbox"/> |
| FRACTURE TREAT | <input type="checkbox"/> | DIRECTIONAL DRILL | <input type="checkbox"/> | FRACTURE TREATMENT | <input type="checkbox"/> |
| SHOOT OR ACIDIZE | <input type="checkbox"/> | PERFORATE CASING | <input type="checkbox"/> | SHOOTING OR ACIDIZING | <input type="checkbox"/> |
| REPAIR WELL | <input type="checkbox"/> | CHANGE PLANS | <input type="checkbox"/> | (OTHER) <u>Weekly Progress Report</u> | <input checked="" type="checkbox"/> |
| (OTHER) | <input type="checkbox"/> | | | | |

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

7. 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.)

9-28-81 - Spud in at 3:00 AM 9-28-81. Drilled 15" hole 42'- 104'.

9-29-81 - Depth 392'. Drilled 15" hole 104'- 392'.

9-30-81 - Depth 450'. Drilled 15" hole 392'- 450'. Cemented 12 jts. 451.08' 10-3/4" 40.5# STC casing at 450' with 300 sxs Class G cement treated with 1% CaCl₂. Displaced with 233 cf. mud. Cement in place at 7:06 PM 9-29-81. Observed 15 cf. cement returns to surface.

10-1-81 - Depth 450'. Installed BOPE.

10-2-81 - Depth 577'. Tested BOPE with 1500 psi. OI. Witnessed by USGS and Arizona OGCC. Drilled out cement and shoe. Drilled 9-7/8" hole 450'- 577'.

10-3-81 - Depth 1028'. Drilled 9-7/8" hole 577'- 1028'.

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

Signed Larry Knight Title Petroleum Consultant 10-5-81

Permit No. 773

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
Sundry Notices and Reports On Wells
Form No. 25 File One Copy

Salt River Basin Joint Venture

Fletcher #1

Sec 34, T5N, R3W, GSRB&M

Progress Report

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OCT 6 1981

O & G CONS. COMM.

To: O.S.

- 9-28-81 - Spud in at 3:00 AM 9-28-81. Drilled 15" hole 42' - 104'.
- 9-29-81 - Depth 392'. Drilled 15" hole 104' - 392'.
- 9-30-81 - Depth 450'. Drilled 15" hole 392' - 450'. Cemented 12 jts. 451.08' 10-3/4" 40.5# STC casing at 450' with 300 sxs Class G cement treated with 1% CaCl₂. Displaced with 233 cf. mud. Cement in place at 7:06 PM 9-29-81. Observed 15 cu. ft. cement returns to surface.
- 10-1-81 - Depth 450'. Installed BOPE.
- 10-2-81 - Depth 577'. Tested BOPE with 1500 psi. OK. Witnessed by USGS and Arizona OGCC. Drilled out cement shoe. Drilled 9-7/8" hole 450' - 577'.
- 10-3-81 - Depth 1028'. Drilled 9-7/8" hole 577' - 1028'.



PERMIT TO DRILL

This constitutes the permission and authority from the
OIL AND GAS CONSERVATION COMMISSION,
STATE OF ARIZONA,

To: SALT RIVER BASIN JOINT VENTURE
(OPERATOR)

to drill a well to be known as

FLETCHER 1 FEDERAL
(WELL NAME)

located 2970' FROM SOUTH LINE, 330' FROM WEST LINE (SW NW)

Section 34 Township 5 NORTH Range 3 WEST, MARICOPA County, Arizona.

The W/2 NW/4 of said
Section, Township and Range is dedicated to this well.

Said well is to be drilled substantially as outlined in the attached Application and must be drilled
in full compliance with all applicable laws, statutes, rules and regulations of the State of Arizona.

Issued this 21st day of September, 19 81.

OIL AND GAS CONSERVATION COMMISSION

By [Signature]
EXECUTIVE SECRETARY

PERMIT No 773

RECEIPT NO. 2136
API NO. 02-013-20021

State of Arizona
Oil & Gas Conservation Commission
Permit to Drill

FORM NO. 27

TEN FOOT SAMPLES ARE REQUIRED FROM SURFACE

1. Operator shall outline the dedicated acreage for both oil and gas wells on the plat.
2. A registered professional engineer or land surveyor registered in the State of Arizona or approved by the Commission shall show on the plat the location of the well and certify this information in the space provided.
3. ALL DISTANCES SHOWN ON THE PLAT MUST BE FROM THE OUTER BOUNDARIES OF THE SECTION.
4. Is the Operator the only owner in the dedicated acreage outlined on the plat below? YES NO .
5. If the answer to question four is "no," have the interests of all the owners been consolidated by communitization agreement or otherwise? YES NO . If answer is "yes," Type of Consolidation _____
6. If the answer to question four is "no," list all the owners and their respective interests below:

| | |
|--|--------------------------------------|
| Owner David J. Hanson | Land Description Section 34, T5N R3W |
| | |
| CERTIFICATION | |
| I hereby certify that the information above is true and complete to the best of my knowledge and belief. | |
| Name David J. Hanson, Operator | |
| Position | |
| Company SALT RIVER BASIN JOINT VENTURE | |
| Date September 11, 1981 | |
| I hereby certify that the well location shown on the plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief. | |
| Date Surveyed Sept 13, 1981 | |
| Registered Professional Engineer and/or Land Surveyor Norman D. Bueger P.E., L.S. | |
| Certificate No. 13553 R.L.S. | |

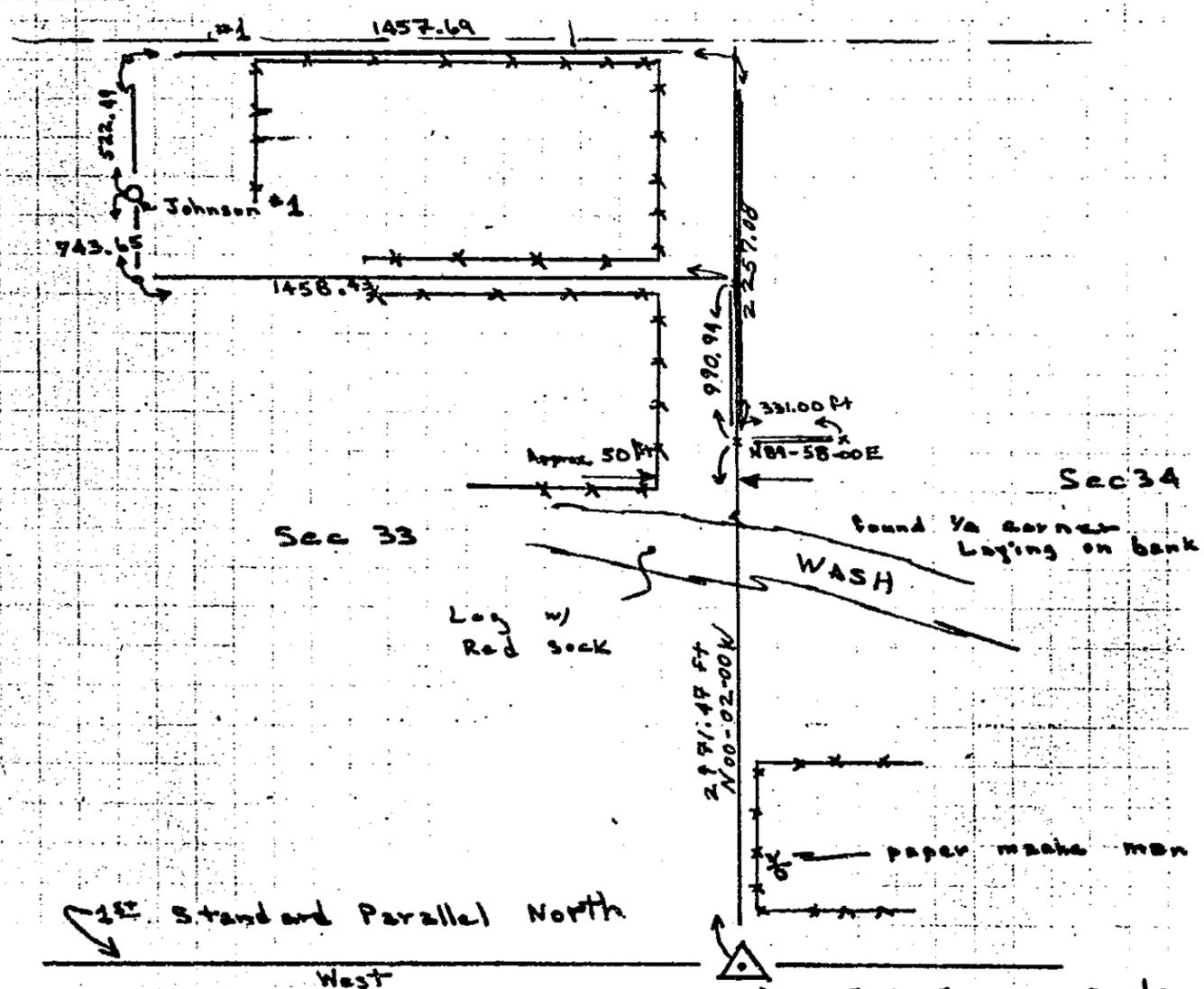
PROPOSED CASING PROGRAM

| Size of Casing | Weight | Grade & Type | Top | Bottom | Cementing Depths | Sacks Cement | Type |
|---|--------|--------------|-----|--------|------------------|--------------|------|
| 1 st 10 3/4" | 40.5 # | K-55 | ⊙ | 450 | 450 | 263 | G |
| 2 nd 7" | 23.0 # | K-55 | ⊙ | 4500 | 4500 | 350 | GX |
| NOTE: Install 7" DV cement collar to cement interval if needed to protect fresh water horizons. | | | | | | | |

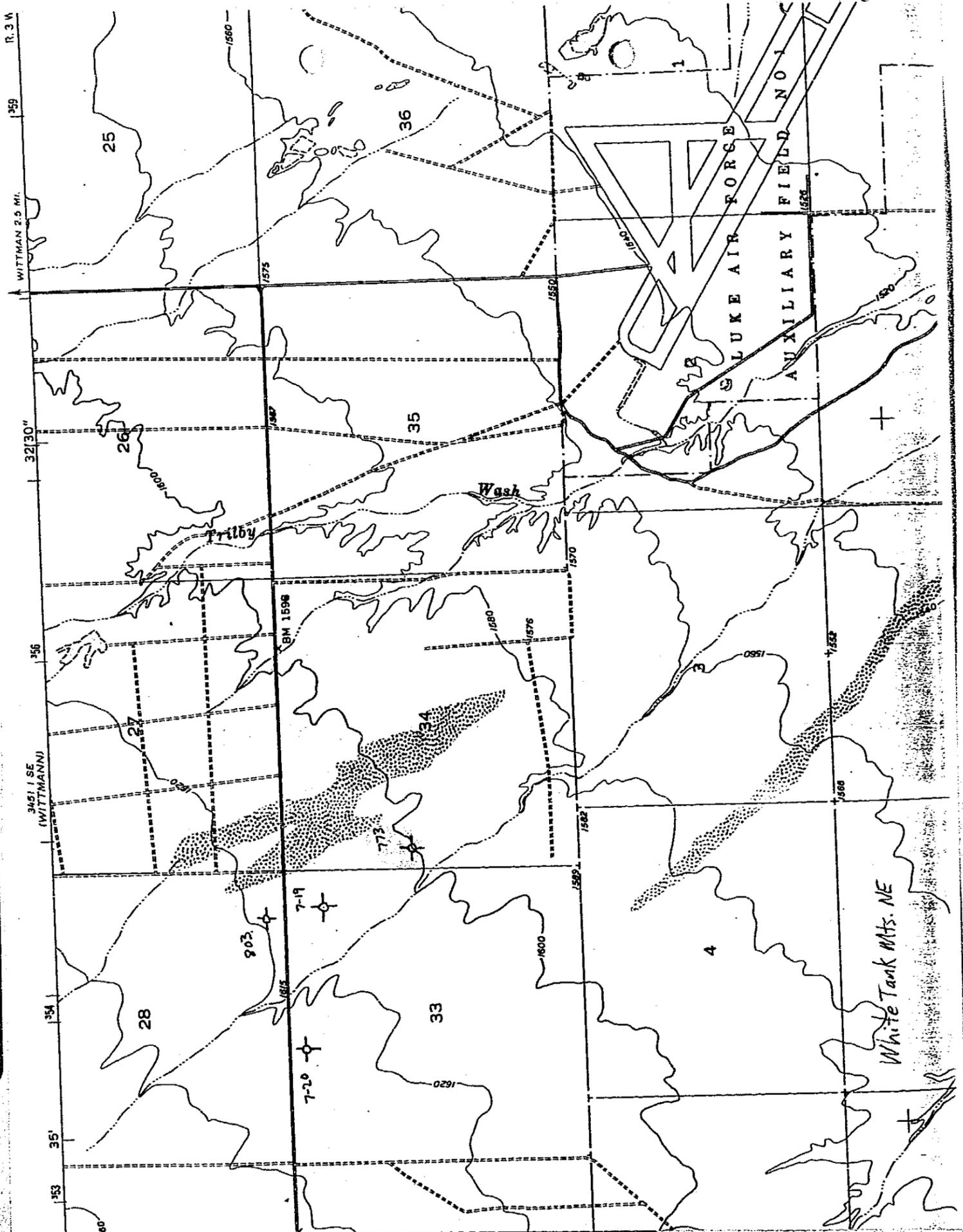
Pipeline Route #1 4568.26 Ft.

Pipeline Route #2 3524.02 Ft. probable problem w/ Easement

White Tank Mts Quadrangle 15 minute series



Well Point is $N. 6^{\circ} 19' 22'' E$ 2989.85 feet from the S.W. Corner of Section 34 T.5N., R.3W. Gila and Salt River Base 2nd Meridian. Bases of Bearing was the accepted Survey for the subdivision of the township in 1916 for G.L.O. Standard Parallel being West.



WITTMAN 2.5 MI. 159 R. 3 W

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R. 3 W

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK
 DRILL DEEPEN PLUG BACK

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

2. NAME OF OPERATOR
 Salt River Valley Venture

3. ADDRESS OF OPERATOR
 536 E. Thompson Blvd. Suite 5 Ventura, Calif. 93001

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)
 At well site
 Sec 34 5N 3W Maricopa County. Gila Salt River SBB & M
 At proposed prod. zone

5. LEASE DESIGNATION AND SERIAL NO.
 A9112

6. IF INDIAN, ALLOTTEE OR TRIBE NAME
 --

7. CRUY AGREEMENT NAME
 --

8. FARM OR LEASE NAME
 Fletcher

9. WELL NO.
 1

10. FIELD AND POOL OR WILDCAT
 Wildcat

11. SEC., T., R., M., OR BLE. AND SURVEY OR AREA
 T5N-3W Salt River

12. COUNTY OR PARISH 13. STATE
 Maricopa Arizona

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
 5 1/2 miles southeast of Whitman

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)
 330'

16. NO. OF ACRES IN LEASE
 920

17. NO. OF ACRES ASSIGNED TO THIS WELL
 80

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.
 5,000' + or -

19. PROPOSED DEPTH
 5,000' + or -

20. ROTARY OR CABLE TOOLS
 Rotary

21. ELEVATIONS (Show whether DP, RT, GR, etc.)
 1600'

22. APPROX. DATE WORK WILL START*
 Nov. 20, 1980

PROPOSED CASING AND CEMENTING PROGRAM

| SIZE OF HOLE | SIZE OF CASING | WEIGHT PER FOOT | SETTING DEPTH | QUANTITY OF CEMENT |
|----------------|----------------|-----------------|-----------------|--|
| 12 1/2" | 10 3/4" | 40# | 100' | Cement to surface |
| 9 5/8 or 9 7/8 | 7" | 24# | 2000' | Using 400 sx cement treated with 2% cc |
| | 5 1/2" liner | 17" | 1950- 4950' -Td | Cemented over adapter @ 1950' |

RECEIVED

DEC 5 1980

O & G CONS. COMM.

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. SIGNER Laure Fletcher TITLE Agent DATE 11/24/80
 (This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY J.P. Wagner TITLE District Supervisor DATE 11/24/80
 CONDITIONS OF APPROVAL, IF ANY: J.P. Wagner

cc: Deputy Conservation Manager, Oil & Gas, Western Region
 District Geologist, LA SEE ATTACHED CONDITIONS AND REQUIREMENTS
 BLM, Phoenix, AZ
 ✓ Arizona Oil & Gas Conservation Commission, Phoenix, AZ

773



Fife Symington
Governor

State of Arizona
Arizona Geological Survey

416 W. Congress, Suite 100
Tucson, Arizona 85701
(520) 770-3500



Larry D. Fellows
Director and State Geologist

September 19, 1995

Mr. Joe Kruger
Kansas Geological Survey
1930 Constant Avenue
University of Kansas
Lawrence, Kansas 66047-3726

file 773

Dear Joe:

The information on the wells in the Wittmann area we talked about yesterday is enclosed. This information includes brief drillers logs on the Robertson wells 1 and 2; completion report, dual induction-SFL, borehole compensated sonic, and compensated neutron--formation density logs on the Tri Oil Company well; and dual induction guard and mud logs on the Salt River Basin Joint Venture well.

Even though this information is sketchy, especially for the Robertson wells, it represents the best available data we have in our files. I tried to make sense of the interest in this particular area in my 1991 study of these wells. That study is in the July 22, 1991, issue of *Oil & Gas Journal*.

I look forward to the results of your study.

Sincerely,

Steven L. Rauzi
Oil & Gas Program Administrator

Enclosures

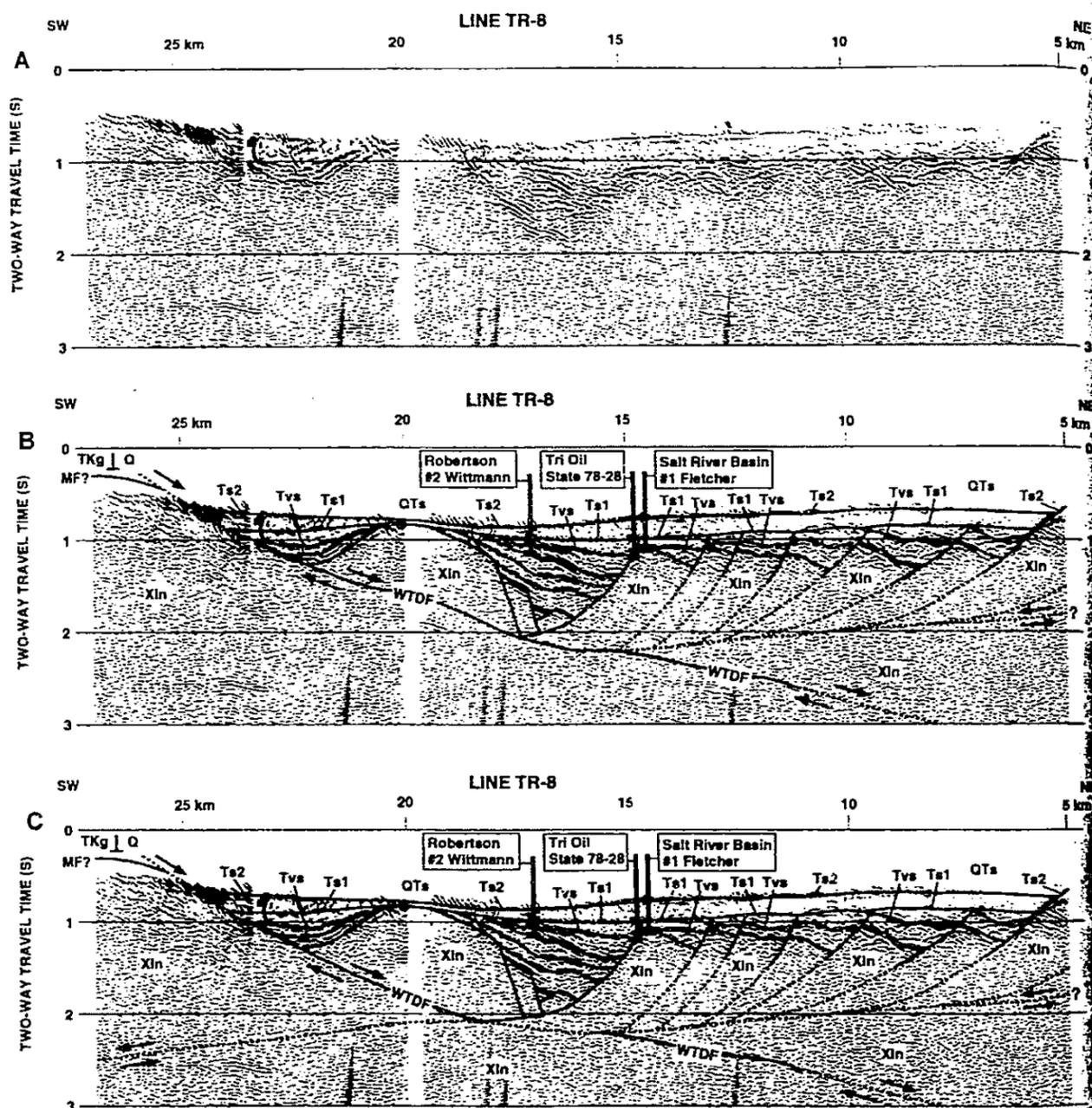
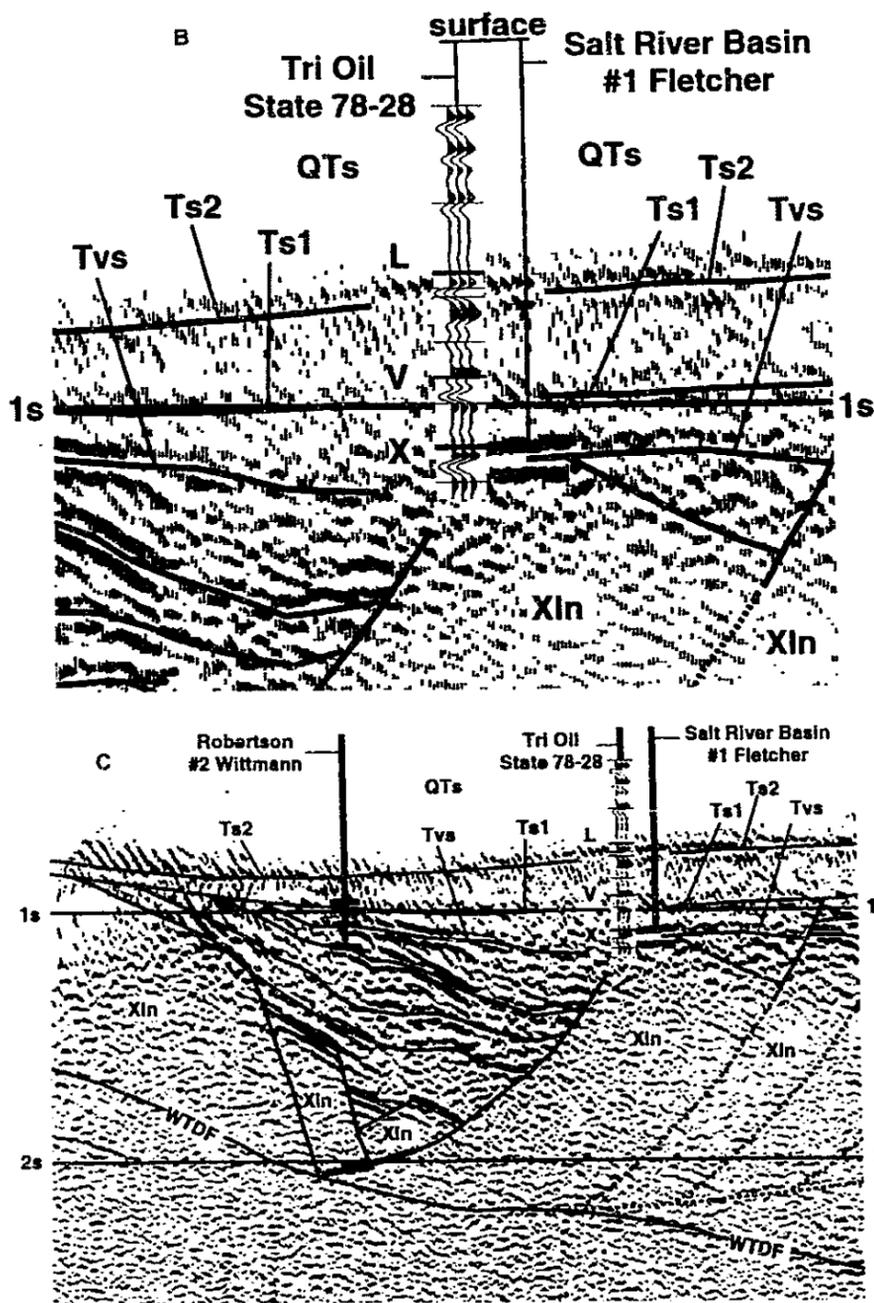


Figure 5. Stacked seismic section of line TR-8. A: Uninterpreted. B: Preferred interpretation. C: Alternate interpretation. Horizontal scale is in kilometers from the beginning of the line. These kilometer markers are used for lateral referencing in the text. Vertical scale is in seconds of two-way travel time. There is no vertical exaggeration at a velocity of ~ 4 km/s. Horizontally exaggerated at higher velocities, vertically exaggerated at lower velocities. Solid interpretation lines represent horizons or faults. Dashed lines represent possible fault locations. Arrows indicate relative offset along the White Tank detachment fault and southwest-dipping low-angle normal fault. Projected well locations indicated by thick vertical lines. Top of line is near ground level. Bottom of well is indicated by horizontal dash. Other horizontal dashes represent key horizons described in text and Table 3. Abbreviations are as follows: WTDF, White Tank detachment fault; MF, mylonitic front; Q, Quaternary alluvium; QTs, younger Quaternary and Tertiary sediments (basin fill); Ts2, top of unit interpreted to contain mostly undeformed late to middle Tertiary sedimentary rocks and some lava flows; Ts1, top of unit interpreted to contain mostly tilted to slightly tilted mid-Tertiary sedimentary rocks and some volcanic rocks (probably an angular unconformity in many places); Tvs, top of one or more units interpreted to contain mostly tilted mid-Tertiary volcanic and volcaniclastic rocks interlayered with other sedimentary rocks (probably an angular unconformity in many places); TKg, middle Tertiary or Late Cretaceous granite and granodiorite; Xln, crystalline basement. Contact between TKg and Q as determined by detailed geologic mapping (Reynolds, 1988; Reynolds and Grubensky, 1993) is indicated near the top of the section by a vertical line with a short dash near ground level. See Tables 1 and 2 for acquisition and processing parameters.



ary of reflectivity imaged on line PW-21 (Figs. 7 and 8). Basement reflectivity beneath the mylonitic front is present on line TR-8 (Fig. 4), but is more diffuse and less obvious than on line PW-21 (Figs. 7 and 8). This may be due to more noise on line TR-8, differences in acquisition parameters such as the seismic source (Table 1), or less continuity of reflectors in the dip direction. Higher amplitude, more continuous reflections, such as those near 5 s between 40 and 46 km and near 2.5 s between 23 and 24 km

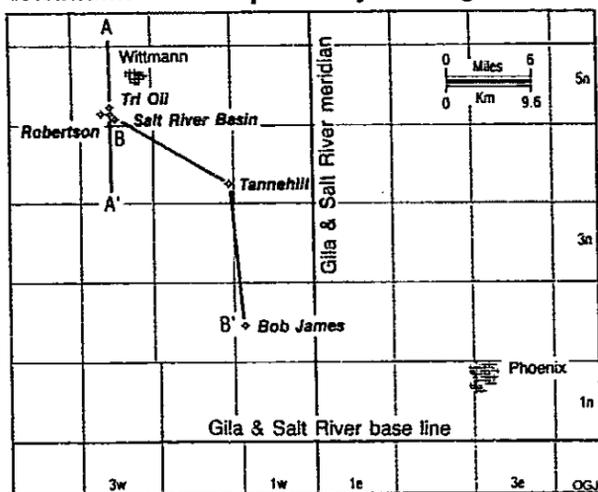
along line TR-8, probably represent subhorizontal intrusions. The intersection of the mylonitic front with the White Tank detachment fault north of crystalline outcrops in the White Tank core complex (Fig. 4) is inferred on the basis of basement reflectivity directly beneath the detachment fault and relations observed in other core complexes (e.g., Davis et al., 1980; Frost and Okaya, 1986; Hauser et al., 1987; Davis and Lister, 1988; Flueh and Okaya, 1989; Reynolds and Lister, 1990; Livaccari et al., 1995).

EXPLORATION

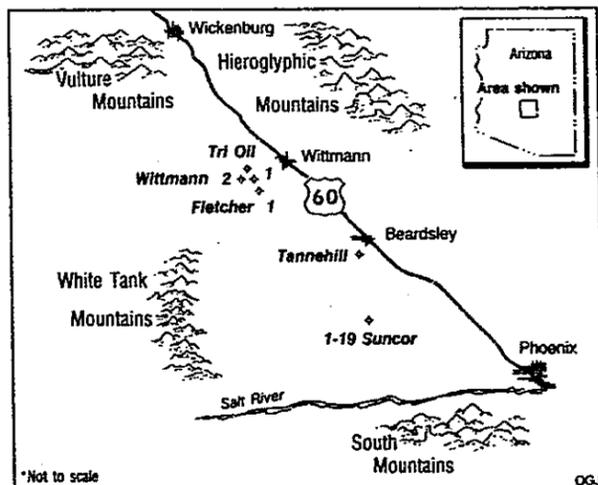
file 773

Clues point to oil in Arizona's deep Tertiary

Wittmann area exploratory drilling



Wittmann area features*



Selected wells, Wittmann area, Maricopa County, Ariz.

| Operator | Well | Location | Year drilled | Total depth, ft | Formation at total depth | Remarks |
|------------|-------------|----------------|--------------|-----------------|--------------------------|--------------------------------|
| Tannehill | 1 Beardsley | SE NE 25-4n-2w | 1923 | 3,350 | Tertiary sediments* | Shows in two sands, no tests |
| Robertson | 1 Wittmann | NE NE 33-5n-3w | 1944 | 4,280 | Volcanic rock† | 1,600 ft oil recovered in test |
| Robertson | 2 Wittmann | NE NW 33-5n-3w | 1946 | 4,970 | Volcanic rock† | Shows at 4,650 ft, no tests |
| Salt River | 1 Fletcher | SW NW 34-5n-3w | 1981 | 3,980 | Precambrian schist | No shows or tests |
| Tri Oil | 78-28 State | SE SE 28-5n-3w | 1982 | 4,520 | Precambrian schist | Swabbed trace to show of oil |
| Bob James | 1 Suncor | NE NE 19-2n-1w | 1988 | 4,000 | Tertiary salt | Show at 3,000 ft, no tests |

*Probable. †Questionable.

Steven L. Rauzi
Arizona Oil & Gas
Conservation Commission
Phoenix

Evaluation of several wells near Wittmann, Ariz., suggests the need for additional drilling in the deep Tertiary basins of central Arizona.

In one of the earlier wells, 1 Wittmann, the driller reported as much as 1,600 ft of light oil in a test. Unfortunately, an unsuccessful water shut-off attempt prevented this well's completion.

Later drilling in 1981 and 1982 yielded mixed results and provided information on rotary drilling conditions and costs and basin stratigraphy.

Four of the wells described were drilled on private land and the fifth on a state lease.

Federal land is found in several, mostly isolated, areas in the valley but predominates in the mountains and to the west. One small federal tract, surrounded by private land, over a large salt deposit was picked up in the March 1991 U.S. Bureau of Land Management lease sale.

State land is available on a non-competitive basis and carries a 5 year term with a one eighth royalty on any production.

A major concern is the apparent lack of a good oil and gas source rock in the area. However, a thick section of deeply buried salt at the southern end of the valley is recognized by some to be

just such a source.

In the most recent well, the 1-19 Suncor, more than 2,000 ft of salt was drilled, but no well has penetrated the base of the salt.

Seismic data over the salt suggest that it may extend to a depth of 12,000-15,000 ft. On a more regional basis, gravity and magnetic data show this valley to be one of the deepest in the southern part of Arizona.

The current report provides a summary of the data available in the well files and sample repository of the Arizona Oil & Gas Conservation Commission.

The well data are listed (see table), and the location of the wells and Sections A-A' and B-B' in Maricopa County are shown (Fig. 1).

Wittmann area

The Wittmann area is a broad, flat valley floored with Tertiary sediments.

The valley is both topographic and structural in that it is bounded by upfaulted, erosionally subdued mountains of Precambrian to Tertiary crystalline and metamorphic rocks.

The Vulture and Hieroglyphic mountains bound the area on the north and northeast, the White Tank Mountains are on the southwest, and the South Mountains are on the southeast. The Salt River drains the area at the south end of the valley (Fig. 2).

The Tertiary sediments just southwest of Wittmann are about 4,000 ft thick. They thicken to more than 11,000 ft 20 miles to the southeast, where the Tertiary section includes a large volume of relatively pure nonmarine salt (Fig. 4).

The valley slopes gently southward toward the Salt River. Elevations of the valley floor range from 1,600 ft near Wittmann to 900 ft at the river.

Elevations exceed 4,000 ft in the Vulture and Hieroglyphic Mountains, 3,500 ft in the White Tank Mountains, and 2,500 ft in the South Mountains.

These ranges contain Proterozoic schist similar to and herein correlated with the schist in the Tri Oil and Salt River Basin wells near the town of Wittmann (Fig. 1).

Early wells

The Tannehill 1 Beardsley was the earliest well to be drilled in the study area.

This well was drilled in 1923 and is located near the small town of Beardsley in SE NE 25-4n-2w (Fig. 1).

Tannehill drilled the 1 Beardsley with cable tools. His driller reported a gray sand with globules of oil at 2,208-10 ft. He also reported shows in a brown sand at 2,518-40 ft.

A black shale saturated with oil and showing gas was reported at 3,252-80 ft. The TD of the 1 Beardsley is 3,350 ft in probable Tertiary sediments (Fig. 4).

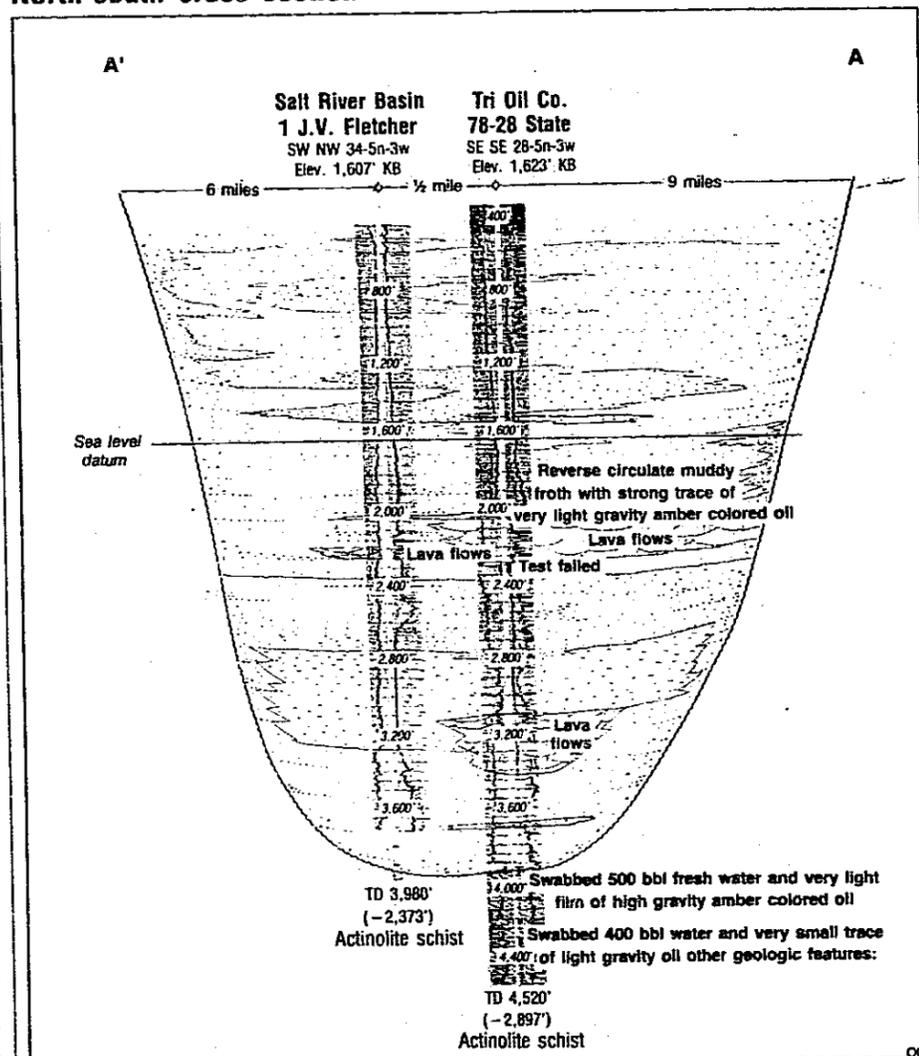
A note on the driller's log records the static water level in the hole. It stood at 138 ft and was drawn down to 183 ft after pumping.

J.J. Robertson drilled the first well near the town of Wittmann in 1944. His well, the 1 Wittmann, is located just southwest of Wittmann in NE NE 33-5n-3w (Fig. 1).

The logs, cores, and cuttings are not available for 1 Wittmann. However, the file on this well does contain the driller's recollection of the operation.

His account describes light oil recovered in a test and a show of oil in a conventional core. He claimed that this core was analyzed at the

North-south cross section



Tucson School of Mines, where it was considered to be of Permian age.

This driller, Lance Fletcher, provided the financial backing for the nearby 1 Fletcher well drilled in 1981. That he returned to finance this later well lends credence to his recollection of the test in the 1 Wittmann.

In a letter in the well files of the Arizona Oil & Gas Conservation Commission, Fletcher recalled the test as follows:

"A medium to strong blow was immediate, it became stronger until oil surfaced after about a minute."

He went on to report the amount of fluid recovered in the test: 1,600 ft of 36° gravity

oil and 1,600 ft of salt water. When the crew tried to shut off the water, they cemented the tubing in the hole.

The core description, the scenario of the test, and the tubing being cemented in the hole suggest that a light oil is trapped at this location.

That it was not developed was due to mechanical problems. Alternatively, these reports suggest that oil has migrated through the Wittmann area.

TD of the 1 Wittmann is reported to be at 4,280 ft in volcanic rock.

Robertson drilled the 2 Wittmann in 1946 in NE NW 33-5n-3w, about 1,500 ft west of the 1 Wittmann (Fig. 1).

He apparently drilled this well to re-enter the oil zone that was lost when tubing was cemented in the 1 Wittmann. However, it seems unusual to the author that he would have stepped out so far from the original hole.

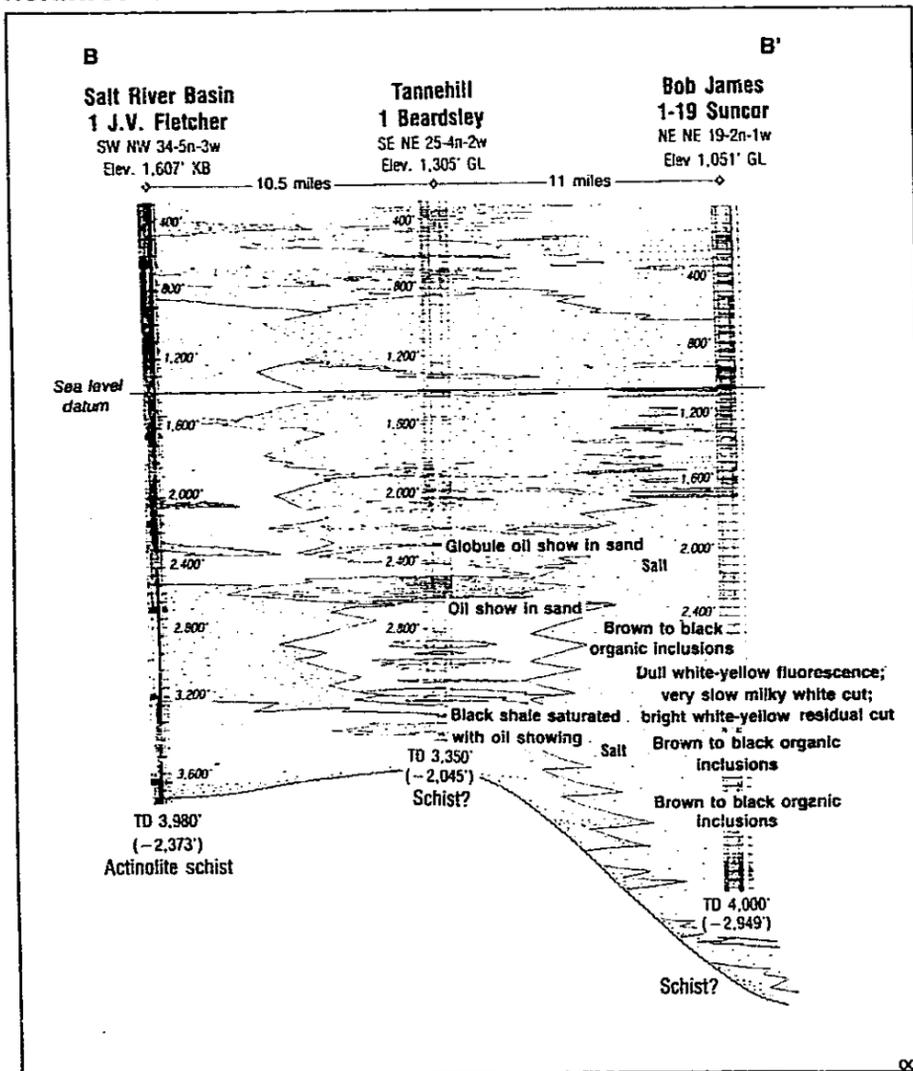
The 2 Wittmann file contains a very general lithologic summary. It reports sand and gravel to 3,100 ft, conglomerate to 3,800 ft, and volcanic rock from 3,800 ft to TD 4,970 ft. It also records a show of oil from 4,650-60 ft in the volcanic rock. No tests are reported.

Modern drilling

Salt River Basin Joint Venture drilled the 1 Fletcher in 1981 in SW NW 34-5n-3w,

about Wittmann. The logs, cores, and cuttings are not available for 1 Wittmann. However, the file on this well does contain the driller's recollection of the operation. His account describes light oil recovered in a test and a show of oil in a conventional core. He claimed that this core was analyzed at the

Northwest-southeast cross section



control the inflow of water.

The operator admitted such and wrote that he had no doubt that he had failed to find and produce a significant oil and gas saturation in this well.

The Bob James 1-19 Suncor well is in NE NE 19-2n-1w (Fig. 1).

This well is included here because it provides information on the probable source for the oil and gas reported in the wells drilled near the towns of Wittmann and Beardsley.

The 1-19 Suncor was drilled in 1988 to test sand objectives below a large deposit of salt near Luke Air Force Base (Fig. 4).

The Suncor well penetrated salt at 1,720 ft and was still in salt at TD 4,000 ft.

The mud log records sandstone, claystone, and several beds of anhydrite overlying the salt. It also records several thin beds of orange to brown claystone within the salt and a thin bed of black shale encased in salt at 3,950 ft.

Several zones of brown to black organic inclusions are reported in the salt, and a particularly interesting zone of very slightly calcareous to clayey siltstone is reported at 3,000 ft.

This siltstone has a dull white to yellow fluorescence with a very slow milky white cut. The siltstone also has a bright white to yellow residual cut but no odor or visible stain.

Since the Suncor well was still in salt at TD, its primary objective of testing sands below the salt was not accomplished. Testing of the supposed sands is still a valid objective.

Additional objectives include salt overhangs, stratigraphic intertonguing around the periphery of the salt, and faulted wedges of sediment within the salt.

This well offers a probable source for the oil and gas reported in the several wells in the Wittmann area.

Possible oil source rocks

The oil and gas shows reported in the Tannehill, Wittmann, and Tri Oil Co. wells indicate that oil and gas are

this one being Wittmann he so

con- gic and mer- anic TD s a ft in tests

illing Ven- er in -3w,

about 1,350 ft southeast of 1 Wittmann (Fig. 1).

Lance Fletcher, the previously mentioned driller on the 1 Wittmann well, was the lease holder and financier for the 1 Fletcher.

The mud and electric logs record a continuous sequence of fine- to coarse-grained, varicolored alluvium and colluvium. A 50 ft thick volcanic flow is present at 2,200 ft.

The interval 2,700-3,400 ft is notably silty and clayey, indicating the development of an effective seal in this part of the basin. Precambrian actinolite schist was penetrated at 3,940 ft, and the well bottomed in schist at 3,980 ft (Figs. 3, 4). No shows or

tests are reported.

In 1982, the Tri Oil 78-28 State was the most recent well to be drilled in the vicinity of Wittmann (Fig. 1). The 78-28 State is in SE SE 28-5n-3w, about 1,350 ft due north of 1 Wittmann and about one half mile northwest of 1 Fletcher.

The operator ran dual-induction, sonic, neutron, and dipmeter logs and set and cemented 7 in. casing to 4,517 ft. He then perforated and attempted to test several zones.

The first test at 2,020-21 ft failed because of a loose joint.

The second test at 2,337-38 ft recovered seven stands of hole fluid in 1 hr from an-

other loose joint.

The third test at 4,216-17 ft recovered 3,800 ft of fresh water in 41 min. It had a final flowing pressure of 1,597 psi.

After these three tests, 221 holes were shot across two large intervals, 2,024-2,343 ft and 3,935-4,514 ft.

The well was then fractured using 52 tons of sand. Swabbing recovered fresh water with strong traces to slight shows of gas and light oil.

Unfortunately, the large interval of perforated pipe made it difficult for the operator to tell which zone in the well was effectively stimulated. Tri Oil could not determine which perforations were yielding the oil, and it failed to

The author . . .



Rauzi

Steven L. Rauzi grew up in Moab, Utah, and received BS and MS degrees in geology from Utah State University in Logan. From 1980-87 he worked for Texaco in Los Angeles as an exploration and development geologist. Since 1988 he has been the oil and gas program administrator for the Arizona Oil & Gas Conservation Commission in Phoenix.

present in this area.

At the least, these shows record a period of oil and gas migration through the basin. If a potential source rock for oil and gas can be described, then the reported shows in these wells take on a greater significance.

At least two possible source rocks for oil and gas have been identified. The first is the "black shale saturated with oil" in the Tannehill well.

The second, and more likely source, is the thick section of salt, and intimately associated sediments, in the Suncor well (Fig. 1).

In fact, the shows in the Wittmann area wells suggest that oil migrated out of and away from the deeply buried salt at Luke Air Force Base. At least 20 miles of oil migration is indicated.

Luke salt

The salt at Luke, or Luke salt, is at least Miocene in age.

It is overlain by basalt that has been age dated at about 10.5 million years.¹

The average bromine content of the Luke salt is about 2 ppm. Values of less than 30 ppm bromine tend to represent nonmarine salt, and the Luke salt deposit is probably of lacustrine or playa origin.² The sheer volume of relative-

ly clean salt at Luke tends to suggest a lacustrine deposit.

The organisms in saline lakes normally include a narrow range of species that grow in remarkable abundance.³ These authors cite several examples of abundant biotas in saline lakes.

For example, they describe saline lakes that provide sufficient food for enormous flocks of flamingos, in some cases a million or more birds.

Most species of flamingos obtain their food from organic rich bottom muds. These saline lakes must therefore maintain a high productivity of phytoplankton, which settle and are incorporated into the bottom muds.

Under the right conditions, these muds, along with significant amounts of bird droppings, can be preserved and become good source rocks for oil and gas.

Like modern saline lakes, the lake, or lakes,⁴ in which the Luke salt was deposited could very well have sustained an abundance of organisms that accumulated as organic rich bottom muds.

In the case of Luke, organic rich muds may have been concentrated during volcanic-associated phytoplankton "blooms." Thus extra-rich muds in the Luke salt could correlate with periods of increased volcanic activity.

The "oil-saturated black shale" reported in the Tannehill well could represent just such a relationship. Salt-associated source beds may well be a significant factor not just in the oil and gas play of the Wittmann area but in the entire Phoenix basin as well.

Heat source, stratigraphic trap
Gravity and magnetic data suggest that the Luke salt is at least 10,000 ft thick.^{2,5}

Seismic data suggest that it may extend to a depth of 12,000-15,000 ft.⁶ These depths are sufficient to generate oil and gas.

Sufficient heat and pressure necessary to generate oil and gas from salt-associated source beds also may have been provided by Tertiary intrusion and volcanism. Such was the case at Dinehbi-Keyah field in northeastern Arizona.

There, a Tertiary sill was intruded into Pennsylvanian carbonate rocks. That sill was intruded into Pennsylvanian carbonate rocks. That sill has produced more than 17 million bbl of oil.⁷

Concrete evidence of such intrusive relationships has not been documented in the study area, but a sill intruded into either the black shale described in the Tannehill well or organic-rich muds associated with the Luke salt offers the same possibility for stratigraphic traps in the Wittmann area.

Conclusion

The 1 Wittmann was reported to have produced 1,600 ft of light oil and 1,600 ft of salt water in a cased hole test.

Unfortunately, mechanical problems and an unsuccessful water shut-off attempt prevented development of the Wittmann well.

Shows of oil also were reported in two sands in the Tannehill Beardsley well. If these sands pinch out laterally into clay, stratigraphic traps are possible in the undrilled parts of this basin.

Two possible sources for

oil and gas in the Wittmann area include the "oil-saturated black shale" in the Tannehill well and the thick section of Miocene salt in the Suncor well.

The salt in the Suncor well may serve as a trapping mechanism to oil and gas below the salt.

References

1. Eberly, L.D. and T.B. Stanley, Cenozoic stratigraphy and geologic history of southwestern Arizona: Geol. Soc. America Bull., Vol. 89, 1978, pp. 921-940.
2. Eaton, G.P., D.L. Peterson, and H.H. Schuman, Geophysical, geohydrological, and geochemical reconnaissance of the Luke salt body, Central Arizona: U.S. Geological Survey Prof. Paper 753, 1972, 28 p.
3. Kirkland, D.W., and R. Evans, Source-rock potential of evaporitic environment: AAPG Bull., Vol. 65, 1981, pp. 181-190.
4. Lowery, C.J., Sedimentation of Cenozoic deposits in western Salt River Valley, Arizona: unpublished master's thesis, Arizona State University, Tempe, 1964.
5. Oppenheimer, J.M., Gravity modeling of the alluvial basins, southern Arizona: unpublished master's thesis, University of Arizona, Tucson, 1980.
6. Gary Stewart, personal communication, 1991.
7. Arizona Oil & Gas Conservation Commission, well files and sample cuttings.

KANSAS

Caribou Resources, Denver, has staked eight 2,000 ft geological wildcats in Pomona and North Pomona fields of Franklin County. Targeting Cambro-Ordovi-

cian Arbuckle, the wells are in 35- and 36-15s-18e; 13-24-, and 25-16s-17e; and 8-16-, 18-, and 20-16s-18e. Sites are 5-7 miles west and northwest of Ottawa.

KENTUCKY

Equitable Resources Exploration Co., Kingsport, Tenn., reported completing two western Kentucky discoveries during 1990.

The K10001 John Hopkins Hospital, 16-K-27, Hopkins County, pumped 50 b/d of oil from Mississippian Cypress perforations at 2,171-91 ft. The discovery opened East Earle Creek field.

Total depth is 4,243 ft. The well encountered noncommercial gas shows in New Albany at 3,820-46 ft and 3,968-4,052 ft, Petroleum Information reported.

Equitable has drilled five other wells nearby. It plugged

two, completed one as an oil producing well, and was placing the other two on the pump. It has also staked a seventh test in the area.

Equitable also completed K10002 Andrew Mast, 7-K-18, 4 miles north of Marion in Crittenden County.

It flowed 40 Mcfd of gas from Devonian New Albany shale at 2,260-2,458 ft and 2,518-2,620 ft. Total depth is 2,841 ft.

Well site is about 6 miles northwest of Tribune field, which produces oil from Mississippian McClosky.

The discovery well is more than 30 miles northwest of

December 21, 1981

Mr. C. A. Davis, Agent
Salt River Basin Joint Venture
208 Los Nietos Court
Bakersfield, California 93309

Re: Salt River Basin Fletcher #1
Federal, Maricopa County
Permit No. 773

Dear Mr. Davis:

This is in response to your letter of December 5, 1981, which we did not receive until December 14, and also to inform you that since my initial letter to you, I have talked to people from both the USGS and BLM and to Don Thompson on the subject well.

It is my understanding that the presence at the well site of the PLM man, Mr. Fred Potter, was not in an official capacity. He was there on a training assignment.

The USGS informed us that they no longer require a surface monument of an abandoned well site. However, this requirement is still in effect in Arizona for state and private lands. I understand that the surface ownership of this property is private.

On December 18, I talked to Don Thompson and he related to me that on December 15 he and Fred Potter had visited the well site. He concurred that additional restoration work is needed. This work will have to wait a few months until the ground dries up sufficiently.

If you have any further questions, please contact me.

Yours truly,

R. A. Ybarra
Director
Enforcement Section

RAY/vb

davis

**ENTERPRISES
CONSULTING SERVICES**
REGISTERED PROFESSIONAL ENGINEER
PETROLEUM MECHANICAL

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DEC 14 1981

O & G CONS. COMM.

December 5, 1981

Mr. R. A. Ybarra, Director Enforcement Section
Oil and Gas Conservation Commission
State of Arizona
1645 W. Jefferson, Suite 420
Phoenix, Arizona 85007

Dear Mr. Ybarra:

Re: Salt River Basin Fletcher #1
Federal - Permit No. 773

With reference to your letter dated November 23, 1981, please be advised as to the following:

- (1) Mr. Don Thompson, the contractor who built and abandoned the above referenced location advises that an inspector from your office visited the well site and approved the abandonment work that had been performed. He will contact you further as to any additional work that should be performed.
- (2) Mr. Thompson advises that a 24" x 24" steel plate monument was bolted to the 10-3/4" casing head (which had been concreted in the ground) and this plate contained the well identifying information thereon which was mentioned in your letter. It is located 6' ± below the ground surface and this identifying means was suggested and approved by the USGS office in Bakersfield, California and their representative stated that the USGS no longer required an above ground monument. Please advise if this is satisfactory with the State.

If Mr. Thompson provides satisfactory evidence to meet the State abandonment requirements, would you kindly then release the drilling bond for the subject well.

Sincerely yours,

C. A. Davis

C. A. Davis, Agent
Salt River Basin Joint Venture

208 LOS NIETOS CT. BAKERSFIELD, CA. 93309 805-831-0508

November 23, 1981

Mr. C. A. Davis
208 Los Nietos Ct.
Bakersfield, CA 93309

Re: Salt River Basin "Fletcher" 1 Federal
Permit No. 773

Dear Chet:

Please be informed that the drilling bond on subject well cannot be released until the well has been abandoned in accordance with the Commission rules and regulations.

The following surface work needs to be done before the bond is released:

1. Certain areas around the well need to be backfilled with soil to restore area back to near original condition.
2. The location of the well must be marked by a monument showing the name of the well, location by quarter-quarter section, and the state drilling permit number.

As agent for Salt River Basin, please see to it that the party responsible for this work is apprised of the situation.

Sincerely,

R. A. Ybarra
Director, Enforcement Section

RAY:os

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SEP 21 1981

PERFORMANCE BOND

O & G CONS. COMM.

KNOW ALL MEN BY THESE PRESENTS

KO 01 67 35 6

Bond Serial No.

Premium: \$125.00 3 Years

That we: LANCE FLETCHER

of the County of Ventura in the State of Calif.

as principal, and INSURANCE COMPANY OF NORTH AMERICA

of 4050 Wilshire Blvd, Los Angeles, Calif.

AUTHORIZED TO DO BUSINESS WITHIN the State of Arizona.

as surety, are held and firmly bound unto the State of Arizona and the Oil and Gas Conservation Commission, hereinafter referred to as the "Commission", in the penal sum of FIVE THOUSAND lawful money of the United States, for which payment, well and truly to be made, we bind ourselves, and each of us, and each of our heirs, executors, administrators or successors, and assigns jointly and severally, firmly by these presents.

The conditions of this obligation are that, whereas the above bounden principal proposes to drill a well or wells for a Geothermal Resource or stratigraphic purposes in and upon the following described land situated within the State, to-wit:

Sec 34-TSN-3W G. & S. R. B. & M., Lease number A-9112 O & G (943)

(May be used as blanket bond or for single well)

NOW, THEREFORE, if the above bounden principal shall comply with all the provisions of the Laws of this State and the rules, regulations and orders of the Commission, especially with reference to the requirements of A.R.S. § 27-652, providing for the proper drilling, casing and plugging of said well or wells, and filing with the Oil and Gas Conservation Commission all notices and records required by said Commission, then in the event said well or wells do not produce Geothermal Resources in commercial quantities, or cease to produce a Geothermal Resource in commercial quantities, this obligation is void; otherwise it shall remain in full force and effect.

Whenever the principal shall be, and declared by the Oil and Gas Conservation Commission in violation of the laws of this State and the rules, regulations and orders of the Commission, the surety shall promptly

1. Remedy the violation by its own efforts, or
2. Obtain a bid or bids for submission to the Commission to remedy the violation, and upon determination by the Commission and the Surety of the lowest responsible bidder, arrange for a contract between such bidder and the Commission, and make available as work progresses sufficient funds to pay the cost of remedying the violation; but not exceeding, including other costs and damages for which the surety may be liable hereunder, the amount set forth in the first paragraph hereof.

Liability under this bond may not be terminated without written permission of this Commission.

WITNESS our hands and seals, this 1st day of December, 1980.

Lance Fletcher
Lance Fletcher Principal

WITNESS our hands and seals this 1st day of December, 1980.

Fred B. Robertson
Fred B. Robertson Surety
Attorney-in-fact - 502

Gloria A. Trufolo
Surety, Resident Arizona Agent
(If issued in a state other than Arizona)

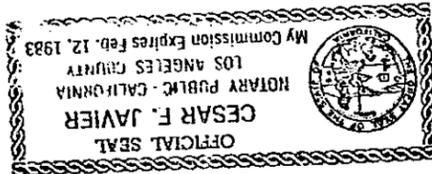
(If the principal is a corporation, the bond should be executed by its duly authorized officers, with the seal of the corporation affixed. When principal or surety executes this bond by agent, power of attorney or other evidence of authority must accompany the bond.)

Approved Date 9-21-81
STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
By: [Signature]

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
Bond
File Two Copies
Form No. -2

Permit No. 773

CANCELLED
12/1/83

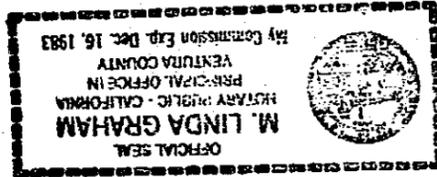


Notary Public in and for the State of California

before me Cesar F. Javier a Notary Public in and for the STATE OF CALIFORNIA personally appeared Fred B. Robertson known to me to be the person whose name is subscribed to the within instrument as the Attorney-in-Fact of the INSURANCE COMPANY OF NORTH AMERICA, and acknowledged to me that he subscribed the name of the INSURANCE COMPANY OF NORTH AMERICA thereto as surety and his own name as Attorney-in-Fact.

On this 30th day of December in the year 1980

STATE OF CALIFORNIA }
COUNTY OF Los Angeles }
ss.



Notary Public in and for said State.

ON January 21, 1981 before me, the undersigned, a Notary Public in and for said State, personally appeared Lance Fletcher known to me, subscribed to the within instrument, to be the person whose name is subscribed to the within instrument, and acknowledged to me that he executed the same. WITNESS my hand and official seal.

M. Linda Graham

STATE OF CALIFORNIA }
COUNTY OF Ventura }
ss.

STATE OF CALIFORNIA,

COUNTY OF Ventura

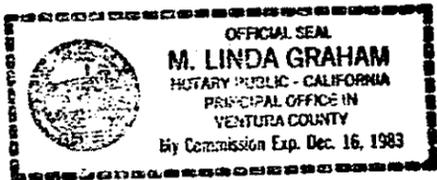
} ss.

ON January 21, 1981, 19____,
before me, the undersigned, a Notary Public in and for said State, personally appeared

Lance Fletcher

known to me,
to be the person whose name is subscribed to the within instrument,
and acknowledged to me that he executed the same.

WITNESS my hand and official seal.



M. Linda Graham
Notary Public in and for said State.

ACKNOWLEDGMENT—General—Walcott's Form 233—Rev. 3-64

STATE OF CALIFORNIA

COUNTY OF Los Angeles

} ss.

On this 30th day of December in the year 1980

before me Cesar F. Javier a Notary Public in and for the
STATE OF CALIFORNIA personally appeared Fred B. Robertson
known to me to be the person whose name is subscribed to the within instrument as the
Attorney-in-Fact of the INSURANCE COMPANY OF NORTH AMERICA, and acknow-
ledged to me that he subscribed the name of the INSURANCE COMPANY OF NORTH
AMERICA thereto as surety and his own name as Attorney-in-Fact.



Cesar F. Javier
Notary Public in and for the State of California

POWER OF ATTORNEY
INSURANCE COMPANY OF NORTH AMERICA
 PHILADELPHIA, PA.

Know all men by these presents: That INSURANCE COMPANY OF NORTH AMERICA, a corporation of the Commonwealth of Pennsylvania, having its principal office in the City of Philadelphia, Pennsylvania, pursuant to the following Resolution adopted by the Board of Directors of the said Company on May 28, 1975, to wit:

"RESOLVED, pursuant to Articles 3.6 and 5.1 of the By-Laws, the following Rules shall govern the execution for the Company of bonds, undertakings, recognizances, contracts and other writings in the nature thereof:

- (1) That the President, or any Vice-President, Assistant Vice-President, Resident Vice-President or Attorney-in-Fact, may execute for and in behalf of the Company any and all bonds, undertakings, recognizances, contracts and other writings in the nature thereof, the same to be attested when necessary by the Secretary, an Assistant Secretary or a Resident Assistant Secretary and the seal of the Company affixed thereto; and that the President or any Vice-President may appoint and authorize Resident Vice-Presidents, Resident Assistant Secretaries and Attorneys-in-Fact to so execute or attest to the execution of all such writings on behalf of the Company and to affix the seal of the Company thereto.
- (2) Any such writing executed in accordance with these Rules shall be as binding upon the Company in any case as though signed by the President and attested by the Secretary.
- (3) The signature of the President or a Vice-President and the seal of the Company may be affixed by facsimile on any power of attorney granted pursuant to this Resolution, and the signature of a certifying officer and the seal of the Company may be affixed by facsimile to any certificate of any such power, and any such power or certificate bearing such facsimile signature and seal shall be valid and binding on the Company.
- (4) Such Resident Officers and Attorneys-in-Fact shall have authority to certify or verify copies of this Resolution, the By-Laws of the Company, and any affidavit or record of the Company necessary to the discharge of their duties.
- (5) The passage of this Resolution does not revoke any earlier authority granted by Resolution of the Board of Directors on June 9, 1953."

does hereby nominate, constitute and appoint **FRED B. ROBERTSON**, of the City of Los Angeles, State of California

, each individually if there be more than one named, its true and lawful attorney-in-fact, to make, execute, seal and deliver on its behalf, and as its act and deed any and all bonds, undertakings, recognizances, contracts and other writings in the nature thereof. And the execution of such writings in pursuance of these presents, shall be as binding upon said Company, as fully and amply as if they had been duly executed and acknowledged by the regularly elected officers of the Company at its principal office.

IN WITNESS WHEREOF, the said C. DANIEL DRAKE, Vice-President, has hereunto subscribed his name and affixed the corporate seal of the said INSURANCE COMPANY OF NORTH AMERICA this 2nd day of September 1976.

INSURANCE COMPANY OF NORTH AMERICA

by C. Daniel Drake
 Vice-President

(SEAL)

STATE OF PENNSYLVANIA }
 COUNTY OF PHILADELPHIA } ss.

On this 2nd day of September, A. D. 1976, before me, a Notary Public of the Commonwealth of Pennsylvania, in and for the County of Philadelphia, came

C. DANIEL DRAKE, Vice-President of the INSURANCE COMPANY OF NORTH AMERICA to me personally known to be the individual and officer who executed the preceding instrument, and he acknowledged that he executed the same; that the seal affixed to the preceding instrument is the corporate seal of said Company; that the said corporate seal and his signature were duly affixed by the authority and direction of the said corporation, and that Resolution, adopted by the Board of Directors of said Company, referred to in the preceding instrument, is now in force.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my official seal at the City of Philadelphia, the day and year first above written.

Maureen Schell
 Notary Public.



My commission expires August 13, 1979. I, the undersigned, Assistant Secretary of INSURANCE COMPANY OF NORTH AMERICA, do hereby certify that the foregoing is a full, true and correct copy, is in full force and effect. I witness whereof, I have hereunto subscribed my name as Assistant Secretary and affixed the corporate seal of the Corporation, this 30th day of December 1980.

Stella E. Young
 Assistant Secretary



INSURANCE COMPANY OF NORTH AMERICA
PHILADELPHIA, PA. 19101

RECEIVED *OK*

SEP 21 1981

O & G CONS. COMM.

Rider to be attached to and form a part of Bond Number KO 0167356

on behalf of LANCE FLETCHER
(Name)
P. O. Box 965, Santa Paula, Calif. (Principal),
(Address)

and in favor of STATE OF ARIZONA (Obligee),

executed by the INSURANCE COMPANY OF NORTH AMERICA, as

Surety, in the amount of FIVE THOUSAND (\$ 5,000)

Dollars, effective December 1, 1980 19 .

The Principal and the Insurance Company of North America hereby consent to changing the said bond as follows:

David J. Hanson is added as an additional Principal to this bond

David J. Hanson

Nothing herein contained shall vary, alter or extend any provision or condition of the bond other than as above stated.

Signed, Sealed and dated this 16th day of September , 1981.

INSURANCE COMPANY OF NORTH AMERICA

By *Lance Fletcher*
Attorney-in-ventura

773

ORGANIZATION REPORT

Full Name of the Company, Organization, or Individual

SALT RIVER BASIN JOINT VENTURE

Post Office Address (Box or Street Address)

536 E. Thompson Blvd., #5, Ventura, Calif. 93001

Plan of Organization (State whether organization is a corporation, joint stock association, firm or partnership, or individual)

General partnership

Purpose of Organization (State type of business in which engaged)

Drill & produce oil

If a reorganization, give name and address of previous organization.

| If a foreign corporation, give (1) State where incorporated | (2) Name and post office address of state agent | (3) Date of permit to do business in state |
|---|---|--|
| Principal Officers or Partners (if partnership) NAME | TITLE | POST OFFICE ADDRESS |
| David J. Hanson | Operator | see above |
| Allen MacDonnell | non-operating party | 7002 Los Olivos Carmichael, CA 95608 |
| George Schloemer | " " | 4880 Keane Dr. Carmichael, CA 95608 |
| Harvey Owen | " " | 1365 Owen Ct. Penryn, CA |
| | | |
| | | |
| | | |

| DIRECTORS NAME | POST OFFICE ADDRESS |
|----------------|---------------------|
| | |
| | |
| | |
| | |
| | |

CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the operator of the partnership of the _____ (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct, and complete to the best of my knowledge.

Signature

David J. Hanson

Date

September 11, 1981

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
Organization Report
File One Copy

Form No. 1

773

davis

**ENTERPRISES
CONSULTING SERVICES**
REGISTERED PROFESSIONAL ENGINEER
PETROLEUM MECHANICAL

October 5, 1981

Mr. A. K. Doss, Executive Director
Oil and Gas Conservation Commission
1645 West Jefferson, Suite 420
Phoenix, Arizona 85007

Dear Mr. Doss:

Re: Fletcher #1 - Section 34, T 5N
R 3W, G & SRB & M.

Confirming our telephone conversation as of this morning, please consider this letter as a request from the Salt River Basin Joint Venture, C. A. Davis, authorized agent, to hold all information received by the Commission relative to the subject well as CONFIDENTIAL. A similar request has been made to the USGS office in Bakersfield, California and the BLM office in Phoenix, Arizona.

Mr. L. E. Knight, my associate, forwarded to your office on October 3rd, the first weekly progress report on the subject well.

There were two wells drilled within the nearby vicinity of the subject well for which we would appreciate obtaining any records which the Commission may have in their files. We are particularly interested in obtaining such records as drilling histories, coring records, mud logs, electric logs, and any formation test information. As near as we have been able to determine, the following describes the pertinent well names, operator, dates, locations, and total depth information:

Whitman #1 (Drilled by John A. Robertson)

Spudded: June 8, 1943, ceased drilling: Nov. 22, 1944, abandoned:
March 1945, T.D. 4280' (or 4365 or 4486'?)

Location: 660' S and 660' W of the NE Corner of Section 33, T 5N
R 3W G & S R B & M. (from the USGS office in Bakersfield, Calif.)

Whitman #2 (Drilled by John A. Robertson)

Spudded: April 16, 1946, ceased drilling: July 10, 1946, abandoned:
July 1946, T.D. 4970' (or 5000'?).

Location: 245' S and 545' W of the North Quarter Section Point of
Section 33, T 5N R 3W (from the USGS office in Bakersfield, Cal.)

It is our understanding that these wells were drilled on U.S. government patented lands (surface and minerals) and, therefore, would have been under the State of Arizona jurisdiction. If you have had a request for information on these two wells recently and could not find same, possibly the reason would have been that

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OCT 7 1981

O & G CONS. COMM.

*Replied by telephone
conversation 10-8-81*

208 LOS NIETOS CT. BAKERSFIELD, CA. 93309 805-831-0508

Page Two

the well names "Robinson #1 & #2" or "Robertson #1 and #2" were being used for identification purposes.

Any further information which you might be able to develop for us would be of great assistance in the current operation.

Sincerely yours,



C. A. Davis, Agent- Salt River Basin Joint Venture

cc: Mr. David P. Hanson
Mr. L. E. Knight

SOUTHWEST ENGINEERING

Civil Engineering & Surveying
4011 South Judd Street
Tempe, Arizona 85282

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SEP 28 1981

O & G CONS. COMM.

Telephone 602-966-6991

Norman D. Brugger, P.E.

September 25, 1981

Oil & Gas Commission
1645 W. Jefferson
Phoenix, Arizona 85007

Dear Mr. A. K. Doss,

Enclosed is a copy of the plat for SALT RIVER BASIN
JOINT VENTURE as per your request.

Sincerely,

Norman D. Brugger
Norman D. Brugger P.E. & R.L.S.

Encl.

Phoenix West

OIL AND GAS CORPORATION • 536 East Thompson Boulevard Suite 5, Ventura, California 93001 • [REDACTED]
(805) 648-7721

D.J. HANSON
President

September 16, 1981

A. K. Doos, Executive Director
Oil and Gas Conservation Commission
State of Arizona
1645 West Jefferson, Suite 420
Phoenix, AR 85007

Dear Mr. Doos:

By this letter, C. A. "Chet" Davis is Designated
Agent for myself, David J. Hanson, Operator for the Salt River
Basin Joint Venture.

Mr. Davis can be reached at 208 Los Nietos Ct.,
Bakersfield, CA 93309. His telephone number is: Area Cods (805)
831-0508.

Yours very truly,

David J. Hanson
David J. Hanson, Operator
Salt River Basin Joint Venture

DJH/bec



773

September 21, 1981

Mr. David J. Hanson
Salt River Basin Joint Venture
536 E. Thompson Blvd., Ste. 5
Ventura, California 93001

Re: Fletcher I Federal
Maricopa County
Permit 773

Dear Mr. Hanson:

Enclosed are approved application for permit to drill and performance bond, permit, and receipt for the above referenced well. Also enclosed are instructions for progress reports and handling of well samples.

If we can be of further service, please advise.

Yours truly,

A. K. Doss
Executive Director

/os
Encl.

RECEIVED

SEP 21 1981

O & G CONS. COM. *act*

Phoenix West

OIL AND GAS CORPORATION • 536 East Thompson Boulevard Suite 5, Ventura, California 93001 • ~~XXXXXXXXXX~~
(805) 648-7721

D.J. HANSON
President

September 16, 1981

A. K. Doos, Executive Director
Oil and Gas Conservation Commission
State of Arizona
1645 W. Jefferson, Suite 420
Phoenix, Arizona 85007

Dear Mr. Doos:

Enclosed is Phoenix West's check #3207 in the amount of \$25.00 to cover the fees required by the State of Arizona in connection with our Fletcher #1 test well being drilled by the Salt River Basin Joint Venture in Maricopa County.

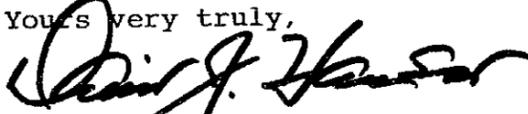
Also enclosed please find the required Performance Bond issued by the Insurance Company of North America bonding Lance Fletcher and with a rider adding my own name, David J. Hanson, to the bond.

We currently anticipate a spud-in date of approximately September 23rd, Wednesday of next week. In the event that we are not yet in full compliance with the requirements of the state, please advise either myself at the above telephone number or preferably Mr. Chet Davis in Bakersfield. We will be happy to provide whatever is further necessary.

Thanking you for your assistance in these matters,

I am

Yours very truly,



David J. Hanson, Operator
Salt River Basin Joint Venture

