

CONFIDENTIAL

Release Date _____



Duval Corp. Well No. 62 *State*
NE/NW 18-17N-27.E-Apache Co. #674

COUNTY Apache AREA Nawajo, Ariz. LEASE NO. 38337 Prospecting Permit

WELL NAME Duval Corp. Well No. 62 *State*

LOCATION SW/NW/4 SEC 6 TWP 18N RANGE 27E FOOTAGE 2616 FNL & 257FWL
 ELEV 6065 GR _____ KB _____ SPUD DATE 3-24-77 STATUS ~~NA~~ TOTAL _____
 COMP. DATE 4-7-77 DEPTH 1087

CONTRACTOR Harness Drilling Co.

CASING SIZE	DEPTH	CEMENT	LINER SIZE & DEPTH	DRILLED BY ROTARY
<u>14 5/8</u>	<u>23'</u>	<u>20599</u>		<input checked="" type="checkbox"/>
				DRILLED BY CABLE TOOL
				<input type="checkbox"/>
				PRODUCTIVE RESERVOIR
				<u>NA</u>
				INITIAL PRODUCTION
				<u>NA</u>

FORMATION TOPS	DEPTHS	SOURCE		REMARKS
		L.L.	E.L.	
<u>Bidahochi</u>	<u>Grd. to 140</u>			
<u>Chula</u>	<u>140</u>			

ELECTRIC LOGS <u>No logs</u> <u>Run</u>	PERFORATED INTERVALS	PROD. INTERVALS	SAMPLE LOG
			SAMPLE DESCRP.
			SAMPLE NO.
			CORE ANALYSIS
			DSTs

REMARKS Potash Test. APP. TO PLUG
Fresh water - (Bidahochi) From PLUGGING REP.
surface to 140 ft. COMP. REPORT

WATER WELL ACCEPTED BY _____
 BOND CO. Federal Insurance Company *filed in P/N 675* BOND NO. 80605375
 BOND AMT. \$ 25,000. CANCELLED _____ DATE _____
 FILING RECEIPT 845 LOC. PLAT X WELL BOOK X PLAT BOOK X ORGANIZATION REPORT 5-23-74
 API NO. 02-001-20226 DATE ISSUED 3-11-77 DEDICATION NA

PERMIT NUMBER 674

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 Duval Corporation		Address 4715 E. Fort Lowell Rd, Tucson, AZ	
Federal, State or Indian Lease Number or name of lessor if fee lease State Prospecting Permit #38337		Well Number 62	Field & Reservoir N/A
Location 2616 FNL 257 FWL		County Apache	
Sec. TWP-range or Block & Survey Sec. 6 T18N R27E			
Date spudded 3/24/77	Date total depth reached 4/4/77	Date completed, ready to produce N/A	Elevation (DF, RKB, RT or Gr.) feet
Elevation of casing hd. Range feet			
Total depth 1087	P.B.T.D.	Single, dual or triple completion? N/A	If this is a dual or triple completion, furnish separate report for each completion.
Producing interval (s) for this completion		Rotary tools used (interval) 0-1087	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) None			Date filed 8/30/77

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	16"	14 5/8	32	23'	20	0

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							
Number per ft.	Size & type	Depth Interval		ACID, SHOT, FRACTURE, CEMENT SQUEEZE RECORD		Depth Interval	
				Am't. & kind of material used			

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)
Tubing pressure	Casing pressure	Cal'd rate of Production per 24 hrs.	Oil bbls.	Gas MCF	Water bbls.	Gas-oil ratio
Disposition of gas (state whether vented, used for fuel or sold):						

CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the Geologist of the Duval Corporation (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 8/30/77 Signature *Cheryl J. Holt*

RECEIVED
AUG 31 1977

O & G CONS. COMM.

Permit No. <u>674</u>	STATE OF ARIZONA OIL & GAS CONSERVATION COMMISSION Well Completion or Recompletion Report and Well Log Form No. 4 File One Copy
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DETAIL OF FORMATIONS PENETRATED

Formation	Top	Bottom	Description*
Bidahochi Fm.	Surface	140'	Sand, Clayey
Chinle Fm.	140	1087'	Claystone, Siltstone: Various Colored

* Show all important zones of porosity, detail of all cores, and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries.

INSTRUCTIONS:

Attach driller's log or other acceptable log of well.

This Well Completion or Recompletion report and well log shall be filed with the State of Arizona Oil and Gas Conservation Commission not later than thirty days after project completion.

APPLICATION TO ABANDON AND PLUG

FIELD _____

OPERATOR DUVAL CORPORATION ADDRESS 5357 E. Pima, Tucson, AZ 85712
Federal, State, or Indian Lease Number State _____ WELL NO. 62
or Lessor's Name if Fee Lease

LOCATION 2616 FNL, 257 FWL, Sec. 6, T18N, R27E

TYPE OF WELL Stratigraphic Test TOTAL DEPTH 1087'
(Oil, Gas or Dry Hole)

ALLOWABLE (If Assigned) _____

LAST PRODUCTION TEST OIL _____ (Bbls.) WATER _____ (Bbls.)
 GAS _____ (MCF) DATE OF TEST _____

PRODUCING HORIZON _____ PRODUCING FROM _____ TO _____

1. COMPLETE CASING RECORD.

0-23' 14 5/8" surface casing

2. FULL DETAILS OF PROPOSED PLAN OF WORK

Abandoning the hole leaving drill pipe from 1023-1070'.
 Expect to hit bridges with cement tubing at 240, 550, and 880'.
 Fresh water formation is the Bidahochi from surface to 140'.
 We plan to cement the bottom of the hole and cement off the Bidahochi Formation.

DATE COMMENCING OPERATIONS April 4, 1977

NAME OF PERSON DOING WORK Harness Drilling ADDRESS Box 17526, Tucson, AZ 85731

RECEIVED
 APR 12 1977
 O & G CONS. COMM.

Signature *Christopher S. Johnson*
 Title Geologist
 Address 5357 East Pima, Tucson, Arizona 85712
 Date April 7, 1977

Date Approved _____

**STATE OF ARIZONA
 OIL & GAS CONSERVATION COMMISSION**

By: _____

**STATE OF ARIZONA
 OIL & GAS CONSERVATION COMMISSION**
 Application to Abandon and Plug
 File Two Copies

Form No. 9

Permit No. 674

SUNDRY NOTICES AND REPORTS ON WELLS

1. Name of Operator DUVAL CORPORATION
 2. Oil WELL GAS WELL OTHER (Specify) STRATIGRAPHIC TEST
 3. Well Name DUVAL 62 STATE
 Location 2616 FWL 257 FWL
 Sec. 6 Twp. 18N Rgn. 27E County APACHE Arizona.
 4. Federal, State or Indian Lease Number, or lessor's name if fee lease _____
 5. Field or Pool Name NA

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</u> <input checked="" type="checkbox"/>	ABANDONMENT <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.)

3/28/77 867' STUCK IN HOLE, SWITCHING TO A H₂O BASED MUD

4/1/77 WASH DOWN TO 867'. HAVING TROUBLE WITH THE FORMATION AND WILL SWITCH TO A BARITE MUD.

EXPECT TO SET CASING TO 1180' IN MOENKOPI.

RECEIVED

APR 4 1977

O & G CONS. COMM.

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

Signed Christopher S. Johnson Title GEOLOGIST Date 4/1/77

Permit No. 674

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

SUNDRY NOTICES AND REPORTS ON WELLS

1. Name of Operator DUNN CORPORATION

2. Oil Well GAS Well OTHER (Specify) STRATIGRAPHIC TEST

3. Well Name DUNN 62 STATE

Location 2616 FNL 257 FNL

Sec. 6 Twp. 12N Rge. 27E County APACHE Arizona.

4. Federal, State or Indian Lease Number, or lessor's name if fee lease: STATE PROSPECTIVE PERMIT # 68-38337

5. Field or Pool Name NA

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"/>	FULL 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</u>	<input checked="" type="checkbox"/>	ABANDONMENT	<input 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.)

3/22/77 LOGGED D-11
 3/23/77 completed
 3/24/77 LOGGED and graded D-12
 3/24/77 DRILLING TO 750'

RECEIVED
 MAR 28 1977
 D & G CONS. COMM.

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

Signed Christopher S. Anderson Title Geologist Date 3/22/77

Permit No. 38337-674

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

APPLICATION FOR PERMIT TO DRILL OR RE-ENTER

APPLICATION TO DRILL

RE-ENTER OLD WELL

Duval Corporation		
NAME OF COMPANY OR OPERATOR		
4715 East Fort Lowell Road,	Tucson,	Arizona 85712
Address City State		
Harness Drilling Company		
Drilling Contractor		
Box 17526, Tucson, Arizona 85731		
Address		
DESCRIPTION OF WELL AND LEASE		
Federal, State or Indian Lease Number, or if fee lease, name of lessor	Well number	Elevation (ground)
State Prospecting Permit #38337	62	6065 ft.
Nearest distance from proposed location to property or lease line:	Distance from proposed location to nearest drilling completed or applied—for well on the same lease:	
257 feet	2473.7 feet	
Number of acres in lease:	Number of wells on lease, including this well, completed in or drilling to this reservoir:	
640	NA	
If lease, purchased with one or more wells drilled, from whom purchased:	Name	Address
NA		
Well location (give footage from section lines)	Section—township—range or block and survey	Dedication (Comply with Rule 105)
2616 FNL; 257 FWL	Section 6, T18N, R27E	NA
Field and reservoir (if wildcat, so state)	County	
	Apache	
Distance, in miles, and direction from nearest town or post office		
Nine miles south from Navajo, Arizona.		
Proposed depth:	Rotary or cable tools	Approx. date work will start
1950 ft.	Rotary	March 10, 1977
Bond Status	Organization Report	Filing Fee of \$25.00
Statewide--on file.	On file <input checked="" type="checkbox"/> Or attached	Attached <input checked="" type="checkbox"/>
Amount	Amount	
\$25,000		
Remarks:		
Vice-President Minerals Acquisition		
CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the _____ of the _____		
Duval Corporation (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 B. G. Messer		_____ Date March 9, 1977
_____ Date March 9, 1977		
_____ D & G CONS. COMM.		
Permit Number:	STATE OF ARIZONA	
674	OIL & GAS CONSERVATION COMMISSION	
Approval Date:	Application to Drill or Re-enter	
3-11-77	File Two Copies	
Approved By:	Form No. 3	
_____	(Complete Reverse Side)	
Notice: Before sending in this form be sure that you have given all information requested. Much unnecessary correspondence will thus be avoided.		

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 X-State
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 NA.
6. If the answer to question four is "no," list all the owners and their respective interests below:

Owner	State of Arizona	Land Description	Section 6, T18N, R27E
	Surface and Minerals		

CERTIFICATION

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

B. G. Messer

Name B. G. Messer

Position Vice President- Minerals Acquisition

Company Duval Corporation

Date March 9, 1977

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.

See attached plat

Date Surveyed February 22, 1977

Registered Professional Engineer and/or Land Surveyor

Troy Baldwin

Certificate No. 7334

PROPOSED CASING PROGRAM

Size of Casing	Weight	Grade & Type	Top	Bottom	Cementing Depths	Sacks Cement
8 5/8	19.64	X-42	0	1300		
6 5/8	17.02		0	1860	1850-1860	10

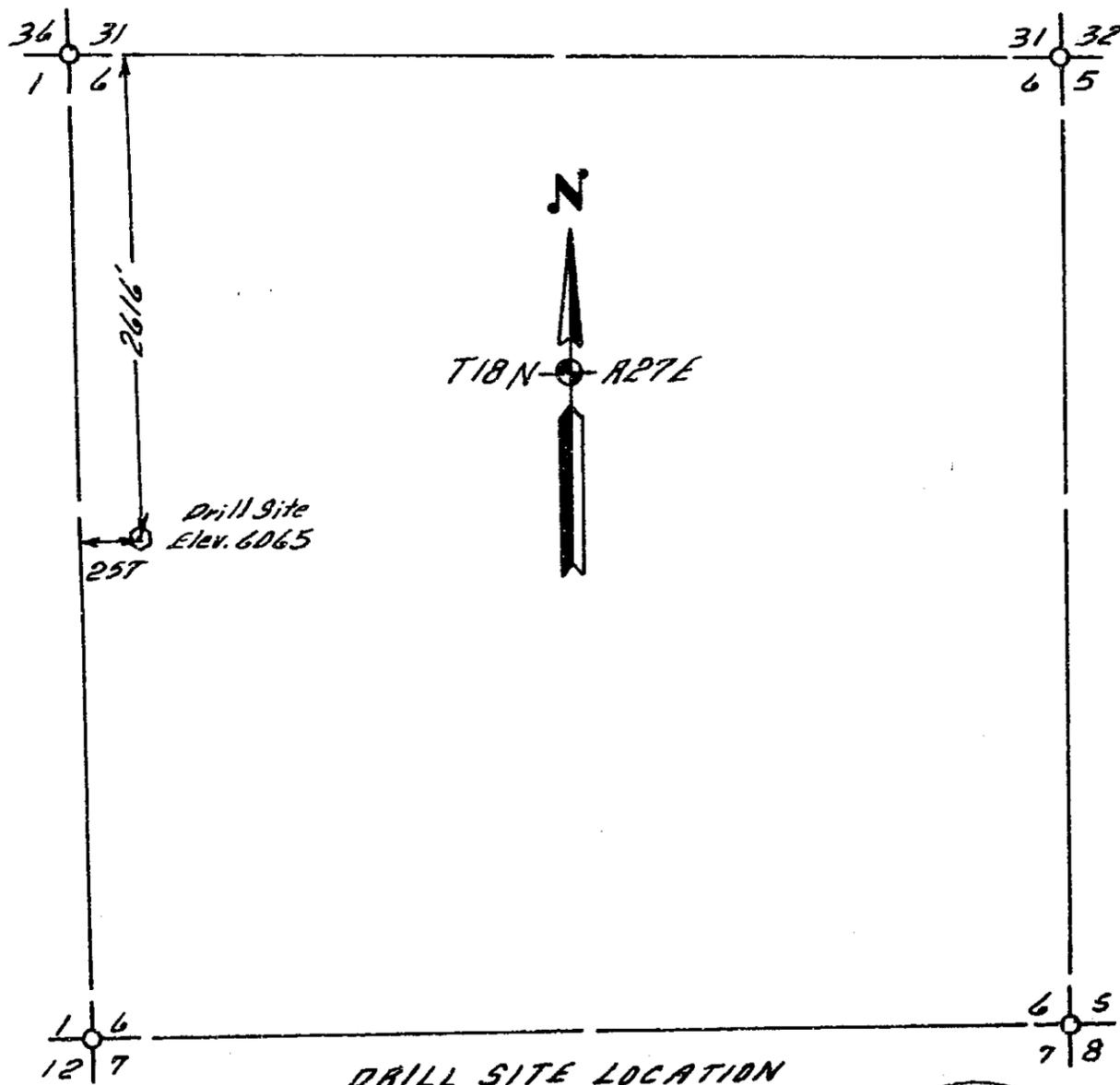
Baldwin Surveying Company

TROY BALDWIN — REGISTERED LAND SURVEYOR

~~Box 186~~
~~1000 N. Buffalo~~

Holbrook, Arizona 86025

Phone 524-6550

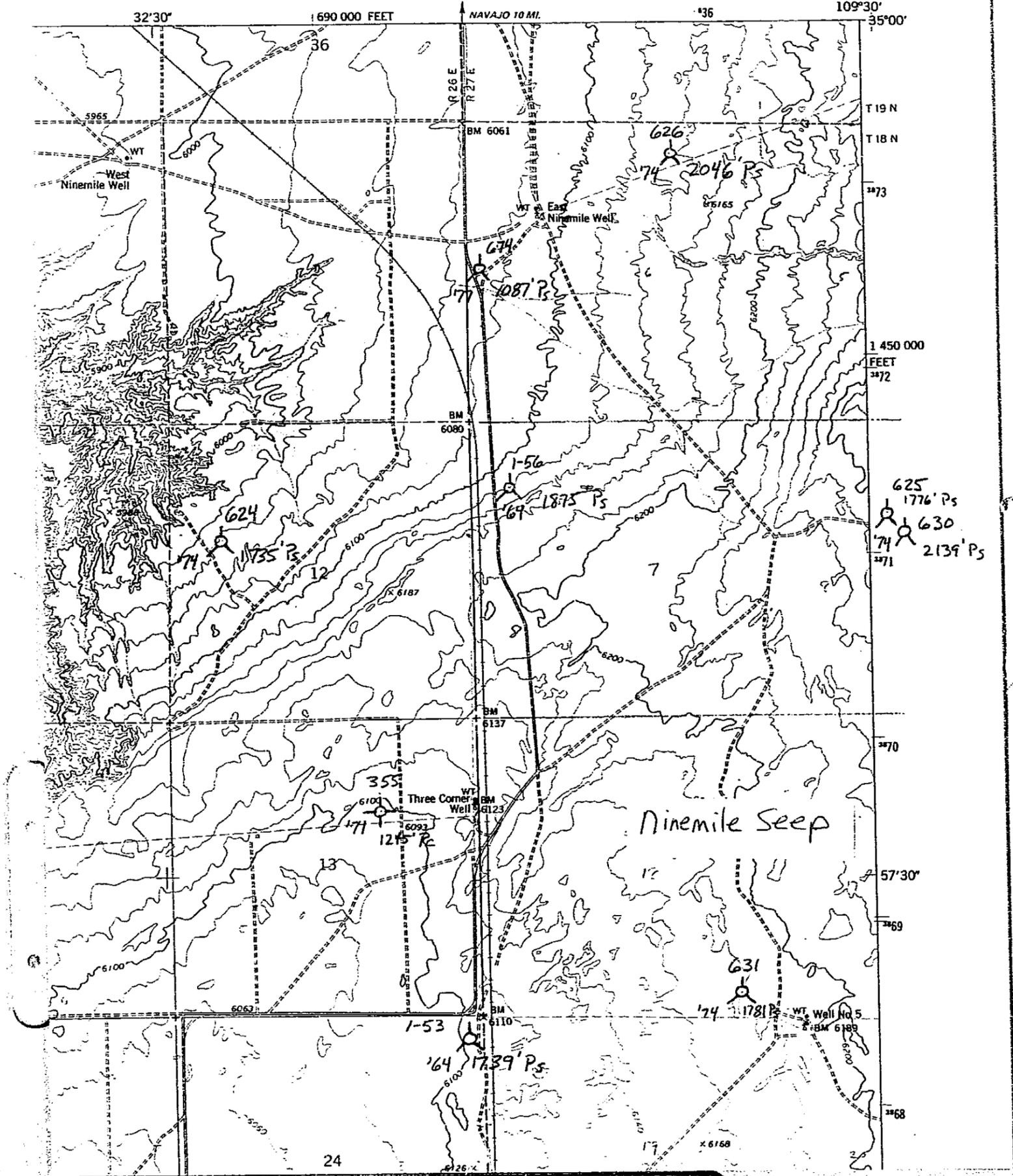


DRILL SITE LOCATION
FOR: DUVAL CORPORATION
TUCSON, ARIZONA



NINEMILE SEEP QUADRANGLE
ARIZONA—APACHE CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)

1/4 SW
NAVAJO SPRING





PERMIT TO DRILL

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

DUVAL CORPORATION

To: _____
(OPERATOR)

to drill a well to be known as

Duval Well No. 62 *State*
(WELL NAME)

located **2616 FNL and 257' FWL (SW/NW4)**

Section **6** Township **18 N** Range **27 E**, **Apache** County, Arizona.

The **NA** 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 **11th** day of **March**, 1977.

OIL AND GAS CONSERVATION COMMISSION

By *W. S. [Signature]*
EXECUTIVE SECRETARY

PERMIT N^o 674

RECEIPT NO. 845

API NO. 20226

State of Arizona
Oil & Gas Conservation Commission
Permit to Drill

FORM NO. 27

SAMPLES ARE REQUIRED



5357 EAST PIMA TUCSON, ARIZONA 85712

RECEIVED
MAY 10 1977
D & G CONS. COMM.

May 9, 1977

Oil & Gas Conservation Commission
State of Arizona
Suite 420
1645 West Jefferson
Phoenix, Arizona 85007

ATTN: Mr. W.E. Allen

Gentlemen:

Duval Corporation would like to request that all information on the drill holes with the Oil & Gas Conservation Commission, Permits No. 673, 674, and 675 be kept confidential for the maximum time allowed under the laws of Arizona. We understand that this would be one year from the date of well completion.

Sincerely,

A handwritten signature in cursive script that reads "Ned P. Krier".

Ned P. Krier
Advanced Geological Engineer

dbh



OFFICE OF

Oil and Gas Conservation Commission

STATE OF ARIZONA

8686 NORTH CENTRAL, SUITE 106
PHOENIX, ARIZONA 85020

PHONE: (602) 271-5161

March 11, 1977

Mr. B. G. Messer
Vice President-Minerals Acquisition
Duval Corporation
4715 E. Fort Lowell Road
Tucson, Arizona 85712

- Re: 1. Duval Hole No. 61 located in the NWNW of
Section 8, T18N, R26E.
674 2. Duval Hole No. 62 located in the SWNW of
Section 6, T18N, R27E.
3. Duval Hole No. 63 located in the SWSE of
Section 12, T18N, R26E

Dear Mr. Messer:

Attached are the approved applications to drill and drilling
permits for the above referenced wells. Also attached is
Receipt No. 845 in the amount of \$75.00.

Very truly yours,

William E. Allen
Director
Enforcement Section

WEA/vb
Enc.



4715 EAST FORT LOWELL ROAD TUCSON ARIZONA 85712

March 9, 1977

MAR 11 1977

D & G CONS. COMM.

Mr. W. E. Allen, Director
Enforcement Section
Oil and Gas Conservation Commission
State of Arizona
8686 North Central Ave., Suite 106
Phoenix, Arizona 85020

Dear Mr. Allen:

Enclosed are three applications in duplicate for Permits to Drill the following three core tests in Apache County:

1. Duval Hole No. 61 located in the NWNW of Section 8, T18N, R26E.
- 674 2. Duval Hole No. 62 located in the SWNW of Section 6, T18N, R27E.
3. Duval Hole No. 63 located in the SWSE of Section 12, T18N, R26E.

Also enclosed is our check in the amount of \$75.00 covering the filing fee for above permits.

Yours very truly,

DUVAL CORPORATION

B. G. Messer
B. G. Messer
Vice President-Minerals Acquisition

BGM:eh
enclosures

cc: N. Krier

