Form 9-330
(Rev. 5-63)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN DUPLICATE* (see other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R355.5.

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

1a. TYPE OF WELL: OIL WELL ☐ GAS WELL ☒ DRY ☐ Other

b. TYPE OF COMPLETION: NEW WELL ☒ WORK OVER ☐ DEEP-EN ☐ PLUG BACK ☐ DIFF. RESVR. ☐ Other

2. NAME OF OPERATOR: WILLIAM GRUENERWALD & ASSOCIATES, INC.

3. ADDRESS OF OPERATOR: P. O. Box 909, Colorado Springs, Colorado 80901

4. LOCATION OF WELL (*Report location clearly and in accordance with any State requirements*)*
At surface: SE/4 NE/4 Sec.23-T23N-R20W
At top prod. interval reported below
At total depth

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OIL CON. COM.

5. LEASE DESIGNATION AND SERIAL NO.: 14-20-0603-9923
6. IF INDIAN, ALLOTTEE OR TRIBE NAME: NAVAJO
7. UNIT AGREEMENT NAME:
8. FARM OR LEASE NAME: NAVAJO
9. WELL NO.: 1
10. FIELD AND POOL, OR WILDCAT: Ahak Nez
11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA: 23-T23N-R20W
12. COUNTY OR PARISH: San Juan
13. STATE: New Mexico

14. PERMIT NO. | DATE ISSUED

15. DATE SPUDDED	16. DATE T.D. REACHED	17. DATE COMPL. (*Ready to prod.*)	18. ELEVATIONS (DF, RKB, RT, GR, ETC.)*	19. ELEV. CASINGHEAD
11-11-70	11-24-70	12-15-70	9053' Gr.	9052''

20. TOTAL DEPTH, MD & TVD	21. PLUG, BACK T.D., MD & TVD	22. IF MULTIPLE COMPL., HOW MANY*	23. INTERVALS DRILLED BY	ROTARY TOOLS	CABLE TOOLS
4010	3968		→	0-4010	------

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)*
3892 to 3932 & 3936 to 3964 McCraken Sand

25. WAS DIRECTIONAL SURVEY MADE:

26. TYPE ELECTRIC AND OTHER LOGS RUN
Induction Electric, Density, Neutron

27. WAS WELL CORED: YES

28. CASING RECORD (*Report all strings set in well*)

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
8 5/8	20 & 24	1193'	12¼	560 sack class A circulated	NONE
5 ½	14 & 15.5	4009'	7 7/8	125 sacks class C 10% salt	NONE

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)
NONE				

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)
2 3/8	3880	3880

31. PERFORATION RECORD (*Interval, size and number*)
Perforated 3947 to 3955 & 3960 to 3964
24 holes

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
3947 to 3964	A 500 MCA - Frac 10,000 KCL wtr. & 10,000 sd.
3901 to 3931	Frac 14,000 KCL wtr. & 12,000# sd

33.* PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD (*Flowing, gas lift, pumping—size and type of pump*)	WELL STATUS (*Producing or shut-in*)
Shut In	Flowing	Shut-In

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD →	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
12-15-70	24	open		5	3215	125 load	643,000 ft/bbl

FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE →	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)
275 psig	Pkr.					

34. DISPOSITION OF GAS (*Sold, used for fuel, vented, etc.*)
Vented during test. Gas will not burn.

TEST WITNESSED BY

35. LIST OF ATTACHMENTS

DEC 21 1970
U. S. GEOLOGICAL SURVEY

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records.

SIGNED W. R. Braley TITLE Engineer DATE 12-18-70

*(See Instructions and Spaces for Additional Data on Reverse Side)

INSTRUCTIONS

General: This form is designed for submitting a complete and correct well completion report and log on all types of lands and leases to either a Federal agency or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office. See instructions on items 22 and 24, and 33, below regarding separate reports for separate completions.
If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments should be listed on this form, see item 35.
Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.
Item 18: Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments.
Items 22 and 24: If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) (if any) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.
Item 29: *"Sacks Cement":* Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool.
Item 33: Submit a separate completion report on this form for each interval to be separately produced. (See instruction for items 22 and 24 above.)

37. SUMMARY OF POROUS ZONES:
SHOW ALL IMPORTANT ZONES OF POROSITY AND CONTENTS THEREOF; CORED INTERVALS; AND ALL DRILL-STEM TESTS, INCLUDING DEPTH INTERVAL TESTED, CUSHION USED, TIME TOOL OPEN, FLOWING AND SHUT-IN PRESSURES, AND RECOVERIES

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.
McCracken Sand	3892	3964	Fracture Sand - Fine to Coarse grained Shaley in part. Cored & Perforated. Gas & Oil.

38. GEOLOGIC MARKERS

NAME	TOP MEAS. DEPTH	TOP TRUE VERT. DEPTH
Hermosa	3056	3056
Mississippian	3656	3656
Devonian	3757	3757
McCracken Sd.	3892	3892
Dark Igneous Rock	3986	3986
Total Depth	4010	4010

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NEW MEXICO OIL CONSERVATION COMMISSION

REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT OIL AND NATURAL GAS

Form C-104
Supersedes Old C-104 and C-110
Effective 1-1-65

RECEIVED
APR 29 1971
OIL CON COM
DIST. 3

I.

Operator: William Gruenerwald & Associates, Inc.

Address: P. O. Box 909; Colorado Springs, Colorado 80901

Reason(s) for filing *(Check proper box)*

New Well ☐ Change in Transporter of:
Recompletion ☐ Oil ☐ Dry Gas ☐
Change in Ownership ☐ Casinghead Gas ☐ Condensate ☑

Other *(Please explain)*: Request 5000 barrel testing allowable

If change of ownership give name and address of previous owner _____

II. DESCRIPTION OF WELL AND LEASE

Lease Name	Well No.	Pool Name, Including Formation	Kind of Lease	Lease No.
Navajo	1	Akah Nez	State, Federal or Fee Navajo	14-20-0603-9923

Location

Unit Letter H ; 1850 Feet From The North Line and 780 Feet From The East

Line of Section 23 Township 23N Range 20W , NMPM, San Juan County

III. DESIGNATION OF TRANSPORTER OF OIL AND NATURAL GAS

Name of Authorized Transporter of Oil ☐ or Condensate ☒	Address *(Give address to which approved copy of this form is to be sent)*
Permian Corp.	Box 3119; Midland, Texas 79701
Name of Authorized Transporter of Casinghead Gas ☐ or Dry Gas ☐	Address *(Give address to which approved copy of this form is to be sent)*
None	

If well produces oil or liquids, give location of tanks.	Unit	Sec.	Twp.	Rge.	Is gas actually connected?	When

If this production is commingled with that from any other lease or pool, give commingling order number: _____

IV. COMPLETION DATA

Designate Type of Completion – (X)	Oil Well	Gas Well	New Well	Workover	Deepen	Plug Back	Same Res'v.	Diff. Res'v.

Date Spudded	Date Compl. Ready to Prod.	Total Depth	P.B.T.D.
Elevations *(DF, RKB, RT, GR, etc.)*	Name of Producing Formation	Top Oil/Gas Pay	Tubing Depth
Perforations			Depth Casing Shoe

TUBING, CASING, AND CEMENTING RECORD

HOLE SIZE	CASING & TUBING SIZE	DEPTH SET	SACKS CEMENT

V. TEST DATA AND REQUEST FOR ALLOWABLE

(Test must be after recovery of total volume of load oil and must be equal to or exceed top allowable for this depth or be for full 24 hours)

OIL WELL

Date First New Oil Run To Tanks	Date of Test	Producing Method *(Flow, pump, gas lift, etc.)*	
Length of Test	Tubing Pressure	Casing Pressure	Choke Size
Actual Prod. During Test	Oil-Bbls.	Water-Bbls.	Gas-MCF

GAS WELL

Actual Prod. Test-MCF/D	Length of Test	Bbls. Condensate/MMCF	Gravity of Condensate
Testing Method *(pitot, back pr.)*	Tubing Pressure (Shut-in)	Casing Pressure (Shut-in)	Choke Size

VI. CERTIFICATE OF COMPLIANCE

I hereby certify that the rules and regulations of the Oil Conservation Commission have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

J. D. Hicks
(Signature)

Pres.; Engineering & Production Service, Inc.
(Title)

4-20-71
(Date)

OIL CONSERVATION COMMISSION

APPROVED 4-29-71, 19__

BY Emery C. Arnold

TITLE Sup. Dist. III

This form is to be filed in compliance with RULE 1104.

If this is a request for allowable for a newly drilled or deepened well, this form must be accompanied by a tabulation of the deviation tests taken on the well in accordance with RULE 111.

All sections of this form must be filled out completely for allowable on new and recompleted wells.

Fill out only Sections I, II, III, and VI for changes of owner, well name or number, or transporter, or other such change of condition.

Separate Forms C-104 must be filed for each pool in multiply completed wells.