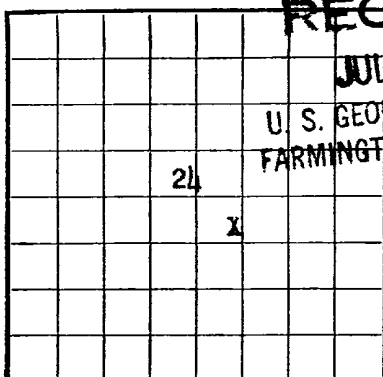


U. S. LAND OFFICE Santa Fe, N. M.
SERIAL NUMBER SF 078064
LEASE OR PERMIT TO PROSPECT _____

LOCATE WELL CORRECTLY

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

LOG OF OIL OR GAS WELL

Company Shell Oil Company Address 101 South Behrend Avenue
Farmington, New Mexico
Lessor or Tract U. S. Government Field Bisti State New Mexico
Carson Unit
Well No. 33-24 Sec. 24 T. 25N R. 12W Meridian NMP County San Juan
Location 1980 ft. N. of S Line and 1980 ft. E. of E Line of Sec. 24 Elevation KB 6465
(Derick shoe relative to sea level)

The information given herewith is a complete and correct record of the well and all work done thereon so far as can be determined from all available records.

Signed _____

Date March 14, 1957Title Exploitation Engineer

The summary on this page is for the condition of the well at above date.

Commenced drilling December 29, 1956 Finished drilling January 10, 1957

OIL OR GAS SANDS OR ZONES

Gross

(Denote gas by G)

No. 1, from 1866 to 4273 No. 4, from _____ to _____
No. 2, from _____ to _____ No. 5, from _____ to _____
No. 3, from _____ to _____ No. 6, from _____ to _____

IMPORTANT WATER SANDS

No. 1, from _____ to _____ No. 3, from None noted to _____
No. 2, from _____ to _____ No. 4, from _____ to _____

CASING RECORD

Size casing	Weight per foot	Threads per inch	Make	Amount	Kind of shoe	Cut and pulled from	Perforated		Purpose
							From—	To—	
8 5/8"	28#	8	-	207'	Baker	-	-	-	Surface Casing
4 1/2"	16#	8	-	501'	Baker	-	-	-	Production
							1866	1874	
							1891	1900	
							1905	1910	
							1923	1920	
							1925	1936	
							1919-1958	and 1965-1973	

MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
8 5/8"	220	100	Displacement	-	-
4 1/2"	5025	200	Displacement	-	-

PLUGS AND ADAPTERS

Cleaned out to _____
Plugging plug—Material Cement Length 1987
Adapters—Material _____ Size _____

SHOOTING RECORD

Size	Shell used	Explosive used	Quantity	Date	Depth shot	Depth cleaned out

TOOLS USED

Rotary tools were used from 0 feet to 5030 feet, and from _____ feet to _____ feet
Cable tools were used from _____ feet to _____ feet, and from _____ feet to _____ feet

DATES

March 14, 1957 Put to producing March 9, 1957

The production for the first 24 hours was 470 barrels of fluid of which 99.9% was oil; _____% emulsion; _____% water; and 0.1% sediment. Gravity 28.20 API

If gas well, cu. ft. per 24 hours _____ Gallons gasoline per 1,000 cu. ft. of gas _____

Rock pressure, lbs. per sq. in. _____

EMPLOYEES

G. L. Rosenbaum, Driller C. E. Phillips, Driller
H. G. Phillips, Driller _____, Driller

FORMATION RECORD

FROM—	TO—	TOTAL FEET	FORMATION
1246	1420	174	Pictured Cliffs
1420	1530	110	Lewis
1530	2094	564	Cliff House
2094	3676	1582	Allison - Menefee
3676	3850	174	Point lookout
3850	4762	912	Mancos
4762	-	-	Gallup

(OVER)

16-48094-4

ALL INFORMATION CONTAINED
HEREIN IS UNCLASSIFIED
DATE 08-29-00 BY SP4MSA

101 South Portland Avenue
 Portland, New Mexico

1. The first step is to identify the problem. This involves understanding the symptoms and the context in which they are occurring.

Chlorine, 1000

2024-05-05 10:10:10

Shell Billing History

10-11-12-13-14-15-16-17-18-19-20-21-22-23-24-25-26-27-28-29-30-31-32-33-34-35-36-37-38-39-40-41-42-43-44-45-46-47-48-49-50-51-52-53-54-55-56-57-58-59-60-61-62-63-64-65-66-67-68-69-70-71-72-73-74-75-76-77-78-79-80-81-82-83-84-85-86-87-88-89-90-91-92-93-94-95-96-97-98-99-100-101-102-103-104-105-106-107-108-109-110-111-112-113-114-115-116-117-118-119-120-121-122-123-124-125-126-127-128-129-130-131-132-133-134-135-136-137-138-139-140-141-142-143-144-145-146-147-148-149-150-151-152-153-154-155-156-157-158-159-160-161-162-163-164-165-166-167-168-169-170-171-172-173-174-175-176-177-178-179-180-181-182-183-184-185-186-187-188-189-190-191-192-193-194-195-196-197-198-199-200-201-202-203-204-205-206-207-208-209-210-211-212-213-214-215-216-217-218-219-220-221-222-223-224-225-226-227-228-229-230-231-232-233-234-235-236-237-238-239-240-241-242-243-244-245-246-247-248-249-250-251-252-253-254-255-256-257-258-259-260-261-262-263-264-265-266-267-268-269-270-271-272-273-274-275-276-277-278-279-280-281-282-283-284-285-286-287-288-289-290-291-292-293-294-295-296-297-298-299-300-301-302-303-304-305-306-307-308-309-310-311-312-313-314-315-316-317-318-319-320-321-322-323-324-325-326-327-328-329-330-331-332-333-334-335-336-337-338-339-340-341-342-343-344-345-346-347-348-349-350-351-352-353-354-355-356-357-358-359-360-361-362-363-364-365-366-367-368-369-370-371-372-373-374-375-376-377-378-379-380-381-382-383-384-385-386-387-388-389-390-391-392-393-394-395-396-397-398-399-400-401-402-403-404-405-406-407-408-409-410-411-412-413-414-415-416-417-418-419-420-421-422-423-424-425-426-427-428-429-430-431-432-433-434-435-436-437-438-439-440-441-442-443-444-445-446-447-448-449-450-451-452-453-454-455-456-457-458-459-460-461-462-463-464-465-466-467-468-469-470-471-472-473-474-475-476-477-478-479-480-481-482-483-484-485-486-487-488-489-490-491-492-493-494-495-496-497-498-499-500-501-502-503-504-505-506-507-508-509-510-511-512-513-514-515-516-517-518-519-520-521-522-523-524-525-526-527-528-529-530-531-532-533-534-535-536-537-538-539-540-541-542-543-544-545-546-547-548-549-550-551-552-553-554-555-556-557-558-559-560-561-562-563-564-565-566-567-568-569-570-571-572-573-574-575-576-577-578-579-580-581-582-583-584-585-586-587-588-589-590-591-592-593-594-595-596-597-598-599-600-601-602-603-604-605-606-607-608-609-610-611-612-613-614-615-616-617-618-619-620-621-622-623-624-625-626-627-628-629-630-631-632-633-634-635-636-637-638-639-640-641-642-643-644-645-646-647-648-649-650-651-652-653-654-655-656-657-658-659-660-661-662-663-664-665-666-667-668-669-670-671-672-673-674-675-676-677-678-679-680-681-682-683-684-685-686-687-688-689-690-691-692-693-694-695-696-697-698-699-700-701-702-703-704-705-706-707-708-709-710-711-712-713-714-715-716-717-718-719-720-721-722-723-724-725-726-727-728-729-730-731-732-733-734-735-736-737-738-739-740-741-742-743-744-745-746-747-748-749-750-751-752-753-754-755-756-757-758-759-760-761-762-763-764-765-766-767-768-769-770-771-772-773-774-775-776-777-778-779-780-781-782-783-784-785-786-787-788-789-790-791-792-793-794-795-796-797-798-799-800-801-802-803-804-805-806-807-808-809-810-811-812-813-814-815-816-817-818-819-820-821-822-823-824-825-826-827-828-829-830-831-832-833-834-835-836-837-838-839-840-841-842-843-844-845-846-847-848-849-850-851-852-853-854-855-856-857-858-859-860-861-862-863-864-865-866-867-868-869-870-871-872-873-874-875-876-877-878-879-880-881-882-883-884-885-886-887-888-889-890-891-892-893-894-895-896-897-898-899-900-901-902-903-904-905-906-907-908-909-910-911-912-913-914-915-916-917-918-919-920-921-922-923-924-925-926-927-928-929-930-931-932-933-934-935-936-937-938-939-940-941-942-943-944-945-946-947-948-949-950-951-952-953-954-955-956-957-958-959-960-961-962-963-964-965-966-967-968-969-970-971-972-973-974-975-976-977-978-979-980-981-982-983-984-985-986-987-988-989-990-991-992-993-994-995-996-997-998-999-1000-1001-1002-1003-1004-1005-1006-1007-1008-1009-1010-1011-1012-1013-1014-1015-1016-1017-1018-1019-1020-1021-1022-1023-1024-1025-1026-1027-1028-1029-1030-1031-1032-1033-1034-1035-1036-1037-1038-1039-1040-1041-1042-1043-1044

HISTORY OF OIL OR GAS WELL

U. S. GOVERNMENT PRINTING OFFICE

FROM—	TO—	TOTAL FEET	FORMATION
			FORMATION

FORMATION RECORD—Continued

505-255-1111

SHELL OIL COMPANY

WELL NO. 33-24

Bisti - Carson Unit

DRILLING REPORT

FOR PERIOD ENDING

December 31, 1956

24

(SECTION OR LEASE)

T. 25 N., R. 12 W.

(TOWNSHIP OR RANCHO)

(FIELD)

San Juan, New Mexico

(COUNTY)

DAY	DEPTHS		REMARKS
	FROM	TO	
56			
12-29	0	246	<u>Location:</u> 1980' N. and 1980' W. from Southeast corner, Section 24, T. 25 N., R. 12 W., N.M.P.M. San Juan County, New Mexico. Elevations: MAT 6452.4' DF 6462.6' KB 6464.5' Drilled 246'. Spudded 12-1/4" surface hole, 12:30 P.M. 12-29-56. Ran and cemented 5 joints (207') 8-5/8", 28#, H-40 casing set at 220' with 150 sacks treated construction cement.
12-30 to 12-31	246	2525	Drilled 2279'. Pressure tested casing and blowout equipment with 700 psi, OK. Checked BOP daily.

CONDITION AT BEGINNING OF PERIOD				
HOLE			CASING SIZE	DEPTH SET
SIZE	FROM	TO		

DRILL PIPE SIZES



J. R. Anklaam

SIGNED

SHELL OIL COMPANY

WELL NO. 33-24

DRILLING REPORT

FOR PERIOD ENDING

January 12, 1957

Bisti - Carson Unit

(FIELD)

San Juan, New Mexico

(COUNTY)

24

(SECTION OR LEASE)

T. 25 N., R. 12 W.

(TOWNSHIP OR RANCHO)

DAY 57	DEPTHS		REMARKS
	FROM	TO	
1-1 to 1-6	2525	4730	<u>Drilled 2205'</u> . Treated mud with Quebracho, soda ash and gel.
1-7 to 1-8	4730	4894	<u>Drilled 111'</u> . <u>Cored 53'</u> . Cut core #1 4840-4866 and Core #2 4866-4893. Core bbl jammed. Treated mud with Quebracho soda ash and gel.
1-9 to 1-10	4894	5030	<u>Drilled 36'</u> <u>Cored 100'</u> , Cut core #3 4894-4944' and Core #4 4944-4994'. Ran Schlumberger Electrical Survey and Microlog.
1-11 to 1-12	5030	T.D.	Ran and cemented 181 joints (5014') 4-1/2" drill pipe as casing at 5025' with 200 sacks construction cement. Tested plug with 1500 psi, OK. Hung 2" tubing at 4963'. Displaced mud with oil. Released rig at 1:00 A.M. 1-12-57. Checked BOP daily. <u>Mud Summary</u> Wt 9.9 - 9.4 #/gal Vis 38-60 sec W.L. 8-10.2 cc F.C. 2-3/32 "

CONDITION AT BEGINNING OF PERIOD				
HOLE			CASING SIZE	DEPTH SET
SIZE	FROM	TO		
12-1/4"	0	246	8-5/8"	220'
7-7/8"	246	2525		
DRILL PIPE SIZES				
4-1/2"				

The New Drilling Company

Pusher: R. C. Melius

 Drillers: G. L. Rosenbaum
 H. G. Phillips
 C. E. Phillips

J. R. Arklam

SIGNED

Bisti - Carson Unit

(FIELD)

San Juan, New Mexico

(COUNTY)

DRILLING REPORT

FOR PERIOD ENDING

March 9, 1957

24

(SECTION OR LEASE)

T25N, R12W

(TOWNSHIP OR RANGE)

DAY	DEPTHS		REMARKS
	FROM	TO	
3-4	5030 4987	TD Plug	Ran Gamma Ray Log with collar locator. Perforated four $\frac{1}{2}$ " jets/ft 4866-4874, 4894-4900, 4905-4910, 4913-4920, 4925-4936, 4949-4958 and 4965-4973. Attempted to run tubing, hung up at 4967'. Ran tubing to 4943. Swabbed 6 hours recovered 47 bbls fluid.
3-5			<u>Fracture Treatment #1.</u> Broke down formation with 110 bbls crude oil at 3200 psi. Injected 27,770 gal crude oil with 2# sand/gal. Maximum pressure 3350 psi, minimum pressure 3200 psi. Average injection rate 31.5 bbl/min. Displaced and overflushed with 200 bbl crude oil. Shut in pressure 1000 psi after 5 minutes. Total load and frac oil to recover 1070 bbls.
3-6			Located top of sand fill at 4974'. Ran tubing to 4943'. Started swabbing 7:00 PM. Started flowing 7:00 PM. Flowed 11 hours, 349 bbl (761 B/D rate), GOR 78 (6 hrs), gas 60 MCF/D (6 hrs), cut 0.2%.
3-8			Well died 6:00 AM. Swabbed. Started flowing. Flowed 24.5 hrs, 691 bbls gross.
3-9			Flowed 25 hrs. 490 bbls gross. (Recovered all load and frac oil (1070 bbls) plus 735 bbls new oil. <u>INITIAL PRODUCTION</u> Flowing, 470 B/D gross, 470 B/D oil, cut 0.1%, 48/64" bean, 293 MCF/D, GOR 620, TP 100. Officially completed 3-9-57.

CONDITION AT BEGINNING OF PERIOD				
HOLE			CASING SIZE	DEPTH SET
SIZE	FROM	TO		
12-1/4"	0	246	8-5/8"	220'
7-7/8"	246	5030	4-1/2"	5025'
DRILL PIPE SIZES 4 1/2				

SHELL OIL COMPANY

AREA OR FIELD Bisti

WEEK ENDING

CORE FROM 4840 TO

COMPANY Shell Oil

CORE RECORD

CORES EXAMINED BY R. W. Olsen

LEASE AND WELL NO Carson Unit 33

NO.	FROM	TO	RECOVERED	FORMATIONAL, STRUCTURAL AND PROBABLE PRODUCTIVITY DESCRIPTION OF CORE	SYMBOL	OBSERVED DIP	CORE INDICATIONS	
							OIL - GAS	CORE OR DITCH
1	4840	4866	27'	Interbedded sandstone, siltstone, interbedded and mottled light to dark gray, argillaceous, slightly calcareous, slightly micaceous, local carbonaceous fragments up to 2" diameter, trace fossil material. Cross-bedded, lenticular, well indurated, low permeability and porosity. Sandstone, light gray, fine-very fine grained. <u>Siltstone</u> , dark gray to black, slightly pyritic.				
	4860	4860	20'					
	4860	4865	5'	<u>Sandstone</u> , light-medium brown, slightly mottled dark gray, fine-medium grained, very slightly calcareous, argillaceous, fair sorting, fair permeability and porosity. Composed predominantly of quartzite with trace mica, chlorite (?), glauconite(?), top 1.5' contains common sub-rounded lithic pebbles, average 1/4" diameter.			<u>Good petroleum odor</u> <u>Good staining, trace</u> <u>yellow spotty fluorescence, bright</u> <u>yellow cut fluorescence</u>	
	4865	4865	1'	<u>Sandstone</u> , mottled medium brown and gray, very fine grained, slightly calcareous, common argillaceous cement, locally very silty, locally irregular areas of gray siltstone and shale, fair sorting, well indurated, probable low permeability and porosity. Local worm borings. Common cross-bedding.			<u>Fair petroleum odor</u> <u>locally fair stain</u> <u>trace spotty fluorescence, fair yell</u> <u>cut fluorescence.</u>	

SYMBOLS: C-CLAY OR SHALE (SAND 0-5%), 1-CLAY OR SHALE WITH SAND STREAKS (SAND 5-25%), 2-CLAY OR SHALE AND SAND (SAND 25-60%), 3-SAND WITH SHALE STREAKS (SAND 60-90%), S-SAND (90-100%).
NOTE: SHOW FLUID CONTENT AS IN STANDARD LEGEND.

SHELL OIL COMPANY

AREA OR FIELD Bisti

WEEK ENDING _____

CORE FROM 4866 TO 4893COMPANY Shell Oil

CORE RECORD

CORES EXAMINED BY R. W. OlsenLEASE AND WELL NO. Carson Unit 33-24

FROM	TO	RECOVERED	FORMATIONAL, STRUCTURAL AND PROBABLE PRODUCTIVITY DESCRIPTION OF CORE	SYMBOL	OBSERVED DIP	CORE	
						INDICATIONS OIL - GAS	CORE OR DITCH
<u>4866</u>	<u>4893</u>	<u>27'</u>					
<u>4866</u>	<u>4887</u>	<u>21'</u>	<u>Sandstone</u> , as above.				
<u>4887</u>	<u>4888</u>	<u>1'</u>	<u>Sandstone</u> , mottled light gray and medium gray, fine-coarse grained, angular to rounded grains, slightly calcareous, argillaceous, fair sorting, slightly friable. Local irregular patches dark gray siltstone.				<u>As above</u>
<u>4888</u>	<u>4893</u>	<u>5'</u>	<u>Sandstone</u> , light brown, fine-very fine grained, slightly calcareous and argillaceous, non-carbonaceous material, fairly well sorted, slightly friable, good permeability and porosity. Rare silty or shaly beds up to 6" (with no shows).			Good petroleum odor, slight oil staining, fair spotty fluorescence, bright yellow cut fluorescence	

SYMBOLS: C-CLAY OR SHALE (SAND 0-5%). 1-CLAY OR SHALE WITH SAND STREAKS (SAND 5-25%). 2-CLAY OR SHALE AND SAND (SAND 25-60%). 3-SAND WITH SHALE STREAKS (SAND 60-90%). S-SAND (90-100%).
 NOTE: SHOW FLUID CONTENT AS IN STANDARD LEGEND.

SHELL OIL COMPANY

B1st1

AREA OR FIELD

B1st1

CORE RECORD

WEEK ENDING 4894 TO 4944

COMPANY Shell Oil

LEASE AND WELL NO Carson Unit 33-24

CORES EXAMINED BY R. W. Olsen

FROM	TO	RECOVERED	FORMATIONAL, STRUCTURAL AND PROBABLE PRODUCTIVITY DESCRIPTION OF CORE	SYMBOL	OBSERVED DIP	CORE	
						INDICATIONS OIL - GAS	CORE OR DITCH
4894	4944	50'					
4894	4904	10'	<u>Sandstone</u> , as above.				As above
4904	4906	2'	<u>Sandstone</u> , medium to dark gray, calcareous, very fine grained, trace fine-medium, very argillaceous and silty.				
4906	4912	6'	<u>Sandstone</u> , light brown, very fine grained, very slightly calcareous, locally argillaceous cement, well sorted, slightly friable, good permeability and porosity. Composed predominantly of quartzite, trace mica, feldspars, pyrite, chlorite, carbonaceous material. Local worm borings. Local very silty or shaly beds up to 6" with no shows.				Good petroleum odor, good brown staining, fair spotty fluorescence, bright yellow cut fluorescence.
4912	4916	4'	<u>Interbedded sandstone & siltstone</u> , as above.				Trace oil staining in sands, poor spotty fluorescence, and cut fluorescence
4916	4925	9'	<u>Sandstone</u> , light brown, mottled, light gray, fine-very fine grained, slightly calcareous and argillaceous, well sorted, slightly friable, fair-good permeability and porosity. Local irregular patches, dark gray, silty material (probable worm borings)				Fair-poor staining, poor spotty fluorescence, fair to good cut fluorescence.
4925	4926.5	1.5'	<u>Interbedded sandstone and siltstone</u> , as above.				As above
4926.5	4928	1.5'	<u>Sandstone</u> , as above.				
4928	4944	16'	<u>Sandstone</u> , mottled light brown, light gray to dark gray, very fine grained, calcareous, very silty and argillaceous, very common irregular shale and siltstone inclusions, very common worm borings. Well cemented, low permeability and porosity. Trace carbonaceous material.				Local irregular weak show, fair staining, fair petroleum odor, poor spotty fluorescence

SYMBOLS: C-CLAY OR SHALE (SAND 0-5%). 1-CLAY OR SHALE WITH SAND STREAKS (SAND 5-25%). 2-CLAY OR SHALE AND SAND (SAND 25-60%). 3-SAND WITH SHALE STREAKS (SAND 60-90%). 5-SAND CUTTING FLUORESCENCE
NOTE: SHOW FLUID CONTENT AS IN STANDARD LEGEND.

SHELL OIL COMPANY

Bistl

WEEK ENDING

AREA OR FIELD

CORE FROM 4944 TO 4994

COMPANY Shell Oil

CORE RECORD

CORES EXAMINED BY R. W. Olsen

LEASE AND WELL NO Carson Unit 33-24

FROM	TO	RECOVERED	FORMATIONAL, STRUCTURAL AND PROBABLE PRODUCTIVITY DESCRIPTION OF CORE	SYMBOL	OBSERVED DIP	CORE	
						INDICATIONS OIL-GAS	CORE OR DITCH
4944	4994	50'					
1994	4953	9'	Sandstone, mottled light brown, light gray to medium gray, very fine grained, argillaceous, slightly calcareous, very slightly friable, fair permeability and porosity. Local irregular patches shaly and silty material, fairly common worm borings.				Fair petroleum odor, fair irregular staining, fair spotty fl., good cut fl.
4953	4958	5'	Sandstone, as above.				
4958	4968	10'	Sandstone, as above.				
4968	4994	26'	Sandstone, medium to dark brownish gray, fine to very fine grained, very argillaceous, slightly calcareous, common finely disseminated carbonaceous material and pyrite, very low permeability and porosity. Very common worm borings, irregular patches black siltstone and shale.				Rare irregular patches staining with weak spotty fl. and cut fl.

SYMBOLS: C-CLAY OR SHALE (SAND 0-5%). 1-CLAY OR SHALE WITH SAND STREAKS (SAND 5-25%). 2-CLAY OR SHALE AND SAND (SAND 25-60%). 3-SAND WITH SHALE STREAKS (SAND 60-90%). S-SAND (90-100%).
NOTE: SHOW FLUID CONTENT AS IN STANDARD LEGEND.