

CITIES SERVICE COMPANY

BOX 300  
TULSA, OKLAHOMA 74102

October 15, 1981

Mr. John H. Lichtblau, President  
Petroleum Industry Research Foundation, Inc.  
122 East 42nd Street  
New York, N.Y. 10168

Dear Mr. Lichtblau:

Please refer to your letter of September 17, 1981 to Mr. Charles J. Waidelich transmitting the questionnaire for the U.S. Oil and Gas Exploration Survey. Our completed questionnaire is attached.

Very truly yours,



Stell Meador, Controller  
Energy Resources Group

mm

Attachments

NAME OF COMPANY: Cities Service Company

NAME OF INDIVIDUAL CONTACT:

TELEPHONE:

Please report all data on a net company interest basis. Include natural gas liquids with crude oil and lease condensate figures. Section B requests data on changes in proved oil and gas reserves (both developed and undeveloped) analogous to that currently provided in the Securities and Exchange Commission. Reports and to the Securities and Exchange Commission. Please report the reserves data consistently with those reports. Section B directly references selected items of the Bureau of the Census Form MA-13K, "Annual Survey of Oil and Gas." In filling out Section C data previously reported to the Bureau of the Census on Form MA-13K to the extent possible. In reporting "Drilling Activity" information basis consistent with reports on the MA-13K for 1977-1980. Section C requests data on holdings of oil and gas acreage. See other

SECTION A

TOTAL UNITED STATES, NET COMPANY INT

	1980	1979	1978	1977
I. PROVED CRUDE OIL, CONDENSATE AND NATURAL GAS LIQUIDS RESERVES, DEVELOPED AND UNDEVELOPED, IN THOUSANDS OF BARRELS	XXXXXXX	XXXXXXX	XXXXXXX	XXXXXXX
A. Total Proved Reserves at January 1	(1,391)	1,728	9,600	6,02
B. Revisions of Earlier Estimates	3,800	1,300	2,700	1,70
C. Improved Recovery	6,619	11,829	9,300	16,67
D. Extensions, Discoveries and Other Additions	(33,791)	(35,828)	(38,800)	(41,00)
E. Production				
F. Net Change Due to Purchases (Sales) of Proved Reserves	81	271	-0-	10
G. Total Proved Reserves at December 31 (1)	339,518	364,200	384,900	402,10
II. PROVED NATURAL GAS RESERVES, DEVELOPED AND UNDEVELOPED, IN MILLIONS OF CUBIC FEET	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX
A. Total Proved Reserves at January 1	(108,300)	(5,700)	(64,300)	(109,11
B. Revisions of Earlier Estimates	800	400	1,700	30
C. Improved Recovery	146,076	242,588	288,200	152,40
D. Extensions, Discoveries and Other Additions	(296,900)	(316,100)	(331,500)	(335,55
E. Production				
F. Net Change Due to Purchases (Sales) of Proved Reserves	24	1,712	-0-	(1,79
G. Total Proved Reserves at December 31 (2)	2,939,100	3,197,400	3,274,500	3,380,40

1) Natural Gas Liquids Included (Leasehold Reserves Only) 40,073 47,136 52,126 55,40

2) Natural Gas Reserves Are Reported On A Wet Gas Basis. Approximately 5% Of The Company's Annual Gas Production Is Consumed Due to Shrinkage In The Extraction of Natural Gas Liquids.

Section A of this questionnaire is provided in company Annual Report B of this questionnaire. If you have information for 1976, use a separate sheet of paper for notes on page 4.

INTEREST BASIS	1976
461,388	
(6,588)	
1,700	
5,480	
(43,500)	
120	
418,600	
3,858,459	
8,872	
151	
176,587	
(370,069)	
85	
3,674,085	
50,434	

NAME OF COMPANY:

Cities Service Company

SECTION B

These questions correspond directly to the referenced items in the Bureau of the Census Form M-100, the data previously reported to the Bureau of the Census on that form, to the extent possible.

TOTAL UNITED STATES

Form MA-13K Reference Line Item #	A. Total Exploration Expenditures	1980		1979	
		On-shore	Off-shore	On-shore	Off-shore
111. EXPENDITURES, CAPITALIZED AND EXPENSED, IN THOUSANDS OF DOLLARS					
Form MA-13K					
13 III.A. A. Total Exploration Expenditures	429,766			279,895	
14 III.A.1. 1. Total drilling and equipping wells		206,220		139,900	
15 III.B. B. Total Development Expenditures	171,410			138,854	
16 III.B.1. 1. Total drilling and equipping wells	114,677			95,134	
IV. DRILLING ACTIVITY: PHYSICAL DATA FOR WELLS COMPLETED DURING THE YEAR, NUMBER OF WELLS AND THOUSANDS OF FEET DRILLED					
Form MA-13K					
Reference					
Line Item #	A. Exploration				
	1. Dry holes				
60 VI.A.1.a. a. Number of wells	59.9		5.4	52.4	4.1
61 VI.A.1.b. b. Total footage drilled	450.		55.	401.	53.
62 VI.A.2.a 2. Oil wells					
a. Number of wells	70.9		1.3	38.7	3.8
b. Total footage drilled	395.		11.	246.	26.
63 VI.A.2.b. 3. Gas wells					
a. Number of wells	63.1		4.3	75.3	5.2
b. Total footage drilled	452.		46.	408.	36.
64 VI.A.3.a. B. Development					
b. Total footage drilled	452.		46.	408.	36.
65 VI.A.3.b. 1. Dry holes					
a. Number of wells	6.8		.6	8.0	.2
b. Total footage drilled	26.		6.	89.	5.
66 VI.B.1.b. 2. Oil wells					
a. Number of wells	72.3		4.5	39.9	2.2
b. Total footage drilled	122.		29.	67.	8.
68 VI.B.2.a. 3. Gas wells					
a. Number of wells	20.9		3.4	35.3	3.4
b. Total footage drilled	223.		30.	331.	27.
69 VI.B.2.b. Total footage drilled					
70 VI.B.3.a. Total footage drilled					
71 VI.B.3.b. Total footage drilled					



ON C

AL UNITED STATES, NET COMPANY INTEREST BASIS

	1979	1978	1977	1976
	2,000	1,700	1,700	1,600
	10,000	10,100	9,300	10,900
	12,000	11,800	11,000	12,500
	-0-	-0-	-0-	-0-
	140	127	108	184
	140	127	108	184

Questions concerning this survey, please contact

Henry J. Trench  
 Petroleum Industry Research Foundation, Inc.  
 2 East 42nd Street  
 New York, N.Y. 10168  
 (212) 867-0052

on the questionnaire or explanatory notes on your  
 attach a separate sheet.

ated questionnaire to the address above no later  
 an October 19, 1981.

Net Company Interest Basis: Consistent accounting practices include the interest and subsidiaries, according to your standard without regard to the operator's identification.

Proved Reserves and Related Questions: Terminology has been chosen based on data to shareholders, and should not deviate from other standard industry practices.

Expenditures, Capitalized and Expensed:

Total Exploration Expenditures - Repeat the Bureau of the Census on Line 13 of the year. This figure includes expenditures for equipping wells" (Line 14 of Form MA-1 of non-producing acreage" (Line 19), "scouting" (Line 20), "Geological and rents" (Line 22), "Test hole contributions" (Line 24), "exploration expenditures" (Line 24), "overhead" allocable to exploration and excludes depletion, depreciation and depreciation might be included as an administrative overhead.

Total Drilling and Equipping Wells reported to the Bureau of the Census the appropriate year.

Total Development Expenditures - Repeat to the Bureau of the Census on Line 2 of the appropriate year. This figure includes expenditures for equipping wells" (Line 27), "Leasing and land acquisitions of producing areas and improved recovery programs" (Line 28) and improved recovery overhead" (Line 29), including direct overhead" (Line 30) administrative overhead" allocable to development. Total Drilling and Equipping Wells reported to the Bureau of the Census the appropriate year.

## NOTES

**Basis:** Consistent with your company's historical interests of your company, affiliates, including the operator's identity. Report according to your share in a given operation.

**Related Questions:** Use accepted industry definitions. An chosen based on industry practice in reporting, and should not be construed as deliberately per standard industry methods of reporting.

lized and Expensed:

penditures - Repeat the amount previously reported on Line 13 of Form MA-13K for the appropriate includes expenditures for "Total drilling and Line 14 of Form MA-13K), "Lease and land acquisitions acreage" (Line 19), "Land department, leasing and ", "Geological and geophysical" (Line 21), "Lease "Test hole contributions" (Line 23), "Other itures" (Line 24), and "General and administrative to exploration activities (Line 25). The figure, depreciation and amortization, except as be included as an element in general and head.

nd Equipping Wells - Repeat the amount previously au of the Census on Line 14 of Form MA-13K for ar.

penditures - Repeat the amount previously reported the Census on Line 26 of Form MA-13K for the appropriate figure includes expenditures for "Total drilling s" (Line 27), "Lease equipment" (Line 32), "Lease ons of producing acreage" (Line 33), "Fluid injection ery programs" (Line 34), "Other development expend- direct overhead" (Line 35), and "General and admin- " allocable to development activities (Line 36). and Equipping Wells - Repeat the amount previously Bureau of the Census on Line 27 of Form MA-13K for ear.

**Drilling Activity:** Aggregate the data previously reported to the Bureau of the Census on Form MA-13K for the appropriate year, as shown below. Report 1976 on a consistent basis.

To aggregate, add the reported figure in column d of the MA-13K ("Alaska Onshore") to the figure in column f ("Lower 48, Onshore"); report the sum as "Onshore" for the appropriate year. Similarly, add the figure in column g ("Alaska, Offshore") to the figure in column g ("Lower 48, Offshore"); report the sum as "Offshore" for the appropriate year. The sum of the figures reported to us as "Onshore" and "Offshore" should equal your total U.S. drilling completions.

Offshore - Offshore is defined for the purposes of the MA-13K to include leases seaward from the coastline. In general, the term "coastline" means the line of ordinary low water along that portion of the coast which is in direct contact with the open sea and the line marking the seaward limit of inland waters. For Louisiana the coastline is defined as the "Chapman Line" as modified by subsequent adjudication. For Alaska, offshore is defined as including Cook Inlet.

For the purposes of this questionnaire and the Form MA-13K the classification of exploratory and development wells and expenditures should be based on the AAPG well classifications as follows:

Exploratory wells include new-field wildcats, new-pool wildcats, deeper pool tests, shallower-pool tests, and outposts (extensions).

Development wells are those wells drilled to produce oil or gas from pools discovered by previous drilling.

Wells completely successfully in both oil and gas reservoirs should be reported as oil wells. Classification of completed wells as between oil and gas should be based on the appropriate State regulatory requirements.

**Farm-Out Agreement:** An agreement by which drilling rights for a given lease or portion thereof are assigned by the lease holder to another party.

Report the net interest in acreage assigned under farm-out agreement without regard to whether you retain an overriding royalty or production payment.