

6 Petroleum and natural gas, salt and miscellaneous non-metalliferous mining and quarrying

This Report on the Petroleum and Natural Gas and Salt and Miscellaneous Non-metalliferous Mining and Quarrying Industry relates to establishments engaged wholly or mainly in extracting and refining salt (at mine or pit) and salt processing and packing; mining or quarrying alum, barytes, graphite, gypsum and fluorspar etc; exploration (including boring) for and extracting petroleum on land and off-shore (including drilling contractors with offices in the UK); mining oil shale (including oil shale retorting). Petroleum includes natural gas and natural gas condensates. Producers' off-shore pipe lines are included but land pipe line terminals owned by associated companies or the Gas Council are excluded.

This industry corresponds to minimum list headings 104, 109(3) and 109(4) in the Standard Industrial Classification (Revised 1968) which has been used for the first time as a basis of classification in the 1968 Census. The definition of this industry however is unchanged from the last detailed Census of Production for 1963 in which it was reported (Part 6) except that there was only a small amount of petroleum and natural gas included in the 1963 Report on this industry.

Pits and quarries operated by establishments in the Miscellaneous Building Materials and Mineral Products Industry are not included in this Report unless they had their own separate set of accounts.

Mining and quarrying industries were excluded from the censuses for 1963 and 1968 taken in Northern Ireland and this Report relates, therefore, only to Great Britain in respect of land operations. For off-shore operations this Report relates to the United Kingdom part of the continental shelf.

In interpreting the data in the tables it is essential to bear in mind the notes and definitions which appear on pages (i) to (iv).

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- (d) Sales of products are valued at ex-mine or ex-works prices, the cost of transport being shown separately, but, for 1968, sales in the Petroleum and Natural Gas sector of this report are valued on an ex-works or delivered basis.
- (e) Including services rendered to other organisations (amounts charged for hiring out plant, machinery or other goods, for providing transport, or for technical or other services rendered).
- (f) Administrative, technical and clerical employees.
- (g) Excluding expenditure for establishments not yet in production.
- (h) Acquisitions less disposals.

TABLE 1 Industry summary, 1963 and 1968
Great Britain (a) (b) (c)

	Unit	All establishments		
		1963	1968	
Number of enterprises	No.	39	57	
Number of establishments	"	64	73	
Gross output	£'000	26,654	42,226	
Net output	"	17,235	27,794	
Net output per head	£	2,793	6,931	
Sales and work done	{ goods produced and work done (d) (e)	£'000	22,611	35,153
	{ merchanted goods and canteen takings	"	746	1,482
Purchases	{ materials for use in production and packaging and fuel	"	6,423	7,131
	{ goods for merchenting and canteen purchases	"	665	1,403
Payments to other organisations	{ for work done on materials given out for transport	"	5	24
	{ inwards on materials and fuel purchased	"	14	48
	{ outwards on goods sold	"	2,587	3,980
{ by road	"	1,648		
Value of outwards transport carried out by establishments own employees on goods sold, by road, by rail, including that over private railway lines	{ by rail or other means (excluding postal services)	"		
		"	636	310
Total stocks	{ change during year	"	+ 348	- 543
	{ at end of year	"	2,188	2,651
Goods on hand for sale	{ change during year	"	+ 74	- 346
	{ at end of year	"	581	383
Materials, stores and fuel	{ change during year	"	+ 274	- 197
	{ at end of year	"	1,607	2,268
Number employed on average during the year	{ total, including working proprietors	Th.	6.2	4.0
	{ operatives	"	4.5	3.0
	{ other employees (f)	"	1.7	0.9
Wages and salaries	{ of operatives	£'000	3,496	3,727
	{ of other employees (f)	"	1,746	1,619
Capital expenditure (g)	Total	"	2,088	13,361
	New building work	"	552	159
Land and existing buildings (h)	"	- 72	- 1	
Plant and machinery (h)	"	1,531	13,139	
Vehicles (h)	"	78	63	

- (a) See fourth paragraph of the introduction to this report.
- (b) For 1968, estimates for establishments not making satisfactory returns and for small establishments, from which only employment data were collected, accounted for 9 per cent. of the total figures in which they were incorporated: of this, unsatisfactory returns accounted for less than 1 per cent. For 1963 small establishments from which only employment data were collected accounted for 3 per cent. There were no unsatisfactory returns.
- (c) The following information relates to small establishments (employing fewer than 25 persons) in this industry. For 1968 it includes an estimate for small establishments not making satisfactory returns.

	1963	1968
Number of establishments	29	47
Average number employed:		
Working proprietors	24	35
Other persons employed	186	316

Footnotes continued on page 6/2.

TABLE 2 Analysis by size of establishment within the industry, 1968

(i) Output and employment

All establishments: Great Britain (a)

Number employed on average during the year by the establishment (b)	Estab-lish-ments	Enter-prises (c)	Total number employed on average during the year (b)	Gross output	Net output	Net output per head
	Number	Number	Number	£'000	£'000	£
1-5	25	24	78	..	..	..
6-10	6	6	47	..	..	..
11-24	14	11	222	..	..	..
25-99	17	16	873	14,403	12,250	14,032
100-199	6	4	893	4,695	2,265	2,537
200 and over	3	3	1,893	19,717	11,794	6,231
Unsatisfactory returns	2	2	4	..	..	..
Total	73	57	4,010	42,226(d)	27,794(d)	6,931(d)

(ii) Employees, wages and salaries

All establishments: Great Britain (a)

Number employed on average during the year by the establishment (b)	Employees		Wages and salaries		Wages and salaries per head	
	Oper-atives	Others (e)	Oper-atives	Others (e)	Oper-atives	Others (e)
	Number	Number	£'000	£'000	£	£
1-5	..	..	..	..	..	..
6-10	..	..	..	..	..	..
11-24	..	..	..	..	..	..
25-99	713	147	922	168	1,293	1,145
100-199	712	181	799	185	1,122	1,024
200 and over	1,334	557	1,705	1,173	1,278	2,106
Unsatisfactory returns	..	..	..	..	..	..
Total	3,013(d)	948(d)	3,727(d)	1,619(d)	1,237(d)	1,708(d)

(a) See fourth paragraph of the introduction to this report.

(b) Including working proprietors.

(c) The sum of the figures for the size groups exceeds the total for the industry to the extent that enterprises made returns for establishments in more than one size group.

(d) Including estimates for establishments employing fewer than 25 persons and for establishments not making satisfactory returns.

(e) Administrative, technical and clerical employees.

TABLE 3 Percentage analysis of employees, by age and sex, 1969 (a)

All establishments: Great Britain (b)

Ages	Males	Females	All employees
	Per cent.	Per cent.	Per cent.
Under 18	1	1	2
18 and over	87	11	98
All ages	88	12	100

Source: Department of Employment

(a) The percentages relate to the numbers employed (excluding working proprietors) in the 'Petroleum and natural gas and other mining and quarrying industries' - minimum list headings 104 and 109 - at June 1969, the earliest date for which the information is available on the basis of the Standard Industrial Classification (Revised 1968).

(b) See fourth paragraph of the introduction to this report.

Footnotes to Table 4.

(a) See fourth paragraph of the introduction to this report.

(b) Some establishments employing fewer than 25 persons were included in returns for larger establishments. These amounted to 1 establishment in 1968 and 7 in 1963.

(c) The method of classifying returns to sub-divisions of the industry is explained in the notes; the characteristic products of each sub-division are identified in Table 5.

(d) Sales of products are valued at ex-mine or ex-works prices, the cost of transport being shown separately, but for 1968, sales in the Petroleum and Natural Gas sector of this report are valued on an ex-works or delivered basis.

(e) Including services rendered to other organisations (amounts charged for hiring out plant, machinery or other goods, for providing transport, or for technical or other services rendered).

(f) Characteristic products relate only to sub-divisions of the industry.

(g) For sub-divisions of the industry, this is the ratio of sales of characteristic products to total sales of goods produced and work done. For the industry as a whole, this is the ratio of total sales of principal products by the industry to total sales of goods produced and work done.

(h) Administrative, technical and clerical employees.

(i) Excluding expenditure for establishments not yet in production.

(j) Acquisitions less disposals.

TABLE 4 Analysis of larger establishments, 1963 and 1968

Establishments employing 25 or more persons: Analysis of returns received, Great Britain (a)(b)

	Unit	Sub-divisions of the industry (c)		Total	
		Salt and miscellaneous non-metalliferous mining and quarrying 30, 40	Petroleum and natural gas 50		
		1968	1968	1963	1968
Number of enterprises	No.	12	6	18	18
Number of establishments	"	20	7	42	27
Gross output	£'000	22,611	16,984	25,943	39,595
Net output	"	12,711	13,605	16,768	26,315
Net output per head	£	4,262	19,978	2,789	7,184
Sales and work done	£'000	16,966	16,213	22,004	33,179
{ goods produced and work done (d) (e)	"	1,327	-	725	1,327
{ merchanted goods and canteen takings	"	16,593	16,209	(f)	(f)
Sales of characteristic products	"	16,593	16,209	(f)	(f)
Index of specialisation (g)	Per cent.	98	100	82	99
Purchases	£'000	4,929	3,032	6,254	6,703
{ materials for use in production and packaging, and fuel	"			647	1,258
{ goods for merchenting and canteen purchases	"			5	21
Payments to other organisations	"	*	*	14	43
{ for work done on materials given out for transport	"			2,523	5,122
{ inwards on materials and fuel purchased	"				
{ outwards on goods sold (d)	"				
{ by road	"				
{ by rail or other means excluding postal services	"				
Value of outwards transport carried out by establishments' own employees on goods sold, by road, by rail, including that over private railway lines	"	278	-	618	278
Stocks	"	- 310	-	+ 72	- 310
{ Goods on hand for sale	"	343	-	565	343
{ Materials, stores and fuel	"	*	*	+ 267	- 132
{ change during year	"	833	1,338	1,570	2,171
{ at end of year	"	2,982	681	6,012	3,663
Number employed on average during the year	No.	2,386	377	4,377	2,763
{ total including working proprietors	"	593	293	1,633	886
{ operatives	"	2,850	579	3,419	3,429
{ other employees (h)	"	881	646	1,708	1,527
Wages and salaries	£'000	1,194	1,535	781	1,241
{ of operatives	"	1,485	2,206	1,046	1,724
{ of other employees (h)	"				
Wages and salaries per head	£				
{ operatives	"				
{ other employees (h)	"				
Capital expenditure (i)	£'000	*	*	538	147
{ New building work	"			36	
{ Land and existing buildings	"			107	- 1(j)
{ acquisitions	"			1,533	13,086
{ disposals	"	695(j)	12,364(j)	42	27
{ Plant and machinery	"			124	79
{ acquisitions	"	51(j)	6(j)	48	22
{ disposals	"				

For notes to this table: - see page 6/5.

TABLE 5 Sales of principal products of the industry by larger establishments, including sales by establishments classified to other industries, 1963 and 1968

Establishments employing 25 or more persons:
Analysis of returns received, Great Britain (a)

Industry sub-division (b)		1963		1968			
		Quantity	Value (c)	Quantity	Value (c)	Enterprises	Entries
		Th.tons	£'000	Th.tons	£'000	Number	Number
30	Products of salt mines, brine pits and salt works						
	{ White salt obtained from brine, not further processed						
	{ Vacuum	1,089	5,653(d)	1,219	6,382	*	*
	{ Pan	77.8	685	29.7	300	*	*
	{ Salt processed in containers (including table salt)	106	3,470	82.3	3,019	*	*
	{ Wrapped cut lumps	6.9	177	2.4	76	*	*
	{ Other	..	4,209(d)	..	6,108	*	*
	{ Total products of salt mines, brine pits and salt works		14,194		15,886	..	..
40	Miscellaneous non-metalliferous mining and quarrying products						
	{ Fluorspar	58.1	735	151	2,130	*	*
	{ Barytes and witherite	51.8	407	21.3	225	*	*
	{ Gypsum, not calcined, and anhydrite	2,258	2,757	2,170	2,496	*	*
	{ Total miscellaneous non-metalliferous mining and quarrying products	2,368	3,899	2,342	4,850	..	..
50	Natural gas	..	30(e)	746,173	12,630	*	*
	Other minerals (excluding stone, slate, clay, sand, gravel and chalk but including crude petroleum), natural gas liquids, and waste products	..	1,165	..	560	5	6
	Work done, including exploration work (eg drilling) for which payment was receivable, work done on materials supplied by the customer, and work done on capital items (including repairs and maintenance charged to capital account)		95		3,145	6	6
	{ Total		19,383		37,072	..	..
	Sales in other industries (see Table 6)		1,269		4,144	..	..
	Principal products of this industry sold by establishments in the industry		18,114		32,928	18	22(f)

For notes to this table - see page 6/8.

TABLE 6 Sales of principal products of the industry by larger establishments classified to other industries, 1963 and 1968

Establishments employing 25 or more persons:
Analysis of returns received, Great Britain (a)

	1963		1968			
	Quantity	Value	Quantity (b)	Value (b)	Entries	Principal industries in which produced (c)
	Th.tons	£'000	Th.tons	£'000	Number	
Products of salt mines, brine pits and salt works	..	855(d)	125	2,922	*	18
Gypsum, not calcined, and anhydrite	276	414	961	1,222	9	130
Total		1,269		4,144	..	

- (a) See fourth paragraph of the introduction to this report.
 (b) Sales of products by larger establishments classified to Mining and Quarrying Industries are valued at ex-mine or ex-works prices, but sales by larger establishments classified to other industries are shown as net selling value. For 1968, sales by larger establishments in the Petroleum and Natural Gas sector of this report are also shown as net selling value.
 (c) The references given are to the list of industries at the front of this report.
 (d) For 1963, included an amount for other minerals (excluding stone, slate, clay, sand, gravel and chalk).

Footnotes to Table 5.

- (a) See fourth paragraph of the introduction to this report.
 (b) The number given is that of the sub-division of which the item is a characteristic product. The sales shown are total sales by larger establishments, not merely sales by establishments classified to the sub-division.
 (c) Sales of products by larger establishments classified to Mining and Quarrying Industries are valued at ex-mine or ex-works prices but sales by larger establishments classified to other industries are shown as net selling value. For 1968, sales by larger establishments in the Petroleum and Natural Gas sector of this report are also shown as net selling value.
 (d) Revised figure.
 (e) So far as recorded separately.
 (f) This figure represents the total number of returns made for larger establishments in this industry which is less than the total number of establishments shown in Table 4 on account of combined returns covering more than one establishment.

TABLE 7 Sales of other than principal products by larger establishments in the industry, 1963 and 1968

Establishments employing 25 or more persons:
Analysis of returns received, Great Britain (a)

	1963	1968
	Value	Value
	£'000	£'000
Goods other than principal products and services rendered to other organisations (b)	3,890	251
Total value of goods sold without having been subjected to any manufacturing process (merchanted or factored) and canteen takings	725	1,327
Total	4,615	1,578

- (a) See fourth paragraph of the introduction to this report.
 (b) Services rendered to other organisations comprises amounts charged for hiring out plant, machinery or other goods, for providing transport, or for technical or other services rendered to other organisations.

TABLE 8 Production of certain principal products of the industry by larger establishments, 1963 and 1968

Establishments employing 25 or more persons:
Analysis of returns received, Great Britain (a)

	1963		1968					
	Quantity returned in this industry	Quantity returned in all industries	Returned in this industry			Returned in all industries		
			Quantity	Enterprises	Entries	Quantity	Enterprises	Entries
	Th.tons	Th.tons	Th.tons	Number	Number	Th.tons	Number	Number
Gypsum, not calcined, and anhydrite	2,193	2,880	1,209	*	*	2,920	*	10

- (a) See fourth paragraph of the introduction to this report.

TABLE 9 Purchases by larger establishments of selected principal products of the industry, 1968

This table is not applicable to this industry.

TABLE 10 Purchases by larger establishments in the industry, 1963 and 1968
Establishments employing 25 or more persons: Analysis of returns received, Great Britain (a)

	1963		1968	
	Quantity	Cost	Quantity	Cost
Materials for use in production		£'000		£'000
Explosives for blasting	..	190	..	206
Soda ash	..	634	..	738
Steel pipes	..	(b) {	Th.tons 1.3 ..	320 871
Iron and steel not elsewhere specified except finished parts, wire and scrap	..	(b)	..	423
Lubricating oils and greases	Th.gal. 97.9 Th.cwt. 1.1	28 4	Th.gal. { 41.4 ..	18 3
Replacement parts for firms' own machinery, plant and vehicles, and accessories and consumable tools bought as replacement				
Tyres and other spare parts for firms' own road goods vehicles	..	537	..	42
Other	..		..	317
All other materials for use in production	..	1,505	..	1,399
Packaging materials				
Paper and board	..	1,402	..	519
All other packaging materials	..	394	..	228
Fuel and electricity (c)	Th.tons			
Coal	204	1,051	..	412
Coke (including screenings) and manufactured fuel	9.9	7	..	2
Derv fuel and motor spirit for use in road vehicles	Th.gal. 582	122	288	80
Other liquid fuels (including creosote/pitch mixtures, etc, and liquefied petroleum gases)	1,181	59	..	786(d)
Electricity	Th.kWh 68,122	318	Th.kWh 52,361	339
Total cost of materials and fuel		6,254		6,703
Goods purchased for merchanting and canteen purchases		647		1,258
Total cost of purchases		6,900		7,961

(a) See fourth paragraph of the introduction to this report.

(b) Not recorded separately for 1963.

(c) The total quantity of electricity generated in establishments employing 25 or more persons in this industry was 46,134 Th.kWh in 1968 and 23,803 Th.kWh in 1963.

(d) For 1968, may include a small amount of fuels not covered by specific headings.

TABLE 11 Transport costs and employment of larger establishments, 1963 and 1968
Establishments employing 25 or more persons: Analysis of returns received, Great Britain (a)

	Unit	1963	1968
Average number mainly employed on transport	No.	384	97
Transport costs			
Wages and salaries	£'000	351	171
Derv fuel and motor spirit	"	122	80
Tyres and other spare parts for road goods vehicles	"	..	42
Payments to other organisations	"	14	43
inward transport on materials and fuel purchased	"		
outward transport on goods sold	"		
by road	"		
by rail or other means excluding postal services	"	2,523	5,122
Value of outwards transport carried out by establishments' own employees on goods sold, by road, by rail, including that over private railway lines	"	618	278
Costs of operating road goods vehicles			
Insurance	"	11	5
Vehicle licences	"	24	19
Depreciation	"	86	48
Payments to other organisations for repairs and maintenance	"	90	26
Total	"	3,839(b)	5,833

(a) See fourth paragraph of the introduction to this report.

(b) Excluding tyres and other spare parts for road goods vehicles, not collected separately for 1963.

TABLE 12 Payments for certain services, etc by larger establishments, 1963 and 1968 (a)
Establishments employing 25 or more persons: Analysis of returns received, Great Britain (b)

	Amounts payable	
	1963	1968
Repairs and maintenance to	£'000	£'000
Buildings	28	11
Road goods vehicles	90	26
Plant, machinery and other capital equipment	299	228
Insurance, licensing and depreciation of road goods vehicles (c)	121	72
Rates, excluding water rates	220	141
Hire of plant and machinery	72	1,400
Postage, telephone, telegrams, cables and telex (d)	50	87
Total	882	1,965

(a) No deduction is made for these payments to arrive at the figures of net output given in this report.

(b) See fourth paragraph of the introduction to this report.

(c) For details see Table 11.

(d) Excluding telex for 1963.

TABLE 13 Percentage analysis of twelve-month
periods covered by returns from larger
establishments, 1968Establishments employing 25 or more persons:
Analysis of returns received, Great Britain (a)

Year ended	Percentage of total returns received	Percentage of total number employed
1968	Per cent.	Per cent.
April (b)	0.0	0.0
May	0.0	0.0
June	0.0	0.0
July	0.0	0.0
August	0.0	0.0
September	22.7	21.7
October	0.0	0.0
November	4.6	4.5
December	40.9	43.5
1969		
January	0.0	0.0
February	0.0	0.0
March	31.8	30.3
April (c)	0.0	0.0
	100	100

- (a) See fourth paragraph of the introduction to this report.
 (b) From 6 April.
 (c) To 5 April.