

Earth Resources Regulation

2017-18 Statistical Report



Acknowledgement of Victoria's Traditional Owners

The Victorian Government proudly acknowledges Victorian Traditional Owners as Victoria's first peoples and pays its respects to their Elders past and present.

We recognise the intrinsic connection of the first peoples to their Country for countless generations and their inherent obligation to maintain and strengthen their distinct cultural rights and responsibilities to care for their Country.

We value Traditional Owners' role in the management of land, water and biodiversity and acknowledge the ongoing contribution this makes to our earth resources.

We have distinct legislative obligations to Traditional Owner groups that are paramount in our responsibilities in managing Victoria's resources.

We support the need for genuine and lasting partnerships with Aboriginal people and communities to understand culture and connections to Country in the way we plan for and regulate our earth resources.

Disclaimer

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Authorised by the Victorian Government
Department of Jobs, Precincts and Regions
1 Spring Street Melbourne Victoria 3000
Telephone (03) 9651 9999

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For more information see the Earth Resources Regulation website www.earthresources.vic.gov.au/earth-resources-regulation

This document is also available in PDF and accessible Word format at <http://earthresources.vic.gov.au/earth-resources-regulation/about-us/regulator-and-industry-reporting/earth-resources-regulation-annual-statistical-report/>

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1 Introduction

The Earth Resources Regulation Branch in the Department of Jobs, Precincts and Regions (DJPR) is responsible for the regulation of minerals, extractives, petroleum, pipelines, geothermal and carbon storage activities in Victoria and offshore (Victorian) waters. The Earth Resources Regulation administers a consistent and transparent regulatory regime and conducts monitoring and compliance operations to ensure that authority holders comply with their statutory obligations.

Earth Resources Regulation administers the following Acts.

- *Mineral Resources (Sustainable Development) Act 1990* (MRSDA) (mineral exploration, mining and quarrying);
- *Offshore Petroleum and Greenhouse Gas Storage Act 2010* (OPGGSA) (petroleum exploration and development, greenhouse gas storage and pipelines in the Victorian offshore waters);
- *Petroleum Act 1998* (petroleum exploration and development onshore);
- *Geothermal Energy Resources Act 2005* (geothermal energy exploration and development); and
- *Greenhouse Gas Geological Sequestration Act 2008* (greenhouse gas storage onshore).

The 2017-18 Statistical Report presents a compilation of data as reported by Victoria's earth resources authority holders to Earth Resources Regulation. The report includes data on exploration, production, expenditure, revenues and regulatory actions.

All production and expenditure figures are certified by authority holders and submitted to Earth Resources Regulation. As at 17th December 2018, 85 per cent of active MRSDA authority holders have submitted an annual Production & Royalty / Expenditure & Activity. For Petroleum producing licences, there were two that had production. The other licences did not produce during the year.

The annual statistical report may be revised in the future as more Production / Expenditure and Activity reports are received from the industry following compliance actions by Earth Resources Regulation.

Table 1.1 MRSDA Production & Royalty / Expenditure & Activity report submission rate

Licence Types	Active Tenements as at 30 th Jun 2018	Report Received	Yet To Submit Report	Submission Rate
Mining licences	156	136	20	87%
Exploration Licences	200	181	39	91%
Retention Licences	20	17	4	85%
Prospecting Licences	59	45	15	76%
Work Authority	881	741	149	84%
	1316	1120	227	85%

Key observations and statistics for 2017-18 include:

Mineral

- There were 435 active mineral licences as at 30 June 2018, a 5.8% increase compared to 411 in 2016-17.
- The number of new mineral licences granted and renewed increased from 68 to 140 in 2017-18.
- The amount spent on exploration increased 51% from \$44.3 million to \$67.0 million.
- The production of gold remained high with a further increase of 16.7% from 312,229 to 364,225 ounces
- The production of coal decreased by 19.7% from 56 to 45 million tonnes.

Extractive

- 491 quarries produced a total of 57.9 million tonnes of rock at a reported sales value of \$947.8 million dollars, an increase of 11.6% (\$98.5million) year on year.

Revenue

- State revenue payable (rent, royalty and administrative fees) derived from the earth resources sector totalled \$103.1 million, an increase of 19% (\$16.5 million).

Rehabilitation Bonds

- Total value of rehabilitation bonds held increased 71.2% from \$474.5 million to \$812.2 million.

Petroleum

- The gas production totals 13,118 million standard cubic feet, which equate approximately to 13.91 petajoules of energy.

2 Minerals

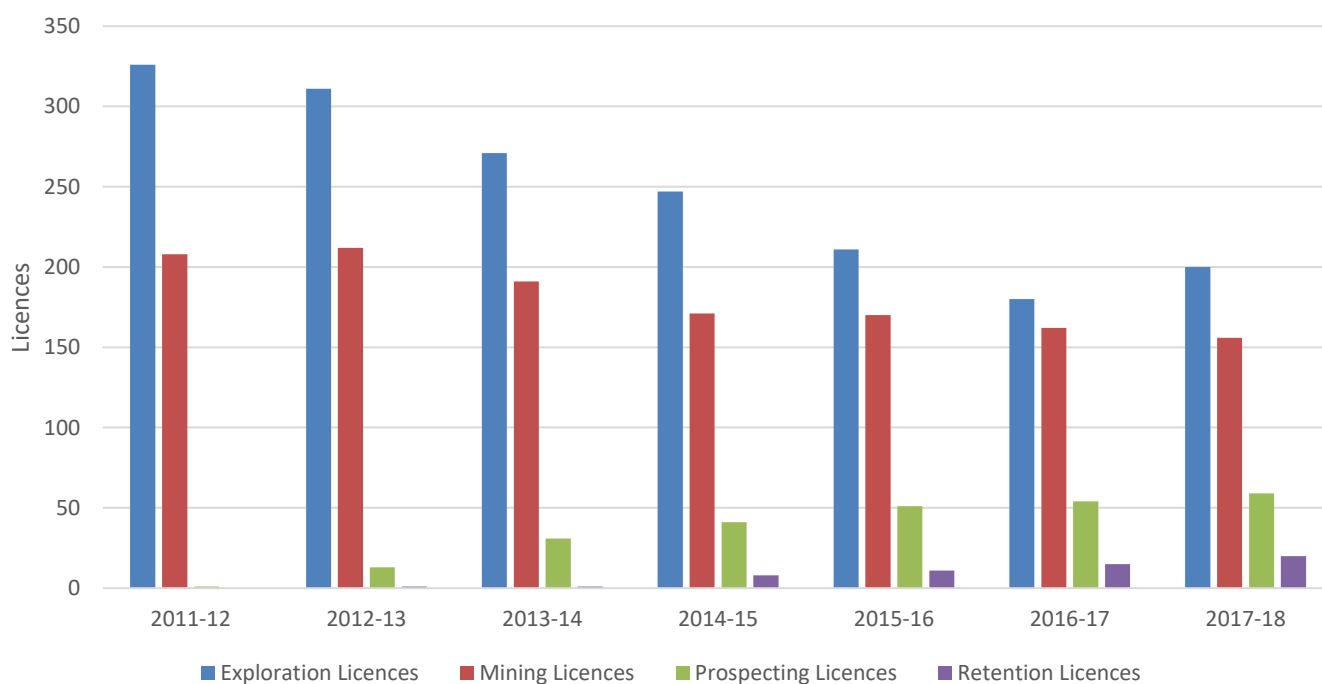
2.1 Mineral tenements

Table 2.1 Licences current as at 30 June 2018

Tenement Type	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Exploration Licences	326	311	271	247	211	180	200
Mining Licences	208	212	191	171	170	162	156
Prospecting Licences	1	13	31	41	51	54	59
Retention Licences	0	1	1	8	11	15	20
Totals	535	537	494	467	443	411	435
% Change year-on-year	+2.9%	+0.4%	-8.0%	-5.5%	-6.0%	-6.4%	+5.8%

Source: DJPR

Graph 2.1 Licences current as at 30 June 2018



Source: DJPR

Table 2.2 Licence finalised in 2017-18

	Received	Granted	Withdrawn	Refused
Exploration Licence Applications	72	63	8	1
Mining Licence Applications	2	3	1	0
Prospecting Licence Applications	17	12	0	0
Retention Licence Applications	6	7	0	0
Total	97	85	9	1

Table 2.3 Licence renewed in 2017-18

	Received	Renewed	Withdrawn	Refused
Exploration Licence Renewals	15	29	6	1
Mining Licence Renewals	11	26	2	1
Total	26	55	8	2

Table 2.4 Licence Applications granted by financial year

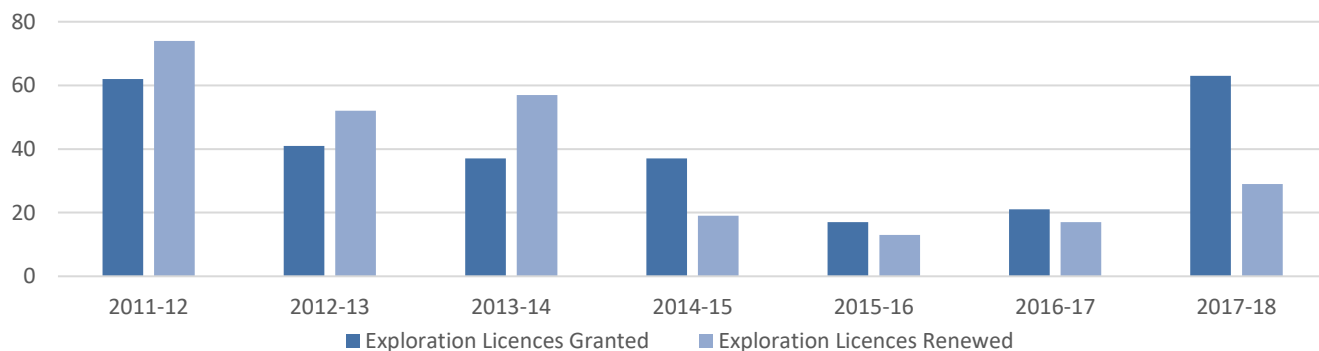
	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Exploration Licence Applications	62	41	37	37	17	21	63
Mining Licence Applications	12	11	9	3	2	0	3
Prospecting Licence Applications	1	12	18	13	12	11	12
Retention Licence Applications	0	0	1	7	3	4	7
Total	75	64	65	60	34	36	85

Table 2.5 Licences renewed by financial year

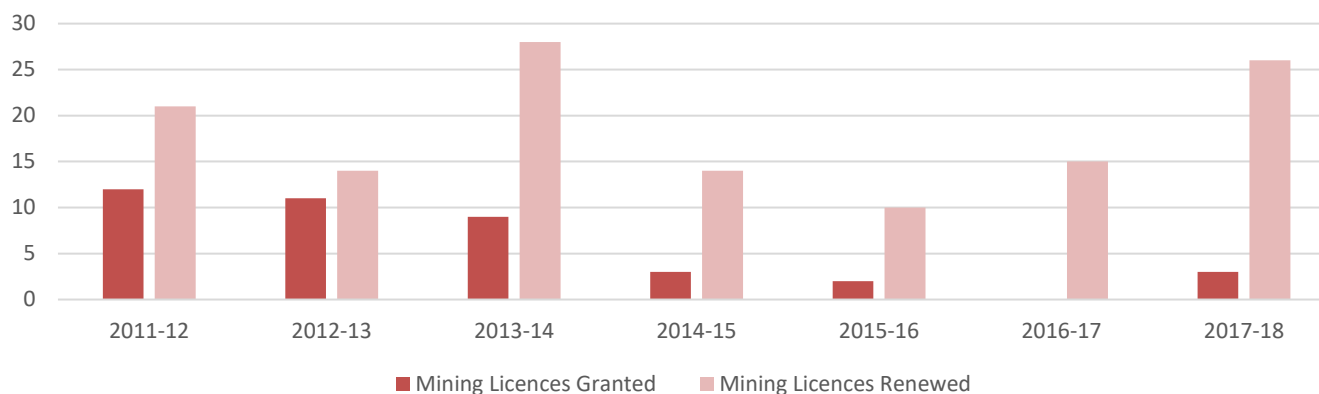
	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Exploration Licence Renewals	74	52	57	19	13	17	29
Mining Licence Renewals	21	14	28	14	10	15	26
Retention Licence Renewals	0	0	0	0	0	0	0
Total	95	66	85	33	23	32	55

Source: DJPR

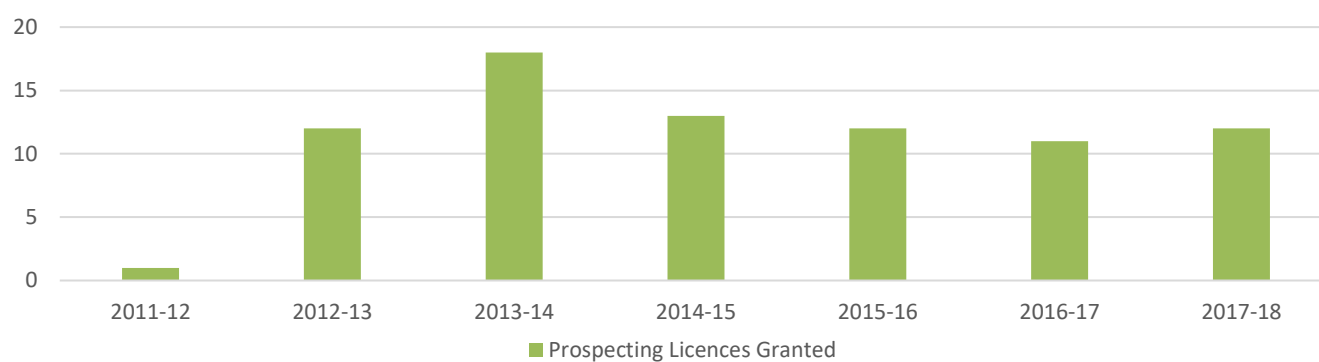
Graph 2.2 Exploration licences granted and renewed by financial year



Graph 2.3 Mining licences granted and renewed by financial year



Graph 2.4 Prospecting licences granted by financial year



Graph 2.5 Retention licences granted by financial year

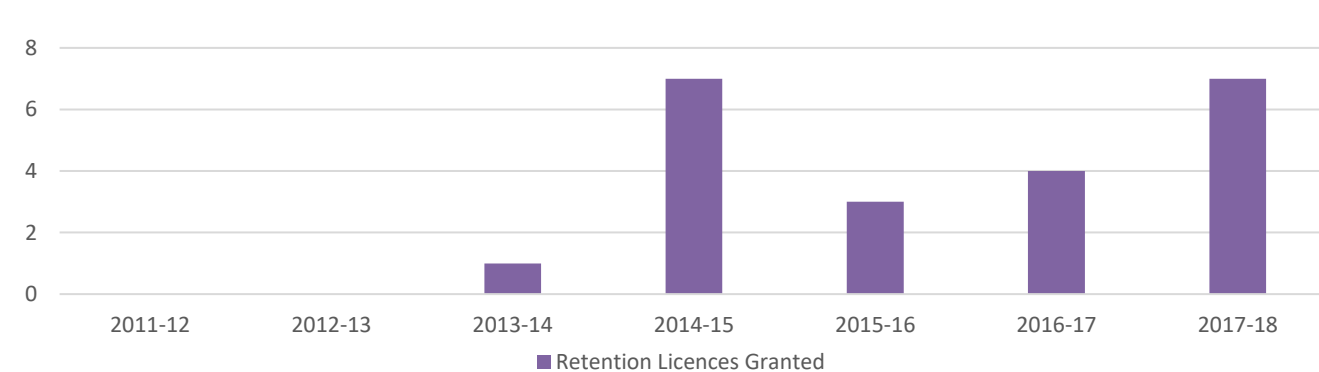
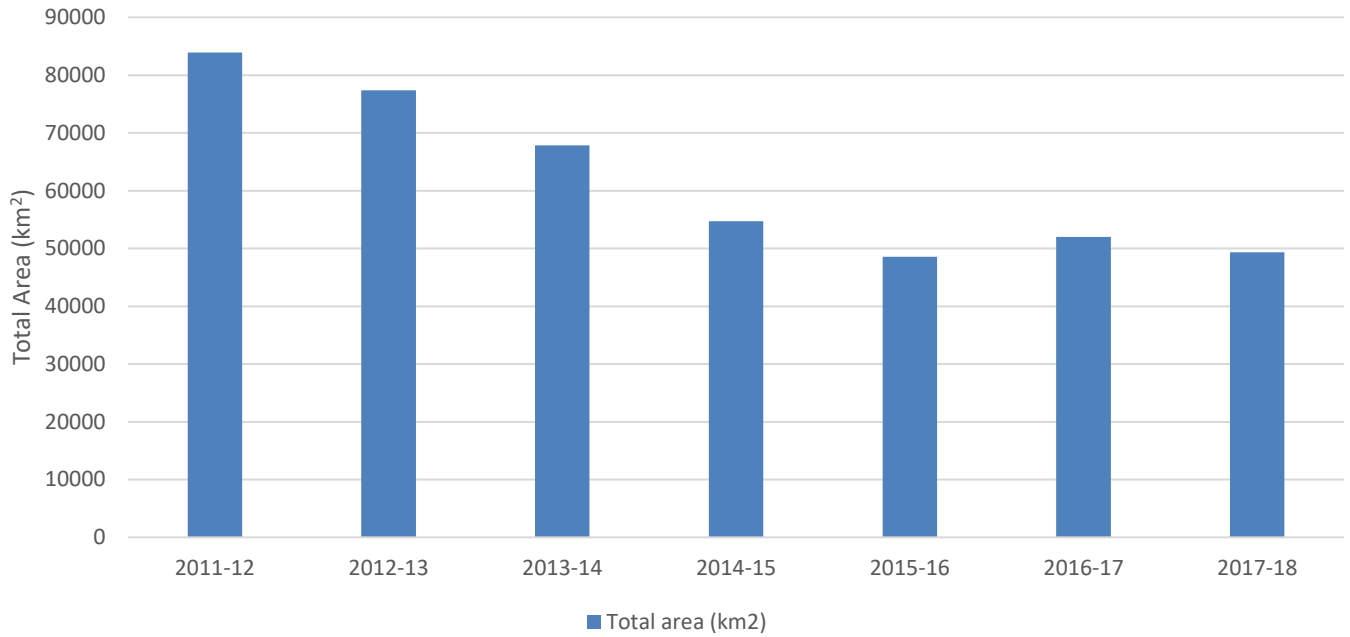


Table 2.6 Total area covered by exploration licences (current and in application as at 30 June 2018)

Year	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Total area (km²)	83,900	77,366	67,833*	54,698*	48,569	51,984	49,353

Source: DJPR

Graph 2.5 Total area of Victoria covered by mineral exploration licences



Source: DJPR

Source: DJPR

2.2 Mineral exploration and mining expenditure

Australian Bureau of Statistics (ABS) data shows an increase of 81.1% (\$40.7 M to \$73.7M) in Victorian exploration expenditure in 2017-18 compared to 2016-17. Data reported to Earth Resources Regulation on mineral exploration shows that the amount spent on exploration increased 51.2%(\$44.3 to \$67.0M). Expenditure on mining has decreased 12.6% from \$748.8 million to \$654.1 million.

Table 2.7 Expenditure on mineral exploration and mining development (\$A million)

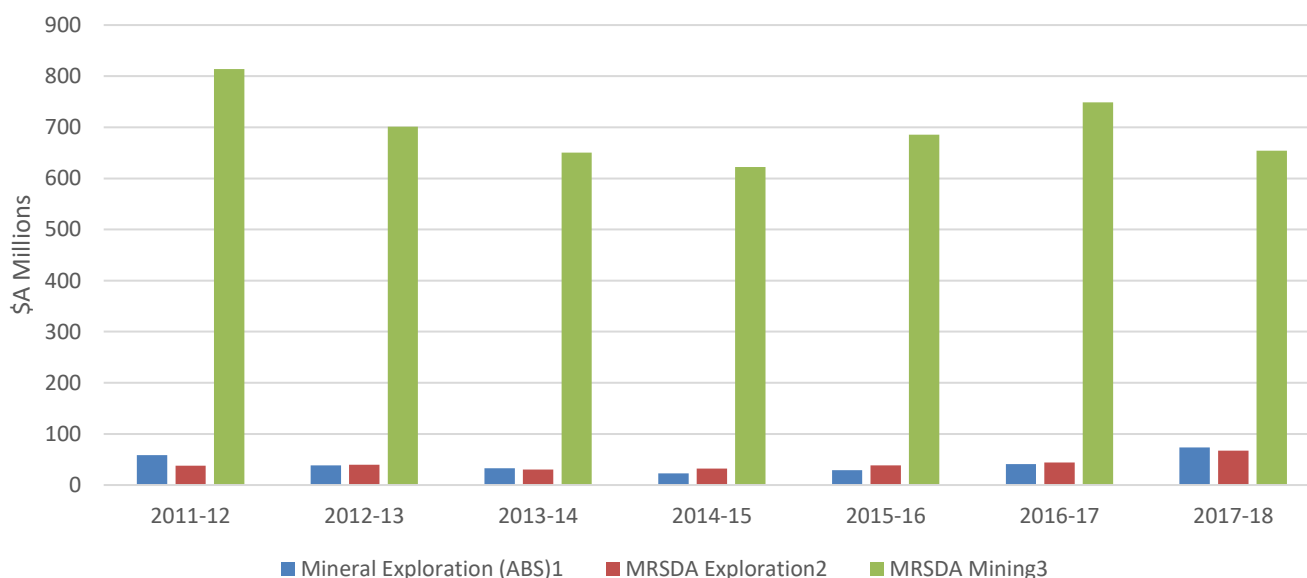
	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18 [^]
Mineral Exploration (ABS)¹	\$58.5	\$38.6	\$32.6	\$22.9	\$28.9	\$40.7	\$73.7
MRSDA Exploration²	\$37.8	\$39.7	\$30.5	\$47.5	\$38.5	\$44.3*	\$67.0
MRSDA Mining³	\$813.8	\$701.2	\$650.3	\$607.8	\$685.8	\$748.8*	\$654.1

Source: Figures collated from activity reports forwarded to DJPR required under the MRSDA, and ABS, Actual and Expected Private Mineral Exploration ([Catalogue No. 8412.0](http://www.abs.gov.au/ausstats/abs@.nsf/mf/8412.0) <http://www.abs.gov.au/ausstats/abs@.nsf/mf/8412.0>)

[^]Data as at 17/12/2018 from Expenditure & Activity Reports on all Mineral licences received from the industry (87%).

*Updated the 2016-17 figures

Graph 2.6 Expenditure on mineral exploration and mining



Source: DJPR

¹ The ABS reports quarterly on private mineral exploration expenditure for all Australian states and the Northern Territory (NT). Victorian mineral exploration and mining expenditure is also reported in accordance with the requirement of the MRSDA. The ABS exploration expenditure statistics can vary significantly from expenditure reported under the MRSDA. The difference between these two exploration expenditure data sets is mainly due to the difference in methodologies for data collection, and the inclusion of the exploration expenditure on mining licences in the MRSDA figure. The ABS statistics are a valid basis for comparison of Victorian expenditure with that of other states/NT. However, the MRSDA figures provide greater detail.

² Change of metric - expenditure on Exploration and Retention Licences with an Expenditure Reporting Period that ends within the Financial Year.

³The MRSDA mining expenditure figure covers all expenditure on mining and prospecting licences (including capital and operating expenses), less any specified exploration expenditure on mining and prospecting licences.

Table 2.8 Expenditure on mineral exploration and mining by commodity (\$A million).

Exploration and Mining expenditures are allocated to commodity according to the primary nominated mineral commodity on the licence in line with the MRSDA expenditure on the previous table 2.5.

Minerals	Exploration Expenditure	% of total	Mining Expenditure	% of total
Coal	\$0.5	0.7%	\$359.1	54.7%
Gold	\$43.8	65.4%	\$237.7	36.5%
Mineral Sands	\$6.9	10.3%	\$12.6	1.9%
Other**	\$15.8	23.6%	\$44.7	6.8%
Total	\$67.0	100.0%	\$654.1	100.0%

** "Other" includes cases where there is more than one primary mineral.

^Data as at 17/12/2018 from Expenditure & Activity Reports on all Mineral licences received from the industry (87%).

Table 2.9 Mineral exploration expenditure by commodity and year (\$A million)

Year	Coal	Gold	Mineral Sands	Other *	Total
2015-16	\$0.37	\$16.4	\$6.5	\$15.3	\$38.5
2016-17	\$0.46	\$25.9	\$5.1	\$12.7	\$44.2
2017-18	\$0.47	\$43.8	\$6.9	\$15.8	\$67.0

Graph 2.7 Mineral exploration expenditure

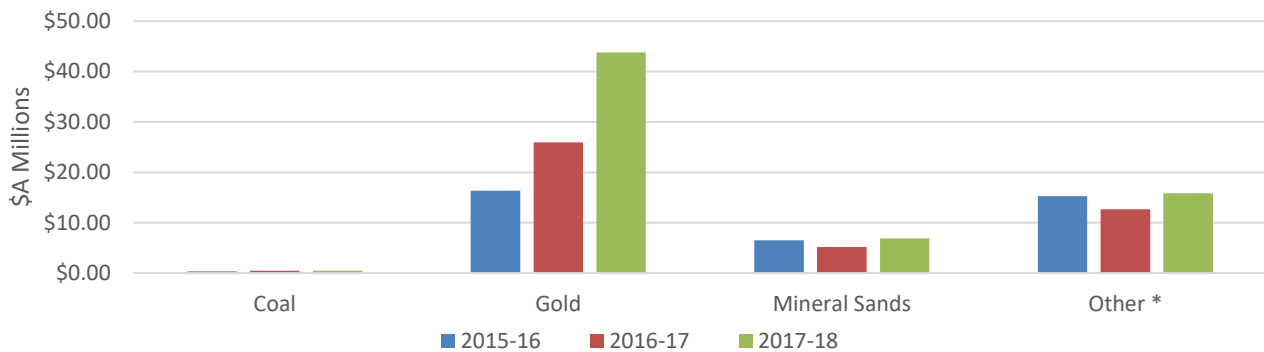
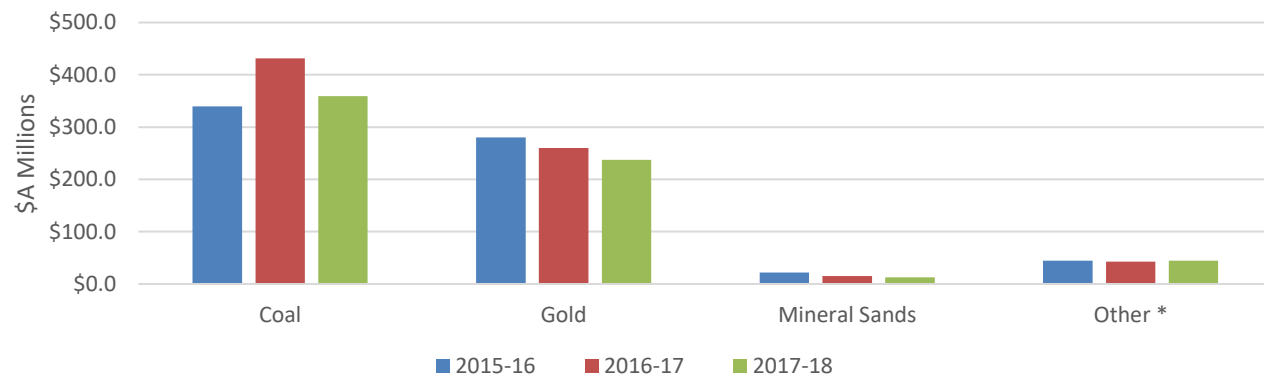


Table 2.10 Mining expenditure by commodity and year (\$A million)

Year	Coal	Gold	Mineral Sands	Other *	Total
2015-16	\$339.4	\$280.2	\$21.8	\$44.4	\$685.8
2016-17	\$431.2	\$259.9	\$15.2	\$42.5	\$748.8
2017-18	\$359.1	\$237.7	\$12.6	\$44.7	\$654.1

Graph 2.8 Mining expenditure



2.3 Mineral production

In 2017-18[^] 61 Mining and Prospecting licences reported production with a sale value of \$825.9 million.

Table 2.11 Mineral production over time*

Financial Year	Coal (1000 Tonnes)	Gold (Ounce)	Antimony (Tonnes)	Zircon (Tonnes)	Rutile (Tonnes)	Ilmenite (Tonnes)	Feldspar (Tonnes)	Gypsum (M ³)	Kaolin and Clay (Tonnes)
2012-13	59,854	225,776	4,558	86,243	140,842	67,067	61,578	499,681	204,164
2013-14	58,001	225,168	5,336	128,064	243,355	563,371	44,254	454,526	167,333
2014-15	60,957	198,387	3,684	77,162	85,983	383,369	40,232	335,374	152,047
2015-16	59,757	256,653	5,945	52,026	90,318	57,763	30,730	314,759	202,229
2016-17	56,095	312,229	5,138	45,597	73,812	44,944	0	282,720	192,150
2017-18 [^]	45,062	364,225	2,570	27,515	48,381	24,390	0	395,707	171,932
Change year-on-year (%)	-19.7%	16.7%	-50.0%	-39.7%	-34.5%	-45.7%	0.0%	40.0%	-10.5%

Source: DJPR, statutory returns under the MRSDA.

*Gold reported in troy ounces, coal in thousand tonnes, gypsum in cubic meters, and the remainder in tonnes.

[^]Data as at 17/12/2018 from Expenditure & Activity Reports on Mining and Prospecting licences received from the industry (84%).

Table 2.12 Mineral production sales values (A\$ million)

Year	Coal*	Gold	Antimony	Mineral Sands (Zircon, Rutile, Ilmenite)	Industrial Minerals (Feldspar, Gypsum, Kaolin & fine clay)	Others (including silver, peat and quartz)	Total
2012-13	N/A	\$333.1	\$30.8	\$282.7	\$12.8	\$0.3	\$659.7
2013-14	N/A	\$303.4	\$12.5	\$316.5	\$14.1	\$0.2	\$646.7
2014-15	N/A	\$286.9	\$37.8	\$185.1	\$10.2	\$0.1	\$520.1
2015-16	N/A	\$411.4	\$30.6	\$175.9	\$10.0	\$0.6	\$628.5
2016-17	N/A	\$519.8	\$33.6	\$188.5	\$8.0	\$0.2	\$750.1
2017-18 [^]	N/A	\$613.3	\$28.2	\$172.6	\$11.6	\$0.2	\$825.9
Change year-on-year (%)	N/A	18.0%	-16.1%	-8.4%	45.0%	0.0%	10.1%

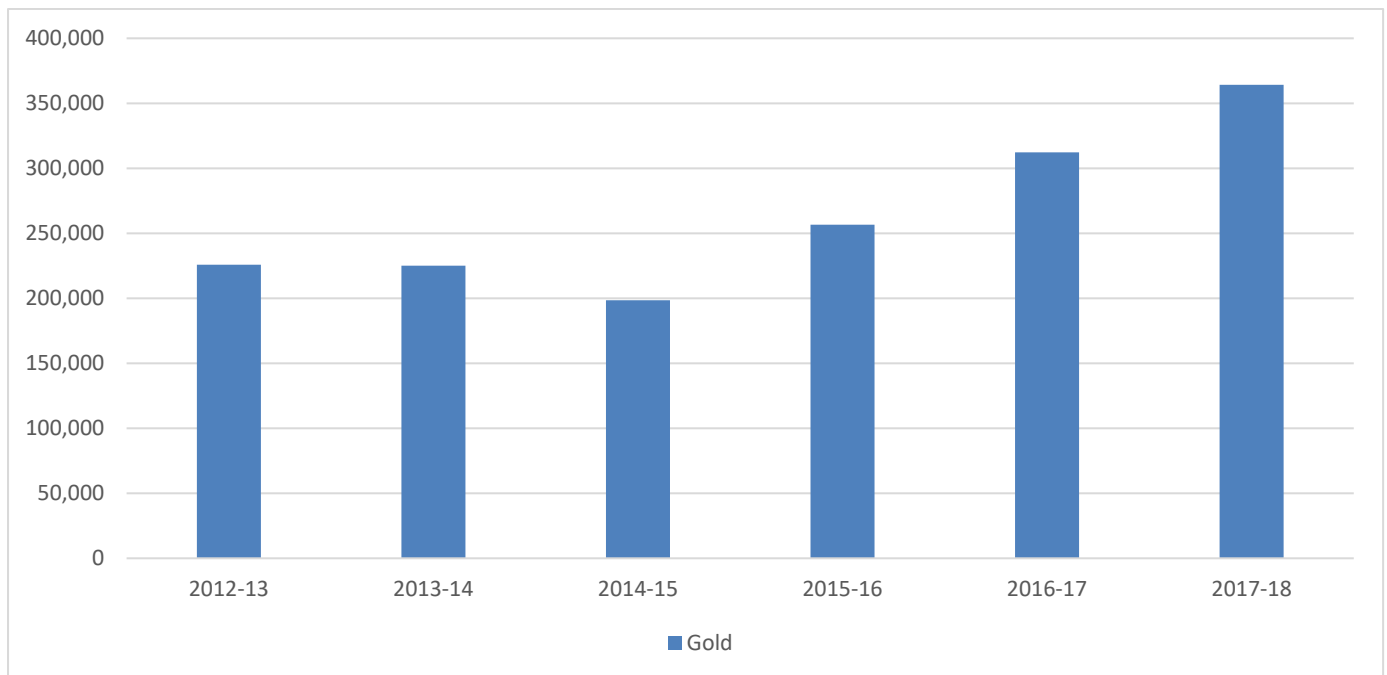
Source: DJPR, statutory returns under the MRSDA.

*No unit value is assigned to coal for the purposes of determining its production value. Coal is almost entirely used for electricity production and is largely an internal transfer within mining/generation entities. As such, there is no available market price for coal.

[^]Data as at 17/12/2018 from Expenditure & Activity Reports on Mining and Prospecting licences received from the industry (84%).

Graph 2.9 Gold production (ounces) by year

Gold production for 2017-18 was 364,225 ounces, the highest in the last six years.



Source: DJPR

Table 2.13 Coal production ('000 tonnes) by year and producer

Year	Maddingley Bacchus Marsh	Alcoa Anglesea	Loy Yang	Yallourn	Hazelwood	Annual Total
2012-13	18	913	28,921	12,885	17,118	59,854
2013-14	19	1,034	26,967	13,494	16,487	58,001
2014-15	19	-	27,624	17,171	16,144	60,957
2015-16	23	-	27,066	17,979	14,689	59,757
2016-17	45	-	27,752	17,674	10,624	56,095
2017-18	44	-	29,526	15,491	-	45,062

Source: DJPR, statutory returns under the MRSDA.

3 Extractive resources

Quarries produce predominantly hard rock, clay, sand and gravel, which are mostly used for constructing houses, public infrastructure and private sector developments.

As at 30 June 2018, there were 881 current work authorities for quarries granted under the MRSDA. The total number of quarries has remained relatively stable over the last decade.

Table 3.1 Status of extractive industry work authorities* as at 30 June 2018

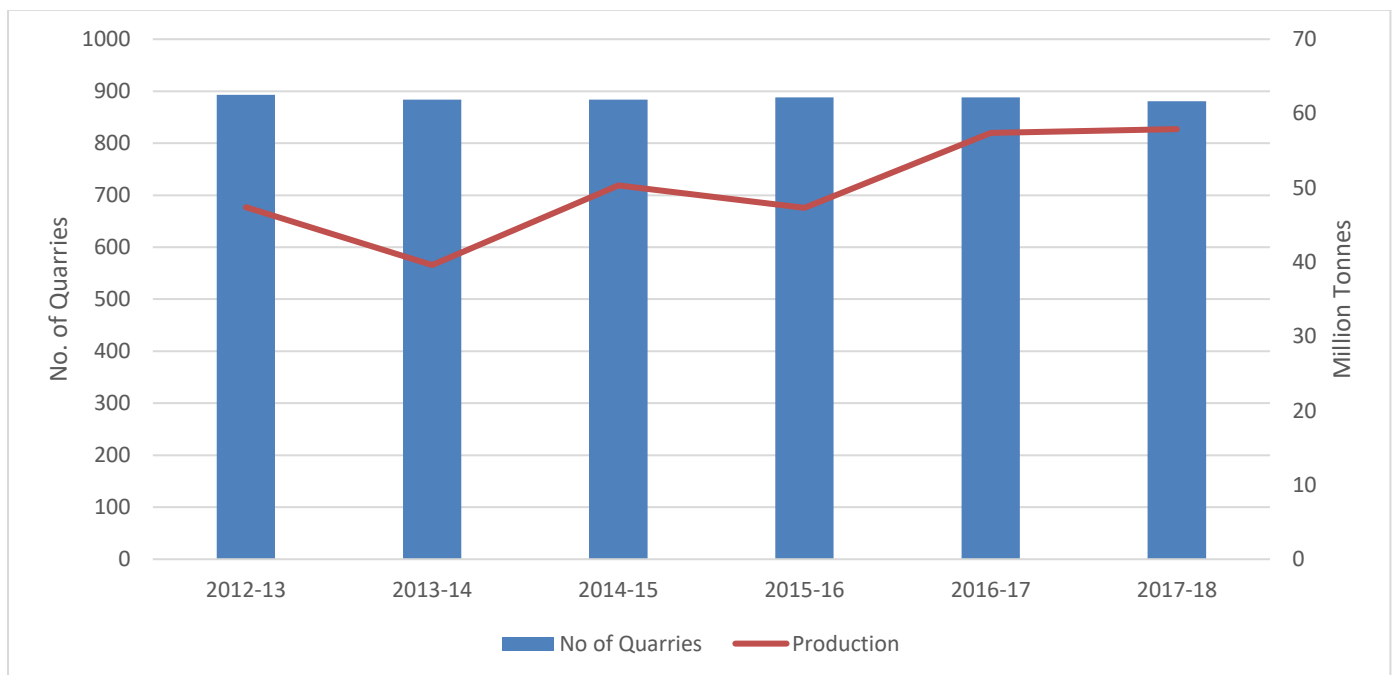
Tenement	Application**	Current
Work Authority	24	881

Source: DJPR

*A Work Authority is granted under the MRSDA.

**This is when an applicant has paid a Work Authority application fee.

Graph 3.1 Extractive industry quarries 2012-13 to 2017-18^



^Data as at 17/12/2018 from Production and Royalty Reports on Work Authorities. received from the industry (84%).

Source: DJPR

Sales of quarry products fluctuate based on the demand from the domestic building and construction sector.

As at 17/12/2018, a total of 491 quarries reported production in 2017/18. The production volume remained steady at 57.9 million tonnes and Sales Value increased by 11.6% (\$98.5M) from \$849.3M to \$947.8M.

Table 3.2 Victorian Extractive industry sale by Product Type 2017-18[^]

Product Group	Product Type	Production Volume (Million tonnes)	Sales Value (\$Am)
Clay products	Brick	0.995	\$3.02
	Stoneware Pottery	0.001	\$0.04
	Tile/Pipe	0.017	\$0.08
Clay products Total		1.012	\$3.14
Limestone products	Agriculture	0.597	\$16.67
	Cement	0.078	\$1.70
	Lime	0.080	\$1.57
Limestone products Total		0.754	\$19.93
Miscellaneous	Dimension Stone	0.006	\$0.20
	Soil	0.024	\$0.26
	Unspecified	4.538	\$50.04
Miscellaneous Total		4.568	\$50.51
Multi size products	Fill	3.585	\$36.25
	Road Base	6.014	\$103.29
	Road Sub-Base	10.934	\$136.75
Multi size products Total		20.533	\$276.29
Sand products	Concrete Sand	7.168	\$132.10
	Fine Sand	2.233	\$37.70
	Foundry Sand	0.003	\$0.04
	Industrial Filters	0.002	\$0.01
Sand products Total		9.407	\$169.85
Single size products	Aggregate	21.535	\$426.86
	Armour	0.060	\$1.18
Single size products Total		21.596	\$428.04
Grand Total		57.869	\$947.76

Source: DJPR, statutory returns under the MRSDA.

[^]Data as at 17/12/2018 from Production and Royalty Reports on Work Authorities. received from the industry (84%).

Table 3.3 Victorian extractive industries sales by rock type 2017-18[^]

Rock Type	Product Type	Production Volume (Million Tonnes)	Sales Value (\$Am)
Hard Rock	BASALT	23.021	377.00
	GNEISS	0.005	0.01
	GRANITE	5.347	122.86
	HORNFELS	4.462	75.05
	QUARTZITE	0.030	0.36
	RHYODACITE	1.779	43.64
	SCHIST	0.273	5.86
	SLATE	0.043	0.66
	TRACHYTE	0.038	0.80
Hard Rock Total		34.999	626.24
Soft Rock	CLAY & CLAY SHALE	1.475	3.87
	LIMESTONE	1.424	26.20
	SAND & GRAVEL	15.503	236.52
	SCORIA	1.128	17.97
	SEDIMENTARY*	2.755	32.01
	SOIL	0.024	0.26
	TUFF	0.562	4.69
Soft Rock Total		22.868	321.52
GRAND TOTAL		57.869	947.76

Source: DJPR, statutory returns under the MRSDA.

*Sedimentary (usually rippable rocks including sandstone, shale, siltstone, chert, mudstone, claystone).

[^]Data as at 17/12/2018 from Production and Royalty Reports on Work Authorities. received from the industry (84%).

4 Revenue and bonds

4.1 Revenue Payable

Revenues has been updated from 'revenues collected' to 'revenue payable' in alignment with the financial year reporting period.

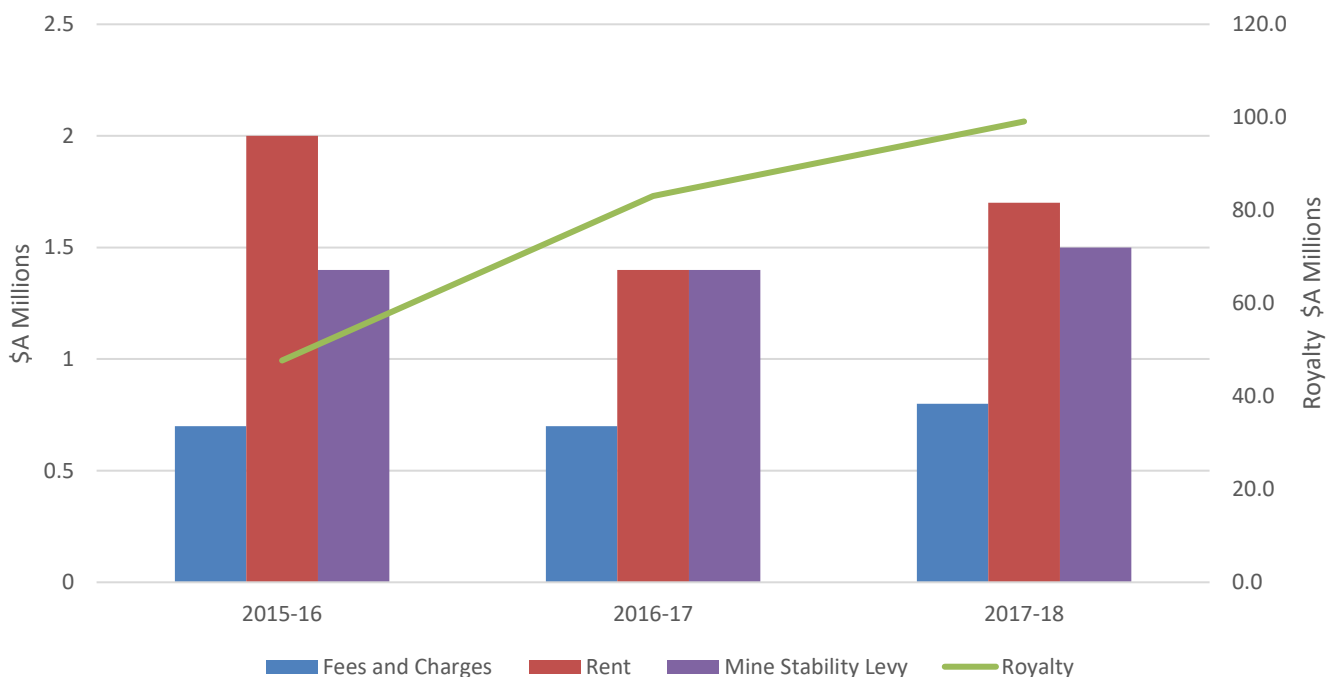
In 2017-18, a total of \$102.3 million was payable from industry in royalties and fees under the relevant Acts. This was an increase of 18% (\$15.7 million) compared to \$86.6 million payable in 2016-17. This increase was mainly attributable to an adjustment in the royalty rate for brown coal from \$0.0776/Gigajoule to \$0.2324/Gigajoule, which came into effect on 1 January 2017.

Table 4.1 Mineral, extractive and petroleum revenue payable (\$A Millions)

Year	Fees & Charges	Rent	Royalty	Mine Stability Levy	Total
2015-16	0.7	2.0	47.7	1.4	51.8
2016-17	0.7	1.4	83.1	1.4	86.6
2017-18	0.8	1.7	99.1	1.5	103.1

Source: DJPR

Graph 4.1 Mineral, extractive and petroleum revenue payable (\$A Millions)

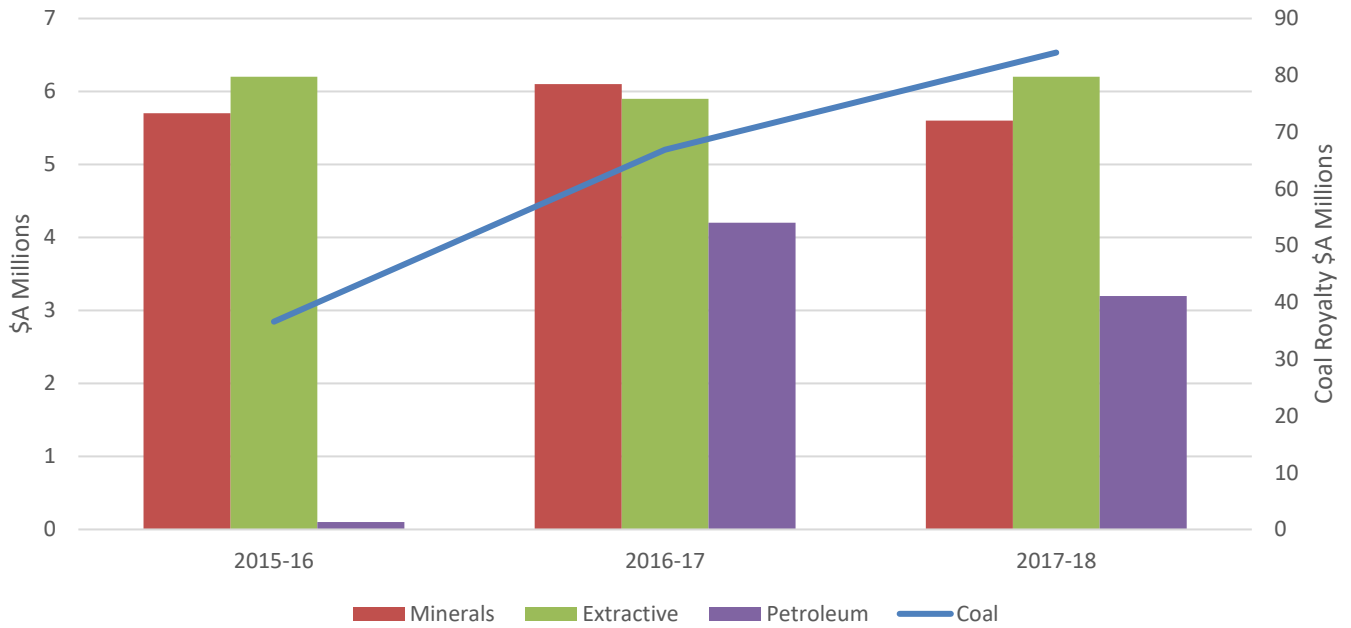


Source: DJPR

Table 4.2 Mineral, Extractive and Petroleum sector royalties payable in the financial year (\$A Millions)

Year	Coal	Minerals	Extractive	Petroleum	Total
2015-16	36.6	5.7	6.2	0.1	47.7
2016-17	66.9	6.1	5.9	4.2	83.1
2017-18	84.0	5.6	6.2	3.2	99.1

Graph 4.2 Mineral, extractive and petroleum sector royalties payable (\$A Millions)



Source: DJPR

4.2 Rehabilitation bonds

The total monetary value of the rehabilitation bonds held by Earth Resources Regulation in 2017-18 was \$812.2 million, an increase of 71.2% (\$337.7 million) year on year. The increase in rehabilitation bonds held in 2017-18 was mainly due to a substantial revision of the Latrobe Valley coal mine bonds.

Table 4.3 Value of rehabilitation bonds by authority type (\$A million)

Year	Exploration Licence	Mining Licence	Prospecting Licence	Retention Licence	Work Authority	Total
2011-12	2.5	156.9	0	N/A	80.9	240.3
2012-13	2.4	158.3	0.025	N/A	81.0	241.7
2013-14	2.1	183.4	0.091	0.010	90.9	276.5
2014-15	1.9	153.0	0.138	0.050	85.8	241.0
2015-16	2.0	239.6	0.2	0.1	88.6	330.5
2016-17	2.0	380.5	0.2	0.1	91.7	474.5
2017-18	2.0	717.7	0.2	0.1	92.2	812.2

Source: DJPR

Graph 4.3 Value of rehabilitation bonds by authority type (\$A million) 2011-12 to 2017-18

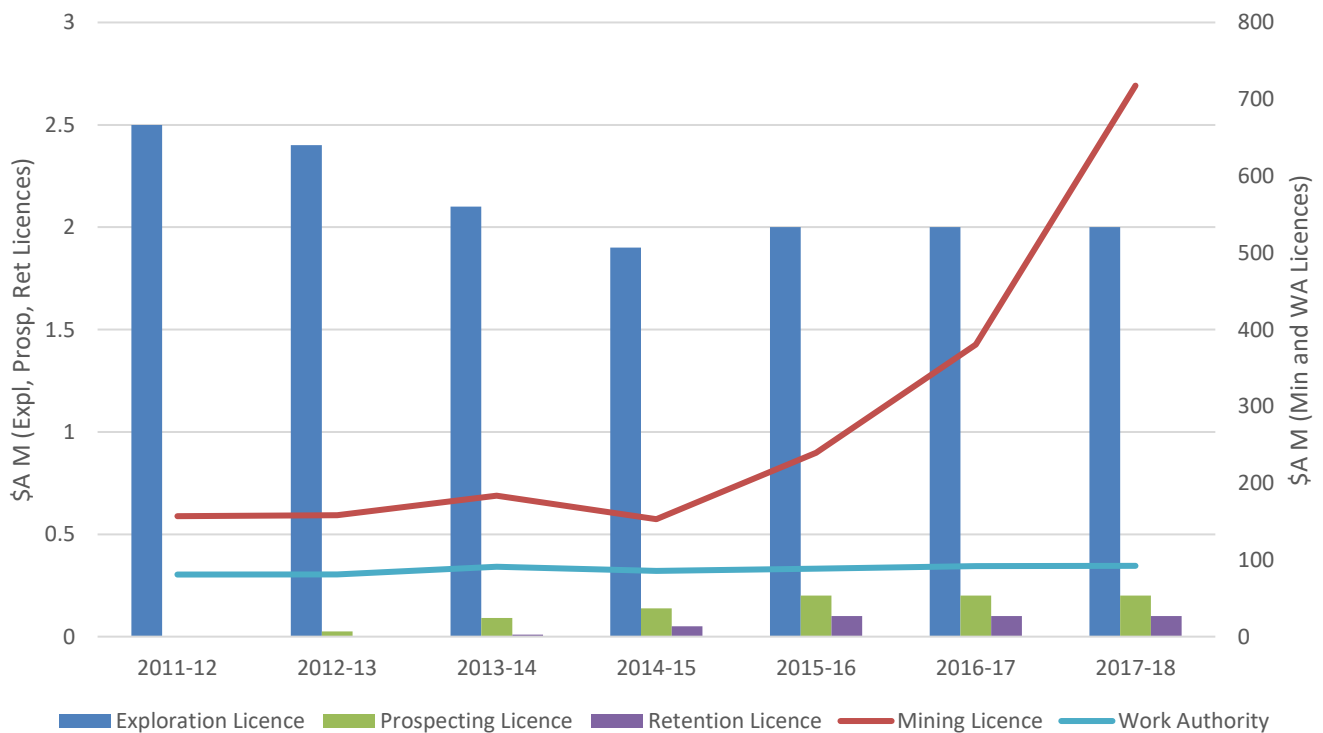
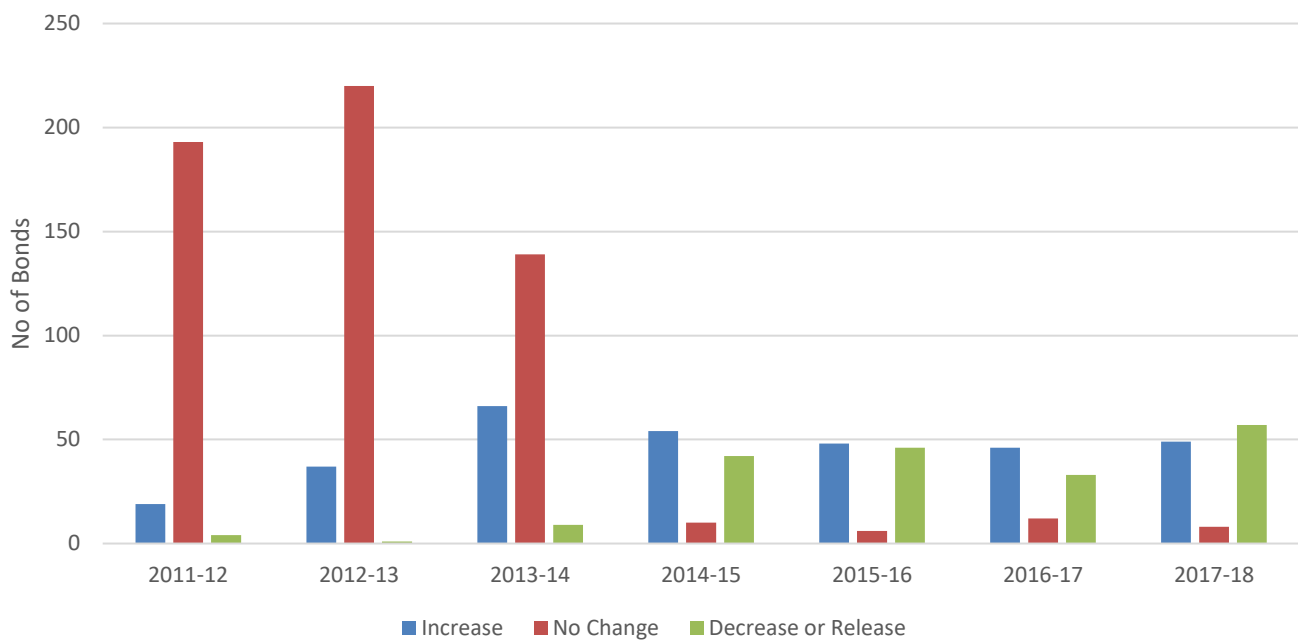


Table 4.4 Rehabilitation bond reviews over time

Year	Number of Bonds Reviewed	Result of Review - Increase	Result of Review - No Change	Result of Review - Decrease or Release
2011-12	216	19	193	4
2012-13	258	37	220	1
2013-14	214	66	139	9
2014-15	106	54	10	42
2015-16	100	48	6	46
2016-17	91	46	12	33
2017-18	114	49	8	57

Source: DJPR

Graph 4.4 Outcome of bond reviews over time



5 Monitoring, compliance and enforcement

Earth Resources Regulation undertakes a compliance program to ensure that authority holders comply with their obligations. Monitoring, compliance and enforcement activities under the MRSDA are summarised in the table below.

In 2017-18 Earth Resources Regulation revised the process for issuing notices and this is expected to lead to an increase in the number of notices in the future. Inspections increased 11% from 357 to 396 in 2017-18.

Improvement actions were identified in 73% (117 out of 160) Audits during 2017-18.

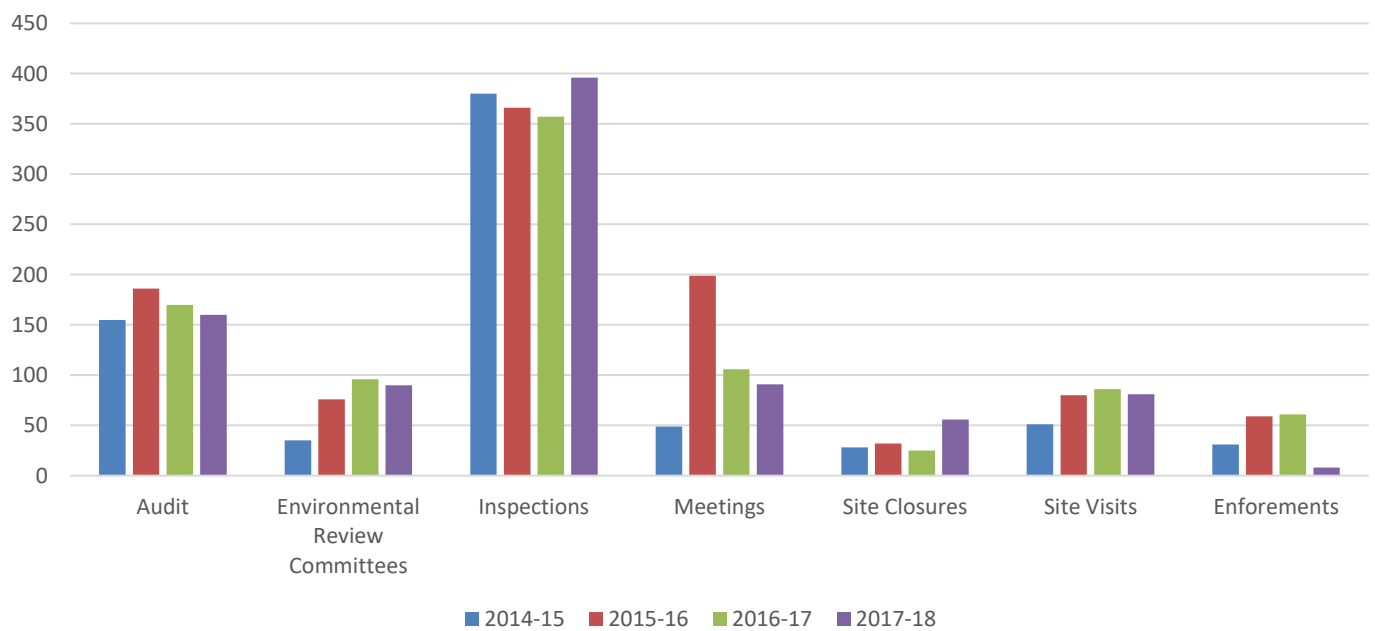
Table 5.1

Activities	Audits	Environmental Review Committees	Inspections	Meetings	Site Closures	Site Visits	Enforcement Notices *	Total
2014-15	155	35	380	49	28	51	31	729
2015-16	186	76	366	199	32	80	59	998
2016-17	170	96	357	106	25	86	61	901
2017-18	160	90	396	91	56	81	8	882

*s110 and s110a Notices

Source: DJPR

Graph 5.1 Monitoring, compliance and enforcement activities



Source: DJPR

6 Petroleum, geothermal and pipelines

6.1 Petroleum

Exploration for petroleum within Victoria's jurisdiction occurred in the Otway and Gippsland geological basins. Production activity occurred in the Otway Basin.

Offshore activities occur within three nautical miles off the coast, as covered by Victorian legislation. Waters greater than three nautical miles offshore from the coast are covered by Commonwealth legislation and reported separately by Commonwealth Government agencies.

6.2 Petroleum tenements

In 2017-18, no Petroleum Exploration Permits, Retention Leases or Production Leases applications were received or granted.

Table 6.1 Overview of petroleum tenements current as at 30 June 2018

	Petroleum Exploration Permits	Petroleum Retention Leases	Petroleum Production Licences	Other Tenements (PSAA, PSDA, AA)	Total
Onshore	11	3	13	2	28
Offshore (Vic)	3	1	1	1	6

Source: DJPR

6.2.1.1 Onshore

Due to the onshore moratorium, there were no onshore petroleum retention licence or exploration permit applications received or granted in 2017-18.

Table 6.2 Overview of onshore petroleum exploration permits

	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Application Received	1	0	0	0	0	0	0
Granted	0	2	2	0	0	0	0

Source: DJPR

Table 6.3 Overview of onshore petroleum retention licences

	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Application Received	0	0	0	0	0	0	0
Granted	0	0	0	0	0	0	0

Source: DJPR

6.2.1.2 Offshore (Victorian Waters)

No offshore petroleum permits were received or granted in 2017-18

Table 6.4 Overview of offshore petroleum exploration permits

	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Application Received	0	0	2	0	0	0	0
Granted	1	0	0	2	0	0	0

Source: DJPR

Table 6.5 Overview of offshore petroleum retention leases

	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Application Received	0	0	0	0	0	0	0
Granted	0	0	0	0	0	0	0

Source: DJPR

Table 6.6 Overview of offshore petroleum production licences

	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Application Received	0	0	1	0	0	0	0
Granted	0	0	0	1	0	0	0

Source: DJPR

6.2.1.3 Greenhouse gas storage

There were no application received or granted for Greenhouse Gas Access Permit.

Table 6.7 Overview of offshore Greenhouse Gas Assessment Permit

	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Application Received	0	0	0	0	1	1	0
Granted	0	0	0	0	0	1	0

Source: DJPR

6.2.2 Petroleum exploration and development

Due to the onshore Moratorium, no drilling or seismic activities occurred on Onshore Petroleum tenements in Victoria in 2017-18.

6.2.2.1 Drilling

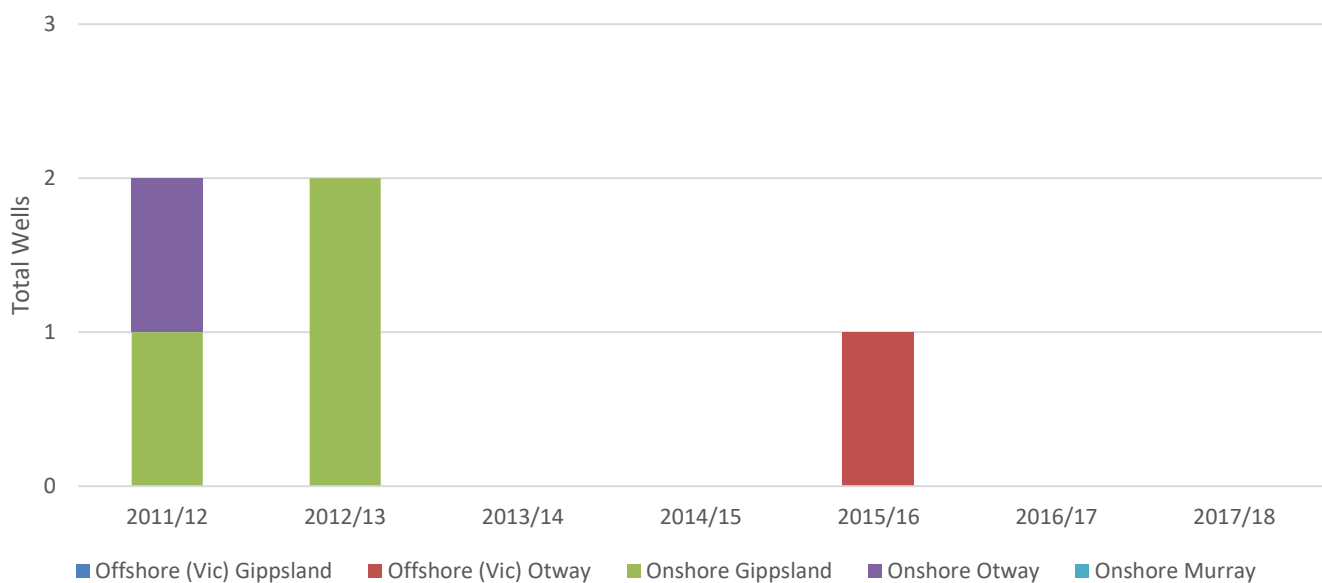
During 2017-18, no onshore wells were drilled. A legislated moratorium on exploration and production of onshore conventional gas is in place until June 2020, while scientific investigations are undertaken on the risks, benefits and impacts. Onshore unconventional gas activities, including hydraulic fracturing, are not permitted by law.

Table 6.8 Number of exploration wells drilled in Victoria

Year	Offshore (Vic) Gippsland	Offshore (Vic) Otway	Onshore Gippsland	Onshore Otway	Onshore Murray	Total wells
2011-12	0	0	1	1	0	2
2012-13	0	0	2	0	0	2
2013-14	0	0	0	0	0	0
2014-15	0	0	0	0	0	0
2015-16	0	1	0	0	0	1
2016-17	0	0	0	5	0	0
2017-18	0	0	0	0	0	0
Total	0	1	3	1	0	5

Source: DJPR

Graph 6.1 Number of exploration wells drilled



Source: DJPR

6.2.2.2 Production

Gas production located within Victoria's three nautical mile zone.

Table 6.9: Gas production 2017-18

Condensate (bbl*)	Gas Production (MMscf**)	Gas Production (Petajoules^)	CO2 Prod. (tonnes)	Gas Injection (MMscf)	Comments
134178	13,118	13.91	33,643	-	Ex wellhead figures

*bbl = barrels **MMscf = million standard cubic feet

(Unit Conversion: 1 Sm3 of oil = 6.29 bbl and 1 Sm3 of gas = 35.3 Scf)

Table 6.10: Underground gas storage 2017-18

Condensate (bbl*)	Gas Storage (MMscf**)	Gas Storage (Petajoules^)	CO2 Prod. (tonnes)	Gas Injection (MMscf)	Comments
465	11,670	12.38	-	13,745	Storage

*bbl = barrels **MMscf = million standard cubic feet

(Unit Conversion: 1 Sm3 of oil = 6.29 bbl and 1 Sm3 of gas = 35.3 Scf)

^ Convert Gas mmscf to petajoules using online converter : <https://www.santos.com/conversion-calculator/>

6.2.3 Geothermal Energy

As at 30 June 2018, there were five current geothermal energy exploration permits. No geothermal energy retention leases or production licences were granted in 2017-18. Geothermal energy activities in Victoria remain limited to exploration.

6.2.4 Geothermal energy tenements

No geothermal energy tenement applications were received or granted in 2017-18.

Table 6.11 Overview of geothermal exploration permits by year

Description	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Application Received	0	0	0	0	0	0	0
Granted	0	0	0	0	0	0	0
Licence Relinquished	0	2	7	0	0	0	1
Current Licences	15	13	6	6	6	6	5

Source: DJPR

6.3 Offshore Pipelines

Table 6.12 Offshore pipeline licences applications received and granted (Victorian waters)

	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Application Received	0	0	0	0	0	1	0
Granted	0	0	0	0	0	1	0

Source: DJPR


Table 6.13 Offshore Pipeline licences current as at 30 June 2018

Tenement	Number of licences
Offshore (Vic)	14

Source: DJPR

Onshore Pipelines

Onshore pipelines are administered by the Department of Environment, Land, Water and Planning (DELWP). For more information on onshore pipelines, visit the DELWP website <https://www.energy.vic.gov.au/pipelines>



Department of Jobs, Precincts and Regions

1 Spring Street Melbourne Victoria 3000

Telephone 1300 366 356

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