

SELECT

cells that are highlighted blue contain a dropdown menu click to select one option from the list

[guidance document link](#)

cells that contain underlined text click to access relevant guidance documents for this section

Table heading *

table headings followed by a symbol have an associated footnote or instructions

Cells with red indicator in top right corner

cells that have a red indicator in the top right corner contain a comment box with further instructions or clarification

Please note an interpretation of results is still required. This should be entered in the additional information/comments boxes within the templates. Please size these boxes appropriately to fit your interpretation, if additional space is required please include an appendix to the AER template and merge it as part of the AER PDF document. The excel template should have all cells sized appropriately so that all text is readable before it is converted to PDF document.

Facility Information Summary

AER Reporting Year	2014
Licence Register Number	W0048-01
Name of site	Marrakesh Ltd.
Site Location	Kimurru South Landfill, Kimurru South, Kilmacanogue, Bray, Co.
NACE Code	3821
Class/Classes of Activity	D1, D15, R3, R5, R13
National Grid Reference (6E, 6 N)	53.1506, -6.13329

A description of the activities/processes at the site for the reporting year. This should include information such as production increases or decreases on site, any infrastructural changes, environmental performance which was measured during the reporting year **and an overview of compliance with your licence listing all exceedances of licence limits (where applicable) and what they relate to e.g. air, water, noise.**

C&D materials (e.g. Soil & Stones, Concrete, Bituminous Mixtures) are accepted at the facility for screening, segregation, sorting and grading and sold as product for re-use purposes.


During 2014, no material was landfilled at the facility. Any materials which were not sold from the facility are temporarily stored on site pending sale.

There were no infrastructural or other significant changes during the reporting year.

Annual monitoring was conducted for: noise, LF gas, dust, surface water and groundwater. Noise - compliant; LF gas -CH4 - compliant, reference limit value exceeded for CO2; dust - compliant; surface water - pH was marginally in exceedance of limit values in SW-2; groundwater - non-compliances for Nickel and PAHs in BH-3.

Declaration:

All the data and information presented in this report has been checked and certified as being accurate. The quality of the information is assured to meet licence requirements.

	30/03/2015
Environmental Consultant, Patel Tonra Ltd.	Date
(or nominated, suitably qualified and experienced deputy)	

AIR-summary template Lic No: W0048-01 Year 2014

Answer all questions and complete all tables where relevant

- 1 Does your site have licensed air emissions? If yes please complete table A1 and A2 below for the current reporting year and answer further questions. If **you do not have** licenced emissions and **do not complete a solvent management plan** (table A4 and A5) you do not need to complete the tables

Additional information	
No	Dust deposition monitoring was conducted at two monitoring locations in Sep-Oct 2014 - results were below the EPA Waste Licence limit value of 350 mg/m2/day.

Periodic/Non-Continuous Monitoring

- 2 Are there any results in breach of licence requirements? If yes please provide brief details in the comment section of TableA1 below
- 3 Was all monitoring carried out in accordance with EPA guidance [Basic air monitoring checklist](#) note AG2 and using the basic air monitoring checklist? [AGN2](#)

SELECT	
SELECT	

Table A1: Licensed Mass Emissions/Ambient data-periodic monitoring (non-continuous)

Emission reference no:	Parameter/ Substance	Frequency of Monitoring	ELV in licence or any revision thereof	Licence Compliance criteria	Measured value	Unit of measurement	Compliant with licence limit	Method of analysis	Annual mass load (kg)	Comments - reason for change in % mass load from previous year if applicable
	SELECT			SELECT		SELECT	SELECT	SELECT		
	SELECT			SELECT		SELECT	SELECT	SELECT		
	SELECT			SELECT		SELECT	SELECT	SELECT		
	SELECT			SELECT		SELECT	SELECT	SELECT		

Note 1: Volumetric flow shall be included as a reportable parameter

AIR-summary template	Lic No: W0048-01	Year: 2014
Continuous Monitoring		

4 Does your site carry out continuous air emissions monitoring?

If yes please review your continuous monitoring data and report the required fields below in Table A2 and compare it to its relevant Emission Limit Value (ELV)

5 Did continuous monitoring equipment experience downtime? If yes please record downtime in table A2 below

6 Do you have a proactive service agreement for each piece of continuous monitoring equipment?

7 Did your site experience any abatement system bypasses? If yes please detail them in table A3 below

Table A2: Summary of average emissions -continuous monitoring

Emission reference no:	Parameter/ Substance	ELV in licence or any revision thereof	Averaging Period	Compliance Criteria	Units of measurement	Annual Emission	Annual maximum	Monitoring Equipment downtime (hours)	Number of ELV exceedences in current reporting year	Comments
	<input type="text" value="SELECT"/>			<input type="text" value="SELECT"/>	<input type="text" value="SELECT"/>					
	<input type="text" value="SELECT"/>			<input type="text" value="SELECT"/>	<input type="text" value="SELECT"/>					
	<input type="text" value="SELECT"/>			<input type="text" value="SELECT"/>	<input type="text" value="SELECT"/>					
	<input type="text" value="SELECT"/>			<input type="text" value="SELECT"/>	<input type="text" value="SELECT"/>					
	<input type="text" value="SELECT"/>			<input type="text" value="SELECT"/>	<input type="text" value="SELECT"/>					

note 1: Volumetric flow shall be included as a reportable parameter.

Table A3: Abatement system bypass reporting table [Bypass protocol](#)

Date*	Duration** (hours)	Location	Reason for bypass	Impact magnitude	Corrective action

* this should include all dates that an abatement system bypass occurred

** an accurate record of time bypass beginning and end should be logged on site and maintained for future Agency inspections please refer to bypass protocol link

AER Monitoring returns summary template-WATER/WASTEWATER(SEWER) Lic No: W0048-01 Year 2014

Additional information

1 Does your site have licensed emissions direct to surface water or direct to sewer? If yes please complete table W2 and W3 below for the current reporting year and answer further questions. **If you do not have** licenced emissions you **only** need to complete table W1 and or W2 for storm water analysis and visual inspections

2 Was it a requirement of your licence to carry out visual inspections on any surface water discharges or watercourses on or near your site? If yes please complete table W2 below summarising **only any evidence of contamination noted during visual inspections**

No Patel Tonra Ltd. conducted sampling of surface water on 2 September 2014. Samples were obtained from surface water monitoring point SW-2. SW-1 and SW-3 were dry at the time of sampling. Results were largely in compliance with reference limit values. pH was marginally in exceedance of the Surface Water Regulations (2009) and the Salmonid Water Regulations (1988) limit value in SW-2, indicating slightly alkaline water conditions.

No No requirement to complete Table W2

Table W1 Storm water monitoring

Location reference	Location relative to site activities	PRTR Parameter	Licensed Parameter	Monitoring date	ELV or trigger level in licence or any revision thereof*	Licence Compliance criteria	Measured value	Unit of measurement	Compliant with licence	Comments
	SELECT	SELECT	SELECT			SELECT		SELECT	SELECT	
	SELECT	SELECT	SELECT			SELECT		SELECT	SELECT	

*trigger values may be agreed by the Agency outside of licence conditions

Table W2 Visual inspections-Please only enter details where contamination was observed.

Location Reference	Date of inspection	Description of contamination	Source of contamination	Corrective action	Comments
		NOT APPLICABLE	SELECT		
			SELECT		

Licensed Emissions to water and /or wastewater(sewer)-periodic monitoring (non-continuous)

3 Was there any result in breach of licence requirements? If yes please provide brief details in the comment section of Table W3 below

4 Was all monitoring carried out in accordance with EPA guidance and checklists for Quality of Aqueous Monitoring Data Reported to the EPA? If no please detail what areas require improvement in additional information box

SELECT NOT APPLICABLE

SELECT

Table W3: Licensed Emissions to water and /or wastewater (sewer)-periodic monitoring (non-continuous)

Emission reference no:	Emission released to	Parameter/ SubstanceNote 1	Type of sample	Frequency of monitoring	Averaging period	ELV or trigger values in licence or any revision thereof ^{Note 2}	Licence Compliance criteria	Measured value	Unit of measurement	Compliant with licence	Method of analysis	Procedural reference source	Procedural reference standard number	Annual mass load (kg)	Comments
	SELECT	SELECT	SELECT		SELECT		SELECT		SELECT	SELECT	SELECT	SELECT			

Note 1: Volumetric flow shall be included as a reportable parameter

Note 2: Where Emission Limit Values (ELV) do not apply to your licence please compare results against EQS for Surface water or relevant receptor quality standards

Continuous monitoring
 5 Does your site carry out continuous emissions to water/sewer monitoring?

No	Additional Information
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If yes please summarise your continuous monitoring data below in Table W4 and compare it to its relevant Emission Limit Value (ELV)

6 Did continuous monitoring equipment experience downtime? If yes please record downtime in table W4 below

SELECT	NOT APPLICABLE
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7 Do you have a proactive service contract for each piece of continuous monitoring equipment on site?

SELECT	NOT APPLICABLE
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8 Did abatement system bypass occur during the reporting year? If yes please complete table W5 below

SELECT	NOT APPLICABLE
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Table W4: Summary of average emissions -continuous monitoring

Emission reference no:	Emission released to	Parameter/ Substance	ELV or trigger values in licence or any revision thereof	Averaging Period	Compliance Criteria	Units of measurement	Annual Emission for current reporting year (kg)	% change +/- from previous reporting year	Monitoring Equipment downtime (hours)	Number of ELV exceedences in reporting year	Comments
NOT APPLICABLE	SELECT	SELECT		SELECT	SELECT	SELECT					
	SELECT	SELECT		SELECT	SELECT	SELECT					

note 1: Volumetric flow shall be included as a reportable parameter.

Table W5: Abatement system bypass reporting table

Date	Duration (hours)	Location	Resultant emissions	Reason for bypass	Corrective action*	Was a report submitted to the EPA?	When was this report submitted?
NOT APPLICABLE						SELECT	

*Measures taken or proposed to reduce or limit bypass frequency

Bund testing

dropdown menu click to see options

Additional information

Are you required by your licence to undertake integrity testing on bunds and containment structures? If yes please fill out table B1 below listing all **new bunds and containment structures** on site, in addition to **all bunds which failed the integrity test-all bunding structures which failed including mobile bunds must be listed in the table below, please include all bunds outside the licenced testing period** (mobile bunds and chemstore included)

Yes	Fuel is stored in a double-skinned tank, within a metal container. Marrakesh Ltd. consider that the tank's location on site, and within a container unit, are adequate mitigation against potential vehicular damage. Bund testing not applicable in this instance.
SELECT	
SELECT	
SELECT	
SELECT	
SELECT	
SELECT	
SELECT	
SELECT	
SELECT	
SELECT	
SELECT	

- 1 Please provide integrity testing frequency period
 - 2 Does the site maintain a register of bunds, underground pipelines (including stormwater and foul), Tanks, sumps and containers? (containers refers to "Chemstore" type units and mobile bunds)
 - 3 How many bunds are on site?
 - 4 How many of these bunds have been tested within the required test schedule?
 - 5 How many mobile bunds are on site?
 - 6 Are the mobile bunds included in the bund test schedule?
 - 7 How many of these mobile bunds have been tested within the required test schedule?
 - 8 How many sumps on site are included in the integrity test schedule?
 - 9 How many of these sumps are integrity tested within the test schedule?
- Please list any sump integrity failures in table B1**
- 10 Do all sumps and chambers have high level liquid alarms?
 - 11 If yes to Q11 are these failsafe systems included in a maintenance and testing programme?
 - 12 Is the Fire Water Retention Pond included in your integrity test programme?

Table B1: Summary details of bund /containment structure integrity test

Bund/Containment structure ID	Type	Specify Other type	Product containment	Actual capacity	Capacity required*	Type of integrity test	Other test type	Test date	Integrity reports maintained on site?	Results of test	Integrity test failure explanation <50 words	Corrective action taken	Scheduled date for retest	Results of retest (if in current reporting year)
SELECT	SELECT					SELECT			SELECT	SELECT		SELECT		
SELECT	SELECT					SELECT			SELECT	SELECT		SELECT		

- * Capacity required should comply with 25% or 110% containment rule as detailed in your licence
- Has integrity testing been carried out in accordance with licence requirements and are all structures tested in line with BS8007/EPA Guidance? [bundling and storage guidelines](#)
- 15 Are channels/transfer systems to remote containment systems tested?
 - 16 Are channels/transfer systems compliant in both integrity and available volume?

SELECT	
SELECT	
SELECT	

Pipeline/underground structure testing

Are you required by your licence to undertake integrity testing* on underground structures e.g. pipelines or sumps etc? If yes please fill out table 2 below listing all underground structures and pipelines on site **which failed the integrity test and all which have not been tested within the integrity test period as specified**

SELECT	
SELECT	

- 2 Please provide integrity testing frequency period
- *please note integrity testing means water tightness testing for process and foul pipelines (as required under your licence)

Table B2: Summary details of pipeline/underground structures integrity test

Structure ID	Type system	Material of construction:	Does this structure have Secondary containment?	Type of secondary containment	Type integrity testing	Integrity reports maintained on site?	Results of test	Integrity test failure explanation <50 words	Corrective action taken	Scheduled date for retest	Results of retest (if in current reporting year)
SELECT	SELECT	SELECT	SELECT	SELECT	SELECT	SELECT	SELECT				SELECT

Please use commentary for additional details not answered by tables/ questions above

Groundwater/Soil monitoring template	Lic No: W0048-01	Year: 2014
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		Comments
1	Are you required to carry out groundwater monitoring as part of your licence requirements?	yes
2	Are you required to carry out soil monitoring as part of your licence requirements?	no
3	Do you extract groundwater for use on site? If yes please specify use in comment section	no
4	Do monitoring results show that groundwater generic assessment criteria such as GTVs or IGVs are exceeded or is there an upward trend in results for a substance? If yes, please complete the Groundwater Monitoring Guideline Template Report (link in cell G8) and submit separately through ALDER as a licensee return AND answer questions 5-12 below.	no
5	Is the contamination related to operations at the facility (either current and/or historic)	SELECT
6	Have actions been taken to address contamination issues? If yes please summarise remediation strategies proposed/undertaken for the site	SELECT
7	Please specify the proposed time frame for the remediation strategy	SELECT
8	Is there a licence condition to carry out/update ELRA for the site?	SELECT
9	Has any type of risk assessment been carried out for the site?	SELECT
10	Has a Conceptual Site Model been developed for the site?	SELECT
11	Have potential receptors been identified on and off site?	SELECT
12	Is there evidence that contamination is migrating offsite?	SELECT

Please provide an interpretation of groundwater monitoring data in the interpretation box below or if you require additional space please include a groundwater/contaminated land monitoring results interpretation as an additional section in this AER

Analytical results were compared against the Groundwater Regulations 2010. Results were generally in compliance with relevant guideline limit values. There were non-compliances for Nickel and PAHs in BH-3.

Table 1: Upgradient Groundwater monitoring results

Date of sampling	Sample location reference	Parameter/ Substance	Methodology	Monitoring frequency	Maximum Concentration++	Average Concentration+	unit	GTV's*	SELECT**	Upward trend in pollutant concentration over last 5 years of monitoring data
02/09/2014	BH-6	Aluminium	Lab analysis	Annually	0.026	0.026	mg/l	0.15		No
02/09/2014	BH-6	Ammoniacal Nitrogen	Lab analysis	Annually	<0.2	<0.2	mg/l	0.18		No
02/09/2014	BH-6	Arsenic	Lab analysis	Annually	<0.0001	<0.0001	mg/l	0.008		No
02/09/2014	BH-6	Barium	Lab analysis	Annually	0.014	0.014	mg/l	-		No
02/09/2014	BH-6	Boron	Lab analysis	Annually	0.02	0.02	mg/l	0.75		No
02/09/2014	BH-6	Cadmium	Lab analysis	Annually	<0.0001	<0.0001	mg/l	0.004		No
02/09/2014	BH-6	Calcium	Lab analysis	Annually	2.83	2.83	mg/l	-		No
02/09/2014	BH-6	Chloride	Lab analysis	Annually	11.6	11.6	mg/l	-		No
02/09/2014	BH-6	Chromium	Lab analysis	Annually	<0.003	<0.003	mg/l	0.038		No
02/09/2014	BH-6	Copper	Lab analysis	Annually	0.0021	0.0021	mg/l	1.5		No
02/09/2014	BH-6	Cyanide	Lab analysis	Annually	<0.05	<0.05	mg/l	0.04		No
02/09/2014	BH-6	Electrical conductivity	On-site analysis	Annually	0.09	0.09	mS/cm	-		No
02/09/2014	BH-6	Faecal Coliforms	Lab analysis	Annually	4	4	cfus/ 100ml	-		No
02/09/2014	BH-6	Fluoride	Lab analysis	Annually	<0.5	<0.5	mg/l	-		No

Groundwater/Soil monitoring template				Lic No:	W0048-01	Year	2014			
02/09/2014	BH-6	Groundwater Level	On-site analysis	Annually	6.45	6.45	m bgl	-		No
02/09/2014	BH-6	Iron	Lab analysis	Annually	<0.019	<0.019	mg/l	-		No
02/09/2014	BH-6	Kjeldahl Nitrogen	Lab analysis	Annually	<1	<1	mg/l	-		No
02/09/2014	BH-6	Lead	Lab analysis	Annually	0.0004	0.0004	mg/l	0.019		No
02/09/2014	BH-6	Magnesium	Lab analysis	Annually	2.15	2.15	mg/l	-		No
02/09/2014	BH-6	Manganese	Lab analysis	Annually	0.016	0.016	mg/l	-		No
02/09/2014	BH-6	Mercury	Lab analysis	Annually	0.0002	0.0002	mg/l	0.0008		No
02/09/2014	BH-6	Mineral Oils	Lab analysis	Annually	<0.01	<0.01	mg/l	-		No
02/09/2014	BH-6	Nickel	Lab analysis	Annually	0.0011	0.0011	mg/l	0.015		No
02/09/2014	BH-6	Nitrate	Lab analysis	Annually	8.5	8.5	mg/l	37.5		No
02/09/2014	BH-6	Nitrite	Lab analysis	Annually	<0.05	<0.05	mg/l	-		No
02/09/2014	BH-6	Orthophosphate	Lab analysis	Annually	<0.05	<0.05	mg/l	-		No
02/09/2014	BH-6	pH	Lab analysis	Annually	5.9	5.9	pH units	-		No
02/09/2014	BH-6	Phosphorous, Total	Lab analysis	Annually	<0.020	<0.020	mg	-		No
02/09/2014	BH-6	PAHs (16)	Lab analysis	Annually	<0.0003	<0.0003	mg/l	0.00008		No
02/09/2014	BH-6	Potassium	Lab analysis	Annually	<1.00	<1.00	mg/l	-		No
02/09/2014	BH-6	Selenium	Lab analysis	Annually	<0.0004	<0.0004	mg/l	-		No
02/09/2014	BH-6	Silver	Lab analysis	Annually	<0.0015	<0.0015	mg/l	-		No
02/09/2014	BH-6	Sodium	Lab analysis	Annually	6.95	6.95	mg/l	-		No
02/09/2014	BH-6	Sulphate	Lab analysis	Annually	6.9	6.9	mg/l	187.5		No
02/09/2014	BH-6	Total Alkalinity	Lab analysis	Annually	9	9	mg/l	-		No
02/09/2014	BH-6	Total Coliforms	Lab analysis	Annually	9	9	cfus/ 100ml	-		No
02/09/2014	BH-6	Total Organic Carbon	Lab analysis	Annually	<3	<3	mg/l	-		No
02/09/2014	BH-6	Total Oxidised Nitrogen	Lab analysis	Annually	1.9	1.9	mg/l	-		No
02/09/2014	BH-6	Total Solids	Lab analysis	Annually	185	185	mg/l	-		No
02/09/2014	BH-6	Zinc	Lab analysis	Annually	0.014	0.014	mg/l	-		No
02/09/2014					0	0		0		
02/09/2014	BH-2	Aluminium	Lab analysis	Annually	<0.003	<0.003	mg/l	0.15		No
02/09/2014	BH-2	Ammoniacal Nitrogen	Lab analysis	Annually	<0.2	<0.2	mg/l	0.18		No
02/09/2014	BH-2	Arsenic	Lab analysis	Annually	<0.0001	<0.0001	mg/l	0.008		No
02/09/2014	BH-2	Barium	Lab analysis	Annually	0.019	0.019	mg/l	-		No
02/09/2014	BH-2	Boron	Lab analysis	Annually	0.019	0.019	mg/l	0.75		No
02/09/2014	BH-2	Cadmium	Lab analysis	Annually	<0.0001	<0.0001	mg/l	0.004		No
02/09/2014	BH-2	Calcium	Lab analysis	Annually	111	111	mg/l	-		No
02/09/2014	BH-2	Chloride	Lab analysis	Annually	12	12	mg/l	-		No
02/09/2014	BH-2	Chromium	Lab analysis	Annually	<0.003	<0.003	mg/l	0.038		No
02/09/2014	BH-2	Copper	Lab analysis	Annually	0.0034	0.0034	mg/l	1.5		No
02/09/2014	BH-2	Cyanide	Lab analysis	Annually	<0.05	<0.05	mg/l	0.04		No
02/09/2014	BH-2	Electrical conductivity	On-site analysis	Annually	0.6	0.6	mS/cm	-		No

Groundwater/Soil monitoring template				Lic No:	W0048-01	Year	2014			
02/09/2014	BH-2	Faecal Coliforms	Lab analysis	Annually	22	22	cfus/ 100ml	-		No
02/09/2014	BH-2	Fluoride	Lab analysis	Annually	<0.5	<0.5	mg/l	-		No
02/09/2014	BH-2	Groundwater Level	On-site analysis	Annually	2.85	2.85	m bgl	-		No
02/09/2014	BH-2	Iron	Lab analysis	Annually	<0.02	<0.02	mg/l	-		No
02/09/2014	BH-2	Kjeldahl Nitrogen	Lab analysis	Annually	<1	<1	mg/l	-		No
02/09/2014	BH-2	Lead	Lab analysis	Annually	0.00008	0.00008	mg/l	0.019		No
02/09/2014	BH-2	Magnesium	Lab analysis	Annually	4.01	4.01	mg/l	-		No
02/09/2014	BH-2	Manganese	Lab analysis	Annually	0.001	0.001	mg/l	-		No
02/09/2014	BH-2	Mercury	Lab analysis	Annually	<0.00001	<0.00001	mg/l	0.0008		No
02/09/2014	BH-2	Mineral Oils	Lab analysis	Annually	0.01	0.01	mg/l	-		No
02/09/2014	BH-2	Nickel	Lab analysis	Annually	0.003	0.003	mg/l	0.015		No
02/09/2014	BH-2	Nitrate	Lab analysis	Annually	1.2	1.2	mg/l	37.5		No
02/09/2014	BH-2	Nitrite	Lab analysis	Annually	<0.05	<0.05	mg/l	-		No
02/09/2014	BH-2	Orthophosphate	Lab analysis	Annually	<0.05	<0.05	mg/l	-		No
02/09/2014	BH-2	pH	Lab analysis	Annually	7.2	7.2	pH units	-		No
02/09/2014	BH-2	Phosphorous, Total	Lab analysis	Annually	0.212	0.212	mg	-		No
02/09/2014	BH-2	PAHs (16)	Lab analysis	Annually	<0.0003	<0.0003	mg/l	0.00008		No
02/09/2014	BH-2	Potassium	Lab analysis	Annually	<1.0	<1.0	mg/l	-		No
02/09/2014	BH-2	Selenium	Lab analysis	Annually	<0.0004	<0.0004	mg/l	-		No
02/09/2014	BH-2	Silver	Lab analysis	Annually	<0.0015	<0.0015	mg/l	-		No
02/09/2014	BH-2	Sodium	Lab analysis	Annually	7.6	7.6	mg/l	-		No
02/09/2014	BH-2	Sulphate	Lab analysis	Annually	10.9	10.9	mg/l	187.5		No
02/09/2014	BH-2	Total Alkalinity	Lab analysis	Annually	325	325	mg/l	-		No
02/09/2014	BH-2	Total Coliforms	Lab analysis	Annually	24	24	cfus/ 100ml	-		No
02/09/2014	BH-2	Total Organic Carbon	Lab analysis	Annually	<3	<3	mg/l	-		No
02/09/2014	BH-2	Total Oxidised Nitrogen	Lab analysis	Annually	0.28	0.28	mg/l	-		No
02/09/2014	BH-2	Total Solids	Lab analysis	Annually	733	733	mg/l	-		No
02/09/2014	BH-2	Zinc	Lab analysis	Annually	0.0042	0.0042	mg/l	-		No
02/09/2014					0	0		0		
02/09/2014	BH-3	Aluminium	Lab analysis	Annually	<0.003	<0.003	mg/l	0.15		No
02/09/2014	BH-3	Ammoniacal Nitrogen	Lab analysis	Annually	<0.2	<0.2	mg/l	0.18		No
02/09/2014	BH-3	Arsenic	Lab analysis	Annually	0.0003	0.0003	mg/l	0.008		No
02/09/2014	BH-3	Barium	Lab analysis	Annually	0.029	0.029	mg/l	-		No
02/09/2014	BH-3	Boron	Lab analysis	Annually	0.026	0.026	mg/l	0.75		No
02/09/2014	BH-3	Cadmium	Lab analysis	Annually	<0.0001	<0.0001	mg/l	0.004		No
02/09/2014	BH-3	Calcium	Lab analysis	Annually	97	97	mg/l	-		No
02/09/2014	BH-3	Chloride	Lab analysis	Annually	17	17	mg/l	-		No
02/09/2014	BH-3	Chromium	Lab analysis	Annually	0.007	0.007	mg/l	0.038		No
02/09/2014	BH-3	Copper	Lab analysis	Annually	0.0017	0.0017	mg/l	1.5		No
02/09/2014	BH-3	Cyanide	Lab analysis	Annually	<0.05	<0.05	mg/l	0.04		No

Groundwater/Soil monitoring template				Lic No:	W0048-01	Year	2014			
02/09/2014	BH-3	Electrical conductivity	On-site analysis	Annually	0.59	0.59	mS/cm	-		No
02/09/2014	BH-3	Faecal Coliforms	Lab analysis	Annually	0	0	cfus/ 100ml	-		No
02/09/2014	BH-3	Fluoride	Lab analysis	Annually	<0.5	<0.5	mg/l	-		No
02/09/2014	BH-3	Groundwater Level	On-site analysis	Annually	5.64	5.64	m bgl	-		No
02/09/2014	BH-3	Iron	Lab analysis	Annually	0.08	0.08	mg/l	-		No
02/09/2014	BH-3	Kjeldahl Nitrogen	Lab analysis	Annually	<1	<1	mg/l	-		No
02/09/2014	BH-3	Lead	Lab analysis	Annually	0.00007	0.00007	mg/l	0.019		No
02/09/2014	BH-3	Magnesium	Lab analysis	Annually	5.37	5.37	mg/l	-		No
02/09/2014	BH-3	Manganese	Lab analysis	Annually	0.173	0.173	mg/l	-		No
02/09/2014	BH-3	Mercury	Lab analysis	Annually	<0.00001	<0.00001	mg/l	0.0008		No
02/09/2014	BH-3	Mineral Oils	Lab analysis	Annually	0.07	0.07	mg/l	-		No
02/09/2014	BH-3	Nickel	Lab analysis	Annually	0.088	0.088	mg/l	0.015		No
02/09/2014	BH-3	Nitrate	Lab analysis	Annually	3.86	3.86	mg/l	37.5		No
02/09/2014	BH-3	Nitrite	Lab analysis	Annually	<0.05	<0.05	mg/l	-		No
02/09/2014	BH-3	Orthophosphate	Lab analysis	Annually	<0.05	<0.05	mg/l	-		No
02/09/2014	BH-3	pH	Lab analysis	Annually	8.2	8.2	pH units	-		No
02/09/2014	BH-3	Phosphorous, Total	Lab analysis	Annually	0.632	0.632	mg	-		No
02/09/2014	BH-3	PAHs (16)	Lab analysis	Annually	0.0004	0.0004	mg/l	0.00008		No
02/09/2014	BH-3	Potassium	Lab analysis	Annually	1.43	1.43	mg/l	-		No
02/09/2014	BH-3	Selenium	Lab analysis	Annually	0.0013	0.0013	mg/l	-		No
02/09/2014	BH-3	Silver	Lab analysis	Annually	<0.002	<0.002	mg/l	-		No
02/09/2014	BH-3	Sodium	Lab analysis	Annually	11.1	11.1	mg/l	-		No
02/09/2014	BH-3	Sulphate	Lab analysis	Annually	49	49	mg/l	187.5		No
02/09/2014	BH-3	Total Alkalinity	Lab analysis	Annually	265	265	mg/l	-		No
02/09/2014	BH-3	Total Coliforms	Lab analysis	Annually	3	3	cfus/ 100ml	-		No
02/09/2014	BH-3	Total Organic Carbon	Lab analysis	Annually	3	3	mg/l	-		No
02/09/2014	BH-3	Total Oxidised Nitrogen	Lab analysis	Annually	0.88	0.88	mg/l	-		No
02/09/2014	BH-3	Total Solids	Lab analysis	Annually	878	878	mg/l	-		No
02/09/2014	BH-3	Zinc	Lab analysis	Annually	0.004	0.004	mg/l	-		No
02/09/2014					0	0		0		
02/09/2014	BH-7	Aluminium	Lab analysis	Annually	<0.003	<0.003	mg/l	0.15		No
02/09/2014	BH-7	Ammoniacal Nitrogen	Lab analysis	Annually	<0.2	<0.2	mg/l	0.18		No
02/09/2014	BH-7	Arsenic	Lab analysis	Annually	0.0008	0.0008	mg/l	0.008		No
02/09/2014	BH-7	Barium	Lab analysis	Annually	0.045	0.045	mg/l	-		No
02/09/2014	BH-7	Boron	Lab analysis	Annually	0.057	0.057	mg/l	0.75		No
02/09/2014	BH-7	Cadmium	Lab analysis	Annually	<0.0001	<0.0001	mg/l	0.004		No
02/09/2014	BH-7	Calcium	Lab analysis	Annually	158	158	mg/l	-		No
02/09/2014	BH-7	Chloride	Lab analysis	Annually	17.2	17.2	mg/l	-		No
02/09/2014	BH-7	Chromium	Lab analysis	Annually	0.023	0.023	mg/l	0.038		No

Groundwater/Soil monitoring template				Lic No:	W0048-01	Year	2014		
02/09/2014	BH-7	Copper	Lab analysis	Annually	0.003	0.003	mg/l	1.5	No
02/09/2014	BH-7	Cyanide	Lab analysis	Annually	<0.05	<0.05	mg/l	0.04	No
02/09/2014	BH-7	Electrical conductivity	On-site analysis	Annually	0.89	0.89	mS/cm	-	No
02/09/2014	BH-7	Faecal Coliforms	Lab analysis	Annually	0	0	cfus/ 100ml	-	No
02/09/2014	BH-7	Fluoride	Lab analysis	Annually	<0.5	<0.5	mg/l	-	No
02/09/2014	BH-7	Groundwater Level	On-site analysis	Annually	2.45	2.45	m bgl	-	No
02/09/2014	BH-7	Iron	Lab analysis	Annually	<0.019	<0.019	mg/l	-	No
02/09/2014	BH-7	Kjeldahl Nitrogen	Lab analysis	Annually	<1	<1	mg/l	-	No
02/09/2014	BH-7	Lead	Lab analysis	Annually	0.00003	0.00003	mg/l	0.019	No
02/09/2014	BH-7	Magnesium	Lab analysis	Annually	10.4	10.4	mg/l	-	No
02/09/2014	BH-7	Manganese	Lab analysis	Annually	0.0008	0.0008	mg/l	-	No
02/09/2014	BH-7	Mercury	Lab analysis	Annually	<0.00001	<0.00001	mg/l	0.0008	No
02/09/2014	BH-7	Mineral Oils	Lab analysis	Annually	0.04	0.04	mg/l	-	No
02/09/2014	BH-7	Nickel	Lab analysis	Annually	0.0044	0.0044	mg/l	0.015	No
02/09/2014	BH-7	Nitrate	Lab analysis	Annually	1.11	1.11	mg/l	37.5	No
02/09/2014	BH-7	Nitrite	Lab analysis	Annually	<0.05	<0.05	mg/l	-	No
02/09/2014	BH-7	Orthophosphate	Lab analysis	Annually	<0.05	<0.05	mg/l	-	No
02/09/2014	BH-7	pH	Lab analysis	Annually	8.3	8.3	pH units	-	No
02/09/2014	BH-7	Phosphorous, Total	Lab analysis	Annually	0.444	0.444	mg	-	No
02/09/2014	BH-7	PAHs (16)	Lab analysis	Annually	<0.0003	<0.0003	mg/l	0.00008	No
02/09/2014	BH-7	Potassium	Lab analysis	Annually	2.08	2.08	mg/l	-	No
02/09/2014	BH-7	Selenium	Lab analysis	Annually	0.0015	0.0015	mg/l	-	No
02/09/2014	BH-7	Silver	Lab analysis	Annually	<0.0015	<0.0015	mg/l	-	No
02/09/2014	BH-7	Sodium	Lab analysis	Annually	16.9	16.9	mg/l	-	No
02/09/2014	BH-7	Sulphate	Lab analysis	Annually	120	120	mg/l	187.5	No
02/09/2014	BH-7	Total Alkalinity	Lab analysis	Annually	390	390	mg/l	-	No
02/09/2014	BH-7	Total Coliforms	Lab analysis	Annually	<1	<1	cfus/ 100ml	-	No
02/09/2014	BH-7	Total Organic Carbon	Lab analysis	Annually	6.41	6.41	mg/l	-	No
02/09/2014	BH-7	Total Oxidised Nitrogen	Lab analysis	Annually	0.26	0.26	mg/l	-	No
02/09/2014	BH-7	Total Solids	Lab analysis	Annually	1640	1640	mg/l	-	No
02/09/2014	BH-7	Zinc	Lab analysis	Annually	0.006	0.006	mg/l	-	No
02/09/2014					0	0		0	
02/09/2014	BH-8	Aluminium	Lab analysis	Annually	0	0	mg/l	0.15	No
02/09/2014	BH-8	Ammoniacal Nitrogen	Lab analysis	Annually	0	0	mg/l	0.18	No
02/09/2014	BH-8	Arsenic	Lab analysis	Annually	0	0	mg/l	0.008	No
02/09/2014	BH-8	Barium	Lab analysis	Annually	0	0	mg/l	-	No
02/09/2014	BH-8	Boron	Lab analysis	Annually	0	0	mg/l	0.75	No
02/09/2014	BH-8	Cadmium	Lab analysis	Annually	0	0	mg/l	0.004	No
02/09/2014	BH-8	Calcium	Lab analysis	Annually	0	0	mg/l	-	No

Groundwater/Soil monitoring template				Lic No:	W0048-01	Year	2014		
02/09/2014	BH-8	Chloride	Lab analysis	Annually	0	0	mg/l	-	No
02/09/2014	BH-8	Chromium	Lab analysis	Annually	0	0	mg/l	0.038	No
02/09/2014	BH-8	Copper	Lab analysis	Annually	0	0	mg/l	1.5	No
02/09/2014	BH-8	Cyanide	Lab analysis	Annually	0	0	mg/l	0.04	No
02/09/2014	BH-8	Electrical conductivity	On-site analysis	Annually	0	0	mS/cm	-	No
02/09/2014	BH-8	Faecal Coliforms	Lab analysis	Annually	0	0	cfus/ 100ml	-	No
02/09/2014	BH-8	Fluoride	Lab analysis	Annually	0	0	mg/l	-	No
02/09/2014	BH-8	Groundwater Level	On-site analysis	Annually	0	0	m bgl	-	No
02/09/2014	BH-8	Iron	Lab analysis	Annually	0	0	mg/l	-	No
02/09/2014	BH-8	Kjeldahl Nitrogen	Lab analysis	Annually	0	0	mg/l	-	No
02/09/2014	BH-8	Lead	Lab analysis	Annually	0	0	mg/l	0.019	No
02/09/2014	BH-8	Magnesium	Lab analysis	Annually	0	0	mg/l	-	No
02/09/2014	BH-8	Manganese	Lab analysis	Annually	0	0	mg/l	-	No
02/09/2014	BH-8	Mercury	Lab analysis	Annually	0	0	mg/l	0.0008	No
02/09/2014	BH-8	Mineral Oils	Lab analysis	Annually	0	0	mg/l	-	No
02/09/2014	BH-8	Nickel	Lab analysis	Annually	0	0	mg/l	0.015	No
02/09/2014	BH-8	Nitrate	Lab analysis	Annually	0	0	mg/l	37.5	No
02/09/2014	BH-8	Nitrite	Lab analysis	Annually	0	0	mg/l	-	No
02/09/2014	BH-8	Orthophosphate	Lab analysis	Annually	0	0	mg/l	-	No
02/09/2014	BH-8	pH	Lab analysis	Annually	0	0	pH units	-	No
02/09/2014	BH-8	Phosphorous, Total	Lab analysis	Annually	0	0	mg	-	No
02/09/2014	BH-8	PAHs (16)	Lab analysis	Annually	0	0	mg/l	0.00008	No
02/09/2014	BH-8	Potassium	Lab analysis	Annually	0	0	mg/l	-	No
02/09/2014	BH-8	Selenium	Lab analysis	Annually	0	0	mg/l	-	No
02/09/2014	BH-8	Silver	Lab analysis	Annually	0	0	mg/l	-	No
02/09/2014	BH-8	Sodium	Lab analysis	Annually	0	0	mg/l	-	No
02/09/2014	BH-8	Sulphate	Lab analysis	Annually	0	0	mg/l	187.5	No
02/09/2014	BH-8	Total Alkalinity	Lab analysis	Annually	0	0	mg/l	-	No
02/09/2014	BH-8	Total Coliforms	Lab analysis	Annually	0	0	cfus/ 100ml	-	No
02/09/2014	BH-8	Total Organic Carbon	Lab analysis	Annually	0	0	mg/l	-	No
02/09/2014	BH-8	Total Oxidised Nitrogen	Lab analysis	Annually	0	0	mg/l	-	No
02/09/2014	BH-8	Total Solids	Lab analysis	Annually	0	0	mg/l	-	No
02/09/2014	BH-8	Zinc	Lab analysis	Annually	0	0	mg/l	-	No
02/09/2014					0	0		0	
02/09/2014	PW-2	Aluminium	Lab analysis	Annually	<0.003	<0.003	mg/l	0.15	No
02/09/2014	PW-2	Ammoniacal Nitrogen	Lab analysis	Annually	<0.2	<0.2	mg/l	0.18	No
02/09/2014	PW-2	Arsenic	Lab analysis	Annually	<0.0001	<0.0001	mg/l	0.008	No
02/09/2014	PW-2	Barium	Lab analysis	Annually	0.02	0.02	mg/l	-	No
02/09/2014	PW-2	Boron	Lab analysis	Annually	0.021	0.021	mg/l	0.75	No

Groundwater/Soil monitoring template				Lic No:	W0048-01	Year	2014		
02/09/2014	PW-2	Cadmium	Lab analysis	Annually	<0.0001	<0.0001	mg/l	0.004	No
02/09/2014	PW-2	Calcium	Lab analysis	Annually	83.6	83.6	mg/l	-	No
02/09/2014	PW-2	Chloride	Lab analysis	Annually	15.8	15.8	mg/l	-	No
02/09/2014	PW-2	Chromium	Lab analysis	Annually	<0.003	<0.003	mg/l	0.038	No
02/09/2014	PW-2	Copper	Lab analysis	Annually	0.02	0.02	mg/l	1.5	No
02/09/2014	PW-2	Cyanide	Lab analysis	Annually	<0.05	<0.05	mg/l	0.04	No
02/09/2014	PW-2	Electrical conductivity	On-site analysis	Annually	0.49	0.49	mS/cm	-	No
02/09/2014	PW-2	Faecal Coliforms	Lab analysis	Annually	0	0	cfus/ 100ml	-	No
02/09/2014	PW-2	Fluoride	Lab analysis	Annually	<0.5	<0.5	mg/l	-	No
02/09/2014	PW-2	Groundwater Level	On-site analysis	Annually	0	0	m bgl	-	No
02/09/2014	PW-2	Iron	Lab analysis	Annually	<0.019	<0.019	mg/l	-	No
02/09/2014	PW-2	Kjeldahl Nitrogen	Lab analysis	Annually	<0.1	<0.1	mg/l	-	No
02/09/2014	PW-2	Lead	Lab analysis	Annually	0.0005	0.0005	mg/l	0.019	No
02/09/2014	PW-2	Magnesium	Lab analysis	Annually	4.08	4.08	mg/l	-	No
02/09/2014	PW-2	Manganese	Lab analysis	Annually	0.00006	0.00006	mg/l	-	No
02/09/2014	PW-2	Mercury	Lab analysis	Annually	<0.00001	<0.00001	mg/l	0.0008	No
02/09/2014	PW-2	Mineral Oils	Lab analysis	Annually	0.05	0.05	mg/l	-	No
02/09/2014	PW-2	Nickel	Lab analysis	Annually	0.0014	0.0014	mg/l	0.015	No
02/09/2014	PW-2	Nitrate	Lab analysis	Annually	7.92	7.92	mg/l	37.5	No
02/09/2014	PW-2	Nitrite	Lab analysis	Annually	<0.05	<0.05	mg/l	-	No
02/09/2014	PW-2	Orthophosphate	Lab analysis	Annually	<0.05	<0.05	mg/l	-	No
02/09/2014	PW-2	pH	Lab analysis	Annually	7.1	7.1	pH units	-	No
02/09/2014	PW-2	Phosphorous, Total	Lab analysis	Annually	<0.02	<0.02	mg	-	No
02/09/2014	PW-2	PAHs (16)	Lab analysis	Annually	<0.0003	<0.0003	mg/l	0.00008	No
02/09/2014	PW-2	Potassium	Lab analysis	Annually	2.25	2.25	mg/l	-	No
02/09/2014	PW-2	Selenium	Lab analysis	Annually	0.0005	0.0005	mg/l	-	No
02/09/2014	PW-2	Silver	Lab analysis	Annually	<0.002	<0.002	mg/l	-	No
02/09/2014	PW-2	Sodium	Lab analysis	Annually	9.25	9.25	mg/l	-	No
02/09/2014	PW-2	Sulphate	Lab analysis	Annually	18.1	18.1	mg/l	187.5	No
02/09/2014	PW-2	Total Alkalinity	Lab analysis	Annually	230	230	mg/l	-	No
02/09/2014	PW-2	Total Coliforms	Lab analysis	Annually	<1	<1	cfus/ 100ml	-	No
02/09/2014	PW-2	Total Organic Carbon	Lab analysis	Annually	<3	<3	mg/l	-	No
02/09/2014	PW-2	Total Oxidised Nitrogen	Lab analysis	Annually	1.79	1.79	mg/l	-	No
02/09/2014	PW-2	Total Solids	Lab analysis	Annually	311	311	mg/l	-	No
02/09/2014	PW-2	Zinc	Lab analysis	Annually	0.021	0.021	mg/l	-	No
02/09/2014					0	0		0	
02/09/2014	PW-3	Aluminium	Lab analysis	Annually	<0.003	<0.003	mg/l	0.15	No
02/09/2014	PW-3	Ammoniacal Nitrogen	Lab analysis	Annually	<0.2	<0.2	mg/l	0.18	No
02/09/2014	PW-3	Arsenic	Lab analysis	Annually	<0.0001	<0.0001	mg/l	0.008	No

Groundwater/Soil monitoring template	Lic No: W0048-01	Year	2014
<p>*please note exceedance of generic assessment criteria (GAC) such as a Groundwater Threshold Value (GTV) or an Interim Guideline Value (IGV) or an upward trend in results for a substance indicates that further interpretation of monitoring results is required. In addition to completing the above table, please complete the Groundwater Monitoring Guideline Template Report at the link provided and submit separately through ALDER as a licensee return or as otherwise instructed by the EPA.</p>	<p>Groundwater monitoring template</p>		
<p>More information on the use of soil and groundwater standards/ generic assessment criteria (GAC) and risk assessment tools is available in the EPA published guidance (see the link in G31)</p>	<p>Guidance on the Management of Contaminated Land and Groundwater at EPA Licensed Sites (EPA 2013).</p>		
<p>**Depending on location of the site and proximity to other sensitive receptors alternative Receptor based Water Quality standards should be used in addition to the GTV e.g. if the site is close to surface water compare to Surface Water Environmental Quality Standards (SWEQS), If the site is close to a drinking water supply compare results to the Drinking Water Standards (DWS)</p>	<p>Surface water EQS</p>	<p>Groundwater regulations GTV's</p>	<p>Drinking water (private supply) standards Drinking water (public supply) standards</p>

Groundwater/Soil monitoring template	Lic No: W0048-01	Year: 2014
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Table 3: Soil results

Date of sampling	Sample location reference	Parameter/ Substance	Methodology	Monitoring frequency	Maximum Concentration	Average Concentration	unit
							SELECT
							SELECT

Where additional detail is required please enter it here in 200 words or less

Environmental Liabilities template

Lic No:

W0048-01

Year

2014

[Click here to access EPA guidance on Environmental Liabilities and Financial provision](#)

		Commentary	
1	ELRA initial agreement status	Required but not submitted	
2	ELRA review status	SELECT	
3	Amount of Financial Provision cover required as determined by the latest ELRA	Specify	
4	Financial Provision for ELRA status	SELECT	
5	Financial Provision for ELRA - amount of cover	Specify	
6	Financial Provision for ELRA - type	SELECT	
7	Financial provision for ELRA expiry date	Enter expiry date	
8	Closure plan initial agreement status	SELECT	
9	Closure plan review status	SELECT	
10	Financial Provision for Closure status	SELECT	
11	Financial Provision for Closure - amount of cover	Specify	
12	Financial Provision for Closure - type	SELECT	
13	Financial provision for Closure expiry date	Enter expiry date	

Environmental Management Programme/Continuous Improvement Programme template	Lic No:	W0048-01	Year	2014
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	Highlighted cells contain dropdown menu click to view	Additional Information
1	Do you maintain an Environmental Mangement System (EMS) for the site. If yes, please detail in additional information	Yes
2	Does the EMS reference the most significant environmental aspects and associated impacts on-site	No
3	Does the EMS maintain an Environmental Management Programme (EMP) as required in accordance with the licence requirements	Yes
4	Do you maintain an environmental documentation/communication system to inform the public on environmental performance of the facility, as required by the licence	Yes

Environmental Management Programme (EMP) report

Objective Category	Target	Status (% completed)	How target was progressed	Responsibility	Intermediate outcomes
Waste reduction/Raw material usage efficiency	Maximise recovery of incoming wastes	100		Individual	Improved Environmental Management Practices
Groundwater protection	Ongoing monitoring and measurement - water	100		Individual	Improved Environmental Management Practices
Noise reduction	Ongoing monitoring and measurement - noise	100		Individual	Improved Environmental Management Practices
Reduction of emissions to Air	Ongoing monitoring and measurement - dust and landfill gas	100		Individual	Improved Environmental Management Practices

Noise monitoring summary report

Lic No: W0048-01

Year

2014

1 Was noise monitoring a licence requirement for the AER period?

If yes please fill in table N1 noise summary below

Yes

2 Was noise monitoring carried out using the EPA Guidance note, including completion of the "Checklist for noise measurement report" included in the guidance note as table 6?

[Noise](#)
[Guidance](#)
[note NG4](#)

Yes

3 Does your site have a noise reduction plan

No

4 When was the noise reduction plan last updated?

Enter date

5 Have there been changes relevant to site noise emissions (e.g. plant or operational changes) since the last noise survey?

No

Table N1: Noise monitoring summary

Date of monitoring	Time period	Noise location (on site)	Noise sensitive location -NSL (if applicable)	LA _{eq}	LA ₉₀	LA ₁₀	LA _{max}	Tonal or Impulsive noise* (Y/N)	If tonal /impulsive noise was identified was 5dB penalty applied?	Comments (ex. main noise sources on site, & extraneous noise ex. road traffic)	Is <u>site</u> compliant with noise limits (day/evening/night)?
02/09/2014	10:23 – 10:53		NSL1	44	43	45		Yes	Yes	The dominant noise source in the vicinity of NSL3 is traffic on the N11 dual-carriageway, which runs east of the Marrakesh site.	Yes
02/09/2014	12:08 – 12:38		NSL1	48	43	49		No	Yes		Yes
02/09/2014	15:00 – 15:30		NSL1	48	42	49		No	Yes		Yes
02/09/2014	09:46 – 10:16		NSL2	48	45	48		No	Yes		Yes
02/09/2014	11:33 – 12:03		NSL2	48	46	50		No	Yes		Yes
02/09/2014	14:22 – 14:52		NSL2	51	47	51		No	Yes		Yes
02/09/2014	09:12 – 09:42		NSL3	64	61	65		Yes	Yes		Yes
02/09/2014	10:59 – 11:29		NSL3	62	58	64		No	Yes		Yes
02/09/2014	12:44 – 13:14		NSL3	62	59	64		No	Yes		Yes

*Please ensure that a tonal analysis has been carried out as per guidance note NG4. These records must be maintained onsite for future inspection

If noise limits exceeded as a result of noise attributed to site activities, please choose the corrective action from the following options?

SELECT

** please explain the reason for not taking action/resolution of noise issues?

Any additional comments? (less than 200 words)

Resource Usage/Energy efficiency summary

Lic No:

W0048-01

Year

2014

Additional information

1 When did the site carry out the most recent energy efficiency audit? Please list the recommendations in table 3 below

No audit completed other than ongoing monitoring of usage by licensee.

Cells D10 and E10 based on SEAI: 10.169kWh/litre of diesel

2 Is the site a member of any accredited programmes for reducing energy usage/water conservation such as the SEAI programme linked to the right? If yes please list them in additional information

[SEAI - Large Industry Energy Network \(LIEN\)](#)

No

3 Where Fuel Oil is used in boilers on site is the sulphur content compliant with licence conditions? Please state percentage in additional information

SELECT

Not Applicable

Table R1 Energy usage on site				
Energy Use	Previous year	Current year	Production +/- % compared to previous reporting year**	Energy Consumption +/- % vs overall site production*
Total Energy Used (MWHrs)	344	443.50	28.93%	
Total Energy Generated (MWHrs)				
Total Renewable Energy Generated (MWHrs)				
Electricity Consumption (MWHrs)	5.058	2.85	-43.65%	
Fossil Fuels Consumption:				
Heavy Fuel Oil (m3)	33.33	43.333	30.01%	
Light Fuel Oil (m3)				
Natural gas (m3)				
Coal/Solid fuel (metric tonnes)				
Peat (metric tonnes)				
Renewable Biomass				
Renewable energy generated on site				

* where consumption of energy can be compared to overall site production please enter this information as percentage increase or decrease compared to the previous reporting year.

** where site production information is available please enter percentage increase or decrease compared to previous year

Table R2 Water usage on site					Water Emissions	Water Consumption	
Water use	Water extracted Previous year m3/yr.	Water extracted Current year m3/yr.	Production +/- % compared to previous reporting year**	Energy Consumption +/- % vs overall site production*	Volume Discharged back to environment(m ³ /yr):	Volume used i.e not discharged to environment e.g. released as steam m3/yr	Unaccounted for Water:
Groundwater							
Surface water							
Public supply							
Recycled water							
Total							

* where consumption of water can be compared to overall site production please enter this information as percentage increase or decrease compared to the previous reporting year.

** where site production information is available please enter percentage increase or decrease compared to previous year

Resource Usage/Energy efficiency summary	Lic No: W0048-01	Year	2014
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Table R3 Waste Stream Summary					
	Total	Landfill	Incineration	Recycled	Other
Hazardous (Tonnes)					
Non-Hazardous (Tonnes)	44.68	8.88		35.8	

Table R4: Energy Audit finding recommendations								
Date of audit	Recommendations	Description of Measures proposed	Origin of measures	Predicted energy savings %	Implementation date	Responsibility	Completion date	Status and comments
			SELECT					
			SELECT					
			SELECT					

Table R5: Power Generation: Where power is generated onsite (e.g. power generation facilities/food and drink industry) please complete the following information

	Unit ID	Unit ID	Unit ID	Unit ID	Station Total
Technology					
Primary Fuel					
Thermal Efficiency					
Unit Date of Commission					
Total Starts for year					
Total Running Time					
Total Electricity Generated (GWH)					
House Load (GWH)					
KWH per Litre of Process Water					
KWH per Litre of Total Water used on Site					

WASTE SUMMARY	Lic No: W0048-01	Year: 2014
SECTION A-PRTR ON SITE WASTE TREATMENT AND WASTE TRANSFERS TAB- TO BE COMPLETED BY ALL IPPC AND WASTE FACILITIES	PRTR facility logon	dropdown list click to see options

SECTION B- WASTE ACCEPTED ONTO SITE-TO BE COMPLETED BY ALL IPPC AND WASTE FACILITIES

Additional Information

C&D materials (Soil & Stones, Concrete, Bituminous Mixtures, Mixed C&D Waste) are accepted at the facility for screening, segregation, sorting and grading and sold as product for re-use purposes. During 2014, no material was landfilled at the facility. Any materials which were not sold from the facility are temporarily stored on site pending sale.

Yes

Were any wastes accepted onto your site for recovery or disposal or treatment prior to recovery or disposal within the boundaries of your facility?; (waste generated within your boundaries is to be captured through PRTR reporting)

1 If yes please enter details in table 1 below

2 Did your site have any rejected consignments of waste in the current reporting year? If yes please give a brief explanation in the additional information

SELECT

SELECT

3 Was waste accepted onto your site that was generated outside the Republic of Ireland? If yes please state the quantity in tonnes in additional information

Table 1 Details of waste accepted onto your site for recovery, disposal or treatment (do not include wastes generated at your site, as these will have been reported in your PRTR workbook)

Licensed annual tonnage limit for your site (total tonnes/annum)	EWG code	Source of waste accepted	Description of waste accepted Please enter an accurate and detailed description - which applies to relevant EWG code European Waste Catalogue EWG codes	Quantity of waste accepted in current reporting year (tonnes)	Quantity of waste accepted in previous reporting year (tonnes)	Reduction/ increase over previous year +/- %	Reason for reduction/ increase from previous reporting year	Packaging Content (%) - only applies if the waste has a packaging component	Disposal/Recovery or treatment operation carried out at your site and the description of this operation	Quantity of waste remaining on site at the end of reporting year (tonnes)	Comments -
10000	17 01 01	17- CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)	concrete	45,724	18,941.00	141%	Market demand	0%	R5-Recycling/reclamation or other inorganic materials which includes soil cleaning resulting in recovery of the soil and recycling of inorganic construction materials	22,750	Qty remaining on site is the difference of material IN vs. OUT for 2014
10000	17 05 04	17- CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)	soil & stones	12,698	16,801.00	-24%	Market demand	0%	R5-Recycling/reclamation or other inorganic materials which includes soil cleaning resulting in recovery of the soil and recycling of inorganic construction materials	2,205	Qty remaining on site is the difference of material IN vs. OUT for 2014
100000	17 03 02	17- CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)	Bituminous Mixtures	3,322	3,548.00	-6%	Market demand	0%	R5-Recycling/reclamation or other inorganic materials which includes soil cleaning resulting in recovery of the soil and recycling of inorganic construction materials	1,201	Qty remaining on site is the difference of material IN vs. OUT for 2014
10000	17 09 04	17- CONSTRUCTION AND DEMOLITION WASTES	Mixed C&D waste	2,186	0	#DIV/0!	Market demand			2,186	Qty remaining on site is the

SECTION C-TO BE COMPLETED BY ALL WASTE FACILITIES (waste transfer stations, Composters, Material recovery facilities etc) EXCEPT LANDFILL SITES

4 Is all waste processing infrastructure as required by your licence and approved by the Agency in place? If no please list waste processing infrastructure required onsite

SELECT

5 Is all waste storage infrastructure as required by your licence and approved by the Agency in place? If no please list waste storage infrastructure required on site

SELECT

WASTE SUMMARY		Lic No:	W0048-01	Year	2014
6 Does your facility have relevant nuisance controls in place?			SELECT		
7 Do you have an odour management system in place for your facility? If no why?			SELECT		
8 Do you maintain a sludge register on site?			SELECT		

SECTION D-TO BE COMPLETED BY LANDFILL SITES ONLY
Table 2 Waste type and tonnage-landfill only

Waste types permitted for disposal	Authorised/licenced annual intake for disposal (tpa)	Actual intake for disposal in reporting year (tpa)	Remaining licensed capacity at end of reporting year (m3)	Comments
C&D	100,000	0		

Table 3 General information-Landfill only

Area ID	Date landfilling commenced	Date landfilling ceased	Currently landfilling	Private or Public Operated	Inert or non-hazardous	Predicted date to cease landfilling	Licence permits asbestos	Is there a separate cell for asbestos?	Accepted asbestos in reporting year	Total disposal area occupied by waste	Lined disposal area occupied by waste	Unlined area	Comments on liner type
										SELECT UNIT	SELECT UNIT	SELECT UNIT	
Entire LF	2000	N/A	No	Private	Inert		No						Not lined

Table 4 Environmental monitoring-landfill only [Landfill Manual-Monitoring Standards](#)

Was meteorological monitoring in compliance with Landfill Directive (LD) standard in reporting year +	Was leachate monitored in compliance with LD standard in reporting year	Was Landfill Gas monitored in compliance with LD standard in reporting year	Was SW monitored in compliance with LD standard in reporting year	Have GW trigger levels been established	Were emission limit values agreed with the Agency (ELVs)	Was topography of the site surveyed in reporting year	Has the statement under SS3(A)(5) of WMA been submitted in reporting year	Comments
Yes	N/A	Yes	Yes	No	No	No	No	No change in levels since previous topo survey

-> please refer to Landfill Manual linked above for relevant Landfill Directive monitoring standards

Table 5 Capping-Landfill only

Area uncapped*	Area with temporary cap	Area with final cap to LD Standard m2 ha, a	Area capped other	Area with waste that should be permanently capped to date under licence	What materials are used in the cap	Comments
SELECT UNIT	SELECT UNIT					

*please note this includes daily cover area

Table 6 Leachate-Landfill only

- 9 Is leachate from your site treated in a Waste Water Treatment Plant?
 10 Is leachate released to surface water? If yes please complete leachate mass load information below

No
 SELECT

Volume of leachate in reporting year(m3)	Leachate (BOD) mass load (kg/annum)	Leachate (COD) mass load (kg/annum)	Leachate (NH4) mass load (kg/annum)	Leachate (Chloride) mass load kg/annum	Leachate treatment on-site	Specify type of leachate treatment	Comments

Please ensure that all information reported in the landfill gas section is consistent with the Landfill Gas Survey submitted in conjunction with PRTR returns

Table 7 Landfill Gas-Landfill only

Gas Captured&Treated by LFG System m3	Power generated (MW / KWh)	Used on-site or to national grid	Was surface emissions monitoring performed during the reporting year?	Comments
Not applicable			SELECT	



Environmental Protection Agency

[Guidance to completing the PRTR workbook](#)

AER Returns Workbook

Version 1.1.18

REFERENCE YEAR	2014
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1. FACILITY IDENTIFICATION

Parent Company Name	Marrakesh Limited
Facility Name	Kilmurry South
PRTR Identification Number	W0048
Licence Number	W0048-01

Classes of Activity

No.	class_name
-	Refer to PRTR class activities below

Address 1	Bray
Address 2	
Address 3	
Address 4	
	Wicklow
Country	Ireland
Coordinates of Location	-6.13329 53.1506
River Basin District	IEEA
NACE Code	3821
Main Economic Activity	Treatment and disposal of non-hazardous waste
AER Returns Contact Name	Louise O'Donnell
AER Returns Contact Email Address	louise.odonnell@pateltonra.com
AER Returns Contact Position	Environmental Consultant
AER Returns Contact Telephone Number	018020520
AER Returns Contact Mobile Phone Number	
AER Returns Contact Fax Number	018020525
Production Volume	0.0
Production Volume Units	
Number of Installations	0
Number of Operating Hours in Year	0
Number of Employees	5
User Feedback/Comments	
Web Address	

2. PRTR CLASS ACTIVITIES

Activity Number	Activity Name
5(d)	Landfills
5(c)	Installations for the disposal of non-hazardous waste
50.1	General

3. SOLVENTS REGULATIONS (S.I. No. 543 of 2002)

Is it applicable?	No
Have you been granted an exemption ?	
If applicable which activity class applies (as per Schedule 2 of the regulations) ?	
Is the reduction scheme compliance route being used ?	

4. WASTE IMPORTED/ACCEPTED ONTO SITE

[Guidance on waste imported/accepted onto site](#)

Do you import/accept waste onto your site for on-site treatment (either recovery or disposal activities) ?	Yes
--	-----

This question is only applicable if you are an IPPC or Quarry site

4.1 RELEASES TO AIR

[Link to previous years emissions data](#)

| PRTR# : W0048 | Facility Name : Kilmurry South | Filename : W0048_PRTR 2014.xls | Return Year : 2014 |

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SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

POLLUTANT		RELEASES TO AIR			Please enter all quantities in this section in KGs				
No. Annex II	Name	M/C/E	METHOD		Emission Point 1	QUANTITY			
			Method Code	Designation or Description		T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year	
						0.0	0.0	0.0	0.0

* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

SECTION B : REMAINING PRTR POLLUTANTS

POLLUTANT		RELEASES TO AIR			Please enter all quantities in this section in KGs				
No. Annex II	Name	M/C/E	METHOD		Emission Point 1	QUANTITY			
			Method Code	Designation or Description		T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year	
						0.0	0.0	0.0	0.0

* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

SECTION C : REMAINING POLLUTANT EMISSIONS (As required in your Licence)

POLLUTANT		RELEASES TO AIR			Please enter all quantities in this section in KGs				
Pollutant No.	Name	M/C/E	METHOD		Emission Point 1	QUANTITY			
			Method Code	Designation or Description		T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year	
						0.0	0.0	0.0	0.0

* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

Additional Data Requested from Landfill operators

For the purposes of the National Inventory on Greenhouse Gases, landfill operators are requested to provide summary data on landfill gas (Methane) flared or utilised on their facilities to accompany the figures for total methane generated. Operators should only report their Net methane (CH4) emission to the environment under T(total) KG/yr for Section A: Sector specific PRTR pollutants above. Please complete the table below:

Landfill: Kilmurry South

Please enter summary data on the quantities of methane flared and / or utilised	T (Total) kg/Year	M/C/E	Method Used		Facility Total Capacity m3 per hour
			Method Code	Designation or Description	
Total estimated methane generation (as per site model)	0.0				N/A
Methane flared	0.0				0.0 (Total Flaring Capacity)
Methane utilised in engine/s	0.0				0.0 (Total Utilising Capacity)
Net methane emission (as reported in Section A above)	0.0				N/A

4.2 RELEASES TO WATERS

[Link to previous years emissions data](#)

| PRTR#: W0048 | Facility Name : Kilmurry South | Filename : W0048_PRTR 2014.xls | Return Year : 2014 |

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SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

Data on ambient monitoring of storm/surface water or groundwater, conducted as part of your licence requirements, should NOT be submitted under AER / PRTR Reporting as this onl

RELEASES TO WATERS					Please enter all quantities in this section in KGs			
POLLUTANT		Method Used			QUANTITY			
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
					0.0	0.0	0.0	0.0

* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

SECTION B : REMAINING PRTR POLLUTANTS

RELEASES TO WATERS					Please enter all quantities in this section in KGs			
POLLUTANT		Method Used			QUANTITY			
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
					0.0	0.0	0.0	0.0

* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

SECTION C : REMAINING POLLUTANT EMISSIONS (as required in your Licence)

RELEASES TO WATERS					Please enter all quantities in this section in KGs			
POLLUTANT		Method Used			QUANTITY			
Pollutant No.	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
					0.0	0.0	0.0	0.0

* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

4.3 RELEASES TO WASTEWATER OR SEWER

[Link to previous years emissions data](#)

| PRTR# : W0048 | Facility Name : Kilmurry South | Filename : W0048_PRTR 2014.xls | Return Yea

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SECTION A : PRTR POLLUTANTS

OFFSITE TRANSFER OF POLLUTANTS DESTINED FOR WASTE-WATER TREATMENT OR SEWER					Please enter all quantities in this section in KGs			
POLLUTANT		METHOD			QUANTITY			
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
					0.0	0.0	0.0	0.0

* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

SECTION B : REMAINING POLLUTANT EMISSIONS (as required in your Licence)

OFFSITE TRANSFER OF POLLUTANTS DESTINED FOR WASTE-WATER TREATMENT OR SEWER					Please enter all quantities in this section in KGs			
POLLUTANT		METHOD			QUANTITY			
Pollutant No.	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
					0.0	0.0	0.0	0.0

* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

4.4 RELEASES TO LAND

[Link to previous years emissions data](#)

| PRTR# : W0048 | Facility Name : Kilmurry South | Filename : W0048_PRTR 2014.xls | Return Year : 2014 |

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SECTION A : PRTR POLLUTANTS

RELEASES TO LAND			Please enter all quantities in this section in KGs					
POLLUTANT		METHOD		QUANTITY				
No. Annex II	Name	M/C/E	Method Code	Method Used	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year
						0.0	0.0	0.0

* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

SECTION B : REMAINING POLLUTANT EMISSIONS (as required in your Licence)

RELEASES TO LAND			Please enter all quantities in this section in KGs					
POLLUTANT		METHOD		QUANTITY				
Pollutant No.	Name	M/C/E	Method Code	Method Used	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year
						0.0	0.0	0.0

* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

5. ONSITE TREATMENT & OFFSITE TRANSFERS OF WASTE

| PRTR# : W0048 | Facility Name : Kilmurry South | Filename : W0048_PRTR 2014.xls | Return Year : 2014 |

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Please enter all quantities on this sheet in Tonnes

3

Transfer Destination	European Waste Code	Hazardous	Quantity (Tonnes per Year)	Description of Waste	Waste Treatment Operation	Method Used		Location of Treatment	Haz Waste : Name and Licence/Permit No of Next Destination Facility	Non	Haz Waste : Address of Next Destination Facility	Name and License / Permit No. and Address of Final Recoverer / Disposer (HAZARDOUS WASTE ONLY)	Actual Address of Final Destination i.e. Final Recovery / Disposal Site (HAZARDOUS WASTE ONLY)
						M/C/E	Method Used		Haz Waste : Name and Licence/Permit No of Recover/Disposer	Non Haz Waste: Address of Recover/Disposer			
Within the Country	17 01 01	No	22974.0	concrete	R5	M	Weighed	Offsite in Ireland	Various off-site reuse in construction-related activities,Not Applicable	,Ireland		
Within the Country	17 03 02	No	2121.0	bituminous mixtures containing other than those mentioned in 17 03 01	R5	M	Weighed	Offsite in Ireland	Various off-site reuse in construction-related activities,Not applicable	,Ireland		
Within the Country	17 05 04	No	10493.0	soil and stones other than those mentioned in 17 05 03	R5	M	Weighed	Offsite in Ireland	Various off-site reuse in construction-related activities,Not applicable	,Ireland		
Within the Country	19 12 02	No	86.1	ferrous metal	R4	M	Weighed	Offsite in Ireland	Multimetals,WFP-WW-09-0014-01		Bollanney,The Murrough,Wicklow Town,0,ireland		
Within the Country	20 03 01	No	68.4	mixed municipal waste	D15	M	Weighed	Offsite in Ireland	Greenstar,W0053-03		Fassaroe,Bray,Co Wicklow,,ireland		

* Select a row by double-clicking the Description of Waste then click the delete button

[Link to previous years waste data](#)

[Link to previous years waste summary data & percentage change](#)

[Link to Waste Guidance](#)