ASB Biodiesel (Hong Kong) Limited

Development of a Biodiesel Plant at Tseung Kwan O Industrial Estate

Quarterly EM&A Summary Report

December 2012 to February 2013 (Version 1.0)

Certified By

(Environmental Team Leader)

REMARKS:

The information supplied and contained within this report is, to the best of our knowledge, correct at the time of printing.

CINOTECH accepts no responsibility for changes made to this report by third parties

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SUBJECT:	Development of a Biodiesel Plant at Tseung Kwan O Industrial Estate Quarterly EM&A Summary Report (December 2012 to February 2013)								
Job No.	D1067	Total Pages:	1						
From:	Mr. Mark Cheung	Ref:	D1067/H00923						
Attn:	Ms. Betty Choi / Mr. K W Leung	Fax:	3107 1388						
To:	Cinotech	Date:	12 March 2013						

Dear Sir / Madam,

We refer to your submission of the Quarterly EM&A Summary Report (December 2012 to February 2013) via email dated 12 March 2013.

We write to advise that we have no comment on the captioned report.

Regards,

Mark Cheung

Independent Environmental Checker

KTC/gk

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EXECUTIVE SUMMARY

Introduction

- 1. This is the 15th Quarterly Environmental Monitoring and Audit (EM&A) Summary Report prepared by Cinotech Consultants Limited for Development of a Biodiesel Plant at Tseung Kwan O Industrial Estate". This report documents the findings of EM&A Works conducted from December 2012 to February 2013.
- 2. The major site activities undertaken in the reporting quarter included:
 - General site cleaning and tidying.
 - Zone 1A Administration Building Finishing work
 - Zone 1A Administration Building Windows, louver and doors installation work
 - Zone 1B Processing Building Cladding system installation work
 - Zone 1B Processing Building Windows, louver and doors installation work
 - Zone 1B Fat Preparation Building Fire paint work
 - Zone 1B Fat Preparation Building Windows, louver and doors installation work
 - Zone 1B Fat Preparation Building Finishing work
 - Zone 1B Fat Preparation Building Steel Grating Installation Work
 - Zone 1B Steam Boiler Room Building Equipment installation work
 - Zone 1B Steam Boiler Room Building Steel platform erection work
 - Zone 1B Steam Boiler Room Building Cladding system installation work
 - Zone 2A Tank Farm Steel tank fabrication work
 - Zone 2A Tank Farm Tank grit-blasting and painting work
 - Zone 2A Tank Farm Tank cladding installation work
 - Zone 2A GTWSR Equipment installation work
 - Zone 2B-2E LV switch room construction work
 - Zone 2B-2E Tank Farm Steel tank fabrication work
 - WWTP RC superstructure construction work
 - WWTP Roof system installation work
 - WWTP Equipment installation work
 - Jetty Bore piles installation work
 - Jetty Temporary Platform Dismantle Work
 - Jetty Pile cap and deck superstructure construction work
 - Pipe Bridge Pipe Bridge Tower Erection Work
 - Building Services P&D work
 - Building Services Fire Service work
 - Building Services MVAC work
 - Building Services Electrical work
 - External Works Boundary wall construction work
 - External Works Storm water drainage work
 - External Works Foul water drainage work
 - External Works Fresh water main installation work
 - External Works Salt water main installation work
 - External Works Fire Services pipes laying work
 - External Works Cable laying work
 - External Works Pavement work

Environmental Monitoring and Audit Works

3. Environmental monitoring and audit works for the Project were performed regularly as stipulated in the EM&A Manual and the results were checked and reviewed. Site audits were conducted once per month. The implementation of the environmental mitigation measures and environmental complaint handling procedures were also checked.

Environmental Licenses and Permits

4. Licenses/Permits granted to the Project include the Environmental Permit (EP) for the Project. Environmental Permits No. EP-319/2009 and EP-319/2009/A were issued on 11 March 2009 and 7 April 2009 respectively. The Contractor has applied for the Registration of Chemical Waste Producer (WPN-5113-839-C1186-15), Construction Noise Permits (CNP), Wastewater Discharge License (WT00004508-2009), Notification of Works under APCO (337009) and Waste Discharge Account (7013917).

Key Information in the Reporting Quarter

5. Summary of key information in this reporting quarter is tabulated in **Table I**.

Table I Summary Table for Key Information in the Reporting Quarter

Errond	Ev	ent Details	Action Taken	C4-24-1-2	Domonly
Event	Number	Nature	Action Taken	Status	Remark
Complaint received	0		N/A	N/A	
Changes to the assumptions and key construction / operation activities recorded	0		N/A	N/A	
Status of submissions under EP	3	Monthly EM&A Report for December 2012, January and February 2013	Submitted to EPD on 15 January, 20 February and 14 March 2013 respectively	Verified by IEC	
Notifications of any summons & prosecutions	0		N/A	N/A	

Future Key Issues

- 6. Major site activities for the coming two months will include:
 - General site cleaning and tidying.
 - Zone 1A Administration Building Finishing works
 - Zone 1B Steam Boiler Room ABWF works excluding windows, louvers and doors
 - Tank Farm 2A Pipe installation work
 - Tank Farm 2A Bund wall finishing work
 - Tank Farm 2A GTWSR Equipment and pipe installation works
 - Tank Farm 2A GTWSR ABWF works excluding windows, louvers and doors
 - Tank Farm 2B-2E Tank fabrication works
 - Tank Farm 2B-2E Finishing works

- WWTP ABWF works excluding windows, louvers and doors
- Jetty Deck superstructure construction works
- Pipe Bridge Pipe bridge erection work
- Building Services Fire services work
- Building Services MVAC work
- Building Services Electrical work
- Building Services P&D work
- Building Services Lift installation work
- External Boundary wall construction work
- External Works Storm water drainage work
- External Works Foul water drainage work
- External Works Plumbing laying work
- External Works Fire Services piping laying work
- External Works Cable laying work
- External Works Pavement work
- 7. The future environmental concerns are air quality, waste management, water quality and surface runoff from construction works.

1 INTRODUCTION

Background

- 1.1 Development of a Biodiesel Plant at Tseung Kwan O Industrial Estate is a Designated Project (hereafter referred to as "the Project") under the Environmental Impact Assessment Ordinance (Cap. 449). A study of environmental impact assessment (EIA) was undertaken to consider the key issues of air quality, noise, water quality, ecological and identify possible mitigation measures associated with the works. An EIA Report was approved by the Environmental Protection Department (EPD) on 26 February 2009.
- 1.2 The project is to construct and operate a 100,000 tonnes per annum biodiesel plant at Tseung Kwan O Industrial Estate. The plant will use a multi-feedstock which consists of waste cooking oil (WCO), oil and grease recovered from grease trap waste (GTW), Palm Fatty Acid Distillate (PFAD) and animal fats. The proposed biodiesel plant not only offers a convenient recycling outlet for GTW and WCO but also converts the oil and grease recovered from these wastes into useful products. The Project also offers a cleaner alternative to diesel fuel to the Hong Kong market. The main processes include the followings:-
 - Construction of feedstock reception and storage facilities, and offices;
 - Construction of a grease trap waste pre-treatment facility (with a designated treatment capacity of about 200,000 tonnes per annum);
 - Construction of a wastewater treatment plant (with a designed treatment capacity of about 170,000 m³ per annum);
 - Installation of biodiesel production and glycerine purification system;
 - Construction of product storage and ancillary facilities;
 - Pretreatment of grease trap waste;
 - Treatment of wastewater generated from feedstock pre-treatment and glycerine dewatering process, and filtrates from dewatering process of sludge treatment;
 - Transesterification of feedstock with alcohol-catalyst; and
 - Purification of biodiesel.
 - 1.3 The general layout of the Project is shown in **Figure 1.1.**
 - 1.4 Environmental Permits (EP) No. EP-319/2009, EP-319/2009/A and EP-319/2009/B were issued on 11 March 2009, 7 April 2009 and 31 Jan 2013 respectively for Development of a Biodiesel Plant at Tseung Kwan O Industrial Estate to ASB Biodiesel (Hong Kong) Limited as the Permit Holder. A VEP was submitted and the latest EP No. EP-319/2009/C was issued by EPD on 5 Mar 2013.
 - 1.5 Cinotech Consultants Limited was commissioned by the Contractor to undertake the Environmental Monitoring and Audit (EM&A) works for the Project. This is the 15th Quarterly EM&A Summary Report summarizing the EM&A works for the Project in from December 2012 to February 2013.

Project Organizations

- 1.6 Different parties with different levels of involvement in the project organization include:
 - Project Proponent ASB Biodiesel (Hong Kong) Limited
 - Project Manager AECOM
 - Contractor China Harbour Engineering Company Limited (CHEC)
 - Environmental Team (ET) Cinotech Consultants Limited
 - Independent Environmental Checker (IEC) Mannings (Asia) Consultants Ltd.
- 1.7 The responsibilities of respective parties are detailed in Section 1.10 of the Final EM&A Manual of the Project. The contact details of the project organisation are shown in **Appendix A.**

Construction Programme

- 1.8 The construction programme is presented in **Appendix B**. The site activities undertaken in the reporting quarter were:
 - General site cleaning and tidying.
 - Zone 1A Administration Building Finishing work
 - Zone 1A Administration Building Windows, louver and doors installation work
 - Zone 1B Processing Building Cladding system installation work
 - Zone 1B Processing Building Windows, louver and doors installation work
 - Zone 1B Fat Preparation Building Fire paint work
 - Zone 1B Fat Preparation Building Windows, louver and doors installation work
 - Zone 1B Fat Preparation Building Finishing work
 - Zone 1B Fat Preparation Building Steel Grating Installation Work
 - Zone 1B Steam Boiler Room Building Equipment installation work
 - Zone 1B Steam Boiler Room Building Steel platform erection work
 - Zone 1B Steam Boiler Room Building Cladding system installation work
 - Zone 2A Tank Farm Steel tank fabrication work
 - Zone 2A Tank Farm Tank grit-blasting and painting work
 - Zone 2A Tank Farm Tank cladding installation work
 - Zone 2A GTWSR Equipment installation work
 - Zone 2B-2E LV switch room construction work
 - Zone 2B-2E Tank Farm Steel tank fabrication work
 - WWTP RC superstructure construction work
 - WWTP Roof system installation work
 - WWTP Equipment installation work
 - Jetty Bore piles installation work
 - Jetty Temporary Platform Dismantle Work
 - Jetty Pile cap and deck superstructure construction work
 - Pipe Bridge Pipe Bridge Tower Erection Work
 - Building Services P&D work
 - Building Services Fire Service work
 - Building Services MVAC work
 - Building Services Electrical work
 - External Works Boundary wall construction work
 - External Works Storm water drainage work
 - External Works Foul water drainage work
 - External Works Fresh water main installation work
 - External Works Salt water main installation work

- External Works Fire Services pipes laying work
- External Works Cable laying work
- External Works Pavement work

Summary of EM&A Requirements

- 1.9 The EM&A requirements are described in the following sections, including:
 - Environmental mitigation measures, as recommended in the project EIA study final report; and
 - Environmental requirements in contract documents.
- 1.10 The advice on the implementation status of environmental protection and pollution control/mitigation measures is summarized in Section 2 of this report.

2 ENVIRONMENTAL AUDIT

Site Audits

- 2.1 Site audit was carried out by ET on monthly basis to monitor the timely implementation of proper environmental management practices and mitigation measures in the Project site. The summaries of site audits are attached in **Appendix C**.
- 2.2 Site audits were conducted on 5th December 2012, 16th January 2013 and 19th February 2013 by ET in the reporting quarter. No non-compliance was observed during the site audits. The observations and recommendations made during the audit sessions are summarized in **Table II**.

Table II Observations and Recommendations of Site Audit

Parameters	Date	Observations and Recommendations	Follow-up		
	05/12/2012	Bentonite was observed inside the silt curtain. No washing of bentonite into the sea is allowed	Follow up action was taken by the Contractor.		
Water Quality	12/01/2012	Sand bag should be placed along the waterfront.	Follow up action was taken by the Contractor.		
	13/01/2013	Ponding water should be removed or added with larvicidal oil.	-		

Status of Environmental Licensing and Permitting

2.3 All permits/licenses obtained for the Project are summarized in **Appendix D**

Implementation Status of Environmental Mitigation Measures

2.4 According to the EIA Study Report, Environmental Permit and the EM&A Manual of the Project, the mitigation measures detailed in the documents are recommended to be implemented during the construction phase. An updated summary of the EMIS is provided in **Appendix E**.

Summary of Complaint and Prosecution

- 2.5 No environmental related complaints were received in the reporting quarter.
- 2.6 No prosecution or notification of summons was received in the reporting quarter.
- 2.7 Since the Project commencement, there were a total of 5 project-related environmental complaints. No prosecution or notification of summons was received since the Project commencement. The Complaint Log is attached in **Appendix F**.

3 CONCLUSIONS AND RECOMMENDATIONS

Key Issues for the Coming Months

- 3.1 Key issues to be considered in the coming quarter include:
 - Noise from operation of the equipment and machinery on-site;
 - Effluent discharge generated from surface runoff;
 - Dust generated from excavation works and stockpile of dusty materials;
 - Maintenance of de-silting facilities and drainage system, such as U-channels;
 - Storage of chemicals/fuel and chemical waste/waste oil on site;
 - Accumulation of stagnant water in the site areas;
 - · Accumulation of C&D waste and general waste on site; and

Conclusions

- 3.2 Environmental audit works were conducted in the reporting quarter. Site inspections were conducted on monthly basis. The results were reviewed and checked.
- 3.3 No environmental complaints and prosecution or notification of summons received.

Recommendations

3.4 According to the environmental audit performed in the reporting quarter, the following recommendations were made:

Water Impact

- To identify any wastewater discharges from site.
- To ensure properly maintenance for de-silting facilities.
- To clear the silt and sediment in the sedimentation tanks.
- To review the capacity of de-silting facilities for discharge.
- To divert all the water generated from construction site to de-silting facilities with enough handling capacity before discharge.
- To avoid accumulation of stagnant and ponding water on site.
- To set up silt curtain at marine piling area.

Dust Impact

- To remove fugitive dusty material on the haul road periodically.
- Excavated dusty materials or stockpile of dusty materials should be covered by impervious sheeting, or sprayed with water so as to maintain entire surface wet.

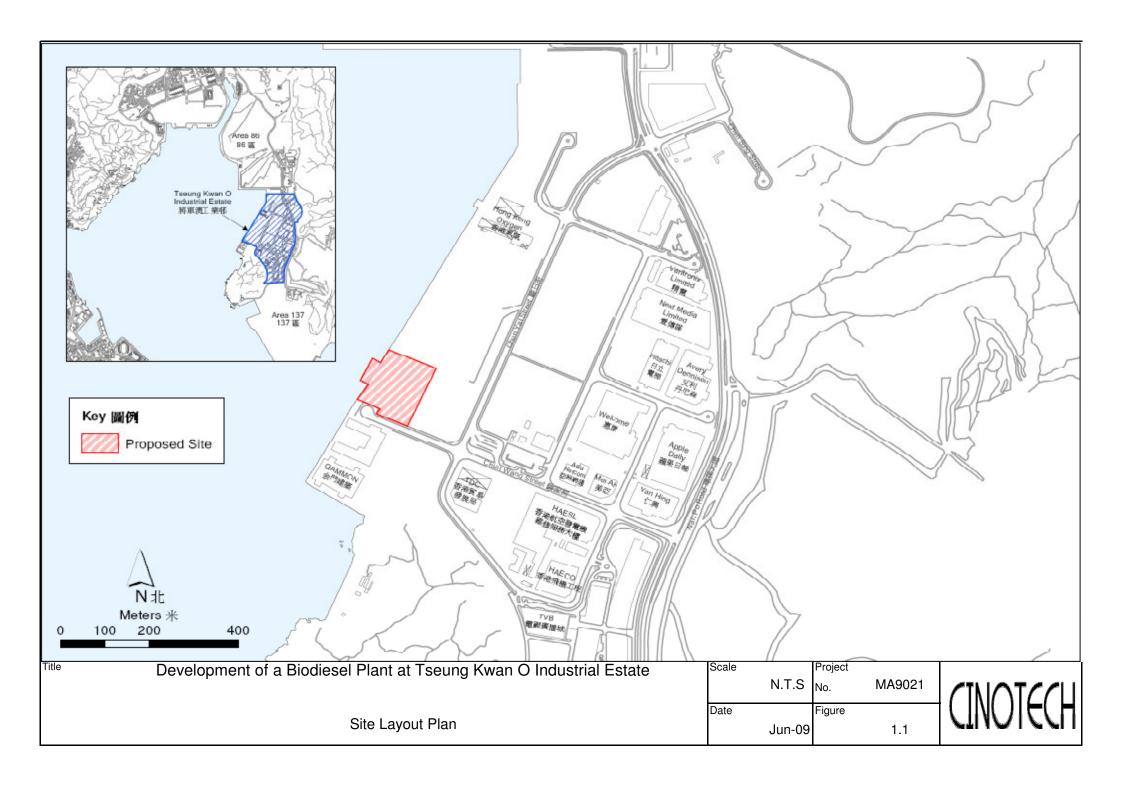
Noise Impact

- To space out noisy equipment and position as far away as possible from sensitive receivers.
- To inspect the noise sources inside the site.

Waste / Chemical Management

- To provide proper rubbish bins / skips for waste collection.
- To provide proper storage area for oil container on site.
- To avoid and check for any accumulation of waste materials or rubbish on site.
- To avoid any discharge or accidental spillage of chemical waste or oil directly from the equipment.

FIGURES



APPENDIX A CONTACT DETAILS OF THE PROJECT ORGANISATION

APPENDIX A – Contact Details of the Project Organisation

Party	Role	Name	Position	Phone No.	Fax No.	
ASB	Project Proponent	Ms. Sylvia Har	Senior Plant Engineer	9479 0949	3741 1661	
Dr. HF Char		Dr. HF Chan	ET Leader	2151 2088		
Cinotech	Environmental Team	Ms. Ivy Tam	Project Coordinator	2151 2090	3107 1388	
		Ms. Betty Choi	Is. Betty Choi Audit Team Leader			
Monnings	Independent Environmental	Mr. Mark Cheung	Independent Environmental Checker	3168 2028	3168 2022	
Mannings	Checker	Mr. Gavin Kwok	Assistant to Independent Environmental Checker	3168 2028	3100 2022	
AECOM	Project Manager	Mr. Matthew Lau	Construction Manager	9363 5586	N/A	
		Mr. Peter Chung	Project Manager	9471 2438		
		etor Mr. Anson Wong Safety and Environmental Officer		9656 3837	2623 9226	
		Mr. Simon Li	Environmental Supervisor (Ass. Planning Engineer)	6152 7867		

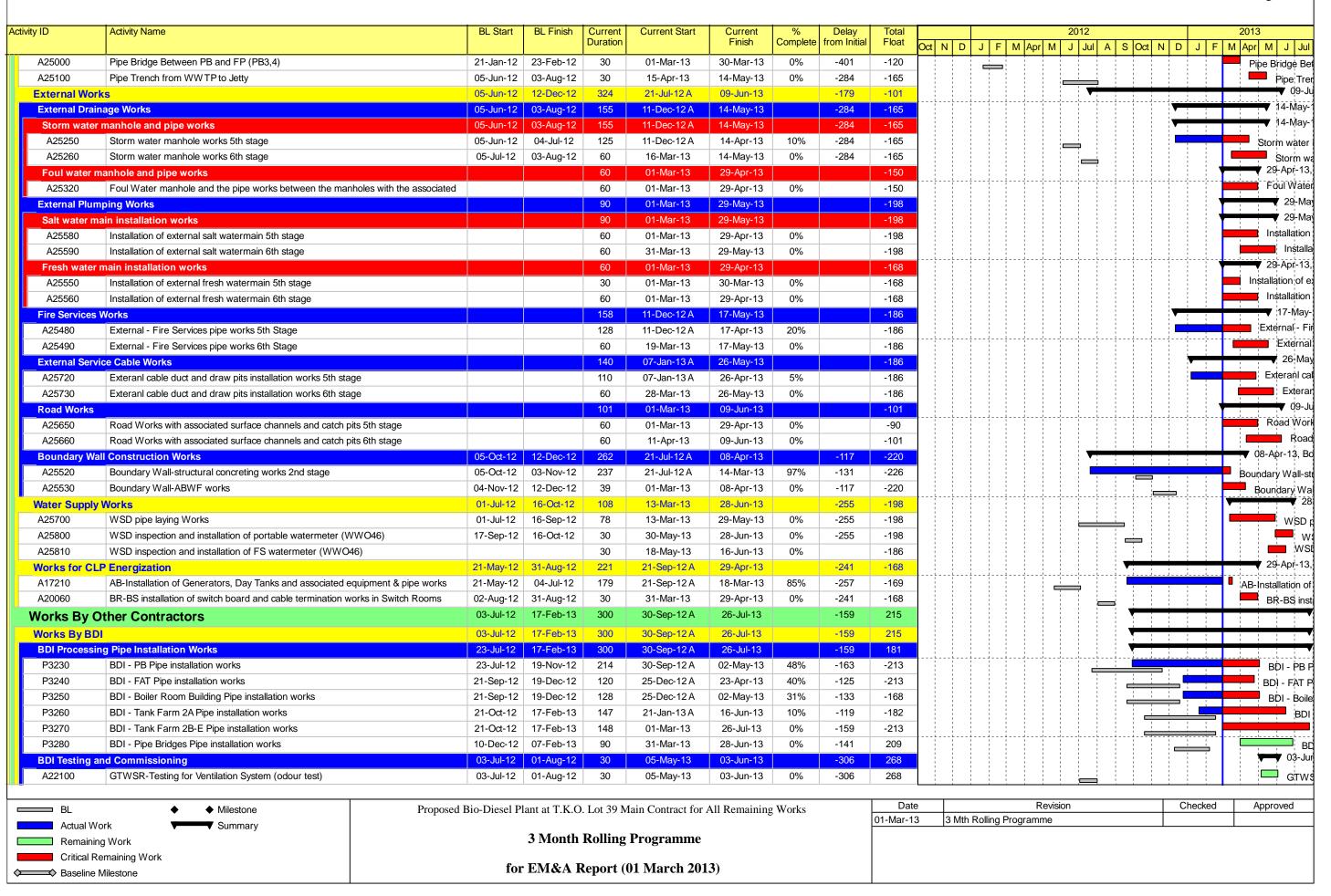
APPENDIX B CONSTRUCTION PROGRAMME

Checked Date Revision Approved Proposed Bio-Diesel Plant at T.K.O. Lot 39 Main Contract for All Remaining Works **—** ВL Milestone 01-Mar-13 3 Mth Rolling Programme Actual Work Summary **3 Month Rolling Programme** Remaining Work Critical Remaining Work for EM&A Report (01 March 2013) ➡ Baseline Milestone

/ ID	Activity Name	BL Start	BL Finish	Current	Current Start	Current	%	Delay	Total					2012			2013
				Duration		Finish	Complete		Float	Oct N	D J	F M	Apr M	J Jul A	S Oct N	D J F I	M Apr M J
A18400	PB-Fire Service Testing	05-Jul-12	02-Sep-12	173	22-Dec-12 A	13-Jun-13	15%	-283	-182								
PB-Processi	<u> </u>	03-Jan-12	26-Jun-12	90	01-Mar-13	29-May-13		-337	-180							:	29
A17900	PB-BDI Pipe insulation, Process Electrical & Instrumentation	Works 03-Jan-12	26-Jun-12	90	01-Mar-13	29-May-13	0%	-337	-180		_	1 1 1	1 1	_ :	1 1 1	.	PE
1B - Fat Prep	paration Building	13-Apr-12	02-Oct-12	264	24-Aug-12 A	15-May-13		-224	254							1 1	▼ 15-N
Fat Preparati	ion Structural and Builder's Work	02-Sep-12	02-Oct-12	145	10-Nov-12 A	03-Apr-13		-183	-112							1 1	03-Apr-13
A19120	FP-Installation of windows, louvers and doors 2nd stage	02-Sep-12	02-Oct-12	145	10-Nov-12 A	03-Apr-13	90%	-183	-112						_ ;		FP-Installa
A19135	FP-ABWF works excluding windows, louvers and doors 2nd	Stage		74	29-Dec-12 A	12-Mar-13	95%		-149								FP-ABWF wo
FP-Plumbing	g and Drainage	02-Aug-12	10-Sep-12	40	01-Mar-13	09-Apr-13		-211	-148							· T	──── 09-Apr-13
A19055	FP-Installation of sanitary fittings	02-Aug-12	31-Aug-12	30	01-Mar-13	30-Mar-13	0%	-211	-148							.	FP-Installa
A19200	FP-BS Plumbing and Drainage Testing	02-Aug-12	10-Sep-12	30	11-Mar-13	09-Apr-13	0%	-211	-148						-		FP-BS PI
FP-Electrical	l in the second of the second	03-Jul-12	10-Sep-12	264	24-Aug-12 A	15-May-13		-246	-153				1 1	▼			▼ 15-N
A19040	FP-BS Cable exposed conduit laying works(Electrical)	03-Jul-12	01-Aug-12	190	24-Aug-12 A	01-Mar-13	98%	-212	-149						1 1		FP-BS Cable e
A19050	FP-Lighting installation works	02-Aug-12	31-Aug-12	87	24-Dec-12 A	21-Mar-13	33%	-201	-153								FP-Lighting
A19061	FP-BS Final connection works	-		151	05-Nov-12 A	05-Apr-13	50%		-153							1	FP-B\$ Fin
A19090	FP-BS Electrical Testing	02-Aug-12	10-Sep-12	40	05-Apr-13	15-May-13	0%	-246	-153	<u>-</u>	ļ	1			1 1 1		FP-E
FP-Fire Servi	3	02-Aug-12	10-Sep-12	40	18-Mar-13	27-Apr-13		-229	-136						-		27 Apr
A19300	FP-Fire Service Testing	Ü	10-Sep-12	40	18-Mar-13	27-Apr-13	0%	-229	-136						_		FP-Fir
FP-Processin	9	13-Apr-12	07-Jun-12	56	07-Mar-13	01-May-13	0,0	-328	267						-		01-Ma
A18900	FP-BDI Pipe insulation, Process Electrical & Instrumentation		07-Jun-12	56	07-Mar-13	01-May-13	0%	-328	267							:	FP-B
1B - Boiler R		08-Apr-12	30-Sep-12	297	05-Sep-12 A	28-Jun-13	070	-271	345								, , , , , , , , , , , , , , , , , , ,
	Structural and Builder's Work	03-Jun-12	30-Sep-12	184	27-Oct-12 A	28-Apr-13		-210	-28								28-Ap
		03-Jun-12		49	27-Oct-12 A		20%	-299								1 1	
A19900 A20120	BR-Chimney Works		04-Jul-12	-		28-Apr-13	50%	-299 -185	-154				-	-			BR-CI
	BR-Installation of windows, louvers and doors 2nd stage	01-Sep-12	30-Sep-12	87	07-Jan-13 A	03-Apr-13			-3						-		BR-Install
A20130	BR-ABWF works excluding windows, louvers and doors	02-Aug-12		81	22-Dec-12 A	12-Mar-13	80%	-163	-168	ļ							BR-ABWF w
	g and Drainage	03-Jun-12	31-Aug-12	234	05-Sep-12 A	26-Apr-13	2.22	-238	-165							1 1	
A20010	BR-BS piping works (Plumbing)	03-Jun-12	02-Jul-12	213	05-Sep-12 A	05-Apr-13	20%	-277	-165				=	⇒ ; ;		1 1 .	BR-BS pi
A20055	BR-Installation of sanitary fittings	02-Aug-12		30	07-Mar-13	05-Apr-13	0%	-217	-165							.	BR-Instal
A20200	BR-BS Plumbing and Drainage Testing	02-Aug-12	22-Aug-12	21	06-Apr-13	26-Apr-13	0%	-247	-165					-		. I I L	BR-BS
BR-Electrica	<u> </u>	03-Jun-12	31-Aug-12	90	01-Mar-13	29-May-13		-271	-168			4					₹ 29
A20030	BR-BS Cable laying works(Electrical) 1st stage	03-Jun-12	02-Jul-12	30	01-Mar-13	30-Mar-13	0%	-271	-168				_	⇒		. 	BR-BS Ca
A20040	BR-BS Cable laying works(Electrical) 2nd stage	03-Jul-12	01-Aug-12	30	31-Mar-13	29-Apr-13	0%	-271	-168								BR-BS
A20050	BR-Lighting installation works	02-Aug-12	31-Aug-12	30	31-Mar-13	29-Apr-13	0%	-241	-168								BR-Li
A20061	BR-BS Final connection works(Electrical)			28	11-Apr-13	08-May-13	0%		-168								BR-E
A20090	BR-BS Electrical Testing	02-Aug-12	22-Aug-12	21	09-May-13	29-May-13	0%	-280	-168								— в
BR-Fire Serv	rices	03-Jun-12	30-Sep-12	296	06-Sep-12 A	28-Jun-13		-271	-89						V		
A20070	BR-BS Piping installation works(Fire Services)	03-Jun-12	02-Jul-12	203	06-Sep-12 A	27-Mar-13	10%	-268	-88		1 1			-			BR-BS Pip
A20080	BR-BS Sprinkler installation works(Fire Services)	03-Jul-12	01-Aug-12	30	01-Mar-13	30-Mar-13	0%	-241	-89	1						, i i 📂	BR-BS Sp
A20100	BR-BS Cable laying works (Fire Services)			30	31-Mar-13	29-Apr-13	0%		-89								BR-B
A20150	BR-BS Final connection works (Fire Services)			30	20-Apr-13	19-May-13	0%		-89	1					1 1 1		BR
A20300	BR-Fire Service Testing	02-Aug-12	30-Sep-12	40	20-May-13	28-Jun-13	0%	-271	-89								
BR-Processi	9	08-Apr-12	03-Jun-12	56	07-Mar-13	02-May-13		-333	403							.	02-Ma
A19700	BR-BDI Pipe insulation, Process Electrical & Instrumentation	· · · · · · · · · · · · · · · · · · ·	03-Jun-12	56	07-Mar-13	02-May-13	0%	-333	403							.	BR-B
2A - Tank Fa	·	26-Jun-12		247	13-Oct-12 A	16-Jun-13		-229	-108						—		
	A Structural and Builder's Work	01-Oct-12			01-Mar-13	30-Mar-13		-151	-186						1 1	.	30-Mar-13
A21100	2A-ABWF works in Tank Farm 2A		30-Oct-12	30	01-Mar-13	30-Mar-13	0%	-151	-186								2A-ABWF
	g and Drainage		27-Sep-12		31-Mar-13	15-May-13	0 /0	-230	-184							. ! ! [ZA-ABWF 15-I
A20820	2A-BS Piping works(Plumbing) 2nd stage		13-Sep-12		31-Mar-13	01-May-13	0%	-230	-184								
74UUZU	ZA DO I IPING WORNS(Fluinbing) Zhu Stage		•					-230		<u> </u>	<u> </u>	<u> </u>	<u> </u>		<u> </u>		2A-B
── BL	◆ Milestone	Proposed Bio-Diesel Pl	ant at T.K.C). Lot 39 N	Main Contract for	All Remainin	g Works		Date		NAL D	llin at Di	Revision	1		Checked	Approved
Actual W	Vork Summary			_	_				01-Mar-1	s [3	IVITIN KO	lling Progr	amme				
Remaini	ing Work		3 Month	Rolling	Programme												
Critical F	Remaining Work			_													
		for	TOTAL OF A I	Donant ([01 March 20]	12)			1								

y ID	Activity Name	BL Start	BL Finish	Current	Current Start	Current	%	Delay	Total				2012			2013
				Duration		Finish	Complete	from Initial	Float	Oct N	D J F	M Apr M	J Jul A	S Oct N I	D J F	M Apr M J
A20900	2A-BS Plumbing and Drainage Testing	14-Sep-12	27-Sep-12	14	02-May-13	15-May-13	0%	-230	-184							2A
2A-Electrical		12-Jul-12	27-Sep-12	88	08-Mar-13	03-Jun-13		-249	-173						· · · · · · · · · · · · · · · · · · ·	(
A20830	2A-BS Cable laying works stage 1 (Electrical)	12-Jul-12	12-Aug-12	32	08-Mar-13	08-Apr-13	0%	-239	-173					1 1 1		2A-BS (
A20840	2A-BS Cable laying works stage 2 (Electrical)	13-Aug-12	13-Sep-12	32	09-Apr-13	10-May-13	0%	-239	-173					-		2A-
A20870	2A-BS Electrical Testing	14-Sep-12	27-Sep-12	24	11-May-13	03-Jun-13	0%	-249	-173							2
2A-Fire Servi	ices	12-Jul-12	04-Oct-12	247	13-Oct-12 A	16-Jun-13		-255	-186							•
A20850	2A-BS Piping installation works(Fire Services)	12-Jul-12	12-Aug-12	156	13-Oct-12 A	17-Mar-13	70%	-217	-156							2A-BS Pipi
A20860	2A-BS Sprinkler installation works(Fire Services)	13-Aug-12	13-Sep-12	156	13-Oct-12 A	17-Mar-13	70%	-185	-156					_		2A-BS Spr
A20880	2A-BS Cable laying works(Fire Services)			40	08-Mar-13	16-Apr-13	0%		-186							2A-BS
A20890	2A-BS Final connection works(Fire Serviecs)			21	17-Apr-13	07-May-13	0%		-186							= 2A-
A21000	2A-Fire Service Testing (excluding FSD Inspection)	14-Sep-12	04-Oct-12	40	08-May-13	16-Jun-13	0%	-255	-186							
2A-Processir	ng Works	26-Jun-12	28-Sep-12	94	15-Mar-13	16-Jun-13		-261	-108						'	
A20700	2A-BDI Pipe insulation, Process Electrical & Instrumentation Works	26-Jun-12	28-Sep-12	94	15-Mar-13	16-Jun-13	0%	-261	-108							
2A - GTW Se	paration Room	05-May-12	27-Nov-12	167	19-Nov-12 A	04-May-13		-158	264							04-N
	ctural and Builder's Work	31-Oct-12	27-Nov-12	110	19-Nov-12 A	09-Mar-13		-101	-188					—		09-Mar-13,
A22000	GTWSR-ABWF works including windows, louvers and door but excluding roller shut	31-Oct-12	27-Nov-12	110	19-Nov-12 A	09-Mar-13	70%	-101	-188							GTWSR-AE
GTWSR-Plun	nbing and Drainage	19-May-12	18-Jul-12	59	01-Mar-13	28-Apr-13		-284	-167						+	28-A
A21910	GTWSR-BS Piping works(Plumbing)	19-May-12	10-Jun-12	45	01-Mar-13	14-Apr-13	0%	-308	-167							GTWS
A22200	GTWSR-BS Plumbing and Drainage Testing	05-Jul-12	18-Jul-12	14	15-Apr-13	28-Apr-13	0%	-284	-167							■ GTW
GTWSR-Elec		08-Jun-12	13-Aug-12	65	01-Mar-13	04-May-13		-265	-143				-		+	04-1
A21940	GTWSR-BS Cable exposed conduits laying works(Electrical)	08-Jun-12	30-Jun-12	30	01-Mar-13	30-Mar-13	0%	-274	-188							GTWSR-
A21950	GTWSR-Lighting installation works	30-Jun-12	30-Jul-12	30	08-Mar-13	06-Apr-13	0%	-251	-188							GTWSF
A21951	GTWSR-BS Final connection works	00 0011 12	00 0ai 12	14	07-Apr-13	20-Apr-13	0%	201	-143			- † † †				GTWS
A21980	GTWSR-BS Electrical Testing	30-Jul-12	13-Aug-12	14	21-Apr-13	04-May-13	0%	-265	-143							GTV
GTWSR-Fire		16-May-12	18-Jul-12	125	10-Dec-12 A	13-Apr-13	0 78	-269	-122					_	1 1	13-Apr
A21959	GTWSR-BS Cable exposed conduits laying works(Fire Services)	10-11/1dy-12	10-Jul-12	92	10-Dec-12 A	11-Mar-13	50%	-209	-110						1 1	GTWSR-BS
A21959 A21960	GTWSR-BS Piping installation works(Fire Services)	16-May-12	08-Jun-12	23	01-Mar-13	23-Mar-13	0%	-289	-122					1 1 1		_: : :
A21900 A21970	GTWSR-BS Sprinkler installation works(Fire Services)		30-Jun-12	23	01-Mar-13	23-Mar-13	0%	-269	-122				:			GTWSR-E
	·	00-Juli-12	30-Juli- 12	14				-201	-122							■ GTWSR-E ■ GTWSR-
A22020	GTWSR-BS Final connection	05 1.140	40 1.140		17-Mar-13	30-Mar-13	0%	000								; ;
A22300	GTWSR-Fire Service Testing	05-Jul-12	18-Jul-12	14	31-Mar-13	13-Apr-13	0%	-269	-122							GTWS
_	CETMOR Representation of the state of the st	05-May-12		60	01-Mar-13	29-Apr-13	00/	-163	269							
A21600	GTWSR-Paques Piping, Electrical, Insulation & Instrumentation Works	05-May-12		60	01-Mar-13	29-Apr-13	0%	-300	-120							GTW
A21800	GTWSR-BDI Piping, Electrical, Insulation & Instrumentation Works	04-Oct-12	18-Nov-12	45	01-Mar-13	14-Apr-13	0%	-148	284							GTWS
2B-E Tank Fa		01-Jul-12	29-Nov-12	132	16-Feb-13 A	27-Jun-13		-210	-119						T	20 Mar 1
_	B-2E Structural and Builder's Work	31-Oct-12			01-Mar-13	30-Mar-13		-121	-178							30-Mar-1
A23100	2BE-ABWF works in Tank Farm 2B-2E		29-Nov-12	30	01-Mar-13	30-Mar-13	0%	-121	-178							2BE-ABV
	B-2E-Plumbing and Drainage	03-Jul-12		70	16-Feb-13 A	27-Apr-13		-191	-165				 			7 27⊹Ap
A22810	2BE-BS Piping works(Plumbing)		03-Aug-12	41	16-Feb-13 A	29-Mar-13	33.3%	-237	-165							2BE-B\$ I
A22820	2BE-BS Piping works(Drainage)		04-Sep-12	22	16-Feb-13 A	09-Mar-13	95%	-186	-145						- - - ·	2BE-BS Pipi
A22900	2BE-BS Plumbing and Drainage Testing		17-Oct-12	68	18-Feb-13 A	27-Apr-13	33.3%	-191	-165						- -	2BE-
Tank Farm 2	B-2E-Electrical	02-Aug-12		77	12-Apr-13	27-Jun-13		-267	-197							
A22840	2BE-BS Cable exposed conduits laying works(Electrical)	02-Aug-12	02-Sep-12	32	12-Apr-13	13-May-13	0%	-253	-197							2BI
A22841	2BE-BS Final connection works(Electrical)			14	14-May-13	27-May-13	0%		-197							_ 2
A22870	2BE-BS Electrical Testing	03-Sep-12	03-Oct-12	31	28-May-13	27-Jun-13	0%	-267	-197							
Tank Farm 2	B-2E-Fire Services	01-Jul-12	02-Sep-12	108	16-Feb-13 A	03-Jun-13		-274	-213						—	
A22850	2BE-BS Piping installation works(Fire Services)	01-Jul-12	01-Aug-12	81	16-Feb-13 A	07-May-13	20%	-279	-213							2 BE
A22860	2BE-BS Sprinkler installation works(Fire Services)	02-Aug-12	02-Sep-12	81	16-Feb-13 A	07-May-13	20%	-247	-213							— 2BE
■ BL	◆ ♦ Milestone Proposed	Bio-Diesel Pi	lant at T K ∩	Lot 39 M	ain Contract for	All Remaining	Works		Date			Revisi			Checked	Approve
Actual W			1.11.0	. 200 07 141	Commet 101	: • : : : : : : : : : : : : : :	- · · · · · · · · · · · · · · · · · · ·		01-Mar-13	3	Mth Rolling	Programme				
Remaini	,		3 Month	Rolling	Programme											
	Remaining Work		J		8											
- Untical R	Remaining Work	f _{o.w}	EM 8-A I	Panart ((1 March 201	(3)										

y ID	Activity Name		BL Start	BL Finish	Current	Current Start	Current	%	Delay	Total				2012			2013
					Duration		Finish	Complete	from Initial		t N D	J F M	Apr M	J Jul A	S Oct N	I D J F	, 4. 0
A22880	2BE-BS Cable laying works(Fire Services)				32	12-Apr-13	13-May-13	0%		-213							2BE
A22890	2BE-BS Final connection works(Fire Services)				21	14-May-13	03-Jun-13	0%		-213							_ 2
Tank Farm 2	B-2E-Processing Works		10-Aug-12	11-Oct-12	63	15-Apr-13	16-Jun-13		-248	-108							
A22700	2BE-BDI Pipe Insulation, Process Electrical & Instrumental	tion Works	10-Aug-12	11-Oct-12	63	15-Apr-13	16-Jun-13	0%	-248	-108					<u> </u>		
3 - Waste Wa	ater Treatment Plant		12-May-12	29-Nov-12	251	22-Aug-12 A	29-Apr-13		-151	-138		: ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ;					29-Ap
Waste Water	Treatment Plant Structural and Builder's Work		31-Oct-12	29-Nov-12	136	12-Nov-12 A	27-Mar-13		-118	-208					_		27-Mar-13
A24020	WWTP-Installation of windows, louvers and doors		31-Oct-12	29-Nov-12	29	27-Feb-13 A	27-Mar-13	10%	-118	-208					=	-	WWTP-In
A24030	WWTP- ABWF works excluding windows, louvers and doo	ors	31-Oct-12	29-Nov-12	121	12-Nov-12 A	12-Mar-13	60%	-103	-193						= : :	WWTP-AB\
WWTP-Plum	bling and Drainage		03-Jul-12	30-Sep-12	219	20-Sep-12 A	26-Apr-13		-208	-165							26+Ap
A23610	WWTP-BS piping works(Plumbing)		03-Jul-12	01-Aug-12	177	20-Sep-12 A	15-Mar-13	70%	-226	-165		¦					WWTP-BS
A23620	WWTP-BS piping works(Drainage)		02-Aug-12	31-Aug-12	177	20-Sep-12 A	15-Mar-13	50%	-196	-165						1 1 1	WWTP-BS
A23655	WWTP-BS Installation of sanitary fittings		01-Sep-12	22-Sep-12	21	16-Mar-13	05-Apr-13	0%	-195	-165					-		WWTP-I
A23800	WWTP-BS Plumbing and Drainage Testing		01-Sep-12	30-Sep-12	21	06-Apr-13	26-Apr-13	0%	-208	-165					_		■ wwt
WWTP-Elect	rical		13-Aug-12	04-Oct-12	146	30-Nov-12 A	24-Apr-13		-203	-133					- '		24-Apr
A23640	WWTP-BS Cable exposed conduits laying works (Electrical	al)	13-Aug-12	12-Sep-12	98	30-Nov-12 A	07-Mar-13	90%	-177	-158		ļ <u> </u>			<u> </u>		WWTP-BS C
A23650	WWTP-BS Lighting installation works		12-Sep-12	04-Oct-12	22	08-Mar-13	29-Mar-13	0%	-177	-143							WWTP-B
A23651	WWTP-BS Final connection works				21	23-Mar-13	12-Apr-13	0%		-133							wwTP
A23680	WWTP-BS Electrical Testing		12-Sep-12	04-Oct-12	22	03-Apr-13	24-Apr-13	0%	-203	-133							■ wwt
WWTP-Fire S	Services		14-Jul-12	12-Oct-12	248	22-Aug-12 A	26-Apr-13		-197	-165							26+Ap
A23660	WWTP-FS Piping installation works		14-Jul-12	13-Aug-12	200	22-Aug-12 A	09-Mar-13	70%	-209	-161		 					WWTP-FSI
A23670	WWTP-FS Detector installation work		13-Aug-12	12-Sep-12	47	28-Jan-13 A	15-Mar-13	30%	-185	-166					-		WWTP-FS
A23730	WWTP-BS Final connection works(Final Services)				46	07-Feb-13 A	24-Mar-13	20%		-165							■ WWTP-B
A23900	WWTP-Fire Service Testing		12-Sep-12	12-Oct-12	33	25-Mar-13	26-Apr-13	0%	-197	-165							ww w
WWTP-Proce	essing Works		12-May-12	08-Sep-12	218	24-Sep-12 A	29-Apr-13		-233	-150							29-A
A23500	WWTP-Treatment Equipment Installation Works		12-May-12	09-Aug-12	188	24-Sep-12 A	30-Mar-13	80%	-233	-163						1 1 1	WWTP-T
A23700	WWTP-Treatment Installation Testing		10-Aug-12	08-Sep-12	30	31-Mar-13	29-Apr-13	0%	-233	-150							ww w
4A - Jetty			01-Jul-12	19-Nov-12	130	07-Feb-13 A	16-Jun-13		-209	-186							
Jetty Structu	ural and Builder's Work		01-Jul-12	29-Oct-12	109	07-Feb-13 A	26-May-13		-209	-186							2
A24310	4A-Pile Cap and Superstructure of Jetty Deck concreting v	vorks	01-Jul-12	12-Sep-12	58	07-Feb-13 A	10-Apr-13	36.92%	-210	-185					- ! !		4A-Pile
A24320	4A-Sea Water Pumping House concreting works		17-Aug-12	14-Sep-12	29	13-Mar-13	10-Apr-13	0%	-208	-185					.		4A-Sea
A24500	4A-Jetty Furniture, Lighting Works		15-Sep-12	29-Oct-12	45	12-Apr-13	26-May-13	0%	-209	-186							4.
Jetty-Plumb	ing and Drainage		15-Sep-12	29-Oct-12	45	11-Apr-13	25-May-13		-208	-185							2
A24510	4A-BS Piping works(Plumbing)		15-Sep-12	29-Oct-12	45	11-Apr-13	25-May-13	0%	-208	-185							4,
A24540	4A-BS Piping works(Drainage)				45	11-Apr-13	25-May-13	0%		-185							4
Jetty-Electric	cal		15-Sep-12	29-Oct-12	45	11-Apr-13	25-May-13		-208	-185							2
A24520	4A-BS Cable concealed conduits laying works(Electrical)		15-Sep-12	29-Oct-12	30	11-Apr-13	10-May-13	0%	-193	-185							4A-
A24550	4A-BS Cable exposed conduits laying works(Electrical)				30	11-Apr-13	10-May-13	0%		-177							4A-
A24560	4A-BS Final connection works(Electrical)				30	26-Apr-13	25-May-13	0%		-185							4
Jetty-Fire Se	ervices		15-Sep-12	19-Nov-12	67	11-Apr-13	16-Jun-13		-209	-186							
A24530	4A-BS Piping installation works(Fire Services)		15-Sep-12	29-Oct-12	30	11-Apr-13	10-May-13	0%	-193	-177					اللي		─ 4A-
A24570	4A-BS Sprinkler installation works(Fire Services)				30	11-Apr-13	10-May-13	0%		-177		,					4A-
A24580	4A-BS Cable laying works(Fire Services)				14	04-May-13	17-May-13	0%		-170							■ 4A
A24590	4A-BS Final connection works(Fire Services)				21	11-May-13	31-May-13	0%		-177							4
A24600	4A-Jetty E&M and FS testing		30-Oct-12	19-Nov-12	21	27-May-13	16-Jun-13	0%	-209	-186							_
Pipe Bridge	& Pipe Trench Works		21-Jan-12	03-Aug-12	102	02-Feb-13 A	14-May-13		-284	-138							14-
A24900	Pipe Bridge Between FAT and WWTP (PB 5)		27-Jan-12	25-Feb-12	13	21-Feb-13 A	05-Mar-13	83.33%	-374	-68] Pipe Bridge E
A24910	Erection of steel pipe racks at Tank Farm 2A & GTWSR (T	ower 3 & PB type H)	27-Jan-12	25-Feb-12	27	02-Feb-13 A	01-Mar-13	50%	-369	-151							Erection of ste
BL	◆ Milestone	Proposed P	in-Diesel Di	ant at TK () Lot 30 N	Iain Contract for	All Remainin	g Works		Date		 	Revision	<u> </u>		Checked	Approve
Actual W		1 Toposed D	10 1000111	um ut 1.IX.C	<u>L</u> UL J / IV	Inili Colliact 101	. III Kemamili	5 11 OIKS		01-Mar-13	3 Mth	Rolling Progra	amme			<u> </u>	
	ing Work			3 Month	Rolling	Programme											
	ing work Remaining Work			- MICHIGH	Troming	-10814111111											
- Untical F	Cemaining WORK					01 March 20 1	4.0%			1							



APPENDIX C SUMMARY OF SITE AUDITS

Development of a Biodiesel Plant at Tseung Kwan O Industrial Estate

Monthly Site Inspection Record Summary

Inspection Information

Checklist Reference Number	121205
Date	05 December 2012 (Wednesday)
Time	16:15 – 16:50

Ref. No.	Non-Compliance	Related Item
		No.
-	None	-

Related Item Ref. No. Remarks/Observations No. A. Water Quality N/A 121205 -• Bentonite is observed inside the silt curtain. No washing of bentonite into the R01 sea is allowed. B. Air Quality • No environmental deficiency was identified during site inspection. • No environmental deficiency was identified during site inspection. D. Waste / Chemical Management · No environmental deficiency was identified during site inspection. E. Permit / Licenses No environmental deficiency was identified during site inspection. F. Reminders • No environmental deficiency was identified during site inspection. G. Others Follow-up on previous audit section (Ref. No.:121128): • Environmental deficiency 121128-R01 was improved/rectified by the Contractor.

	Name	Signature	Date
Recorded by	Leung Ka Wing	Loung &	10 December 2012
Checked by	Dr. HF Chan	Than	10 December 2012

Development of a Biodiesel Plant at Tseung Kwan O Industrial Estate

Monthly Site Inspection Record Summary

Inspection Information

Checklist Reference Number	130116	
Date	16 January 2013 (Wednesday)	
Time	15:45 – 16:30	

Ref. No.	Non-Compliance	Related Item
		No.
_	None	-

Related Item Ref. No. Remarks/Observations No. A. Water Quality B2 130116-R01 • Sand Bag should be placed along the waterfront. • Ponding water should be removed or added with larvicidal oil. B13 130116-R02 B. Air Quality • No environmental deficiency was identified during site inspection. C. Noise • No environmental deficiency was identified during site inspection. D. Waste / Chemical Management • No environmental deficiency was identified during site inspection. E. Permit / Licenses • No environmental deficiency was identified during site inspection. F. Reminders • No environmental deficiency was identified during site inspection. G. Others Follow-up on previous audit section (Ref. No.:121205): • Environmental deficiency 121205-R01 was improved/rectified by the Contractor.

	Name	Signature	Date
Recorded by	Betty Choi	Bettyfurt	17 January 2013
Checked by	Dr. HF Chan	Men	17 January 2013

CINOTECH MA9021 130117

Development of a Biodiesel Plant at Tseung Kwan O Industrial Estate

Monthly Site Inspection Record Summary

the Contractor.

Inspection Information

Checklist Reference Number	130219
Date	19February 2013 (Wednesday)
Time	16:15 – 16:40

Ref. No.	Non-Compliance	Related Item	
		 No.	
-	None	-	

Remarks/Observations Related Item Ref. No. No. A. Water Quality • No environmental deficiency was identified during site inspection. B. Air Quality • No environmental deficiency was identified during site inspection. C. Noise • No environmental deficiency was identified during site inspection. D. Waste / Chemical Management • No environmental deficiency was identified during site inspection. E. Permit / Licenses • No environmental deficiency was identified during site inspection. F. Reminders • No environmental deficiency was identified during site inspection. Follow-up on previous audit section (Ref. No.:130116): • Environmental deficiencies 130116-R01 and R02 were improved/rectified by

	Name	Signature	Date
Recorded by	KW Leung	KW Leung	4 March 2013
Checked by	Dr. HF Chan	Vin	4 March 2013

CINOTECH MA9021 130219

APPENDIX D PERMITS AND LICENSES

Appendix D - Summary of Environmental Licensing and Permit Status

Permit / License No.	Valid	Period	Details	Status
remmt / License No.	From	То	Details	Status
Environmental Permit (EP	')			
EP-319/2009/A	07/04/2009	N/A	Construction and operation of	Valid
			(i) a biochemical plant with a storage capacity of more than 500 tonnes and in which substances are processed and produced;	
			(ii) a storage, transfer and transhipment of oil facility with a storage capacity of not less than 1,000 tonnes; and	
			(iii) a dangerous goods godown with a storage capacity exceeding 500 tonnes.	
Registration of Chemical V	Vaste Produce	r		
WPN-5113-839-C1186-15	12/06/2009	-	Spent Lubrication oil.	Valid
Construction Noise Permit	(CNP)			
GW-RE0757-12	21/09/2012	20/03/2013	Use of Powered Mechanical Equipment during 0000-2400 hours on general holidays (including Sundays), 0000-0700 hours and 1900-2400 hours on any day not being a general holiday.	Renewed to GW- RE0043-13
GW-RE0043-13	02/01/2013	20/07/2013	Use of Powered Mechanical Equipment during 0000-2400 hours on general holidays (including Sundays), 0000-0700 hours and 1900-2400 hours on any day not being a general holiday.	Valid
Wastewater Discharge Lic	ense			
WT00004508-2009	07/09/2009	-	Discharge of wastewater from construction site including wheel washing water and chemical precipitation tank	Valid
Billing Account for Dispos	al of Construct	tion Waste		
A/C No.: 7013917	-	-	-	Valid
Notification of Works unde	er APCO	•		-
Ref. no.: 337009	26/10/2011	-		Valid

APPENDIX E UPDATED ENVIRONMENTAL MITIGATION IMPLEMENTATION SCHEDULE

Appendix E - Summary of Environmental Mitigation Implementation Schedule (Construction Phase)

Types of Impacts	Mitigation Measures	Status
	• Dust control measures such as water spaying on roads and dusty areas, covering of lorries by impervious sheets and controlling of the falling height of fill materials will be implemented;	٨
	• Effective dust screens, sheeting or netting will be provided to enclose the scaffolding from the ground level of the facility during the building construction;	٨
	 All debris and materials will be covered or stored in a sheltered debris collection area; 	^
Construction Dust	 Hoarding from ground level will be provided along the entire length of the site boundary except for a site entrance or exit; Every stockpile of dusty materials will be covered entirely by impermeable sheeting or placed in an area sheltered on the top and the 3 sides; 	^
	 Regular maintenance and checking of the diesel powered mechanical equipment will be adopted to avoid any black smoke emissions and to minimize gaseous emissions. 	^
	 Monthly site audits will be conducted to ensure the implementation of suitable dust control measures and good site practices. 	^
	Only well-maintained plant will be operated on-site and plant will be serviced regularly during the construction program;	٨
	 Silencers or mufflers on construction equipment will be utilized and will be properly maintained during the construction program; 	^
	 Mobile plant, if any, will be sited as far from NSRs as possible; 	^
Construction	• Machines and plant (such as trucks) that may be in intermittent use will be shut down between work periods or will be throttled down to a minimum;	٨
Noise	• Plant known to emit noise strongly in one direction will, wherever possible, be orientated so that the noise is directed away from the nearby NSRs; and	^
	 Material stockpiles and other structures will be effectively utilised, wherever practicable, in screening noise from onsite construction activities. 	٨

Compliance of mitigation measure; Remarks: ^

X Non-compliance of mitigation measure;

N/A Not Applicable at this stage; • Non-compliance but rectified by the contractor;

* Recommendation was made during site audit but improved/rectified by the contractor;

* Non-compliance but rectified/improved by the contractor and awaiting IEC's further comment.

Types of Impacts	Mitigation Measures	Status
	• Silt curtain will be installed around the marine piling area to contain any suspended mud and sediments generated during the piling works. Silt removal facilities such as silt traps or sedimentation facilities will be provided to remove silt particles from groundwater (if pumping is required) to meet the requirements of the TM standard under the WPCO. The design of silt removal facilities will be based on the guidelines provided in ProPECC PN 1/94. All drainage facilities and erosion and sediment control structures will be inspected monthly and maintained to ensure proper and efficient operation at all times and particularly during rainstorms. Construction Site Run-off and Drainage	^
Water Quality	 Silt removal facilities such as silt traps or sedimentation facilities will be provided to remove silt particles from runoff to meet the requirements of the TM standard under the WPCO. The design of silt removal facilities will be based on the guidelines provided in ProPECC PN 1/94. All drainage facilities and erosion and sediment control structures will be inspected monthly and maintained to ensure proper and efficient operation at all times and particularly during rainstorms. Careful programming of the works to minimise surface excavations for the construction works during the wet season. If excavation of soil cannot be avoided during the wet season, exposed slope surfaces will be covered by a tarpaulin or other means. Other measures that need to be implemented before, during, and after rainstorms are summarised in ProPECC PN 1/94. Exposed soil surfaces will be protected by paving or fill material as soon as possible to reduce the potential of soil erosion. Open stockpiles of construction materials or construction wastes on-site of more than 50m³ will be covered with tarpaulin or similar fabric during rainstorms. These materials will not be placed near the seawall area. 	^ ^
	 General Construction Activities Debris and refuse generated on-site will be collected, handled and disposed of properly to avoid entering the nearby water sensitive receivers (WSRs). Stockpiles of cement and other construction materials will be kept covered when not being used. Oils and fuels will only be used and stored in designated areas which have pollution prevention facilities. All fuel tanks and storage areas will be provided with locks and be sited on sealed areas, within bunds of a capacity equal to 110% of the storage capacity of the largest tank. The bund will be drained of rainwater after a rain event. 	^

Compliance of mitigation measure; Remarks: ^

X Non-compliance of mitigation measure;

N/A Not Applicable at this stage;

* Recommendation was made during site audit but improved/rectified by the contractor;

* Non-compliance but rectified/improved by the contractor and awaiting IEC's further comment.

Types of Impacts	Mitigation Measures			
	 Sewage generated from On-site Workforce Temporary sanitary facilities, such as portable chemical toilets, will be provided on-site. A specialised contractor will be responsible for regular collection and appropriate disposal of the sewage and maintenance of these facilities. Monthly site inspections will be carried out during construction to ensure that the mitigation measures listed above are properly implemented. The site audit frequency will be increased to weekly intervals during the piling works. 	^ ^		
Ecology	 Mitigation measures for minimising water quality impacts are presented in detail above. These measures will be properly implemented and good construction practices will be adopted to minimise potential adverse impacts to marine ecological resources. 	۸		

[^] Compliance of mitigation measure; X Non-compliance of mitigation measure;
N/A Not Applicable at this stage; • Non-compliance but rectified by the contractor;
* Recommendation was made during site audit but improved/rectified by the contractor;
Non-compliance but rectified/improved by the contractor and awaiting IEC's further comment.

APPENDIX F COMPLAINT LOG

APPENDIX F - COMPLAINT LOG

Reporting Month: December 2012 to February 2013

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
COM- 2012- 08-001	Jetty Area	28-08- 2012	A resident in Lohas Park complained about noise nuisance from the site.	Investigation by EPD identified the source to be chiselling work at the jetty area. Although the chisel machines were covered by valid CNP, the Contractor decided to suspend the corresponding work during restricted hours. The machine was later covered by sound proof canvas to minimize noise transmission. Subsequent inspection and noise measurement by the EPD on 3 rd September 2012 concluded that the noise reduction measure was effective and acceptable at Lohas Park.	Closed
COM- 2012- 09-002	Jetty Area	07-09- 2012	A resident in Lohas Park complained about noise nuisance from the site.	Investigation by EPD identified the source to be chiselling work at the jetty area. Only one chisel machine was operated on the day of complain and it was screened by sound proof canvas. Although the machine was covered by valid CNP, the Contractor decided to suspend the corresponding work during restricted hours during investigation period. Subsequent inspection and noise measurement (daytime at site, night time at Lohas Park) by the EPD on 12 th September 2012 concluded that the noise levels were acceptable at Lohas Park.	Closed
COM- 2012- 09-003	Jetty Area	27-09- 2012	A resident in Lohas Park complained about noise nuisance from the site.	The chisel machine used at JP3 of the jetty area was identified as the noise source. According to the Contractor, the machine was screened by sound proof canvas. Although the machine was covered by valid CNP, the Contractor decided to carry out the corresponding work during normal operation hours only. This was agreed with the complainant in Lohas Park.	Closed
COM- 2012- 09-004	Not Specified	04-10- 2012	A resident in Lohas Park complained about noise nuisance from the site at	According to the Contractor, According to the Contractor, only one drilling machine and chiselling machine were in use, which were covered by valid CNP. We advised the Contractor to communicate with the residents in Lohas	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
			11:18pm.	Park given consistent noise complains. The Contractor explained to the complainant that chiselling work will stop at 11pm every day and start after 10am during weekends to minimize noise nuisance. Further in November, a noise enclosure was erected to cover the noisy part of the chiselling machine.	
Com- 2012- 11-005	Jetty Area	23-11- 2012	A resident in Lohas Park complained about noise nuisance from the site at around 3:00 am	The chisel machine used of the jetty area was identified the noise source. According to the Contractor, the machine was screened by enclosure. Although the machine was covered by valid CNP, the Contractor decided to carry out the corresponding work during 7:00 – 23:00. Contractor explained to the complainant that the bored piling will be completed in early December.	Closed

Remarks: N/A