

Environmental Monitoring Report

Semi-Annual Report
July–December 2012

VIE: Ho Chi Minh-Long Thanh-Day Giay Expressway Construction Project

Package No. 6

Prepared by the Viet Nam Expressway Corporation, CDM Smith Inc. and Hanshin Engineering & Construction Co., Ltd. for the Ministry of Transport of Vietnam, and the Asian Development Bank.

CURRENCY EQUIVALENTS

(as of 1 January 2013)

Currency unit	–	dong (D)
D1.00	=	\$0.000048
\$1.00	=	D20,825

NOTE

In this report, "\$" refers to US dollars unless otherwise stated.

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THE SOCIALIST REPUBLIC OF VIET NAM
MINISTRY OF TRANSPORT

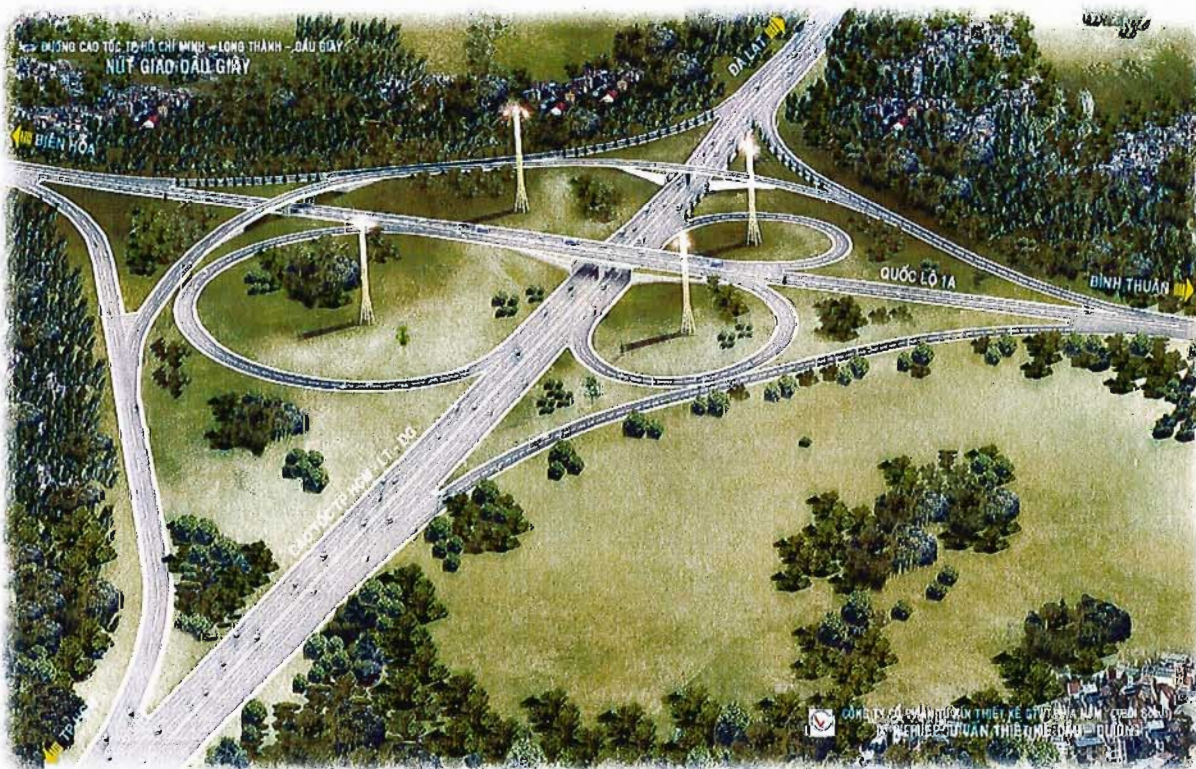
VIETNAM EXPRESSWAY CORPORATION
HOCHIMINH – LONG THANH – DAU GIAY EXPRESSWAY
PROJECT MANAGEMENT UNIT (HLD EPMU)



CDM SMITH INC (PSC)
LOAN ADB NO. 2451-VIE



HO CHI MINH – LONG THANH – DAU DAY
EXPRESSWAY CONSTRUCTION PROJECT
PACKAGE NO.6



SEMI-ANNUAL ENVIRONMENTAL MANAGEMENT
REPORT
(July – December 2012)

Hanshin
Engineering & Construction Co., Ltd

December, 2012





SEMI - ANNUAL ENVIRONMENTAL MANAGEMENT REPORT

(July – December 2012)

CONTRACTOR



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Signature			
Date	Jan. 08 th 2013	Jan. 09 th 2013	Jan-09 th - 2013
Position	Environmental Specialist	Construction Manager	Project Manager



	<p style="text-align: center;">HO CHI MINH – LONG THANH – DAU DAY EXPRESSWAY PACKAGE 6</p> <p style="text-align: center;">SEMI-ANNUAL ENVIRONMENTAL MANAGEMENT REPORT</p>	<div style="display: flex; align-items: center;">  <div style="margin-left: 10px;"> <p>Date : 31 December 2012 Page : 2 of 78</p> </div> </div>
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ABBREVIATIONS AND ACRONYMS

ADB	-	Asian Development Bank
JBIC	-	Japan Bank for International Cooperation
JICA	-	Japan International Cooperation Agency
VEC	-	Vietnam Expressway Corporation
EPMU HLD	-	Ho Chi Minh–Long Thanh–Dau Giay Expressway Project Management Unit
CDM SMITH	-	CDM Smith Inc – Project Supervision Consultant
PSC	-	Project Supervision Consultant
TCVN	-	Vietnamese Standard
QCVN	-	Vietnamese Regulation
DONRE	-	Department Of Natural Resources and Environment
MONRE	-	Ministry Of Natural Resources and Environment
EIA	-	Environmental Impact Assessment
UEMP	-	Updated Environmental Management Plan – Final Report – June 2010
SEMP	-	Site Environment Management Plan
HCMC	-	Ho Chi Minh City

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1: INTRODUCTION

1.1 Report Purpose

In the surrounding area of Ho Chi Minh City (HCMC), the traffic volume has long been over the capacity of road. It is foreseen that the demand of traffic in HCMC and Dong Nai area where industrial development has been recently significant with the planned development of industrial zones and the international airport will increase significantly.

The Government of Vietnam (GOV) has decided to construct the HCMC – Long Thanh - Dau Giay Expressway (HLD Expressway) with the assistance from Asian Development Bank (ADB) and Japan Bank for International Cooperation (JBIC), which was currently named as Japan International Cooperation Agency (JICA) by integrating with previous JICA.

The project area is divided in two sections that are funded by two sources. The section funded by JBIC extends from km 4+000 (at Ring Road 2) to km 23+900 (the intersection of National Highway No.51 at the southern end of Long Thanh). The section funded by ADB extends from Km 23+900 to the Dau Giay Interchange, where it meets National Highway No.1

Ho Chi Minh –Long Thanh –Dau Giay Expressway crosses thinly population density areas such as agricultural land and some high population density areas. Environmental Impact Assessment (EIA) has been implemented for environmental and social consideration according to the Vietnamese environmental law and regulations and JBIC and ADB guidelines for Environmental and Social Considerations and Regulations.

Implementation of Site Environmental Management Plan (SEMP) during construction and post-construction stages is necessary for sustainable development as well as to ensure the environmental protection in the road construction project.

The main purpose of the Semi-Annual Environmental Management Report (July 2012 – December 2012) is to summarize compliance with the environmental management activities by contractor of Package No.6.

The main objectives of this Semi-Annual Environmental Management Report are follows:

- ✓ Grasp the general environmental condition
- ✓ Identify the environmental impacts during the construction period and propose mitigation measures
- ✓ Summarize the result of environment inspection during construction period.
- ✓ Implementation of environmental monitoring in pre-construction.
- ✓ Implementation of environmental protection

1.2 Introduction about Package No.6

1.2.1. The Employer

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Viet Nam Expressway Corporation (VEC)

Add: Hamlet No.2, Linh Nam Ward, Hoang Mai Dist., Ha Noi City, Viet Nam

Tell: (04) 36.430.275

Fax: (04) 36.430.270

Ho Chi Minh - Long Thanh - Dau Giay Expressway Project Management Unit - EPMU HLD

Add: 35 – 36 – 37 Song Hanh Street, An Phu – An Khanh, District 2, HCMC, Viet Nam

Tell: (08) 62.811.795 – 62.811.796

Fax: (08) 62.811.797

1.2.2. Project Supervision Consultant - PSC

CDM Smith Inc

Add: Group 13, Hamlet 12, Long Duc Commune, Long Thanh District, Dong Nai Province, Viet Nam

Tel: (84-061) 2807001

Fax: (84-061) 2648868

1.2.3. Contractor Package No. 6

Hanshin Engineering & Construction Co., Ltd.

Management: Mr. Kim Kyong Sob

Project Manager

Project Management Office:

Add: Hamlet 6, Road 25 Ward, Thong Nhat Dist., Dong Nai Province, Viet Nam

Tell: (84-61) 3.964.716/726/826

Fax: (84-61) 3.964.611

- **Construction Period:** 32 (thirty two) months

- **Fund for the project:** Asian Development Bank - ADB

- **Project location of package 6:**

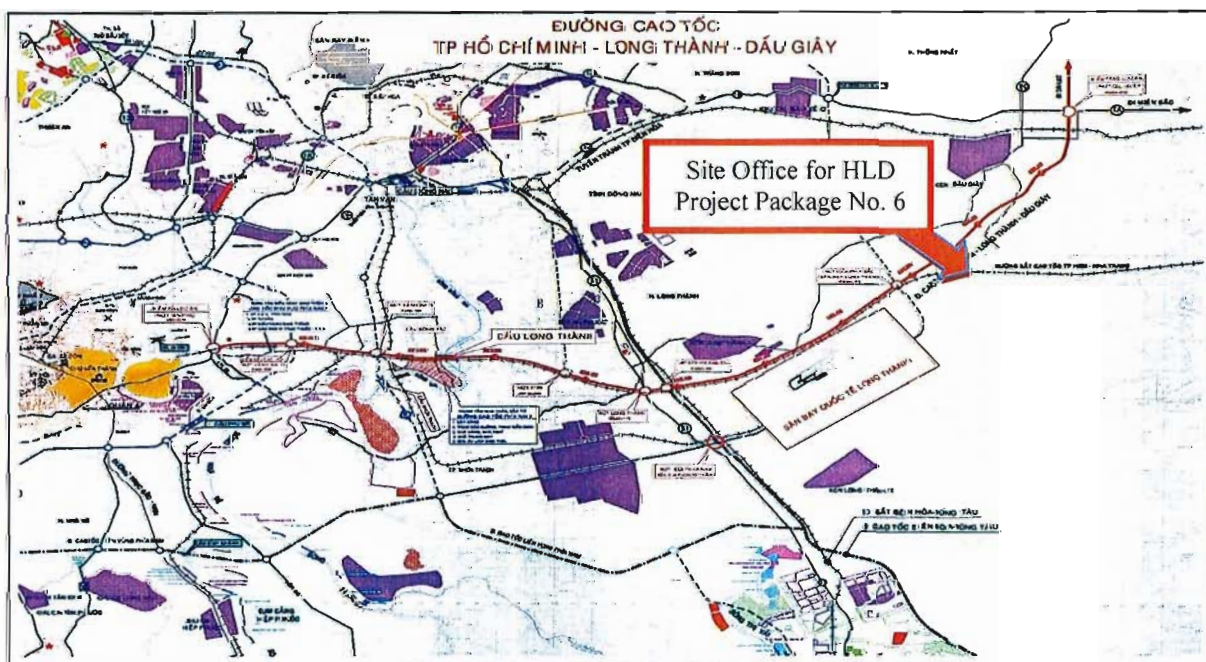



Figure 1.1. The Location of HLD Expressway Project Package No.6

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1.2.4. Organization of Contractor Package No. 6

Chart of Organization & Pertinent Agencies

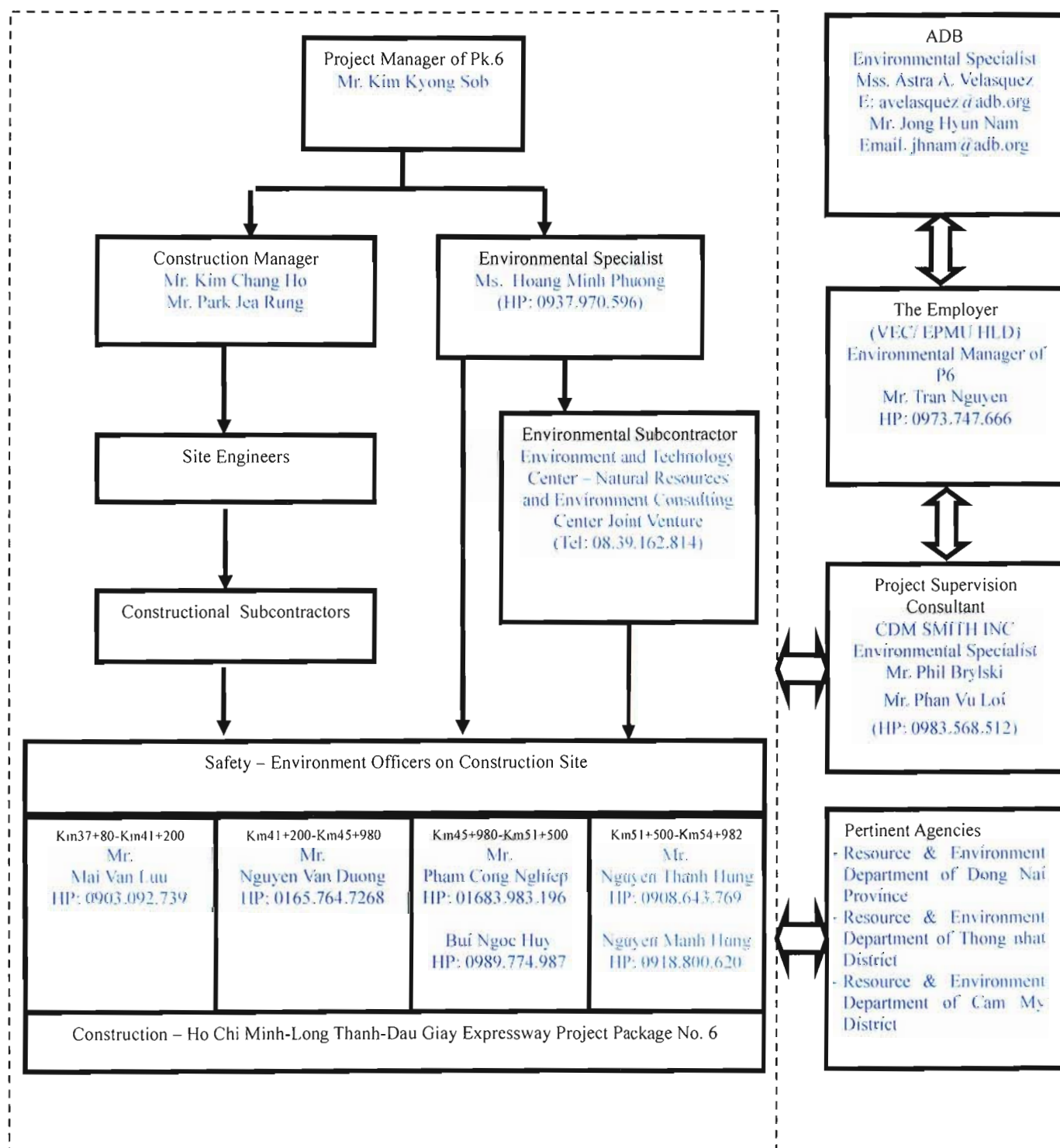


Figure 1.2. Chart of Organization & Pertinent Agencies





	<p align="center">HO CHI MINH – LONG THANH – DAU DAY EXPRESSWAY PACKAGE 6</p> <p align="center">SEMI-ANNUAL ENVIRONMENTAL MANAGEMENT REPORT</p>	 <p>Date : 31 December 2012 Page : 7 of 78</p>
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Table 1.1. The tasks, name and contact details of the individuals/ entities in the organizational chart above indicated follows:

INDIVIDUAL/ ENTITIES	RESPONSIBILITY	NAME	CONTACT
The Employer (VEC/ EPMU HLD)	<ul style="list-style-type: none"> - Supervise and check the “Environmental Monitoring Report” implementation and the environmental issues of Contractor. - Handling of complaints on environmental issues 	Environmental Manager of P.6 Mr. Tran Nguyen	HP: 0973.747.666 Email: nguyenvvec@gmail.com
The Project Supervision Consultant - PSC (CDM SMITH INC)	<ul style="list-style-type: none"> - Check/clearance and review/approval all of the environment issues of Contractor. - Senior Environmental Specialist of PSC is responsible main on environmental education program. 	Senior Environmental Specialist Mr. Phil Brylski Mr. Phan Vu Loi	HP: 01245.471.786 Email: pbrylski@gmail.com HP: 0983.568.512 Email: loipv04@gmail.com
Pertinent Agencies (Regarding Environment Issue)	<ul style="list-style-type: none"> - Check the environment on site to ensure they meet EIA and SEMP. - Ensuring that necessary permits or authorizations are obtained. 	Resource & Environment Department of Dong Nai Province	Dong Khoi Street, Tan Hiep Dist, Bien Hoa City, Dong Nai Province Phone: 061.3.895.668 Fax : 061.3.827.364
		Resource & Environment Department of Thong Nhat District	Add: Hung Loc Ward, Thong Nhat Dist, Dong Nai Province Phone: 061.3.771.025
		Resource & Environment Department of Cam My District	Add: Suoi Ca Hamlet, Long Giao Ward, Cam My Dist, Dong Nai Province Phone: 061.3.878.565
Contractor	<ul style="list-style-type: none"> - Implementation of individual mitigation measures and monitoring actions - Handling of complaints on environmental issues - Perform the environmental education program has given and approved by PSC 		
Project Director	Manage entire work of package 6 and supply under-position to do their duty	Mr. Kim Kyong Sob	HP: 0933.856.529 Email: kskim@hanshinc.com
Construction Manager	Control all of the works on site.	Mr. Kim Chang Ho	HP: 0932.435.808 Email: asd6321@hanshinc.com
		Mr. Park Jea Rung	HP: 0932.504.465 Email: krpark@hanshinc.com
Environmental Specialist	Manage environmental issues on the site and the office to ensure the environment protected during construction.	Ms. Hoang Minh Phuong	HP: 0937.970.596 Email: minhphuong265vungtau@yahoo.com
Site Engineers	Survey and inspection on site	Mr. Nguyen Xuan Lam	HP: 0986.974.113 Email: nxlam.1707@yahoo.com

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Subcontractors			
Site Environment -- Safety Staff	Check on construction site about safety – environment, and reports and related communication on SEMP implementation and compliance of contractor every day (such as: wear PPEs; barrier; protect fence; waste and watering for reduce dust, etc.).	Km37+80-Km41+200 Mr. Mai Van Luu	HP: 0903.092.739 Email: italyamyc@gmail.com
		Km41+200-Km45+980 Mr. Nguyen Van Duong	HP: 0165.764.7268 Email: vanduong@yahoo.com
		Km45+980-Km51+500 Mr. Pham Cong Nghiep	HP: 01683.983.196 Email: thienphuxdgt@yahoo.com
		Mr. Bui Ngoc Huy	HP: 0989.774.987 Email: ngochuygtvt@gmail.com
		Km51+500-Km54+982 Mr. Nguyen Thanh Hung	HP: 0908.643.769 Email: hoangtuankhang248@yahoo.com
		Mr. Nguyen Manh Hung	HP: 0918.800.620 Email: hungnguyennh59@gmail.com
Environmental Subcontractor	Monitor the environment on site, sampling and make the environmental report based on environmental monitoring result (Quarterly)	Environment and Technology Centre – Natural Resources and Environment Consulting Centre Joint Venture Mr. Ton That Lang - Director	20 street 4, ward 15, Go Vap Dist, HCMC Phone: 08.39.162.814 Email: ttlang@hcm.vnn.vn

1.2.5. Venue construction of Contractor Package No. 6

The total length of package 6 is 17.2 km, from km37+800 to km54+982 and includes nine bridges (Suoi Sau, Suoi Ram, Song Nhan, Railway flyover, Overpass No. 01, Overpass No. 02, Overpass No. 03, Dau Giay, and Thong Nhat) and six underpasses.



1.3 Project Implementation Progress and Change in Project Scope

1.3.1 Project Implementation Progress

The construction progress of package 6 as of 20th of December 2012 is described as follows

I. Design works

- Submission of WD for Detail Reinforcement Bar for Deck Slab at Drainage Pipe – Suoi Sau, Suoi Ram, Song Nhan, Railway flyover, Over Pass 1.
- Submission of Working Drawing for Typical Cross section of Detour at Dau Giay Interchange (the 4th).
- Resubmission of WD for Backfilling Granular of Box Culvert, Technical Culvert & Underpass.
- Resubmission of Drawing and Method Statement for Ensuring Road Traffic & Detour.
- Resubmission of WD for Backfilling Granular of Box Culvert, Technical Culvert & Underpass.

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- Resubmission of Working Drawing for Slope Protection and Guard Fence (Rev 01).
- Submission of 6 sets of Working Drawing for Backfilling granular of Box Culvert, Technical Culvert, Underpass.
- Submission of Working Drawing for (Vol IV.4) Longitudinal Drainage at Dau Giay interchange Interchange(Rev 00).
- Request for Approval of WD for Longitudinal Drainage.
- Resubmission of Working Drawing for Dau Giay Interchange (Section 54+982, 55+140, Ramway A1,A2,D1,D2 and NH1A).
- Submission of Working Drawing for Backfilling of Bridge Suoi Sau, Suoi Ram, Song Nhan, Dau Giay, Thong Nhat & Railway flyover (Rev 00).
- Submission of WD for Approach Roads Connected with Underpass (Rev00).

II. Earth Work

- * Excavation, Embankment and Compaction for Package 6:
 - Section 1:
 - Site clearing for service area
 - Embankment at Km41+280 ~ Km41+460: 4th, 5th, 6th layer.
 - Embankment at Km0+420 ~ Km0+620: 5th, 6th, 7th, 8th, 9th layer
 - Embankment at Km0+340-Km0+660: 1st, 2nd, 3rd, 4th, 5th layer
 - Embankment at Ramp way A (service area)
 - Section 2:
 - Removal soil at cutting area Km44+840 ~ Km45+260
 - Removal soil at cutting area Km45-760~Km45+980
 - Embankment at Km41+460 ~ Km41+600: 2nd ~ 12th layer
 - Embankment at Km41+600 ~ Km41+740: 4th ~ 13th layer
 - Embankment at Km41+760 ~ Km42+000: 7th ~ 13th layer
 - Embankment at Km43+000 ~ Km43+440: 3rd, 4th layer
 - Embankment at Km45+400 ~ Km45+600: 1st ~ 13th layer
 - Section 3-1:
 - Embankment at Km46+920~Km46+980: 2nd ~ 7th layer
 - Embankment at Km46+420~Km46+620: 24th layer
 - Embankment at Km46+080 ~ Km46+300: 18th layer
 - Embankment at Km47+160~Km47+200: 2nd layer
 - Section 3-2:
 - Excavation soil at Km48+820~Km48+860
 - Excavation soil at Km49+200~Km49+250
 - Embankment at Km48+00~Km48+240: 13th layer
 - Embankment at Km48+240~Km48+500: 14th, 15th layer
 - Embankment at Km48+500~Km48+560: 4th ~ 10th layer
 - Embankment at Km49+439.15~Km49+500: 6th ~ 19th layer
 - Embankment shoulder at Km49+439~Km49+500: 1st, 2nd layer
 - Sub grade embankment at Km50+140~Km50+400: 1st layer

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- Section 4-1:
 - Embankment at Km51+500~Km51+600: 3rd ~ 8th layer
 - Embankment at Km51+600~Km51+860: 5th, 6th, 7th layer
 - Embankment at Km52+140~Km52+410: 12th, 13th, 14th, 15th layer
 - Embankment at Km53+500~Km53+638: 18th, 19th, 20th, 21th layer
- Section 4-2:
 - Excavation Soil at Km54+700~Km54+900, Ram way D2
 - Excavation at Km54+720~Km54+940, Ramp way D1
 - Excavation at Km0+180~Km0+500, Ramp way D2
 - Excavation at Km1+440~Km1+540, Ramp way A1
 - Embankment at Km1+209.45~Km1+440: 7th~17th layer
- Section 5:
 - Embankment K=0.95: 1st, 2nd, 3rd layer
 - Embankment K=0.98: 1st, 2nd layer

III. Production of Aggregate

- Production Sub-base material.
- Operate of crusher: 20hours a day.

IV. Drainage Work

- Casting precast Ditch:

Type	Total (lm)	Previous	This Month	Accumulate	Remarks
Side Ditch – U35	4,484.5	4,484	0	4,484	
Side Ditch – U35C	1,592.31	700	0	700	
Side Ditch – U50	14,149.0	11,439	1,570	13,009	
Top Ditch – V50	4,838.0	0	0	0	
Total	25,063.81	16,623	1,570	18,193	

V. Slope production:


Type	Total (Nos)	Previous	This month	Accumulate	Remarks
Type 1	PC Beam Type 1	235,619	47,276	38,992	86,268
	PC Beam Type 2	14,714	0	2,222	2,222
Type 2	PC Slab	207,164			
	PC Beam Type 1	6,474			
	PC Beam Type 2	26			

VI. Bridge Work:

- Suoi Sau bridge :
 - A1L-P1L; A1R-P1R: Casting concrete for deck slab
 - P1L-P2L: Casting concrete for deck slab
 - A2L-P2L; A2R-P2R: Casting concrete for deck slab

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- P1, P2: Casting concrete for link slab
- Install precast railing
- A1; A2: Back filling
- Suoi Ram bridge:
 - A1R-P1R: Casting concrete for deck slab
 - A2R-P2R: Casting concrete for deck slab
 - Install pre cast railing
 - P1, P2: Casting concrete for link slab
- Song Nhan Bridge :
 - Install pre cast plank for I girder
 - A1L-P1L, P1L-P2L, P2L-A2L: Casting concrete for deck slab
 - A1R-P1R: Install rebar and formwork for deck lab
- Overpass No.01
 - P: Install rebar and formwork for foundation
 - A1, A2: Excavation of soil and rock
- Overpass No.02
 - Casting concrete and tension of cable for Hollow slab.
- Overpass No.03
 - Embankment for construction of super structure
 - Casting lean concrete for construction of super structure
 - Install steel plate for construction of super structure
- Railway Flyover Bridge:
 - A1R: Casting concrete for body - stage 3
 - A1L: Casting concrete for body - stage 3
 - Installation pre-cast plank for super T girder
 - P1L, P1R: Casting concrete for link slab
 - A1L-P1L, A1R-P1R: Casting concrete for link slab
- Dau Giay bridge
 - Casting concrete for super T girder: 11 Nos.
- Fabrication of Girder

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Bridge	Type	Total (nos)	Previous	This month	Accumulate	%
Suoi Ram	I-Girder	30	30	0	30	100
Suoi Sau	I-Girder	36	33	0	36	100
Song Nhan	I-Girder	30	27	0	30	100
Railway Flyover	Super T Girder	40	39	0	40	100
Dau Giay	Super T Girder	30	1	11	12	40
Overpass No.1	Super T Girder	8	0	8	8	100

○ Fabrication of Railing:

Type	Total (Nos)	Previous	This month	Accumulate	%
Railing 2m & 1.56m (Railway flyover)	158	156	2	158	100
Railing 2m (Suoi Sau)	62	12	50	62	100
Railing (Suoi Ram)	78	0	78	78	
Railing (Song Nhan)	78	0	48	48	

○ Curb

Type	Total (Nos)	Previous	This month	Accumulate	Remark
Curb (1m)	31,818	0	320	320	

VII. Box Culvert



* Laying PC Box Culvert:

- 33 locations completed (26 Box culverts, 7 Technical culverts)/Total 34 locations.
- Construction at: Km44+637.6

* Cast in situ: 10 locations completed.

VIII. Pipe Culvert

- Laying Pipe Culvert

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Type	Total (Location)	Previous	This week	Accumulate	Remarks
D1.0	13	13	0	13	
D1.5	7	7	0	7	
D2.0	1	1	0	1	Completed
3 x D2.0	2	1	1	2	
Total	23	22	1	23	

- * Construction at location:
 - D2.0: Km42+005

IX. Underpass

- * Casting concrete:

Station	Total (Segment)	Previous	This month	Accumulate	Remark
KM37+880	7	7	0	7	Completed
KM44+600	7	7	0	7	Completed
KM44+700	5	5	0	5	Completed
KM47+616	7	1	6	7	On going
KM50+440	7	7	0	7	Completed
KM52+140	7	7	0	7	Completed

- * Underpass Km47+616: Rebar and formwork for body.

X. Lighting and electrical Works – No Activity

XI. Others

- * Watering for reduce dust on the dry season.
- * Construction and maintenance Service road.

1.3.2 Changes in project scope

HLD Expressway construction project with total length of about 55km, is divided into 2 parts; Part 1: From An Phu Intersection (beginning point) to Ring Road 2 intersection (Km4+000) will be constructed as urban road. This section is funded by Hochiminh City People Committee; Part 2: From Ring Road 2 intersection (Km4+000) to Dau Giay Intersection (ending point). The Project scope is summarized in following table.




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Table 1.2. Project Scope

SECTION	DISTANCE (KM)
Ring Road 2 intersection to NH-51 interchange (JICA portion); Km4+000 to Km23+900	19.900 km
NH-51 interchange to Dau Giay interchange (ADB portion); Km23+900 to Km54+982	31.082 km
Total	50.982 km

Change in project scope:

- Change of Underpass to Overpass at Km 39+400.
- The above change do not add more impacts to the environment, therefore supplementary mitigations are not required.

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2: INCORPORATION OF ENVIRONMENTAL REQUIREMENTS INTO PROJECT CONTRACTUAL ARRANGEMENTS



2.1 Incorporation of Environmental Requirements into Project Contractual Arrangements

Environmental requirements were incorporated into Volume 3. General Specification of contract document. Which requires the construction contractors comply with environmental regulations and protection as summarized below:

- The Contractor submitted an Site Environmental Management Plan (SEMP) detailing how he intends to comply with applicable local laws and regulations concerning protection of the environment and the attached specification for environmental monitoring.
- The contractor implemented environmental monitoring program which shall be implemented in two phases: prior to the start of construction and during construction. The first phase is required to provide baseline data on environmental quality in the Project area, in particular for houses adjacent to areas of the works. Monitoring programs in the construction phase are required to collect data and evaluate the impact of the Project and the effectiveness of the Contractor's mitigation measures.
- The Contractor strictly comply with Vietnamese Laws and Standards regarding the environment on all works associated with the Contract.
- The Contractor shall be responsible for implementing and managing mitigation measures during the construction of the Works. The recommended mitigation measures including measure for air quality, noise and vibration, water environment, waste management, impacts on traffic.
- Subcontracts have been signed during the reporting period that have incorporated the environmental mitigation measures into the subcontractors work plan, such as:
 - Waste Collection Contract
 - Minutes of use of water well with local resident
 - Book of registration for the waste source owner of hazardous waste.
 - Permit for underground water exploitation.
 - Taking and testing sample of Quarterly Environment Monitoring

Regulations:

- Law on Environmental Protection No 52/2005/QH11 on Nov. 29th 2005
- Decree No. 80/2006/NĐ-CP on August 9th 2006, Subject "The Guidelines on Implementation of Law on Environment Protection"

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- Decree No. 68/2005/NĐ-CP on May 20th 2005, Subject to Chemical Safety
- Decree No. 59/2007/NĐ-CP on April 9th 2007, Subject to Management of Solid Waste
- Decree No. 177/2009/NĐ-CP on Dec. 31st 2009, Subject to “Handling of Law Violations in the field of the Environmental Protection”
- Circular No. 12/2006/TT-BTNMT on Dec. 26th 2006, Subject to “The Guidelines on Operation Conditions and Code, Inventory, Registration, Approval for Hazardous Wastes”
- Decision No. 23/2006/QĐ-BTNMT on Dec. 25th 2006, Subject to Promulgation of the List of Hazardous Wastes
- Decision No. 3733/2002/QĐ-BYT on Oct. 10th 2002, Subject to Workplace Sanitation and Safety Regulations and Standards
- Decision 2525/2003/QĐ-BGTVT on August 28th 2003, Subject to Regulations on the Construction Activities on in-use roads
- Decision No. 22/2006/QĐ-BTNMT on Dec. 17th 2006, Subject to “Application of Vietnamese Environmental Standards”

Regulations and Standards about Environment

Air Quality

- QCVN 05/2009/BTNMT. National technical regulation on ambient air quality.
- QCVN 06/2008/BTNMT. National technical regulation on certain hazardous.

Noise and Vibration Quality

- QCVN 26/2010/BTNMT. National technical regulation on Noise.
- QCVN 27/2010/BTNMT. National technical regulation on Vibration.

Water Quality

- QCVN 08/2008/BTNMT. National Technical Regulation on Surface Water Quality
- QCVN 09/2008/BTNMT. National Technical Regulation on Under Ground Water Quality
- QCVN 14/2008/BTNMT. National Technical Regulation on Waste Water Quality

Hazardous Substances

- Circular No. 12/2011/TT-BTNMT on Dec. 26th 2011. “Hazardous Waste Management”

Waste

- Decree No. 59/2007/NĐ-CP on April 9th 2007. “Solid Waste Management”

2.2 Implementation arrangement of Site Environment Management Plan - SEMP

The SEMP including the explanation of baseline condition at pre-construction and potential impacts and mitigation measures at construction stage and operation stage

EMP has been prepared to monitor the environmental impacts and implement the appropriate mitigation measures during construction and operation stages as required in the EIA. The frameworks of management are described in the following figure:

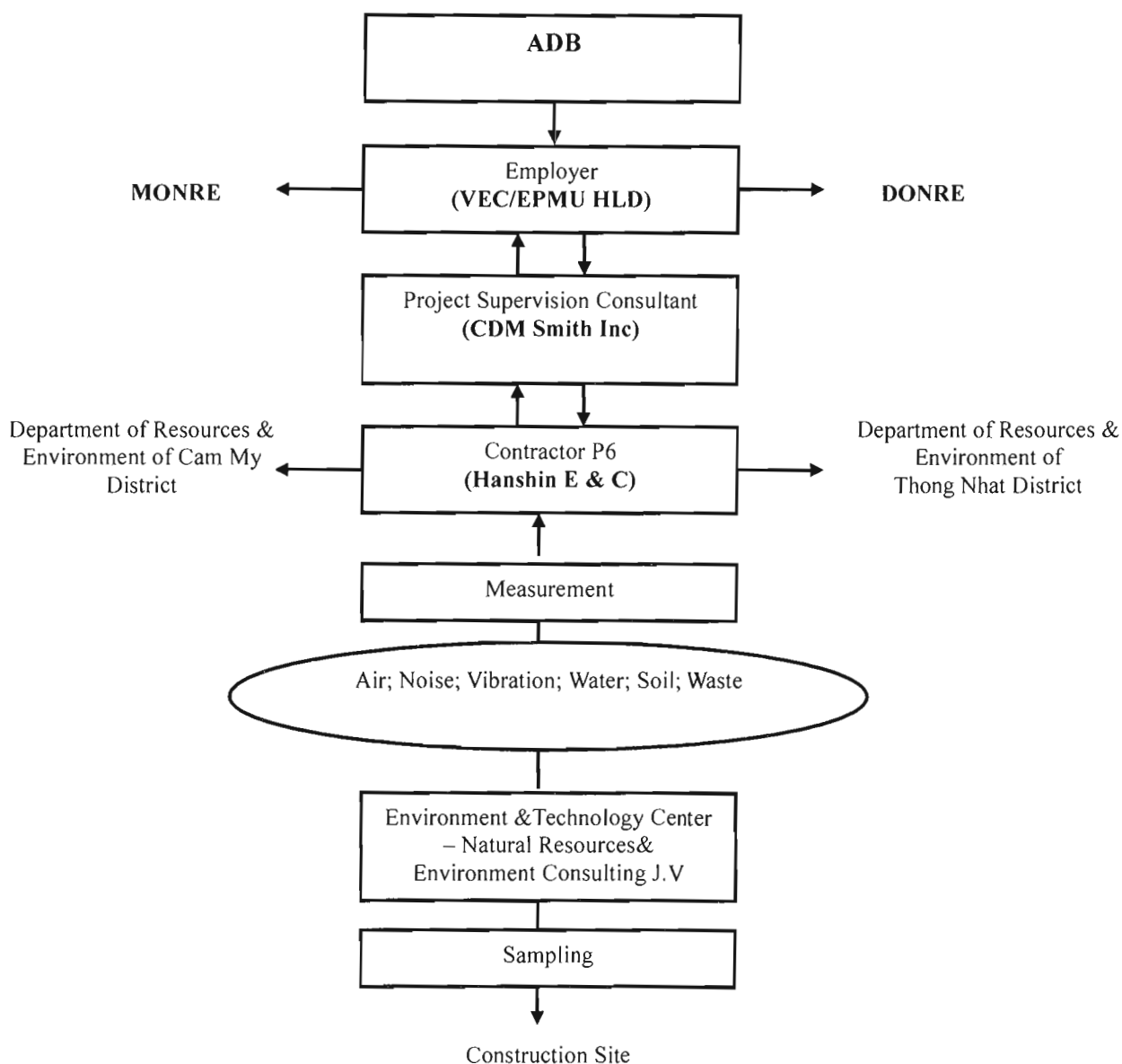



Figure 2.3 Framework of organizations regarding environmental management of PK.6



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3: SUMMARY OF ENVIRONMENTAL MITIGATIONS AND COMPLIANCE WITH “UEMP – June 2010”

MITIGATION MEASURES	COMPLIANCE ATTAINED	REMARK
1. Over-all		
Prepare and implement a site-specific environment management plan - SEMP	Good	SEMP's approved by ADB's specialist via email. Waiting for official consent letter by ADB's specialist.
2. Air quality Reduction of air pollution from construction activities		
Dust suppression measures including but not limited to the following will be implemented: <ul style="list-style-type: none"> ✓ Stockpiles of sand and aggregate greater than 20 cubic meters (20m³) for use in concrete manufacture shall be enclosed on three sides, with walls extending above the pile and two meters (2m) beyond the front of the piles. Locations should be indicated by the accompanying site plan(s). ✓ Effective water sprays are used during the delivery and handling of all raw sand and aggregate, and other similar materials, when dust is likely to be created and to dampen all stored materials during dry and windy weather. ✓ Areas of reclamation is completed, including final compaction, as quickly as possible consistent with good practice to limit the creation of wind blown dust. ✓ All equipment and machinery on the site are checked at least weekly and all necessary corrections and or repairs made to ensure compliance with safety and air pollution requirements. 	Good	
To prevent impacts of vehicle operation the following requirements shall be applied: <ul style="list-style-type: none"> ✓ All roads within the construction areas of the site are watered at least twice each day, and more if necessary to control dust to the satisfaction of the Environment and Safety Staff of contractor on site. ✓ Areas within the site where there is a regular movement of vehicles have an acceptable hard surface and be kept clear of loose surface material. Locations should be indicated by the accompanying site plan(s). ✓ Ensure that vehicles and machinery are used and maintained properly to meet applicable emission standards. Fuel-efficient vehicles are preferred. ✓ All vehicles, while parked on the site, will be required to have their engines turned off. ✓ Any vehicles with an open load carrying area used for moving potentially dust-producing materials shall have properly fitting side and tailboards. ✓ Ensure that employees are trained on the proper use and maintenance of machinery and vehicles. Use dust suppression measures: cover and wet loads, limit the speed for vehicles 	Good	<ul style="list-style-type: none"> - Mobilized water trucks on site. - Watering on service road at least four times each day.

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<p>transporting construction materials, select suitable transport routes and vehicles, and water roads and other open areas regularly.</p> <ul style="list-style-type: none"> ✓ Limit traffic congestion through planning of transportations in coordination with local officials. <p>Conduct regular site inspections to ensure the use of best practices and report any complaints from local people.</p>		
<p>Measures to control air quality impacts arising from concrete batch plant operation are as follows:</p> <ul style="list-style-type: none"> ✓ Dust nuisance as a result of its activities will be avoided. ✓ Install a three-sided roofed enclosure with a flexible curtain across the entry where dusty materials are being discharged to vehicles from a conveying system at a fixed transfer point. Install exhaust fans for this enclosure and vented to a suitable fabric filter system. ✓ Materials having the potential to create dust is not loaded to a level higher than the side and tail boards, and is covered by a clean tarpaulin in good condition. ✓ The concrete batching plant and crushing plant sites and ancillary areas must be frequently cleaned and watered to minimize any dust emissions. The plants are not located within 1000m of settlements, schools, health facilities and other sensitive sites. The contractor provided VEC/EPMU HLD and PSC – CDM Smith a map on the location of plants prior to the beginning of construction works for approval. Dust suppression and other air pollution control measures are used in the plants to minimize emission levels. ✓ Dry mix batching is carried out in a totally enclosed area with exhaust to suitable fabric filters. ✓ Conveyor belts are fitted with wind-boards, and conveyor transfer points and hopper discharge areas shall be enclosed to minimize dust emission. All conveyors carrying materials that have the potential to create dust shall be totally enclosed and fitted with belt cleaners. Locations should be indicated by the accompanying site plan(s). ✓ The Contractor clean and water frequently the concrete batch plant and adjoining area to control dust emissions. ✓ A suitable air pollution control system must be in place when the batch plant is in operation. <p>Regarding mitigation measures for dust control, the Contractor minimize the area of bare ground during the construction period and use temporary surface protection measures. As a routine procedure, water spraying is provided on the Construction site, especially on the access roads.</p>	<p align="center">Good</p>	<p>Frequently clearance and watering for dust prevent.</p>
<p>3. Water quality</p> <p>Wastewater from mixing materials is drained to a separate collecting system, and processed by sediment traps before release to the public drainage system.</p> <p>Mud from drilling is collected and processed to avoid pollution of surface water.</p> <p>Drilling solutions for performing the abutment is processed in a closed system, especially for abutments at the riverbed.</p>	<p align="center">Good</p>	

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<p>Inner-lined drill holes will be used during piling.</p> <p>Proper drainage systems are provided at all construction, material exploitation, and storage sites. All existing stream courses and drains within, and adjacent to, the site is kept safe and free from any debris and any excavated materials arising from the works. Chemicals, sanitary wastewater, spoil, waste oil and concrete agitator washings is not be deposited in the watercourses</p> <p>All water and waste products arising on the site is collected, removed from the site via a suitable and properly designed temporary drainage system and disposed of at a location and in a manner that will cause neither pollution nor nuisance. The Contractor ensure that construction camps and other potential sources of secondary impacts are properly sited and provided with drainage and wastewater facilities.</p> <p>Hygiene bathrooms are set up at all construction camp sites and septic tanks are used to treat wastewater. Proper drainage is provided to avoid creation of stagnant water bodies.</p> <p>Extraction of sand and gravel in river beds will be prohibited except:</p> <ul style="list-style-type: none"> ✓ Where there is no technically and economically feasible alternative, and ✓ Provided specific mitigation measures are implemented to minimize impacts on river morphology, water quality (e.g. turbidity), and ecosystems (e.g. reduced extraction during fish spawning period). <p>Equipment and vehicle maintenance area are provided with adequate drainage facility as well as oil and grease separator to avoid discharge of oil-laden water into the surrounding soil and water courses.</p> <p>Drainage works will be constructed, maintained, removed and reinstated as necessary and all other precautions taken, as necessary, for the avoidance of damage by flooding and silt washed down from the works. Adequate precautions will be taken to ensure that no spoil or debris of any kind is allowed to be pushed, washed down, fallen or be deposited on land adjacent to the site. Stockpiles will not be located near rivers and streams. Dumping of spoils and obstruction of flows along rivers and streams will be avoided.</p> <p>Downstream slopes are stabilized, where warranted, with concrete, rock gabions or walls to avoid erosion.</p> <p>Prepare emergency response plan in case of fuel and chemical spills</p>		
<p>4. Loss of water resources</p> <p>Any source of water (potable or otherwise) for the community, such as wells, ponds or tube wells, accidentally lost will be replaced immediately.</p> <p>The location and sitting of the replaced source of water will be as per design or as directed by the engineer. In general, there should be only lateral displacement (of the new site from the old); the replacement will be ready prior to demolition/dismantling of the existing source.</p>	Good	
<p>5. Noise and vibration</p> <p>Vehicles and machinery must be used, maintained and equipped so</p>	Good	

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as to avoid unnecessary noise and vibration.

Plants must be located away from sensitive areas and noisy construction work, such as crushing, concrete mixing and batching must be done during daylight hours.

Use of machines causing loud noise and vibration (drill, excavator etc.) is prohibited between 23 pm and 5 am. If night-time construction is necessary, the contractor will apply for a permit from local authorities and inform residents about coming works beforehand.

At residential areas, temporary noise walls or boards will be used to minimize noise impacts from construction activities near schools, temples, clinics etc. The contractor will specify the locations and type of temporary noise walls before beginning of construction.

Ensure that local authorities and residents are notified in advance about disturbing activities, such as blasting operations. The effectiveness of mitigation activities will be monitored regularly through noise level measuring.

Be responsible for repairing any damage caused as the result of vibrations generated from or by the use of his equipment, plant, and machinery.



Erect temporary noise barriers where schools and other potentially sensitive receptors (as identified during consultation with local residents) are within 50 meters of construction activities. Temporary barriers of sufficient height with skid footings and a cantilevered upper portion will be erected within a short distance from stationary plants, and at practicable distances from mobile plants.

The minimum effective height of the noise barriers should be as such that no part of the noise sources associated with the operation of construction machinery should be visible from the target receptors to be protected. The locations of the temporary noise barriers shall be adjusted where and when necessary taking into consideration the locations and type of receptor involved and the machinery intended to be protected. Use of the proposed noise barriers, as other construction site equipment, should take into account the following standard requirements:



- ✓ A minimum of 4.5 meter wide thoroughfare with not less than 4.5 meter vertical clearance to be maintained at all times for the free passage of fire appliances;
- ✓ The barrier shall not be located where it prevents access to community facilities, residential areas, and places of work or access routes.
- ✓ Ensure that the use of noise sources (i.e., aggregate crushers, operators, etc.) will be avoided as much as possible near sensitive receptors. Non-vibratory rollers (for compaction) will be used near sensitive receptors such as schools and cultural resources.
- ✓ Ensure that all exhaust systems will be maintained in good working order; properly designed engine enclosures and intake silencers will be employed; and regular equipment maintenance will be undertaken.
- ✓ Ensure that stationary equipment will be placed as far from sensitive land uses as practical; selected to minimize

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<p>objectionable noise impacts; and provided with shielding mechanisms where possible.</p>		
<p>6. Waste</p> <p>Waste from construction activities, including the demolishing of structures before the construction itself begins, must be collected and recycled when possible.</p> <p>The contractor establish hygienic groups to collect waste from construction camp sites and to ensure the cleanliness of the whole construction area. The contractor also co-operate with local authorities or companies to organize the waste collection and specify the measures in the SEMP.</p> <p>The SEMP always is updated during detailed design and require that contractors be responsible for spoil disposal in a manner consistent with a SEMP that they are required to prepare prior to any construction work. Spoils from the works only is disposed of in selected locations to avoid any adverse impacts to water or soil quality. The locations must specified by the contractor in the site-specific SEMP before the beginning of construction activities. The contractor also obtain permission from the authorities to dispose any surplus material or other spoils from the works.</p>	<p align="center">Good</p>	<ul style="list-style-type: none"> - Top soil removed from the alignment is given to owners of a agricultural land in the vicinity. - Waste collection contract with waste collection company's approved by local authorities - More recycle bins has placed on proper position and easily see - Oil from routine maintenance of vehicles and heavy equipment is collected and recycled. - <i>Detailed assessment of oil and grease spills is attached at Appendix 1</i>
<p>7. Handling of hazardous and toxic materials</p> <p>During the construction, fuels, oil, and other dangerous chemical substances is transported, stored and handled at the site. If adequate mitigation measures are not used, there is a risk of spills into the surrounding area. The contractor apply for appropriate permits for the transport and handling of hazardous materials and prepare an emergency and contingency plan for fuel and oil spillage. Fuel storage sites is located away from water bodies on a cement pavement with a surrounding canal leading to an oil and grease separator to facilitate the capture and removal of spilled oil. The contractor also ensures that employees are trained on handling hazardous materials.</p> <p>Fuel storage sites is located away from water bodies on a cement pavement with embankment. A canal leading to an oil and grease separator is installed to facilitate the capture and removal of spilled oil.</p> <p>Use and maintain vehicles and machinery properly to avoid accidental spills.</p>	<p align="center">Good</p>	
<p>8. Soil</p>		
<p>Contamination of soil</p> <p>Use good housekeeping practices to avoid any contamination of soil from solid wastes, wastewater and hazardous materials. All wastes must disposed in designated disposal sites approved by local authorities.</p> <p>Ensure all workers are aware of the importance of careful handling of hazardous and dangerous materials. Prepare emergency plans for accidents.</p>	<p align="center">Good</p>	
<p>Spoils disposal</p> <p>Waste from construction activities, including the demolishing of structures before the construction itself begins, must be collected and recycled when possible.</p> <p>Establish hygienic groups to collect waste from construction camp</p>	<p align="center">Good</p>	<ul style="list-style-type: none"> - Top soil removed from the alignment is given to owners of a agricultural land in the vicinity. - Waste collection contract

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<p>sites and to ensure the cleanliness of the whole construction area.</p> <p>Spoils from the works will only be disposed of in selected locations approved by local authorities.</p> <p>Disposal is not cause adverse impacts to water and soil quality as well as land use.</p> <p>The locations of spoils disposal sites is specified by the contractor in the SEMP before the beginning of construction activities.</p>		<p>with waste collection company's approved by local authorities</p>
<p>Erosion</p> <p>Provide temporary or permanent drainage to protect sites susceptible to erosion.</p> <p>Stabilize downstream slopes on rivers and streams prone to erosion problems.</p> <p>Protect sensitive surface/erosion prone sites with vegetation and replace removed trees to ensure interception of rainwater and deceleration of surface runoff as soon as possible after construction works.</p> <p>On streams, downstream slopes can be stabilized with concrete, rock gabions or walls as seen necessary.</p> <p>Careful stockpiling of topsoil in suitable locations to prevent these from being washed away.</p> <p>Specify the erosion protection measures to be used in the SEMP</p>	<p>Good</p>	<p>Slope protection by canvas</p> <p>Mobilized and installed precast site ditch on site</p>
<p>9. Loss of vegetation cover</p> <p>Minimize the clearing of vegetation for construction activities and borrow areas.</p> <p>Re-vegetate embankment slopes and road cuts.</p> <p>Landscape road verges and plant vegetation to contribute to aesthetic value.</p> <p>Where roadside trees are lost as a result of construction activities, the Contractor shall replant trees as a ratio of one-to-one.</p> <p>Where trees is replaced at the roadside due to a lack of roadside space, the Contractor consult with affected residents to determine an appropriate alternative planting location and schedule.</p> <p>The Contractor is responsible for all works associated with tree planting including maintenance of the trees for a one-year period after planting.</p>	<p>Good</p>	
<p>10. Changes in Hydrological Situation and Irrigation systems</p> <p>Temporary drainage is established along the expressway to avoid inundation during construction. The contractor ensure that activities are not cause disruption of irrigation into surrounding croplands and that damaged irrigation facilities are repaired immediately.</p> <p>The Contractor ensure irrigation channels diverted during the construction phase is returned to their original status. Where this is not possible, or where channels are irrevocably altered, consultation will be held with landowners to ensure that an adequate redesign is undertaken to ensure that irrigation channels are returned as closely as possible to their former layout. The Contractor undertake all necessary works to achieve this status, including provision of labor.</p>	<p>Good</p>	<p>Few sections were mudded in rainy season.</p> <p>At those locations, installed more culvert for water go out.</p> <p>Temporary drainage has been established along the expressway to manage surface runoff during the rainy season.</p>
<p>11. Traffic conditions and use of waterways</p> <p>Contractor to formulate and implement a traffic management plan minimizing the disturbance caused by construction activities. The plan explain the means and methods to be taken for proper and</p>	<p>Good</p>	<p>Ensuring Road Traffic Management Plan has already submitted and received approval (refer</p>

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<p>adequate control of traffic during the course of the Works. This plan include but not be limited to the traffic control equipment the Contractor proposes to use for the Works; traffic control signage including location and sign descriptions; how and when the Contractor proposes to use traffic control flag men; traffic control means during no-working periods; and traffic control means and devices for night and off-hour periods.</p> <p>The contractor also ensure implementation of the following measures: that the traffic management plan comply with the traffic control provisions with regard to:</p> <ul style="list-style-type: none"> (a) General traffic management requirements (b) Temporary road works (c) Traffic control (d) Number of lanes for traffic control (e) Half-width construction (f) Extraordinary traffic (g) Vertical clearance (h) Materials for traffic control devices <p>In order to facilitate traffic through or around the Works, or wherever ordered by the ESC, the Contractor shall erect and maintain at prescribed points on the Works and at the approaches to the Works, traffic signs, lights, flares, barricades, rubber cones with traffic lamps, temporary signaling stations on river and other facilities as necessary or required by the ESC for the proper direction and control of traffic.</p> <p>As necessary for proper control of traffic or when/ where directed by the ESC, the Contractor furnish and station competent flagmen whose sole duties shall consist of directing the movement of traffic through or around the Works.</p> <p>Furnish and erect, within or in the vicinity of the project area, such warning and guide signs as may be necessary or ordered by the ESC.</p> <p>In order to minimize disruption to traffic flows the Contractor shall enclose the site with temporary fence to provide a visual barrier between his work and adjacent traffic. The temporary fence shall be two meters high and the movement of men, materials and plant into and out of the barrier area shall be controlled by flagmen</p> <p>Organize temporary means of access to avoid such short-term negative impacts. Maintain local roads and bridges used by construction vehicles.</p>		<p>our letter No. HSCHLD P6 417 and your letter No. WSA.HAN HLD-PK6-0384)</p> <p>- Ensuring Railway Traffic Plan has already submitted (refer letter No. HSCHLD P6 981)</p>
<p>12. Historic and Cultural Resources</p> <p>Protect sites of known antiquities, historic and cultural resources by the placement of suitable fencing and barriers.</p> <p>Not locate construction camps within 500 meters from cultural resources.</p> <p>Adhere to accepted international practice and all applicable historic and cultural preservation requirements of the Government of Vietnam.</p> <p>In the event of unanticipated discoveries of cultural or historic artifacts (movable or immovable) in the course of the work, the Contractor shall take all necessary measures to protect the findings and shall notify the ESC/ESO and concerned provincial-level and central government level representatives. If continuation of the work would endanger the discovery, work shall be suspended until a</p>	<p align="center">Good</p>	

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<p>solution for preservation of the artifacts is agreed upon.</p> <p>13. Utilities</p> <p>Ascertain and take into account, in the method of working, the presence of utility services on and in the vicinity of the site.</p> <p>Take into account the periods required to locate, access, protect, support and divert all utility services, including any periods of notice required to affect such work in consultation with authorities operating such services.</p> <p>Assume all responsibility to locate or to confirm the details and location of all utility services on or in the vicinity of the project site.</p> <p>Exercise the greatest care at all times to avoid damage to or interference with services.</p> <p>The contractor assumes responsibility for any damage and/or interference caused by them, their agents, directly or indirectly, arising from actions taken or a failure to take action, and for full restoration of the damage.</p> <p>Wherever existing ground surfaces are to be disturbed for construction of the works, carry out full and adequate preliminary investigations to locate all services in the area by means of hand-dug trial holes and trenches in combination with electronic and electro-mechanical devices, where appropriate. Each service thus exposed shall be identified. Every service at risk is fully exposed and adequately protected and supported in situ or diverted to the satisfaction of the appropriate authority prior to the commencement of such construction.</p> <p>When working in the vicinity of overhead power cables, ascertain and satisfy safety requirements about the safe clearances to be maintained from the power cables in consultation with the authority operating the power line. Where existing overhead power lines, communications cables or other major utilities require relocation, the Contractor uses the services of specialist enterprises with the necessary skills and technology to carry out the work.</p> <p>The Contractor consults with Provincial Departments of Transportation (PDOTs) to determine the proposed schedule for future utilities works on the Project Road. If such works, i.e. cable laying, is proposed in the near future the Contractor should propose an appropriate works schedule to synchronize such activities and reduce potential disruption.</p>	<p style="text-align: center;">Good</p>	
<p>14. Health and Safety</p> <p>Ensure that safety, rescue and industrial health matters are given a high degree of publicity to all persons who are regularly or occasionally on the site. Posters, in both Vietnamese and English, drawing attention to site safety, rescue and industrial health regulation is made or obtained from the appropriate sources and shall be displayed prominently in relevant areas of the site.</p> <p>Basic medical care is provided at camp sites. A fully equipped first aid base is set up. Arrangements for emergency medical services shall be made to the satisfaction of the ESC and ESO. Workers are provided with potable water supply and appropriate protective equipment. Work camps are provided with facilities to ensure the safety of workers, e.g., fire-fighting equipment, adequate storage for hazardous materials, and contingency measures in case of accidents.</p> <p>Borrow pits are constructed with proper drainage to prevent the creation of mosquito-breeding sites. Upon completion of extraction</p>	<p style="text-align: center;">Good</p>	<p>- All worker are wearing person protective equipment (PPE) when working</p> <p>- Direct Safety – Environment Training for workers on construction site. <i>Detail training course is attached at Appendix 4.</i></p> <p>- Monthly meeting for Safety – Environment Control.</p> <p>- Implement of HIV/AIDS & Human Trafficking Prevention Program. <i>Detail training program is</i></p>

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<p>activities, the contractor restores borrow pits through dewatering and installation of fences, as appropriate, to minimize health and safety risks. Borrow pits are left in a tidy state with stable side slopes and proper drainage in order to avoid creation of stagnant water bodies.</p> <p>Contractors ensures that blasting activities shall not cause damage to lives and properties by making sure that the area is clear, adequately warning people using sirens and other appropriate means, and stopping at a safe distance in case blasting is near the road.</p> <p>Implement a Safety Training Program consisting of:</p> <ul style="list-style-type: none"> a) Initial Safety Induction Course b) Periodic Safety Training Courses c) Safety Meetings d) Safety Inspections e) Safety Equipment and Clothing 		<p><i>attached at Appendix 3.</i></p>
<p>15. Social impacts Consultation and Complaints Procedures</p> <p>Provide local communities information on upcoming construction related activities and issues related to traffic safety.</p> <p>Record any complaints received and respond to them promptly.</p> <p>Co-operate with local authorities to prevent and solve problems related to environmental issues.</p>	<p align="center">Good</p>	<p><i>Detail solving complaints is attached at Appendix 2</i></p>

Note:

1. Very good : Mitigations are fully effective
2. Good : Mitigations are generally effective
3. Fair : Mitigations are partially affective
4. Poor : Mitigations are generally ineffective
5. Very poor : Mitigations are completely ineffective

4: SUMMARY OF ENVIRONMENTAL MONITORING

4.1 Monitoring Program

4.1.1 Monitoring Items

Environmental monitoring items include:



- Air Quality /Dust
- Noise
- Vibration
- Surface Water Quality
- Underground Water Quality
- Soil Quality
- Waste water

4.1.2 Environmental reference standards and regulation

The environmental regulation to be referred were updated in line with recent Vietnamese regulation from the SEMP as follows

Table 4.3. Environmental Regulation

No.	ENVIRONMENTAL COMPONENT	ENVIRONMENTAL REGULATION
1	Air Quality	QCVN 05/2009/BTNMT “ National Technical Regulation on ambient air quality” QCVN 06/2009/BTNMT “ National Technical Regulation on hazardous substances in ambient air”
2	Noise	QCVN 26/2010/BTNMT – National technical regulation on noise
3	Vibration	QCVN 27/2010/BTNMT – National technical regulation on vibration
4	Surface Water	QCVN 08/2008/BTNMT “ National Technical Regulation on surface water quality”
5	Ground Water	QCVN 09/2008/BTNMT “ National Technical Regulation on groundwater quality”
6	Soil	QCVN 03/2008/BTNMT “ National Technical Regulation on soil quality”
7	Waste Water	QCVN 24/2009/BTNMT “National Technical Regulation on industrial waste water”



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4.1.3 Monitoring Location

Monitoring locations of air, noise, vibration, surface water, groundwater and soil are selected for most affected areas during construction and operation stages. The monitoring of wastewater will be carried out during only construction stages for affected area. The monitoring locations are summarized as following table. Map of sampling location is presented in the Appendix 1.

(Refer to UEMP - dated June 2010 at Item 7.1 Monitoring Location – Page 44 and Item 8.6.3.1 Environmental Monitoring Locations – Page 83 into Item 8.6 EMP of the Package 6 – Page 81. And refer Table 1. Sampling Location for each Environmental Parameter – ADB's Further Comments on dated 19th Sept. 2011)

Location		Km	Package 6		Number of Sample
			37+800	54+983	
			Pre-Construction		
Air – Dau Giay Intersection		Km 54+350			8
Noise – Dau Giay Intersection					Every hour from 6:00 – to 22:00
Vibration – Dau Giay Intersection					Every hour from 6:00 – to 22:00
Soil – Dau Giay Intersection (Km 54)		Km 53+800			3
Groundwater – In the residential area of Xuan Thanh		Km 54+400			2
Surface water – Upstream/ Downstream of Song Nhạn River		Km 49+400			4
WasteWater		(*)			0
Location		Km	Package 6		Number of Sample
			37+800	54+983	
			Construction Phase		
Air	Dau Giay Intersection (Km54+350) Intersection with NH1 (Km54+983) Song Nhan residential area (Km39+400)	Km 39+400 / 54+350 / 54+983		8	
Noise	Dau Giay Intersection (Km54+350) Intersection with NH1 (Km54+983)	Km 54+350 / 54+983		Every hour from 6:00 -- to 22:00	
Vibration	Dau Giay Intersection (Km54+350) Intersection with NH1 (Km54+983)			Every hour from 6:00 – to 22:00	
Soil	Bau Ham 2 ward (Near Km53+800) Service station	Near Km 53+800 / 41+100 / 54+350 / 54+400		4	

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	(Km41+100) Dau Giay Interchange (Km54+350) Xuan Thanh residential area (Km54+400)		
Undergroundwater	Tran Cao Van hamlet (Bau Ham 2 ward) Xuan Thanh residential area (near Km54+400)	Km 54+400	2
Surface water	Stream in Xuan Que Ward (Upstream- Downstream of Song Nhan river)	Km 49+400	2
Waste Water	Construction Worker Camp Km54+800 Batching Plant Km 54+900	Km 54+800 / 54+900	2

Note: (*): Pre-Construction Phase: Wastewater has not generated yet.

Construction Phase:

- One location at Concrete Batching Plant (Km 54+900)
- One locations at Construction worker Camp (Km54+800)

4.1.4 Monitoring Schedule

Quarterly Environmental Monitoring Schedule of package No.6 is summarized as follows:

Year	Month	Survey	Stage	Remark
2010	12	Pre-Construction Phase (Baseline)		Finished
2011	03	Quarter I	Construction Phase	Finished
	06	Quarter II		Finished
	09	Quarter III		Finished
	12	Quarter IV		Finished
2012	03	Quarter V		Finished
	06	Quarter VI		Finished
	09	Quarter VII		Finished
	12	Quarter VIII		Finished
2013	03	Quarter IX		
	06	Quarter X		
	09	Quarter XI		
	12	Quarter XII		

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4.1.5 Air Quality Monitoring

No	Parameter	Baseline Monitoring (Pre-Construction Phase)			Impact Monitoring (During Construction Phase)			Remarks		
		Frequency	Location		Duration	Frequency	Location			
1	TPS	1 times	8 samples /1time	1 point: Dau Giay Intersection (Km 54+350)	1 day (6h00-22h00)	4 times/year	8 samples/ 1time	3 points:	1 day (6h00-22h00)	Reference standard: QCVN 05/2009/ BTNMT
2	Humidity, Temperature, Wind speed							Dau Giay Intersection (Km54+350)		
3	CO							Intersection with NH1 (Km54+983)		
4	SO ₂									
5	NO ₂							Song Nhan residential area (Km39+400)		
6	HC									

4.1.6 Noise Monitoring

Parameter	Baseline Monitoring (Pre-Construction Phase)				Impact Monitoring (During Construction Phase)				Remarks
	Frequency	Location		Duration	Frequency	Location		Duration	
L _{EQ} ; L ₁₀ ; L ₉₀ :	1 time	Every hour (From 6h00-To 22h00)	1 point: Dau Giay Intersection (Km 54+350)	1 day	4 times/year	Every hour (From 6h00-To 22h00)	2 points: Dau Giay Intersection (Km54+350) Intersection with NH1 (Km54+983)	1 day	Reference standard: QCVN 26/2010/ BTNMT

4.1.7 Vibration Monitoring

Parameter	Baseline Monitoring (Pre-Construction Phase)				Impact Monitoring (During Construction Phase)				Remarks
	Frequency	Location		Duration	Frequency	Location		Duration	
L_{eq} ; L_{veq}	1 time	Every hour (From 6h00- To 22h00)	1 point: Dau Giay Intersection (Km 54+350)	1 day	4 times/year	Every hour (From 6h00- To 22h00)	2 points: Dau Giay Intersection (Km54+350) Intersection with NH1 (Km54+983)	1 day	Reference standard: QCVN 27/2010/ BTNMT



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4.1.8 Surface water quality monitoring

No	Parameter	Baseline Monitoring (Pre-Construction Phase)			Impact Monitoring (During Construction Phase)			Remarks	
		Frequency	Location		Duration	Frequency	Location		
1	pH	1 time	2 samples/ 1 time	2 points: Upstream / Downstream of Song Nhan River	1 day	4 times/year	2 samples /1time	2 points: Stream in Xuan Que Ward - (Upstream / Downstream of Song Nhan River)	Reference standard: QCVN 08/2008/ BTNMT
2	BOD								
3	COD								
4	DO								
5	SS								
6	As								
7	Cd								
8	Pb								
9	Cr								
10	Cu								
11	Zn								
12	Hg								
13	NH4 ⁺								
14	ΣN (N-Kjeldalh)								
15	ΣN								
16	ΣP								
17	Lubricant								
18	Coliform								
19	Turbidity								
20	Aquatic Ecosystem								

4.1.9 Underground Water Monitoring

No	Parameter	Baseline Monitoring (pre-construction phase)			Impact monitoring (during construction phase)			Remarks		
		Frequency	Location		Duration	Frequency	Location			
1	pH	1 time	2samples /1time	2 points: Nguyen Thai Hoc hamlet (Bau Ham 2 ward) Xuan Thanh residential area (Km54+400)	1 day	4 times/year	2samples /1 time	2 points: Tran Cao Van hamlet (Bau Ham 2 ward) Xuan Thanh residential area (near Km54+400)	1 day	Reference standard: QCVN 09/2008/ BTNMT
2	Color									
3	Temperature									
4	Odor									
5	TDS									
6	Hardness level									
7	Conductivity									
8	Turbidity									
9	NO ₂ ⁻									
10	CN ⁻									
11	Cl ⁻									
12	SO ₄ ²⁻									
13	Mn									
14	Fe									
15	Cd									
16	Pb									
17	As									
18	Fecal Coliform									
19	Total coliform									

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4.1.10 Waste Water Monitoring for Construction plant (Specific monitoring only)

No	Parameters	Specific Monitoring (Construction Stage)					Remarks	
		Frequency	Location			Duration		
1	pH	4 times/year	Before and during discharging waste water into river/canal	2samples /1 time	Any waste water source created by construction	2 location (*)	Construction	Reference standard: QCVN 24/2009/BTNMT
2	BOD							
3	COD							
4	DO							
5	SS							
6	NH ₄ ⁺							
7	ΣN (N-Kjeldalh)							
8	ΣP							
9	Lubricant							
10	Coliform							

Note: (*) Location: Concrete Batching Plant at Km 54+900

Construction Worker Camp at Km 54+800

4.1.11 Soil Monitoring

No	Parameters	Baseline Monitoring (pre-construction phase)			Impact monitoring (during construction phase)			Remarks		
		Frequency	Location		Duration	Frequency	Location		Duration	
1	pH	1 time	3 samples / 1 time	3 points: Service station (Km41+100) Xuan Thanh residential area (Km49+000 and 54+400)	1 day	4 times/ year	4 samples/ 1 time	4 points: Bau Ham 2 ward (near Km53+800) Service station (Km41+100) Dau Giay Interchange (Km54+350) Xuan Thanh residential area (Km54+400)	1 day	Reference standard: QCVN 03/2008/ BTNMT
2	Organic Matter									
3	Total N									
4	Total P									
5	Cl ⁻									
6	SO ₄ ²⁻									
7	Cu									
8	Zn									
9	Cd									
10	Pb									
11	Hg									
12	As									
13	Fe									

4.2 Monitoring Result (Aggregated by stages: Pre-Construction Phase; Quarter I – 03/2011; Quarter II – 06/2011; Quarter III – 09/2011; Quarter IV – 12/2011; Quarter I – 03/2012; Quarter II – 06/2012; Quarter III – 09/2012 and Quarter IV – 12/2012)

4.2.1 Air Quality

Sampling location:

- A1: Song Nhan residential area (Km 39+400) (X: 0736854, Y: 1205918)
- A2: Intersection with NH1(Km 54+983) (X: 0733497, Y: 1203915)
- A3: Dau Giay intersection (Km 54+350) (X: 0733484, Y: 1203996)

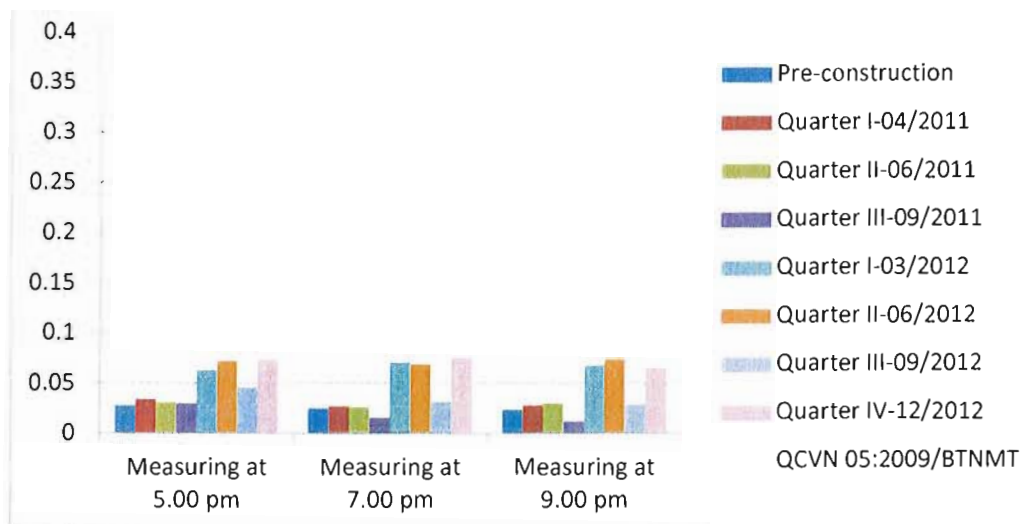


Figure 1: Concentration of SO₂ varies follow time at Dau Giay intersection (km 54+350)

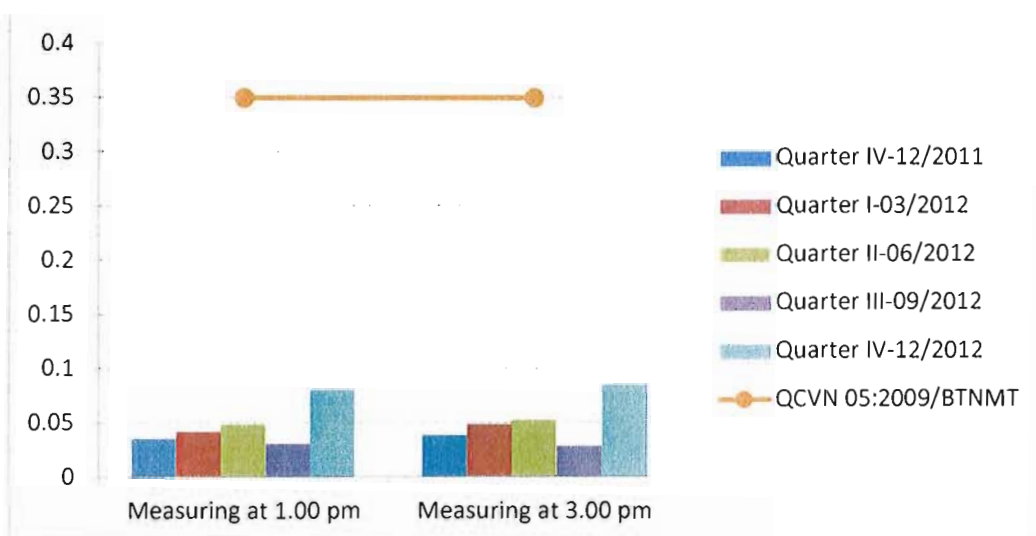


Figure 2: Concentration of SO₂ varies follow time at Intersection with NH1 (km 54+983)

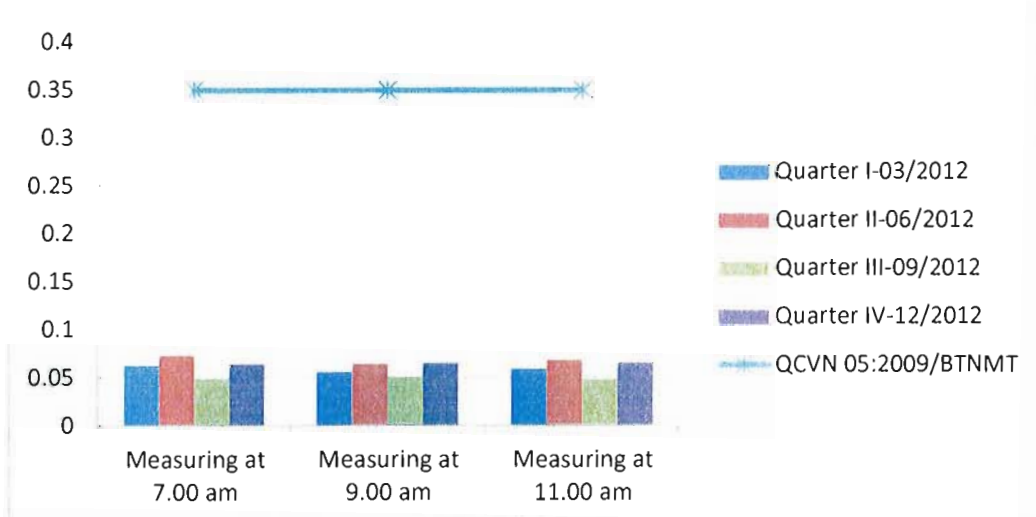


Figure 3: Concentration of SO₂ varies follow time at Song Nhan residential area (km 39+400)

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Remark:

In the quarter IV-09/2012, concentration of SO₂ at Dau Giay intersection (Km 54+350) around 0.065 đến 0.075 mg/m³, at two new points side the ADB requirements: Intersection with NH1 (Km 54+983) around 0.081-0.086 mg/m³ and Song Nhan residential area (Km 39+400) around 0.064-0.065 mg/m³. The values analysis in quarter IV-12/2012 are lower than the previous quarter and lower Vietnamese regulation allows (QCVN 05:2009/BTNMT; 0.35 mg/m³) many times.

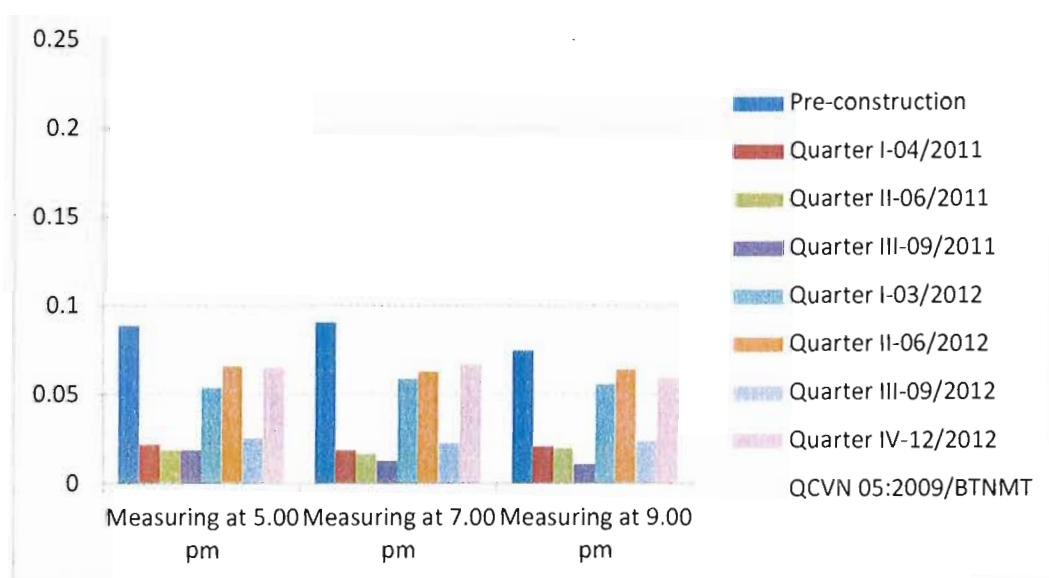


Figure 4: Concentration of NO₂ varies follow time at Dau Giay intersection (km 54+350)

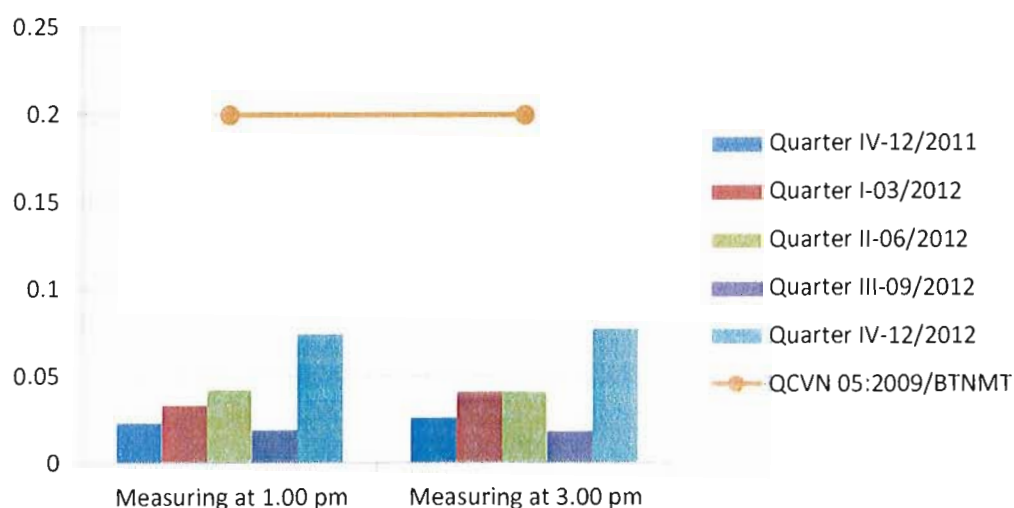


Figure 5: Concentration of NO₂ varies follow time at Intersection with NH1 (km 54+983)

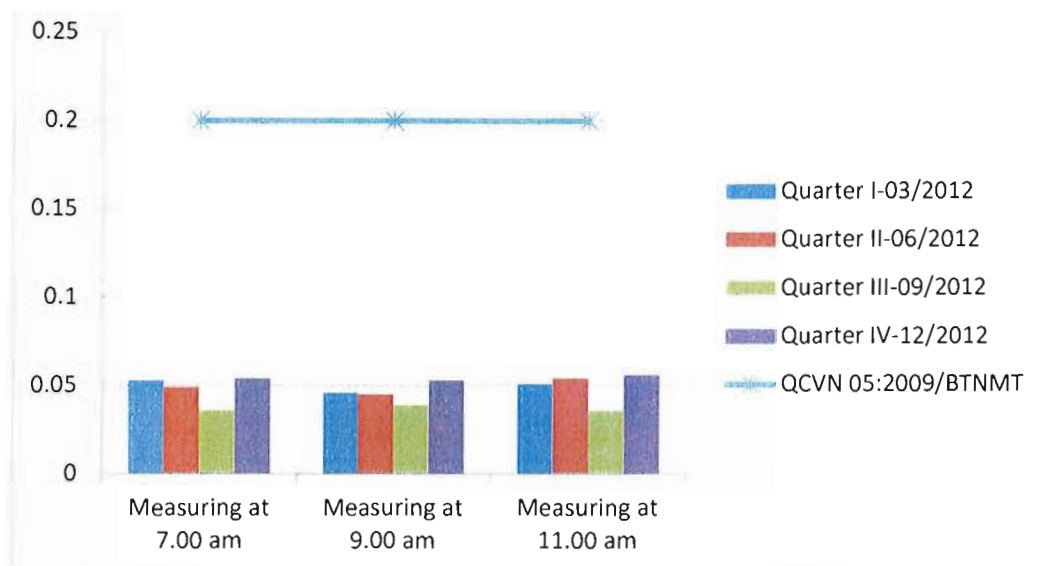


Figure 6: Concentration of NO₂ varies follow time at Song Nhan residential area (km 39+400)

Remark:

In the quarter IV-12/2012, concentration of NO₂ at Dau Giay intersection (Km 54+350) around 0.059 đến 0.067 mg/m³, at two new points side the ADB requirements: Intersection with NH1 (Km 54+983) around 0.074-0.077 mg/m³ and Song Nhan residential area (Km 39+400) around 0.053-0.056 mg/m³. The values analysis in quarter IV-12/2012 are lower than the previous quarter and lower Vietnamese regulation allows (QCVN 05:2009/BTNMT; 0.2 mg/m³) many times.

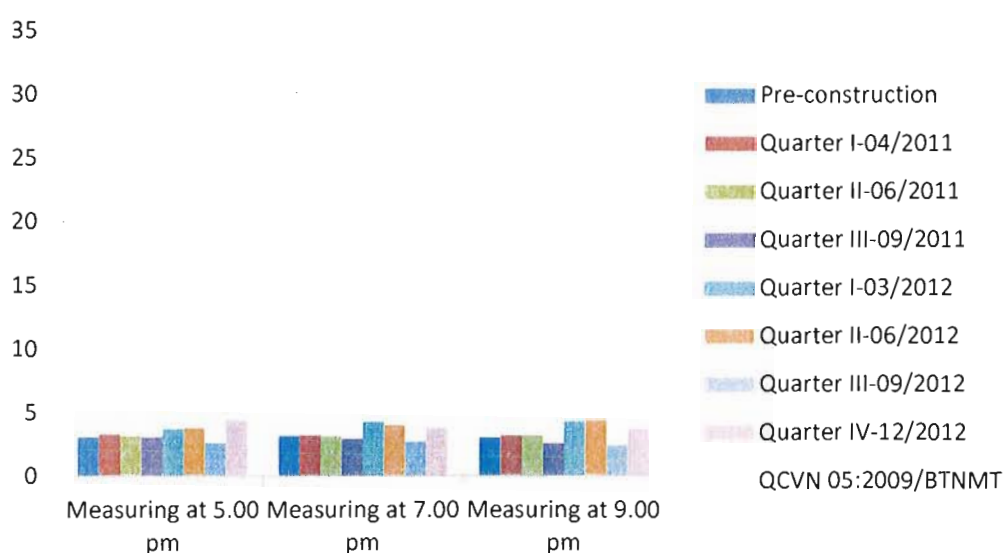


Figure 7: Concentration of CO varies follow time at Dau Giay intersection (km 54+350)

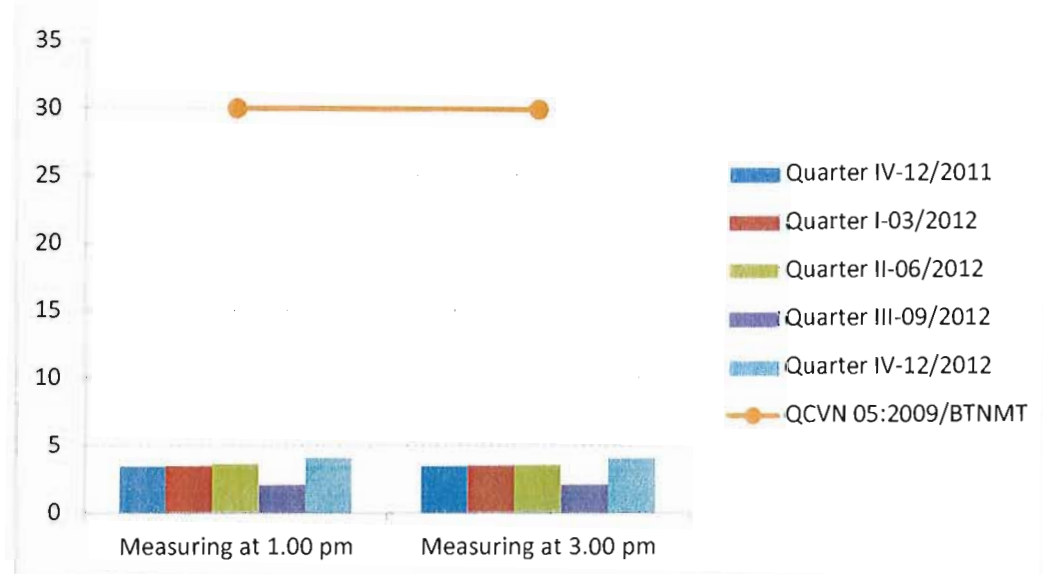


Figure 8: Concentration of CO varies follow time at Intersection with NH1 (km 54+983)

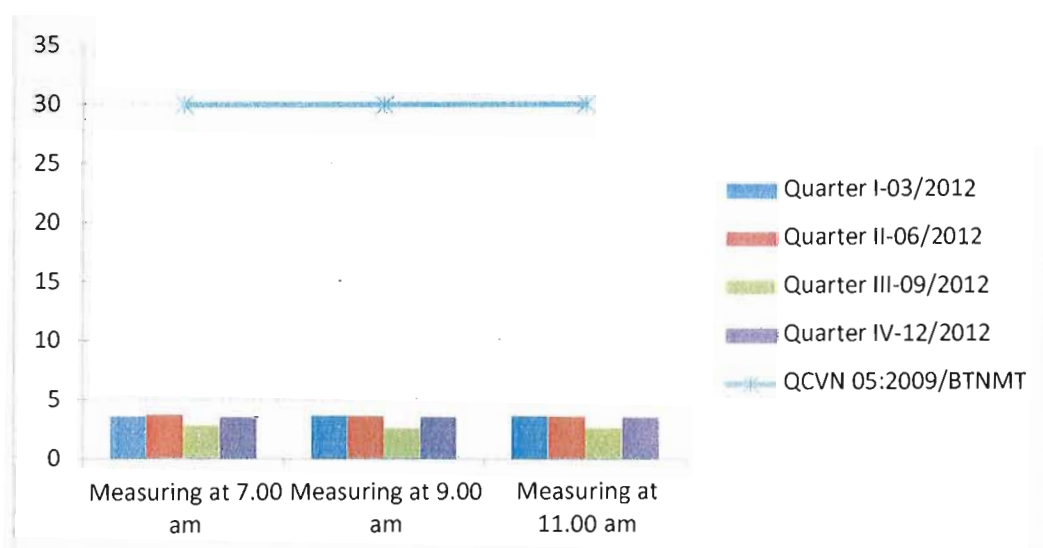


Figure 9: Concentration of CO varies follow time at Song Nhan residential area (km 39+400)

Remark:

Concentration of CO in the quarter IV-12/2012 at Dau Giay intersection (Km 54+350) around 3.69-4.35 mg/m³, at two new points side the ADB requirements: Intersection with NH1 (Km 54+983) around 4.06- 4.12 mg/m³ and Song Nhan residential area (Km 39+400) around 3.57-3.60 mg/m³. These values were lower than the Vietnamese regulation (QCVN 05:2009/BTNMT; 30 mg/m³) many times

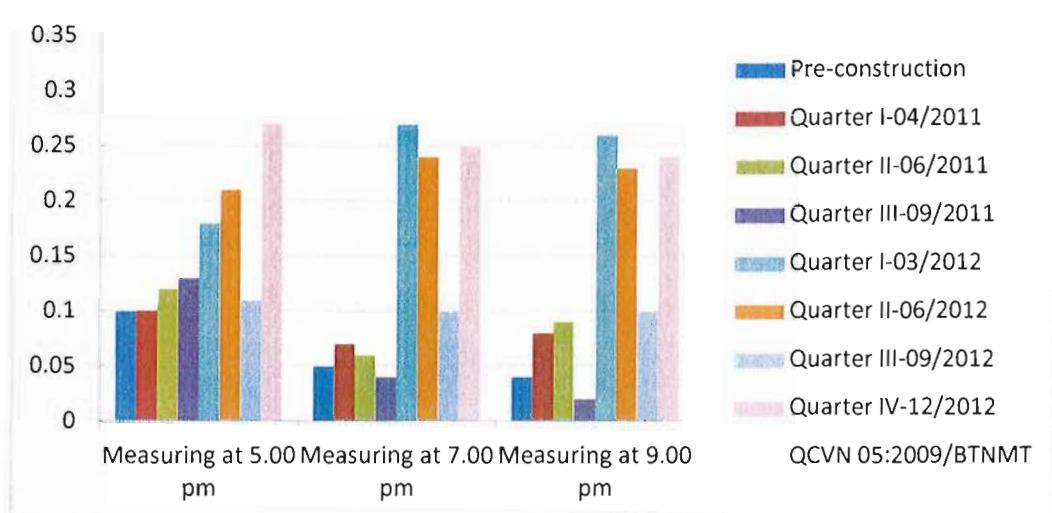


Figure 10: Concentration of TSP varies follow time at Dau Giay intersection (km 54+350)

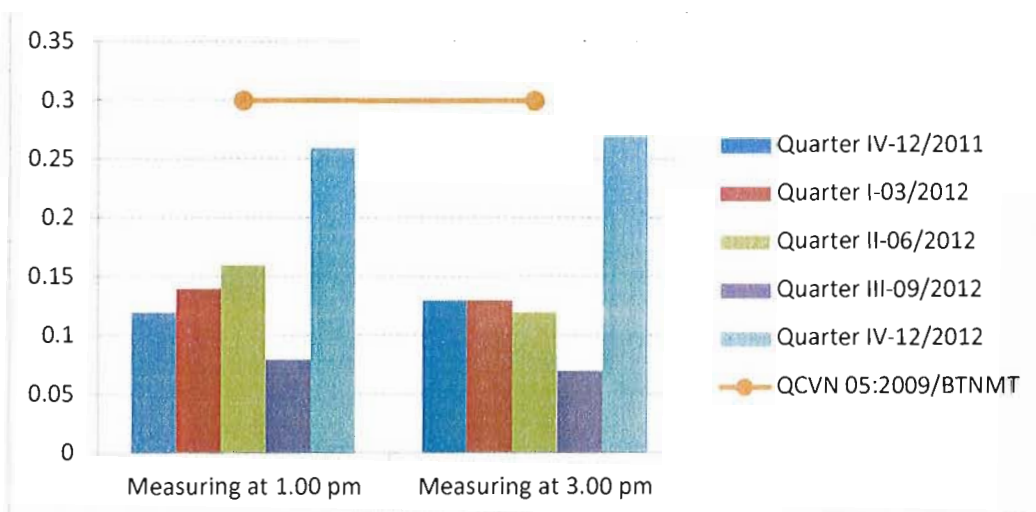


Figure 11: Concentration of TSP varies follow time at Intersection with NH1 (km 54+983)

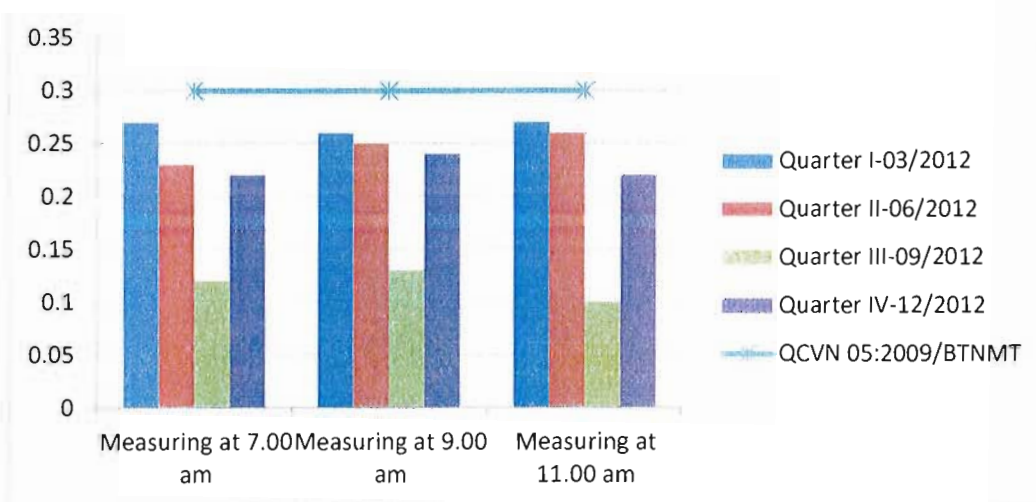


Figure 12: Concentration of TSP varies follow time at Song Nhan residential area (Km 39+400)

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Remark:

In the quarter IV-12/2012, concentration of TSP at Dau Giay intersection (Km 54+350) around 0.24-0.27 mg/m³, at two new points side the ADB equipments: Intersection with NH1 (Km 54+983) around 0.26- 0.27 mg/m³ and Song Nhan residential area (Km 39+400) around 0.22-0.24 mg/m³. These values were lower than the Vietnamese regulation (QCVN 05:2009/BTNMT; 0.3 mg/m³).

General Remark:

Based on the figure shows the concentration of NO₂, SO₂, CO, TSP in ambient air environment can be seen concentration in the quarter IV/2012 is higher than the most recent quarter because it is the time of the dry season. On the other hand, at the time, in the project area motorized vehicle continuous operation therefore affect the surrounding environment. However, the impact is negligible and remains within the limits of Regulation (QCVN 05:2009/BTNMT). So the contractor will continue to monitoring of changes in the concentration of these parameters and strengthen measures to pray water on the road in order to avoid dust dispersal surrounding. Individual hydrocarbon concentrations similar to the previous quarter are not detected at the time of sampling.

Based on the above result, the impact is negligible. However, additional specific measures has already brought out to reduce TSP on the dry season, such as:

- Mobilize more water truck on the section 1,2,3,4 and batching plant, one water truck/section.
- Increase watering to four times each day, and more if necessary (up to now only twice each day)

4.2.2 Noise

In general, the value of noise at the two location monitoring in the quarter IV/2012 although higher than the previous quarter but still lower than the regulation allow (QCVN 26:2010/BTNMT, 55-70 dBA). At some point may find the noise level value is high because the impact of transportation crossing in field and other motor vehicles operating in the field but the impact is negligible. Contractor will continue to monitor to avoid affecting the ambient.

Besides, The hours of work will be approved by the site engineer having due regard for possible noise disturbance to the local residence. Vehicles and machinery must be used, maintained and equipped so as to avoid unnecessary noise and vibration. Plants must be located away from sensitive areas and noisy construction work, such as crushing, concrete mixing and batching must be done during daylight hours. Use of machines causing loud noise and vibration (drill, excavator etc.) is prohibited between 23 PM and 5AM. If night-time

construction is necessary, the contractor will apply for a permit from local authorities and inform residents about coming works beforehand.

4.2.3 Vibration

According to the monitoring results, value of noise at Dau Giay intersection (Km 54+350) around 0.0025-0.0041 m/s² equivalent is converted to decibel 48.0 – 52.3 dBA and Intersection with NH1 (Km 54+983) around 0.0018-0.0033 m/s² equivalent is converted to decibel 45.1 - 50.4 dBA. Its value is lower than limit regulation (QCVN 27:2010/BTNMT, 55-75 dBA).

Similarly the value of noise, vibration at some point high because the impact of transportation crossing in field and other motor vehicles operating in the field but the impact is negligible. Contractor will continue to monitor to avoid affecting the ambient.

4.2.4 Surface Water Quality

+ Sampling location: Song Nhan area.

- 125-NM-(1)/2012: Surface water of Song Nhan (upstream)
- 125-NM-(2)/2012: Surface water of Song Nhan (downstream)

• pH

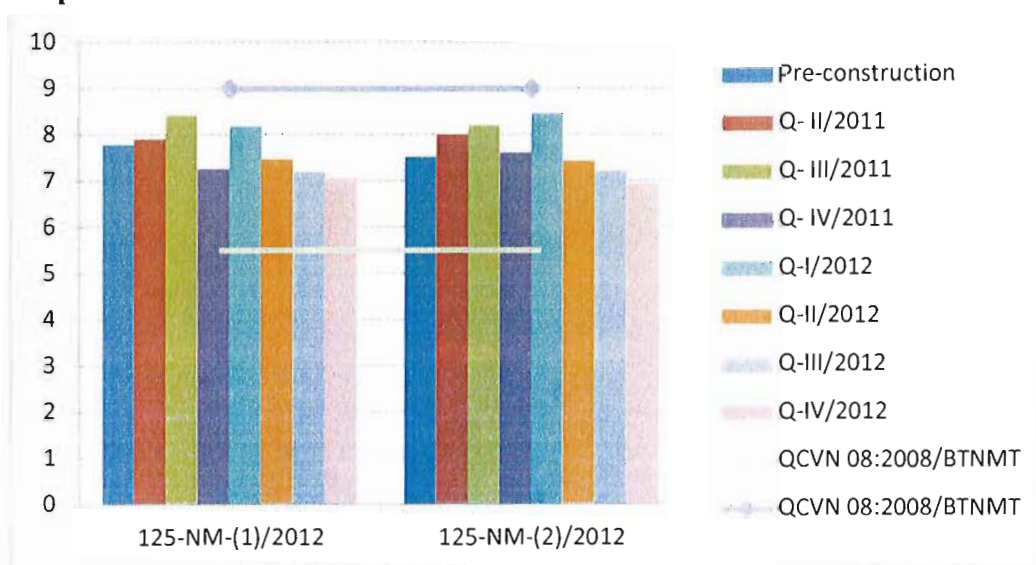


Figure 13: pH varies follow quarter of surface water quality monitoring

Remark:

At all sampling locations listed above (100-NM-(1)/2012, 100-NM-(2)/2012), pH values are met Vietnamese regulation (QCVN 08:2008/BTNMT; pH: 5.5-9). pH values fluctuated around 6.95÷7.07.

• DO

Dissolve Oxygen (DO) is a very important parameter that guarantees aquatic life. DO take part in metabolism, maintains energy for growing, breeding and reproduction for aquatic microorganism.

DO concentration definition is the foundation for water quality assessment, the basic for BOD₅ concentration definition, for assessing the pollution level of water source caused by organic matters and for defining the self-cleaning capacity of water source so that this parameter also indicates pollution level of water source. National technical regulation on surface water quality (QCVN 08:2008/BTNMT, level B2) limits value of DO ≥ 2 mg/L. However, if the DO concentration is less than 5mg/L, it can cause effectiveness to aquatic population conversion.

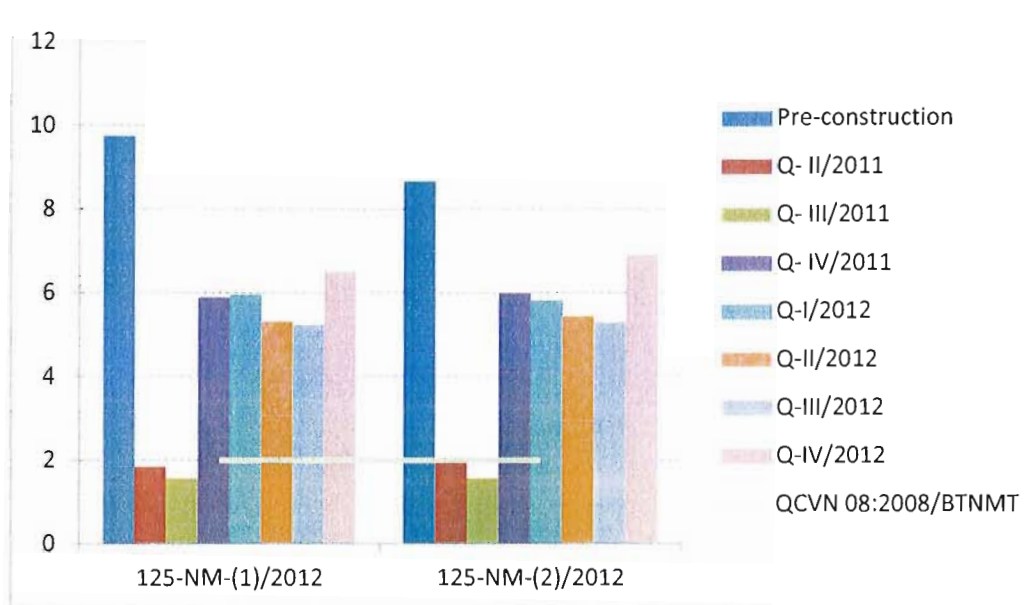


Figure 14: DO varies follow quarter of surface water quality monitoring

Remark:

Dissolved oxygen in surface water samples in the project area quarter IV-12/2012 range $6.5 \div 6.9$ mg / L.

Dissolved oxygen in surface water samples at the monitoring location is higher than 5 mg / L and higher than quarter III/2012. This shows that surface water quality near the project area during the quarter IV/2012 are good signs up.

- **Organic pollution**

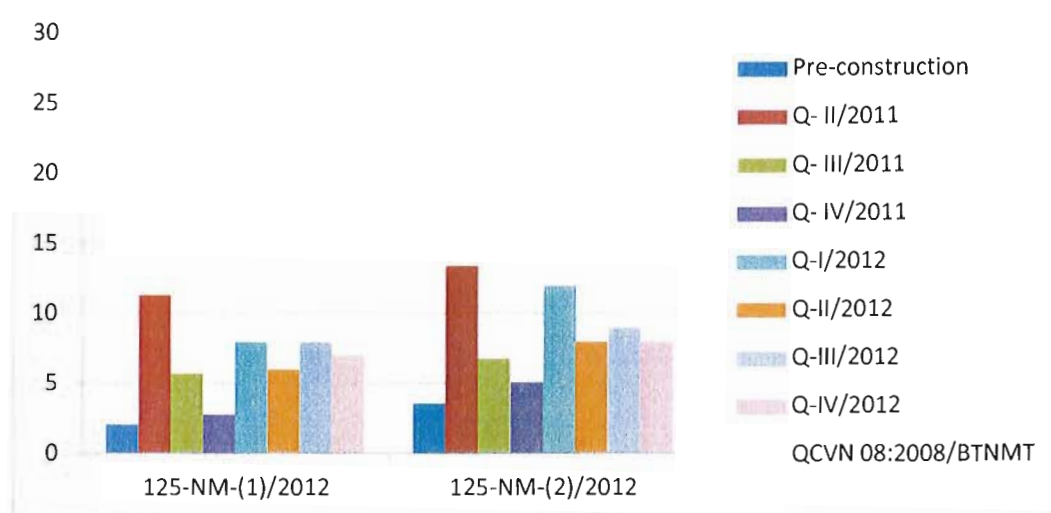


Figure 15: BOD₅ varies follow quarter of surface water quality monitoring

Remark:

Biological oxygen demand (BOD₅): Concentrations BOD observed at positions although there higher the previous quarter but most have met regulation allow (QCVN 08:2008/BTNMT, level B2; 25mg/L). BOD₅ values fluctuated around 7÷8 mg/L.

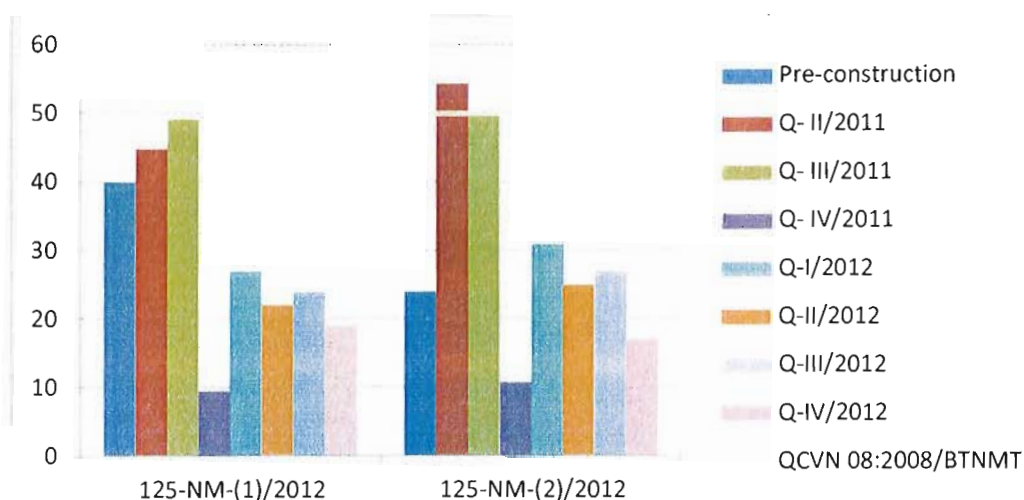


Figure 16: COD varies follow quarter of surface water quality monitoring

Remark:

Chemical oxygen demand (COD): The result monitoring, COD concentrations in the sample positions are met the limit regulation allow (QCVN 08:2008/BTNMT, level B2; 50 mg/L). Values of COD fluctuated around 17 ÷ 19 mg/L.

General remark:

In general, the location of surface water quality monitoring in the quarter IV/2012 are good signs gradually over the content of organic matter (COD and BOD) was significantly reduced compared to the quarter III/2012.

- **SS**

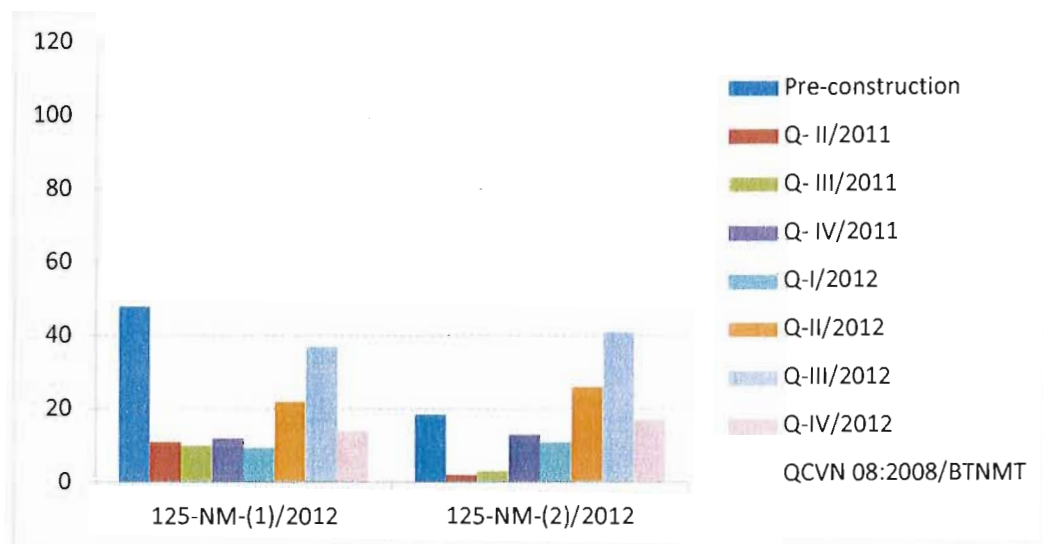


Figure 17: SS varies follow quarter of surface water quality monitoring

Remark:

Suspended solid (SS) content is very low at all monitoring locations and lower than quarter III/2012 with value fluctuated around $14 \div 17$ mg/L. These values are met the Vietnamese regulation (QCVN 08:2008/BTNMT, level B2; 100 mg/L).

- **Nitrate concentration (NO_3^-):**

In this monitoring, nitrate concentration fluctuated around $3.98 \div 5.52$ mg/L and lower than the Vietnamese regulation (QCVN 08:2008/BTNMT, level B2; 15 mg/L).

- **Heavy metal pollution**

Almost of heavy metals concentration (Cu, Zn, Cd, Pb, As, Hg) in quarter IV/2012 are very lower than the Vietnamese regulation. Copper concentration fluctuated around $3.96 \div 4.28$ $\times 10^{-3}$ mg/L (QCVN 08:2008/BTNMT, level B2; 1mg/L). Zinc concentration fluctuated around $(16.78 \div 17.27) \times 10^{-3}$ mg/L (QCVN 08:2008/BTNMT, level B2; 2mg/l). Cadmium concentration fluctuated around $(0.039 \div 0.045) \times 10^{-3}$ mg/L (QCVN 08:2008/BTNMT, level B2; 0.01mg/L). Lead concentration fluctuated around $(2.89 \div 3.18) \times 10^{-3}$ mg/L (QCVN 08:2008/BTNMT, level B2; 0.05mg/L). Arsenic concentration fluctuated around $(0.87 \div 0.97) \times 10^{-3}$ mg/L (QCVN 08:2008/BTNMT, level B2; 0.1mg/L). Mercury concentration not detected at monitoring locations (QCVN 08:2008/BTNMT, level B2; 0.002mg/L).

- **Lubricant:**

Lubricant fluctuated around $0.04 \div 0.07$ mg/L, These values are met the Vietnamese regulation (QCVN 08:2008/BTNMT, level B2; 0.3mg/L).

- **CN^- :**

CN^- concentration fluctuated around $(0.07 \div 0.10) \times 10^{-3}$ mg/L. These values are met the Vietnamese regulation (QCVN 08:2008/BTNMT, level B2; 0.02 mg/L).

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- **N-NH₄⁺:**

N-NH₄⁺ concentration fluctuated around 0.68 ÷ 0.75 mg/L. These values are met the Vietnamese regulation (QCVN 08:2008/BTNMT, level B2; 1mg/L).

- **Total N, total P**

Concentrations of total N, total P, respectively in the around of about 12.45 ÷ 13.69 mg / L, 0.88 ÷ 0.91 mg / L. Because the regulations (QCVN 08:2008 / BTNMT) does not stipulate the content of total N, total P should not be compared.

- **Total Coliform:**

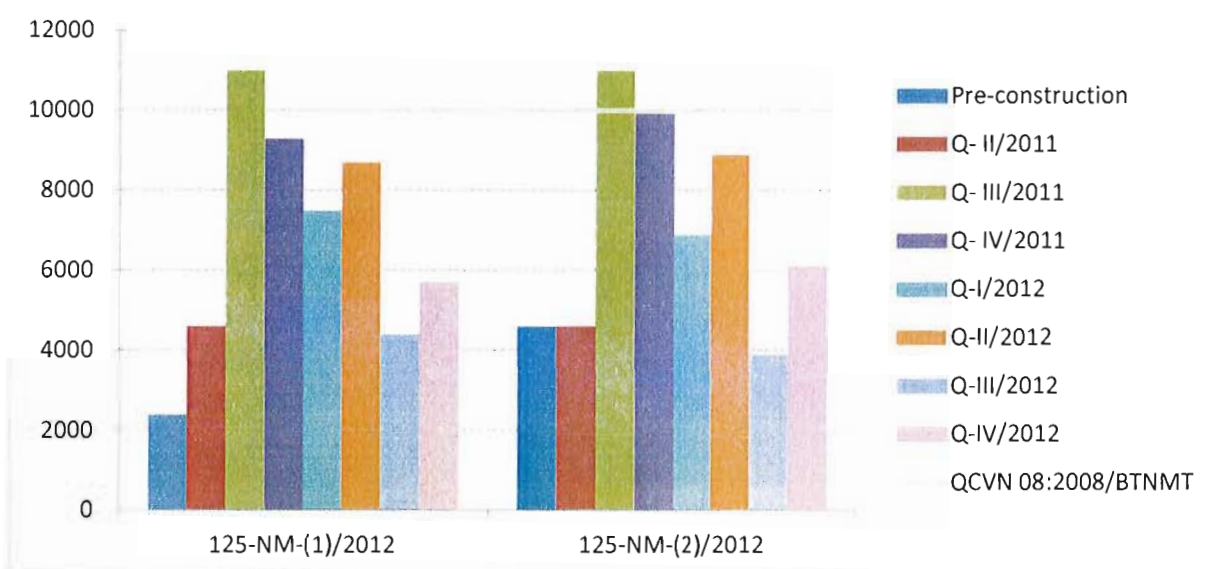


Figure 18: Total Coliform varies follow quarter of surface water quality monitoring

Remark:

Concentration of total Coliform are fluctuated around 5700÷6100 MPN/100mL. This value although higher than the previous quarter but still within the limits Vietnamese regulation allow (QCVN 08:2008/BTNMT, level B2; 10000 MPN/100mL).

Through the survey, this issue is not arising from the project. It's coming from less awareness of local people. They drop litter, animal died body to river. On the next meeting with people's committee, contractor recommend that local people should not use surface water at the monitoring sampling location and near the project area, and also remind them not to litter any more.

4.2.5 Underground Water Quality

+ Sampling location: *Xuan Thanh residential area – Km 54+400.*

➤ *125-NN-(1)/2012: Mr. Tran Ngoc Son households; 1398 Tran Cao Van St, Bau Ham 2 Commune, Thong Nhat District, Dong Nai Province.*

➤ 125-NN-(2)/2012: Mr. Cao Van Duong households; Lap Thanh hamlet, Xuan Thanh Commune, Thong Nhat District, Dong Nai Province.

• pH:

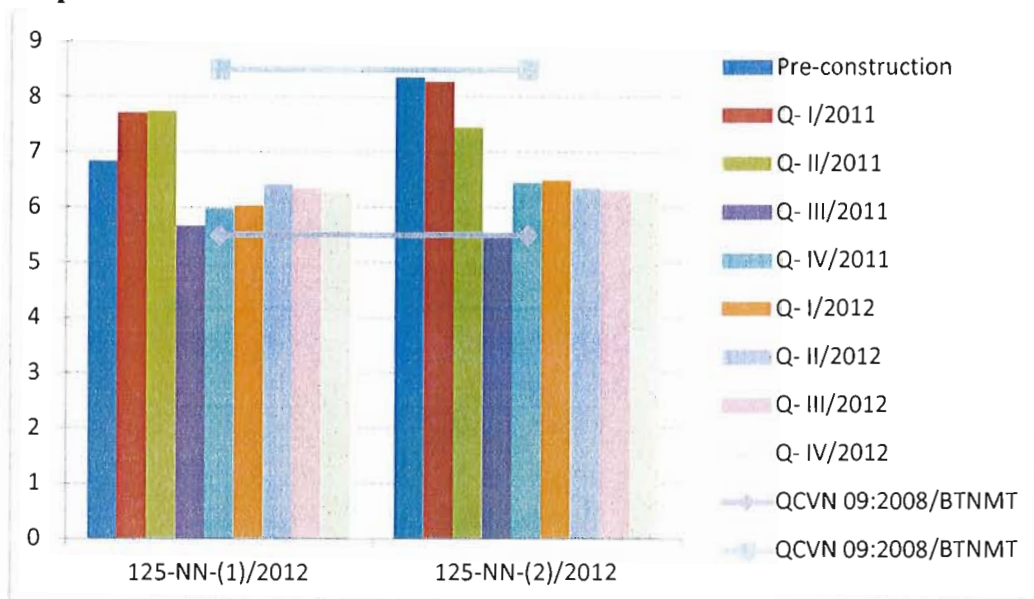


Figure 19: pH varies follow quarter of underground water quality monitoring

Remark:

pH value at two sampling locations: 125-NN-(1)/2012, 125-NN-(2)/2012 are met Vietnamese regulation (QCVN 09:2008/BTNMT; 5.5-8.5) with value around 6.29÷6.32.

• Total dissolved solids (TDS)

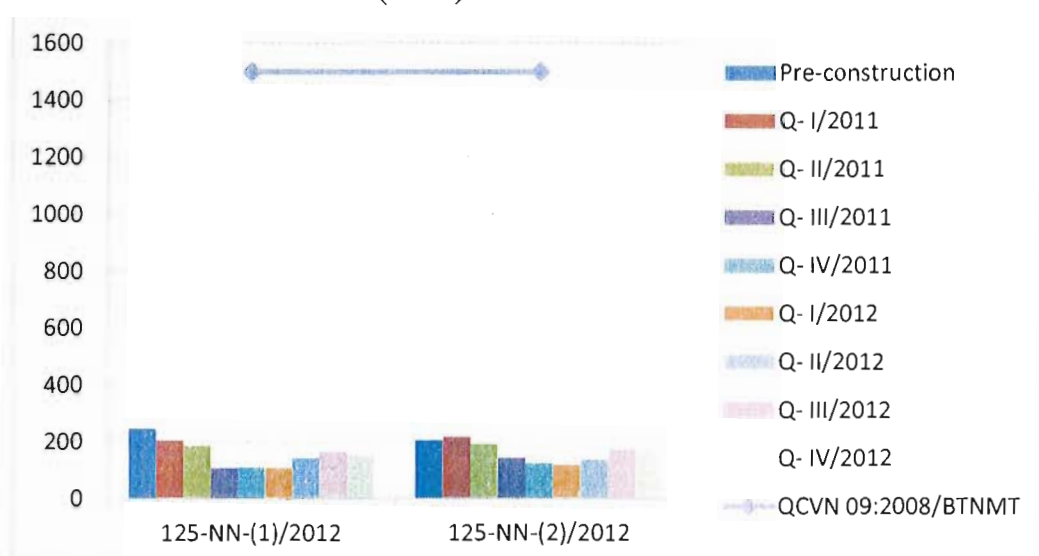


Figure 20: TDS varies follow quarter of underground water quality monitoring

Remark:

Total dissolved solid in quarter IV-09/2012 is low at all monitoring locations and its value is about 154÷167 mg/L. These values are met the Vietnamese regulation (QCVN 09:2008/BTNMT; 1500 mg/L).

- **Hardness level**

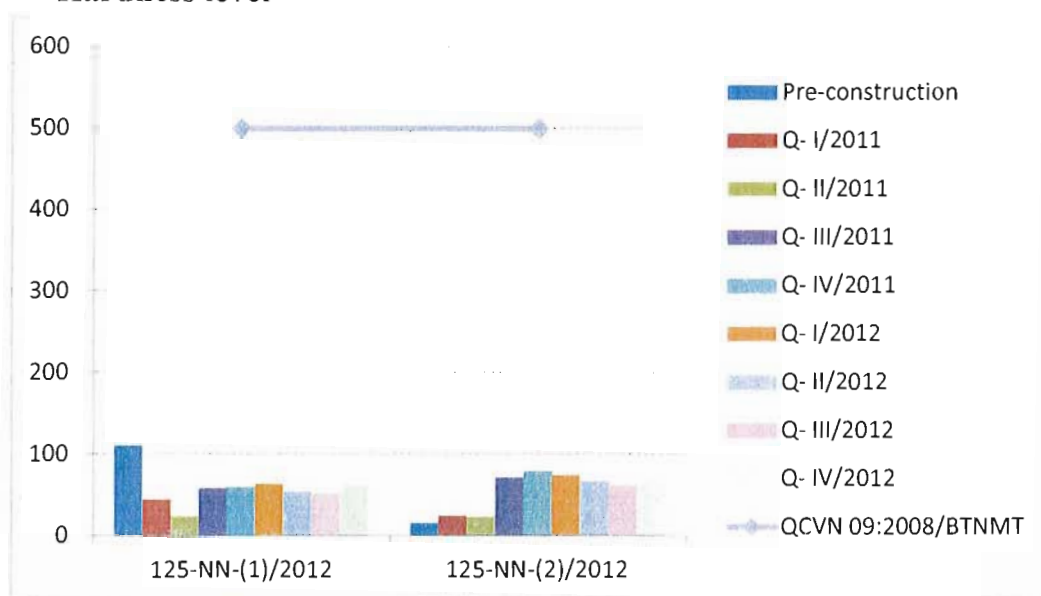


Figure 21: Hardness level varies follow quarter of underground water quality monitoring

Remark:

According to the monitoring result, hardness level fluctuated around 62,5÷69,7 mg/L and these values are met the Vietnamese regulation (QCVN 09:2008/BTNMT; 500 mg/L).

- **CN⁻**

CN⁻ concentration fluctuated around $(0.015 \div 0.018) \times 10^{-3}$ mg/L. These values are met the Vietnamese regulation (QCVN 09:2008/BTNMT; 0.01 mg/L).

- **N-NO₃⁻**

N-NO₃⁻ concentration at all monitoring locations is very lower than the limit regulation (QCVN 09:2008/BTNMT; 15 mg/L). N-NO₃⁻ concentration is fluctuated around 0.265÷0.289 mg/L.

- **Cl⁻**

Cl⁻ concentration at all monitoring locations is very lower than the limit regulation (QCVN 09:2008/BTNMT; 250 mg/L). Cl⁻ concentration fluctuated around 1.17÷1.26 mg/L.

- **SO₄²⁻**

SO₄²⁻ concentration at all monitoring locations is very lower than the limit regulation (QCVN 09:2008/BTNMT; 400mg/l). SO₄²⁻ concentration fluctuated around 0.394÷0.455 mg/L.

- **Heavy metals**

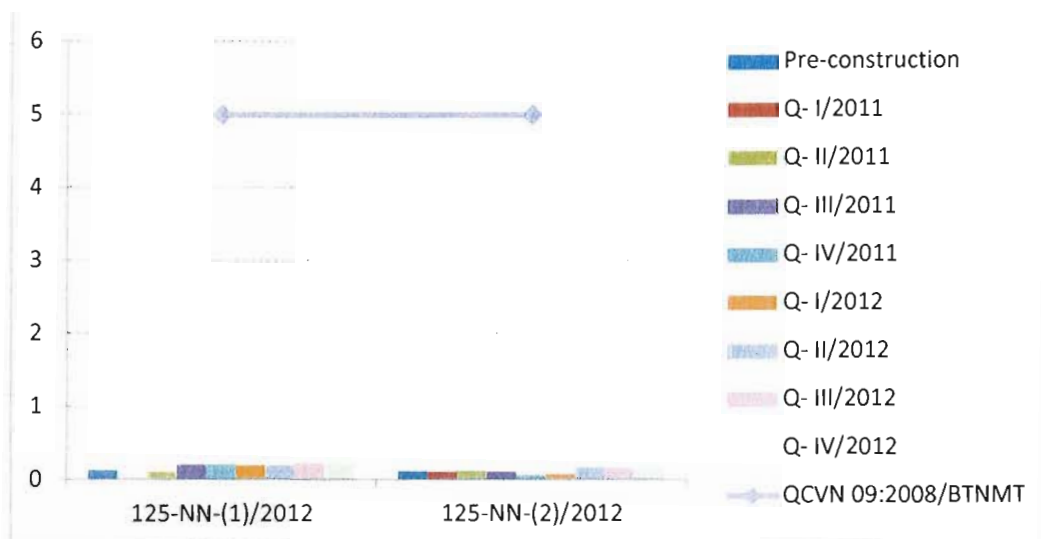


Figure 22: Total Fe varies follow quarter of underground water quality monitoring

Remark:

Almost of heavy metals concentration (Mn, total Fe, Cd, Pb, As) are very lower than the Vietnamese regulation. Manganese concentration fluctuated around $(0.018 \div 0.022)$ mg/L (QCVN 09:2008/BTNMT; 0.5mg/L). Total Fe concentration fluctuated around $0.214 \div 0.235$ mg/L (QCVN 09:2008/BTNMT; 5mg/L). Cadmium concentration fluctuated around $(0.29 \div 0.30) \times 10^{-3}$ mg/L (QCVN 09:2008/BTNMT; 0.005mg/L). Lead concentration fluctuated around $(0.65 \div 0.77) \times 10^{-3}$ mg/L (QCVN 09:2008/BTNMT; 0.01mg/l). Arsenic concentration fluctuated around $(1.36 \div 1.45) \times 10^{-3}$ mg/L (QCVN 09:2008/BTNMT; 0.05mg/L).

- **Total coliform and Fecal coliform**

According to the monitoring result, almost of total coliform values and fecal coliform values are zero at location: 125-NN-(1)/2012, 125-NN(2)/2012. These values are met the Vietnamese regulation (QCVN 09:2008/BTNMT; Total coliform: 3MPN/100mL; Fecal coliform: 0MPN/100mL).

4.2.6 Soil Quality

+ Sampling location: Package No.6 area.

- 125-MĐ-(1)/2012: Bau Ham 2 ward (near Km 53+800, PK.6) (X: 0734106, Y: 1204617)
- 125-MĐ-(2)/2012: Km 41+100 (X: 0735644, Y: 1205820)
- 125-MĐ-(3)/2012: Km 54+350 (X: 0733484, Y: 1203996)
- 125-MĐ-(4)/2012: Km 54+400 (X: 0733147, Y: 1203753)

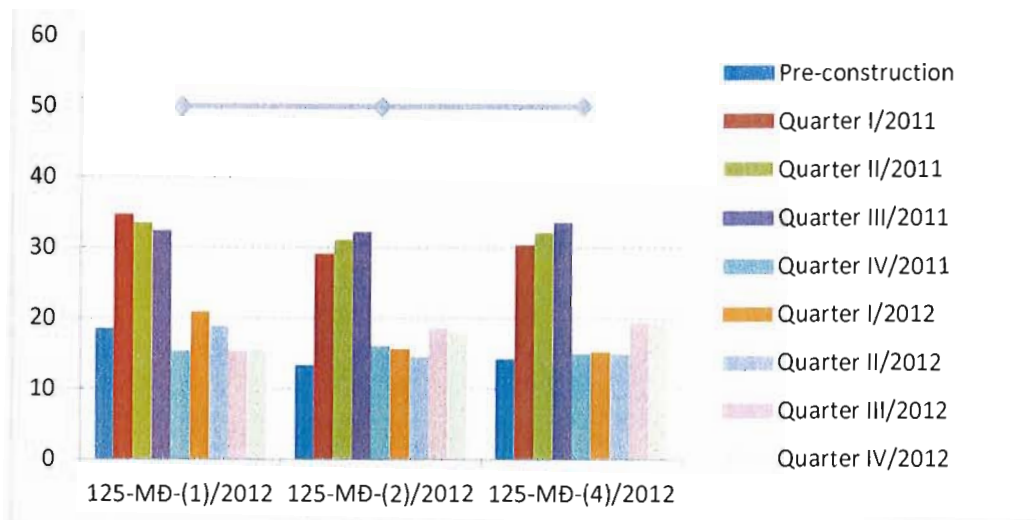


Figure 23: Cu varies follow quarter of soil quantity monitoring

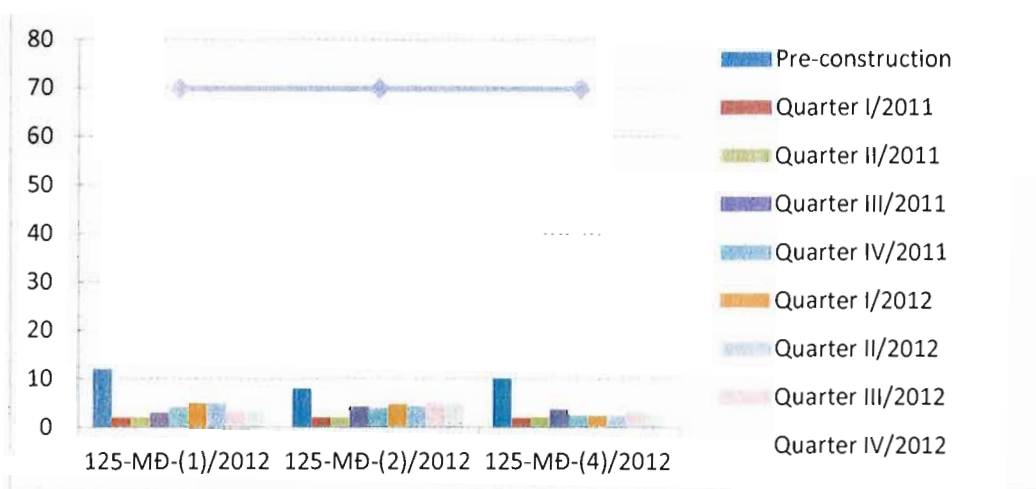


Figure 24: Pb varies follow quarter of soil quantity monitoring

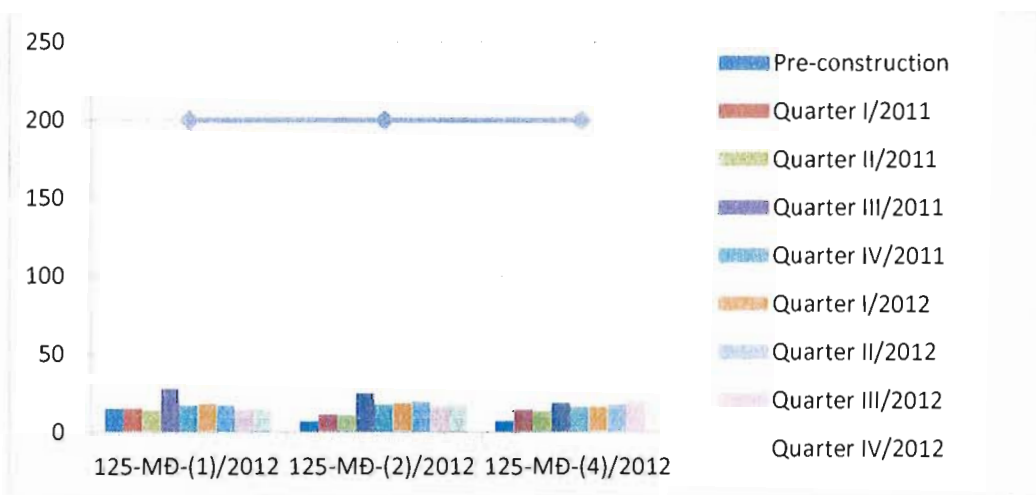


Figure 25: Zn varies follow quarter of soil quantity monitoring

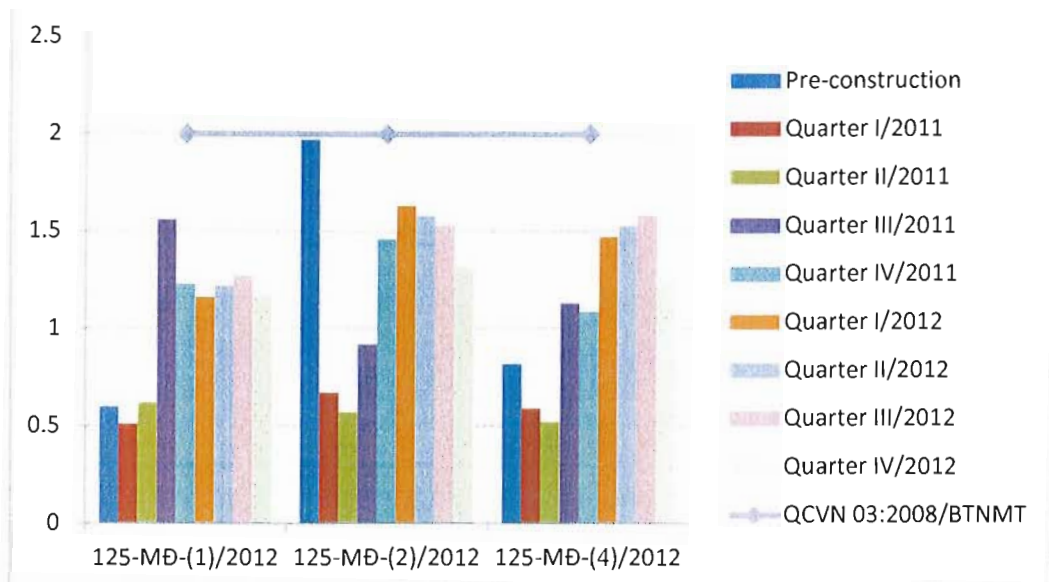


Figure 26: Cd varies follow quarter of soil quanlity monitoring

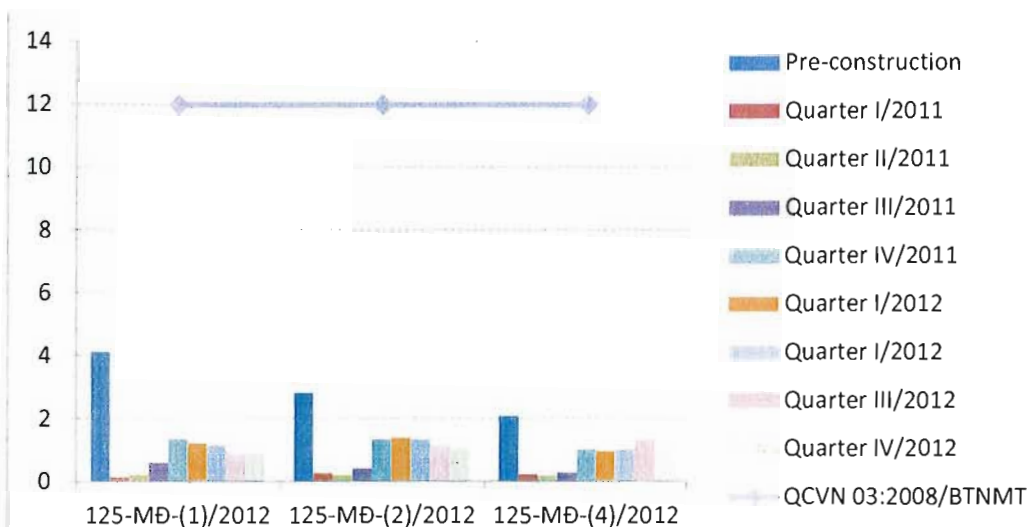


Figure 27: As varies follow quarter of soil quanlity monitoring

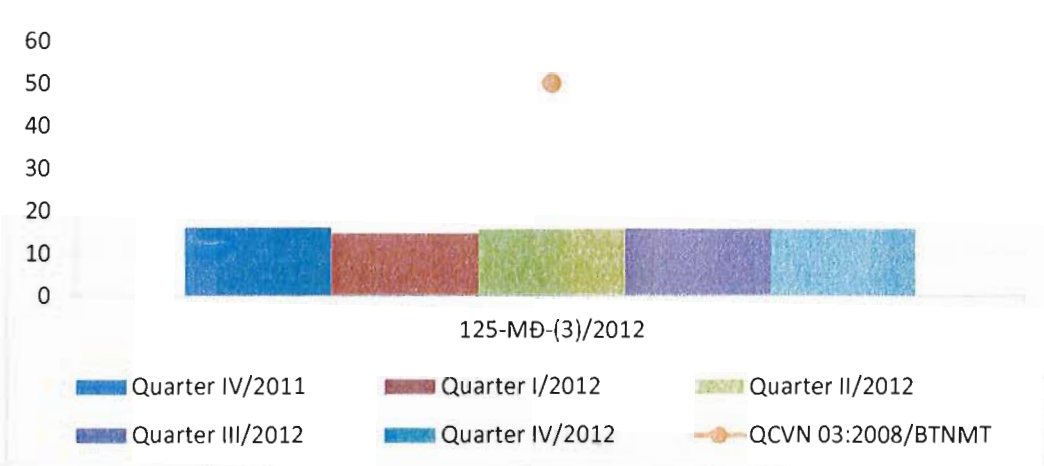


Figure 28: Cu varies follow quarter of soil quanlity monitoring

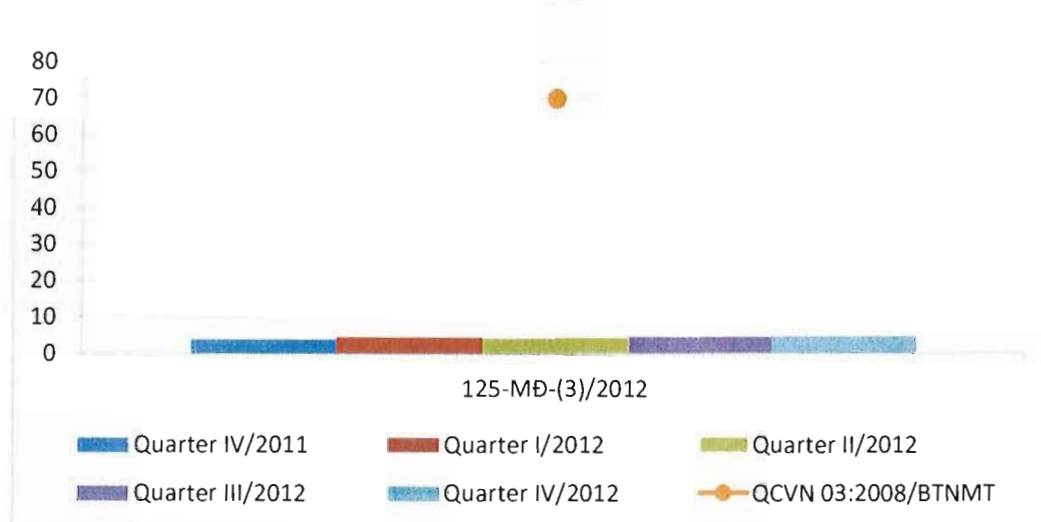


Figure 29: Pb varies follow quarter of soil quanlity monitoring

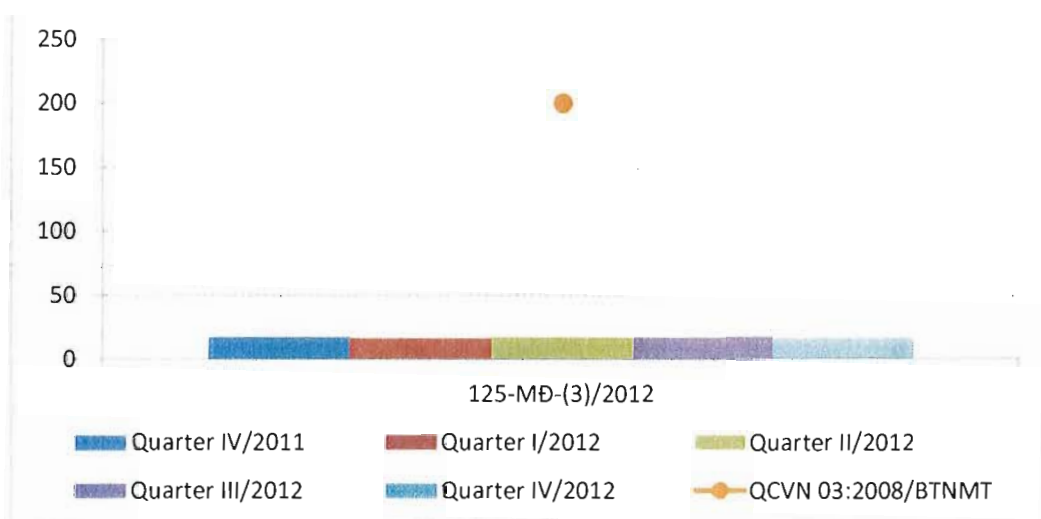


Figure 30: Zn varies follow quarter of soil quanlity monitoring

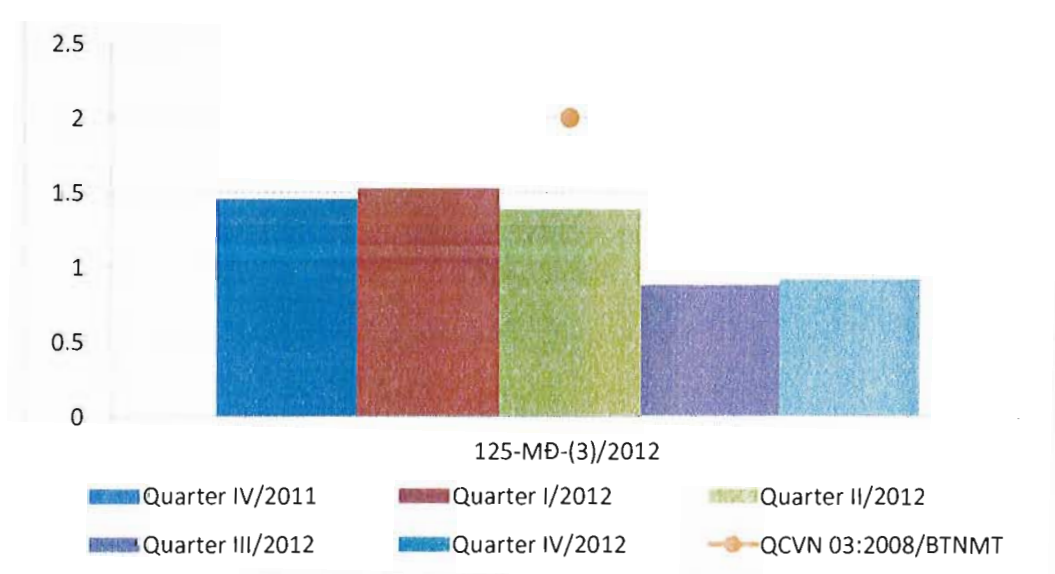


Figure 31: Cd varies follow quarter of soil quanlity monitoring

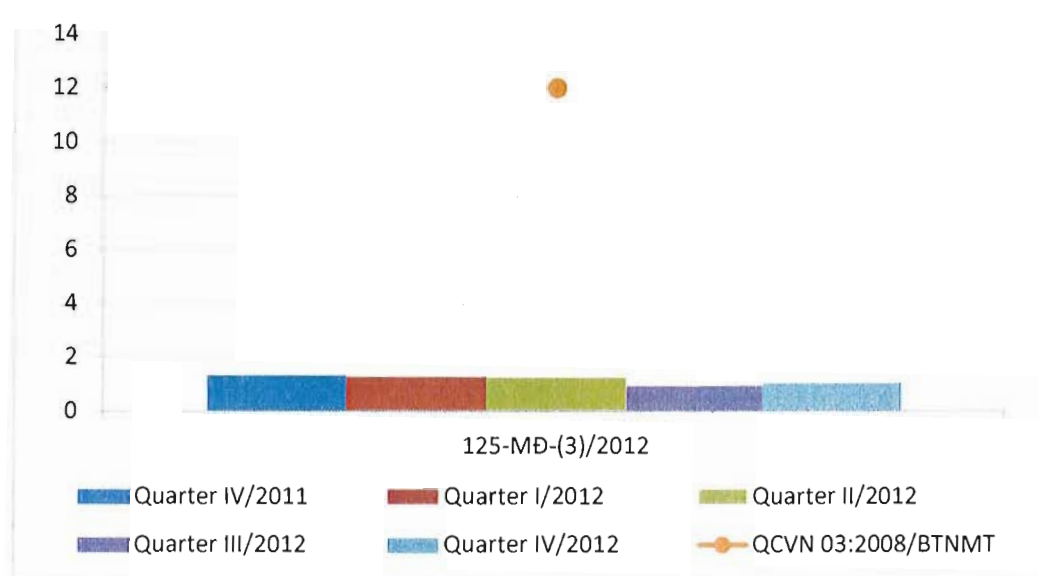


Figure 32: As varies follow quarter of soil quanlity monitoring

Remark :

According to the monitoring results, show all value of heavy metals were analyzed were reached for regulation QCVN 03:2008/BTNMT (Agricultural land). This demonstrates that the construction activity has yet to impact the surrounding environment.

4.2.7 Waste Water Quality

- **Domestic wastewater:**

+ Location and symbol of samples:

- Location: As from this quarter III -9/2012 onward, the location of domestic wastewater quality monitoring in the area of the site worker's camp has changed from Km 49+980 to Km54+800 (near the concrete batching plant of Package No.6). Purpose of the above change that is workers live near the batching plant for more favorable to work construction and activities at site. In this quarter IV-12/2012, the location of the above mentioned sampling continued to perform at Km 54+800.
- Symbol of samples: 125-NT-(1)/2012: Worker's camp area (Km54+800)

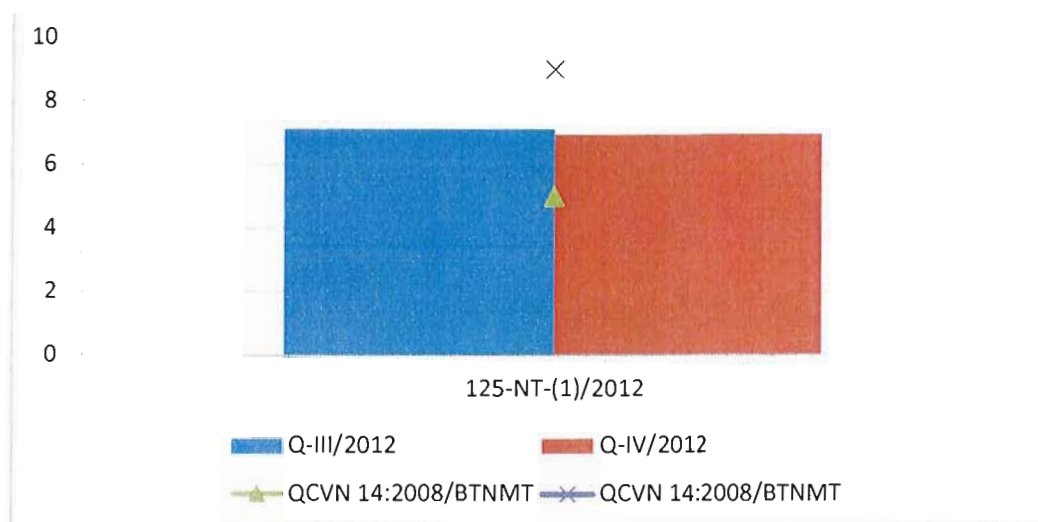


Figure 33: pH varies follow quarter of domestic wastewater quality monitoring

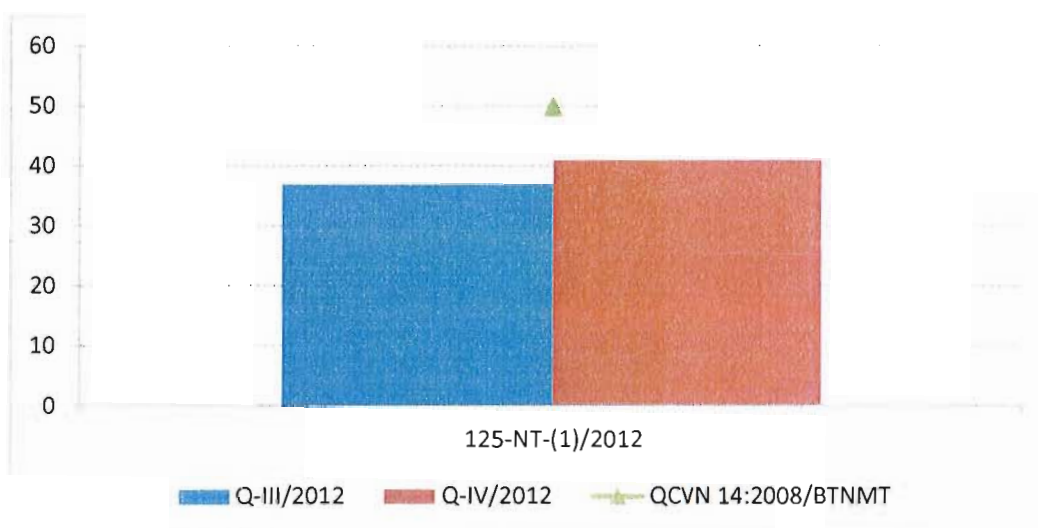


Figure 34: BOD5 varies follow quarter of domestic wastewater quality monitoring

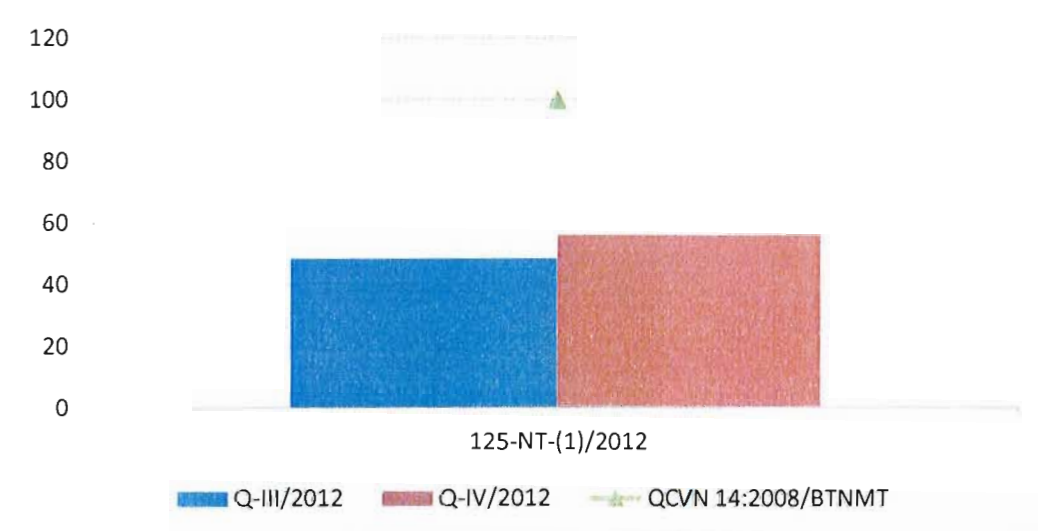


Figure 35: TSS varies follow quarter of domestic wastewater quality monitoring

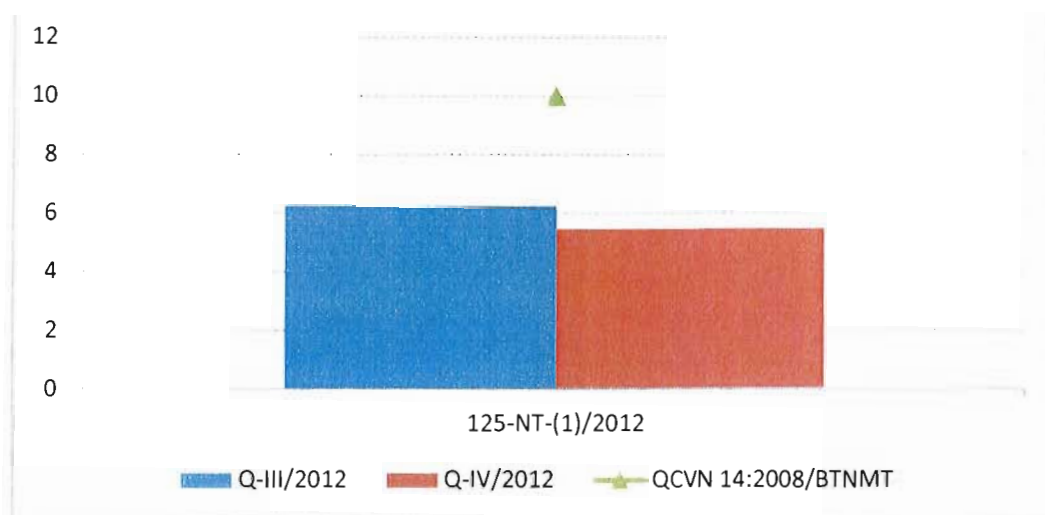


Figure 36: NH4+ varies follow quarter of domestic wastewater quality monitoring

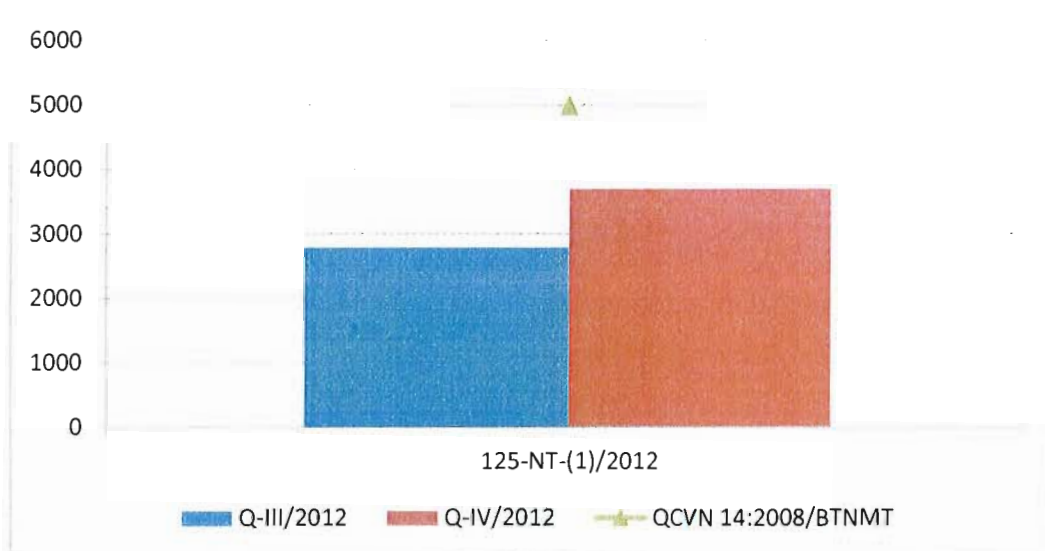


Figure 37: Total Coliform varies follow quarter of domestic wastewater quality monitoring

Remark :

According to the monitoring domestic wastewater quality of worker's camp area at concrete batching plant (Km54+800) showed that almost all parameters analyzed during the observation in this quarter IV/2012 although have increase than quarter III/2012 but still of Regulation allow (QCVN 14:2008/BTNMT (level B).

The contractor shall clear the bathroom and other sanitary facilities for workers and waste water treatment system will be improve.

A proposal for treatment of waste water is mentioned in the item 5.3.1 Domestic wastewater

- **Waste water from construction activities:**

- + Location and symbol of samples:

➤ 125-NT-(2)/2012: Concrete mixing station area (Km54+900)

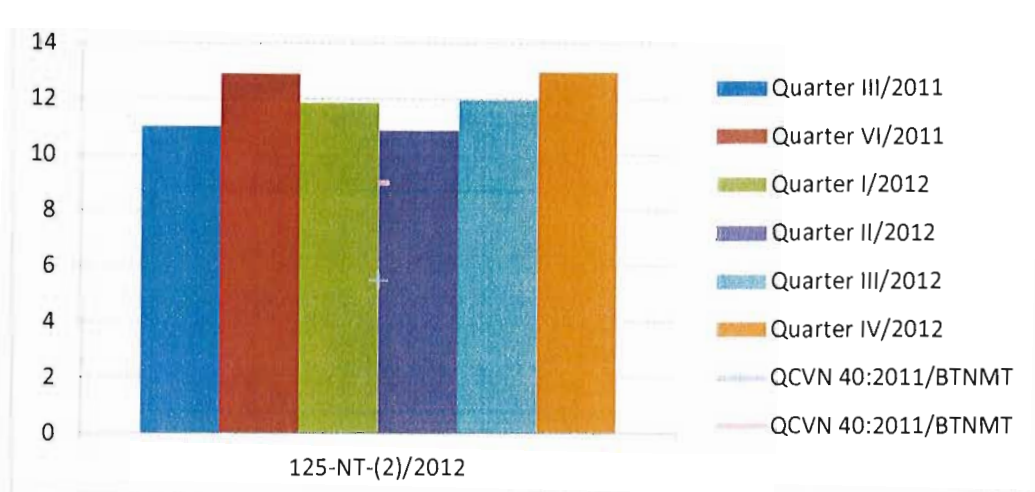


Figure 38: pH varies follow quarter of wastewater from construction activities quality monitoring

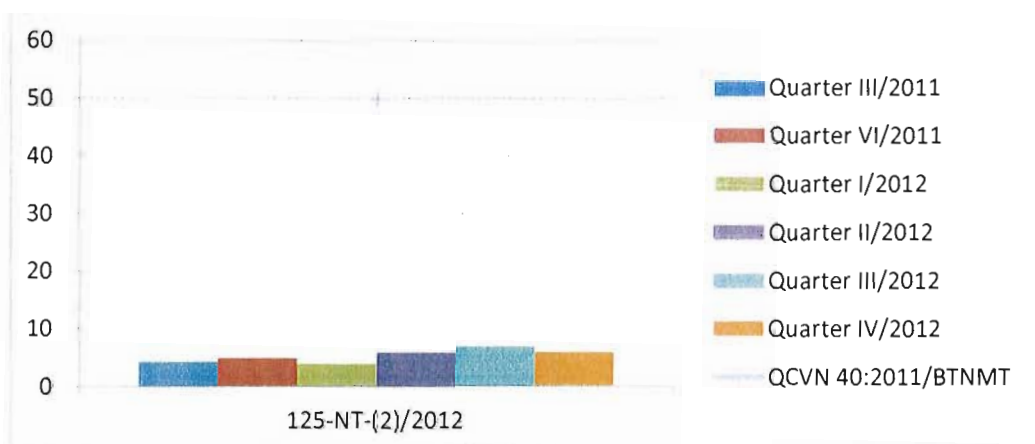


Figure 39: BOD varies follow quarter of wastewater from construction activities quality monitoring

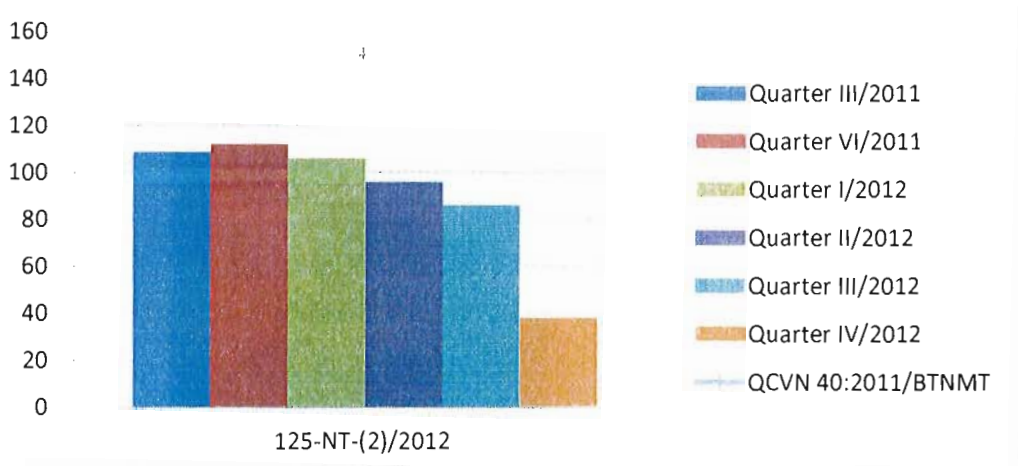


Figure 40: COD varies follow quarter of wastewater from construction activities quality monitoring

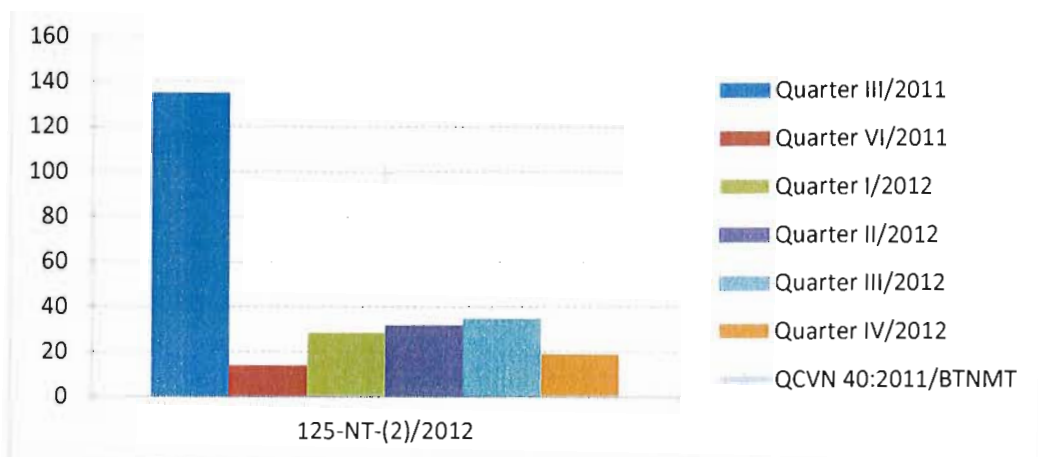


Figure 41: TSS varies follow quarter of wastewater from construction activities quality monitoring

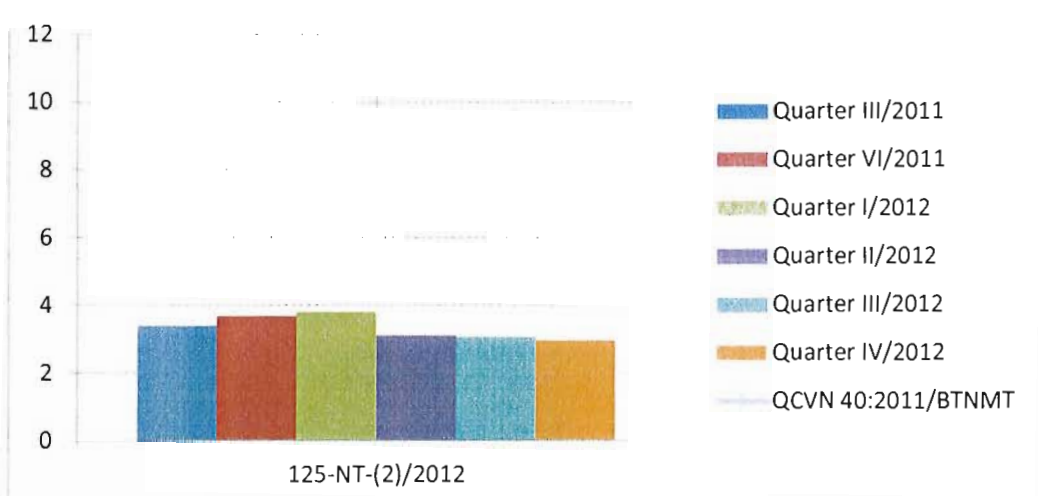


Figure 42: NH4+ varies follow quarter of wastewater from construction activities quality monitoring

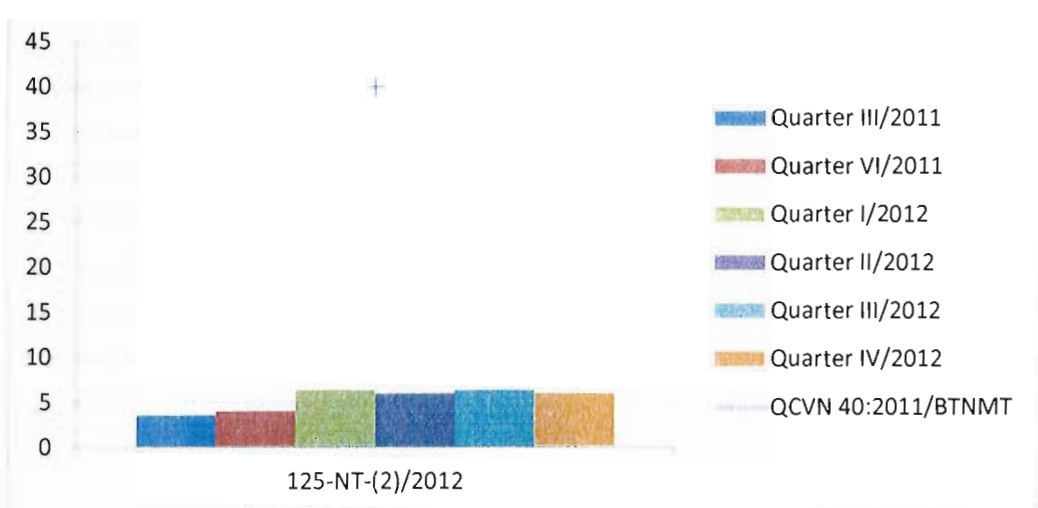


Figure 43: Total N varies follow quarter of wastewater from construction activities quality monitoring

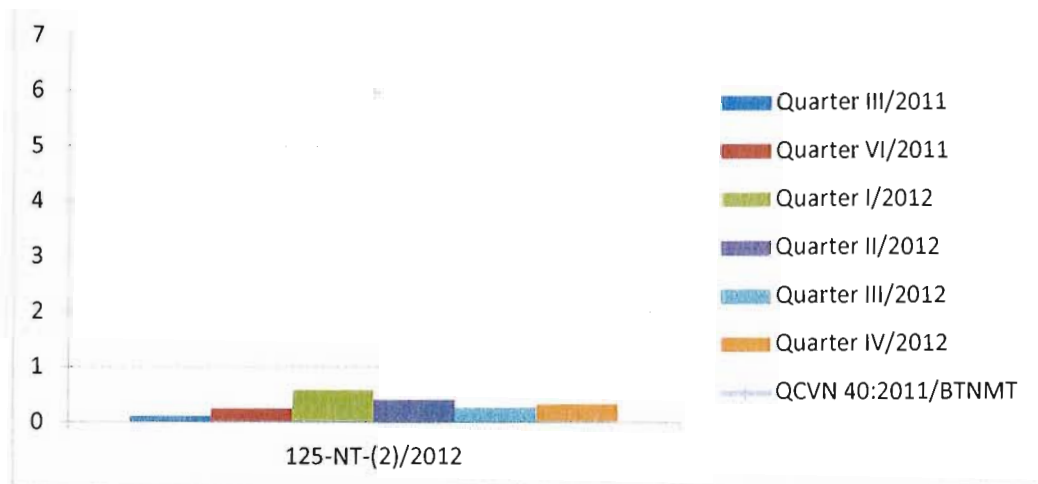


Figure 44: Total P varies follow quarter of wastewater from construction activities quality monitoring

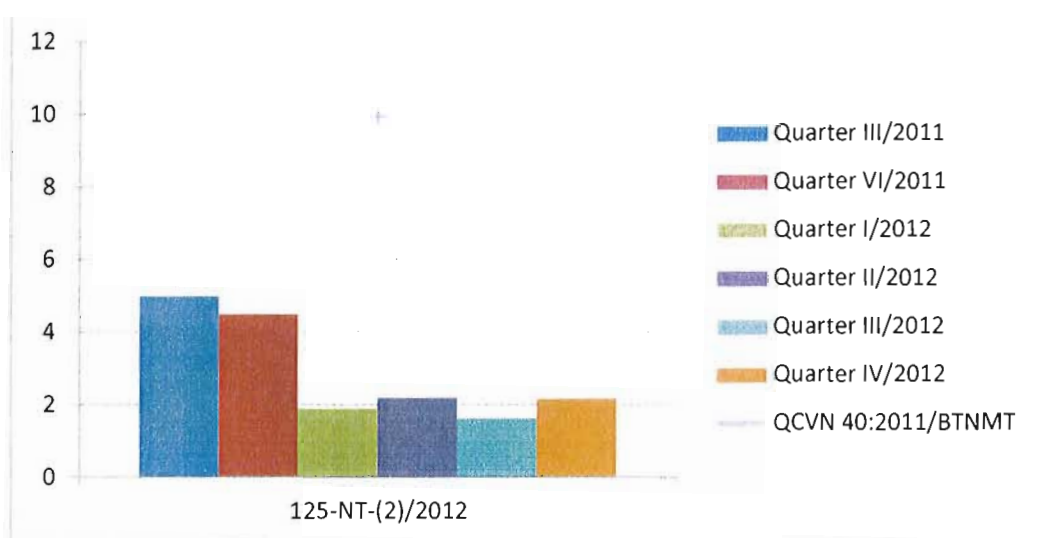


Figure 45: Lubricant varies follow quarter of wastewater from construction activities quality monitoring

Remark :

According to the results of monitoring the quality of wastewater from construction activities showed that pH value exceeded Regulation allow (12.96) (QCVN 40:2011/BTNMT; pH, level B; 5.5 – 9 mg/L). The construction activities in the quarter III/2012 has not cause any significant effect compared to the previous quarter.

However, additional specific measures has already brought out, such as:

- Cleaning waste water treatment system for construction activity twice per week (currently, once per week)
- Repair and improve waste water treatment system

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4.3 Assessment of Environmental Results

According to the results of measurement of air quality, surface water quality, groundwater quality, soil quality, noise and vibration shows: Status of environment in the project area is still quite better than the Pre-construction phase. This proves the environment quality in the project area was not affected by the activities of the project.

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5: ENVIRONMENTAL PROTECTION IMPLEMENTED

5.1 Environmental permit

- Confirmation letter for registration for the environmental protection commitment for batching plant of PK.6.
- Book of registration for the waste source owner of hazardous waste.
- Permit for underground water exploitation.
- Exploitation Permit and the Environmental Permit of Nui Nua Quarry in Xuan Lap commune, Long Khanh town, Dong Nai province.
- Exploitation Permit for Borrow Pit.


5.2 Air pollution treatment.

5.2.1 Measures to control air pollution caused by vihecles.

A large volume of raw materials and fuel are transported to project area. The transports will be caused significant impact to the environment without the planning and control appropriately.

Air pollution from vehicles contain pollutants such as: TSP, SO₂, NO₂, CO, etc. To reduce the pollution, contractors are applying the following measures:

- Stockpiles of sand and aggregate greater than 20 cubic meters (20m³) for use in concrete manufacture shall be enclosed on three sides, with walls extending above the pile and two meters (2m).
- Using the fuel that sulfur contain lowly.
- Using the correct type of fuel for the engine.
- Periodic maintenance for construction vehicles.
- Do not carry the prescribed load.
- Transport of sand, soil, raw materials to the construction site must be covered by canvas drop cloth to avoid.
- Regularly clean trasportation and water spray moisturizing on the road when it's sunny and moving.
- Watering on the routes with frequency is 4times/day.
- Construction walls are provided in all locations where strong winds could blow dust and debris.
- Speed limit and select the appropriate transport routes.
- Soil, sand and rock stockpiles are protected from winds and sprayed with water as needed.
- The Contractor is cleanning and watering frequently in the concrete batch plant and adjoining area to control dust emissions.
- Areas of reclamation is completed, including final compaction, as quickly as possible consistent with good practice to limit the creation of wind blown dust.

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- The operator, using the equipment must be trained to ensure correct operation and reduce the risk.
- Assessment:
 - To protect and storage of construction materials by contractors implemented relatively well.
 - Mitigation measure for dust on the transport routes should be promoted further when dry reason is coming.
 - Measures to control air pollution and dust are well implemented on site and concrete batch plant.

5.2.2 Noise and vibration.

Noise and vibration generated during construction is mainly due to the activities of construction vehicles.

Noise and vibration effect our health. Especially, workers near the sources. Noise above the permitted standards will affect worker health, reduced attention, headache, dizziness, fatigue, insomnia,... reduces labor productivity. When expose to large noise level continuously for eight hours and lasts for many years may be increase blood pressure, which affects the digestive system, nervous system leading to occupational deafness,... And this is an agent that causes inhibition phenomenon (stress).

So, Hanshin contractor has applied the following measures to limit the lowest level noise spread out around.

- Install anti-vibration cushions imbalance for these machines have high noise levels such as the compressor.
- During the construction process, regularly check the balance of the machine, abrasion details, check oil and replace equipment wear.
- Supply equipment for labor protection against noise for workers in noisy areas.
- Restrict the transportation of land, sand activities in the rush hour when traffic on public roads.
- Use of machines that is causing loud noise and vibration (drill, excavator, etc.) is prohibited from 23:00pm to 5:00am.
- Do not use the equipment and machinery to avoid unnecessary noise and vibration.
- Activities causing noise shall be planned to be carried out when they have the lowest impact on people (from 7:30 to 18:00 daily).
- Assessment:
 - Workers are supplied labor protection equipment. Noise and vibration are mitigated to lowest level and met Standard Vietnam. This is well implemented.

5.3 Wastewater treatment measures.

5.3.1 Domestic wastewater

Wastewater generated at the site during construction. This is domestic wastewater from activities of bathing, washing of the workers at construction sites with very small amounts, so plan should be selected as follows:

Treatment plan

Domestic wastewater is preliminary treated by a three-compartment septic tanks it is absorbed by soil.

Operation principles of three-compartment septic tanks are: sedimentation, decomposition and fermentation of organic.

Treatment system was built as three-compartment septic tank with the filter holder.

Wastewater in the toilets will be collected in tanks and anaerobic microorganisms decompose with effective treatment to meet 40-45%. Retention time in the tank about 20 days, 95% of suspended solids will settle to the bottom tank. Residue remains in the bottom of the tank for 6-8 months, under the action of anaerobic microorganisms, organic matter will decompose, creating a gas and a form of inorganic dissolved. Wastewater in the tank for a long time to ensure high performance of sedimentation to flow through the filter holder complete removal of suspended matter and escape. Each of septic tanks has vents to release gases from decomposition. Smoking section sediment will be periodically. Composed diagram of three-compartment septic tank with the filter holder has shown in figure 6.

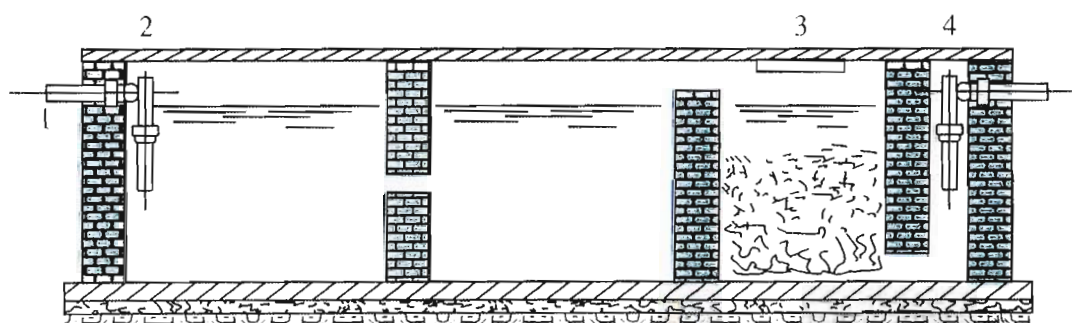


Figure 5.49: Schematic structure three-compartment septic tank with filter holder

- 1 - Sewage pipe into the tank. 2 - Vent pipe. 3 - Covers visits (to smoke residue).
4 - Prevention of discharge of wastewater treatment works to the next.

As mentioned above, the amount of wastewater was little generated by workers and were collected into a septic tank system has three tanks with filters before infiltration into soils. Therefore, this process did not affect the surrounding environment.

- Assessment:
 - Have bathroom on site for worker and ensure environmental problems.

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5.3.2 Wastewater from construction activity

Wastewater from construction activity is mainly wastewater from concrete mixing station area: This wastewater is flowed by private sewage systems and focused in tank. Wastewater is guaranteed deposited time before being discharged into rainwater drainage system.

- Assessment:
 - Sewer system and tank had been operated on concrete mixing station. Should improve deposited time for tank to ensure come out water (To increase deposited time on compartment of tank).

5.4 Solid waste treatment.

At the current, contractor is applying solid waste management measures:

5.4.1 Domestic waste

Solid waste activities are generated about 4kg/day. At the current, solid waste activities are kept in plastic container with cap and it kept in prescribed place. Every day, this garbage is collected, concentrated and transferred to landfills governed by the people-household waste collection.

5.4.2 Solid waste from construction activity

Management and treatment for solid waste are implemented by contractor as follows:

- The Contractor establishes hygienic groups to collect waste from construction camp sites and to ensure the cleanliness of the whole construction area. The contractor will also co-operate with local authorities or companies to organize the waste collection.
- The Contractor and Sub-Contractors promptly clean up all spillage and waste from the transport vehicles on route to disposal sites.
- The amount of industrial waste generated during construction is very little, mainly packaging containing raw materials and most of these substances are reused, specifically:
 - + Oil can or tank.
 - + Bag of bentonites.
 - + The solid waste is well managed on construction site

Controlling of the bentonite flow: All location where are building bridge (bored piles), bentonites is well managed. Bentonite is contained in the strong tanks and it was recovered, treated and reused.

- Assessment:

The management of solid waste is implemented according to regulation.

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6: CONCLUSION AND RECOMMENDATION

6.1 Conclusion

Hanshin Engineering & Construction Co., Ltd has applied measures better protect the environment. According to the results of measurement of air quality, surface water quality, groundwater quality, soil quality, noise and vibration on Quarter IV - December 2012 shows: Status of environment in the project area is still quite better than the quarter III-2012. This demonstrates that the methods of environmental protection have been implemented well and fully. The contractor will continue to apply the measures required to achieve the lowest limits to affect the environmental quality of the area.

6.2 Recommendation

Bases on the results of environmental monitoring, contractor shall take measures to prevent and mitigate the impact of environmental factors. The contractor shall recommend that people shouldn't use surface water at the sampling location and near the project area because surface water quality in this area showed signs of decline and microbial infections. Contractor reminds subcontractor to improve the tank in concrete mixing station area before being discharged into the aquatic environment. Special attention to the potential impact may change in environmental quality and environmental pollution.

Project Manager



Kim Kyong Sob

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APPENDIX

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APPENDIX 1: **EMERGENCY RESPONSE PLAN IN CASE OF FUEL AND CHEMICAL SPILLS**

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❖ **Responsibility, timeframe, resources/equipments and procedures to control in emergency response plan**

	Responsibility	Timeframe	Available Resources/Equipment	Control Procedure	Government Permit
Related Authorities	Record information, survey on the scene and support to clean up spills.	In working time or overtime if necessary	+Shovel: 5 units +Dry sand: 2 m ³ +Cotton: 10 kg +Tank: 5 units +Gloves & Hobnailed boots: 10 sets +Big tank for hazardous waste: 2 units (200 liters/unit)	Figure 3.4	Will be mobilized
Supervisor	Record, survey and check on the scene	Anytime have risk			
Project Director	Receiving information and assign tasks to employees to solve the problem				
Site Environmental Specialist	Record on the scene and give the urgent methods for solving and control implementing process until finishing the problem.				
Construction Manager	Mobilize Resources/Equipment to the scene and survey on site				
Site Manager	Check on the scene and inform to Site Environmental Specialist				
Site Engineer	Record risks and inform to manager and supply resources/equipments				
Subcontractors	Support equipments and give method for solution if can be				
Client (VEC)	Check and assess on the scene after handling	In working time			

❖ **Process troubleshooting**

❖ ***Evacuate from the risky areas***

Individuals in the spill area with oil/chemical need to be evacuated from the site immediately (Except those who have been trained to handle the overflow traces). If the wound in the full-size medium and large or seems dangerous to immediately inform to site manager to apply the plan for

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emergency incidents.

❖ **Plan against spills and clean up spills**

Upon receiving the information happens to oil spills/chemical from the site (technical staff of the contractors/local communities/local authorities) in the process of troubleshooting, Site Manager should perform the following steps:

Step 1: To note the information about the inci

dent from the signal-man were notified and from other sources to determine property and scale of the problem (small/medium /large).

Step 2: Implementation quickly rescue forces as well as rescue plan as follows:

- Organization of emergency response forces to the scene carrying out rescue work.
- Inform the stakeholders involved in rescue work.
- Mobilization of the specialized units perform the rescue (if necessary)

Step 3: Force-site rescue coordinate of related agencies involved in rescue work. The work of the rescue scene, including:

- *For small spill stain (<10 liters)*

- Ensure that the spill area can access and full marks are not dangerous to life and health of the individuals involved in spill prevention.
- Identify and stop the overflow source (plug the leak, close the valve, the bottle is upright overflow ...).
- Check/identify risk factors such as combustible materials, the harmful gases, the causes of spills. If the flammable liquid must turn off the engine, power/electrical equipment nearby. If found the risk of serious harm should immediately leave the area overflow. If in doubt, consider the list of oil / chemicals to test and identify hazards.
- Keep track overflow drain into drainage lines or the surrounding water by using absorbent materials and/or other materials (if necessary), close the valve drains, cover the drain ...
- If material spills have penetrated drainage pipe/water is necessary to apply measures to isolate the source of water to oil/chemical spills wide and alert to local communities.
- Clean up spills and other materials used in absorbent material (not water) into the container security - are boxes for hazardous waste.
- Ensure that the area is cleaned non-slip. If it is easy to slip, you need to use anti-slip material and or use warning signs.
- Prepare minutes of the incident and report to stakeholders (People's committee, WSA).

- *For medium spill stain (10 liters to 100 liters)*

- Ensure that the spill area can access and spills do not endanger the lives and health of the

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individuals involved in spill prevention.

- Identify and stop the overflow source (plug the leak, close the valve, the bottle is upright overflow ...).
- Check/identify risk factors such as combustible materials, the harmful gases, the causes of spills. If the flammable liquid must turn off the engine, power/electrical equipment nearby. If found the risk of serious harm should immediately leave the spill area. If it is flammable liquid in doubt, consider the list of oil/chemicals to test and identify hazards.
- To mobilize additional support forces to handle spills and stains direct command and supervision of the entire process of managing pain overflow.
- Keep track overflow drain into sewer lines or the surrounding water using absorbent materials and/or other materials (if necessary), close the valve drains, cover the drain ...
- If material spills have penetrated sewer / water is necessary to apply measures to isolate the source of water to oil / chemical spills wide and alert local people.
- Clean up spills and other materials used in absorbent material (not water) into the container security - are boxes for hazardous waste.
- Ensure that the area is clean non-slip. If you slip, you need to use anti-slip material and or use warning signs.
- To record and report incidents to the relevant parties (People's community, and WSA)
- *For full marks (over 100 liters)*
 - Ensure that the spill area can access and spills and stains do not endanger the lives and health of the individuals involved in spill prevention.
 - Identify and stop the overflow source (plug the leak, close the valve, the bottle is upright overflow ...).
 - Check/identify risk factors such as combustible materials, the harmful gases, the causes of spills. If the flammable liquid must turn off the engine, power/electrical equipment nearby. If found the risk of serious harm should immediately leave the area overflow. If in doubt, consider the list of oil/chemicals to test and identify hazards.
 - To mobilize additional support forces to handle spills and stains direct command and supervision of the entire process of managing pain overflow.
 - Keep track overflow drain into sewer lines or the surrounding water using absorbent materials and/or other materials (if necessary), close the valve drains, cover the drain ...
 - If material spills have penetrated sewer/water is necessary to apply measures to isolate the source of water to oil/chemical spills wide and alert local people.
 - Depending on the size and capacity overflow traces of actual rescue team to request the

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assistance of the specialized agencies at the local (if necessary).

- Clean up spills and other materials used in absorbent material (not water) into the container security - are boxes for hazardous waste.
- Ensure that the area is clean non-slip. If you slip, you need to use anti-slip material and or use warning signs.
- Prepare minutes of the incident and report to stakeholders (People's communities, Environmental Resources district office and WSA).

Step 5: Collaborate with other professional agencies and organizations carrying out the assessment of environmental impacts caused by the incident, the statistical survey of economic damage and the environmental cleanup process after the incident.

Step 6: Meeting with stakeholders to consider the cost of troubleshooting.

Step 7: Prepare procedures and requirements for compensation and treatment under the law.

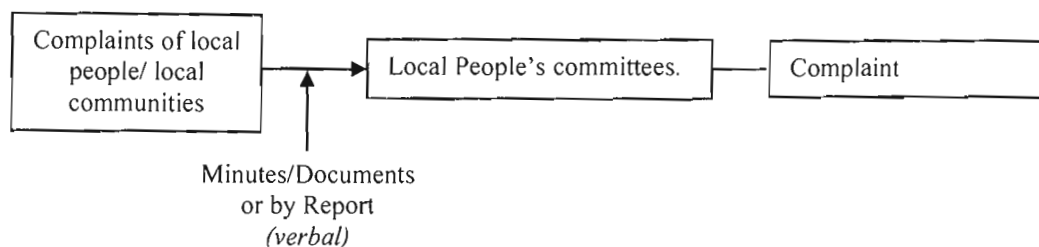
 Vietnam Expressway Corporation	HO CHI MINH – LONG THANH – DAU DAY EXPRESSWAY PACKAGE 6	 HANSHIN Engineering & Construction
	SEMI-ANNUAL ENVIRONMENTAL MANAGEMENT REPORT	Date : 31 December 2012 Page : 68 of 78

APPENDIX 2: SOLVING COMPLAINTS

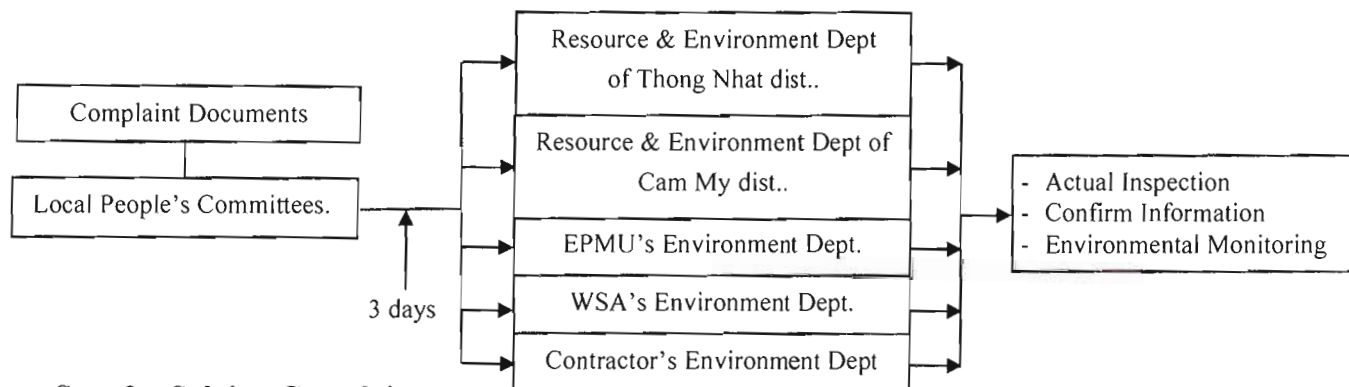
SOLVING COMPLAINTS

Propose a solving complaints as below:

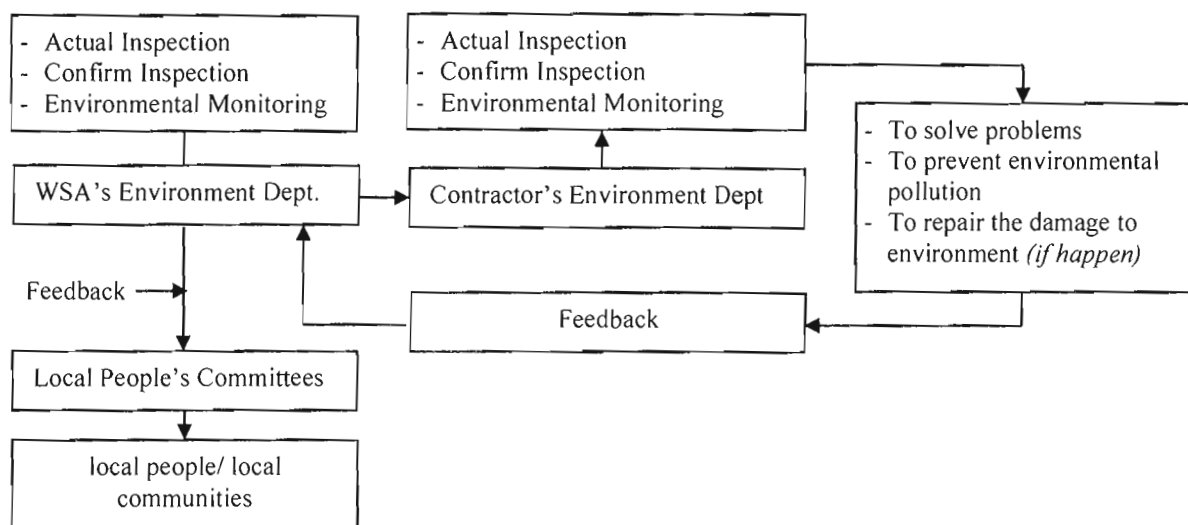
• **Step 1 – Record any Complaints received from Local People/ Local Communities:**



• **Step 2 – Sent Complaint Documents to Relevant Department**



• **Step 3 – Solving Complaints**



• **Step 4 – Filing**

Solving Complaints Result will have in Environmental Monitoring Report per quarter and will be submitted WSA/EPMU/VEC/ADB and Resource & Environment Department of Thong Nhat dist., Dong Nai province.

Documents of solving complaints result will be save by WSA/EPMU and Contractor.

	<p>HO CHI MINH – LONG THANH – DAU DAY EXPRESSWAY PACKAGE 6</p> <p>SEMI-ANNUAL ENVIRONMENTAL MANAGEMENT REPORT</p>	 <p>Date : 31 December 2012 Page : 70 of 78</p>
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APPENDIX 3:

HIV/ AIDS & HUMAN TRAFFICKING PREVENTION PROGRAM

CURRICULUM AND SOURCE

TRAINING	TOPIC	CURRICULUM AND SOURCE
Introductory Training Module	Topic 1.1 - Male and Female Reproductive Organs	Source: <i>For Life, With Love</i> (ADB) ¹ Module 1 Activity 2 – Male and Female Reproductive organs (page 32)
	Topic 1.2 – Information about Sexually Transmitted infections	Source: <i>HIV/STI Training in Construction Settings</i> (CARE International in Viet Nam) ² Lesson 2 – Sexually Transmitted Infections
	Topic 1.3 – How to prevent STIs - Safe Sex	Source: <i>HIV/STI Training in Construction Settings</i> (CARE International in Viet Nam) Lesson 4 – Safe Sex
	Topic 1.4 – Where to get condoms and STI Testing	Source: <i>For Life, With Love</i> (ADB) Module 2 Activity 10 - Where to Find Condoms and Places Providing HIV Testing and STI-Related Services in the Community (page 80)

- Trainers: Dr. Tran Nguyen Duc, Msc Nguyen Quoc Binh ;
- Questionnaire for baseline survey



¹ *For Life, With Love, Training Tool for HIV Prevention and Safe Migration*; ADB and IOM, 2009

² *HIV/STI Training in Construction Settings*, CARE International in Viet Nam

 Vietnam Expressway Corporation	HO CHI MINH – LONG THANH – DAU DAY EXPRESSWAY PACKAGE 6	 HANSHIN Engineering & Construction
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HIV/AIDS TRAINING ROUND 1 – PHASE 1
HO CHI MINH – LONG THANH – DAU GIAY EXPRESSWAY PROJECT
PACKAGE No. 6

Date	Period	Main contractor	Sub-contractors	Total of engineers/officers/workers	Number of session	Training venues	In-charge	Remark
24 th Oct. 2012	Morning	HANSHIN	GIA PHUOC	40	1	Gia Phuoc's Casting Yard (Near Overpass No.2)	Mr. Phu - 0902.579.169	
	Morning			30	1	620 Long Batching (Km54+982)	Mr. Hung 0918.800.620	
3 rd Nov. 2012	Afternoon		620 LONG AN	30	1			
	Afternoon			30	1			

	HO CHI MINH – LONG THANH – DAU DAY EXPRESSWAY PACKAGE 6	 HANSHIN Engineering & Construction
SEMI-ANNUAL ENVIRONMENTAL MANAGEMENT REPORT	Date : 31 December 2012 Page : 73 of 78	

HIV/AIDS TRAINING ROUND 2 – PHASE 1
HO CHI MINH – LONG THANH – DAU GIAY EXPRESSWAY PROJECT
PACKAGE No. 6

Date	Period	Main contractor	Sub-contractors	Total of engineers/ officers/ workers	Number of session	Training venues	In-charge	Remark
16 th Nov. 2012	Morning	HANSHIN	HUY PHUONG	40	1	Site Worker Camp (Km44+500)	Mr. Phuong 0988.189.575	
16 th Nov. 2012	Afternoon		THIEN PHU	20	1	Site Worker Camp (Km46+400)	Mr. Hieu 0907.049.460	Together
			SHP	20			Mr. Thoi 0988.002.871	
19 th Nov. 2012	Morning		MINH Y	15	1	Site Worker Camp (Km54+140)	Mr. Hoat 0983.728.255	Together
			HOANG TUAN KHANG	25			Mr. Linh 0903.883.356	
19 th Nov. 2012	Afternoon	HANSHIN		22-25	1	Hanshin's Office	Ms. Phuong 0937.970.596	

REPORT

HIV/AIDS TRAINING ROUND 1 – PHASE 1 HO CHI MINH – LONG THÀNH – DAU GIAY EXPRESSWAY PROJECT PACKAGE No. 6

I – TRAINING SUBJECT

Implementation of HIV/AIDS & Human Trafficking Prevention Program

II – Time: 09:00 – 11:30 AM, Wednesday, October 24th, 2012 (one session)

III – Venue: Gia Phuoc's Casting yard

IV – Trainer: Dr. Tran Nguyen Duc – DRCC – Subconsultant

V – Participator:

CDM Smith - Consultant and Sub-consultant; Hanshin - Main contractor; All officers and workers of Gia Phuoc – subcontractor.

VI – Pictures:



REPORT

HIV/AIDS TRAINING ROUND 1 – PHASE 1 HO CHI MINH – LONG THÀNH – DAU GIAY EXPRESSWAY PROJECT PACKAGE No. 6

I – TRAINING SUBJECT:

Implementation of HIV/AIDS & Human Trafficking Prevention Program

II – Time:

Three sessions; Saturday, November 03rd, 2012

The first session : 09:00 – 11:00 AM

The second session : 01:30 – 03: 0 PM

The third session : 03: 0 – 05: 0 PM

III – Venue: 620 Long An's Batching Plant

IV – Trainer: Dr. Tran Nguyen Duc – DRCC – Sub-consultant

V – Participator:

CDM Smith - Consultant and Sub-consultant; Hanshin - Main contractor; All officers and workers of 620 Long An – subcontractor.

VI – Pictures:



The first session (09:00 – 11:00 AM)

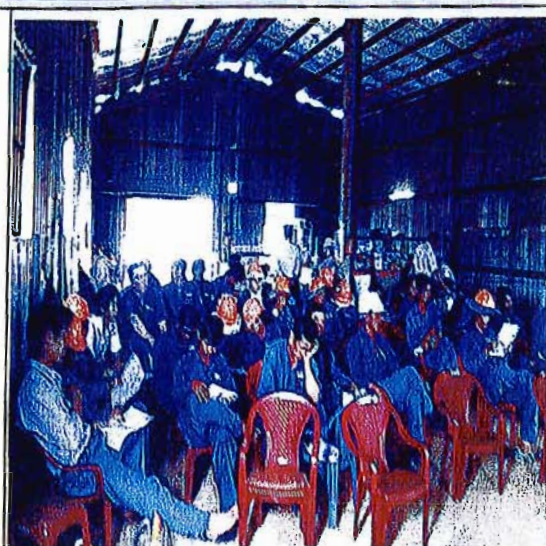


Hanshin Engineering & Construction Co., Ltd
Ho Chi Minh City - Long Thanh - Dau Giay Expressway Construction Project (Package 6)

Project Management Office:

Hamlet 6, Road 25 ward, Thong Nhat District, Dong Nai Province, Vietnam

Tel: +84-61-3.964.716/726/826 - Fax: +84-61-3.964.611 - Email: hr_hanshin@yahoo.com.vn



The second session (01:30 – 03:00 PM)



The third session (03:00 – 05:00 PM)

Tổng công ty Đầu tư Phát triển
đường cao tốc Việt Nam
DỰ ÁN ĐƯỜNG CAO TỐC
TP. HCM - LONG THÀNH - DẦU GIẦY

CỘNG HÒA XÃ HỘI CHỦ NGHĨA VIỆT NAM
Độc lập - Tự do - Hạnh phúc

**BIÊN BẢN TẬP HUẤN NÂNG CAO NĂNG LỰC
PHÒNG CHỐNG HIV/AIDS ĐỢT 1 - GIAI ĐOẠN I**
Dự án đường cao tốc TP. Hồ Chí Minh - Long Thành - Dầu Giây

I. Thời gian và địa điểm tập huấn

- 1.1 Thời gian: Từ 8h30 ngày 03 tháng 11 năm 2012
1.2 Địa điểm: Liên tưởng công ty Beton 620 Long An
1.3 Gói thầu: Số 6 - Cầu 5 km Nhà thầu: Liên tưởng công ty Beton 620 Long An

II. Thành phần tham dự

2.1 Đại diện Trung tâm Nghiên cứu và Tư vấn về Phát triển (ĐRCC)

- Ông/bà: Trần Nguyễn Đức Chức vụ: Chuyên gia HIV
Ông/bà: Trần Văn Hòa Chức vụ: Chuyên gia HIV
Ông/bà: Chức vụ:

2.2 Đại diện Tư vấn giám sát

- Ông/bà: Hồ Quốc Cường Chức vụ: Chuyên gia HIV
Ông/bà: Chức vụ:

2.3 Đại diện Nhà thầu

- Ông/bà: Hồ Quang Trung Chức vụ: Chuyên gia HIV
Ông/bà: Hoàng Minh Phương Chức vụ: Chuyên gia HIV
Ông/bà: Nguyễn Mạnh Hùng Chức vụ: Chuyên gia HIV

2.4 Cán bộ công nhân/nhân viên tham gia

Số lượng công nhân tham gia: ...bà..., trong đó số lượng nam: 12...; nữ: ...f.....

III. Mục đích và nội dung tập huấn

3.1 Mục đích

- Khảo sát về mức độ hiểu biết của công nhân các kiến thức liên quan đến phòng tránh HIV/AIDS và các bệnh lây lan qua đường tình dục (BLLQĐTD);
- Tập huấn cho công nhân những kiến thức liên quan đến phòng tránh HIV/AIDS và các bệnh lây lan qua đường tình dục (BLLQĐTD) nhằm nâng cao nhận thức của họ.
- Phân phát tài liệu tuyên truyền và bao cao su cho công nhân;

3.2 Nội dung thực hiện

- Tiếp đón học viên, ghi danh sách, phân phát tài liệu và bảng hỏi;
- Đại diện ĐRCC giới thiệu chương trình;

- Giảng viên trình bày nội dung tập huấn; giải thích/trả lời những ý kiến thắc mắc của công nhân;

- Phân phát bao cao su và thu thập lại bảng hỏi.

IV. Kết luận

- Số học viên tham gia buổi tập huấn: 30 học viên

- Số bảng hỏi đã phát và thu thập lại: 9 bảng hỏi

- Số bao cao su đã phát: 100 bao cao su

- Một số ý kiến thắc mắc của học viên:

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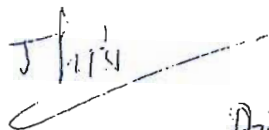
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Buổi tập huấn kết thúc vào lúc 11 giờ..... ngày 02.....tháng 11.....năm 2012. Các đại diện tham gia nhất trí với nội dung ghi nhận tại biên bản này.

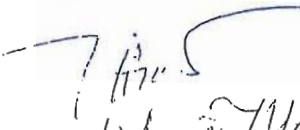
Đại diện DRCC

Đại diện Tư vấn giám sát

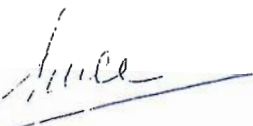
Đại diện Nhà thầu

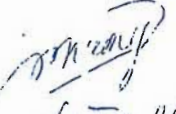

Trần Nguyễn Diệu


Dr. Đỗ Quốc Chung


Nguyễn Thanh Hồng

Dr. Đỗ Quốc Chung


Đỗ Quang Huy


Lê Thị Minh Phương

**Tổng công ty Đầu tư Phát triển
Đường cao tốc Việt Nam
DỰ ÁN ĐƯỜNG CAO TỐC
TP.HCM - LONG THÀNH - DẦU GIẦY**

**CỘNG HÒA XÃ HỘI CHỦ NGHĨA VIỆT NAM
Độc lập - Tự do - Hạnh phúc**

**BIÊN BẢN TẬP HUẤN NÂNG CAO NĂNG LỰC
PHÒNG CHỐNG HIV/AIDS ĐỢT 1 - GIAI ĐOẠN I
Dự án đường cao tốc TP. Hồ Chí Minh - Long Thành - Dầu Giây**

I. Thời gian và địa điểm tập huấn

- 1.1 Địa điểm: Phòng Training tại hai công ty bê tông G1 và G2 tại Long An
1.2 Thời gian: Từ 13h - 15h ngày 2 tháng 11 năm 2012
1.3 Gợi thầu: G1 - Hanchin Nhà thầu phụ: công ty bê tông G2 tại Long An

II. Thành phần tham dự

2.1 Đại diện Trung tâm Nghiên cứu và Tư vấn về Phát triển (DRCC)

- Ông/bà: Trần Nguyễn Đức Chức vụ: Chuyên gia HIV
Ông/bà: Trần Văn Hòa Chức vụ: Chuyên gia HIV
Ông/bà: Chức vụ:

2.2 Đại diện Tư vấn giám sát

- Ông/bà: Đỗ Xuân Cường Chức vụ: Chuyên gia HIV
Ông/bà: Chức vụ:

2.3 Đại diện Nhà thầu

- Ông/bà: Hoàng Minh Phương Chức vụ: Chuyên gia Môi trường
Ông/bà: Nguyễn Mạnh Hùng Chức vụ: Giám đốc công ty bê tông G2 tại Long An

2.4 Số lượng công nhân tham gia

Số lượng công nhân tham gia: 50 trong đó số lượng nam: 30; nữ: 20

III. Mục đích và nội dung tập huấn

3.1 Mục đích

- Khảo sát về mức độ hiểu biết của công nhân đối với các kiến thức liên quan đến phòng tránh HIV/AIDS và các bệnh lây lan qua đường tình dục (BLLQĐTD);
- Phân phát tài liệu tuyên truyền và bao cao su cho công nhân;
- Giảng dạy cho công nhân những kiến thức liên quan đến phòng tránh HIV/AIDS và các bệnh lây lan qua đường tình dục (BLLQĐTD) nhằm nâng cao nhận thức của họ.

3.2 Nội dung thực hiện

- Tiếp đón học viên, ghi danh sách, phân phát tài liệu và bảng hỏi;
- Đại diện DRCC giới thiệu chương trình;

- Giảng viên: trình bày nội dung tập huấn; giải thích/trả lời những ý kiến thắc mắc của công nhân;

- Phân phát báo cáo su và thu thập lại bảng hỏi.

IV. Kết luận

- Số học viên tham gia buổi tập huấn: 30 học viên

- Số bảng hỏi đã phát và thu thập lại: 10 bảng hỏi

- Số báo cáo su đã phát: 10 báo cáo su

- Một số ý kiến thắc mắc của học viên:

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Buổi tập huấn kết thúc vào lúc 15 giờ ngày 03 tháng 11 năm 2022. Các đại diện tham gia nhất trí với nội dung ghi nhận tại biên bản này.

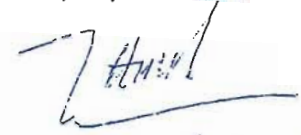
Đại diện DRCC


Đại diện Tư vấn giám sát

Đại diện Nhà thầu


Trần Nguyễn Thúc


Mr. Trần Quang Chung


Nguyễn Mạnh Hùng


Trần Mạnh Phương

Tổng công ty Đầu tư Phát triển
đường cao tốc Việt Nam
CỤ AN ĐƯỜNG CAO TỐC
TP.HCM - LONG THÀNH - DẦU GIẦY

CỘNG HÒA XÃ HỘI CHỦ NGHĨA VIỆT NAM
Độc lập - Tự do - Hạnh phúc

**BIÊN BẢN TẬP HUẤN NÂNG CAO NĂNG LỰC
PHÒNG CHỐNG HIV/AIDS ĐỢT 1 - GIAI ĐOẠN I**
Dự án đường cao tốc TP. Hồ Chí Minh - Long Thành - Dầu Giây

I. Thời gian và địa điểm tập huấn

- 1.1 Thời gian: Từ 15h - 17h ngày 03 tháng 1 năm 2012
1.2 Địa điểm: Phòng họp Công ty Bctn 620 Long An
1.3 Gợi thầu: Sàig - Hanoi Nhà thầu: Công ty Bctn 620 Long An

II. Thành phần tham dự

2.1 Đại diện Trung tâm Nghiên cứu và Tư vấn về Phát triển (DRCC)

- Ông/bà: Trần Nguyễn Đức Chức vụ: Chuyên gia HIV
Ông/bà: Trần Văn Hoa Chức vụ: Chuyên gia HIV
Ông/bà: Chức vụ:

2.2 Đại diện Tư vấn giám sát

- Ông/bà: Di Quốc Cường Chức vụ: Chuyên gia HIV
Ông/bà: Chức vụ:

2.3 Đại diện Nhà thầu

- Ông/bà: Nguyễn Mạnh Hùng Chức vụ: QL TC NVS Công ty Bctn 620 Long An
Ông/bà: Võ Văn Minh Chức vụ: Chuyên gia Môi trường
Ông/bà: Chức vụ:

2.4 Cán bộ công nhân/nhân viên tham gia

Số lượng công nhân tham gia: ... 30 ... , trong đó số lượng nam: ... 30 ... ; nữ: ... 10 ...

III. Mục đích và nội dung tập huấn

3.1 Mục đích

- Khảo sát về mức độ hiểu biết của công nhân các kiến thức liên quan đến phòng tránh HIV/AIDS và các bệnh lây lan qua đường tình dục (BLLQĐTĐ);
- Tập huấn cho công nhân những kiến thức liên quan đến phòng tránh HIV/AIDS và các bệnh lây lan qua đường tình dục (BLLQĐTĐ) nhằm nâng cao nhận thức của họ.
- Phân phát tài liệu tuyên truyền và bao cao su cho công nhân;

3.2 Nội dung thực hiện

- Tiếp đón học viên, ghi danh sách, phân phát tài liệu và bảng hỏi;
- Đại diện DRCC giới thiệu chương trình;

- Giảng viên trình bày nội dung tập huấn; giải thích/trả lời những ý kiến thắc mắc của công nhân;

- Phân phát bao cao su và thu thập lại bảng hỏi.

IV. Kết luận

- Số học viên tham gia buổi tập huấn: 20 học viên

- Số bảng hỏi đã phát và thu thập lại: 10 bảng hỏi

- Số bao cao su đã phát: 100 bao cao su

- Một số ý kiến thắc mắc của học viên:

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Buổi tập huấn kết thúc vào lúc 17 giờ ngày 12 tháng 11 năm 2019. Các đại diện tham gia nhất trí với nội dung ghi nhận tại biên bản này.

Đại diện DRCC

Đại diện Tư vấn giám sát

Đại diện Nhà thầu

Thị
Tiền Nguyễn Thị

Uchuan
Bà Đỗ Quốc Chung

Thanh
Nguyễn Thanh Hùng
Nguyễn Minh Phương

REPORT

HIV/AIDS TRAINING ROUND 2 – PHASE I HO CHI MINH – LONG THÀNH – DAU GIAY EXPRESSWAY PROJECT PACKAGE No. 6

I – TRAINING SUBJECT

Implementation of HIV/AIDS & Human Trafficking Prevention Program (*Attached Curriculum and Minutes*)

II – Time: 09:00 – 11:00 AM, Friday, November 16th, 2012 (one session)

III – Venue: Site Worker Camp of Huy Phuong – Km44+500

IV – Trainer: Dr. Tran Nguyen Duc + Msc. Nguyen Quoc Binh (DRCC – Sub-consultant)

V – Participant:

CDM Smith - Consultant and DRCC Sub-consultant; Hanshin E&C – Main contractor;
 All officers and workers of Huy Phuong – subcontractor.

VI – Pictures:



Gửi: *Thường*

Tổng công ty Đầu tư Phát triển
đường cao tốc Việt Nam
DỰ ÁN ĐƯỜNG CAO TỐC
TP.HCM - LONG THÀNH - DẦU GIÂY

CỘNG HÒA XÃ HỘI CHỦ NGHĨA VIỆT NAM
Độc lập - Tự do - Hạnh phúc

BIÊN BẢN TẬP HUẤN NÂNG CAO NĂNG LỰC PHÒNG CHỐNG HIV/AIDS ĐỢT 1 - GIAI ĐOẠN I

Dự án đường cao tốc TP. Hồ Chí Minh - Long Thành - Dầu Giây

I. Thời gian và địa điểm tập huấn

- 1.1 Địa điểm: *Hội trường nhà Thầu*
1.2 Thời gian: *Ngày 16 tháng 11 năm 2012 (Thứ 8 đầu tuần)*
1.3 Gói thầu: *Số 6 - Henshin Co., Ltd.* Nhà thầu phụ: *Cty cổ phần & hợp tác xã Thường*

II. Thành phần tham dự

2.1 Đại diện Trung tâm Nghiên cứu và Tư vấn về Phát triển (DRCC)

- Ông/bà: *Trần Nguyễn An* Chức vụ: *Chuyên gia HIV*
Ông/bà: *Nguyễn Tuấn Bình* Chức vụ: *Chuyên gia HIV*
Ông/bà: *Trần Văn Khoa* Chức vụ: *Chuyên gia HIV*

2.2 Đại diện Tư vấn giám sát

- Ông/bà: *Đỗ Quang Chung* Chức vụ: *Chuyên gia HIV - CDM Smith*
Ông/bà: Chức vụ:

2.3 Đại diện Nhà thầu

- Ông/bà: *Trần Minh Phương* Chức vụ: *Chuyên gia Môi trường & BAT*
Ông/bà: *Trần Việt Phương* Chức vụ: *Chuyên gia Môi trường & BAT*

2.4 Số lượng công nhân tham gia

Số lượng công nhân tham gia: *35*, trong đó số lượng nam: *35*; nữ: *0*

III. Mục đích và nội dung tập huấn

3.1 Mục đích

- Khảo sát về mức độ hiểu biết của công nhân đối với các kiến thức liên quan đến phòng tránh HIV/AIDS và các bệnh lây lan qua đường tình dục (BLLQDTĐ);
- Phân phát tài liệu tuyên truyền và bao cao su cho công nhân;
- Giảng dạy cho công nhân những kiến thức liên quan đến phòng tránh HIV/AIDS và các bệnh lây lan qua đường tình dục (BLLQDTĐ) nhằm nâng cao nhận thức của họ.

3.2 Nội dung thực hiện

- Tiếp đón học viên, ghi danh sách, phân phát tài liệu và bảng hỏi;
- Đại diện DRCC giới thiệu chương trình;

- Giảng viên trình bày nội dung tập huấn; giải thích/trả lời những ý kiến thắc mắc của công nhân;
- Phân phát bao cao su và thu thập lại bảng hỏi.

IV. Kết luận

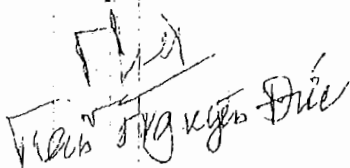
- Số học viên tham gia buổi tập huấn: 35 học viên
- Số bảng hỏi đã phát và thu thập lại: bảng hỏi
- Số bao cao su đã phát: 482 bao cao su
- Một số ý kiến thắc mắc của học viên:

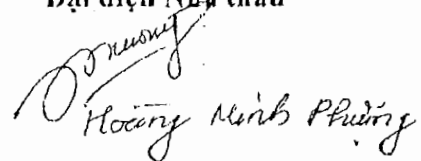
Buổi tập huấn kết thúc vào lúc 8 giờ ngày 16 tháng 11 năm 2012. Các đại diện tham gia nhất trí với nội dung ghi nhận tại biên bản này.

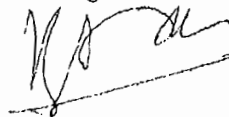
Đại diện DRCC

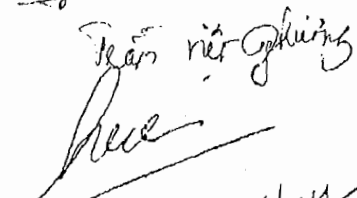
Đại diện Tư vấn giám sát

Đại diện Nhà thầu


Trần Nguyễn Đức


Hoàng Minh Phường


Trần Việt Cường


Đỗ Quang Huy

REPORT

HIV/AIDS TRAINING ROUND 2 – PHASE 1

HO CHI MINH – LONG THÀNH – DAU GIAY EXPRESSWAY PROJECT

PACKAGE No. 6

I – TRAINING SUBJECT

Implementation of HIV/AIDS & Human Trafficking Prevention Program (*Attached Curriculum and Minutes*)

II – Time: 01:30 – 03:30 PM, Friday, November 16th, 2012 (one session)

III – Venue: Site Worker Camp of Thien Phu – Km46+500

IV – Trainer: Dr. Tran Nguyen Duc + Msc. Nguyen Quoc Binh (DRCC – Sub-consultant)

V – Participant:

CDM Smith - Consultant and DRCC Sub-consultant; Hanshin E&C – Main contractor;
All officers and workers of Thien Phu and SHP – subcontractors.

VI – Pictures:



Tổng công ty Đầu tư Phát triển
đường cao tốc Việt Nam
DỰ ÁN ĐƯỜNG CAO TỐC
TP.HCM - LONG THÀNH - DẦU GIẦY

CỘNG HÒA XÃ HỘI CHỦ NGHĨA VIỆT NAM
Độc lập - Tự do - Hạnh phúc

**BIÊN BẢN TẬP HUẤN NÂNG CAO NĂNG LỰC
PHÒNG CHỐNG HIV/AIDS ĐỢT 1 - GIAI ĐOẠN I**
Dự án đường cao tốc TP. Hồ Chí Minh - Long Thành - Dầu Giây

I. Thời gian và địa điểm tập huấn

- 1.1 Thời gian: ... Từ 13^h30 - 15^h30 ngày 16 tháng 11 năm 2012 ...
1.2 Địa điểm: ... Tại lán trại nhà thầu Thiên Phước + SHP (Ấp 1 - Sông Nhạn) ...
1.3 Gợi thầu: ... Số 6 - Hanshin ... Nhà thầu phụ: Thiên Phước + SHP ...

II. Thành phần tham dự

2.1 Đại diện Trung tâm Nghiên cứu và Tư vấn về Phát triển (DRCC)

- | | |
|-------------------------|----------------------------------|
| Ông/bà: Trần Nguyễn Đức | Chức vụ: Bác sĩ - Chuyên gia HIV |
| Ông/bà: Nguyễn Lữ Bình | Chức vụ: Chuyên gia HIV |
| Ông/bà: Trần Văn Hòa | Chức vụ: CB hỗ trợ |

2.2 Đại diện Tư vấn giám sát

- | | |
|------------------------|-------------------------------------|
| Ông/bà: Đỗ Quang Trung | Chức vụ: Chuyên gia HIV - CDM Smith |
| Ông/bà: | Chức vụ: |

2.3 Đại diện Nhà thầu

- | | |
|--------------------------|--------------------------------|
| Ông/bà: Hoàng Minh Phòng | Chức vụ: Chuyên gia môi trường |
| Ông/bà: Đỗ Quang Hùng | Chức vụ: Cán bộ Anteo |
| Ông/bà: Phan Công Nghiệp | Chức vụ: Phó trưởng dự án |

2.4 Cán bộ công nhân/nhân viên tham gia

Số lượng công nhân tham gia: ... 38 ... , trong đó số lượng nam: ... 38 ... ; nữ: ... 0 ...

III. Mục đích và nội dung tập huấn

3.1 Mục đích

- Khảo sát về mức độ hiểu biết của công nhân các kiến thức liên quan đến phòng tránh HIV/AIDS và các bệnh lây lan qua đường tình dục (BLLQĐTĐ);
- Tập huấn cho công nhân những kiến thức liên quan đến phòng tránh HIV/AIDS và các bệnh lây lan qua đường tình dục (BLLQĐTĐ) nhằm nâng cao nhận thức của họ.
- Phân phát tài liệu tuyên truyền và bao cao su cho công nhân;

3.2 Nội dung thực hiện

- Tiếp đón học viên, ghi danh sách, phân phát tài liệu và bảng hỏi;
- Đại diện DRCC giới thiệu chương trình;

- Giảng viên trình bày nội dung tập huấn; giải thích/trả lời những ý kiến thắc mắc của công nhân;
- Phân phát báo cáo su và thu thập lại bảng hỏi.

IV. Kết luận

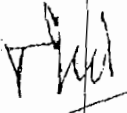
- Số học viên tham gia buổi tập huấn: 38 học viên
- Số bảng hỏi đã phát và thu thập lại: bảng hỏi
- Số báo cáo su đã phát: 432 báo cáo su
- Một số ý kiến thắc mắc của học viên:


Buổi tập huấn kết thúc vào lúc 15... giờ 30... ngày 16... tháng 11... năm 2012... Các đại diện tham gia nhất trí với nội dung ghi nhận tại biên bản này.

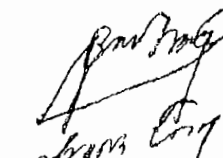

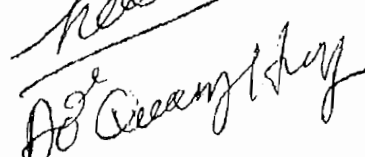
Đại diện DRCC

Đại diện Tư vấn giám sát

Đại diện Nhà thầu


Trần Nguyễn Đức


Hoàng Minh Phụng


Phạm Công Nghiệp

Hoàng

Đỗ Quang Huy

REPORT

HIV/AIDS TRAINING ROUND 2 – PHASE 1 HO CHI MINH – LONG THÀNH – DAU GIAY EXPRESSWAY PROJECT PACKAGE No. 6

I – TRAINING SUBJECT

Implementation of HIV/AIDS & Human Trafficking Prevention Program (*Attached Curriculum and Minutes*)

II – Time: 10:00 – 12:00 AM, Monday, November 19th, 2012 (one session)

III – Venue: Site worker camp of Hoang Tuan Khang – Km54+350

IV – Trainer: Dr. Tran Nguyen Duc + Msc. Nguyen Quoc Binh (DRCC – Sub-consultant)

V – Participator:

CDM Smith - Consultant and DRCC Sub-consultant; Hanshin - Main contractor; All officers and workers of Hoang Tuan Khang and Minh Y – subcontractor.

VI – Pictures:



Tổng công ty Đầu tư Phát triển
đường cao tốc Việt Nam
DỰ ÁN ĐƯỜNG CAO TỐC
TP.HCM - LONG THÀNH - DẦU GIÂY

CỘNG HÒA XÃ HỘI CHỦ NGHĨA VIỆT NAM
Độc lập - Tự do - Hạnh phúc

**BIÊN BẢN TẬP HUẤN NÂNG CAO NĂNG LỰC
PHÒNG CHỐNG HIV/AIDS ĐỢT 1 - GIAI ĐOẠN I**
Dự án đường cao tốc TP. Hồ Chí Minh - Long Thành - Dầu Giây

I. Thời gian và địa điểm tập huấn

- 1.1 Thời gian:10 giờ.....Ngày 19...tháng 11 năm 2012
1.2 Địa điểm: ...Lan tại công trình gói thầu 6.....
1.3 Gói thầu: ..6.....Nhà thầu chính: Huân.....Nhà thầu phụ: Huân Tuấn Khang Minh Y.

II. Thành phần tham dự

2.1 Đại diện Trung tâm Nghiên cứu và Tư vấn về Phát triển (DRCC)

- Ông/bà: ...Tấn Nguyễn Đức..... Chức vụ: ...Quản lý viên HIV/AIDS..
Ông/bà: ...Nguyễn Quốc Bình..... Chức vụ: ...Quản lý viên HIV/AIDS..
Ông/bà: ...Nguyễn Công Hợp..... Chức vụ: ...CB hỗ trợ..
trưởng văn phòng

2.2 Đại diện Tư vấn giám sát

- Ông/bà: ...Đỗ Quốc Chung..... Chức vụ: ...Quản sát chuyên gia Tài sản..
Ông/bà: ...Chuyên gia PC HIV/AIDS..... Chức vụ:

2.3 Đại diện Nhà thầu

- Ông/bà: ...Huân Minh Phụng..... Chức vụ: ...CB an toàn..
Ông/bà: ...Mai Văn Liên..... Chức vụ: ...CB quản lý an toàn..
Ông/bà: ...Đinh Văn Linh..... Chức vụ: ...Quản lý..
trưởng văn phòng

2.4 Cán bộ công nhân/nhân viên tham gia

Số lượng công nhân tham gia: ...36..., trong đó số lượng nam: ...26...; nữ: ...10...

III. Mục đích và nội dung tập huấn

3.1 Mục đích

- Khảo sát về mức độ hiểu biết của công nhân các kiến thức liên quan đến phòng tránh HIV/AIDS và các bệnh lây lan qua đường tình dục (BLLQĐTD);
- Tập huấn cho công nhân những kiến thức liên quan đến phòng tránh HIV/AIDS và các bệnh lây lan qua đường tình dục (BLLQĐTD) nhằm nâng cao nhận thức của họ.
- Phân phát tài liệu tuyên truyền và bao cao su cho công nhân;

3.2 Nội dung thực hiện

- Tiếp đón học viên, ghi danh sách, phân phát tài liệu, phiếu xét nghiệm và bảng hỏi;
- Đại diện DRCC giới thiệu chương trình;

- Giảng viên trình bày nội dung tập huấn; giải thích/trả lời những ý kiến thắc mắc của công nhân;

- Phân phát bao cao su và thu thập lại bảng hỏi.

IV. Kết luận

- Số học viên tham gia buổi tập huấn: 36 học viên

- Số bảng hỏi đã phát và thu thập lại: 0 bảng hỏi

- Số bao cao su đã phát và để lại công trường: 420 bao cao su

- Số phiếu xét nghiệm đã phát: 36 phiếu

- Một số ý kiến thắc mắc của học viên:

.....

.....

.....


.....

.....


.....

Buổi tập huấn kết thúc vào lúc .. 14 giờ .. 30' ... ngày .. 19 ... tháng .. 11 .. năm .. 2022 .. Các đại diện tham gia nhất trí với nội dung ghi nhận tại biên bản này.


Đại diện DRCC


Trần Nguyễn Diệp

Đại diện Tư vấn giám sát


Dr. Đỗ Quốc Chung

Đại diện Nhà thầu


Hoàng Minh Phương


Đinh Văn Liệt


Đinh Văn Liệt

REPORT

HIV/AIDS TRAINING ROUND 2 – PHASE 1 HO CHI MINH – LONG THÀNH – DAU GIAY EXPRESSWAY PROJECT PACKAGE No. 6

I – TRAINING SUBJECT

Implementation of HIV/AIDS & Human Trafficking Prevention Program (*Attached Curriculum and Minutes*)

II – Time: 02:00 – 05:00 PM, Monday, October 19th, 2012 (one session)

III – Venue: Hanshin E&C's office

IV – Trainer: Dr. Tran Nguyen Duc + Msc. Nguyen Quoc Binh (DRCC – Sub-consultant)

V – Participator:

CDM Smith - Consultant and DRCC Sub-consultant; Hanshin E&C – Main contractor
(All staffs).

VI – Pictures:



**BIÊN BẢN TẬP HUẤN NÂNG CAO NĂNG LỰC
PHÒNG CHỐNG HIV/AIDS ĐỢT 1 - GIAI ĐOẠN I**
Dự án đường cao tốc TP. Hồ Chí Minh - Long Thành - Dầu Giây

I. Thời gian và địa điểm tập huấn

- 1.1 Thời gian:14^h..... Ngày 19...tháng 11 năm 2012
1.2 Địa điểm: ...Văn phòng...Hanshun.....
1.3 Gối thầu: ...6..... Nhà thầu chính: Hanshun... Nhà thầu phụ:.....

II. Thành phần tham dự

2.1 Đại diện Trung tâm Nghiên cứu và Tư vấn về Phát triển (DRCC)

- Ông/bà: ...Trần... Nguyễn Đức..... Chức vụ: ...chuyên gia HIV/AIDS.....
Ông/bà: ...Nguyễn... Quốc... bình..... Chức vụ: ...chuyên gia HIV/AIDS.....
Ông/bà: ...Ng... Ông... Hiệp... Trần... Văn... Hòa..... Chức vụ: ...CB... hỗ trợ.....

2.2 Đại diện Tư vấn giám sát

- Ông/bà: ...Đỗ... Quốc... Chung..... Chức vụ: ...Giám sát... Chuyên gia... GS.VP
Ông/bà: Chức vụ: ...COM Smith

2.3 Đại diện Nhà thầu

- Ông/bà: ...Đỗ... Quang... Huy..... Chức vụ: ...CB... quản lý an toàn.....
Ông/bà: ...Hoàng... Minh... Hoàng..... Chức vụ: ...chuyên viên Môi trường.....
Ông/bà: Chức vụ:

2.4 Cán bộ công nhân/nhân viên tham gia

Số lượng công nhân tham gia: ...24^{học viên}..., trong đó số lượng nam: ...18..., nữ: ...6.....

III. Mục đích và nội dung tập huấn

3.1 Mục đích

- Khảo sát về mức độ hiểu biết của công nhân các kiến thức liên quan đến phòng tránh HIV/AIDS và các bệnh lây lan qua đường tình dục (BLLQĐTD);
- Tập huấn cho công nhân những kiến thức liên quan đến phòng tránh HIV/AIDS và các bệnh lây lan qua đường tình dục (BLLQĐTD) nhằm nâng cao nhận thức của họ.
- Phân phát tài liệu tuyên truyền và bao cao su cho công nhân; học viên

3.2 Nội dung thực hiện

- Tiếp đón học viên, ghi danh sách, phân phát tài liệu, phiếu xét nghiệm và bảng hỏi;
- Đại diện DRCC giới thiệu chương trình;

- Giảng viên trình bày nội dung tập huấn; giải thích/trả lời những ý kiến thắc mắc của công nhân;
- Phân phát bao cao su và thu thập lại bảng hỏi.

IV. Kết luận

- Số học viên tham gia buổi tập huấn: 24 học viên
- Số bảng hỏi đã phát và thu thập lại: 0 bảng hỏi
- Số bao cao su đã phát và để lại công trường: 420 bao cao su
- Số phiếu xét nghiệm đã phát: 24 phiếu

- Một số ý kiến thắc mắc của học viên:

..... Các học viên đều đã được trang bị kiến thức về STIs, và mong muốn được cung cấp thêm những thông tin về hiệu quả của việc dùng bao cao su để phòng tránh phù hợp.....

Buổi tập huấn kết thúc vào lúc 16 giờ 30 ngày 19 tháng 11 năm 2012. Các đại diện tham gia nhất trí với nội dung ghi nhận tại biên bản này.


Đại diện DRCC


Trần Nguyễn Đại

Đại diện Tư vấn giám sát


Dr. Trần Chung

Đại diện Nhà thầu


Hồng Minh Phương

Hoàng Huy


DANH SÁCH CÁN BỘ, CÔNG NHÂN/NHÂN VIÊN THAM DỰ



LỚP TẬP HUẤN NÂNG CAO KIẾN THỨC PHÒNG CHỐNG HIV/AIDS

GÓI THẦU:6.....NHÀ THẦU:.....Hanshin

14h Ngày 19 tháng 11 năm 2012

TT	Họ tên	Địa chỉ	Đã nhận			Ký nhận
			Tài liệu	BCS	Phiếu XN	
1	Tiến Văn Chính	Hanshin	x	x	x	
2	Ngô Việt Thắng	" (hỏi ý kiến)"	x	x	x	
3	Vũ Thị Mườn	"	x	x	x	
4	Lê Quang Vinh	" (thức hành sự chung CCS)"	x	x	x	
5	Ngô Đình Phước	"	x	x	x	
6	Ngô Thị Hoài Thương	"	x	x	x	
7	NGO THỊ THANH THỦY	"	x	x	x	
8	Lê Thị Anh Tuyết	"	x	x	x	
9	Mai Quang Tuấn	"	x	x	x	
10	Mai Đăng Hiền	"	x	x	x	
11	Trần Văn Nguyên	"	x	x	x	
12	Hoàng Công Hùng	"	x	x	x	
13	Đỗ Quang Huy	"	x	x	x	
14	Bùi Xuân Tuy	"	x	x	x	
15	Hồ Công Minh	"	x	x	x	
16	Ngô Văn An	"	x	x	x	
17	Hoàng Minh Phước	"	x	x	x	
18	Nguyễn Kim Oanh	"	x	x	x	
19	Hoàng Thị Hoàng	"	x	x	x	
20	Nguyễn Xuân Lâm	"	x	x	x	
21	Trần Quốc Phong	"	x	x	x	
22	Ngô Văn Khương	"	x	x	x	
23	Trương Văn Hùng	"	x	x	x	

TT	Họ tên	Địa chỉ	Đã nhận			Ký nhận
			Tài liệu	BCS	Phiếu XN	
24	Nguyễn Văn Thúc		x	x	x	
25						
26						
27						
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	HO CHI MINH – LONG THANH – DAU DAY EXPRESSWAY PACKAGE 6	 HANSHIN Engineering & Construction
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APPENDIX 4:

SITE SAFETY – ENVIRONMENT TRAINING

	<p>HO CHI MINH – LONG THANH – DAU DAY EXPRESSWAY PACKAGE 6</p> <p>SEMI-ANNUAL ENVIRONMENTAL MANAGEMENT REPORT</p>	 <p>Date : 31 December 2012 Page : 75 of 78</p>
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SAFETY - ENVIRONMENT TRAINING PLAN

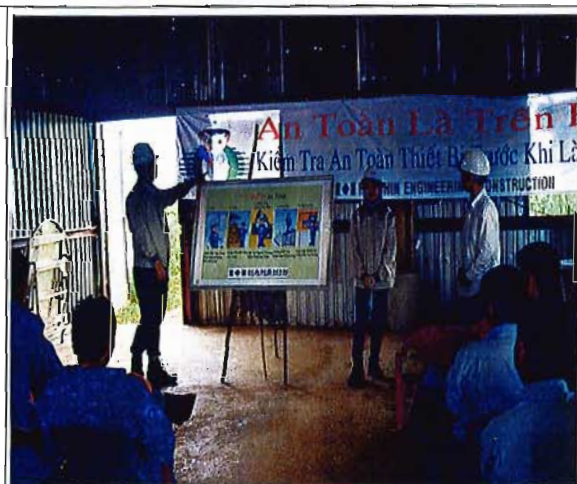
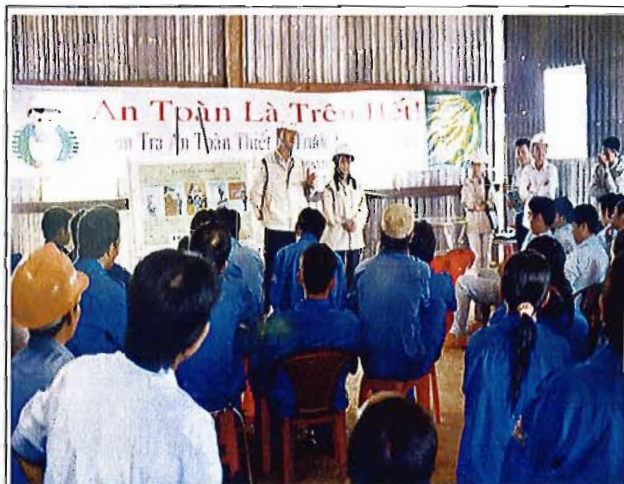
I - TRAINING SUBJECT/ CONTENT

1. Purpose of HSE (Health - Safety – Environment) on construction site
2. Right & Obligation of Employer/ Employee on how to complied the Safety/
3. Benefit of PPE
4. Detail content of HSE work
5. Working condition, hazard , prevention method
6. Emergency/ first add procedure
7. PPE using
8. Improving working condition
9. Remind 620 Long An and their workers for safety protection
10. To do exercise before working

II – Time: start at 12:00 PM, Monday, October 08th , 2012

III – Location: 620Long An's Batching Plant

IV – Pictures:



TOOLBOX MEETING

(Cuộc họp thảo luận an toàn)

DATE/ Ngày: 08/10/2012

LOCATION: *Trạm BT 620*

No. Employees present:
Số người tham dự

134

CONDUCTED BY/
Chủ Trì cuộc họp

Hanshin E&C

No. Employees absent/
Số người vắng mặt

30

Purpose of tool box meeting/
Mục đích cuộc họp

Topic discussed/ chủ đề

Cảnh báo nguy cơ mất AT LA.

Details of topic / Chi tiết:

- Báo về sức khỏe lao động.
- Tác dụng trạng thiết bị bảo hộ tay LA.
- Nguy cơ tiềm ẩn tại nạn LA.
- Cách sử dụng & bảo quản phương tiện AT LA.
- Một số nội dung khác.

Comment by supervisor and foreman / Nhận xét của Giám Sát/ Đội trưởng thi công

Không khi vui vẻ, hồ iết.

7

LONG AN 620

HSE OFFICER
Nhân Viên AT

[Signature]
Ngô Văn Hùng

FOREMAN
Quản Đốc

TRANSLATOR

[Signature]
Hoàng Thị Hương

SITE MANAGER
GB Công Trường

ENVIR.
SPECIALIST

[Signature]
Hoàng Minh Phương

PROJECT
DIRECTOR
GB Dự Án

CONST.
MANAGER

[Signature]
Đào Văn Sơn
[Signature]
Kim Chang Ho

HANSHIN E&C



LIST OF STAFF/WORKER NAME FOR DIRECT SAFETY TRAINING
(DANH SÁCH NHÂN VIÊN/CÔNG NHÂN THAM GIA HUẤN LUYỆN AN TOÀN)

DATE/ Ngày: 08th October 2012
LOCATION: Địa điểm: 620 Long An's Batching plant
No. Employees present/ Số người tham dự: 134

CONDUCTED BY/ Chủ Trì cuộc họp
No. Employees absent/ Số người vắng mặt

Hanshin E & C
Main contractor
30

No. (Stt)	FULL NAME (Họ & Tên)	ADDRESS (Địa Chỉ)	SIGNATURE (Chữ ký)
1	Trương Văn Dươn	Cty Batching 620 Long An	[Signature]
2	Nguyễn Hồng Phấn	//	[Signature]
3	Trần Trung Kiên	//	[Signature]
4	Nguyễn Đình Đạt	//	[Signature]
5	Nguyễn Hoàng Anh	//	[Signature]
6	Cao Thanh Minh	//	[Signature]
7	Lê Quang Cảnh Ngô	//	[Signature]
8	Phan Thanh Vũ	//	[Signature]
9	Nguyễn Thanh Khương	//	[Signature]
10	Nguyễn Đình Thảo	//	[Signature]
11	Nguyễn Trí Nguyên	//	[Signature]
12	Lê Văn Long	//	[Signature]
13	Trần Thanh Lộc	//	[Signature]
14	Nguyễn Văn Hải	//	[Signature]
15	Phan Văn Phấn	//	[Signature]
16	Cao Thụy Hải	//	[Signature]
17	Trần Quốc Đình	//	[Signature]
18	Phan Hồng Vũ	//	[Signature]
19	Trần Đức Cường	//	[Signature]
20	Nguyễn Thế Long	//	[Signature]
21	Nguyễn Quốc Thắng	//	[Signature]
22	Nguyễn Quốc Hoàn	//	[Signature]
23	Nguyễn Thanh Nhân	//	[Signature]

24	Thái Hoàng Hân	Cty CB.Tây B20/loại	Thái
25	Nguyễn Tân Hoàng	//	Thy
26	Nguyễn Sơn Tùng	//	Yan
27	Phùng Hà	//	hson
28	Nguyễn Tân Đạt	//	Det
29	Nguyễn Minh Cường	//	Emx
30	Lê Minh Dũng	//	Emx
31	Nguyễn Văn An	//	Ad
32	Nguyễn Mạnh Hùng	//	Phu
33	Lê Thành Trung Nhân	//	Phu
34	Lê Phước Lôi	//	Phu
35	Lê Duy Phước	//	Phu
36	Trần Đại Phong	//	Phu
37	Đỗ Trung Hùng	//	Phu
38	Lê Nguyễn	//	Phu
39	Lê Văn Trường	//	Phu
40	Nguyễn Văn Thành	//	Phu
41	Trần Văn Phụng	//	Phu
42	Cao Ngọc Huy	//	Phu
43	Đặng Kiệt Cường	//	Phu
44	Phạm Anh Khoa	//	Phu
45	Đào Văn Thôn	//	Phu
46	Hà Văn Bình	//	Phu
47	Nguyễn Lê Minh Hải	//	Phu
48	Lê Phước Hoàng	//	Phu
49	Trần Hải Cường	//	Phu
50	Luân Văn Văn	//	Phu
51	Võ Hoàng Long	//	Phu

Phu



52	Lê Thành An	cty CL Bê tông 6/10/12	
53	Nguyễn Minh Sơn	//	
54	Nguyễn Văn Hùng	//	
55	Trần Văn Hoàng	//	
56	Nguyễn Văn Chấn	//	
57	Nguyễn Văn Vũ	//	
58	Nguyễn Văn Thôn	//	
59	Nguyễn Thanh Việt	//	
60	Trần Nhật Dũng	//	
61	Đào Xuân Trường	//	
62	Phạm Tú Thu	//	
63	Nguyễn Tiến Hưng	//	
64	Kim Chanh Chua	//	
65	Nguyễn Duy Hưng	//	
66	Trần Bá Phước	//	
67	Nguyễn Văn Tích	//	
68	Nguyễn Văn Đức	//	
69	Đặng Tiến Dũng	//	
70	Lâm Hồng Quý	//	
71	Nguyễn Bá Hải	//	
72	Nguyễn Minh Thuận	//	
73	Trần Văn Hải	//	
74	Phạm Tiến Nhân	//	
75	Nguyễn Ngọc Vũ	//	
76	Đinh Sỹ Hùng	//	
77	Trần Ngọc Hải	//	
78	Nguyễn Thôn Tùng	//	
79	Trần Thanh Trâm	//	

80	Nguyễn Quang Dũng	cty CP bột 620kg/m	Đặng 2
81	Đỗ Văn Hết	//	Hết
82	Lê Trường Vinh	//	Ung
83	Trần Thanh Linh	//	Linh
84	Đỗ Văn Hết	//	Tấn
85	Lê Thanh Trung	//	Trung
86	Đặng Văn Tấn	//	Tấn
87	Trần Đức Nhà	//	Đức
88	Lê Văn Nhật	//	Minh
89	Đỗ Văn Hoài	//	Đỗ
90	Nguyễn Thanh Long	//	Long
91	Lê Văn Thuận	//	Thuận
92	Nguyễn Văn Đông	//	Đông
93	Nguyễn Văn Thành	//	Thành
94	Nguyễn Duy Khôi	//	Khôi
95	Lê Sỹ	//	Sỹ
96	Lê Hoàng Chung	//	Chung
97	Trần Nhân Hùng	//	Hùng
98	Trần Minh Dũng	//	Minh
99	Nguyễn Thị Đan	//	Đan
100	Lê Thị Kim Quyên	//	Kim
101	Trần Thị Ngọc Kỳ	//	Ngọc
102	Hùng Thị Loan	//	Loan
103	Hồ Thanh Nga	//	Nga
104	Nguyễn Đình Thuận	//	Đình
105	Đỗ Thị Nhung	//	Nhung
106	Nguyễn Thị Diệu	//	Diệu
107	Đỗ Thị Ngọc	//	Ngọc

Đặng

108	Trần Thị Thuý	Cty Cổ phần 620 lập	Thư
109	Trần Minh Châu	//	Cham
110	Quách Văn Công	//	Công
111	Quách Văn Phong	//	Phong
112	Nguyễn Thị Thuý	//	Thuý
113	Lê Văn Kim	//	Kim
114	Lê Đức	//	Đức
115	Ngô Quang Phany	//	Phany
116	Đỗ Văn Hải	//	Hải
117	Phan Văn Danh	//	Danh
118	Đỗ Thị Hoàn	//	Hoàn
119	Đỗ Văn Dân	//	Dân
120	Nguyễn Thanh Nam	//	Nam
121	Phan Văn Phú	//	Phú
122	Võ Văn Thuật	//	Thuật
123	Nguyễn Đức Tùng	//	Tùng
124	Nguyễn Văn Lân	//	Lân
125	Lê Thanh Thủy	//	Thủy
126	Nguyễn Văn Tôt	//	Tôt
127	Trần Thanh Liêm	//	Liêm
128	Ngô Văn Lực	//	Lực
129	Trần Văn Tuyến	//	Tuyến
130	Bùi Văn Xuân	//	Xuân
131	Nguyễn Đức Đức	//	Đức
132	Nguyễn Văn Hải	//	Hải
133	Phan Văn Xuân	//	Xuân
134	Nguyễn Chí Văn	//	Chí Văn

Donny

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SAFETY - ENVIRONMENT TRAINING PLAN

I - TRAINING SUBJECT/ CONTENT

1. Purpose of HSE (Health - Safety – Environment) on construction site
2. Right & Obligation of Employer/ Employee on how to complied the Safety/
3. Benefit of PPE
4. Detail content of HSE work
5. Working condition, hazard , prevention method
6. Emergency/ first add procedure
7. PPE using
8. Improving working condition
9. Remind Gia Phuoc and their workers for safety protection
10. To do exercise before working

II – Time: start at 12:00 PM, Wednesday, October 10th , 2012

III – Location: Gia Phuoc's Ditch Casting Yard

IV – Pictures:



TOOLBOX MEETING

(Cuộc họp thảo luận an toàn)

DATE/ Ngày: 10-10-2012

LOCATION:

Địa điểm:

Công ty TNHH Công ty TNHH

CONDUCTED BY/

Chủ Trì cuộc họp

Handshin E&C

No. Employees present/

Số người tham dự:

54

No. Employees absent/

Số người vắng mặt

05

Purpose of tool box meeting/


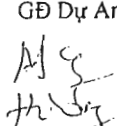

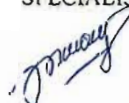

Mục đích cuộc họp:

Topic discussed/ Chủ đề:

Details of topic / Chi tiết:

Chi tiết: \mathcal{P} là tiên đề an toàn và sinh học.
 Đây là chứng minh rằng \mathcal{P} là tiên đề an toàn.
 Các CN trên đây khác với một số CN
 đã cần thiết để đạt được an toàn học tập.
 Ở đây việc bị bắt buộc là đây, các CN.

Comment by supervisor and foreman / Nhận xét của Giám Sát/ Đội trưởng thi công

GIA PHUOC	HSE OFFICER Nhân Viên AT 	FOREMAN Quản Đốc	SITE MANAGER GB Công Trường	PROJECT DIRECTOR GB Dự Án 
HANSHIN E&C		TRANSLATOR  Hoàng Thị Huyền	ENVIR. SPECIALIST  Hoàng Minh Phương	CONST. MANAGER  Kim Chang Ho



LIST OF STAFF/WORKER NAME FOR DIRECT SAFETY TRAINING
(DANH SÁCH NHÂN VIÊN/CÔNG NHÂN THAM GIA HUẤN LUYỆN AN TOÀN)

DATE/ Ngày: 10th October 2012
LOCATION: Gia Phuc's Casting Yard
Địa điểm:

CONDUCTED BY/ Chủ Trì cuộc họp: Hanshin E&C

No. Employees present/ Số người tham dự: 51



No. Employees absent/ Số người vắng mặt: 05

No. (Stt)	FULL NAME (Họ & Tên)	ADDRESS (Địa Chỉ)	SIGNATURE (Chữ ký)
1	Lương Văn Thiêng	Công Ty Gia Phuc	[Signature]
2	Nguyễn Cảnh Thọ	"	[Signature]
3	Hoàng Minh Hoàn	"	[Signature]
4	Nguyễn Văn Nam	"	[Signature]
5	Nguyễn Tân An	"	[Signature]
6	Lương Văn Tân	"	[Signature]
7	Lâm Vũ	"	[Signature]
8	Đỗ Văn Phuc	"	[Signature]
9	Lê Đình Hoàng	"	[Signature]
10	Nguyễn Văn Nam	"	[Signature]
11	Phạm Thị Đức	"	[Signature]
12	Đỗ Văn Minh	"	[Signature]
13	Nguyễn Văn Bình	"	[Signature]
14	Nguyễn Văn Nô	"	[Signature]
15	Nguyễn Văn Đức	"	[Signature]
16	Trần Văn Phol	"	[Signature]
17	Lâm Văn Tiến	"	[Signature]
18	Nguyễn Văn Phước Hải	"	[Signature]
19	Nguyễn Quang Phú	"	[Signature]
20	Lê Hữu Hoàng	"	[Signature]
21	Mai Văn Nam	"	[Signature]
22	Hoàng Văn An	"	[Signature]
23	Nguyễn Văn Cường	"	[Signature]

LIST OF STAFF/WORKER NAME FOR DIRECT SAFETY TRAINING
(DANH SÁCH NHÂN VIÊN/CÔNG NHÂN THAM GIA HUẤN LUYỆN AN TOÀN)

24	Sto Chinh Lam	11
25	Phong Van Xa	11
26	Dang Thanh Kiem	11
27	Bach Van Hing	11
28	Phan Tan Linh	11
29	Le Anh Ngoc	11
30	Ng Hong Van	11
31	Nguyen Quoc Trung	11
32	Vo Quoc Hung	11
33	Nguyen Thi Be	11
34	Phan Van Thanh	11
35	Nguyen Van Dung	11
36	Nguyen Van Hieu	11
37	Le Van Hoan	11
38	Nguyen Van Quoc	11
39	Le Van Phuc	11
40	Joham Thi Lan	11
41	Ly Chanh	11
42	Ly Thi Kien	11
43	Dang Hung	11
44	De Hong Do	11
45	De Hong Do	11
46	Dang Minh	11
47	Ly Thi Hien	11
48	Dang Vinh	11
49	Hoang Tong Mat	11
50	Nguyen Xuan Thi	11
51	Le Van Hien	11

(Handwritten signatures corresponding to the list above)

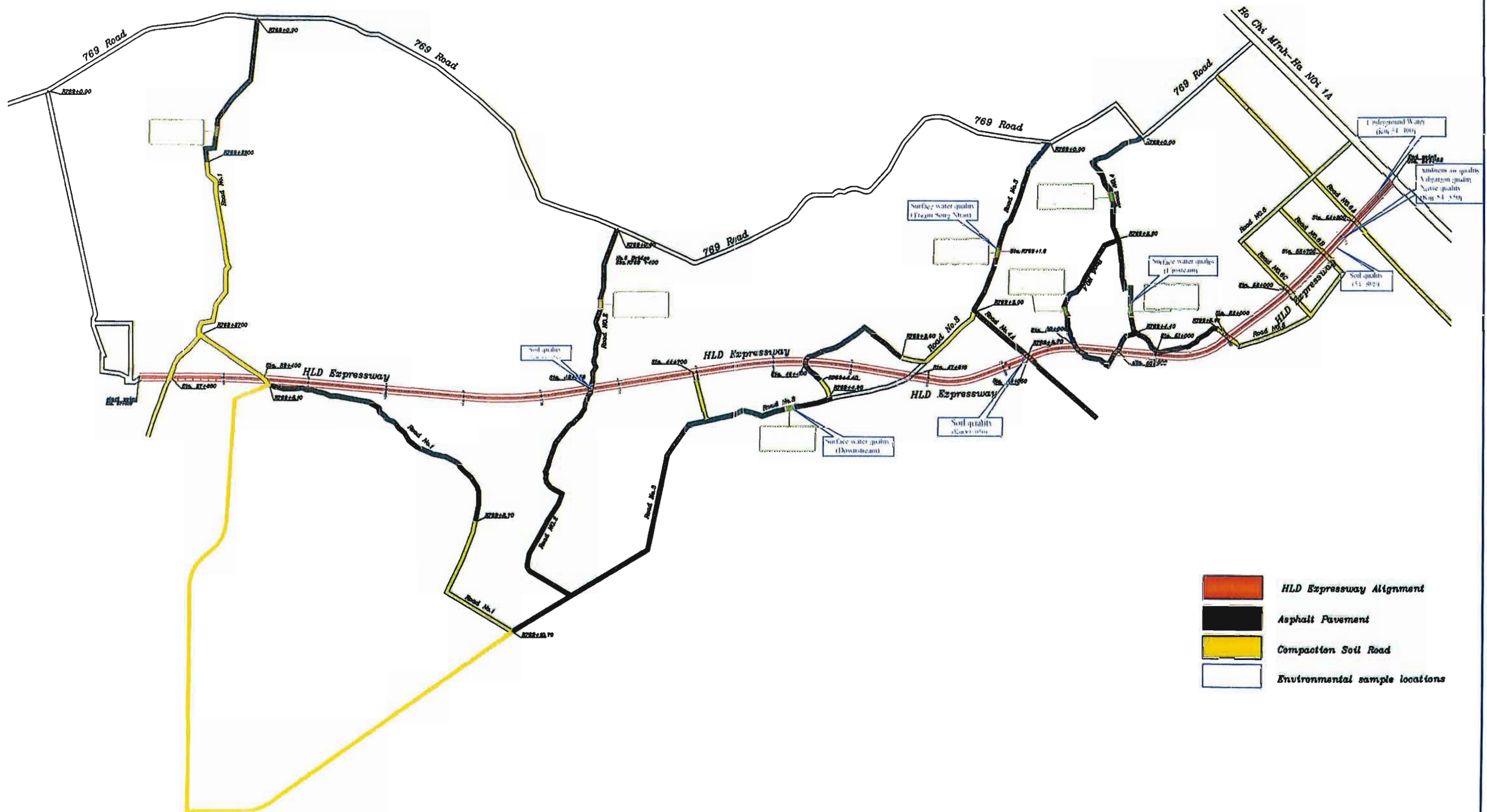
	HO CHI MINH – LONG THANH – DAU DAY EXPRESSWAY PACKAGE 6	 HANSHIN Engineering & Construction
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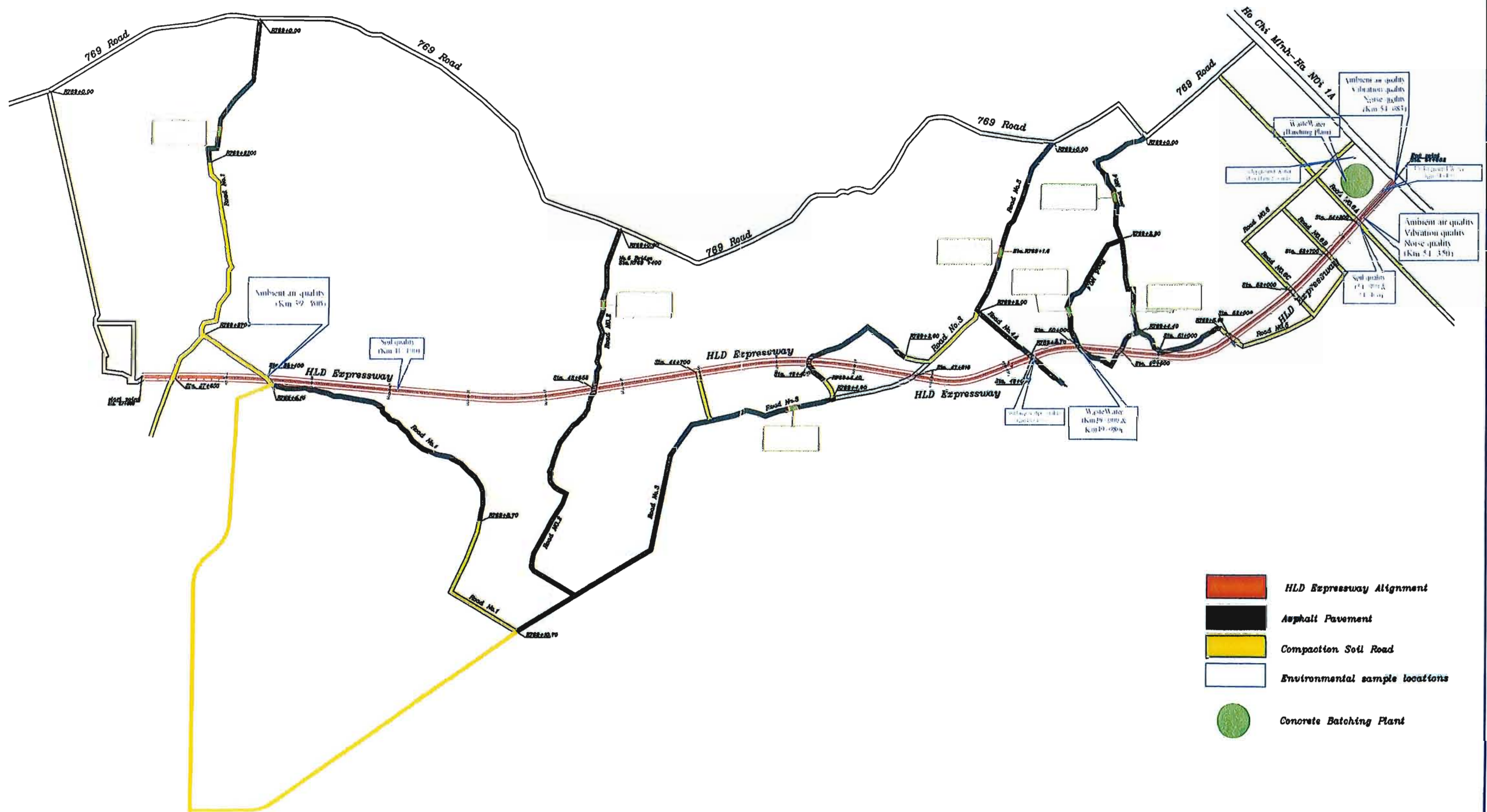
APPENDIX 5:

SAMPLING LOCATIONS MAP

ENVIRONMENTAL MONITORING SAMPLE LOCATION (PRE - CONSTRUCTION)



ENVIRONMENTAL MONITORING SAMPLE LOCATION (CONSTRUCTION - PHASE)



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APPENDIX 6:

PHOTO OF ENVIRONMENTAL MONITORING AND MANAGEMENT

1. Quarterly Environmental Monitoring on construction site of Package No.6



Figure 1: Air sampling at traffic junction of the highway at Song Nhan residential area-Km39+400



Figure 2: Air sampling at traffic junction of the highway at intersection with NH1 (Km54+983)



Figure 3: Measuring noise and vibration at intersection with NH1-Km54+983

1. Quarterly Environmental Monitoring on construction site of Package No.6



Figure 4: Measuring noise and vibration at traffic junction of the highway-Dau Giay (Km54+350)



Figure 5: Air sampling at traffic junction of the highway at Dau Giay (Km54+350)



1. Quarterly Environmental Monitoring on construction site of Package No.6



Figure 6: Surface water sample location (Song Nhan River - Upstream)



1. Quarterly Environmental Monitoring on construction site of Package No.6



Figure 7: Surface water sample location (Song Nhan River – Downstream)

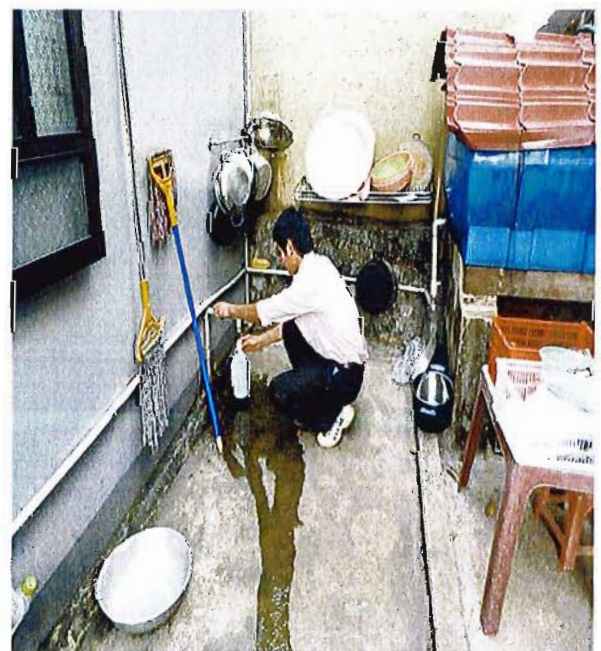


Figure 8: Underground water sample in Xuan Thanh residential area-Km 54+400

1. Quarterly Environmental Monitoring on construction site of Package No.6



Figure 9: Underground water sample location in Tran Cao Van Hamlet – Bau Ham 2 ward

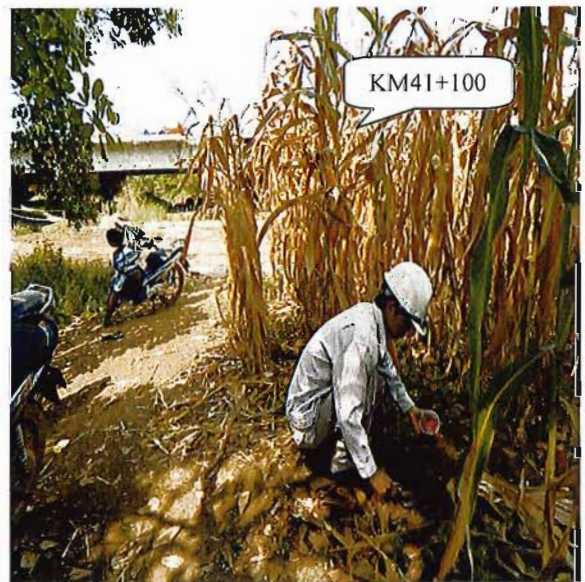


Figure 10: Soil sample location

1. Quarterly Environmental Monitoring on construction site of Package No.6



Figure 11: Taking the waste water at the batching plant (Km54+900)



Figure 12: Taking the domestic waste water (Km49+980)



Figure 13: Proper fuel tank/storage areas with roof, concrete floor and around protect fence

2. Activities management on construction site of Package No.6

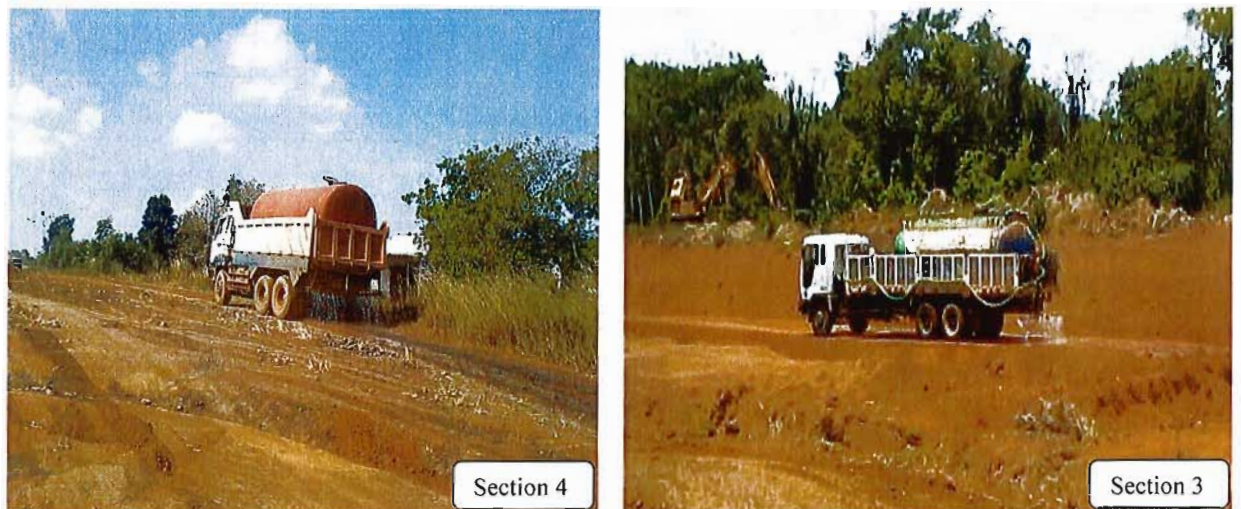


Figure 1: Watering service road and temporary road every day on the dry season



Figure 2: Water Truck on construction site



Figure 3: Environmental and Safety Training for workers

2. Activities management on construction site of Package No.6



Figure 4: Monthly Meeting for Safety – Health – Environment



Figure 5: Slope protection when raining



Figure 6: Sign Board on construction site



Figure 7: Warning Board on construction site (Km43+200)



Figure 8: Excavation area at Dau Giay Interchange – Installed W-tol guardrail for traffic safety (Km54+983)

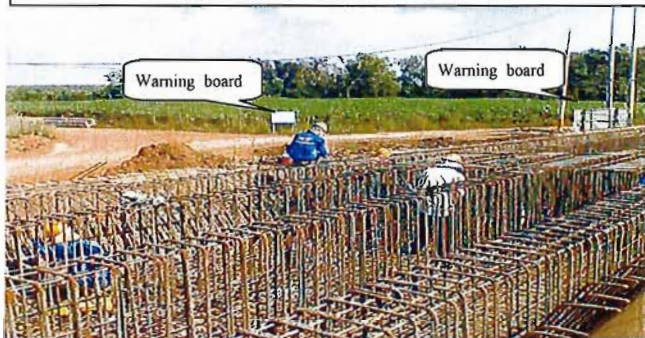
3. LABOR SAFETY ON SITE OF PACKAGE No.6



Overpass No.2 – Install warning tape



Overpass No.2 – Install warning tape



Overpass No.2 – Install warning tape; Provided fully PPE for workers



Overpass No.2 – Provided fully PPE for workers



Overpass No.3 – Install warning tape, board



Overpass No.3 – Install warning tape, board



Temporary bridge at Suoi Ram bridge – Install warning tape



Suoi Ram bridge – Install warning tape and board

3. LABOR SAFETY ON SITE OF PACKAGE No.6



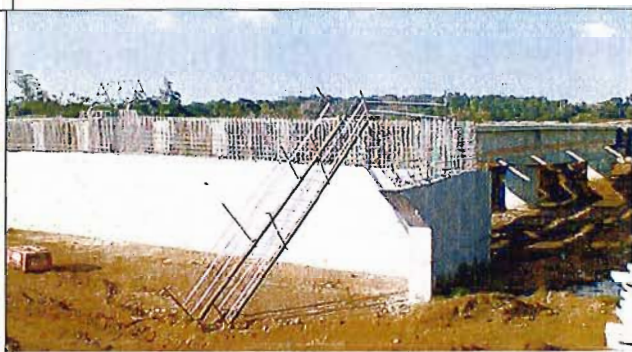
Temporary road at Suoi Ram bridge – Install warning tape



Suoi Ram bridge - Provided fully PPE for workers (Helmet, safety belt, ..); Install warning barrier



Song Nhan bridge – Install warning barrier



Song Nhan bridge – Install ladder



Railway Flyover bridge – Install barriers



Railway Flyover bridge - Provided fully PPE for workers (Helmet, safety belt, ..)



Railway Flyover bridge - Provided fully PPE for workers (Helmet, safety belt, ..)



Railway Flyover bridge - Provided fully PPE for workers (Helmet, safety belt, ..)

3. LABOR SAFETY ON SITE OF PACKAGE No.6



Temporary bridge at Suoi Sau bridge – Install warning tape, board



Temporary bridge at Suoi Sau bridge – Install warning tape



Suoi Sau bridge – Provided fully PPE for workers (Helmet, safety belt, ..)



Suoi Sau bridge – Provided fully PPE for workers (Helmet, safety belt, ..)



Underpass Culvert at Km47+616 – Install warning tape



Underpass Culvert at Km47+616 – Provided fully PPE for workers (Helmet, safety belt, ..)



Underpass Culvert at Km47+616 – Provided fully PPE for workers (Helmet, safety belt, ..)



Underpass Culvert at Km47+616 – Provided fully PPE for workers (Helmet, safety belt, ..)

4. Concrete batching plant of Package No.6



Figure 1: Watering for prevention of dust in batching plant



Figure 2: Drainage system at Batching Plant



Figure 3: Cleaning waste water treatment system and drainage system at Batching Plant (Km54+900) - one per week

4. Concrete batching plant of Package No.6

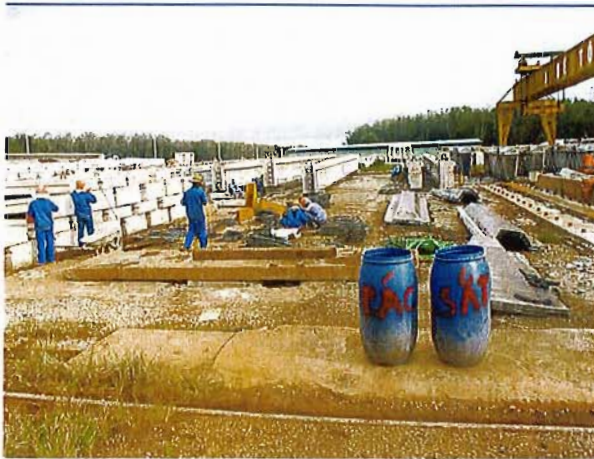


Figure 4: Recycle bin has placed on proper position and easily seen in batching plant



Figure 5: Clean-up the contaminated soils and gravels



Figure 6: Proper fuel tank/storage areas with roof, concrete floor and around protect fence



Figure 7: All workers wearing personal protective equipment when working (PPE)