

MISS KRITIKA TRAKOOLNGAM

HOME

520 E. Calder Way, Calder Commons Apartment #611, State College, PA 16801

Phone: (814) 861-4177

E-mail: ktngam@yahoo.com

WORK

230 Holser Building, Pennsylvania State University, University Park, PA 16802

Phone: (814) 865-3526

E-mail: kxt211@psu.edu



1. Personal Data

- | | | |
|-----|-----------------------|--|
| 1.1 | Age: | 24 |
| 1.2 | Date of Birth: | October 21, 1977 |
| 1.3 | Nationality: | Thai |
| 1.4 | Background: | 1987 to Present (14 years) in Thailand
1979 - 1987 (8 years) in Kuwait
1977 - 1979 (2 years) in Thailand |
| 1.5 | Health: | Good |
| 1.6 | Marital Status: | Single |
| 1.7 | Hobbies and Interest: | Reading science fiction, watching documentaries,
playing piano and guitar, traveling and photography. |

2. Education

- | | | |
|-----|--------------------|---|
| 2.1 | From 1995 to 1999, | Undergraduate level: Bachelor of Science in Geology, Chulalongkorn University, Bangkok, Thailand. (4 Years) |
| 2.2 | From 1989 to 1995, | Secondary level: Bodin Decha (Sing Singha Seni) School, Bangkok, Thailand. (6 Years) |
| 2.3 | From 1987 to 1988, | Primary level: Chonlaprathan Witthaya School (1 Year) |
| 2.4 | From 1982 to 1987, | Primary level: Gulf English School, Kuwait. (5 Years) |

3. Special Training

- 3.1 Geographic Information System, Seatec International, Bangkok, Thailand, 1999.
- 3.2 Geological Fieldwork and Mapping, Trang, Thailand, 1998.
- 3.3 Geological Fieldwork and Mapping, Suphan Buri, Thailand, 1997.

4. Awards, Scholarships and Prizes

- 4.1 Received an educational award from the Faculty of Science, Chulalongkorn University, for graduating as the top student in Geology, 1998.
- 4.2 Received a scholarship from Siam Cement Group, Bangkok, Thailand. 1998.
- 4.3 Received a scholarship from the Department of Geology, Faculty of Science, Chulalongkorn University, 1998.
- 4.4 Received a scholarship from Unocal Thailand, Ltd., 1997.
- 4.5 Received a scholarship from the Petroleum Authority of Thailand, 1996.
- 4.6 Awarded 1st prize English Reading Contest Mathayom 4 (Grade 10) from Bodin Decha School, 1993.
- 4.7 Awarded 2nd prize English Speaking Contest of the Group 5 Central Mathayom Suksa School (High School), 1992.
- 4.8 Awarded 2nd prize English Reading Contest of the Group 5 Central Mathayom Suksa School (High School), 1991.
- 4.9 Awarded 2nd prize English Contest Mathayom Ton (High School) Level from Amornphan Nakorn – Suan Siam Co., Ltd., 1991.
- 4.10 Received an educational award from Bodin Decha School, for obtaining the top score in the Mathayom 1 (Grade 7) English Class, 1990.

5. Language Ability

- 5.1 Thai Excellent (Native Language)
- 5.2 English Excellent (TOEFL Score 600)

6. Membership in Professional Society

- 6.1 From 1999 to Present Member of the Chulalongkorn Graduated Geology Student Association.
- 6.2 From 1995 to 1998 Secretary of the Chulalongkorn Geology Student Association

7. Summary of Capability and Expertise

- 7.1 Manage, coordinate, plan and control quality of projects in the field of Mineral Resources, Water Resources and Information Technology.
- 7.2 Geological mapping, mineral resources exploration and reserve assessment.
- 7.3 Geological, hydrogeological, geophysical interpretation.
- 7.4 Utilization of computer programs for geological and hydrogeological analysis.
- 7.5 Numerical groundwater modeling for study of groundwater characteristics and designing of groundwater well operations.
- 7.6 Initial environmental impact evaluation of groundwater and soil contamination from human activities.
- 7.7 Geographic Information System utilization for mapping, landuse planning, data analysis, etc.
- 7.8 Review, compile, analyze, and present facts and information by various media such as document report, computer presentation, web presentation, etc.
- 7.9 Document translation from Thai to English and vice versa on the following subjects: General Articles, Biography, History, Music, Sports, General Science, Education, Geology, Mining, Geography, Geographic Information System (GIS), Business, Legal contracts.

8. Expertise in Computer Applications

- 8.1 Excellent: Microsoft Windows, Microsoft Word, Microsoft Power Point, Microsoft Outlook, Outlook Express, Internet Explorer, and Netscape Navigator.
- 8.2 Good: Microsoft Excel, Microsoft Project, Visio, and Modflow.
- 8.3 Fair: Microsoft Access, PhotoShop, PageMaker, ArcView, Surfer, Grapher, Aquachem, QuickLog, QuickCross, QuickFence, and MapInfo.
- 8.4 Basic Understanding: ArcInfo and AutoCad.

9. Country of Professional Experiences

9.1 Thailand

9.2 Cambodia

10. Work Experience

10.1 From: 1992 To: 2002

Position: Researcher / Translator / Editor

Clients: ♦ Governmental Sectors, Universities
♦ Private: individuals, organizations
♦ Magazines: sports, music, documentary, newspaper

Work Description: Translate documents from Thai to English and vice versa, including research, review, compile, summarize and edit translated documents.

10.2 From: October 1999 To: 2002

Employed By: Metrix Associates Co. Ltd.

10.2.1 Position: Assistant to the Managing Director

Responsibility: Assist the Managing Director in technical operation

- ♦ Assist the Managing Director in management of the Natural Resources Department regarding issues in finance, quality control, human resources, business development, and marketing.
- ♦ Direct, manage and coordinate projects in mineral resources, water resources, geographic information system, and information technology.
- ♦ Research, review, compile, analyze and interpret data in order to produce technical documents, proposals and presentations in the field of mineral and water resources. Analyze project detail and prepare project costing and financial proposals.

Assist the Managing Director in internal operation

- ◆ Manage and control the organization's information technology system, such as computer security system, networking (Intranet and Internet), digital data management, website, etc.
- ◆ Plan and organize development of internal softwares and databases such as accounting system, personnel management databases, project management applications, library and data management systems, etc.
- ◆ Research and develop/obtain up-to-date computer technologies and technical tools for supporting the organization's operation.
- ◆ Assist the Managing Director regarding issues in business scheduling, document filing, translating business documents, include contacting international clients and business associates. Supervise the company's administrator, personnel officer and accountant.

10.2.2	Position:	Hydrogeologist / Groundwater Modeler
	Project Name:	Basin Modeling and Knowledge Base Development
	Project Value:	80 Million Baht
	Project Duration:	September 2001 – December 2003
	Client:	Mekong River Commission (MRC) and Halcrow Group Limited.
	Project Description:	To develop a modeling package and knowledge base of the Mekong River Basin. The modeling package consists of basin simulation models, hydrologic models, and hydrodynamic models. The knowledge base is an application which links directly with the modeling package and the existing database. Its purpose is to function as a tool for integrated water resources management.
	Responsibility:	Responsible for developing the groundwater modeling component in the Basin Modeling Package and coordinating with the groundwater modeling project team. Activities include identifying groundwater modeling system requirements in order to link with the surface water models and knowledge base, develop a groundwater modeling prototype, and train 10 MRC

counterparts from four countries on groundwater model simulation and interpretation.

- 10.2.3** **Position:** Project Coordinator / Hydrogeologist
- Project Name:** Study of Water Resource Utilization in Phuket, Thailand.
- Project Value:** 400,000 Baht
- Project Duration:** September 2001 – December 2001
- Client:** A Private Organization
- Project Description:** To identify the present water resource utilization and assess future needs in order to plan additional water supply in Phuket.
- Responsibility:** Responsible for coordinating with the client, the project team and government organizations that relate to the project. Assist the project director in management and quality control of the project. Advise the project team in strategies for data collection, field work planning and data analysis.
-
- 10.2.4** **Position:** Project Manager / Natural Resource Management Specialist
- Project Name:** Development of the Energy Management Database – Overview and Conceptual Design
- Project Value:** 500,000 Baht
- Project Duration:** September 2001 – December 2001
- Client:** Natural Energy Division, Department of Mineral Resources, Ministry of Industry, and Chula Unisearch.
- Project Description:** To study the existing energy management system and develop a conceptual design of the energy management database.
- Responsibility:** Manage, coordinate, plan and control quality of the project operation. Study the existing energy management system, design a conceptual energy management database and provide recommendation for future development.

-
- 10.2.5** **Position:** Project Coordinator / Geographic Information System Specialist / Hydrogeologist
- Project Name:** Development of Groundwater Mapping Data Management System
- Project Value:** 13.8 Million Baht
- Project Duration:** September 2001 – June 2002
- Client:** Groundwater Division, Department of Mineral Resources, Ministry of Industry, and Khon Kaen University.
- Project Description:** To develop a computer network, database, and internet system for managing and presenting Thailand's groundwater mapping data from the Geographic Information System (GIS). Include compiling all existing groundwater digital data and transfer to the new database.
- Responsibility:** Manage, plan and control quality of the internal project operation. Direct and control the Information Technology Team on developing the Groundwater Mapping Database. Direct and control the GIS Team on developing the Groundwater Mapping Data Management System. Review and design the Geographic Information System Database.
-
- 10.2.6** **Position:** Project Manager and Coordinator
- Project Name:** Web Site Development for the Office of Civil Services Commission (OCSC)
- Project Value:** 100,000 Baht
- Project Duration:** September 2001 – October 2001
- Client:** The Office of Civil Services Commission. (OCSC)
- Project Description:** To develop a web site for presenting OSCS's information and work results.
- Responsibility:** Manage, coordinate, plan and control quality of the project operation. Review data and information provided for development of the web site, analyze and design the presentation schemes.
-
- 10.2.7** **Position:** Project Manager / Hydrogeologist
- Project Name:** Groundwater Well Decommissioning
- Project Value:** 70,000 Baht
- Project Duration:** February 2001 – March 2001

	Client:	Future Park Rangsit
	Project Description:	To decommission groundwater wells with appropriate procedures in order to prevent environmental impacts, according to the national regulations.
	Responsibility:	Manage, plan and control quality of the groundwater decommissioning operation.
10.2.8	Position:	Project Coordinator / Hydrogeologist
	Project Name:	Provincial Groundwater Mapping
	Project Value:	21 Million Baht
	Project Duration:	March 2000 – May 2001
	Client:	Groundwater Division, Department of Mineral Resources, Ministry of Industry, and Layne (Thailand) Ltd.
	Project Description:	To produce provincial groundwater maps in the scale of 1:100,000 of the 11 assigned provinces (Bangkok, Nonthaburi, Pathum Thani, Ayuthaya, Samut Prakan, Samut Sakhon, Ang Thong, Singburi, Chainat, Pichit, and Petchaboon) by using Geographic Information System (GIS) technology.
	Responsibility:	Manage, plan, solve problems, and control quality of the internal project operation consisting of 8 internal team members and 2 external teams from joint venture companies. Manage the project schedule, budget, personnel, and tools. Direct and control the Information Technology Team in order to develop a database and mapping operation system. Associate with the hydrogeological team to review issues on hydrogeology and geology in the area of the assigned provinces. Interpret hydrogeological and geological data to produce hydrogeological maps and cross-sections, using various types of computer programs, such as Surfer, QuickCross, QuickFence, QuickLog, MapInfo, R2V, ArcView, etc. Responsible for writing reports and presenting work progress and results to the clients.
10.2.9	Position:	Project Manager / Exploration Geologist
	Project Name:	Mineral Resources Exploration at Lopburi, Thailand.
	Project Value:	250,000 Baht

Project Duration: June 2001 – September 2001
Client: A Private Organization
Project Description: To assess the amount of reserve of an industrial mineral in Lopburi area.
Responsibility: Manage, plan and control quality of the project operation. Review secondary information, implement field exploration, prepare detailed geological map at the scale of 1:1,000, review data from laboratory analysis, and assess the mineral reserve amount in the study area.

10.2.10 Position: Environmental Geologist
Project Name: Conceptual Design and Environmental Impact Study of a Waste Disposal Site, Nonthaburi, Thailand.
Project Value: 1.7 Million Baht
Project Duration: February 2001 – June 2001
Client: A Private Organization
Project Description: To develop a conceptual design of a landfill at Nonthaburi and study the environmental impact on physical environment, biological environment, human use, and quality of life.
Responsibility: Participate in designing the landfill position, geometry, operation and monitoring schemes. Analyze issues regarding groundwater flow and geological characteristics of the project area. Design the groundwater dewatering system for the construction and operation of the landfill. Participate in assessing the environmental impact to the physical environment regarding soil and groundwater.

10.2.11 Position: Project Manager / Hydrogeologist / Groundwater Modeler
Project Name: Study and Modeling of the Groundwater in Bangkok and Its Vicinity
Project Value: 1.2 Million Baht
Project Duration: October 2000 – December 2000
Client: A Private Organization

-
- Project Description:** To study the hydrogeological and geological characteristics of the Bangkok and its vicinity area (part of the Lower Central Plain) and design a groundwater artificial recharge system by simulating numerical models.
- Responsibility:** Collect, review, study, compile, and analyze hydrogeological data and related information of the project area. Utilize Modflow to simulate various numerical models in order to design a conceptual artificial recharge system.
- 10.2.12 Position:** Hydrogeologist / Groundwater Modeler
- Project Name:** Study and Modeling of Groundwater in Bangkok and Its Vicinity
- Project Value:** 500,000 Baht
- Project Duration:** May 2000 – September 2000
- Client:** A Private Organization
- Project Description:** Simulate numerical groundwater models to support the existing artificial recharge system design.
- Responsibility:** Collect, review, study, compile and analyze hydrogeological data and related information in the project area. Utilize Modflow to simulate various numerical models in order to support the existing artificial recharge system design.
- 10.2.13 Position:** Assistant to the Thailand's Groundwater Expert / Hydrogeologist
- Project Name:** Thailand's Groundwater Management System Improvement.
- Project Value:** 1.2 Million Baht
- Project Duration:** February 2000 – September 2000
- Client:** The World Bank and the Groundwater Division, Department of Mineral Resources, Ministry of Industry.
- Project Description:** Each of a National and International Groundwater Expert is designated to study the existing groundwater management system in Thailand and produce an improvement proposal for requesting loan from the World Bank.

-
- Responsibility:** Research and review the existing groundwater management system from secondary data, reports, and interviews regarding issues on groundwater resource management, information system, organization and regulation. Compile and summarize data from the findings. Assist the Thailand's National Expert in business scheduling, document filing, translating, document production, presentation production, and clients coordination.
- 10.2.14 Position:** Hydrogeologist / Groundwater Modeler
- Project Name:** Review and Modification of a Conceptual Design for a Groundwater Dewatering System
- Project Value:** 80,000 Baht
- Project Duration:** December 1999 – February 2000
- Client:** International Blaster Co. Ltd. and Layne (Thailand) Ltd.
- Project Description:** To simulate numerical groundwater models for examining an existing conceptual design for a groundwater dewatering system at an excavated mine site in Chaiyaphum, Thailand. Find options in reducing the cost (number of wells and pumping rate) by modifying the existing design.
- Responsibility:** Review geological and hydrogeological information from secondary data and reports, simulate a groundwater numerical model to examine the operative of the existing conceptual design by using Modflow. Simulate various models to find options in reducing the number of dewatering wells and pumping rate by modifying the original design.
- 10.3 From:** May 1999 **To:** September 1999 (Short-term contract)
- Employed By:** Seatec International Co., Ltd.
- 10.3.1 Position:** Environmental Geologist
- Responsibility:** Provide technical input in the field of geology and environmental geology. Write, translate and edit technical proposals and reports. Participate in project implementation planning.

-
- 10.3.2 **Position:** Geologist / Database Editor
- Project Name:** Thailand's National Groundwater Database Development
- Project Value:** 15 Million Baht
- Project Duration:** January 1999 – September 1999
- Client:** Groundwater Division, Department of Mineral Resources, Ministry of Industry.
- Project Description:** To produce Thailand's groundwater database for supporting management and technical operations of the Groundwater Division.
- Responsibility:** Participate in developing the final phase of the database, consisting of development of the database applications and documentation.
- ◆ Design linkage of the National Groundwater Database with 3rd Party softwares by reviewing system requirements of each application, examples of these applications are Modflow, Grapher, Surfer, QuickCross, QuickFence, QuickLog, ArcView, Aquachem, etc.
 - ◆ Set user requirements for the database application system in geological and hydrogeological aspects.
 - ◆ Design and edit the database's front-end and user interface functions, operations, logic, and language.
 - ◆ Write the National Groundwater Database User Guide in both Thai and English languages.

10.4 **From:** April 1997 **To:** June 1997

Employed By: Unocal Thailand Co., Ltd.

- 10.4.1 **Position:** Trainee Geoscientist
- Responsibility:** Observe and participate in the crude oil and gas production of the Satun Asset Team as follow,
- ◆ monitor and report the oil and gas production progress by plotting petroleum bore holes on 2-D and 3-D maps,
 - ◆ identify potential petroleum reservoirs by stratigraphic log and geophysical log interpretation and correlation,

-
- ◆ interpret significant geological structures from seismic data,
 - ◆ identify resource and reserve amount,
 - ◆ coordinate between international asset team members, and
 - ◆ attend a 5-day excursion offshore on a drilling rig in the Thai Gulf.
-

11. Publications

- 11.1 Sedimentary Characteristics of the Sao Khua Formation at Southern Phu Phan Range, Thailand, Trakoolngam K., 1999. Chulalongkorn University, Bangkok, Thailand. 124 pages.
-

12. References

- 12.1 Somchai Nakapadungrat (Ph.D.), Assistant Professor and Head Geology Department, Faculty of Science, Chulalongkorn University, Bangkok, Thailand. Tel: 662-218-5442
E-mail: nsomchai@geo.sc.chula.ac.th
- 12.2 Panchote Kulvanit (MEng, Colorado School of Mines), Managing Director, Metrix Associates Co., Ltd. Bangkok, Thailand. Tel: 662-613-9800 E-mail: pku@metrixassociates.com
- 12.3 Oranuj Lorphensri (MSc, Colorado State University), Senior Hydrogeologist, Technical and Planning Section, Groundwater Division, Department of Mineral Resources, Ministry of Industry, Bangkok, Thailand. Tel: 662-202-3730 E-mail: oranuj@dmr.go.th
-