
TEVFIK KAYA

PRESENT POSITION

Business Development Manager / Senior Reservoir Engineer,
Geothermal Expert, with 20 years of experience

EXPERTISE

- Managing and planning of geothermal projects for the stage of exploration, drilling and production/re-injection including geothermal reservoir management
- Integration of exploration and drilling engineering for the well plan/ program
- Integration of geoscientific and engineering analyses to solve resource development and management problems
- Interpretation of production and downhole data for the production system including scaling and corrosion management of geothermal wells,
- Technical advisory services to geothermal developers
- Geothermal resource due diligence for project financing
- Estimation of recoverable geothermal energy reserves
- Marketing and Business Development for a growing industry
- Management of Integrated solutions packages for geothermal resource development, including Exploration Services, Drilling Fluids Services, Cementing Services, Directional Drilling, Well Testing and Logging, and Bits and required tangibles for drilling operation.

EDUCATION

B.S. in Petroleum Engineering, Middle East Technical University Ankara, 1989-1994

M.Sc. in Petroleum and Natural Gas Engineering, Middle East Technical University, 2002

Speaks/writes English and Turkish

EXPERIENCE

Schlumberger, Business Development Manager

April 2013 to present

- Business development and management of exploration, well testing, drilling and operation of geothermal projects in Turkey, Europe and Africa.

Turkish Petroleum International Company (TPIC)

2010-2013

Geothermal Project Management in TPIC, Coordinator/Chief Engineer

- Geothermal project and business development for new projects,
- Preparing road map for the new investor for geothermal power projects,
- Project management including drilling, directional drilling, and well testing and related services (>120.000 meters geothermal well drilling, 6 directional drilling well, >45 well tests)

Middle East Technical University, in Ankara and in North Cyprus

Part Time Lecturer

2007- to present

Petroleum and Natural Gas Engineering Department, for Introduction to Geothermal Reservoir Engineering (3 hours/week)

Zorlu Energy, Kizildere and Alaşehir Geothermal Projects

Geothermal Reservoir and Planning Manager (2.5 years)

2008-2010

- Rehabilitation project of existing 15 MWe Kizildere Geothermal Power Plant, managing and planning of production and re-injection of geothermal reservoir,
- Scale Inhibition Application and System Design, operation
- Feasibility and Reservoir Development Studies for the extension of current Power Plant, 60 MWe 1st Stage Geothermal Power Plant projects,
 - Planning of the exploration studies, resistivity ,gravity, magnetic surveys,
 - Definition of the new well locations for production and re-injection
 - Production system design,
 - Tracer Test design,
 - Reservoir Modeling Studies
 - Well test and analysis,
- Coordination and management of projects consultant and sub contractors,
- Planning and management of Directional Drilling well plan Programs and operation,
- Exploration and drilling of the new geothermal field which is Alaşehir Geothermal Field, **Project Manager** of Alaşehir Project
- IFC-WB (WB), GRI (Geothermal Drilling Risk Insurance) project of Zorlu Energy, **Project Manager**,

Uzunlar Construction Group, Geothermal Energy Coordinator (5 months)

2007

- Balıkesir Edremit and Sındırgı Geothermal District Heating Project, Preparing and Evaluation Reports of the Project (Commissioning of the district heating plant)

Orme Jeotermal A.Ş. (12 Years)

- Engineer, Production Manager and Deputy General Manager

1994- 2007

Middle East Technical University

Research Assistant

July-December 1994

N.V.Turkse Shell, Summer Training Student

4 Months in 1992,1993

Diyarbakir Area oil fields, Beykan, Kurkan ,Saban, Kastel

PROJECTS

- The ENGINE project (Enhanced Geothermal Innovative Network for Europe) is a co-ordination action supported by the 6th Research and Development framework of the European Union.BP,I (2006-2008)
- World Bank Geofund Consultant, Project proposal for establishment of the Geothermal Project “Kosice” is given by the company GEOTERM Kosice established in Slovgeoterm and Kosice City.(for Dr. Helmut Schreiber)
- Optimization of Reinjection in Low Temperature Kazichene-Ravno (Bulgaria) and Kızılcahamam (Turkey) Geothermal Reservoirs” TÜBİTAK-BAS (with Akin S., Parlaktuna, M.,: Bulgaristan) 2005-2007
- Optimization of Reinjection in Low Temperature Geothermal Fields Using Numerical Modeling and Tracer Test in Kızılcahamam Geothermal Field. WT, Since 2002-2006) with TUBITAK, ODTÜ, Tefvik Kaya

Working Projects, 1994-2007:

Business Plan (BP), Feasibility Study (F/S), Well Test(WT), Detailed Engineering (DE), Implementation (I).

- Akyazi-Kuzuluk Geothermal District Heating Project BP, F/S (2007)
- Exploration Study, Well Drilling Operation, Design of Geothermal District Heating Project for Adapazarı/Akyazi F/S, BP,WT (2007)
- Geothermal District Heating System Project in Yozgat Sarikaya, 2000 Residences Capacity, BP,FS,WT,DE,I (2006)
- Well Drilling Operation for GDHS in Yerköy, 500 Residences Capacity Supported by European Union as Key Person , BP,FS,WT,DE,I (2007)
- Business Development, Field Study, and Geothermal Exploration in Pakistan Geothermal Fields (2006)
- Cooling Project by using geothermal energy and absorption heat pumps with French CFG firm, FS, (2002).
- Optimization of Reinjection in Low Temperature Geothermal Fields Using Numerical Modeling and Tracer Test in Kızılcahamam Geothermal Field. WT, Since 2002-2006)
- Geothermal Exploration Study and Preliminary Well Casing Design for Yalova Fields (2007-2008)
- Business Development, Field Study, and Geothermal District Heating System Project in Edremit, 7500 Residences Capacity, BP,FS,WT,DE,I (2003-2007)
- Geothermal District Heating System Project in Salihli, 24000 Residences Capacity, BP,FS,WT,DE,I (2001-2007)

- Geothermal heating system and thermal water distribution BP,FS,WT,DE, in Sivas Sıcak Çermik ,2002-2003
- Geothermal heating system project for 7500 residences in Aliaga ,Izmir BP,FS,WT, between 2001-2002
- Geothermal heating system project for 11 500 residences in Balçova,Izmir , BP,FS,WT,DE,I between 1995-2002
- Geothermal heating system and thermal water distribution project in Bolu Karasu hot spring BP,WT,DE,I ,2001
- Geothermal Reenjection Well Study in Gönen Geothermal Field 3400 residences in Gönen , FSBalıkesir,1998
- Geothermal heating system project for 5000 residences in Narlıdere ,Izmir BP,FS,WT,DE,I 1997-1999.
- Geothermal heating system project for 2500 residences BP,FS,WT,DE,I in Kızılcahamam ,Ankara between 1995-1998
- Geothermal heating system project for 1800 residences implementation in Kırşehir, FS, WT 1998-2001
- Geothermal heating system project for 2000 residences implementation in Sandıklı , BP,FS,WT,DE,I Afyon,1995-1998

Additional Education and Professional Activities

As Lecturer:

- Participated as a lecturer, International Summer School on Geothermal Geochemistry, Geothermal Downhole Pump Application Izmir-Turkey, June 2006
- Participated as invited speaker in Petroleum and Natural Gas Engineering Dept. and Mechanical Engineering Dept. in METU (2005-2006)
- Participated as a lecturer, International Summer School on Geothermal Geochemistry, New Geothermal Approaches, Geothermal District Heating, Geothermal Reservoir Engineering, Izmir-Turkey, June 2003
- Participated as speaker in geothermal research and practice center summer school at Dokuz Eylül university as a Panelist, Izmir,Turkey, Haziran 2002
- Participated as speaker and lecturer in International Course on District Heating Agriculture and Agro Industrial Uses of Geothermal Energy, Thessaloniki-Greece, September 2002
- Participated as Lecturer in University of Oradea International Geothermal Training Centre European Summer School on Geothermal Energy Application course , Oradea-Romenia, 26 April-5 May 2000

As Speaker/Panelist/Moderator

- Speaker, GRC Annual Meeting, 28 September-2 October **2014 Portland, Oregon**

- Speaker, GeoPower Turkey, 16-17 October **2012** Barcelo Eresin Topkapı Hotel İstanbul
- Speaker, GRC Annual Meeting, , 30th September-3rd October **2012 Reno Nevada**
- Speaker (invited), Fifth Geothermal Resources Council International Luncheon 2012 “Geothermal Updates from Chile, Kenya & Turkey” Monday, Oct. 1, **2012**, Noon - 1:15 PM, Naples 3-4, Peppermill Hotel, Reno
- Speaker (invited), International Geothermal Energy Showcase , May 23, **2012**, **Washington DC**
- Speaker(invited), Marcus Evans, Heat and Power Forum 1-3 February **2012 Munich** Germany
- Speaker (invited), GeoPower 8-9 December 2011, İstanbul, Turkey
- Speaker GRC 2011, 23-26 October 2011,GRC Annual Meeting San Daigo, California
- Participated in WGC-2010 World Geothermal Congress (5 papers) in Bali ,Indonesia April 2010
- Speaker (invited), GeoPower EGEC 20-21 September 2010, Paris France
- Participated European Geothermal Congress 2007 Unterhaching, Germany, 30 May-1 June 2007
- 13th of International Energy, Cogeneration ne Environmental Tecnology Conference Istanbul 30-31 May of 2007,
- Participated EU Enhance Geothermal Innovative Network ENGINE Conference Orleans-France 12-15 February 2006
- Participated (invited speaker) 4th Conference of Fuel Conservation in Building, Tahrán, Iran 12-14 March 2005
- Participated in WGC-2005 World Geothermal Congress (3 papers) in Antalya, April 2005
- Participated as Panelist Yeni ve Yenilenebilir Enerji Kaynakları sempozyumu Kayseri 3–4 Ekim 2003.
- Participated as Exhibitor for Geothermal Inc. World Geothermal Congress 2000, Morioka- Japan, June 2000
- Participated as Speaker in Possibilities of Geothermal Developments of the Aegean Island, Milos –Greece, September 2002
- VIII International Corrosion Symposium Corrosion Association & Osman Gazi University (as Chairman of Corrosion Association), Eskişehir, October 2002
- IX International Corrosion Symposium Corrosion Association & Gazi University in Ankara (as Chairman of Corrosion Association), Ankara, September 2004
- Participated “30th Year Geology Symposium” organized by Çukurova University, Geological Engineering Dept. Adana, 25-27 October 2007
- Participated for the The Period of Strategic Planning for the Ankara, organized by Ankara Governorship, Ankara 2006

- Participated as Panelist to some meetings and workshops concerning renewable energy and geothermal energy, in different organization in İstanbul, Kayseri, Çorum, Balıkesir, Kütahya, İzmir (2) and Ankara (5) in Turkey

TRAINING

- Drilling Supervisor Level Well Control Course, 07-11 March 2011, TPAO Ankara
- Petrol Jeolojisi (Log ve Rezervuar Uygulamalı) 24-29 Ocak 2011, in Antalya TPAO
- Principles of Directional Drilling and Surveying, Bit Technology and Drilling Dynamic/Optimization, 13-17 September 2010 Baker Huges in Celle Germany
- Participated “International Training Course on EC project Development, İstanbul, June 2005
- Participated “International Workshop on Business Development Opportunities for Clean Development” Boğaziçi University, İstanbul, 16-18th February 2005
- Participated International Symposium on Geothermal Applications seminar, Ankara-Turkey, April 2002
- Participated pre-insulated district heating pipes presentation/short course in Brugg Pre-insulated Pipe Factory in Kleindottingen, Switzerland 2002
- Participated pre-insulated district heating pipes short-course in Isoplus Pipe Factories in Munich-Germany, 2001
- Participated in Geothermal Reservoir Injection Strategy and Management, State of the Art Methods, Applications and Case History course, California San Francisco- USA, Sept. 2000
- Participated in 1st International Aegean Geothermal Days (IAGD) course, İzmir Turkey, October 2001
- Participated in International Summer School on Direct Application of Geothermal Energy - Geothermal Heat Pumps course, Bad Urach Germany, September 2001
- Training on (4 weeks) Geothermal Reservoir Application in West-Jec Co., Kyushu-Tokyo Japan, January 2000
- Participated training for practical application down hole pumps and down hole chemical injection line in Geo-Production Consultant (GPC) Co.in Paris, France, 1998
- International Summer School on Direct Application of Geothermal Energy, 1999, Oregon – USA
- International Summer School on Direct Application of Geothermal Energy, November 1998, Pisa- Italy,
- International Summer School on Direct Application of Geothermal Energy Economy of Integrated Geothermal System, September 1998, Azores Portugal
- International Summer School on Direct Application of Geothermal Energy - Geothermal District Heating Schemes, October 1997, Çeşme- İzmir
- International Summer School on Direct Application of Geothermal Energy - International Seminars on Geothermal Energy, November 1996, Ankara

- Training on Deep Well pumps and Chemical Injection Line Application for Geothermal Well – Geoproduction Consultant Paris, May 1996, Paris – France

MEMBERSHIPS

- European Geothermal Energy Council (EGEC), Brussel (www.egec.org): Vice President, 2007-2010; Geothermal Power Coordinator, 2010-2013
- Clean Energy Foundation, www.temev.org (2007-2013-2016); member of the Board of Directors
- Geothermal Resources Council
- International Geothermal Resource Council
- METU graduated student society
- Corrosion Association, (board member, 2002-2006; chairman, 2003-2004)
- Petroleum Engineering Society

AWARDS

- The Scientific and Technological Research Council of Turkey (TÜBİTAK), Awards which related to ENGINE project (Number:B.02.1.tbt.0.07.76.02/FP6-623 Date: 04.07.2005)
- Shell Scholarship, during Bachelor of Science in Petroleum Engineering/ Middle East Technical University, in Ankara/Turkey (1990-1994)

SELECTED PUBLICATIONS

1. An Overview on Geothermal Drilling and Projects in Turkey, 30th September-3rd October 2012, GRC Annual Meeting Presentation, Reno Nevada, Tevfik Kaya
2. Geothermal Project Development in Turkey—An Overview With Emphasis on Drilling, GRC 2012, 159-164
3. Experiences in Geothermal Deep Well Drilling of TPIC in Turkey, “GRC 2011, 23-26 October 2011,GRC Annual Meeting San Diego, California (Tevfik Kaya at all)
4. Design and Analysis of Low Temperature Field Tracer Test Case Study" WGC 2010 World Geothermal Congress, 25-30 April 2010, Bali - Indonesia (Tevfik Kaya, Serhat Akın, Mahmut Parlaktuna)
5. Effectiveness of the Acidizing and Mechanical Reaming of Geothermal Production Well in Kizildere Geothermal Well in 2009, WGC 2010 World Geothermal Congress, 25-30 April 2010, Bali – Indonesia (Tevfik Kaya, Mahmut Parlaktuna, Aygün Güney, Volkan Dedeoğlu, Remzi Kaya, Ayşe Alpagut
6. Scale Inhibitor Application in KD-14 Well of Kizildere Geothermal Field WGC 2010 World Geothermal Congress, 25-30 April 2010, Bali – Indonesia (Tevfik Kaya, Nazım Yıldırım, Neslihan Demirci, Mahmut Parlaktuna)

7. Economical Aspects of the Scale Inhibitor Injection System Operation, WGC 2010 World Geothermal Congress, 25-30 April 2010, Bali – Indonesia (Tevfik Kaya, Neslihan Demirci ,Ayşe Alpagut)
8. Privatization of Kizildere Geothermal Power Plant and New Approaches for Field and Plant (2010), Ali Kindap, Tevfik Kaya, Ayşe Alpagut WGC 2010 World Geothermal Congress, 25-30 April 2010, Bali – Indonesia (Ali Kindap, Tevfik Kaya, Ayşe Alpagut)
9. Privatization of Kizildere Geothermal Power Plant and Current Approaches for the Field&Plant (2009), GRC 2009, Reno Californiya, ABD (Tevfik Kaya, Ali Kindap, Füsün Tut)
10. Privatization of Kizildere Geothermal Power Plant and Current Approaches for the Field&Plant (2008), Slovakia Geotermal Days, Slovakiya , 2009, Tevfik Kaya, Ali Kindap,)
11. Comparative analysis of structural controls on geothermal activity in Western Turkey and the Western Great Basin, USA: preliminary results, EU Enhance Geothermal Innovative Network (ENGINE) Final Conference, Méridien Villon Resort & Convention Centre, Vilnius, Lithuania 13 February 2008 (with Faulds James,USA, Bouchot Vincent, Ledru Partric, France)
12. Design and Analysis of Kızılcahamam Tracer Test, June 2006, Turkish Journal of Oil and Gas (with Serhat Akın, Mahmut Parlaktuna, Simeon Kostyaney)
13. Tracer Test Analysis in Kızılcahamam, Teskon 2007 İzmir Turkey (with Akın S, Parlaktuna M)
14. Recent Geothermal Activities and Developments in Turkey and Projections for the Year 2013, Proceedings European Geothermal Congress 2007 Unterhaching, Germany, 30 May-1 June 2007 (with Mertoglu O., Bakır N.)
15. Engineering Aspect of Geothermal Production Well Down Hole Pump,*World Geothermal Congress 2005*, Antalya, 24-29 April 2005.
16. The Selection of Corrosion And Material For Geothermal Systems *World Geothermal Congress 2005*, Antalya, 24-29 April 2005. (with Hoshan P.)
17. Salihli Geothermal<District Heating Sytem. *World Geothermal Congress 2005*, Antalya, 24-29 April 2005(with Mertoglu O., Bakır N.)
18. Geothermal Experiences in Turkey , European Geothermal Conference 2003 , 25-30 May2003 (with Mertoglu, O., Bakır N.)
19. Exploitation and Development of Geothermal District Heating System in Turkey International Summer School “Greece 2002”1-4 Sept. 2002 Sayfa 48-53 (With Mertoglu, O.,Bakır N,)
20. Exisiting Situation of Thermal Tourism in Turkey , İstanbul Trade Chamber – Published No: 2002-4718 July 200229-37(with Mertoglu, O.)

21. Geothermal District Use Application in Turkey Technology and Economics World Geothermal Congress 2002, Kyushu-Tohoku Japan May28- June 10 2000 Sayfa 3505-3510(With O.Mertoglu, A.Canlan, N Bakiri İ. Dokuz)
22. Geothermal Application in Turkey, the Technology and Economics Proceeding of European Geothermal Conference Basel'99 September 1999 Sayfa 57-64(With O.Mertoglu,, A.Canlan, N.Bakır, T.Özbek)
23. The Effects of the Production Casing for Production of Well in Balçova Geothermal Area (Sondaj Sempozyumu'98 Bidiriler Kitabı Sayfa 138-14419-20 Kasim 1998(With Dokuz S., Yilmazer S.)
24. District Heating System by Geothermal Energy, Balçova /İzmir Örneği O III. Ulusal Tesisat Mühendisliği Kongresi ve Sergisi 1997 Sayfa 619-629(With Mertoglu O., Ertem A., Canlan A., Karadere A.)
25. Practical Application for Drilling Technology 50th Turkey Geology Congress 1997 Page 5(with Tan E.)