


# The Life of an Oil Sands Construction *Project*



Construction of oil sands projects is a long process and can often be confusing to the average job seeker. Below we have listed the different stages of a project and added the staff demands at each point in the construction project.





## What is a NOC?

“NOC” stands for National Occupation Classification. It is a numeric system used to classify occupations in Canada. It is useful to know the NOC for an occupation when searching for information. Search for wage and occupation information by NOC on the Alberta Learning Information Service website at [www.alis.gov.ab.ca](http://www.alis.gov.ab.ca) – OCCinfo and WAGEinfo.

Stage	What’s involved?
1. Engineering	Early Design Stage
Engineering, management, human resource staff and occupation health and safety advisors work throughout the construction process.	 
2. Deep Undergrounds	Potable water supply, firewater, sewer, stormwater, manholes, catchbasins
Heavy equipment operator (NOC 7421)	
Pipefitter (NOC 7252.1)	
Construction craft labourer (NOC 7611)	
3. Underground	Electrical trenching, street lighting, optic fibre
Communication technician (NOC 7246)	 
Heavy equipment operator (NOC 7421)	
Construction craft labourer (NOC 7611)	
Carpenter (NOC 7271)	
4. Civil	Pilings, pile caps, foundations
Bricklayer (NOC 7281)	
Heavy equipment operator (NOC 7421)	
Construction craft labourer (NOC 7611)	
Concrete finisher (NOC 7282)	
Ironworker (NOC 7264)	
Structural steel and plate fitter (NOC 7263)	Welder (NOC 7265) Carpenter (NOC 7271)

# Stage

# What's involved?

5. Heavy lift program	Setting modules and equipment	
Ironworker (NOC 7264)		
Crane and hoisting equipment operator (NOC 7371)		
6. Civil	Grouting equipment	
Bricklayer (NOC 7281)		
Concrete finisher (NOC 7282)		
Carpenter (NOC 7271)		
7. Structural	Stick-built structures	
Carpenter (NOC 7271)		
Floorcovering installer (NOC 7295)		
Glazier (NOC 7292)		
Insulator (NOC 7293)		
Lather-interior systems mechanic (NOC 7284.3)		
Plasterer (NOC 7284.1)		
Painter and decorator (NOC 7294)	Roofer (NOC 7291.1)	
Plumber (NOC 7251)	Welder (NOC 7265)	
Crane and hoisting equipment operator (NOC 7371)		
8. Mechanical	Completing piping systems	
Heavy equipment operator (NOC 7421)		
Sheet metal worker (NOC 7261)		
Steamfitter/pipefitter (NOC 7252.1)		
Crane and hoisting equipment operator (NOC 7371)	Gasfitter (NOC 7253)	
Refrigeration and air condition mechanic (NOC 7313)		

# Stage

# What's involved?

<b>9. Electrical</b>	<b>Lighting, equipment (motorized control centres), electrical heat tracing, testing</b>	
Electrician (NOC 7241, 7242)		
Power lineman (NOC 7244)		
Heavy equipment operator (NOC 7421)		
Elevator constructor – if needed (NOC 7318)		
Crane and hoisting equipment operator (NOC 7371)		
<b>10. Instrumentation</b>	<b>In-line controls, control room</b>	
Refrigeration and air conditioner mechanic (NOC 7313)		
Steamfitter/pipefitter (NOC 7252.1)		
Instrument technician (NOC 2243)		
<b>11. Fire Protection</b>		<b>Sprinkler systems</b>
Sprinkler system installer (NOC 7252.2)		
<b>12. Insulation</b>	<b>Piping insulation completion</b>	
Insulator (NOC 7293)		
Sheet metal worker (NOC 7261)		
<b>13. Final Site Grading</b>	<b>Grade the site as per specifications</b>	
Concrete finisher (NOC 7282)		
Construction craft labourer (NOC 7611)		
Heavy equipment operator (NOC 7421)		
<b>14. Mechanical Completion</b>	<b>Turn over project to the owner (quality assurance)</b>	
Heavy equipment operator (NOC 7421)	Shift to production and maintenance staff	
Electrician (NOC 7241, 7242)		
Instrument technician (NOC 2243)		
Insulator (NOC 7293)		
Construction craft labourer (NOC 7611)		
Millwright (NOC 7311)		
Steamfitter/pipefitter (NOC 7252.1)		
Scaffolder (Carpenter, NOC 7271)		Welder (NOC 7265)

# Stage

# What's involved?

15. Pre-commissioning	Ensure all systems are completed, cleaned and ready for use
Heavy equipment operator (NOC 7421)	
Electrician (NOC 7241, 7242)	
Instrument technician (NOC 2243)	
Insulator (NOC 7293)	
Construction craft labourer (NOC 7611)	
Millwright (NOC 7311)	
Steamfitter/pipefitter (NOC 7252.1)	
Scaffolder (carpenter, NOC 7271)	
16. Commissioning	Charge all systems
Millwright (NOC 7311)	
Steamfitter/pipefitter (NOC 7252.1)	
Electrician (NOC 7241, 7242)	
Instrument technician (NOC 2243)	
Insulator (NOC 7293)	
17. Start Up	Start up the facility to perform the intended process
Heavy equipment operator (NOC 7421)	
Electrician (NOC 7241, 7242)	
Instrument technician (NOC 2243)	
Insulator (NOC 7293)	
Construction craft labourer (NOC 7611)	
Millwright (NOC 7311)	
Steamfitter/pipefitter (NOC 7252.1)	
Scaffolder (carpenter, NOC 7271)	