

Indicative Requirements for Vertical, Multi-Stage Fracture Stimulated Infill Wells

Item	Number / Units	Description
Wellsite preparation		
Native Title representatives (for cultural heritage clearance)	4	Each needed for 2 days/well
Anthropologist	1	Needed for 2 days/well
Survey operator representative	1	Needed for 2 days/well
Environmental adviser	1	Needed for a day/well
Well location surveyor	1	Needed for 1 day/well
Bulldozer	1	Needed for 5 days/well
Grader	1	Needed for 5 days/well
Water truck	1	Needed for 5 days/well for well lease and access prep
Water drilling rig	1	
Water well operators	2	Each needed for 2 days/well
Water truck	1	Needed for 20 days/well during well operations for access track and lease maintenance
Water haulage operator	1	Needed for 20 days/well during well operations for access track and lease maintenance
Rig move package		
Winch trucks	2	
Trailers	3	
Prime movers	2/3	
Crane	1	
Service vehicles	2	
Vehicle operators	7	
Bottom hole assemblies/Drilling pipe		
Bits	1	9-7/8"
Bits	3	6-3/4"
Stabilizers		Replacement based on wear. Management through rotating hours and inspection criteria
Reamers		Replacement based on wear. Management through rotating hours and inspection criteria
Collars		Replacement based on wear. Management through rotating hours and inspection criteria
Heavy Weight Drill Pipe		Replacement based on wear. Management through rotating hours and inspection criteria
Pup Joints		Replacement based on wear. Management through rotating hours and inspection criteria

Pony Drill Collars		Replacement based on wear. Management through rotating hours and inspection criteria
Cross-overs		Replacement based on wear. Management through rotating hours and inspection criteria
Non-Magnetic Drill Collars		Replacement based on wear. Management through rotating hours and inspection criteria
Drilling Jars		Replacement based on wear. Management through rotating hours and inspection criteria
PDM Mud Motor	2	4-3/4" motors for 6-3/4" hole for 14 days/well
Drilling pipe		Replacement based on wear. Management through rotating hours and inspection criteria
Casing/Liners		
Casing	3,000 ft	7-5/8"
Casing	10,000 ft	4-1/2"
Casing	80 ft	13-3/8"
Casing shoe + shoe track		7-5/8"
Casing shoe + shoe track		4-1/2"
Conductor		13-3/8"

Item	Number / Units	Description
Cement		
Cement	169 bbls Total -550sx (sx =sack = 94lb)	Grade G 3000' annulus between 7-5/8" casing and 9-7/8" open hole Lead Cement: 11.8 ppg 120 bbls / 250sx Tail Cement: 15.8ppg 50bbls / 250sx No cement excess calculated. No cement additives included.
Cement	197 bbls Total – 550sx (sx =sack = 94 lb)	Grade HTB (Grade G + silica flour) {10,000' annulus between 3,000' ID of 7-5/8" casing & OD of 4-1/2" casing} +{7,000 ft between 6-3/4" open hole and OD of 4-1/2" casing} Lead Cement: 11.8 ppg 140 bbls/300 sx Tail Cement: 15.6 ppg 60 bbls/250 sx No cement excess calculated. No cement additives included.
Cement unit	1	
Cement bulker	2	
Operators	2	Each needed for 4.4 days/well
Mud Logging		
Mud logging unit	1	
Mud logging personnel	2	Each needed for 20 days/well
Coring		
Core bit/ barrel rentals	2 per wells	Not every well will be cored
Crew	2 per well	Not every well will be cored
Wireline Logging		
Logs	10,000 ft	GR/Sonic/Calliper/casing bond
Logs	7,000 ft	Shallow, medium and deep resistivity/density/neutron GR/ Calliper logs

Logs	1,500 ft	Image log; side wall cores; formation pressure (20 points)
Wireline unit	1	
Engineers	1 (+1 additional on multiple runs)	Each needed for 20 days/well
Operators	2 (+2 additional on multiple runs)	Each needed for 3.5 days/well

Item	Number / Units	Description
Drilling		
Drilling mud	10,000 ft	Made up of 3,000 ft x 7-5/8' casing and 7,000 ft x 6-3/4 open hole
Drilling mud	3,000 ft	9-7/8 open hole
Mud engineers	1	Needed for 20 days/well
Drill stem test tools	2	Not every well will have DST(s)
Drill stem test operators	2	Each needed for 2 days/well
Wellsite Geologist	1	Needed for 20 days/well
Operator drilling supervisor	1	Needed for 20 days/well
Operator Superintendent	1/2	Needed for 20 days/well
Operator HSE Representative	1	Needed for 2 days/well
Rig crew (included in day rate for rig hire)		
Rig Manager/Senior Toolpusher	1	Each needed for 20 days/well
Rotation Toolpusher	1	Each needed for 20 days/well
Drillers	2	Each needed for 20 days/well
Assistant drillers	2	Each needed for 20 days/well
Derrickmen	2	Each needed for 20 days/well
Lead floormen	2	Each needed for 20 days/well
Floormen	2	Each needed for 20 days/well
Leasehands	2	Each needed for 20 days/well
Electrician	1	Each needed for 20 days/well
Mechanic	1	Each needed for 20 days/well
Rig safety officer	1	Each needed for 20 days/well
Medic	1	Each needed for 20 days/well
Wellsite operations		
Wellhead	1	
Wellhead operators	2	Each needed for 1 day/well
Catering and camps – main		
Sleeping units	10	
Dining unit	1	
Kitchen unit	1	
Ablution block	1	
Recreation/training room	1	
Fridge/freezer skid	1	
Dry stores container	1	
Generator set	1	
Sewage unit	1	
Cooks	2	Each needed for 20 days/well

Camp housekeepers	2	Each needed for 20 days/well
Sewage operator	1	Needed for 2 days/well
Catering – food	~2,100 meals	35 people x 3 meals/day x 20 days + site construction + post rig demobilisation days for lesser numbers
Potable water supply truck	1 x 23,000 L	Every 3 days (consumption approx 6000-7000 L/day for 40 person camp)
Water operator	1	
Catering and camps - rig		
Sleeping unit	2	With ensuite/shared bathroom
Office unit	1	
Dining/rest unit	1	
Store/first aid room	1	
Sewage unit	1	
Miscellaneous		
Charter aircraft – crew changes	1 x 10 seater	Once a week (may be company owned)
Air flights	4	Utilising exiting Adelaide – Moomba flight service
Insurance	Blanket or well-by-well insurance	Control of well – AUD10 million (in SA) Public liability – AUD 20 million (in SA)
Diesel	4500-5000 L/day	Needed for 20 days/well
Work-over Operations		
Well servicing rig	1	Needed for 7 days/well
Operator completion supervisor	1	Needed for 7 days/well
Operator HSE representative	1	Need for 2 days/well
Water truck	1	Needed for 7 days/well during completion operations for access track and lease maintenance
Water haulage operator	1	Needed for 7 days/well during completion operations for access track and lease maintenance
Completion equipment/operations		
Tubing	9900 ft	Chrome tubing with premium connections
Tubing hangar	1	
Tubing service operators	3	Needed for 2 days/well to install chrome tubing with premium connections
Tubing packers	1-4 well	1 x permanent packer, 1-3 x retrievable packers
Packer service operators	1-2	Need for 3 days to mechanically/hydraulically set 3 retrievable packers
Completion fluid - KCl	2.5 tonnes/well	Weighted brine
Wireline Operations		
Wireline unit	1	For Wireline setting of permanent packer
Engineers	1	Each needed for 1 day/well
Operators	2	Each needed for 1 day/well
Wireline unit	1	For Casing Perforation – assuming a 4 perforation intervals
Engineers	1	Each needed for 2 days/well
Operators	2	Each needed for 2 days/well
Slickline unit	1	For opening sliding sleeves (contingent)
Slickline operators	2	
Rig Crew (included in day rate for rig hire for 12 hour operations)		
Rig manager	1	Each needed for 7 days/well
Lead floorman	1	Each needed for 7 days/well
Floormen	2	Each needed for 7 days/well
Leasehand (summer)	1	Each needed for 7 days/well
Mechanic	1	Each needed for 7 days/well
Electrician	1	Each need for 2 days/well during rig moves

Wellsite Operations		
Catering and Camps - main		
Sleeping units	5	For 20 person camp
Dining unit	1	Each needed for 7 days/well
Kitchen unit	1	Each needed for 7 days/well
Ablution block	1	Each needed for 7 days/well
Recreation/Training Room	1	Each needed for 7 days/well
Fridge/freezer skid	1	Each needed for 7 days/well
Dry stores container	1	Each needed for 7 days/well
Generator set	1	Each needed for 7 days/well
Sewage unit	1	Each needed for 7 days/well
Cooks	1	Each needed for 7 days/well
Camp house keepers	1	Each needed for 7 days/well
Sewage operator	1	Each needed for 2 days/well
Catering - food	~420 meals	20 people (full camp) x 7 days/wells
Potable water supply truck	1 x 23,000 L	Every 4-5 days (consumption approx 4000-5000 L/day if on 24 hour operations for 20 person camp)
Water operator	1	Every 4-5 days
Catering and Camps - rig		
Sleeping unit/office	1	Each needed for 7 days/well
Dining/rest unit	1	Each needed for 7 days/well
Portable toilet	1	Each needed for 7 days/well
Miscellaneous		
Charter aircraft	1 x 10 seater	Every two weeks (may be company owned)
Insurance	Blanket or well-by-well insurance	Control of well – AUD 10 million (in SA) Public Liability – AUD 20 million (in SA)
Diesel	400 L/day	Needed for 7 days/well
Fracture Stimulation Package (Spread)		
Blenders	2	
High pressure pumps	6-12	
500 bbl frac tanks	3-5	
Frac head (for wellhead)	2	
Steel piping	1000 ft	3" Diameter. Rated to 15,000 psi pressure
Frac van	1	Control centre
Pipe Manifold	1	
Crew rest unit	1	
Fuel Truck	1	
Prime movers	4-5	Frac spread mobilisation
Material Requirements		
Water	7000 bbls	Indicative for each frac stage
Linear Gel	180, 000 gallons	Indicative for each frac stage
Friction reduced water	130,000 gallons	Indicative for each frac stage
HCL Acid	1500 gallons	Indicative for each frac stage. Each frac stage requires 1 x trailer of chemicals.
Friction reducer	70 gallons	Indicative for each frac stage
Biocide	2 lbs	Indicative for each frac stage
Proppant	200,000 lbs	Indicative for each frac stage. Each frac stage requires 5 x trailer loads of proppant.
Acetic Acid	80 gallons	Indicative for each frac stage
Polymer for Linear Gel Fluid	3500 lbs	Indicative for each frac stage
Sand	30,000 gallons	Indicative for each frac stage
Oxidiser Breaker	180 lbs	Indicative for each frac stage

Fracture Stimulation Crew		
Frac Co-ordinator	2	For 24 hour operations
Service Supervisors	6-8	For 24 hour operations
Operators	24	For 24 hour operations
Operator Assistants	6	For 24 hour operations
Miscellaneous		
Diesel for frac unit	16-18000 L/day	
Coil Tubing Unit		
Coil Tubing Unit	1	
Unit containing hydraulic /power packs, pump and nitrogen pump	1	
Coil Unit crew	8	2 x service supervisors, 6 x operators
Diesel for coil tubing unit	400 L/day	Per day
Camp and catering – fracture stimulation		
Sleeping units	8	For 30 person camp
Dining unit	1	
Kitchen unit	1	
Ablution block	1	
Recreation/training room	1	
Fridge/freezer skid	1	
Dry stores container	1	
Generator set	1	
Sewage unit	1	
Cooks	2	
Camp housekeepers	2	
Sewage operator	1	Needed for 2 day/location
Catering	~630 meals	Based on camp fully utilised x 7 days
Potable water truck	1 x 23,000 L	Every 4 days (consumption approx 5000-6000 L/day if on 24 hour operations for 30 person camp)
Water operator	1	Every 4 days
Well Test + Flowback		
Separator	1	Needed for 2-3 weeks
100 bbl Frac tank	1	Needed for 2-3 weeks
Steel piping	500 ft	3" Diameter. Rated to 10,000 psi. Needed 2-3 weeks
Choke manifold	1	Needed for 2-3 weeks
Well Test + Flowback Crew		
Operators	4	Needed for 2-3 weeks



appendix

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Indicative Requirements for Long Reach, Multi-Stage Fracture Stimulated Infill Wells in the Cooper Basin, South Australia

Item	Number / Units	Description
Wellsite preparation		
Native Title representatives (for cultural heritage clearance)	4	Each needed for 2 days/well
Anthropologist	1	Needed for 2 days/well
Survey operator representative	1	Needed for 2 days/well
Environmental adviser	1	Needed for a day/well
Well location surveyor	1	Needed for 1 day/well
Bulldozer	1	Needed for 5 days/well
Grader	1	Needed for 5 days/well
Water truck	1	Needed for 5 days/well for well lease and access prep
Water drilling rig	1	
Water well operators	2	Each needed for 2 days/well
Water truck	1	Needed for 20 days/well during well operations for access track and lease maintenance
Water haulage operator	1	Needed for 20 days/well during well operations for access track and lease maintenance
Rig move package		
Winch trucks	2	
Trailers	3	
Prime movers	2/3	
Crane	1	
Service vehicles	2	
Vehicle operators	7	
Bottom hole assemblies/Drilling pipe		
Bits	1	17-1/4"
Bits	2	12-1/4"
Bits	7	8-1/2"
Stabilizers		Replacement based on wear. Management through rotating hours and inspection criteria
Reamers		Replacement based on wear. Management through rotating hours and inspection criteria
Collars		Replacement based on wear. Management through rotating hours and inspection criteria
Heavy Weight Drill Pipe		Replacement based on wear. Management through rotating hours and inspection criteria
Pup Joints		Replacement based on wear. Management through rotating hours and inspection criteria
Pony Drill Collars		Replacement based on wear. Management through rotating hours and inspection criteria

Cross-overs		Replacement based on wear. Management through rotating hours and inspection criteria
Non-Magnetic Drill Collars		Replacement based on wear. Management through rotating hours and inspection criteria
Drilling Jars		Replacement based on wear. Management through rotating hours and inspection criteria
Drilling pipe		Replacement based on wear. Management through rotating hours and inspection criteria
PDM Mud Motor	2	8" motors for 12 ¼" hole for 20 days/well
PDM Mud Motor	4	6 ¾" motors for 8 ½" hole for 45 days/well

Item	Number / Units	Description
Casing/Liners		
Casing	1000 metres	13-3/8"
Casing	2200 metres	9-5/8"
Casing	5400 metres	5" x 5 ½" mixed casing string – 5" in 1600 metre lateral section
Casing shoe + shoe track		13-3/8"
Casing shoe + shoe track		9-5/8"
Casing shoe + shoe track		5"
Conductor		8 metres
Cementing		
Cement	405 bbls Total -1022 sx (sx =sack = 94lb)	Grade HTB 1000 metre annulus between 13-3/8" casing and 17-1/2" open hole Lead Cement: 11.8 ppg 365 bbls / 825 sx Tail Cement: 15.8ppg 40 bbls / 197 sx No cement excess calculated. No cement additives included.
Cement	416 bbls Total – 1254 sx (sx = sack = 94lb)	Grade HTB (Grade G + silica flour) {2200 metre annulus between 1,000 m ID of 13-3/8" casing & OD of 9-5/8" casing} +{1,200 m between 12-1/4" open hole and OD of 9-5/8" casing} Lead Cement: 11.8 ppg 388 bbls/1119 sx Tail Cement: 15.6 ppg 28 bbls/135 sx No cement excess calculated. No cement additives included.
Cement	799 bbls Total – 3628 sx (sx = sack = 94lb)	Grade HTB (Grade G + silica flour) {5400 metre annulus between 2200 m ID of 9-5/8" casing & OD of 5-1/2" casing} +{1,600 m between 8-1/2" open hole and OD of 5-1/2" casing}+{1,600 m between 8-1/2" open hole and OD of 5" casing} Lead Cement : 15.0 ppg 559 bbls/2430 sx Tail Cement: 16.0 ppg 240 bbls/1198 sx No cement excess calculated. No cement additives included.
Cement unit	1	Each needed for 7 days/well
Cement bulker	2	Each needed for 7 days/well
Operators	2	Each needed for 7 days/well

Item	Number / Units	Description
Mud Logging		
Mud logging unit	1	
Mud logging personnel	2	Each needed for 30-40 days/well
Coring		
Core bit/barrel rentals		No coring
Crew		No coring
Wireline Logging		
Logs	1000 – 2200 metres	GR/Sonic/density/neutron/resistivity
GR/Cement Bond Log		
Logs	2200 – 3800 metres	GR/Cement Bond Log
Wireline unit	1	
Engineers	1 (+1 additional on multiple runs)	Each needed for 3.5 days/well
Operators	2 (+2 additional on multiple runs)	Each needed for 3.5 days/well
Logging Whilst Drilling		
Logs	2200 – 5400 metres	Directional/GR/Resistivity
LWD Unit	1	Required for 10-20 days/well
Engineers	2	Required for 10-20 days/well
Directional Drilling		
Directional Drillers	2	Required for 10-20 days/well
Drilling		
Drilling mud	5400 metres	Made up of 2200 m x 9-5/8' casing and 3200 m x 8 1/2" open hole
Drilling mud	2200 metres	Made up of 1000 m x 13 3/8" casing and 1200 m x 12 1/4" open hole
Drilling mud	1000 metres	Need for 1000 m x 17 1/2" hole
Mud engineers	1	Needed for 30-40 days/well
Wellsite Geologist	1	Needed for 30-40 days/well
Operator drilling supervisor	1	Needed for 30-40 days/well
Operator Superintendent	1/2	Needed for 30-40 days/well
Operator HSE Representative	1	Needed for 8 days/well
Rig crew (included in day rate for rig hire)		
Rig Manager/Senior Toolpusher	1	Each needed for 30-40 days/well
Rotation Toolpusher	1	Each needed for 30-40days/well
Drillers	2	Each needed for 30-40days/well
Assistant drillers	2	Each needed for 30-40days/well
Derrickmen	2	Each needed for 30-40days/well
Lead floormen	2	Each needed for 30-40days/well
Floormen	2	Each needed for 30-40days/well
Leasehands	2	Each needed for 30-40days/well
Electrician	1	Each needed for 30-40 days/well
Mechanic	1	Each needed for 30-40 days/well
Rig safety officer	1	Each needed for 30-40 days/well
Medic	1	Each needed for 30-40 days/well

Item	Number / Units	Description
Wellsite operations		
Wellhead	1	
Wellhead operators	2	Each needed for 1 day/well
Catering and camps – main (needed for 30-40 days/well)		
Sleeping units	10	
Dining unit	1	
Kitchen unit	1	
Ablution block	1	
Recreation/training room	1	
Fridge/freezer skid	1	
Dry stores container	1	
Generator set	1	
Sewage unit	1	
Cooks	2	Each needed for 30-40 days/well
Camp housekeepers	2	Each needed for 30-40 days/well
Sewage operator	1	Needed for 2 days/well
Catering – food	~8,400 meals	35 people x 3 meals/day x 30-40days + site construction + post rig demobilisation days for lesser numbers
Potable water supply truck	1 x 23,000 L	Every 3 days (consumption approx 6000-7000 L/day for 40 person camp)
Water operator	1	
Catering and camps - rig		
Sleeping unit	2	With ensuite/shared bathroom
Office unit	1	
Dining/rest unit	1	
Store/first aid room	1	
Sewage unit	1	
Miscellaneous		
Charter aircraft – crew changes	1 x 10 seater	Once a week (may be company owned)
Air flights	4	Utilising exiting Adelaide – Moomba flight service
Insurance	Blanket or well-by-well insurance	Control of well – AUD10 million (in SA) Public liability – AUD 20 million (in SA)
Diesel	8000 L/day	Needed for 30-40 days/well
Work-over Operations		
Well servicing rig	1	Needed for 7 - 10 days/well
Operator completion supervisor	1	Needed for 7 - 10 days/well
Operator HSE representative	1	Need for 2 days/well
Water truck	1	Needed for 7 - 10 days/well during completion operations for access track and lease maintenance
Water haulage operator	1	Needed for 7 - 10 days/well during completion operations for access track and lease maintenance

Item	Number / Units	Description
Completion equipment/operations		
Tubing	3000 metres	Chrome tubing with premium connections
Tubing hangar	1	
Tubing service operators	3	Needed for 2 days/well to install chrome tubing with premium connections
Tubing packers	1 well	1 x permanent packer
Completion fluid - KCl	5 tonnes/well	Weighted brine
Wireline Operations		
Wireline unit	1	For Wireline setting of permanent packer
Engineers	1	Each needed for 1 day/well
Operators	2	Each needed for 1 day/well
Wireline unit	1	For Casing Perforation – assuming a 15 perforation intervals; Note first perforation conducted by coil tubing
Engineers	1	Each needed for 4 days/well
Operators	2	Each needed for 4 days/well
Wireline unit	1	For Micro-seismic monitoring in listening well – required 16 days per well
Engineers	1	Each needed for 16 days/well
Operators	2	Each needed for 16 days/well
Rig Crew (included in day rate for rig hire for 12 hour operations)		
Rig manager	1	Each needed for 7-10 days/well
Lead floorman	1	Each needed for 7-10 days/well
Floormen	2	Each needed for 7-10 days/well
Leasehand (summer)	1	Each needed for 7-10 days/well
Mechanic	1	Each needed for 7-10 days/well
Electrician	1	Each need for 2 days/well during rig moves
Wellsite Operations		
Catering and Camps – main		
Sleeping units	5	For 20 person camp
Dining unit	1	Each needed for 7-10 days/well
Kitchen unit	1	Each needed for 7-10 days/well
Ablution block	1	Each needed for 7-10 days/well
Recreation/Training Room	1	Each needed for 7-10 days/well
Fridge/freezer skid	1	Each needed for 7-10 days/well
Dry stores container	1	Each needed for 7-10 days/well
Generator set	1	Each needed for 7-10 days/well
Sewage unit	1	Each needed for 7-10 days/well
Cooks	1	Each needed for 7-10 days/well
Camp house keepers	1	Each needed for 7-10 days/well
Sewage operator	1	Each needed for 2 days/well
Catering - food	~420 - 600 meals	20 people (full camp) x 3 meals/day x 7-10 days/wells
Potable water supply truck	1 x 23,000 L	Every 4-5 days (consumption approx 4000-5000 L/day if on 24 hour operations for 20 person camp)
Water operator	1	Every 4-5 days

Item	Number / Units	Description
Catering and Camps - rig		
Sleeping unit/office	1	Each needed for 7-10 days/well
Dining/rest unit	1	Each needed for 7-10 days/well
Portable toilet	1	Each needed for 7-10 days/well
Miscellaneous		
Charter aircraft	1 x 10 seater	Every two weeks (may be company owned)
Insurance	Blanket or well-by-well insurance	Control of well – AUD 10 million (in SA) Public Liability – AUD 20 million (in SA)
Diesel	400 L/day	Needed for 7 - 10 days/well
Fracture Stimulation Package (Spread)		
Blenders	2	Required for 22 days/well based on 15 frac stages
High pressure pumps	15-20	Each high pressure unit = 2000 hp
500 bbl frac tanks	3-5	
Frac head (for wellhead)	2	
Steel piping	1000 ft	3" Diameter. Rated to 15,000 psi pressure
Frac van	1	Control centre
Pipe Manifold	1	
Crew rest unit	1	
Fuel Truck	1	
Prime movers	4-5	Frac spread mobilisation
Material Requirements		
Water	10500 bbls	Indicative for each frac stage
Linear Gel	270,000 gallons	Indicative for each frac stage
Friction reduced water	195,000 gallons	Indicative for each frac stage
HCL Acid	2250 gallons	Indicative for each frac stage. Each frac stage requires 1.5 x trailer of chemicals.
Friction reducer	105 gallons	Indicative for each frac stage
Biocide	3 lbs	Indicative for each frac stage
Proppant	300,000 lbs	Indicative for each frac stage. Each frac stage requires 7.5 x trailer loads of proppant.
Acetic Acid	120 gallons	Indicative for each frac stage
Polymer for Linear Gel Fluid	5250 lbs	Indicative for each frac stage
Sand	45,000 gallons	Indicative for each frac stage
Oxidiser Breaker	270 lbs	Indicative for each frac stage
Fracture Stimulation Crew		
Frac Co-ordinator	2	For 24 hour operations
Service Supervisors	6-8	For 24 hour operations
Operators	24	For 24 hour operations
Operator Assistants	6	For 24 hour operations
Miscellaneous		
Diesel for frac unit	32-36000 L/day	

Item	Number / Units	Description
Coil Tubing Unit		
Coil Tubing Unit	1	Required for 10 days/well
Unit containing hydraulic/power packs, pump and nitrogen pump	1	
Coil Unit crew	8	2 x service supervisors, 6 x operators
Diesel for coil tubing unit	400 L/day	Per day
Camp and catering – fracture stimulation		
Sleeping units	8	For 30 person camp
Dining unit	1	
Kitchen unit	1	
Ablution block	1	
Recreation/training room	1	
Fridge/freezer skid	1	
Dry stores container	1	
Generator set	1	
Sewage unit	1	
Cooks	2	
Camp housekeepers	2	
Sewage operator	1	Needed for 2 day/location
Catering	~630 meals	Based on camp fully utilised x 20 days
Potable water truck	1 x 23,000 L	Every 4 days (consumption approx 5000-6000 L/day if on 24 hour operations for 30 person camp)
Water operator	1	Every 4 days
Well Test + Flowback		
Separator	1	Needed for 2-3 weeks
100 bbl Frac tank	1	Needed for 2-3 weeks
Steel piping	500 ft	3" Diameter. Rated to 10,000 psi pressure Needed for 2-3 weeks
Choke manifold	1	Needed for 2-3 weeks
Well Test + Flowback Crew		
Operators	4	Needed for 2-3 weeks